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**Workplace Innovation: Programmes as public policy instruments.
The case of the Provincial Government of Gipuzkoa.**

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The case of the Provincial Government of Gipuzkoa.

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RESUMEN

Partiendo del análisis de conceptos como la participación y la innovación en los contextos de trabajo, la tesis analiza la relevancia de los programas públicos para la promoción de la innovación como objeto de investigación. En particular el estudio presenta los programas como instrumentos de política pública y como sistemas de aprendizaje. En este marco los programas adquieren un rol dual (Alasoini, 2005): por un lado, como instrumento que dan respuesta a las necesidades concretas y específicas para el desarrollo de la innovación en los contextos de trabajo y, por otro, como instrumento de política pública de innovación.

Los programas de esta naturaleza reúnen tres características principales (Alasoini, 2011; 2016): 1) el desarrollo está guiado por un marco compartido en el participan un conjunto de organizaciones y puestos de trabajo simultáneamente; 2) el contenido de las actuaciones está acordado con los principales grupos de interés; y, 3) las organizaciones y demás agentes involucrados participan en un continuo intercambio de información desde la interacción y la cooperación.

La tesis esta organizada en dos secciones.

La primera sección está compuesta por tres capítulos que dan forma a tres tipos de aproximaciones: conceptual, comprensiva y conclusiva.

La aproximación conceptual del primer capítulo aborda tres conceptos: la participación de las personas trabajadoras, la innovación en los contextos de trabajo y los programas para la promoción de nuevas formas de organización del trabajo.

La participación engloba a diferentes instituciones, organizaciones, niveles, mecanismos y procesos que inciden sobre la toma de decisiones de la empresa. Lo

anterior identifica la diversidad de los marcos nacionales de los sistemas de relaciones laborales en Europa, y enfatiza la importancia de la organización del trabajo. Aunque el debate sobre las nuevas formas de organización del trabajo arranca en la década de 1950 (Van Eijnatten, 1993) en la actualidad el debate gira entorno al concepto de la innovación en los contextos de trabajo (Pot et al., 2016).

La innovación en los contextos de trabajo (*workplace innovation*) es analizada como la implementación de nuevas soluciones prácticas en áreas relacionadas con la organización del trabajo, la gestión de los recursos humanos y la tecnología (Pot, 2011). El carácter construido de estas intervenciones (Alasoini, 2011) corresponde a la naturaleza híbrida de las innovaciones (Latour, 1993). En algunos países europeos como Noruega, Suecia, Finlandia, Alemania o los Países Bajos, entre otros, la promoción de la innovación en los contextos de se ha configurado en forma de programas (Ennals & Gustavsen, 1999). Los programas representan formas blanda de regulación que permiten la intervención en objetos complejos como, por ejemplo, la reforma de la vida laboral. En este estudio, los diseños y desarrollos de otros países y regiones europeas sirven de guía y elemento de contraste.

El segundo capítulo está orientado desde una aproximación comprensiva de los objetivos y el diseño de la investigación. Este apartado recoge la manera en la que los programas son ubicados, entendidos, contextualizados y construidos. En este marco, los programas son estudiados como sistemas de aprendizaje, tanto a nivel de programa (*programme learning*) como de política pública (*policy learning*) (Alasoini, 2016).

Este análisis encuentra su antecedente en el modelo diseñado por Frieder Naschold (1993; 1994) para el análisis de las estrategias adoptadas por los programas. En concreto el modelo analítico emplea seis criterios: contexto político; orientación; participación; infraestructura; networking horizontal; y, recursos.

En este estudio el modelo aplicado corresponde a la versión desarrollada por Tuomo Alasoini (2016). Con base en la versión clásica de Naschold, Alasoini desarrolla un marco analítico con una clara orientación al aprendizaje cuyo

objetivo principal se traduce en el análisis las debilidades y fortalezas de las estrategias adoptadas por los programas.

En el marco de esta investigación lo anterior es aplicado en un contexto determinado y a través de un objeto de investigación concreto: el Territorio Histórico de Gipuzkoa y el Programa de la Diputación Foral de Gipuzkoa.

Gipuzkoa es un territorio que cuenta con un largo recorrido en cuestiones asociadas al cooperativismo, la economía social o la participación. La política pública para la promoción de modelos de empresa se enmarca en un contexto territorial de desarrollo social y económico que viene implementándose desde finales de la década de 1980. Desde el 2014 el programa para la promoción de la participación de Gipuzkoa está estructurado desde tres ejes: trabajadores y trabajadoras; organizaciones; y, territorio.

Siendo esto así, la construcción de esta investigación debe situarse necesariamente los anclajes empleados desde la investigación-acción, así como en las aplicaciones prácticas realizadas a través del proyecto Gipuzkoa Workplace Innovation. Gipuzkoa Workplace Innovation es un proyecto diseñado por Sinergiak Social Innovation (UPV/EHU) que ha sido desarrollado entre los años 2014 y 2019 con el apoyo del Departamento de Promoción Económica de la Diputación Foral de Gipuzkoa.

El tercer capítulo de la primera sección presenta una aproximación conclusiva y está dedicado a los hallazgos y los aprendizajes producidos en el marco de la investigación doctoral. Este tercer capítulo es también una síntesis conclusiva de los resultados recogidos en tres artículos:

- "Workplace Innovation Programmes: bridging research and policymaking" (Pomares, 2020).
- "Revising workers participation in regional innovation systems: a study of workplace innovation programmes in the Basque Country" (Pomares, 2019)
- "Alternative Learning Frameworks: Workplace Innovation Programmes and Smart Specialisation Policies in the Basque Country" (Pomares, 2018).

Concluida la revisión conceptual, comprensiva y conclusiva de la primera sección, la segunda resume y recopila el compendio de contribuciones que conforman mi investigación. La parte empírica de este estudio está compuesta por tres artículos. Las tres contribuciones, de las que soy el único autor, corresponden a una misma unidad temática y han sido publicadas en revistas científicas. El compendio de contribuciones originales competen esta sección.

La primera publicación “Workplace Innovation Programmes: bridging research and policymaking” (Pomares, 2020) será presentada en “International Journal of Action Research Symposium”, organizado por el Instituto de Competitividad Vasco (Orkestra) en colaboración con la “International Journal of Action Research”, en octubre de 2020 en Donostia-San Sebastián.

La segunda contribución, “Revising workers participation in regional innovation systems: a study of workplace innovation programmes in the Basque Country” (Pomares, 2019), se presentó en el Congreso “The Future of Work” organizado por la Asociación Sociológica de Suiza en la Universidad de Neuchatel (Suiza), en septiembre de 2019.

La tercera aportación, “Alternative Learning Frameworks: Workplace Innovation Programmes and Smart Specialisation Policies in the Basque Country” (Pomares, 2018), fue presentada en la conferencia “Coping with the Future: business, work and science in the age of digitalisation and sustainability” organizada por la Universidad de Adger (Noruega) en octubre de 2018.

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BACKGROUND AND RESEARCH CONTEXT

This doctoral dissertation summarises a line of research that is part of a broader time frame. In 2014 topics such as worker participation, social innovation and territorial development acquired particular relevance in the public and political agenda in Gipuzkoa (Basque Country, Spain). That same year at Sinnergiak Social Innovation¹, a research centre of the University of the Basque Country, we designed Gipuzkoa Workplace Innovation (GWPI) as an action research project.

The main goal of GWPI has been to conduct research in workplace innovation. The project has been implemented during the 2014-2019 period in collaboration with the Provincial Government of Gipuzkoa (Department of Economic Promotion).

During the 5 years that the design and development work of the project has lasted, I have had the privilege of working in a creative environment and participating in hybrid teams comprised of a plethora of agents, organisations and institutions. As a result, much of the interest, motivation and support to write this thesis must be viewed within this context.

The starting point that launches this journey takes place in 2014 with the design of a survey to capture data about participatory and innovative practices adopted by companies in Gipuzkoa. Through the use of a questionnaire and the involvement of 496 organisations the research revealed two issues: the low level of

¹ Sinnergiak Social Innovation is conceived as a knowledge organisation structured around an interdisciplinary team led by university researchers and formed by other professionals specialised in providing training and in intervention and transfer activities.

participation in the strategic decisions made in companies; and, the low degree of innovation as a systematic practice in workplace contexts. The empirical evidence of this first phase was made public at a conference and contrasted by external researchers. The task of international contrasting fell to the EUWIN (European Workplace Innovation Network), a network supported by the EU Commission (2013-2017) that is comprised of public and private organisations, social agents and research centres, the purpose of which is the promotion of new forms of work organisation.

The vocation of GWPI as a comparative action research project thus started to take shape as a space for learning alongside other subjects (research agents and political actors) who shared the same research focus (workplace innovation).

Between 2015 and 2016 the focus was directed towards the creation of a territorial learning network comprised by companies. Through the design of an itinerary, the participating companies took part in structured working sessions comprised by 6 learning modules, the main content of which was precisely related to the two practices brought up by the first stage of the research, namely; the low levels of participation in strategic decisions and the degree of systematisation of innovation practices in companies.

These activities, which took place between the months of April and June 2016, not only highlighted the clear demand and will of the participating companies to share experiences, but also the knowledge gap regarding workplace innovation.

Having developed the idea of establishing a broad framework for learning, in May 2017 GWPI organised a series of dialogues. Although the main objective of this phase of the research prioritised the dissemination of knowledge, the attraction of a sufficient number of potential agents was a challenge in itself. To this end the choice was made to adopt a semi-structured design in the form of 5 consecutive dialogues. Each activity was organized around a topic. These thematic categories were related to workers' participation, labour regulation, territorial development, business ecosystem and lifelong learning.

Each one of these categories were discussed with the participation of more than 20 experts with different affiliations such as the Provincial Government of Gipuzkoa, the Basque Government or the Basque Council of Labour Relations and others of an international nature like the European Foundation for the Improvement of Living and Working Conditions (Eurofound), the Finnish Government's Ministry of Employment (TEKES), the Scottish Agency for Business Promotion (Scottish Enterprise), the German Federal Ministry of Education and Research, and EUWIN.

The idea of a knowledge capable of being expanded thus started to take a specific shape from a territorial perspective. The organisation of the seminars made it possible to open up the research context to new actors (public administrations, companies, universities and research centres, business associations, trade unions, regional development agencies and the vocational training educational institutions).

In conceptual terms the above shows the transformation of the analysis of a set of practices grouped at the workplace or company level into the study of an activity system formed by multiple communities. A community of practice (Lave & Wenger, 1991) can be seen as a social system that describes the learning of a shared activity. Likewise, a complex social system can be seen as the interrelation of a variety of communities of practice (Wenger, 2002). In this context, learning takes place through social collaboration by structuring a shared interest that keeps the learning systems united.

At this point the research required a broad framework capable of aligning different activity systems and which not only enabled a better understanding of the context, the actors and incidence factors, but also a space to facilitate cooperation, exchanges of experiences and interaction.

This is how the concept of the programme emerges as a focus of research. Conceptually a programme is defined as a public policy instrument that operates at national or regional levels. Programmes are designed to promote or provide support for organisations that aim to improve simultaneously their operational

performance and working conditions (Alasoini, 2016). These programmes can have multiple stakeholders within a specific industry or sector. Some examples of these are the labour market organisations, research and development centres, public administrations, training and education centres, consultants, investors and many more. Within the context of the GWPI programmes became a backbone of the research process.

Throughout 2017, 2018 and 2019 programmes have been useful as a vehicle to generate a better understanding of design and implementation issues. As a public policy instrument a programme is a means of intervention developed by the public authorities and applied on the ground in order to improve a specific territorial situation. In this sense, the concept of a programme establishes a specific framework of action circumscribed to a territory that provides the context and conditions that this research must be framed within.

Since 2014 the Department of Economic Promotion of the Provincial Government has launched annual calls in the form of programmes. Given the interest that the public policy instrument acquires in research, between 2018 and 2019 I have analysed and contrasted it with other experiences in EU countries and regions. More specifically the comparative revision of the programme is carried out in collaboration with EUWIN and other public bodies such as the Scottish Enterprise agency and ANACT (*L'Agence Nationale pour l'amélioration des Conditions de Travail*), the French Agency for the Improvement of Working Conditions. This phase of GWPI is concurrent with the research tasks that structure this PhD thesis and contains all of the results obtained. The preliminary results from this activity were presented at a Summer School² organised during the summer of 2019 in San Sebastian (Basque Country).

²The Summer School "Work and Welfare in the Digital Age: What we know and what more we need to know" was held on 3, 4 and 5 June 2019. The activity was organised by Sinnergiak and Beyond4.0, the European consortium of the Horizon2020 research programme. During the course two sessions were organised for the analysis of public policies and workplace innovation. Both sessions included the participation of the Programme managers in Gipuzkoa.

Whatever the combination of motivations is a doctorate programme reveals particularly challenging. These challenges can come in different shapes (intellectual, philosophical and ethical nuances, or even emotional ones). In this approach my research training and experience is directly linked to theory and practice. As a result, action research becomes relevant. Action research as part of social research takes place through the conjunction of three elements: research, action and participation (Greenwood & Levin, 2007).

Action research has been present from the emergence of the first Programmes. In 1960, the field experiments carried out by Kurt Lewin and other colleagues from the Tavistock Institute, who used a socio-technical approach, were adapted in the “Norwegian Industrial Democracy Program” (Emery & Thorsrud, 1976). Since then research-assisted programmes have evolved in both design and implementation aspects (Gustavsen, 2006).

Action research has also become a strategy: a way of looking at and understanding qualitative research in Social Science. Although its weight in the higher education system is still virtually non-existent, I have had the privilege of finding a specific learning space at the University of the Basque Country that is sensitive to these methodological considerations. In particular in the Social Sciences Research Models and Fields PhD Programme directed by the Sociology 2 Department. My participation in the Doctoral School of my home university complements the narrative (2017-2020). This has enabled me to learn how to qualitatively analyse the social processes that characterise today's societies. These learnings have two dimensions in particular: the conceptual dimension (which enables a theoretical approach) and the methodological one (which determines a correct intervention or fulfilment of the fieldwork).

During my training process I have also visited the Faculty of Social Sciences of the KU Leuven (Belgium), a renowned university in the field of the sociology of work and organisations. This kind of international activities allowed me to be in contact with researchers who have a long track record in this field of study.

In addition the international context also provided me of a better

understanding of the socio-technical tradition in Europe. Among the varieties of action research, as regards workplace innovation, there are two big schools of thought. The first originates from Scandinavia and is in line with what is known as Democratic Dialogue (Gustavsen, 1992). The second corresponds to the modern development of Socio-Technical Systems (De Sitter, Den Hertog & Dankbaar, 1997; van Eijnatten & van der Zwaan, 1998). Both schools of thought have seen their expression at the national level or national scale. The former has its roots in some Scandinavian countries, such as Norway or Sweden, and the latter in the Netherlands.

At a more operative and down-to-earth level this journey is linked to a rich variety of people who have made a positive contribution to my research through countless encounters, meetings, interviews, conversations, congresses, workshops, cooperation projects and networks.

As a researcher participating in networks such as EUWIN means not only a great wealth of data for collection but also an excellent opportunity to discuss the progress of my research in a broad community formed by academics, researchers, practitioners and policymakers. In my activity, along with EUWIN, I have participated in a dozen activities focused on the dissemination of ideas, practices and policies for the promotion of workplace innovation. The main goal has always been to learn. In this respect the network has been an exceptional setting.

The learnings collected in this research have also been presented publicly in the field of academia and research. The three articles that are part of this thesis have been published in international journals and presented at three international conferences.

In early October 2018 the University of Adger in Norway organised³ an

³This conference was organised on 8, 9 and 10 October in Adger (Norway), by the University of Agder, in cooperation with the Norwegian University of Science and Technology Gjøvik, the European Workplace Innovation Network (EUWIN) and the International Journal of Action Research (IJAR).

international conference titled “Coping with the Future: Business, Work and Science in the Age of Digitalisation and Sustainability”. By means of a three-day programme the conference explored the main aspects of the current transformation. In particular, I had the chance to take part in the “Workplace Innovation 4.0 for Europe” session and present the article “Alternative Learning Frameworks: Workplace Innovation Programmes and Smart Specialisation Policies in the Basque Country” later published in the International Journal of Action Research (Pomares, 2018).

In September 2019 the Swiss Sociological Association organised its annual congress in Neuchâtel (Switzerland). “The Future of Work” conference revolved around topics such as the origins, logic and consequences of the transformation of work. During the conference the Institute of Sociology of the University of Neuchâtel hosted a workshop titled “Social Innovation in the workplace and the future of work: outcomes for a social policy agenda in Europe and beyond” at which I presented the progress of my research. The publication of this study saw the light in late 2019 in the European Journal of Workplace Innovation under the title “Revising workers’ participation in regional innovation systems: a study of workplace innovation programmes in the Basque Country” (Pomares, 2019).

The third and last article has been accepted for its presentation at the “IJAR 2020 Symposium” organised by Orkestra (the Basque Institute of Competitiveness) and the International Journal of Action Research. The conference is the first congress on action research organised in the Basque Country. In that context, I will (virtually) present my last published article titled “Workplace Innovation Programmes: bridging research and policymaking” (Pomares, 2020). The three articles and conferences prove the importance of working life reform as an object of research and the relevance of the future of work in sociological research.

All of the above does not happen *per se*; it is built. The positioning from

where I choose to write this thesis has a lot in terms of action. The origins and entire responsibility for this lie with Alfonso Unceta, Chair of Sociology at the University of the Basque Country, who has guided me in the idea of “making social analysis more social”.

That perspective is structured on a series of foundations and methods. The foundations are three: a clear commitment to action research; a focus on the contemporary agenda of social problems; and a commitment to people's learning capacity. As a result, the methods are along the lines of cooperative research, Richard Sennett's craftsmanship concept, evidence-based results and communication.

The above finds a space for development at Sinnergiak Social Innovation⁴. Since it was founded as a social research centre in 2012 it has contributed, from a social and innovation-based perspective, towards bringing research closer to society's problems and challenges.

One detail to highlight in these last introductory paragraphs is related to public action and the approach adopted by the Economic Promotion Department of the Provincial Government of Gipuzkoa through its territorial strategy for workers participation. The learnings included in this thesis are also the result of the search for solutions to social problems. As a conclusion, the triangle formed by action research, workplace innovation and territorial development provides an excellent case study (Fricke & Totterdill [Eds.], 2004).

I hope the reader finds in this presentation and context section something approaching an account of what has happened over the course of action. A cross-cutting view of the steps taken of the different constituent parts of the research.

⁴Sinnergiak Social Innovation is an autonomous unit of Euskampus, the campus of international excellence (CIE) of the University of the Basque Country (UPV/EHU). The CIE programme seeks to promote the aggregation of institutions that, sharing the same campus, develop a common strategic project with the aim of creating an academic, scientific, entrepreneurial and innovative environment geared towards achieving significant international visibility.

Although the main findings of my research can be found in the three publications presented above, this study updates and fleshes out the main focus of the research: the programme of Gipuzkoa and the case of the provincial government.

Having said that, the thesis is organised in two sections.

The initial section contains three chapters. The first corresponds to the introduction where the main concepts are presented and the thematic unit is justified. The second part establishes the focus of the research within the theoretical and methodological framework used. The third one is a summary of the results.

The second section is entirely dedicated to the published articles and the contributions that nurture this thesis.

SECTION I

1. CONCEPTUAL APPROACH: THE KEY CONCEPTS

The transformation of workplaces has enormous social and economic implications (Dhondt et al., 2011; Totterdill, Cressey & Exton, 2012; Dhondt, Kraan, & Sloten, 2002; Dhondt, Oeij, & Preenen, 2015; Dhondt, Pot & Kraan, 2014; Howaldt, Kopp & Schultze, 2017; Demetriades, 2017).

In the Age of Digital Transformation new practices and forms of work organisation highlight the importance of innovation (OECD, 2019; Oeij et al., 2019). However the above still has a limited impact on the formulation of public policies. One way of understanding the current problem is through an analysis of the model used to formulate innovation policy (Pot, Totterdill & Dhondt, 2016; Ennals & Gustavsen, 1999; Totterdill et al., 2016; Alasoini, Ramstad & Totterdill, 2017; Patrini & Demetriades, 2019; Business Decisions Limited, 2002).

Although the concept of innovation has been widely studied (Edquist, 1997; Fagerberg, Mowery & Nelson, 2005), the conceptualisation, comprehension and understanding of the term has been, and still is, subject to some variations. The traditional concept of innovation distinguishes between the innovation of products and processes. Given the relationship of both product- and process-innovations with the development or application of new technologies these types are labelled as technological innovations.

The classical paradigm that supports innovation corresponds to a model that prioritises tangible and technological innovations. This model, known as the Science, Technology and Innovation mode (STI), focuses on disruptive innovation with a scientific-technological component, excluding aspects of incremental innovation based on the Doing, Using and Interacting mode (DUI) (Jensen et al., 2007; Warhurst et al., 2018). Evidence of the above is observed, for example, in the three editions

required by the Oslo Manual⁵ for the classification of non-technological innovation as another form of innovation (OECD, 2005).

As a result it can be stated that research and the formulation of innovative public policies is limited or fragmented, particularly in fields associated with workers' roles (Lorenz, 2015; Edquist, Hommen & McKelvey, 2001) or the practices that improve organisations' innovative capacity (Pot, Totterdill & Dhondt, 2016). The absence of this perspective is such that it has led the European Commission (2004: 15) itself to suggest that non-technological innovation can be the "missing link" that explains the low levels of innovation in Europe.

As "non-technological" innovations (among others, organisational and marketing innovation) have gained recognition the way in which organisations accumulate resources for innovation has progressively become a field of political interest (OECD, 2010a; European Commission, 2012a; 2012b).

With the expanding spectrum of types of innovation, other terms such as "workplace innovation" (Totterdill, 2010; Pot, 2011; Alasoini, 2011; Dortmund-Brussels Position Paper, 2012) and "social innovation in the workplace" (Eeckelaert et al., 2012; Pot, Dhondt & Oeij, 2012; Dhondt & Oeij, 2014) start to emerge alongside concepts such as organisational innovation (Hage, 1999; Lam, 2005).

As a result, it can be said that policy-makers are starting to consider other approaches that look beyond technological supremacy, and the social nature of innovations starts to acquire certain relevance as a field of research (Council of the European Union, 2013).

With the adoption of broad-based policies, technological innovation and non-technological innovation start to be considered complementary (Piirainen & Koski,

⁵ The Oslo Manual (OECD, 2005) standardises the collection of data and the statistical measurement of innovation, and is the manual of reference for its conceptualisation and measurement. The model distinguishes four types of innovation organised in two large categories: technological and non-technological innovations. While the technological category covers product and process innovations, the non-technological category covers marketing and organisation innovations.

2004; Alasoini, 2002; 2012; 2013).

However, the shift in paradigm (from innovation in strictly technological terms to one with a broader base) requires an understanding of a few other issues. For example: it is important to consider that traditionally, in both industrial policy and in innovation policy, worker participation has been used as a method to adopt new organisational solutions that have been developed by the management and external experts where the role or capacity to act of workers is tokenistic (Alasoini, 2011: 25). Limiting participation to the adoption of specific practical solutions designed by experts can be considered as the implementation of corrective measures for problems derived from technological changes or production and organisation models, where workers' interests are not taken into account (Alasoini, 2005: 289-209). This is why an understanding of worker participation from a broad perspective goes beyond the traditional concept of innovation, to the extent that it includes workers and their legitimate interests as key components of the process (Alasoini, 2012: 256).

In this study several issues are analysed through the lens of workplace innovation. For this purpose the study adopts a slightly broader perspective than that of organisational innovation⁶ (Pot, 2011; Alasoini, 2011; Pot & Vaas, 2008; Dhondt et al., 2011; Howaldt et al., 2012; 2016; Totterdill, Cressey & Exton, 2012; Eeckelaert et al., 2012).

Workplace innovation covers issues such as work organisation, corporate human resource management, issues related to labour relations, social agents, cooperation and collaboration strategies with suppliers, research centres and institutes and other stakeholders. In general it can be said that the core element is the

⁶ It is necessary to clarify that although the concepts may seem similar or are used without distinction, organisational innovation according to the definition by the Oslo Manual focuses on the adoption of new practices within the organisation that are introduced by the company's management; in addition, the goal of organisational innovation differs from the principles of the other two concepts, as it does not pursue the simultaneous improvement of productivity and quality of working life, as in the case of workplace innovation or social innovation in the workplace (see Kesselring, Blasy & Scoppetta, 2014; Dhondt & Van Hootegem, 2015; Alasoini, 2016).

participation of workers in change, and the main objective the simultaneous improvement of quality of working life and productivity in companies (Oeij, Rus & Pot [Eds.], 2017).

The above invites us to consider this type of innovation within a broader context:

“Critically, workplace innovation should be seen as the product of a complex process of learning grounded in, for example, vertical and horizontal interaction within firms, networking between firms (industry associations, supply chain relationships, etc.), public policy, vocational training, industrial relations, the financial system, and so on” (Fricke & Totterdill, 2004: 3).

Based on this approach this first section provides an introductory explanation of the three main concepts of the research: worker participation, workplace innovation, and programmes as public policy instruments.

First, the interest in work organisation lies in the effects it produces on learning and innovation and the impact of direct participation of employees on productivity, innovation and quality (Eurofound, 1997; Lorenz, 2015; Lorenz & Valeyre, 2006; Arundel et al., 2007; Lam & Lundvall, 2006; Pot et al., 1994; European Work and Technology Consortium, 1998). Second, workplace innovation has shown the capacity to bring about simultaneous improvements in productivity and the quality of life of workers through the collaborative construction of new practices. There is sufficient proof of the benefits that companies see when adopting measures and interventions based on workplace innovation (Pot, 2011; Dhondt & Van Hootegeem, 2015; Oeij et al., 2015; Totterdill, 2015) strongly associated with the increase in economic performance of organisations (Ramstad, 2009b). Third, workplace innovation programmes are public policy instruments to promote and facilitate the adoption by companies of new forms of work organisation. Programmes have also shown proof of their usefulness (Alasoini, 2016; Fricke, 1994; 1997; Naschold, 1993).

1.1 Worker participation

With the crisis of the industrial conditions imposed by Taylorism and Fordism that characterised industrial production throughout the 20th century, new debates are emerging about work organisation and worker participation. Along with this, the appearance of new concepts and production processes establishes new mechanisms for worker participation.

This scenario provides fertile ground from the optics of Social Science. The precedents must be found in the classical organisational paradigm represented by Taylorism and which is based on a reductionist vision of the autonomy and discretionality of workers over work. To use a participation-based perspective, it can be said that, Taylorism represents a non-participation-based model (Lahera, 2004: 20).

With the new scenario, in the legitimisation process of workers' knowledge about the production system and the usefulness of their know-how concerning work processes, participation mainly seeks to transform two dimensions (Lahera, 2004: 25). On the one hand, to carry out a transition from a conflictive industrial model of industrial relations system to another based on integration and cooperation; and on the other, the acknowledgement of the skills, knowledge and experience of workers.

Knowledge societies require knowledge organisations. A way of carrying out this transition, possibly the only way, is by means of learning (Lundvall & Johnson, 1994). Organisations that learn are those capable of adapting and competing by means of continuous learning (Greenan & Lorenz, 2009). The idea of considering organisations as entities capable of learning emerged strongly in the 1990s. In particular, the workplace started to be considered as a social system. This is how the participative management of workers fits in as a mechanism and condition of possibility to achieve production systems capable of adapting to the new characteristics of the markets and social realities.

1.1.1 Participation: concepts and forms

For Social Science the concept of participation is polysemic (Geary & Sisson, 1994; Heller et al., 1998; Lahera, 2004). Research has shown that the way in which organisations are structured and managed in a certain country, region or industry is strongly influenced by specific social, institutional and cultural factors. In addition to the polysemic nature, a common definition leads to problems due to the different meanings and connotations that acquires in different national systems of industrial relations (Crouch & Heller, 1983; Poutsma & Huijgen, 1999; Garibaldo & Telljohan, 2010).

From a general perspective participation refers to the influence that employees have on the different levels and scopes of a company's decision making. Eurofound (2013), the European Commission's agency for the improvement of living and working conditions⁷, uses it to refer “to the involvement of employees in management decision-making in the workplace, either in relation to wider company issues or in their immediate job”.

Traditionally⁸ two types of participation are distinguished: direct and

⁷ The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is an agency of the European Union created in 1975 to help with the effective application of policies for the improvement of living and working conditions. Eurofound carries out research projects in fields such as working conditions, quality of life and the labour practices of companies. Since 1990, on a five-year basis, it is in charge of carrying out the European Working Conditions Survey (EWCS), providing a general overview of working conditions in Europe.

⁸ In the Spanish national legal framework, the practical implementation of workers' participation in companies is bound by legislation, its limits being the private property and free enterprise rights recognised, respectively, in articles 33 and 38 of the Spanish Constitution. Within the framework of ordinary legislation (art. 4.1.g) of the Workers' Statute, establishes participation in companies as one of the basic rights of workers. Its implementation (Title II) contains the rights of collective representation and the gathering of workers in the company. Article 61 establishes that “without prejudice of other forms of participation, workers are entitled to participate in the company through the representation bodies regulated in this Title”. These dispositions have been subsequently complemented with the approval of the Organic Law on Freedom of Association, which legalises the trade union sections of the company. All the above means that the representative or indirect participation model is but the current minimum threshold of participation, which does not exclude other different forms of organisation nor diverse levels of intervention that can be exercised by law

indirect. While direct participation defines the interaction between employers and employees, indirect participation refers to participation in decision-making processes through workers representatives (Eurofound, 2013). This means that participation takes place through certain means and bodies. However the existing variations between participation models in European national frameworks lie, mainly, in the recognition of different representation bodies and in the content of the participation.

In general terms as regards indirect participation bodies there are fundamentally two possibilities: as unilateral or mixed bodies. In turn, joint or separate spheres of action can be established between the company's representative and trade union bodies. However, as far as direct participation is concerned, the main features are consultation and delegation. In the case of the consultative form of direct participation, the company management encourages employees to express their opinion on work-related issues, reserving their right to make decisions. In the case of delegated participation, the management offers workers more discretionality and organisational responsibility over work.

Participation also acquires different intensities or levels. With regard to participative instruments, as table 1 shows, the following scenarios are identified:

Table 1: Intensity level of the participation

Intensity	Mechanism
-	Absence of information
↑	Information
↕	Consultation
↓	Negotiation
+	Co-decision and Co-determination

Source: Author's compilation

(as long as it is based on the principle of freedom of association) and through collective bargaining.

At the top of the table is the first level that entails an absence of information. This reality is intrinsic to organisational models based on non-participation, where workers follow the company's instructions and orders.

The second level refers to the employer's duty to inform workers, which corresponds to their correlative right to be informed. This second level admits several variations depending on the contents, which can lead to a participation that enables more information in matters related to changes and transformations within the organisation affecting workers.

Consultation is at a third level; as a requirement prior to adopting a decision. In this case the stakeholders receive information to be consulted about the new organisational measures that affect the operation of the company. The consultation can make the counterparty's opinion binding or not.

The next level, the fourth, includes negotiation, which refers to a shared agenda about certain spheres of interest for each party. Negotiation increases the intensity of the information and consultation presented previously with the aim of regulating and providing a binding capacity for the participating actors.

At the last level of the scale is co-decision or co-determination, a situation in which both parties agree upon the decision. The peculiarity of this mechanism lies in the fact that the negotiation takes place by means of a direct link with the decision-making structure of companies.

While at a European level there are shared frameworks for informing and consulting employees in the European Community (Directive 2002/14/EC), others, such as the negotiation or co-decision procedures are legally regulated by the action of EU member states through the use of regulations on collective bargaining.

1.1.2 Work organisation: the missing link.

One way to obtain a deeper understanding of participation is through the way in which work is organised. Work organisation has a relevant role in the main schools of thought that emerged as a response to the doctrine of Taylorism.

The importance of work organisation is based on the relationship between the organisational design and the capacity of companies to adapt and learn (Freeman, 1987; Cohen & Levinthal, 1990; Mintzberg, 2002; Lam, 2005; Lam & Lundvall, 2006), as well as their influence on the working conditions (Dhondt, Kraan & Sloten, 2002).

Conceptually it can be stated that “work organisation has a linking and switchboard function in the workplace” (Ennals & Gustavsen, 1999: 53). The concept refers to the practices that determine the level of involvement of employees, the use of their skills and knowledge, and the extent to which employers maximise the productive capacity of the human and technological factor.

As a result it can be argued that work organisation raises complex issues that cover different aspects for economic development, employment, labour relations, technology transfer, public policy, education and vocational education (Totterdill, 2000; 1999; Totterdill & Hague, 2004). Typical objects in work organisation include aspects such as organisational structures based on work teams (e.g. flexibility, diversification of skills and worker rotation) and management practices based on trust and employee participation (e.g. continuous improvement and total quality management) (Alasoini, 2016: 23).

Work organisation is a prerogative of companies’ management⁹. This

⁹ The power of the management, in the case of Spain, is reflected in the Workers’ Statute (ET in Spanish) (Legislative Royal Decree 2/2015, of 23 October). According to article 20, the worker must fulfil the provision of their services under the direction of the employer or the person they delegate to. This obligation is a consequence of the employment contract, according to which the worker owes the employer sufficient collaboration and diligence, as per the content of the legislation in force, collective bargaining and other applicable regulations Likewise, the worker must adhere to the orders and guidelines of the employer during the normal fulfilment of work. All as part of the obligation of

prerogative, also known as managerial power, derives from the worker-company relationship; i.e. from the relationship of dependence, which means that the fulfilment of work must be carried out under the organisation and direction of the employer.

According to the European Industrial Relations dictionary a definition of the term fits the following:

“Management prerogative refers to the right of management to take and act upon decisions affecting the business or organisation. The scope of management prerogative is broad, from the level of product or service strategy to day-to-day operational issues. It is bounded by legal regulation, collective bargaining and other agreements with employees and their representatives”

Indeed, work organisation involves a management prerogative; continuing with the definition, the concept highlights the following:

“Such boundaries need not fundamentally challenge management prerogative, but rather subjects the process of decision-making to a requirement to acknowledge the interests of other stakeholders, including employees”

The relationship and link between participation and the negotiation structures is of great importance and a matter that arouses interest due to its impact (OECD, 2010a; 2015; Landa (Ed.), 2013a).

Direct forms of participation are generally the main channels of participation for most employees during the process of change. The more ambitious, complex and unpredictable the change is, the more important it will be to support the direct participation of employees with complementary forms of representative participation (Nielsen & Lundvall, 2003; Totterdill et al., 2009; Terradillos, 2017; Terradillos & Collado, 2013). This issue has also been reflected in EU policy.

good faith, in the behaviour of both parties, and within the limits established by law.

Albeit in a fragmented way the European Commission (EC) has been developing its policy since 1995. Since then, the EU has managed to adopt three important measures on worker participation: the European Works Councils Directive (1994, revised in 2009), the European Company Statute (2001) and the Directive on the Information and Consultation of Employees (2002). However with the publication of the Green Paper Partnership for a New Organisation of Work in 1997, the European strategy addressed the issue of cooperation, to the extent that it encouraged social agents and public authorities to agree on collaborations for the development and modernisation of work (European Commission, 1997, see also Ennals, 1998). Nevertheless, as acknowledged by the European Commission, the modernisation of work organisation is complex due to the spectrum of areas and national frameworks (in employment, education, social policy, etc.).

These matters are currently regulated at different institutions and levels such as the EU, the national labour frameworks of member states, or the organisations themselves through labour contracts and company agreements (Landa, 2013b; Terradillos, 2017; Terradillos & Collado, 2013).

For example, the above-mentioned Directive 2002/14/EC, which establishes a general framework that determines the participative rights of all workers in the EU, arranges the minimum principles, definitions and provisions for the information and consultation of workers at the company level. However, the Directive acknowledges that the existence of this framework does not determine, in itself, that decisions are taken without adequate worker information and consultation procedures.

1.1.3 Understanding participation

Historically the reflection on worker participation has brought up different underlying rationalisations, ideologies and philosophies (Cressey & Di Martino, 1991). It is therefore logical to conclude that participation acquires different meanings and outcomes depending on the paradigm supporting it (Lahera, 2004).

There are two major perspectives. On the one hand, from the unitary or integrating paradigm, participation is considered a business management and direction technique that aims to combine the interests of workers and the company. Under this perspective, participation is identified with the autonomous management of the job position, though it has a limited sphere of participation; decision-making is only circumscribed to matters related to the worker's position directly. On the other hand, the paradigm critical of the Taylorist model known as industrial democracy (Lahera, 2004: 28-37) entails the prioritisation of workers' rights, focusing on the distribution of power as opposed to profit as the main objective. That is, it refers to the redistribution of control in work organisation.

In order to understand the forms it acquires and the ways in which it is implemented, it is essential to understand the different dimensions of participation. This involves coherently analysing participation with a particular focus on issues such as the reasons why participation policies are initiated, the source or origin, the goals pursued, and the methodology and techniques that are designed and implemented to configure a specific type or form of participation (Lahera, 2004: 42). Table 2 shows the eight dimensions and their definitions, which Lahera (2004) identifies (based on the EPOC project).

The dimensions presented in the table below show that participation is a complex phenomenon. A widespread manifestation of participation is also the influence it has on innovation, improved productivity and working conditions (Eurofound, 2013; OECD, 2010a). Generating changes in work organisation requires developing new practices and narratives in cooperation with a community of stakeholders. In this sense, new forms of work organisation represent an underused resource that offers potential for better organisational performance, job growth, quality employment and social dialogue. Work organisation is a matter that transcends the local framework and dependence on a wider context (Gustavsen, 2007: 651).

Table 2: Dimensions of participation

Dimension	Explanation
<i>Origin</i>	Who takes the initiative (management, workers, and worker representatives) and who supports it (governments and social agents).
<i>Objectives</i>	It examines the objectives of the actors who initiate the participation, which can vary between an increase in productivity or an improvement of working conditions.
<i>Paradigm</i>	The ideological perspective that underlies the participation; oriented either towards a participative vision of human resources or, on the contrary, towards the tradition and ideology of industrial democracy.
<i>Forms and Mechanisms</i>	The processes involved in the development of participation; the practical mechanisms (information, consultation, co-decision), the procedures of participation, and the actors (direct, indirect or hybrid participation).
<i>Matters and Intensity</i>	The identification of the areas that are subject to participation; i.e. the shared agenda or matters subject to participation.
<i>Temporal scope</i>	Temporal phase or moment of the decision-making process in which the actors or bodies participate; from the initial planning or selection, to the definition or design, and the implementation.
<i>Outcomes</i>	The effects, i.e. the changes produced in the organisation and the working conditions, on the structure, behaviours, staff qualifications and the business results.
<i>Success/ Failure</i>	The interpretation and subjective assessment by the actors of the participative practice.

Source: Lahera (2004: 40-42)

1.2 Workplace Innovation

Nowadays the state of the art of participation is related to the concept of workplace innovation. Despite that, the evolution of European policies on workplace innovation has been of a fragmented nature (Pot, Totterdill & Dhondt, 2016).

By means of the Lisbon Agenda and in particular the 2020 Strategy¹⁰, workplace innovation adopts a broader perspective on matters such as workplace labour relations, work organisation and human resources policies in Europe. Workplace innovation has gained importance in the European social policy agenda thanks to its capacity to create jobs, foster integration and promote well-being.

With the adoption of the term in the agendas of the European Commission (2010a, 2010b, 2012b, 2013) and the OECD (2010b; 2012), workplace innovation starts to acquire a visible place in competitiveness policies. As a result the concept is used by other institutions and organisations such as the European Economic and Social Committee (2011), the European Parliament (2013), and the European Agency for Safety and Health at Work (2013a, 2013b).

The European Commission (2012a, 2012b) made the concept a priority in 2012 through the EU's Industrial Policy Communication, in line with other strategies such as Europe 2020 (Pot, Totterdill & Dhondt, 2016). This promotion of EU policy is made evident with the support of the European Commission (DG GROW) for the European Workplace Innovation Network¹¹ (EUWIN) (Dhondt, 2012; Dhondt,

¹⁰ The Europe 2020 strategy (European Commission, 2010a) is the European agenda for the 2010-2020 period that sets the goals of a "smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion". It is also the key framework for the formulation of policies at a European level, along with two more emblematic initiatives that are the "Innovation Union" (European Commission, 2010b) and "An agenda for new skills and jobs" (European Commission, 2010d). The former initiative highlights the connection between competitiveness and the capacity to create employment by promoting innovation in products, services, processes and new social and business models, while the latter focuses on the need for a skilled workforce in order to achieve a competitive, innovative and sustainable economy.

¹¹ Since 2013, EUWIN has promoted a European network that includes managers, employees,

Totterdill & Van Hootegem, 2019).

1.2.1 Conceptualising workplace innovation

There is extensive evidence of the benefits for companies when they adopt measures based on WPI (Dhondt & Van Hootegem 2015). The literature finds strong effects as a result of the adoption of innovative practices on productivity, quality and other outcomes and different levels (Becker & Gerhart, 1996; Huselid, 1995; Ichniowski, Shaw & Prennushi, 1997; Pot, 2011; Appelbaum et al., 2000; Alasoini, 2016; Oeij et al., 2018). As an example, there have been several publications that corroborate the positive effect of WPI on the organisation's performance and on the quality of work (Eurofound 1997; Pot & Koningsveld, 2009; Kalmi & Kauhanen, 2008; Ramstad 2009b; 2014; Dhondt & Van Hootegem, 2015; Oeij & Vaas, 2016; Dhondt et al., 2017; Oeij et al., 2017).

Although the concept of WPI refers to the new practices that help to innovate in work organisation and underscores the relationship between organisational performance and working life quality (Alasoini, 2016), the term is used in a wide variety of approaches that pursue similar objectives, with names such as “high performance workplaces”, “high involvement workplaces”, “innovative workplaces”, “sustainable work systems” and “employee driven innovation” (Pot et al., 2012, Oeij & Dhondt, 2017).

Definitions in the literature vary (Oeij & Dhondt, 2017) and the concept is used freely in different initiatives by countries, regions and companies in the EU

trade union delegates, social organisations, researchers, public policy managers and consultants. The network organises conferences and workshops throughout Europe, allowing different stakeholders to carry out joint research, and share knowledge and experiences (Totterdill, 2015). During the 2013-2017 period the network has been promoted by DG GROW (European Commission). Since 2017, the network has continued through the initiative of independent bodies in the field of work organisation in Europe (Dhondt, Totterdill & Van Hootegem, 2019).

(Totterdill et al., 2009; Pot et al., 2012; Alasoini, 2016). As pointed out by Dhondt & Van Hootehem (2015: 21) the term covers an amalgam of organisational phenomena that show the need for a systematic revision of the concept (Dhondt et al., 2017: 87). This issue has not gone unnoticed for bodies such as Eurofound, which conclude “a concerted effort should be made to provide a simple and compelling definition with potential for widespread recognition and acceptance” (Eurofound, 2012: 74).

Among the different approaches identified in the specialised literature there are a variety of definitions (Pot, 2011; Alasoini, 2011; Eeckelaert et al., 2012; Totterdill & Exton, 2014; Eurofound, 2015; Oeij & Dhondt, 2017; Beblavy, Maselli & Martellucci, 2012; Dortmund-Brussels Position Paper, 2012; Dhondt, 2012). Some of the main contributions to the definition of the concept can be included in the following selection.

Frank Pot made the first general and broad definition of the concept as:

“the implementation of new and combined interventions in the fields of work organisation, human resource management and supportive technologies” (Pot 2011, pp. 404–405).

The definition offered by Alasoini (2011: 25) emphasises the constructed nature of the solutions, where:

“workplace innovation refers to collaboratively constructed changes in a company’s organisational and management practices that lead to simultaneous improvements in productivity and quality of the working life and that also support other types of innovation”.

EUWIN and Eurofound adopt a comprehensive vision in their definition, stressing the structural and/or cultural nature and learning mechanisms over improvements:

“WPI as a developed and implemented practice or combination of practices that structurally and/or culturally enable employees to participate in organisational change and renewal to improve quality of working life and organisational

performance” (Oeij et al., 2015: 14).

Totterdill approaches the concept by focusing on the social nature of the processes and the outcomes:

“Workplace innovation is an inherently social process. It seeks to build bridges between the strategic knowledge of the leadership, the professional and tacit knowledge of frontline employees, and the organisational design knowledge of experts” (Totterdill, 2015: 57)

A central feature of the conceptual definitions revised is the clear reference to the direct participation. In addition, WPI is described as a concept that refers to the organisational level and not to individual workplaces (Pot, Totterdill & Dhondt, 2016). Both issues make it clear that when defining the concept both the process and the outcomes of these innovations must be acknowledged (Totterdill 2015: 57). The above means understanding workplace innovation as the experimental creation of hybrid practices in the workplace (Latour, 1993). In conclusion, the following ideas can be drawn from the above definitions:

- *First:* WPI is a participative and inclusive process.
- *Second:* WPI is made up of a series of interventions and practices related to work organisation.
- *Third:* WPI practices are framed within contexts of learning and reflection.
- *Fourth:* WPI simultaneously produces productivity and work life quality.
- *Fifth:* WPI supports and complements other types of innovations.

1.2.1 A theoretical approach to WPI

The variety of definitions shows that WPI has been approached from different conceptual and theoretical perspectives (Kesselring, Blasy & Scoppetta, 2014; Eurofound, 2015). The view used in this study aligns with a dimensional vision of

workplace innovation. According to this approach workplace innovations are analysed from three dimensions: content, process and WPI context (Alasoini, 2011; see also, Totterdill, 2015; Oeij & Dhondt, 2017). The content describes the characteristics of the new practice. The process describes how the new practice is created and who has participated in its creation. The third dimension refers to the purpose for which the new practice has been created.

Table 3: Dimensions of workplace innovation

Dimension	Explanation
<i>Content</i>	The new practice contains certain properties that enable improvements to the current state of affairs.
<i>Process</i>	The creation of the new practice requires a process characterised by broad participation of personnel and, when necessary, customers, which enables broad-based utilisation of expertise in designing and implementing solutions.
<i>Context</i>	The context where the new practice is created is characterised by extensive interaction between management, personnel and, when necessary, customers, which enables the emergence of a shared understanding of the purpose of solutions.

Source: Alasoini (2011: 35)

Out of the different ways through which the integrated conception of WPI is structured (Oeij & Dhondt, 2017 for an updated revision) and the research strategies¹² used there is certain unanimity in stating that WPI is a concept that has its origin and foundations in the Socio Technical School (STS) (Alasoini, 2016; Pot & Dhondt, 2016; Pot et al., 2016; Oeij & Dhondt, 2017).

According to the socio-technical perspective the main objective is the joint

¹² A complete revision of different research strategies can be found in: Gustavsen & Engelstad, 1986; Toulmin & Gustavsen, 1996; van Eijnatten, 1993; Greenwood & Levin, 2007; Svensson, Ellström & Brulin, 2007; Svensson et al., 2007; Brulin & Svensson, 2016; Engeström, 2005; Totterdill, 2015; Alasoini, 2016.

optimisation of sociotechnical systems. The initial premise of the theory is based on the joint design of work systems (social and technological), instead of considering work organisation as a dimension that is derived from technological solutions (Trist & Bamforth, 1951). Thus, through organisational design, the development objectives stress the participation of stakeholders in the participative design process.

Although the STS theory is currently considered within a systems approach that integrates technological innovation and social innovation (Pot & Dhondt, 2016: 207), the evolution of traditional STS (Trist, 1981; Pasmore, 1995) corresponds to a broader historical development comprised by methodological research, projects, conceptualisations and developments.

Van Eijnatten (1993) provides a complete description of this evolution by identifying the different stages and variants of the sociotechnical perspective in Europe. The beginnings must be situated in Scandinavia with the development of new forms of participation known under the title of "participative design" (Emery 1982, 1989). With the modern evolution of STS, two main schools of thought emerge in Europe. Although both are based on democratic values and principles, the former prioritises the design of structures while the latter focuses on processes of social change (Van Eijnatten, 1993: 124-129; see also Gustavsen 2016).

In the first perspective, oriented towards the process of participative change, workers are treated as the main actors in the planning and implementation of the change. This variant finds its reference in the concept of Democratic Dialogue¹³ (Gustavsen & Engelstad, 1986; Gustavsen, 1992; 2015; 2016).

In design-based approaches¹⁴ a model created by the management and/or

¹³The notion of Democratic Dialogue emerged in Scandinavia to promote increased levels of autonomy in work due to its links to other issues such as the degree of trust between the actors involved, their willingness and ability to cooperate with each other and with research, and their possibility of experiencing ownership of the new patterns. Gustavsen (1992) lists the criteria necessary for the process design organised by means of democratic dialogues that promote participative change.

¹⁴ Design theory is exemplified in the description of Integral Organisation Renewal (IOR) developed mainly by De Sitter, and which is based on the experience carried out a national level in

external consultants and researchers generally guides the change. The workers' role is limited mainly to the adjustment of certain operative details. This variant of STS is represented by the Integral Organisational Renewal model (De Sitter et al., 1997; Van Eijnatten & Van Der Zwan, 1997).

1.2.2 Design principles

Currently EUWIN's Fifth Element concept is the most widespread in Europe. The model categorises the fields that feed into the theories and methods to support companies in WPI (Dhondt et al., 2017). The typical categorisation proposed by the European network refers to the integration of four elements:

- Work organisation
- Structures and systems
- Learning and reflection
- Workplace partnership

Each element is divided into other sub-elements. The model as a whole identifies a series of driving forces such as public policy, research, expert know-how, social agents and dialogue. An updated revision of the design principles of WPI can be found in table 4 (Pot & Dhondt, 2016).

the Netherlands. The essence of this approach lies in the transformation of “complex organisations that offer simple jobs into simple organisations that offer complex jobs”. IOR can be considered an expert approach that analyses the organisational architecture; more specifically, the pattern of the division of work (De Sitter et al., 1997). Design theory explains how the architecture of a specific structure determines the opportunities for coordination, adaptation and innovation, and offers alternative architectures for work organisation.

Table 4: Design principles

Design principles	Explanation
<i>Integrated design</i>	<ul style="list-style-type: none"> - Integration of technological innovation and social innovation - Integration of work organisation, human resources mobilisation, labour relations - Process of productive reflection by all stakeholders
<i>Work organisation</i>	<ul style="list-style-type: none"> - Balance of job demands and job control (job autonomy, functional support, organisational-level decision latitude) - Complete jobs (action preparation, implementations and evaluation)
<i>Human Resources mobilisation</i>	<ul style="list-style-type: none"> - Developing competences - Developing capabilities
<i>Labour relations</i>	<ul style="list-style-type: none"> - Direct participation, democratic dialogue, reciprocity

Source: Pot & Dhondt (2016).

There are various reasons that explain the attention attracted by workplace innovation (Pot et al, 2012). First, there is a need to improve labour productivity to maintain levels of well-being and social security. Second, the need to develop and use the workforce's skills and competences to increase added value. Third, the continuous and progressive transformation of work requires workplace innovation; and fourth, workplace innovation seems to be positively associated with successful innovation.

1.3 Workplace Innovation Programmes

Actions aimed at the modernisation of ways to organise work, innovation and the reform of working life can be initiated from different angles that range from

specific initiatives to other more broader ones that take the shape of programmes¹⁵.

The first programmes to reform working life originated in the 1960s and 1970s motivated by workers' dissatisfaction with working conditions. Since the 1980s targets related to work humanisation and democracy have led to a new generation of programmes focused on productivity and competitiveness-related objectives (Gustavsen, 2007; 2011; Alasoini, 2016; Alasoini et al., 2017). These programmes have been implemented under different names such as social innovation, workplace innovation, or workplace development (Brödner & Latniak, 2003; Alasoini, 2016; Eeckelaert et al., 2012; Totterdill et al., 2009; Pot et al., 2012; Business Decisions Limited, 2000; Brulin, Svensson, & Johansson, 2012).

Governments direct some of these programmes and in other cases the initiative falls mainly to social partners, companies and/or stakeholders (Gustavsen, 1992; 2008b; Alasoini, 2008). In this sense it can be stated that the political response has been different across Europe (Ennals, 2002; Totterdill, Dhondt & Milsome, 2002; Alasoini et al., 2017; Totterdill et al., 2009; Ennals & Gustavsen, 1999; Pot et al., 2016).

While some programmes operate as simple administrative or financial umbrellas, or as tools for financing projects, others establish a common foundation in the creation of a framework shared by the actors involved (Gustavsen, 1994: 2008b; Alasoini, 2008). These types of programmes pursue the promotion of specific lines in the development and reform of working life in a planned, systematic and organised manner via the cooperation of multiple actors; i.e. they aim to improve

¹⁵ In the literature of management and change, programmes are understood as mechanisms that manage, based on a series of pre-planned activities, a series of action-focused projects (Ferns, 1991; Gray, 1997; Pellegrinelli, 2002). In general, programmes have been understood as temporary organisations (Turner & Müller, 2003), or temporary systems (Miles, 1964; Packendorff, 1995). Conceptualised as a phenomenon of a nature qualitatively different to projects, programmes have been understood as vehicles for strategic implementation and organisational renewal (Pellegrinelli, 1997); i.e. support tools for the management of a portfolio of interrelated projects focused on achieving goals that are unachievable via the management of individual projects (Reiss, 1996; Pellegrinelli, 1997). However, in this study I use a different conceptualisation, which adapts to a definition that considers programmes as fixed-term institutionalised activities, according to the framework developed by Tuomo Alasoini (2008).

productivity in companies and the quality of working life of workers, and support other types of innovations (Alasoini, 2016: 35).

1.3.1 Defining the programmes

WPI programmes are an instrument or form of soft regulation generally used to promote working life development (Alasoini, 2016).

Soft instruments are forms of voluntary, non-coercive regulation, where stakeholders establish forms of non-hierarchical cooperation for a mutual exchange of information (Borrás & Edquist, 2013: 1516). In Europe, programmes have been the most widely used way to regulate workplace innovation (Ennals & Gustavsen, 1999: 71).

In the sense of public policy, programmes can make use of tools that range from general frameworks based on recommendations and the provision of training and information on good practices, to more direct forms such as the provision of advice and consultancy services, evaluation tools, financing lines, subsidies or tax incentives for companies and organisations (Alasoini, 2008; 2009a; 2009b; Alasoini et al., 2005a).

Programmes aim to offer support for local processes of change and to facilitate the action of cooperating local actors (Gustavsen, 2008b: 16). At both a theoretical and a practical level, programmes are distinguished by three characteristics (Alasoini, 2008; 2016).

- The development framework determined by the programme is participated by several organisations simultaneously within a defined time scale.
- The content of the framework is agreed by the management and the workers, as well as by other stakeholders, such as the government, social agents, researchers, consultants and other experts.
- The organisations involved in the programme participate in the mutual

exchanges of information, interaction and cooperation (Alasoini, 2008: 63).

The organisations, workers and stakeholders that participate in the programmes play different roles (Alasoini, 2016: 28). A shared feature in these programmes is cooperation among non-equals, between agents who traditionally have opposed legitimate interests (Ennals & Gustavsen, 1999; Toulmin & Gustavsen, 1996; van Beinum, 1998; Ennals, 2014),

In general, three actor systems are identified (Naschold, 1994, 111): the industrial policy agents, the industrial relations system and, the research & development system. In this framework, programmes represent a collective agency (Alasoini, 2016). As can be seen in table 5, the actors that form part of the programmes are related to different domains of public policies

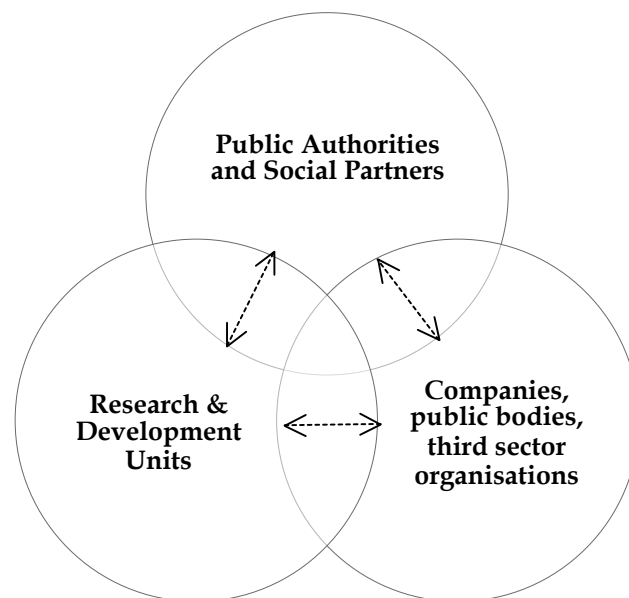
Table 5: System, actors and role in the development Programmes.

System	Actors	Role
<i>Industrial policy</i>	Public administration, labour market organisations, the scientific community	Establishing the general framework for directing the activities
<i>Industrial relations</i>	Organisations at company or supra-company level	Social legitimisation of the activities
<i>Research and Development</i>	R&D units of private companies and of the public innovation system	Support for research and development activities

Source: Naschold (1993); Alasoini (2016).

In conclusion, it can be said that programmes instead of limiting participation to just a few projects include a variety of organisations, R&D centres and other stakeholders favouring interaction (Alasoini, 2003: 27-28). The concept underlying this approach is that of the Expanded Triple Helix (Alasoini et al., 2005b, Ramstad, 2008; 2009a). In this framework, the main objective of programmes is the creation of workplace innovations; i.e. the construction of changes in work organisation that lead to the simultaneous improvement of productivity and working life quality, and which complements other innovations (Alasoini 2008). By using the traditional Triple Helix model (Etzkowitz & Leydesdorff, 1995; 2000), based on the industry-government-university interaction as an effective way to generate new innovative solutions, the expanded version includes other stakeholders such as research centres, vocational training centres, public administrations, development agencies and consultancy services companies.

Figure 1: Expanded triple helix model.



Source: Alasoini et al. (2005b).

1.3.2 From programme to projects

In WPI programmes, development projects are the basic measurement unit. Through the development of different projects, programmes must be capable of achieving objectives at different levels.

In general, the main function of a programme is focused on providing support for projects that intend to generate changes in how an organisation operates (Alasoini, 1997). This involves the simultaneous development of issues that cover fields such as technology, forms of work organisation, management strategies, workers' competences, working conditions and occupational health and safety among others.

In the literature three types of projects are identified; each one with certain characteristics associated with it. The three types are: user-oriented projects, method-based projects, and learning network projects (Alasoini, 2008). Each type of project produces different outcomes, depending on the learning mechanisms used.

In *user-oriented projects*, the programme generally offers support (economic and financial) in terms of research, consultancy or training services. The management generally initiates these types of projects with a clear focus on the user or worker. With this approach, given the specificity of each project, the eligibility criteria are of a broad nature, so that adaptation to the specific needs of each context is possible. The above means that most projects of this type are of an individual nature and are carried out in protected contexts and with an excellent provision of resources (tangible and intangible).

In *method-based projects* the programme provides certain predetermined tools for their application in different organisations or, if applicable, it enables the development of existing methods in the organisation or their testing and piloting. In general, programmes that are supported by these types of projects restrict participation to organisations and companies, research centres and consultancy services.

In *learning network projects*, unlike user-focused or method-based projects, the objectives are not predefined or limited to specific methods. Generally this type of projects aim for cooperation between different actors who have shared long-term interests with potential for innovation. Learning networks have tools for the design of the network's events and activities, which complement the cooperation and interaction of the participating organisations. In these types of projects the programme's support is focused on the provision of elements that promote interaction and inter-organisational projects.

Each type of project entails, as a result, a focus on some objectives or others. It should be noted that programmes not only pursue the objectives of individual organisations (micro), but also aim to induce effects that can lead to improvements in other spheres (Naschold, 1994: 121). These improvements take place in the shape of cumulative innovations, which in turn can lead to changes in a greater number of organisations, or at other levels that transcend the framework of the participating organisation (Alasoini, 2016: 34; Gustavsen, 2003).

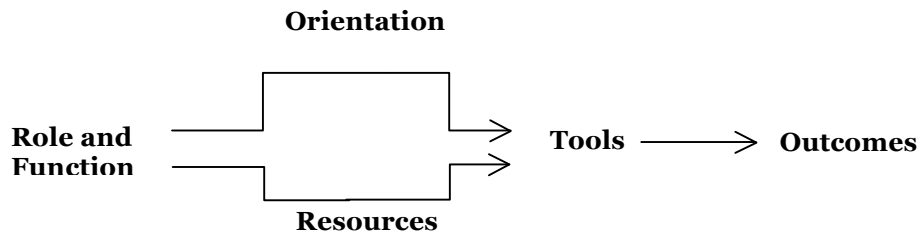
1.3.3 Programmes: design and strategies

The capacity of programmes to produce the desired objectives is conditioned, mainly, by the characteristics of the design, the implementation strategies and external pressure (Alasoini, 2016: 106). This means that the purposes and objectives set by a programme are achievable depending on the efficacy and robustness of the instruments that the programme has available. The instruments are the techniques and methods, the resources and potential of a programme with regard to the planned objectives (Naschold, 1994).

As the efficacy of a programme depends, to a large extent, on the efficacy of its operative concepts, instruments and the development methods defined (Naschold, 1993), studying its constituent elements can carry out an analysis. These elements are the role and function, orientation, resources, tools and outcomes of the

programme (Alasoini, 2008).

Figure 2: Programme lay-out.



Source: Adapted from Alasoini (2008).

On the other hand, as shown in table 6, each one of the elements is configured by means of different spheres that make up the programme's design. These elements are decisive as they have the capacity to restrict or facilitate its development (Naschold, 1994).

Table 6: Structural elements of programmes

<i>Role and Function</i>	Mission:	Purpose; states the values and guiding principles
	Task:	Operations to articulate and realise the objective
	Approach:	The process by which operations are developed
	Position:	Identifies the role adopted by the programme
<i>Orientation</i>	Sectors:	Public, private, industry, market.
	Target groups:	Type of organisations: small, medium, big
	Thematic aim:	Workplace innovation
<i>Resources</i>	Personnel:	Internal and external knowledge resources
	Financing:	Project, activities or network funding
	Organisation:	Administrative support of the programme
	Time:	Duration of the programme
<i>Tools</i>	Financial:	Allocated funding for the development of projects
	Stimulating:	Interlinked activities such as networks & seminars
	Regulating:	Setting criteria and quality standards

Source: Alasoini (2008).

The programme's *role and function* indicate the mission, the operations that structure it, the approach and the position or organisational role it adopts. These basic choices determine other elements such as the programme's orientation and resources.

The *orientation* describes the sectors, target groups and thematic objectives of the programme's development activities; i.e. the types of sectors (public/private, industry, sector or territorial scope), target group size (small, medium-sized or large company) and thematic fields addressed (workplace innovations).

The *resources* are directly linked to the role and function of the programme and by means of providing tangible and intangible elements, they describe the way in which the programme uses the different sources of internal and external knowledge, the definition of the types of activities financed, the type of support received by the participating organisation and the duration or time scale of the interventions and processes of change (Alasoini, 2008: 65-66).

Lastly, the *instruments* define how the role and function of the programme is specified and is where the financing sources, the tools for cooperation and interaction and the quality criteria or regulations are determined. Although the financial instruments are the most recurrent, certain projects require stimulating instruments such as awareness-raising, valorisation, socialisation and information distribution activities, the creation of networks or the improvement of specialised knowledge.

The convergence of these four elements (role and function, orientation, resources and tools) aims to produce specific outcomes (Alasoini, 2008: 64-66). Based on the elements that structure the programmes in an operative sense, different strategies can be adopted. These strategies can vary depending on specific criteria (see table 7) such as the size of the target group, the types of organisations they are aimed at and their level of maturity with respect to the change, the role of the knowledge provided by actors external to the organisation, the status of the expert agents, the role of research and researchers, the identification of stakeholders and the ways how information is disseminated (Alasoini, 2005).

Table 7: Criteria for the design of programmes

<i>Criteria</i>	Options
<i>Size of the target</i>	A few or a large group of demonstration projects
<i>Nature of the target</i>	Criteria that identify eligible organisations according to the intensity of participation: strategies towards organisations at the same stage or degree of participation, or conversely with organisations at different development stages
<i>Strength of expert intervention</i>	Direct participation of experts in the processes of change compared to models of indirect participation through research, training, advisory services, advice or the general dissemination of information.
<i>The focus of expert knowledge</i>	Design of solutions based on human resources practices versus solutions that involve the implementation of democratic change processes
<i>Status of expert knowledge</i>	Dissemination of ready-made designs or solutions with the help of experts vs. experts as equal partners of the management and staff
<i>The role of research and consultancy</i>	The main emphasis in the creation of new research-based knowledge vs. consulting services for workplaces
<i>Legitimate interest groups of projects</i>	Management of workplaces vs. management and staff of workplaces vs. management and staff of workplaces with stakeholders
<i>Dissemination of information</i>	Dissemination of information on demonstration projects ex-post vs. mutual exchange of information and experiences between projects during implementation vs. extensive projects as forums for exchanging information and experiences

Source: Alasoini (2005).

The traditional strategies of programmes are based on the notion of a linear model (cascade model) (Alasoini, 2005) with low or poor interaction between the programme's projects and activities (Brulin & Svensson, 2012). In general, the projects developed operate as pilot projects or demonstrations (Alasoini, 2006;

Gustavsen, 2003). The predominance of this linear model is common to publicly financed programmes (Brulin & Svensson, 2012), which are characterised by a mechanical approach based on a rationalisation rooted in planning, control and focused on short-term results. When this logic prevails, interest in long-term results such as learning is replaced by direct and tangible short-term results.

However, research has shown that programme activities demand a solid support structure to produce effects (see Riegler, 2008: 109). As an alternative to the linear model there are other strategies that group projects together, enabling a greater level of interaction. In this sense the literature points out that the capacity of programmes is linked to the efficiency of the diffusion channels that expands learning outcomes and results (Svensson et al., 2013; Svensson & Nilsson, 2008). These strategies represent an approach based on interactive logic, as opposed to the linear model based on the sequential events of projects (Gustavsen, Hart & Hofmaier, 1991). In the interactive model, instead of limiting participation to a few demonstrative projects, workplaces, organisations, research centres and other stakeholders are added in an interaction framework with a long-term focus (Alasoini, 2016).

The conditions of possibility for the above result from the conjunction of two variables. Firstly, the programme strategies must include elements that help to simultaneously improve productivity and the quality of working life at both micro (at the organisation level) and macro (the public policy where it is implemented) levels. Secondly, these strategies must include elements that facilitate building bridges between the micro and macro levels (Alasoini, 2016: 99).

As a result, the design of programmes has varied during recent decades, leading to some modifications. This evolution has taken place in three sequential phases called demonstration, diffusion and generation programmes (Gustavsen, 2006; 2008b). The first generation is based on the idea of identifying new forms of work organisation through *star cases*, for their subsequent demonstration to a broader group of organisations. Due to the problems associated with a limited

capacity to transfer and disseminate the results, demonstration programmes start to acquire mechanisms for the promotion of learning-based forms of work organisation. In this second phase, the diffusion programmes introduce initiatives that highlight issues associated with the socialisation of information, communication and training. In the third phase, the generative programmes emerge, whose main objective lies in facilitating the transformation of work organisation by using learning networks formed by organisations, research centres and other stakeholders.

In short, it can be stated that programmes of this type promote the development of organisations' anticipation and learning skills, by introducing new tools, methods and practices (Alasoini, 2018; 2019). Based on this, it is understood that these programmes are characterised by how they propose change in terms of participation and the adoption of democratic values (Pålshaugen, 2009), which are identified in the objectives, the implementation methods and the publicity of the outcomes (Alasoini, 2008; 2011). As for the objectives, both the workers and the management of companies share interests with regards to productivity and the quality of working life. In relation to the implementation methods, programmes are based on joint participation for the planning and implementation of the design measures and the development of innovations. As for the publicity of the outcomes, in public programmes it is expected that the learnings obtained from the different developments are openly available to a larger group of organisations and companies.

1.4 Recapitulation

This first chapter has revised three key concepts: worker participation, workplace innovation and programmes for the promotion of new forms of work organisation.

Worker participation as a concept encompasses different institutions,

organisations, levels, mechanisms and processes by means of which workers can participate in the company's decision-making. From this broad approach it is possible to identify the diversity of national labour relations systems in Europe.

Although the debate about new forms of work organisation started in the 1950s (Van Eijnatten, 1993), its evolution over time shows that the debate has been unable to reach a conclusion (Totterdill, Dhondt & Milsome, 2002). Today, workplace innovation centralises this issue (Pot et al., 2016).

Workplace innovation is understood as the implementation of new interventions in fields associated with the work organisation, human resources management and technology that are an accessory to other innovations (Pot, 2011). The constructed nature of these innovations (Alasoini, 2011) corresponds to their hybrid nature (Latour, 1993).

In some countries the promotion of workplace innovation has its reflection in the form of programmes (Ennals & Gustavsen, 1999). Programmes are soft forms of regulation that combine three characteristics: a framework shared by several organisations simultaneously during a defined time period; an agreement on the framework content between the stakeholders; and the condition of interacting, cooperating and exchanging information among the participants (Alasoini, 2016).

2. A COMPREHENSIVE APPROACH: DESIGN AND OBJECTIVES OF THE RESEARCH

Having revised the key concepts this section presents a comprehensive approach to the object of the research: the workers' participation programme in Gipuzkoa during the 2014-2019 period.

The chapter starts by narrowing down (2.1) and situating the object of the study (2.2). Once the situated research has been presented, the section introduces a way to understand programmes through research and explains the integrated framework that makes up this study (2.3). The next point contextualises the research within a specific area and introduces the political, territorial and programmatic context in which this research takes place (2.4). The last point is reserved for the anchor points and the different practical applications that the Gipuzkoa Workplace Innovation research project acquires over the course of five years (2.5). All the issues presented are summarised in a final point (2.6).

2.1 Narrowing down the object of the study

The first chapter describes participation, workplace innovation and programmes as key elements of this study. Based on these concepts, this part analyses the relevance of programmes as objects of study. Specifically, it presents programmes as public policy instruments and situates them as learning systems.

According to Alasoini¹⁶ (2016: 35-40) programmes combine two strategies. The first is based on building broad coalitions (Ennals & Gustavsen, 1999; Pålshaugen, 2014), i.e. the capacity to attract a variety of actors and stakeholders (companies, research institutes, knowledge milieus) by building new (or maintaining existing) relationships of trust and cooperation. The second is related to the search for paradigmatic solutions. While building coalitions is considered a political task, the research and development of solutions corresponds to an exploratory type of task (Alasoini, 2016: 37).

Within this framework programmes acquire a dual role (Alasoini, 2005): on the one hand, as an instrument that responds to the concrete and specific needs of the workplace development that drives local initiative; and on the other, as an innovation policy instrument. Programme-based development refers to the fact that, 1) development is guided by a shared framework that is applied in a synchronised manner in a set of organisations and workplaces; 2) that the content of the framework has been agreed upon with the main stakeholders; and, 3) that the actors involved participate in a close exchange of information, interaction and cooperation. On the other hand, the role of programmes based on research-assisted policy instruments refers to the role adopted in the generation of new designs or processes of general and useful application. Research contributes as a joint training process in knowledge.

Based on the duality of programmes, Alasoini conceptualises them as open and dynamic systems (Alasoini, 2016: 109). According to this framework,

¹⁶ In the doctoral thesis “Workplace Development Programmes as Institutional Entrepreneurs” Tuomo Alasoini (2016) analyses working life as a highly institutionalised entity, which comprises a set of technological systems that make up regimes. Understood “as an object of change and reform, (...) that was developed according to the needs and logic of advanced industrial society” (Alasoini, 2016: 36) these systems are represented in different types of institutions. From a sociological perspective, Alasoini analyses programmes as agents of change. In theory, programmes can adopt different roles depending on the transformations or objectives sought; specifically, the thesis focuses on the conditions necessary for programmes to acquire the role of institutional entrepreneurs capable of producing changes in society (Battilana, Leca & Boxenbaum, 2009; Di Maggio & Powell, 1983; Garud, Hardy & Maguire, 2007; Geels & Schot, 2007).

programmes are presented as systems capable of generating knowledge and learning in the participating subjects. The learning subjects, based on this framework, are the actors who implement the programme and are responsible for formulating public policy (Alasoini, 2008: 67).

As a production system, the programme's purpose is aimed at achieving the objectives set (workplace innovation). The production system is structured by means of its elements (see point 1.3.); that is, the role and the function, the orientation, the resources and the tools of programmes are focused on producing results. With a complementary nature to the production system, the development system must be capable of generating knowledge about the programme and the policy it is framed within. *Programme learning* refers to the knowledge generated about the programme. This type of learning in particular is based on fast feedback cycles through which it is possible to carry out the necessary revisions of the orientation, resources and instruments of a programme; this knowledge is obtained through an individual analysis of the elements that integrate the programme and the way in which they operate together. *Policy learning*, in turn, refers to the knowledge produced that transcends the programme's framework and which aims to formulate or reformulate the design of programmes and public policies.

The capacity of the different projects to be used in programmes varies in the case of each one of the types of learnings presented. Thus, as shown in table 8, user-oriented projects, method-based projects and learning network projects have different impacts. According to Alasoini (2016), the capacity to generate radically new knowledge lies in the development projects that form learning networks. This is particularly relevant due to the capacity of networks to create learning-oriented events.

Networks seem to have the capacity to generate knowledge at both the programme level and in the policy sphere, to the extent that they can create an influence on the programme by incorporating new social problems or solutions from results of research carried out outside the programme. The basis for the generation of knowledge has its origins in the joint formation of knowledge achieved alongside

other actors by means of shared objectives or interests (Alasoini, 2016: 109). Networks can generate the results in different formats, such as interactive forums, seminars, training workshops, congresses, expert sessions, workshops, international forums, visits to projects, project presentations, joint experimentation or virtual forums, among others.

Table 8: Types of projects and capacity for knowledge generation

	Programme learning	Policy learning
<i>User-oriented projects</i>	Requires laborious supporting activities by the programme	Requires laborious supporting activities by the programme
<i>Method-based projects</i>	Fair/Good potential provided that chosen method/thematic areas have real policy relevance	Fair/Good potential provided that chosen method/thematic areas have real policy relevance
<i>Learning network projects</i>	Fair/Good potential for quick learning that development remains within overall programme guidelines	Fair/Good potential for radical policy learning.

Source: Alasoini (2016: 88).

The different assessments and research carried out recurrently point to the difficulty of creating learning mechanisms between programmes (Pot et al., 2016; Alasoini, Ramstad & Totterdill, 2017). Some of the reasons may be found in the difficulty to establish common analysis frameworks that derive from the institutional differences between European countries and regions.

However, the main obstacle is related to problems of dissemination; the solutions that are functional and operative in a certain context face difficulties to be automatically transferred to other contexts (see, Arnkil, 2008; Gustavsen, 2008b; Riegler, 2008; Alasoini, 2011).

Although the use of best practice-based models has been proven to have its limitations, as a learning mechanism they facilitate the identification of functional

correspondences in the participating subjects (Naschold, 1993: 33). This enables a specific experience to be analysed in a broader context.

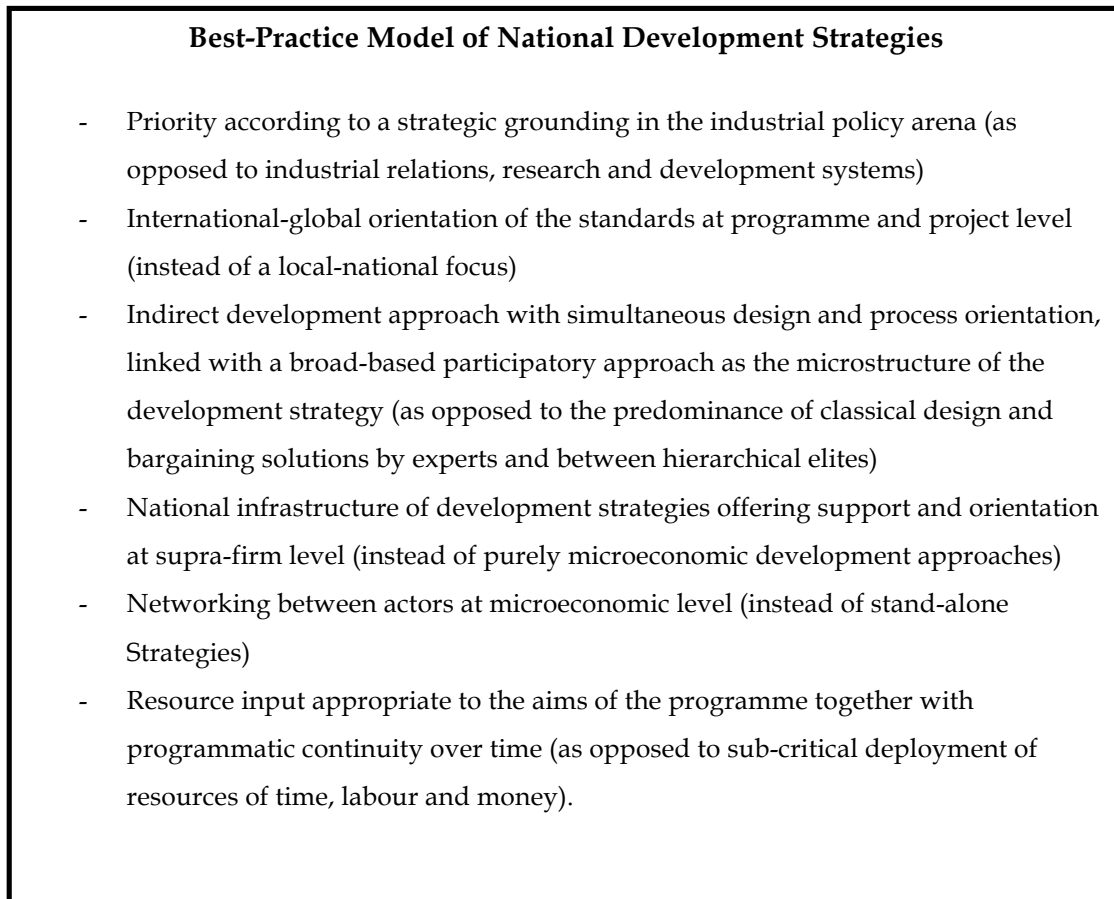
Within this framework, best practices must be understood as instruments that make it possible to generate ideas, instead of simply tailored solutions or ready-made objects (Alasoini, 2006). That is, best practices involve the production and dissemination of ideas with the potential to become sources of inspiration or stimuli for other subjects participating in the programme (Alasoini, 2006; 2008; Arnkil, 2008; Pålshaugen, 2009). These issues are related to those previously set out by Nonaka and Takeuchi (1995) and by Lundvall and Borrás (1997) about the process of generating, exploiting, and transforming knowledge.

Based on the above, Alasoini develops a theory of the mechanisms that generate learning from programmes. Alasoini's model is based on a previous empirical model designed by Naschold (1993; 1994).

The original framework developed by Naschold has been used for studying the political implications of strategic options adopted by programmes. According to Naschold, the framework enables the integrated study of two dimensions; the function of public action (macro level) and the industrial relations and human resource management systems in corporate strategies (micro level). The model has its origins in the identification of the conditions that enable programmes, in addition to generating workplace innovations, to establish ties between the micro (companies) and macro levels (cumulative innovation within the framework of the programme and the renewal of the formulation of public policy).

Mainly, the model proposed by Naschold is a "best practice model" that uses a set of generic principles that determine the impact of the strategies adopted by the programmes. The model developed in 1990 contains a set of best practices and consists of the following six principles:

Figure 3: Naschold's principles



Source: Naschold (1994).

It can be argued that the principles included aim to facilitate the identification of relationships of power between the elements that form the programme's strategy. Starting from Naschold's principles, Alasoini carries out methodological and conceptual revisions of the model and associates the principles with the ability of the programmes to generate programme learning and policy learning. Based on this framework, the generic principles form mechanisms which, when activated, have the capacity to generate knowledge (Alasoini, 2009b; Alasoini, 2016).

2.2 Situating the research: background

Studies and research specialised in the design of programmes are a rare species (Alasoini, 2016). According to the experts, despite the tradition in Europe, learning and exchanges of experiences have been practically non-existent (see Alasoini et al., 2005a; 2017; Naschold et al., 1993, Pot et al., 2016).

Much of the literatures are studies of individual programmes in countries such as Norway (Gustavsen, Colbjørnsen & Pålshaugen, 1998; Mikkelsen, 1997; Levin, 2002; Qvale, 2002), Sweden (Gustavsen et al., 1996), Germany (Fricke, 1997; 2003; Riegler, 2008; Oehlke, 2001), Finland (Alasoini, 2015; Alasoini & Kyllönen, 1998) and the Netherlands (Pot et al., 2012). Along with these, the literature identifies other research that maps and identifies the initiatives developed in Europe (Brödner & Latniak, 2003; Business Decisions Limited, 2000; Brulin & Svensson, 2012; Eeckelaert et al., 2012; Totterdill et al., 2002; 2009; Alasoini et al., 2017).

Although the number of comparative studies is small, there are some anomalies. The studies and papers by Frieder Naschold and Tuomo Alasoini are the exceptions that prove this rule: both researchers comparatively analyse the strategies of programmes in European countries and regions using a common analytical framework (Naschold, 1994; Naschold et al., 1993; Alasoini, 2016; 2009a; 2009b).

2.2.1 The origins: F. Naschold

Naschold is known for his studies¹⁷ for the improvement of the public sector (Naschold & Von Otter, 1996) and in particular for the assessment of national programmes in countries such as Sweden and Norway during the 1990s. Both

¹⁷ Frieder Naschold was appointed director of the Berlin Social Science Center (WZB) in 1976 and completed his career with teaching and research activities at several universities in Berlin, Harvard, Berkeley and Oxford, among others.

programmes are considered to be references of the so-called “new generation of research-assisted development programmes” that focus on the problems of dissemination.

In Sweden, Naschold carried out the assessment of the LOM (Leadership, Organisation and Co-determination) programme developed between 1985 and 1990 (see Gustavsen, 1992). The results are contained in “Constructing the New Industrial Society” (Naschold et al., 1993), which carries out a critical revision of the operative, conceptual and strategic dimensions of programmes in Australia, Japan, USA, Germany, Norway and Sweden. In Norway he participated in the SBA programme (Davies et al., 1993) developed between 1988 and 1993 by the Norwegian Centre for the Quality of Working Life. Although the objectives and approaches of both programmes differ, they share the adopted strategy: action research.

Naschold presented his model to the scientific and political community in the “Active Society with Action Research Conference” held in Helsinki in 1993 (see Kauppinen & Lahtonen [Eds.], 1994). The model assesses the impact of socio-economic strategies (productivity and well-being) at micro and macro levels identifying “best practices”. Naschold bases himself on the fact that there is a trend towards an integral framework for national productivity and well-being strategies (Naschold, 1994).

The 1993 conference is one of the three that gathered the community of scientists and researchers from the late 1980s and early 1990s that set the foundation for the proliferation of a variety of initiatives in Europe. The experiences of countries at the vanguard of labour reform such as Sweden, Norway, Germany (Fricke, 1994), or the Netherlands (Heap, Pot & Vaas, 2008; van Eijnatten, 1993) have been considered as external sources for other programmes that emerged starting in the mid-1990s, such as the Finnish National Workplace Development Programme (Alasoini, 1997).

2.2.2 The dimensional perspective: T. Alasoini

The research by Tuomo Alasoini is directly linked to the design of the Finnish National Workplace Development Programme and other actions promoted by the Finnish Funding Agency for Technology and Innovation (TEKES) of the Finnish Government.

The Finnish National Programme is one of the most long-lived (Alasoini, 2004; 2015). Developed over two stages (1996-2003 and 2004-2010), the programme is a subject of interest in the scientific and political community due to the positive assessments that show a high level of legitimacy among the main stakeholders, stressing its flexibility and strategic relevance (Arnkil et al., 2003: 69-117).

Alasoini's revision of Naschold's model is included in several research papers (Alasoini et al., 2005; Alasoini, 2009a, 2009b, 2016). For example, the report titled "European Programmes on work and labour innovation –a benchmarking approach" (Alasoini et al., 2005a) includes the first revision carried out within the framework of Work-In-Net¹⁸.

In this study, Naschold's model is used as a tool to structure dialogues. By classifying Naschold's six principles into analytical categories, the model is revised in two aspects. On the one hand, while Naschold's analysis mainly focuses on productivity and competitiveness, the revision of the model includes the working life quality vector. On the other hand, methodologically, the generic characteristics of the different programme strategies is carried out employing "reflective comparative assessment" that takes advantage of the participating research centres' knowledge and experience (see Alasoini, 2008).

¹⁸ "Labour and Innovation: Work-Oriented Innovations – a Key to Better Employment, Cohesion and Competitiveness in a Knowledge-Intensive Society" WORK-IN-NET (2004-08) is a project led by European research centres financed by the Sixth Framework Programme of the European Commission within the ERA-Net scheme. The general objective of the research lays in establishing communication and cooperation channels between national and regional research activities in the sphere of innovation and work (Zettel, 2005).

In this type of approach, dialogical methods are emphasised instead of measurement and comparison systems. The main result of this study is a heuristic map that contains profiles of the programmes and participating organisations in Germany, Norway, Sweden, Finland and the regions of Emilia Romagna (Italy) and North-Rhine Westphalia (Germany).

In “Strategies to Promote Workplace Innovation: A Comparative Analysis of Nine National and Regional Approaches” (Alasoini, 2009b), the framework is applied in three more contexts: the Flanders region, Ireland and Singapore. Later, in “Alternative Paths for Working Life Reform? A Comparison of European and East Asian Development Strategies” (Alasoini, 2009a) the analysis covers a comparison between two European workplace development strategies and two in East Asia. Both articles use the model and assess its usefulness in the analysis of contemporary development strategies. Additionally, both articles contribute towards the promotion of knowledge among countries and regions.

Alasoini's model has been used in learning contexts more than as a tool for comparing programmes in different countries and regions. In “Workplace Development Programmes as Institutional Entrepreneurs” Alasoini (2016: 49-52) summarises the model and integrates it in a Programme Theory highlighting two big contributions: the content (the updating of principles) and the methodological approach (the use of best practices as objects for the identification of functional correspondences).

Naschold's six principles in Alasoini's (2009a; 2009b) theoretical framework are used as objects that facilitate the identification of similarities and differences between the options adopted by programmes, facilitating learning. Alasoini bases himself on these principles and categorises them in six dimensions under the titles of policy context, orientation, participation, infrastructure, horizontal networking and resources. Table 9 shows the dimensions and their corresponding conceptual definitions.

Table 9: Six dimensions for understanding programmes

Dimension	Explanation
Policy context	Describes the strategic justification, identifies major players, sets the territorial scope and the research and/or development focus of a programme.
Learning	Identifies the sources for learning and its orientation.
Participation	Analyses the focus of the activities, the influence of participants in the development activities and their inclusiveness in terms of gender and ageing issues.
Horizontal networking	Explores how strongly activities are connected to each other among workplaces, projects and organisations.
Infrastructure	Identifies how research and training are included in programme activities and the diversity level of the expertise provided by R&D (public and private) infrastructure supporting the development.
Aims and resources	Describes tangible and intangible resources provided by the programme

Source: Alasoini (2009b)

As indicated at the start of this point, a striking issue is related to the absence of attempts or a proliferation of studies that propose or develop frameworks of this nature. Based on the lack of alternative frameworks the study is supported by this theoretical framework.

In short, it can be argued that the incidence of the issues presented make the search for theories, frameworks and tools that make it possible to establish a learning space relevant. These spaces can make use of transitional objects that facilitate the identification of mechanisms for shared learning as a contribution to the reformulation of public policy.

2.2.3 The situated research: the importance of contexts

Programmes reflect the problems of the contexts and the dynamics in which they operate (Fricke, 1994; Gustavsen, 2008b; Alasoini, 2016). Given that learning from programmes is the main topic of this study, the context in which the programmes operate becomes relevant.

In both theory and in practice, it is possible to identify a trend in the design and implementation of programmes in the regional context (Gustavsen, 2008b: 31). In this sense, the assessments focus on the idea of innovation systems that operate at regional level as a key to success (Gustavsen et al., 1996; Gustavsen, Colbjørnsen & Pålshaugen, 1998). To a large extent, it can be said that the regionalisation of programmes is motivated by the role of social research in regional innovation and development processes (Gustavsen, Finne & Oscarsson, 2001; Gustavsen, 2006). Some examples of this evolution are the programmes Development 2000, Value Creation 2010 and the Finnish Workplace Development Programme TYKES.

The first “regional turn” is identified in the Working Life Fund programme, developed at a national scale in Sweden during the years 1990 and 1995. The programme introduces the concept of “local development coalitions” (Gustavsen et al., 1996; Ennals & Gustavsen, 1999), understood as “a method for organising the plurality of actors and interests in a development process in the region (Johnsen, Normann & Fosse, 2005: 442). In this framework, regionalisation mainly takes place in the dissemination process in regional contexts (Gustavsen, 2006).

In Norway, in the Enterprise Development 2000 programme, developed during the 1994 - 2000 period by the Norwegian Research Council, the territorial dimension is characterised by the use of “modules” (Levin, 2002; Gustavsen et al., 1998). Modules have been described as development coalitions. One of the criteria of the programme for the organisation of these modules is the incorporation of more than one expert organisation that ideally represent different scientific disciplines, with the aim of combining specialised knowledge in social sciences, engineering, economy and business administration in each module.

The Value Creation 2010 programme implemented from 2000 to 2007, taking over from the Enterprise Development 2000 programme, probably integrates the most explicit regional dimension of all the examples described. Value Creation 2010 is characterised by linking research and development activities to regional development plans (Gustavsen, 2008b: 25-26).

The Finnish Workplace Development Programme, developed during the years 2004-2010, with a learning networks-based strategy (Alasoini et al., 2011), also emphasises this dimension (Alasoini, 2014). In this scenario, networks create inter-organisational learning spaces in regional contexts (Alasoini, 2019).

The programmes described above propose the regional dimension as a strategy. However in the literature few studies are identified where the initiative arises at the meso or regional level. The experiences of regions such as Emilia-Romagna in Italy, North-Rhine Westphalia in Germany, the Flanders region in Belgium and the Netherlands¹⁹, or the Basque Country are some exceptions (Alasoini et al., 2017; Pomares, Luna & Unceta, 2016).

The relevance of the region corresponds to a significant level of governance (Asheim & Cooke, 1999; Cooke & Leydesdorff, 2006). In innovation studies regions are considered as frameworks for the formulation of collaboration-based policies and strategies that aim to facilitate learning and innovation processes (Totterdill, 1999; Totterdill et al. 2009; Fricke & Totterdill, 2004; Asheim, 1996; 2001; 2007; Andersson, 2003; Brulin, 1998; Johnsen & Ennals, 2012).

The region is of high conceptual and practical usefulness in policy formulation (Asheim, 2001), in particular with regard to workplace innovation strategies (Totterdill, 1999). From this perspective it is of interest to analyse how the programmes that act in the regional sphere are integrated and whose governance

¹⁹ The Flanders Government launched the Flanders Synergy Programme with co-financing from the European Social Fund in 2006. Since the year 2019 Flanders Synergy was transformed into Workitects (Dhondt, Totterdill & van Hootegem, 2019; for an updated revision see also Heap et al., 2008; Pot, 2011). For an extension of the developed concept see also Van Hootegem, 2016.

falls to the regional innovation infrastructure.

Programmes are a means to bring together diverse actors and hybridise knowledge bases (Naschold, 1993). New approaches and concepts have arisen recently to approach regions.

The Smart Specialisation Strategy²⁰ (RIS3) proposes the prioritisation of investments, focusing industrial development towards exploiting the innovation potential of each region. The framework emerges in the context of the EU (Foray, David & Hall, 2011; Foray et al., 2012) and is built around the concept of the entrepreneurial discovery process (Foray, 2016), which establishes that the identification and exploration of new activities in regional contexts must correspond to the stakeholders (private sector organisations, universities and technology centres) within the frameworks established by Governments for such a process (Foray, 2014, 2016; Foray et al., 2012).

In the digital transformation age, issues such as work automation and innovation emerge as the leading concepts of the 4th Industrial Revolution (Schwab, 2016). The current high rate of transformation can be appreciated in the rapid changes taking place in the structures, processes and jobs of organisations. For this reason, the digital transformation requires support structures that represent shared interests and values, with a clear focus on creating learning contexts. From this perspective, programmes can make a positive contribution in this transformation.

²⁰ Regulation (EU) No 1301/2013 of the European Parliament and of the Council of 17 December 2013 contains the legal basis that defines the “smart specialisation strategy”. Through this approach, the innovation strategies of European countries and regions define a series of priorities in order to create competitive advantages through the development and adaptation of the strengths of research and innovation to address emerging opportunities and market advances in a coherent way and to avoid, at the same time, duplicating and fragmenting efforts in Europe

2.3 Understanding Programmes through research

Despite the fact that Europe has a certain tradition in the design and implementation of programmes, learning has been modest (Alasoini, 2011; Pot et al., 2016; Riegler, 2008) highlighting the knowledge gap (Totterdill, 2003; Totterdill et al., 2002; Ennals, 2002; Alasoini et al., 2017) and the weakness of regional, national and European frameworks (Ennals, 2002; Totterdill, Dhondt & Milsome, 2002).

Additionally, the reasons point to two issues. On the one hand, the differences in institutional structures, the language, culture or different rationality of the public intervention by countries and regions. On the other, the weakness of the programme dissemination mechanisms, which can have a negative effect, leading to a lack of motivation among the learning subjects in the exchange of information.

Alasoini (2011) argues that the design and execution of programmes requires the hybridisation of three types of knowledge. First, on issues related to viable solutions and designs (e.g. solutions related to forms of work organisation, work processes, worktime systems, remuneration, management or participation, ergonomics, the work environment, etc.). Second, on forms of participation and cooperation in order to construct new solutions among companies (e.g. cooperation relationships necessary for development operations, forms of interaction, methods, models, tools, etc.). And third, on knowledge about how to disseminate experiences about the new participative and collaborative designs and processes of change in benefit of a broader group of actors. To understand this hybrid nature (Latour, 1993) is to highlight the value of the type of knowledge that can be generalisable in other contexts, leading to local theories (Fricke, 1997; Gustavsen, 1992).

The above simply emphasises the importance of analysing programmes through the development of approaches, methods and tools with the capacity to facilitate the generation of knowledge. Learning from the experiences of other European initiatives is particularly relevant for the countries and regions, which without a tradition in the development of these types of policies have started to establish development frameworks in workplace innovation.

As a result this section presents a way to understand programmes through research that is organised by means of an integrated framework comprised of three elements: an analytical model to analyse the strategies used by programmes (2.3.1), regional innovation systems (2.3.2) and the workers' participation programme in Gipuzkoa (2014 - 2019) as an object of research (2.3.3).

2.3.1 Alasoini's six dimensions

It is presumed that the knowledge provided by research is useful knowledge both within and outside the research community. In order for knowledge to be useful, it has to be of a type that contributes to the different spheres of knowledge of the participating actors (Pålshaugen, 2009).

However, workplace innovations are local in nature and are strongly linked to the context. This issue determines and conditions the transfer of solutions from one context to another. Starting from the relevance of the context and the dependence on the system in which the programmes and participating actors operate, this point describes a way of understanding programmes.

In this study, the model developed by Tuomo Alasoini is used as framework of reference, more than as a model to be replicated in order to obtain specific results. The framework is used as a vehicle to understand the mechanisms that have an impact on the strategies adopted by programmes. Unlike Naschold, who bases his analysis on the general development of large industrial cultures (Gustavsen, 2008b), Alasoini's model provides contributions focused on making programmes produce knowledge. As Alasoini himself reflects;

"The underlying motive to develop the Naschold model was not to improve the ability of the model to reveal programmes' causal powers in accordance with the successionists' conception of causality. Rather, it is more realistic to talk of this model in terms of a generative approach to causation. According to this perspective, it is not the programme itself but rather the underlying reasons or resources that are provided by the programme to the subjects that generate change (Pawson, 2002: 342). The six generic principles of the model form the programme theory of generative

mechanism underlying the possibility of change. Whether these generative mechanisms are actually triggered depends on the context. Causation is contingent on the context” (Alasoini, 2016: 115-116).

The development of the model is documented (Alasoini et al., 2005a) and published in different studies that contain in detail the contributions on content and methodology (Alasoini 2009a; 2009b; 2016). Based on the consideration of the model as a “learning-oriented model” (Alasoini, 2016: 116) the framework identifies a set of 6 typical dimensions or categories that are subdivided into 18 elements (see table 10).

As shown in the table (Alasoini, 2009b), each one of the issues is used as a reference guide. The model provides an ideal framework for the construction of a shared language. The model also enables the identification of functional correspondences between the participating actors.

Table 10: Dimensions and sub-dimensions

<p>1. Policy context</p> <p>1.1 Identification of the programme's principal and secondary actors; and origin or strategic justification of the R&D</p> <p>1.2 Reference to the national or regional development approach</p> <p>1.3 Identification of the research or development-based approach</p> <p>2. Orientation</p> <p>2.1 Determination of the reference level (regional, national or international) of the activities at programme level</p> <p>2.2 Evidence that proves the fulfilment of these references</p> <p>3. Participation</p> <p>3.1 Identification of the type of orientation (design or development) of the projects' activities.</p> <p>3.2 Degree of influence that the jobs have on the definition and implementation of the content to be developed</p> <p>3.3 Degree of influence of workers on the content to be developed</p> <p>3.4 Degree of inclusion of the gender perspective in the development objectives</p> <p>3.5 Degree of inclusion of the age perspective in the development objectives</p> <p>4. Infrastructure</p> <p>4.1 Funding of education programmes and training of researchers in the programme's activities</p> <p>4.2 Diversity of the stock of specialised knowledge that can be used in the development activities</p> <p>5. Horizontal Networking</p> <p>5.1 Typology of organisations by size of staff at which the development activities are aimed</p> <p>5.2 Level of facilitation that the programme determines for establishing networks among projects</p> <p>5.3 Mechanisms provided by the programme for socialisation by means of networks (e.g. conferences, seminars, workshops)</p> <p>6. Resources</p> <p>6.1 Amount of economic and financial resources available for R&D activities</p> <p>6.2 Capacity of the R&D staff resources</p> <p>6.3 Time and duration offered by the programme for R&D</p>

Source: Alasoini (2009b).

2.3.2 Regional innovation systems

The regional innovation systems (RIS) theory is one of the main theoretical approaches in the field of research and the formulation of public innovation policy (Tödtling & Trippl, 2005). Regional systems are considered as a flexible partnership of public and private interests, government institutions, companies and other organisations.

The concept of regional innovation systems (Cooke, 1992; Asheim, 1995; 2001; Asheim & Gertler, 2005) emerges from the combination of two perspectives: innovation systems (Edquist, 1997) and the socio-institutional perspective (Edquist, 1997; Moulaert & Sekia, 2003). Within this framework endogenous factors such as learning and innovation are necessary conditions for development (Isaksen, 2001).

Based on the idea of the region as a conceptual space, the innovation systems theory is used to revise the programmes as innovation policy instruments (Vedung, 1998; Borrás & Edquist, 2013). However, in order for the programmes to be integrated as part of the innovation policy, it is necessary to focus on specific aspects related to the traditional formulation of innovation policies.

Traditionally, the most common way to promote workplace innovations has been the use of non-binding soft forms. Soft forms have their expression from different perspectives (Trubek & Trubek, 2005; Sabel & Zeitling, 2008; Jacobsson, 2004; Borrás & Edquist, 2013; Borrás & Jacobsson, 2004). The use of hard forms based on legislation and other regulations (such as collective bargaining agreements or company agreements) are quite rare (Alasoini, 2011).

As shown in table 11, there are a variety of policy options for promotion through the use of soft and hard formulas that in turn can be sub-divided into direct, indirect or intermediate types of intervention.

Table 11: Policy formulation options

	Soft	Hard
<i>Indirect</i>	General policy frameworks and recommendations	Indirect legislation on workplace innovation through other policy areas
<i>Intermediate</i>	Information on “best practices” and training & education	
<i>Direct</i>	Advisory services, benchmarking tools, grants and subsidies	Legislation on workplace innovation (e.g. organisational and management practices)

Source: Alasoini (2011).

It is critical to understand the above as historically, worker participation has been focused on from the logic of labour relations. As the table below indicates, worker participation adopts one logic or another depending on the paradigm from which it is observed. In order for worker participation to be integrated in the innovation policy it is necessary to analyse the context in which the programmes are formulated.

Table 12: Different participation logics

Model	Rationale
<i>Industrial relations policy</i>	Employees have the right to participate through delegation, consultation, hearing or having access to relevant information.
<i>Science and technology-oriented innovation policy</i>	Participation helps to overcome employee resistance to the adoption of new solutions, developed by management and experts, by giving employees an opportunity to implement small adjustments.
<i>Broad-based innovation policy</i>	Participation is a key success factor in complex environments, which generates collective learning and reinforces a sense of inclusiveness among employees in connection with rapid changes.

Source: Alasoini (2013).

This study suggests that the innovation policy depends to a large extent on how the policy instruments are defined, adapted and combined. From this perspective, the instruments are closely linked to the innovation system's activities. Instruments are tools for governance, to the extent that they link formulation processes and policy implementation. The importance of the choice of these elements is also evident due to the demands at the governance level brought by the growing participation of non-governmental actors in regional innovation systems. This twofold nature shows the importance of the choice of instruments in relation to the formulation of policies and the objectives pursued (Borrás & Edquist, 2013; Edler & Fagerberg, 2017; Vedung, 1998).

The feasibility of programmes in regional innovation systems depends to a large extent on the strategies adopted by organisations and the different workplaces that make up a production system. The above necessarily means two things (Alasoini, 2005); first, that the developments and activities of workplaces can influence the strategic options of companies; and, second, that the workplace-orientation of innovation policies includes a broader vision of the objectives pursued.

2.3.3 The Gipuzkoa programme as an object of research

Starting from the identification of the model and context according to which the programmes can be analysed, this study offers a research-based perspective that makes it possible to understand a specific experience.

Programmes are a means to gather different actors and hybridise a variety of knowledge bases (Naschold, 1993). These bases can originate from different spheres such as companies, research and development centres, consultancy services, labour market agents, development agencies, professional associations, education and training centres or national, regional or local governments (Alasoini, 2009b). In the sphere of regional policies, it can be stated that programmes can potentially establish

broad coalitions focused on the research and development of new forms of work organisation (Ennals & Gustavsen, 1999; Fricke & Totterdill, 2004).

Programmes are also tools for research and development. Research is a type of public resource, which can play a relevant role in the development processes addressed by programmes (Ennals & Gustavsen, 1999: 173-176). Research-based approaches aim to produce new knowledge that is applicable in the design of solutions or processes of change (Alasoini, 2005: 43-46). From this perspective, the assistance of research is justified by the complexity of adopting new forms of work organisation (Gustavsen, 2006: 322-324).

In line with the above, the role of research in this context can be represented according to the following logic (Alasoini, 2006: 45):

- The use of theoretical models supported by research or experiences that make it possible to identify objects and the way they relate to each other.
- Research questions are proposed in the form of hypotheses on the theoretical and practical foundation for critical examination. These hypotheses can be adapted throughout the process.
- Depending on the critical examination carried out, the research draws conclusions for the preparation of (identified) theoretical models or the reasoning behind them.

This section summarises the project's objectives and formulates the research questions. The main scope of this study are the programmes. For this reason the issues addressed are analysed at a programme level.

This research analyses the Programme designed by the Provincial Government of Gipuzkoa's Economic Promotion Department during the 2014 - 2019 period. The main goal of this study is directly related to issues associated with the design of the programme in Gipuzkoa. This involves internalising and understanding the consequences of the choices depending on the adoption of some forms or others in the design and implementation of these instruments. Thus the main objective is twofold:

- To reach a deeper understanding in the mechanisms that impact Gipuzkoa's participation programme.
- To generate knowledge about the programme and Gipuzkoa's participation policy during the 2014-2019 period.

In general, there are two questions that guide this research process. The first question necessarily points to the next: What are the main characteristics and features of Gipuzkoa's programme? In line with the framework presented, the second looks at the context: How is the programme integrated as a policy instrument in the regional innovation system?

The following points present the way in which these questions are developed and how they are integrated in the research process.

2.4 Contextualising the research

This section presents the context of the empirical research I have carried out from a sociological perspective. The object of the research, i.e. Gipuzkoa's programme during the 2014-2019 period is analysed as a contemporary phenomenon within a real context. For this purpose, first of all there is a description of the territorial scope that provides a general perspective of the context (2.4.1), secondly, the specific case of Gipuzkoa is presented (2.4.2), and lastly, it is followed by a characterisation of the participation programme in Gipuzkoa (2.4.3).

2.4.1 The territorial scope

The Basque Country is an Autonomous Community located in northern Spain and is organised administratively and territorially into Biscay, Araba and Gipuzkoa,

which are governed by Provincial Governments.

The Basque Country is considered a former industrial region that has received recognition for the transformation process carried out over the last decades (OECD, 2011: 42). Three factors contributed towards this process: the incremental modernisation of the industrial sector, the creation of technology and R&D centres focused on SMEs, and the fiscal autonomy and high level of self-government of the Basque Autonomous Community (Morgan, 2013a; 2013b; Cooke & Morgan, 1998; Cooke, Boekholt & Tödttling, 2000).

The Basque Government's industrial policy started in the 1980s. The Department of Industry and the Business Development Agency (SPRI) are the main political actors in the formulation and development of the policy. With an evolution organised in several sequential stages (Aranguren et al., 2012; Navarro et al., 2014b), the industrial policy is strongly focused on bringing companies together (clusters) and on providing support services by means of technology and innovation centres for SMEs. The Basque Government is currently implementing the Smart Specialisation Strategy (RIS3) that is integrated in the Basque Science, Technology and Innovation Plan 2020 organised by the Basque Innovation System.

Participation started to become relevant in the Basque Country's industrial policy with the 2014-2016 Industrialisation Plan. In this context, participation emerged as a challenge and a guiding principle of the Plan:

“The Plan seeks to support processes to strengthen the participation of workers in organisations as a mechanism to improve competitiveness, generating long-term shared projects that tend to encourage the growth of people and spaces for professional and personal development”

(Plan de Industria 2014-2016. Gobierno Vasco, 2014: 34).

Although it should be noted that the plan arose in a context of crisis:

“Companies need to overcome the current scenario (labour disputes, high absenteeism, wages unaligned with the current economic situation, etc.) on the basis of a shared commitment among the people in each organisation. It is not about

creating a single model for all companies, but developing ad hoc participation formulas in each company” (Ibid: 34).

The Industrialisation Plan incorporates participation from two independent and complementary perspectives; the restructuring of SMEs by fostering the participation of workers in ownership, and the promotion of the adoption of new participation-based work organisation models. Among others, the actions that integrate the promotion of participation include the following aspects:

- The creation of a risk capital fund to support worker participation in the company.
- A programme to provide advice on workers’ participation in ownership.
- Exploration of fiscal formulas to promote private investment in companies with Provincial Governments.
- A programme to foster worker participation in the company (new organisational models).
- The design of a framework to support the creation of environments that favour worker participation in the company.
- Awareness raising and training in new organisational models.

As shown by the actions included in the Plan the objective is twofold and participation is conceptualised as a strategy that ensures that ownership and the adoption of people-oriented organisational models take root in companies. The former refers to the capacity to keep decision-making centres in the region. This is particularly interesting within a context with a long industrial tradition, a social economy and sufficient fiscal autonomy that enables regulatory development. The latter refers to the creation of favourable frameworks and environments for the adoption of participative work organisation models. The regional perspective for the promotion of new models is crystallised in a programme called “Innobideak” (Paths to Innovation, in basque language). The strategy's objectives are summarised in the following table:

- To promote participation as a key element to improve business competitiveness and social cohesion.
- To commit to a new organisational culture based on participation, commitment and involvement that contributes towards improving labour relations.
- To encourage people's contributions through shared projects that prioritise taking on responsibilities, emotional attachment to the project, transparency and, in general, valuing a worker's capacities and potential.
- To support the development of participative processes in all kinds of companies, guaranteeing the survival, continuity and growth of differential business projects based on participation and the smart agreement of their members, in addition to an intergenerational commitment.
- To make use of the region's knowledge base, consolidating the ecosystem of agents supporting worker participation in companies (public administrations, business fabric, universities, financial system, specialised services companies, associations and experts).

The Basque Government's strategy is developed with the SPRI public agency, the three Provincial Governments and EUSKALIT (Foundation for advanced management in companies). The framework is based on the application of advanced management methodologies, tools and principles by means of an initial contrast, the development of pilot projects and consolidation projects.

With the adoption of the Science, Technology and Innovation Plan 2020, organisational innovation becomes relevant and is included as an instrument to support SMEs. What has been observed is that with the drafting of the new Industrial Plan for the 2017-2020 period, the “Basque Industry 4.0” Industrialisation Plan, the concept has become more prominent in detriment of the word “participation”.

2.4.2 The case of Gipuzkoa

Gipuzkoa is one of the Basque Country's three territories. Administratively it is located at a meso level between the Autonomous Community administration and the municipalities.

The Provincial Government of Gipuzkoa as a governing body has the competencies that are specific to the chartered regime that empowers it to approve, among others, fiscal regulations.

Gipuzkoa is known as the cradle of cooperativism in Europe and the world. Industry is particularly important due to its contribution to the creation of wealth and jobs. One out of every three jobs in the industrial sector belongs to the social economy (cooperatives and employee-owned companies). In general terms Gipuzkoa's business structure and demography reflects the existence of close to 53,000 companies and 245,000 workers, where the manufacturing industry is strong in terms of jobs (27.6%).

Participation acquired relevance in Gipuzkoa starting from the second half of the 20th century. In addition to workers' participation in the capital, participation in work organisation started to gain importance with the establishment of the rights of information and consultation of workers and business owners, and the emergence of new business management models²¹.

The above is particularly relevant in relation to the regulatory developments that have sought to promote the cooperative²² and employee-owned company²³

²¹ The first business management schools in Gipuzkoa started to emerge in the 1950s. Some examples are the Deusto Business School (1956), the Business Administration School in Oñate (1968) and the University School of Business Studies (1972) currently integrated in the UPV/EHU. With the appearance of these training and education centres, authors such as Guillén (1994: 198) indicate the presence of business elites that put into practice the techniques that they were taught, in most cases at centres run by Jesuits, following the paradigm of the Human Relations school of thought. Other studies of interest on this particular subject can be found in the work edited by Greenwood and Santos (1991) and the study by Lahera (2004).

²² In particular, starting in 1950, in Mondragon there were a series of advances that

models that emerged in the industrial reconversion of the 1960s and which have deep roots in the territory. As for the regulatory context, today there are a variety of legal structures that enable and include direct (employee-owned company, cooperative company, professional partnership and trading company) and indirect (private partnership) formulas for participation. The number of Social Economy organisations (which includes Cooperatives and Employee-Owned Companies) in Gipuzkoa doubles those in other provinces such as Biscay or Araba. This shows that participation is a reality that employs some 13% of the working population in Gipuzkoa.

Since the mid-1980s the Provincial Government has developed a programme-based territorial policy (Lengyel, 2004). By means of public-private collaboration, the lines of development have been implemented locally, in a capillary manner, through the creation of partnerships or the support of existing networks. Specifically, since the year 2010 the Department of Economic Promotion has been formulating policies for the promotion of worker participation.

However, it is starting in the year 2014 when the Government designed and began to deploy “Gipuzkoa Partaidetza” (Participation in Gipuzkoa, in basque language). The strategy includes a series of actions based on R&D and the dissemination that contributes to the promotion of the different forms of participation among the territory's companies.

The strategy is mainly aimed at companies and organisations and includes two perspectives: a commitment to workers (increase autonomy in the workplace

responded to the level of development of the cooperative movement. With the creation of Ulgor, the first cooperative, in 1956, which was followed by that of the Caja Laboral Foundation (1959) and the Lagun-Aro Mutual Benefit Organisation (1967) the region started to emerge as a reference in the 1970s. Today, with the entry into force of Law 11/2019 on Basque Cooperatives, the regulatory context of cooperatives is perfectly integrated in the social and economic development model.

²³ Employee-Owned Companies emerged in the 1960s during the industrial reconversion as an instrument for the creation of new companies or to facilitate the purchase by workers of companies in difficulties. These companies are regulated by specific laws that refer to the requirements that have to be met for them to be recognised as an employee-owned company. These developments are contained in different laws; the Law on Public Limited Employee-Owned Companies 15/1986 and the Laws on Employee-Owned Companies 4/1997 and 44/2015.

and collaboration in the company's strategy) and a commitment to the territory (stronger ties among people, which contributes towards increasing the feasibility and sustainability of companies, favouring employment and social cohesion; and a greater commitment of companies to their social surroundings). A declaration of this mission is expressed as follows:

“... to promote the transformation of the business models contributing towards the creation of new participation-based relationship models, organisations with a shared project, formed by people who are actively involved in the business project and by organisations that contribute towards the creation of a favourable context in which both, people and organisations, contribute towards the mutual generation of shared value” (Diputación Foral de Gipuzkoa, 2014).

The Provincial Government's Strategic Management Plan for the 2015-2018 period highlights the impact of worker participation:

“We must accompany the transformation of our business fabric towards a model of Gipuzkoan company that is competitive, diversified and with a global presence, promoting competitive corporate behaviours (innovation, internationalisation and collaboration), committed to quality employment and the participation of people as the focus of the business project, and strengthening the hallmarks of our industrial and economic policy, as a country and as a Territory” (Diputación Foral de Gipuzkoa, 2015)

Goal 17 of the Plan defines the policy's objective:

“To promote people-based organisations and with roots in the Territory. *(Target: To increase the participation of people in the company, through strategy and/or organisational or systemic definition processes)*” (Diputación Foral de Gipuzkoa, 2015).

With the adoption of the Participation Strategy 2016-2019 the political relevance and institutional weight²⁴ is reinforced. During this period, the territorial policy on participation is strengthened with the inclusion of new initiatives by the

Department for the Treasury and Finances²⁵ and the Provincial President's Cabinet by means of the “Etorkizuna Eraikiz” initiative²⁶ (Building the Future, in basque language” (Barandiaran & Luna, 2018; Barandiaran, Luna & Unceta, 2017; Unceta, Barandiaran & Restrepo, 2019). The government's action is materialised in the provision of instruments, best practices, visibility and recognition of the participated company; the design of actions to provide companies with knowledge about organisational change, and the development of actions in the field of social transformation. The strategy rests on three pillars; people, companies and the territory (see figure 5 below).

In general terms, the objectives of the public policy seeks to address issues such as improving well-being; contributing towards improving the competitiveness of the territory's companies; facilitating the continuity of business activity; encouraging companies to establish roots in the territory; favouring talent retention and attraction; and international recognition of the development of participative business models. The principles that guide this strategy can be summarised in the following aspects (Diputación Foral de Gipuzkoa, 2016):

- *Variety*: The government does not recognise a single participation model but different forms and levels of participation.
- *Adaptability*: Orientation towards participation models that adapt to the reality, needs and circumstances of the context and the person.
- *Willingness of the parties*: People's participation in the company requires the

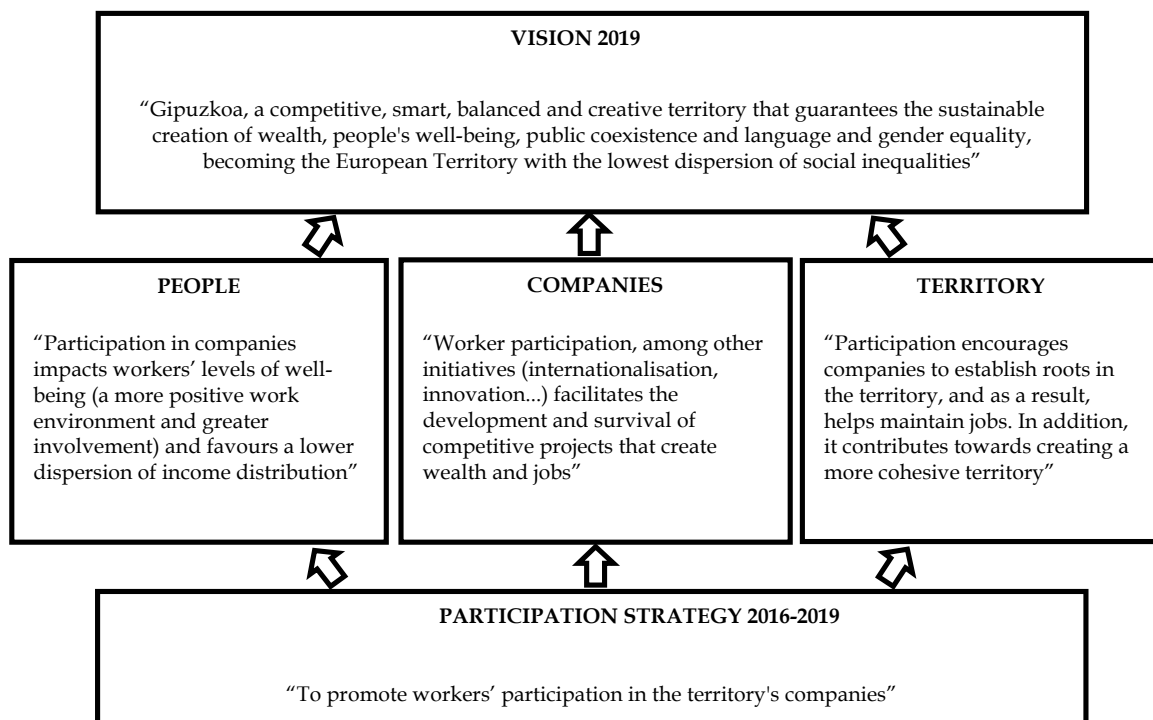
²⁵ During the 2014-2019 period a number of participation-related fiscal regulations have been approved in Gipuzkoa. Provincial Regulation 6/2015 on Personal Income Tax and the Tax on Inheritance and Donations, approved by the General Assembly of Gipuzkoa incentivises worker participation, both those transferring the company and those acquiring it. This was joined by Provincial Regulation 3/2019, on the approval of certain tax measures for the year 2019, which establishes a new deduction for the creation of entities by workers within the Personal Income Tax.

²⁶ Etorkizuna Eraikiz (Building the Future, in Basque) is a flagship initiative that develops the Provincial Government of Gipuzkoa’s collaborative governance model. During the 2016-2019 period it has carried out pilot experiences in 20 companies in Gipuzkoa in the field of worker participation.

- conviction and commitment of the stakeholders.
- *Complementarity*: coexistence of the participation models with the labour relations framework, without diminishing the role of employer and worker representatives.
 - *Focus*: Companies with a staff size of 10 to 250 workers are prioritised, with a preference for activity sectors such as industry and energy, information and communications, and professional and services activities. Likewise, continuing to encourage participation in the public administration is also contemplated.

Figure 4: Deployment of the Participation Strategy 2016-2019

Source: Diputación Foral de Gipuzkoa, 2016



2.4.3 Gipuzkoa's programme: characterisation

From the variety of actions included in the participation strategy that the Provincial Government of Gipuzkoa developed between 2014 and 2019, this study focuses on the programme launched by the Department of Economic Promotion in the year 2014. As the title of the programme has varied²⁷ throughout the period covered by this study, hereinafter it will be referred to as the Participation Programme or programme. The programme of Gipuzkoa pursues certain objectives that are framed in a broader political context. Table 13 summarises a typical categorisation based on four different levels (Alasoini, 2004).

Table 13: Classification of objectives

Objective	Description
<i>Public policy goal</i>	To improve the level of welfare, strengthen the competitiveness and linkage of enterprises and generate wealth and cohesion for the Territory
<i>Programme-level goal</i>	To promote the rooting, continuity and competitiveness of companies through an active and effective co-responsible participation of all people
<i>Generative goal</i>	To establish territorial dynamics and increase the creation of shared value
<i>Workplace-level goal</i>	To promote organizational models of participation in companies

Source: Author's own elaboration

²⁷ The programme's title has gone through some variations during the annual calls published during the 2014-2019 period. In 2014 and 2015 the title was "Programme for the promotion of a socially responsible territory" and in 2016 "Programme for the promotion of companies committed to people and to the territory". Starting in 2017, as a result of an internal organisation of the sections that comprise the department in charge of the programme, it went on to become "Programme for the Promotion of participative companies".

Firstly, the objective associated with public policy refers to issues such as improving the level of welfare, strengthening the competitiveness and territorial linkage of enterprises.

Secondly, the programme's objective reflects the way in which it contributes to the achievement of the objectives formulated in public policy; that is, to promote the rooting, continuity and competitiveness of enterprises through active and effective co-responsibility. Differentiating between policy and programme objectives is important because programmes do not provide a complete answer but are often articulated with other means and resources that contribute to solving a particular problem.

Thirdly, the program's generative objectives, which address the transfer of these learnings for the benefit of other work contexts and stakeholders, influence the generation of territorial dynamics and the creation of shared value.

Fourthly and finally, project level objective address to the promotion participatory models in enterprises.

In general terms, the programme promotes projects by organisations, individuals or collectives, without excluding sectors or company sizes, that aim to favour the creation of participative workplaces. The programme defines workplace innovation as follows:

"Workplace innovation is understood as the integration between people, skills and technology. Innovation based on the flexibility of work organisation, learning processes and the autonomy of people; oriented towards the sustainability of the social organisations that companies are" (Diputación Foral de Gipuzkoa, 2014).

The programme is open to the typical agents that are traditionally part of the workplace innovation system (Naschold, 1993), the actors of the industrial system, industrial relations and research. The list of organisations susceptible of submitting proposals is comprised of:

- Companies and enterprises.
- Business associations.
- The most representative trade unions in the territory.
- Public and private research units, research centres specialised in participation and organisational or social innovation.
- Strategic associations in the fields of education, the economy, local, regional or social development.

In addition to the actions that include an individual organisation, the programme envisages the submittal of joint proposals. The programme's main mechanism is the promotion of two types of actions: R&D and experimentation projects; and extension and generalisation projects. The first type refers to actions aimed at searching for new solutions in work organisation, while the second focuses on dissemination-related aspects. The proposals to be submitted must be framed within previously-identified scopes of action:

- The promotion of elements (attitudes, values, regulations, competences) that facilitate cooperation and commitment.
- The legal and ethical commitment to include in the operations and decision-making processes of the companies the interests and expectations of all people.
- The development of new organisational and/or territorial intervention models.
- The implementation of formulas that guarantee the continuity of the business activity and its handover to the next generation.
- The promotion of participation (information, management, results and capital).
- Experimentation and intervention in advanced workplace innovation formulas.
- The development of new ways of satisfying social and territorial needs by

means of the local economy and the empowerment of citizens.

- Territorial and social innovation dynamics that include economic, social and education agents.
- The assessment, valorisation and social dissemination of the creation processes of companies and the sustainability of companies.

The programme is organised into annual calls. Organisations must submit proposals that contain actions to be carried out within a specified time frame. The development of longer-term projects are eligible, though they require the corresponding annual application.

Eligible organisations and companies can submit proposals for their financing (total or partial) after an assessment by the Department of Economic Promotion. The selection is carried out according to the following assessment criteria (by order of importance); the quality of the proposal (innovative nature of the adopted strategy, dimensioning and coherence between the proposed objectives and the methodology of the instruments to be developed); the potential impact of the actions (in terms of lessons learned and results); the intensity and quality of the cooperation (commitments acquired, collaborative work and participative processes developed); the financial feasibility of the development of the action submitted; and equal opportunities between women and men.

2.5 Building the research

Understanding the programmes through research in any context requires the construction of a social and relational space. This construction necessarily requires a series of anchor points and specific applications. This part contains these two issues; action research as a strategy (2.5.1) and Gipuzkoa Workplace Innovation as an application (2.5.2).

2.5.1 The anchor points

Research that seeks to support development and change by generating new knowledge and which aspires to contribute towards broader innovation processes must necessarily be organised as an education and information accumulation process.

Based on the line adopted in this research, the process includes the convergence of three anchor points: research, action and participation (Greenwood & Levin, 2007). This choice entails the adoption of strategies and methods such as participant observation, case study, literature revision, personal interviews, research seminars, workshops with policy-makers, organising dissemination activities and participation in networks. The choice of this strategic option is justified by the existence of previous research in the field of programmes.

Action research is social research. According to Greenwood and Levin (2007) action research is carried out collaboratively between a researcher and the “problem owners” within an organisation, community or group created for a specific purpose.

Historically, action research has focused its efforts on changing individual organisations (or even parts of a single organisation), in detriment of the inter-organisational level. In this sense, with the exception of the Scandinavian experiences, the literature has barely explored the specific aspects of large-scale change. Some of the reasons must be found in the strong control exerted by the use of field experiments (Gustavsen, 1992; 1993).

Action research is an umbrella that encompasses different varieties (Greenwood & Levin, 2007; Reason & Bradbury, 2008). In a general sense we could say that action research covers different traditions that range from action science (Argyris, Putnam & Mc. Lain Smith, 1985), participatory action research (Whyte, 1991), participatory research (Fals Borfa, 2001), socio-technical systems theory (van Eijnatten, 1993) and democratic dialogue (Gustavsen, 1992; see also Gustavsen, 2015;

2016).

The contribution of research to the reform of working life has acquired different forms (Gustavsen, 1992). An example of this are the studies carried out using different approaches and research strategies (van Eijnatten, 1993; Greenwood & Levin, 2007; Svensson, Ellström & Brulin, 2007; Engeström, 2005; Alasoini, 2016). The similarities and differences of these traditions are identifiable, to a large extent, in the way that the research is carried out. As a result we can talk about different strategies (Pålshaugen, 2014) where dialogue acquires particular relevance in the identification of the research questions (Greenwood & Levin, 2007; Alasoini, 1999; Pålshaugen, 2009). In relation to the specific scope of this study it can be stated that;

“Action research in working life is presumed to be useful to various groups of actors, both within the enterprises and within organisations and institutions that are somehow devoted to working life development, reforms and politics” (Pålshaugen, 2009: 232).

In line with this reflection, the goals of action research are twofold in social research. On the one hand, the use of scientific knowledge in practical development and change processes and, on the other, the generation of new knowledge for the research community that is useful for the actors involved in the development and change process (Pålshaugen, 2009: 236-242; Gustavsen, 2008a). When providing an answer to these questions, action research has been structured around three fields:

- How to create democratic relations to the field subjects – as a method of research
- How to create new scientific knowledge from constructive social science research processes
- How to create innovative structures aiming at the continuation of participative design and change processes beyond the limited range of projects and programmes (Fricke, 1994: 55)

In conclusion the choice of action research as a strategy responds to three reasons:

- The research is directly linked to the programmes. The first programme in Europe's history, the Industrial Democracy Programme (Emery, Thorsrud & Trist, 1969; Emery & Thorsrud, 1976), is considered the first large-scale research project. Starting in 1990 the influence of action research is reflected in a series of national programmes (Gustavsen, 1992; Kauppinen & Lahtonen, 1994; Van Beinum, 1999), and training programmes such as the Scandinavian Action Research Development Program (Greenwood, 1999).
- Action research is likewise connected to regional development (Fricke & Totterdill, 2004), in particular the University's role of regional agent (Lantz & Totterdill, 2004; Fricke, 1999; Totterdill, 1999) and training ground for development coalitions (Ennals & Gustavsen, 1999; Asheim, 2001).
- Sinnergiak Social Innovation (UPV/EHU), as an action research centre where I carry out my research activity, is part of the higher education knowledge system with a firm commitment to the development of practical methodologies that connects different communities and focuses on society's challenges.

2.5.2 The applications

The anchor points of the research acquire a variety of applications in the form of projects. In this sense, Gipuzkoa Workplace Innovation is structured as a set of practical ways to carry out the research process.

My interest in studying programmes starts within this context. The project has had a duration of five years. During the 2014-2019 period the initiative has received support and funding from the Provincial Government of Gipuzkoa (Department of Economic Promotion). The Sinnergiak Social Innovation research centre is the organisation responsible for the project and has developed the strategy

in coordination with the Government's programme managers. In this process my participation has focused on the coordination of activities, mediation and monitoring with the programme's political and technical managers.

The GWPI's mission has revolved around the creation of knowledge on issues associated with the strategies adopted for promoting worker participation in Gipuzkoa. Based on action research, the key topics developed within this framework are, mainly, issues associated with learning about the design of programmes and the formulation of policies.

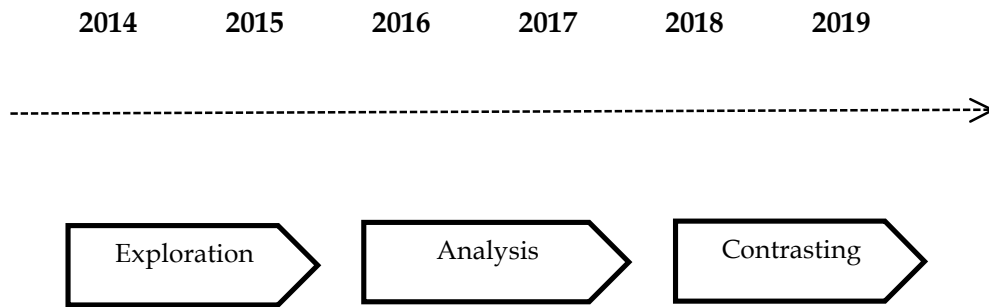
A key agent in the joint knowledge exploration and training process is the European Workplace Innovation Network (EUWIN). Since its creation in 2013 until its recent relaunch the network has enabled the connection with other organisations and experiences with which to cooperate and learn in a broader context that is Europe. EUWIN is a network that includes management, employees, trade union representatives, social mediation organisations, researchers, public policy-makers and consultants. Guided by a steering committee it organises conferences and interactive workshops in several European locations, and has led to the creation of local and sectoral networks (Totterdill, 2015).

The creation of EUWIN²⁸ by the European Commission responds to the need to foster a new type of dialogue between researchers and professionals; as a result, EUWIN's main task consists of promoting the dissemination of workplace innovation all over Europe through exchanges of knowledge. As regards the GWPI project, participation in international networks entails a clear external influence in terms of learning.

From a general perspective it can be said that the GWPI project is organised in three stages that integrate different applications. These stages are: exploration; specific case analysis; and international benchmarking. The figure below organises these stages into a single sequence.

²⁸ The Netherlands Organisation for Applied Research (TNO) and the UK Work Organisation Network are the founding coordinators of the EUWIN initiative.

Figure 5: Outline of the project by stages



Source: Author's own elaboration

In a diachronic manner, Gipuzkoa Workplace Innovation is made up of different methodological applications. Something to be highlighted throughout this process are the spaces and communication channels with the programme's political and technical managers. During the 2014-2019 period there have been annual gatherings, meetings and joint activities. Throughout this period a variety of monitoring reports and explanatory dossiers on the results of each one of the applications carried out were generated. Additionally, an interview has been carried out with the political manager of the programme and two with the technical manager. The participation of the Department of Economic Promotion in local and international forums has also been useful as an external source of learning.

The exploration, analysis and contrasting has required the use of different methodologies and a variety of subjects. Table 14 shows the different stages, activities and techniques used throughout the process.

Table 14: The research stages

Stage	Activity	Technique	Data
<i>Exploration</i>	Company surveys	Quantitative analysis	496 companies
		Qualitative analysis	Case Studies
<i>Analysis</i>	Business communities	Discussion groups	11 Companies 24 Seminars
		Series of dialogues	Case studies Semi-structured interviews
<i>Contrasting</i>	Benchmarking	Content analysis	3 Programmes 8 Experts

Source: Author's compilation

The first stage started in 2014 and extended until late 2016. The first meetings with the Department of Economic Promotion established the four development points of the actions. Four aspects are prioritised at this stage: conceptualisation, research, intervention and dissemination.

By means of the design of a questionnaire the first research tasks were carried out with a group of 496 companies. The objective focused on a study on companies' perception regarding participation. The study was carried out during the months of January and March 2015. The analysis of the study revealed two critical issues (Pomares, Luna & Unceta, 2016); the low level of worker participation in strategic decisions and the limited presence of systematic innovation practices in companies. Of the companies interviewed only 12% declared that they had implemented worker participation-related practices in strategic decisions, and just a third of the companies (32%) responded that they had systematic innovation practices.

The fieldwork carried out makes it possible to get to know and be in direct contact with the companies. This has made it possible to identify relevant issues that could be communicated in the form of case studies, which has had an impact. In

2016 the case of the industrial cooperative Ederfil Becker was included in the Knowledge Bank promoted by the European Commission (DG Grow) as an example of best practice (Totterdill, Dhondt & Boermans, 2016).

In 2016 and guided by the conclusions obtained, the analysis objective was oriented towards a more limited group of companies. In order to achieve this objective working groups were organised, formed by companies. The main idea of the activity lies in the organisation of learning itineraries associated with innovative methodologies and practices. This activity was carried out during the months of April to June 2016. In total 11 companies and 19 people participated, organised in three groups:

- 1 group, where just one company was worked with, in an individual manner and focusing on its specific characteristics. The analysis, within the specific context of the participating company, was of the three dimensions: work organisation; people's participation and improvement in the company.
- 2 mixed groups in which work is carried out in a cooperative and relational way, with a maximum of three companies per group. The two specific challenges of innovation in forms and contexts of work were analysed and debated: systematic innovation and participation in the company's strategy.
- 1 mixed group working with a maximum of four companies sharing and analysing specific cases and experiences submitted by the participants themselves.

In total each group of companies participated in a total of 6 sessions lasting two hours. The sessions included content analysis, visits to companies and contrasting activities with international experts. The activity as a whole was coordinated and facilitated by a team of 4 researchers in charge of organising the contents and materials used in the working sessions.

The second stage of GWPI is designed as a specific analysis of case studies. In May 2017, along with the Department of Economic Promotion, a series of seminars

in the form of structured dialogues were organised. The main objective at this stage of the analysis focused on the identification of experiences in Europe that could guide research within a broader framework. Likewise, the programme's orientation and Gipuzkoa's policy could be presented to other researchers and policy-makers.

The project organised a series of dialogues with the participation of political representatives, technicians and researchers from different parts of Europe. In total 5 consecutive seminars were organised on subjects such as participation, the regulatory framework, the business ecosystem, workplace training and lifelong learning, and territorial development. Each seminar is organised in two parts; the first is expository, where invited experts make a presentation about their field of knowledge; the second, in turn, is organised in the form of a dialogue with the rest of the participants and attendees.

Table 15: Fields and participants in the seminars.

Field	Organisation	Speaker	Country
<i>Participation</i>	Provincial Government of Gipuzkoa	Member of Parliament	Spain
	Eurofound	Programme Manager	Europe
	TEKES	Advisor	Finland
<i>Regulation</i>	Basque Council of Labour Relations	President	Spain
	UPV/EHU	Chair	Spain
<i>Territorial Development</i>	UK WON	Director	England
	Scottish Enterprise	Programme Manager	Scotland
<i>Business Ecosystem</i>	TNO	Research Scientist	Netherlands
	DLR	Programme Manager	Germany
<i>Learning</i>	Basque Government	Deputy Minister	Spain
	EUWIN	Chairman	Europe

Source: Author's compilation

The table 15 shows the fields of work of those participating in the seminars organised by participants and their affiliation. The experiences chosen include different public and private organisations from different geographical areas such as the Provincial Government of Gipuzkoa, the Basque Government, the Basque Council of Labour Relations, the University of the Basque Country (UPV/EHU), Eurofound, Scottish Enterprise, the Finnish Funding Agency for Technology and Innovation; DLR-German Vice-ministry of Education; The Netherlands Organisation for Applied Research; the UK Work Organisation (United Kingdom) and EUWIN.

The third stage, or the contrasting stage, started in 2018 and its objective was the comparative learning by the Gipuzkoa programme alongside experiences carried out in France and Scotland. The main activity of this stage used a benchmarking technique, using as a reference Alasoini's framework, and was carried out during a three-day workshop organised on 1, 2 and 3 April 2019.

Benchmarking is mainly a structured approach to facilitate learning (Papaioannou, Rush & Bessant, 2006). Benchmarking as an instrument is a systematic way to make comparisons structured over a wide range of operations. Lundvall and Tomlinson (2001: 212) defend the suitability of using benchmarking as a learning technique for policy-makers.

The above requires considering the context in which the practices or policies are developed. The practice depends on the context, meaning that its applicability varies from one context to another (Lundvall & Tomlinson, 2001). The regulatory context in which the changes take place is important, particularly in the field of labour relations, the specific mechanisms of industrial policy or e.g. the education system. This is why instead of limiting the learning process to a mechanical approach this model focuses on the identification of strong and weak points.

Regional analyses have evolved in this direction (Huggins, 2010). In the literature several applications of the benchmarking model for the analysis of WPI programmes (Alasoini, 2008; Alasoini et al., 2011) or the implementation of smart specialisation strategies (Navarro et al., 2014a) have been identified. In the context of this study, the use of benchmarking aims to learn from other approaches and models

developed in Europe, and to learn from a different standpoint. The learning exercise proposed had a duration of three days, with the participation of 8 people and the representation of three WPI programmes.

The activity preparation and design work started in December 2018. The preparatory work included deskwork and the identification and selection of programmes that could be potentially the object of analysis. Once identified and selected, a work plan and activity organisation planning was agreed upon with the Department of Economic Promotion. Prior to the organisation of the activity, the invited participants received a research proposal for seek their agreement. The document included the presentation of the activity, information about the structure and methodology to be used and a brief reference questionnaire that enabled the collection of information and preparation of the working sessions.

The programmes of France and Scotland are used as a mirror in the activities. The model used as a guide corresponds to Alasoini's six dimensions outlined in point 2.3.1. The activity had a duration of three days. The first day was used to establish a shared understanding of each one of the dimensions²⁹. Days 2 and 3 were used for an analysis of each one of the dimensions by the representatives of the programmes from France, Scotland and Gipuzkoa.

Throughout the activity I was responsible for recording the annotations and comments. Once the activity had been completed and the information processed, the participants received a report with the conclusions, with the possibility of making comments for their inclusion in the final report.

The activity, co-directed with EUWIN, included the participation of the ANACT (France) and Scottish Enterprise (Scotland) agencies. In total eight people formed the working group³⁰. The central idea lies in the use of the programmes and

²⁹ Of the eight researchers (4 men and 4 women), one of the participants had extensive knowledge of the model, as this person was Alasoini's opponent at the PhD dissertation of 2016.

³⁰ The institutions represented were; European Workplace Innovation Network (3 people); representatives from the Workplace Innovation Engagement Programme through UK WON-Workplace Innovation Europe (2 people); ANACT representative (1 person); researchers from

policies of France and Scotland as a mirror. The benchmarking was organised with Alasoini's model as a reference, which is useful for studying the strategies employed by the programmes in different contexts. It is important to explain that, instead of mechanically making comparisons, the learning is structured through reflection³¹ and the diverse knowledge and experience of the participants (Alasoini, 2008: 78-80) and the use of dialogic methods (Alasoini et al., 2005a).

ANACT (*L'agence Nationale pour l'amélioration des conditions de travail*) is the French national Agency for the improvement of working conditions, which is in charge of developing innovation projects in the field of working life. Created in 1973³², it is a public body controlled by the Ministry of Labour and directed by a tripartite board of directors. ANACT is an intermediate institution that is involved in activities such as the promotion of dissemination activities in which companies and advisor and researcher networks participate (Middleton & Totterdill, 1992; Garibaldo & Telljohann, 2000). One of the objectives of this agency is to help companies put into practice initiatives aimed at increasing efficiency and the improvement of working conditions. Since late 1980 the national strategy has been implemented through regional centres called ARACT (*Action Régionale pour l'Amélioration des Conditions de Travail*), forming a network that covers the whole of France (Totterdill et al., 2009; Gustavsen et al., 2001). Although at national level there is no general strategy to promote workplace innovation (Eeckelaert et al., 2012; Alasoini et al., 2017) the government and the public administrations have played a key role (Gustavsen et al., 1996; Totterdill, Dhondt & Milsome, 2002; Alasoini, 2002).

Sinnergia Social Innovation (2 people).

³¹ See, for example, Lundvall & Tomlinson (2001) and Schienstock (2012: 18) for a more in-depth analysis of intelligent benchmarking tools, and Borrás (2011) on organizational capacities in innovation policy formulation.

³² In France during the 1960s and 70s important initiatives emerged (Gallie, 2007) under the concept of participative practices (*"pratiques implication de la main d'oeuvre"* in French). The extended use of this expression has its origin in a law passed in 1982 (known in France as "*Loi Auroux*"), which establishes procedures to exchange information between employers and employees (Greenan & Mairesse, 1999). In June 2013, the French social partners signed a national agreement that urged the creation of spaces for debate and encouraged employees to express their opinion on work, the quality of the goods and services produced and job enrichment (L'ANI QVT, 2013).

The case of the United Kingdom differs from France and it can be argued that there has been a certain lack of interest in policies to promote workplace innovation, despite the existence of research units and networks such as the UK Work Organisation since 1980 (Ennals, Totterdill & Ford, 2004). In Scotland however, since 2016 the Scottish Enterprise economic development agency offers specialised services related to workplace innovation. This action is part of the Scottish government's "Fair Work Convention" strategy. Along these lines the Workplace Innovation Engagement Programme has carried out activities aimed at exchanging ideas between trade unions, employers' associations, companies and researchers (Totterdill, 2017; Exton & Totterdill, 2018).

2.6 Recapitulation

This chapter is dedicated to constructing the research objective. It describes the way in which the programmes for the promotion of workplace innovation are located, understood, contextualised and constructed through research.

Programmes are policy instruments with the capacity to generate knowledge and learning. The analysis of these programmes has its precedent in F. Naschold's model, which is based on a model of best practices that include six principles; policy context; orientation; participation; infrastructure, horizontal networking; and resources. This original model was revised T. Alasoini in a learning-oriented model that is used to analyse the weaknesses and strengths of the strategies adopted by the programmes.

The above, i.e. the analysis of the strategies used, is carried out within a specific context and through a specific object of research. This is how the programme promoted by the Provincial Government of Gipuzkoa is analysed through the lense of Alasoini's model.

This research activity takes place in the Basque Country. Gipuzkoa is a territory with a long tradition in the world of cooperativism and the social economy.

Active policies for the promotion of participated companies have a direct relationship with the social and economic development that has been implemented in the territory since the 1980s. Specifically, Gipuzkoa's programme is one that aims to promote workplace innovation from a triple perspective: the development of workers, organisations and the territory.

Lastly, the construction of this research must be necessarily found in the anchor points adopted by action research, as well as in the practical applications carried out through Gipuzkoa Workplace Innovation.

3. CONCLUSIVE APPROACH: THE RESULTS

This third chapter is conclusive in nature and is oriented towards the presentation of the findings and learnings produced within the framework of this research. This third chapter is also a conclusive summary of the results presented in the following three articles. These three articles form part of the body of this research and are presented in Section II.

- "Workplace Innovation Programmes: bridging research and policymaking" (Pomares, 2020).
- "Revising workers' participation in regional innovation systems: a study of workplace innovation programmes in the Basque Country" (Pomares, 2019)
- "Alternative Learning Frameworks: Workplace Innovation Programmes and Smart Specialisation Policies in the Basque Country" (Pomares, 2018).

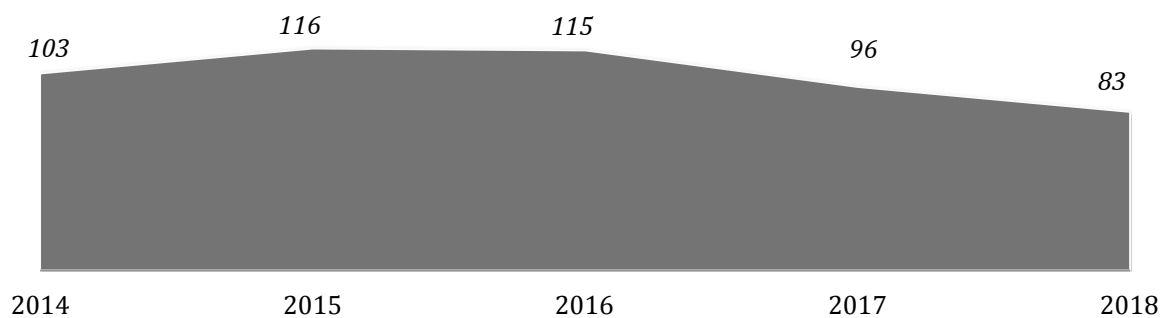
The conclusions presented here are the result of applying Alasoini's conceptual model (2009b; 2009a; 2016; Alasoini et al., 2005), which measures six components of workplace innovation programmes:

- Policy context (3.1)
- Learning-oriented (3.2)
- Participation (3.3)
- Infrastructure (3.4)
- Horizontal networking (3.5)
- Resources (3.6)

As I have already explained this model has been applied to the case of Gipuzkoa during the 2014-2019 period. Throughout this period annual calls have been published for the submittal of project and initiative proposals, which are

assessed based on a series of criteria for their eligibility to receive support and funding. A total of 513 projects by companies, strategic associations in the territory, business associations, R&D units and social agents have participated. Figure 5 shows³³ the distribution for each one of the calls published in succession.

Figure 6: Annual distribution of projects



Source: Author's compilation / Provincial Government of Gipuzkoa

Therefore, it is the analysis of this set of projects, which produces the results presented below.

3.1 About the programme's policy context

The analysis of the policy context of Gipuzkoa's programme focuses on the examination of three aspects: the territorial scope of the actions, the identification of

³³ The programme's measurement unit are the development projects. The proposed projects must be oriented towards the design and development of new forms of people-oriented organisational relationships, integration in social criteria decisions and processes, and territorial protagonism to involve education, social and economic agents.

the main actors participating in the programme, and the framework of the research and/or development-based activities.

The basic argument to analyse the policy context of the programmes stems from the necessary link required by the development strategies of the participating organisations with the fields of industrial policy and innovation (Naschold, 1993; Alasoini, 2016). The absence of an adequate link brings the risk of using the programmes as vehicles for the adoption of “corrective” or “structurally conservative” measures (Alasoini, 2009b; Naschold, 1994: 126).

Gipuzkoa as the *locus* of the programme:

Gipuzkoa's programme clearly has a specific territorial demarcation. The above establishes as an eligibility condition the submittal of proposals by agents located within the territory, excluding the participation of other organisations without a territorial affiliation or link. I.e. the programme is designed by and for the territory.

The territorial perspective has acquired relevance in the programmes, particularly in aspects related to the creation of coalitions or the development of spaces for interaction, research and learning (Fricke & Totterdill [Eds.], 2004; Gustavsen, 1993; 2006; 2007b; Gustavsen et al., 2001; Levin, 2002; Qvale, 2008). This issue about the demarcation of actions, unlike the logic of national programmes, is particularly interesting in the case of Gipuzkoa. The programme is designed and administrated by the Provincial Government of Gipuzkoa, a government body located at a meso level between the regional administration and the local context of the territory's companies.

Traditionally, the territorial perspective becomes relevant in national development contexts that require local points of implementation; however, in the case of the programme analysed, the above is translated into a strategy with a strictly territorial dimension. In this case the programme is part of a broader framework of socio-economic development. The programme, specifically, and the

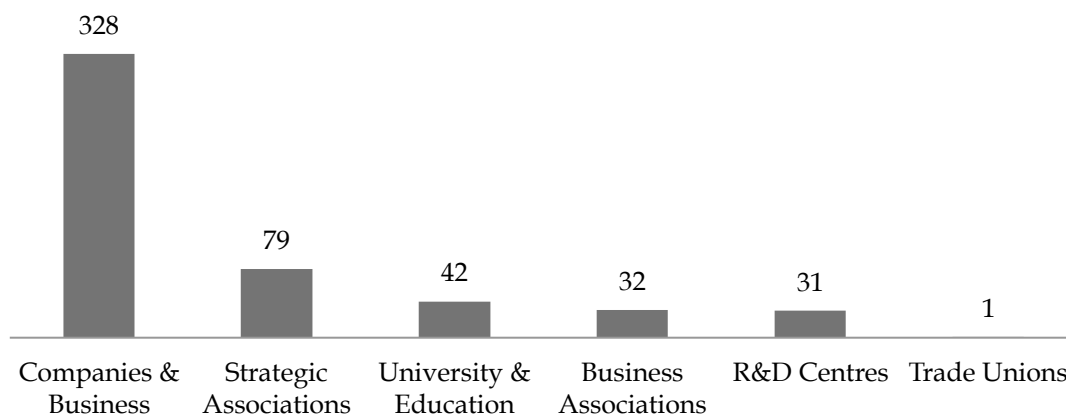
territorial participation strategy, in general, mean advancement in the policy formulation that involves an acceptance of workplace innovation in the long-term vision of Gipuzkoa's socio-economic development.

Predominance of projects by industrial actors:

The development and natural course of the programmes is conditioned to a large extent by the diversity, strategic abilities and leadership of the participating actors (Naschold, 1993).

Of the actions carried out during the 2014-2019 period, a predominance of projects started by industrial policy actors has been identified. These are followed by activities started by the remaining actors, such as strategic associations, agents from the university and educations spheres, business associations and research and development centres. Lastly, the participation of a single project developed y trade unions has been observed.

Figure 7: Main actors of the programme.

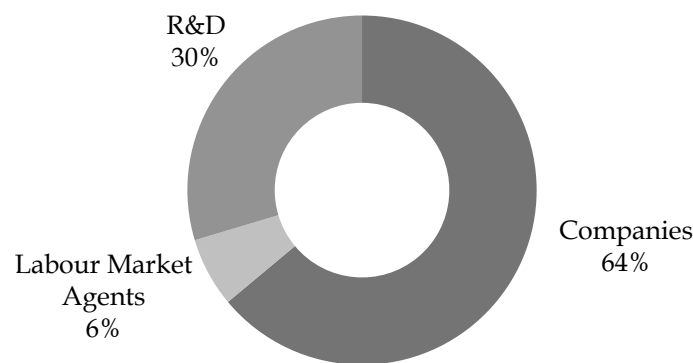


Source: Author's compilation / Provincial Government of Gipuzkoa

Given their nature to induce change and innovation at micro levels, programmes generally tend to be dominated by microeconomic and micro-policy logic (Naschold, 1994: 124-130), thus the importance of including the macro

perspective. This is why the inclusion of programmes with macro aspects of the industrial policy and the innovation policy is particularly determinant to reduce the gap between both levels (micro - macro). In the case of Gipuzkoa, a re-grouping of the projects developed throughout the period indicates the predominance of the industrial policy actors, followed by the research and development system, and with less intensity by the social agents.

Figure 8: Percentage of projects presented according to the actor system

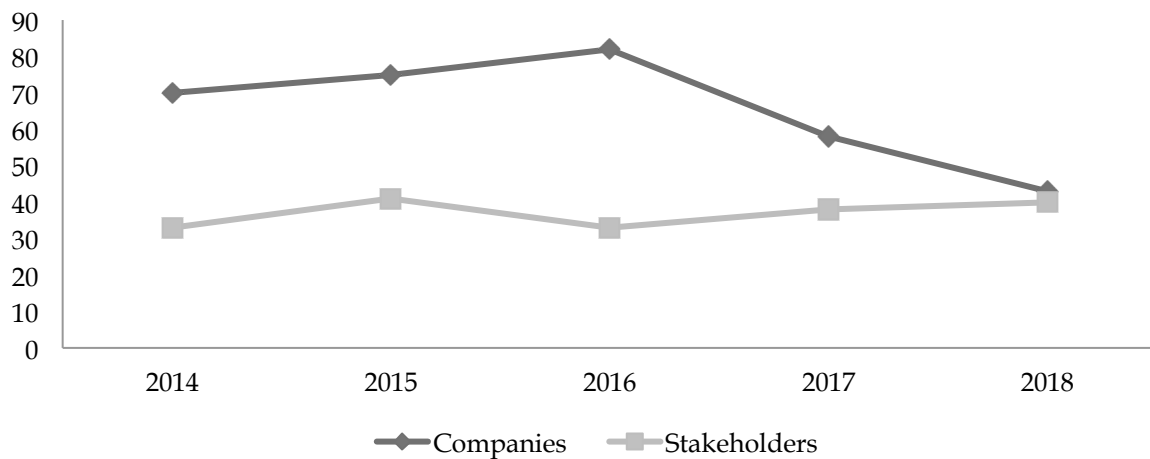


Source: Author's compilation / Provincial Government of Gipuzkoa

The low participation of social agents does not necessarily mean a weakening of the function or positioning of the labour market's organisations. Social partners play an important role, particularly concerning collective bargaining at a company level. However, given the low participation of actions with origins in trade unions, attention must be paid to the possible solutions that enable the orientation of the programmes towards regulatory development and move beyond the (traditional) bargaining logic of confrontation-based models, including labour market agents in cooperative models (Alasoini et al., 2008). This is particularly relevant as the presence and participation of social agents reinforces the social legitimacy of the actions included in the programme (Alasoini, 2016: 116).

The predominance of projects started by companies is reflected in graph 9, which shows the prevalence of these agents as the main object of the actions aimed at workplace innovation.

Figure 9: Classification of company and stakeholder projects



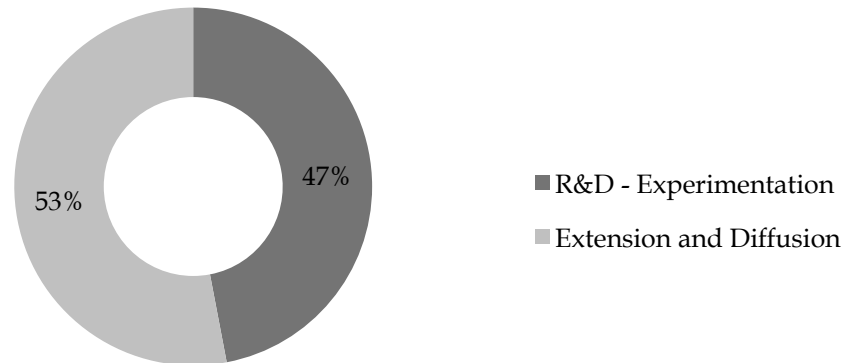
Source: Author's compilation / Provincial Government of Gipuzkoa

Complementarity and balance between types of projects:

Observing the types of operations, we can see a certain balance between the two types of activities contemplated in the programme's design; R&D projects and/or extension and dissemination projects.

Actions aimed at R&D seek to generate knowledge on participative processes (in terms of generalisation and transfer of the lessons learned), both internally (designed and developed in the organisation itself) and in collaboration with other entities (companies, territorial agents or R&D units). In turn, actions aimed at extension and dissemination seek the application and expansion of the tools already created or the lessons already learned.

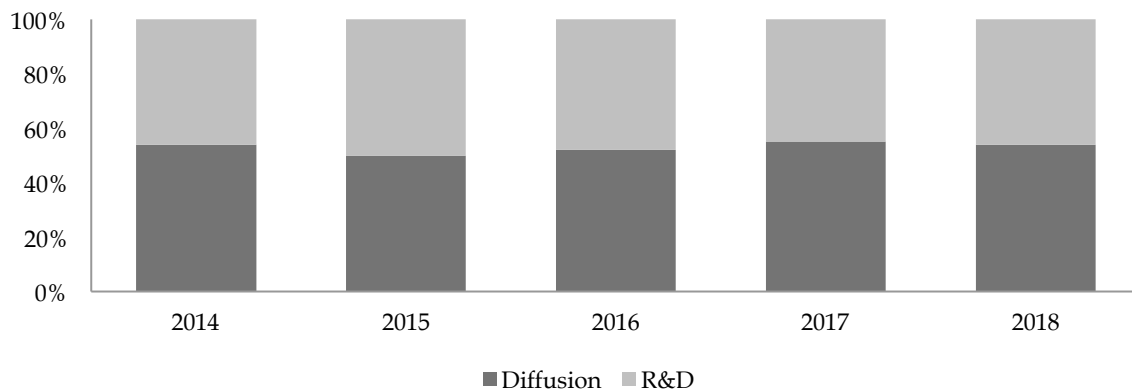
Figure 10 shows the slight prevalence of dissemination-oriented projects (extension and generalisation).

Figure 10: Relative weight of the types of projects

Source: Author's compilation / Provincial Government of Gipuzkoa

In general terms, with regard to the research and development activities that are part of Gipuzkoa's programme, it can be said that there is no approach in particular. The research-assisted approach is not an unconditional criterion. The programme, in turn, does determine a programmatic development as a condition. That is, the development of actions must be carried out from a shared framework, the framework's content must be jointly agreed upon with the main stakeholders and the exchange of information, interaction and cooperation of the participants is necessary (Alasoini 2002).

During the 2014-2019 period there was a certain balance in the different calls for projects in both those oriented towards research, development and experimentation and those aimed at extension and generalisation.

Figure 11: Evolution of activities by type

Source: Author's compilation / Provincial Government of Gipuzkoa

These actions cover projects started by the research units and/or the participation of teams external to the company. In Gipuzkoa, these R&D processes and the subsequent extension and generalisation largely take place locally, i.e. based on criteria determined by aspects such as proximity. In this context it is important to consider the role of certain actors, such as for example the participation of certain universities and research centres. An example of this are the Higher Polytechnic School of Mondragon University and the attached institutes (Institute of Cooperative Study - LANKI; Mondragon Innovation and Knowledge - MIK), the TECNUN School of Engineering (University of Navarre), the Orkestra Basque Institute of Competitiveness (Orkestra, University of Deusto), or Sinnergiak Social Innovation and the Institute of Cooperative Law and Social Economy (both linked to the University of the Basque Country and which act mainly in the field of research).

The above is particularly relevant in relation to the extension and generation of these models and tools and, in particular, due to the experience accumulated in the regulatory development of social economy companies. A specific example is the “Bateratzen” project which integrates the public administration, industry and all the territory’s universities with the aim of developing practical tools and knowledge to help organisations create shared projects. Other examples of this are

the development of business groups and associations; e.g. the cooperative development model of the Mondragon Cooperative Corporation, the “New Business Culture Model” of the Business Association of Gipuzkoa (Adegi, 2014) or the model developed by the Basque Group of Employee-Owned Companies (ASLE) through the creation of a framework for the development of participation models and the development of the organisation (GIPES).

In conclusion, based on this analysis it can be stated that the programme has a specific, delimited, and geographically-established territorial perspective that determines the condition of possibility for the participation of specific local actors. Added to this, the policy context of Gipuzkoa's programme is aligned with the industrial policy and the innovation policy. In view if the data analysed the activities show a balance between R&D-oriented actions and extension and generalisation projects.

3.2 On the learning orientation of the actions

Given the hybrid nature of the innovations the orientation analyses the way in which the programme seeks sources of learning. While all the programmes and projects or activities developed are configured locally, experiences and learnings generated in other contexts can be used as a source of inspiration.

The learning orientation of the programmes is analysed by identifying referential regulations or standards set by the programme in the one hand, and on the other through the verification of evidence that these standards are being complied with or monitored.

Combined perspective; regional and international:

With regard to the establishment of regulations or reference frameworks that

must guide the actions (Naschold, 1994; Alasoini, 2009a) in the case of Gipuzkoa's programme two basic orientations are combined: the regional and the international level.

The programme has strong local political and institutional backing. At the regional level the programme seeks cooperation between companies, research centres and strategic partnerships, for both the creation of new solutions and the extension and generalisation of the practices in companies. These actions are aimed at searching for solutions that respond to the territory's socio-economic challenges, specifically focusing on smart territorial strategies.

The territory has an extensive tradition in matters associated with fostering the social economy and cooperative work. There is a significant presence of employee-owned companies and worker cooperatives, as well as organisations that foster co-ownership and participation, and a growing number of trading companies with their own models of participation in management, results and/or ownership. In this sense Gipuzkoa has a regulatory implementation based on participative models that has been developed since the 1950s. These developments are *per se* a reference framework that determines the clear focus of the borders the programme is mainly oriented towards.

Along with the orientation towards Gipuzkoa's territorial limits, learning through the use of external or international sources is reflected in the programme's alignment with European policies and other spheres of EU Community interest, both general and specific, on the Knowledge Society. In the specific case of Gipuzkoa the programme establishes as an external reference framework the context of the EU. Many of these activities are deployed at a project level, and not so much as intrinsic activities of the programme itself. The strategy for the generation of knowledge in Gipuzkoa takes place through subsidising research studies and projects, exchanging experiences with internationally referential agents, and organising meetings, forums and debate committees.

Gipuzkoa's international positioning in the field of participation is supported by public-private collaboration. This includes the creation of space and forums for

learning about the policies, programmes and experiences carried out in Europe (Riegler, 2008; Alasoini, 2009b). An example of the importance of external influence the programme is oriented towards can be found the cooperation with the European Workplace Innovation Network (EUWIN). Since 2014 EUWIN has been organising regional workshops all over Europe, at which Gipuzkoa's programme has been presented and discussed alongside other European proposals. Parallel to the international activities carried out abroad, throughout the 2014-2019 period annual activities have been organised in the form of meetings, seminars, workshops, conferences and congresses, jointly with EUWIN and the department in charge of the programme.

Structured monitoring system:

During the 2016-2019 period the Participation Observatory was set up in collaboration with the University of Mondragon, with the aim of comparing the situation of participation in the territory's companies with the rest of Europe. Three aspects are analysed through this observatory³⁴; the effects of participation on companies' financial results, on people's well-being and on territorial development. Some projects that provide evidence and which are included in the programme are the activities³⁵ developed by research centres attached to the main universities such as Sinnergiak Social Innovation, Mondragon Innovation and Knowledge or the Basque Institute of Competitiveness – Orkestra.

Along with the observatory and the support of the research projects, the programme has a structured monitoring system for carrying out a follow-up of the actions. This process is organised in three consecutive stages throughout the lifecycle

³⁴ The study "Participación de las personas trabajadoras en Gipuzkoa" (*Worker participation in Gipuzkoa*) (Arregi et al., [Eds.], 2019) analyses, measures and evaluates the situation of participation in Gipuzkoa in comparison to Europe.

³⁵ Some examples of these projects are "Impulso" (Mondragon Innovation and Knowledge), "Innovación organizativa para la PYME de Gipuzkoa" (*Organisational innovation for SMEs in Gipuzkoa*) (Orkestra) and "Gipuzkoa Workplace Innovation" (Sinnergiak Social Innovation).

of the projects and is carried out on an annual basis. The stages that regulate the process are three: application, monitoring and closure. Each one of the stages has a specific procedure that the project managers must follow so that the team managing the programme (Department of Economic Promotion) can assess, respectively, the correct development of the agreed activities. This monitoring process is used as a mechanism to maximise the potential of the activities included in the programme and to guarantee their effective impact. Based on this, the programme envisions the incorporation of the projects to a planned socialisation process aimed at the Programme's technical and management staff, as well as making the learnings available to other companies in the territory.

In conclusion, as regards the programme's orientation, Gipuzkoa's case shows a combined strategy that takes both the local and the European perspective into account. Although the programme does not establish a specific framework, it has developed tools to monitor, based on evidence, the progress of the territory's companies.

3.3 On participation in the definition of objectives

The participative dimension of the programmes is studied taking into account 5 characteristics: the division between the design and/or process-oriented approaches; the capacity of jobs to influence the development objectives of the actions; the level of influence of workers on the projects to be implemented; the inclusion of gender equality; and the integration of the age perspective in working conditions, employment and professional development, among others.

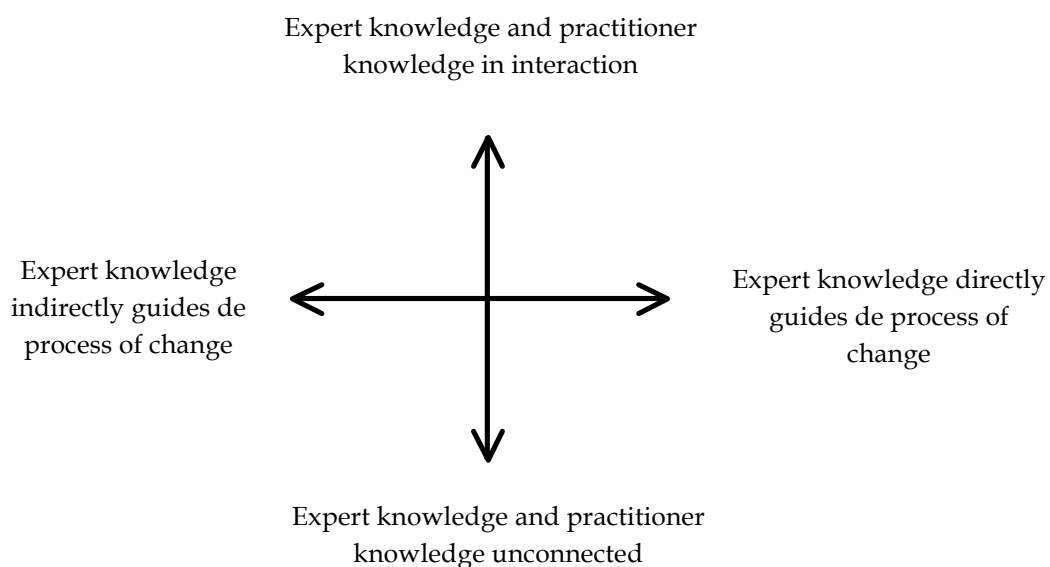
Open concept:

The importance of the dimension of participation has a direct relationship with the power structures and their influence on organisational processes of

change. Generally, programmes are distinguished according to the techniques, methods and resources that can be used by the actor systems involved. The programmes' instrumentation is provided, mainly, from two approaches (Naschold, 1994: 130-136): those that are design-oriented, where the function of the external experts consists of exploring existing or future characteristics contained in different theories or models; and process-oriented approaches, which act as support for participative processes of change founded on the base of previously identified theories or models (Alasoini et al., 2005a). According to Naschold (1994), the development strategies of programmes must include a simultaneous orientation towards design and the participative process.

Gipuzkoa's programme does not establish any criteria regarding the orientation of the actions. The programme is based on the assumption that each organisation must, from the legitimacy of all the involved parties, create local itineraries and models of participation.

Figure 12: Types of orientation



Source: Alasoini (2005).

Thus, the programme is not guided by a predefined concept but adopts a broad process-based. The programme can be found somewhere in the top section of figure 12, where the hybridisation of knowledge is accentuated but the process of change varies depending on the type of project.

Organisational commitment:

Regarding the prior identification of the scopes of action determined the programme promotes projects that are typically started by organisations where the stakeholders must show a commitment to and a legitimisation of the interests of all stakeholders. The programme explicitly identifies as criteria the alignment of the participating organisations' development objectives with the programme's general objectives; the declaration by the companies of the participative nature of the activities; and the legitimacy of the involved parties' interests.

Worker participation culture:

Continuing with this logic, the level of influence of workers on the content of the projects' activities can be considered to be high. As the programme requires each project to identify all the agents (internal and external) involved, it also requires the consent and explicit declaration of their participation in their development. A broad participation of companies or workers in the development operations acquires coherence as opposed to ready-made solutions that come from external actors such as experts or social partners (Naschold, 1993).

Inclusive design:

A relevant aspect of Gipuzkoa's programme has to do with the integration of the gender and age perspective. The gender perspective in the case of Gipuzkoa's programme is included as an objective of the activities to be carried out within the

programme. The above is an explicit criterion to assess the objectives of the actions and the projects included in the programme (Alasoini, 2009a; Alasoini et al., 2005).

Integration of the age perspective and lifelong learning:

Along with gender, the programme includes the age perspective from the point of view of generational changeover and that of the transmission of knowledge between generations. Lifelong learning-oriented policies are deeply ingrained in Gipuzkoa. Proof of this is the integration of this sphere as an element that cross-cuts through economic and social promotion policies since the late 1980s and which contains policies for the promotion of lifelong learning (IKASMINA).

In general it can be stated that Gipuzkoa's programme establishes a framework guided by a set of actions identified ex-ante and leaves to the criterion of each organisation the choice of the instruments to be used. The capacity of workplaces and workers to influence the choice of actions and objectives to achieve shows, along with the integration of the gender and age perspective, a programme with a dimension that is strongly participation-oriented.

3.4 On the development of the territorial infrastructure

The importance of complementing the developments at a micro level (companies) with external sources of knowledge shows how the programme is capable of producing new knowledge that strengthens and enriches the territory as a whole. The infrastructure is analysed in two respects; firstly, focusing on the way in which the programme includes training and education activities for researchers; and secondly, observing the diversity of expert knowledge used in the activities and projects included in the programme.

Cross-cutting support for researcher training:

Gipuzkoa's programme includes activities aimed at training researchers. However, the programme does not operate as a training programme per se. The training activities must be integrated as research and development projects (a clear example of this would be action research projects), or the extension and generalisation projects (e.g. training in traditional participative tools or models). Although with an indirect link to the programme, there is certain evidence of researcher training in subjects directly linked to the programme. The clearest examples are doctoral theses³⁶, academic articles³⁷ or presentations at scientific congresses linked to Gipuzkoa's participation strategy.

Public-private and multi-agent cooperation:

In programmes the term infrastructure is used to underscore everything that exists in terms of "structure" supporting and promoting the generative process that entails changes in organisations (Naschold, 1994).

Applied to the regional innovation system it can be considered as the institutional and organisational infrastructure that interacts and supports innovation within a region's productive structure (Asheim, 2011: 22-24). This can be understood as a social infrastructure that makes practical knowledge visible and enables the actors involved to obtain knowledge outside their own spheres of activity (Ekman & Ahlberg, 2011: 109)

In Gipuzkoa's case the importance of using different sources of knowledge in the programme is justified by its mission and objectives. Development programmes

³⁶ Examples of some theses published on participation in companies in Gipuzkoa can be found in the thesis by Mujika (2014) "La participación de las personas en la empresa como innovación social" ("*People's participation in companies as social innovation*").

³⁷ Some examples of the scientific output with the central focus of the participation programme are found within the framework of Gipuzkoa Workplace Innovation (Pomares et al., 2016; Pomares, 2018; 2019; 2020).

themselves are a means to bring together a variety of actors and knowledge bases in projects. The way in which the knowledge infrastructure can support a programme's strategies becomes a critical element (Naschold, 1993; Fricke, 1994; Alasoini, 2009b). This is particularly important in Gipuzkoa, where the programme acquires a territorial perspective oriented towards the development of intermediation structures.

It is important to consider that unlike other territorial development models, Gipuzkoa does not have governmental promotion agencies and that, in turn, it promotes public-private collaboration by means of projects shared with agents with a presence and activity in the region (Fricke, 1994; Riegler, 1998). Bodies with a capacity to disseminate, such as regional development agencies, chambers of commerce, sectoral associations and universities, actively participate in the programmes and activities (Totterdill, 2015).

Gipuzkoa has 11 Regional Development Agencies. The feature shared by these agencies is their proximity and closeness to the local context. In general, the mission of agencies is the promotion and socio-economic development of the regions and municipalities they belong to, in fields such as improving employability, fostering the creation of businesses, improving competitiveness or the promotion of projects that are strategic for the immediate environment. Regional development agencies are part of Gipuzkoa's institutional framework and participate in the territorial governance model³⁸. The participation of some of these agencies in the programme establishes an important reference, particularly from the perspective of capillarity in fields such as industrial policy.

On the other hand, Gipuzkoa has four public and private universities located in different parts of the territory. University institutes and research groups have traditionally carried out research in this field. A clear example is the Institute of Cooperative Law and Social Economy of the University of the Basque Country,

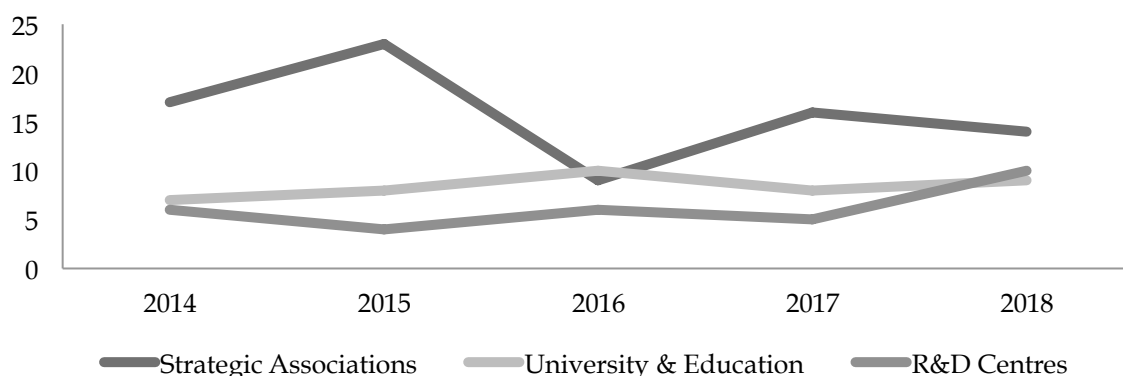
³⁸ In 2017 the Provincial Government of Gipuzkoa signed a collaboration agreement with the Regional Local Development Agencies that establishes the foundations for the development of a new governance model for the economic promotion of the territory.

created in 1986. Starting in the second half of the 2000s, new specialised foundations and research centres were created, such as Orkestra (University of Deusto), MIK (University of Mondragon) and Sinnergiak Social Innovation (University of the Basque Country). Along with these, activities carried out by technical training centres integrated within the Mondragon Cooperative Corporation were also identified.

In addition to the universities and specialised research centres, the Territory has a solid network of higher vocational training centres and technical training institutes that have close ties to small and medium-sized industrial companies, such as for example the Machine-Tool Institute.

Gipuzkoa also has an associative business structure. In addition to chambers of commerce and traditional business associations, the territory has social economy or cooperative groups. A prominent example is the Basque Group of Employee-Owned Companies, which actively participate in the development of projects at a territorial level. Similarly, there are projects with origins in confederations of cooperative companies. Lastly, business associations and sectoral associations, particularly in relation to machine-tool and information & communication technologies, make up the territorial ecosystem.

Figure 13: Participation of projects with origins in the infrastructure:



Source: Author's compilation / Provincial Government of Gipuzkoa

To illustrate this, figure 13 shows the constant presence of projects with origins in these agents throughout the different calls, offering an example of the continuity of the activities by strategic agents in research, education and regional development.

The importance of structuring learning in the public support process is a condition of possibility for development processes. Structural learning in society (Riegler, 1998: 60-61) requires the public support system to preferably include a wide variety of geographically and socially diverse actors in mutual cooperation. This requires the cooperation of public institutions and the coordination of public policies in fields such as workplaces, socio-economic development and innovation (Alasoini, 1999).

In conclusion, with regard to infrastructure it can be stated that although the programme does not contain a specific and concrete framework to train researchers, they have their place. Likewise, in terms of the diversity of expert knowledge and its distribution and expansion throughout the territory, it is balanced.

3.5 On horizontal networking

The idea of networking between the organisations participating in the programme refers to the inclusion of activities oriented towards generating cooperation between different workplaces. This dimension is analysed taking into account the type of companies participating; the intensity with which the programme supports activities between projects (learning networks, shared projects, clusters, focus groups); and the way in which the programme promotes cooperation by means of other complementary activities (such as seminars, conferences and workshops, among others).

Small companies from the industrial and service sectors:

The priority group to act on according to Gipuzkoa's strategy is made up of small and medium-sized companies with between 10 and 250 employees. Although the actions are open to all sectors, in strategic terms they focus on activity sectors such as industry and energy; information and communications; professional activities; public administration, education and healthcare; and other service activities. This field identifies some 2400 companies and 85,000 workers approximately, which represent 5% of companies and 36% of employment (Provincial Government of Gipuzkoa, 2016).

Lack of a networking strategy:

Gipuzkoa's programme lacks a clear strategy on networking at a programme level. Although the conditions for projects to incorporate these activities are determined, it does not provide a mechanism of its own that connects the participating projects in a network. However, it should be specified that some of the extension and generalisation projects included in the programme, unlike activities based on research and development, integrate the vocation of disseminating and expanding the knowledge produced as a central activity.

Limitation of the support activities:

With regard to the organisation of seminars, conferences, workshops and congresses that support the connection of projects, the programme does not include any specific action of its own. They are generally specific projects with origins in research centres, business associations or strategic agencies such as the regional development agencies, which organise these types of activities. Despite the programme's limitations in this respect, we should mention some specific activities organised by the Provincial Government of Gipuzkoa within the framework of

Etorkizuna Eraikiz³⁹ or at the level of the Department of Economic Promotion at a local⁴⁰ and international⁴¹ level.

In general it can be stated that the programme is aimed at small and medium-sized companies with between 20 and 250 employees, and which, without excluding sectors activities, has a preference for industrial and service activities. Although the programme has mechanisms to encourage the creation of shared networks or projects, the possibility of there being a horizontal integration falls exclusively to the projects and the activities included within the same. This implies a limitation of the capacity of dissemination of knowledge and the capacity for learning envisioned by the programme. The absence of integrated mechanisms in the form of spaces of forums is something to be explored. A substantial improvement should include the establishment of a support structure led by the programme managers which enables the generation of radically new learning, enabling the dissemination of the lessons learned more efficiently inside and outside the programme.

3.6 On the objectives and the resources.

The programmes are made up of different types of *material* resources (financial, support from specialised staff, duration of the development activities), *intellectual* resources (the programme's vision, guiding principles and development concepts) and *social* resources (capacity to take advantage of the different networks

³⁹ In 2019 an event for the presentation of the Participation Observatory was organised.

⁴⁰ In 2014 the session organised by the Basque Government "Business Models based on people's participation" was organised; in 2015 the Provincial Government of Gipuzkoa organised, along with trade unions and business associations, the session "Jointly developing participation in Gipuzkoa"; the same year the congress "Gipuzkoa Workplace Innovation" was held; in 2019 it participated in the Summer Course (Beyond4.0 - H2020).

⁴¹ In 2016 the Department of Economic Promotion participated in a two-day session along with other political and technical managers from European regions and countries, and which is documented in "A resource for policymakers" (Totterdill & Exton, 2016).

and use the dissemination mechanisms more efficiently) (Alasoini et al., 2005a; Alasoini, 2009b). In this case the resources include material aspects such as the financial resources provided, administrative and temporary resources.

Total and partial funding of the activities:

According to the criteria established within the programme, the projects can count on funding and aid resources of up to 100% of costs in R&D and experimentation projects, and up to 75% of costs in extension and generalisation projects.

Likewise, the programme contemplates the possibility of covering the costs of internal and external staff with links to the project's development. Subsidise costs must cover the activities included in the project's development. In total, during the 2014-2019 period, the programme paid out €16 million.

Table 16: Financial endowment of the Programme

Year	Budget (in millions of euros)
2014	3.3 m.
2015	3.2 m.
2016	3.4 m.
2017	3.4 m.
2018	3.0 m.
Total	16.3 m

Source: Author's compilation / Provincial Government of Gipuzkoa

Limitation of staff resources to administrative support:

Gipuzkoa's programme is organised by a Commission formed by staff from the Department of Economic Promotion in charge of analysing and assessing the applications. A priori, the supervisory body is entirely comprised of the political and

technical staff that forms the commission responsible for the programme. This means an absence of other agents in the programme's governance.

The programme's governance, the monitoring and development of which falls to the Department itself, could incorporate more participative models that favour cooperation and exchanges of ideas in a more interactive manner (Levin & Lovland, 2002). The above would facilitate the provision of an integrated support structure while at the same time favouring a greater installed capacity.

Reduced timeframe:

The importance of the financial and administrative resources is relatively easy to associate with the objectives pursued by a programme; however, the lapse of time of a programme is a critical element in development operations, which sometimes turns out to be complex. In the opinion of Naschold (1993, 68), "innovative developments require a minimum project duration of 2.5 years". Riegler (1998: 61) argues that short-duration programmes tend to be implemented more as "adjustment programmes" than as programmes that can establish the conditions of possibility for the emergence and construction of new organisation principles.

The time established for the development of projects in the case of Gipuzkoa is of one-year duration. The programme mainly functions by means of annual public calls. This procedure is determined by the cycle of public budgets that provide the amounts allocated for programmes. The above does not prevent the duration of projects from exceeding periods longer than one year, or their organisation into successive consecutive phases. However, the submittal of annual applications can lead to excessive bureaucracy and administrative overload.

In short, it can be stated that Gipuzkoa's programme provides projects with financial resources, that it has a reduced number of staff and that the duration of the activities and projects are annual in nature, in line with the budgetary dynamics of the public sector.

3.7 Strengths and Weaknesses of the Programme

In conclusion, based on the analysis of Gipuzkoa's programme, in light of the dimensions of the policy context, the orientation, the participation, the infrastructure, the horizontal networking and the resources, we can identify specific strengths and weaknesses. Table 17 provides an overview of each one of these points.

Table 17: Strengths and weaknesses identified

	Strengths	Weaknesses
<i>Policy context</i>	<ul style="list-style-type: none"> - Gipuzkoa as the locus of the programme - Predominance of projects by industrial actors - Complementarity and balance between types of projects 	
<i>Orientation</i>	<ul style="list-style-type: none"> - Combined perspective; regional and international 	<ul style="list-style-type: none"> - Structured monitoring system
<i>Participation</i>	<ul style="list-style-type: none"> - Open concept - Organisational commitment - Worker participation culture - Inclusive design - Integration of the age perspective 	
<i>Infrastructure</i>	<ul style="list-style-type: none"> - Public-private and multi-agent cooperation 	<ul style="list-style-type: none"> - Cross-cutting support for researcher training
<i>Horizontal networking</i>	<ul style="list-style-type: none"> - Small companies from the industrial and service sectors 	<ul style="list-style-type: none"> - Lack of a networking strategy - Limitation of the support activities.
<i>Resources</i>	<ul style="list-style-type: none"> - Total and partial funding of the activities 	<ul style="list-style-type: none"> - Limitation of staff resources to administrative support - Reduced timeframe

Source: Author's compilation.

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SECTION II

4. COMPENDIUM OF CONTRIBUTIONS

The empirical part of this study is comprised of three articles. This point summarises the lessons learned during the research process and which I have collected in three academic articles, of which I am the sole author. Each one of the publications included has been presented at international conferences where I have participated as a researcher.

The first one ("Workplace Innovation Programmes: bridging research and policymaking") will be presented at the "International Journal of Action Research Symposium" to be held in October 2020 in Donostia-San Sebastian organized by Orkestra and the International Journal of Action Research.

The second ("Revising workers participation in regional innovation systems: a study of workplace innovation programmes in the Basque Country") was presented in September 2019 at the Congress "The Future of Work" held in Neuchatel, Switzerland, and organized by the Swiss Sociological Association.

The third ("Alternative Learning Frameworks: Workplace Innovation Programmes and Smart Specialisation Policies in the Basque Country") was presented in Norway, in autumn 2018, at the conference "Coping with the Future: business, work and science in the age of digitalisation and sustainability" organised by Adger University.

4.1 Publication 1

The article presents programs as an object of research and reviews the theoretical framework by describing Alasoini's model. The article analyses the main characteristics of programmes and is used as a foundation for the analysis of local experiences such as that carried out in Gipuzkoa. The article aims to share lessons about the way in which action research facilitates the learning of policies by means of programmes.

The study is based on an analysis of the bibliography (reports, programme assessment studies, policy documents and official bulletins) and data collected throughout the years 2017-2019 using participant observation techniques and structured and non-structured interviews.

This contribution contributes to the volume titled "Bridging between Action Research Communities: a Pathway to Connectivity" which contains action research studies in the spheres of public policies, social research and territorial development.

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Workplace Innovation Programmes: bridging research and policymaking

*Egoitz Pomares*¹

Abstract

The article reviews the concept of Workplace Innovation Programmes as public policy tools supported by research. Pursuing a socio-political perspective the text explores programme-level issues. To do this, conceptual definitions are reviewed and the programme's main features, discussed using an analytical model designed by previous researchers. In this sense, programmes underpinned by research as a tool for public policies are presented as mechanisms to link different levels and actors in matters related to productivity and the quality of working life. The article reviews different approaches and strategies for policymaking, aiming at better understand how programmes operate. For this purpose previous European experiences are used. The rationale of this article must be found in a explorative and learning-oriented context to better design and implement programme-based public policies and the use of action-research for policy learning. This is of particular interest in the local context of Gipuzkoa (Basque Country, Spain) where this kind of approach has become of relevance in the policymaking.

Key words: programmes; working life reform; policy learning; actionable knowledge.

Programas de innovación en contextos de trabajo: vinculando la investigación y la formulación de políticas públicas

Resumen

El artículo examina el concepto de los programas de innovación en los contextos de trabajo como instrumentos de política pública asistidos por la investigación. Desde una perspectiva sociopolítica el texto explora cuestiones relacionadas con el diseño e implementación de los mismos. Para ello se revisan las definiciones conceptuales y se analizan las principales características de los programas empleando un modelo analítico diseñado por la investigación acción. En este sentido, los programas sustentados en la investigación como herramienta de políticas públicas se presentan como mecanismos para vincular diferentes niveles y actores en temas relacionados con la productividad y la calidad de la vida laboral. En el artículo se examinan diferentes enfoques y estrategias para la formulación de

¹ The author is grateful to the two IJAR reviewers for their comments, as well as to Frank Pot and Richard Ennals for their support on an earlier draft of this article.

políticas, con el fin de comprender mejor el funcionamiento de los programas. Para ello el artículo se apoya en determinadas experiencias europeas. Po todo ello, la fundamentación de este artículo debe encontrarse en un contexto exploratorio y orientado al aprendizaje en diseño de políticas públicas y el uso de la investigación-acción para el aprendizaje político. Lo anterior resulta de particular interés en el contexto local de Gipuzkoa (País Vasco, España), donde este tipo de enfoques ha adquirido relevancia en la formulación de políticas públicas.

Palabras clave: programas; reforma de la vida laboral; aprendizaje político; conocimiento práctico.

1. Background

“A good programme is a programme that phases itself fruitfully into ongoing processes, helps improve on them for a period of time, and then waves farewell to processes that continue to gain in momentum, speed, and quality”
Gustavsen, Finne & Oscarsson, 2001, p. 9.

In Europe, in the late 1980s and early 1990s, a series of international seminars and conferences were organised around initiatives and activities focused on working life reform known as programmes. In this context back in 1989, an international conference on action research in relation to new ways of organising work was held in Sweden. In 1991, with the collaboration of institutions and universities from the Netherlands, the action research network itself promoted a second conference with the aim of developing new ideas. Under the title “Action Research and the Future of Work” the meeting was used to discuss matters related to the future of work, the development of new methodologies of action research associated with work and industrial relations, the exchange of trans-national experiences, the strengthening of a collaboration network, and the development of international research programmes. The organisation and contents presented and discussed contain many of the proposals and progress made by researchers, with a strong emphasis on aspects linked to organisational changes. The third conference was held in 1993, in Finland, under the title “Active Society with Action Research” and was hosted by the Ministry of Labour and the Finnish Labour Relations Association. The content of this conference was used for the presentation of several assessment reports and other studies on the experiences of implemented programmes and their links to action research. In general, the idea of addressing development programmes was the main focus. The materials are included in the book “National Action Research Programmes in the 1990’s” edited by Kaupinnen & Lahtonen (1994). Recently, after 25 years, these matters related to the future of work and action research have been re-launched in Norway. In 2018, “Coping with the Future: Business, Work and Science in the Age of Digitalisation and Sustainability” was organised with the aim of bringing together separate discourses that concern the future of work (Johnsen, 2018). The materials are accessible in the “International Journal of Action Research” (2018, Vol. 14-2/3) and the “European Journal of Workplace Innovation” (2018, Vol. 4-1). This will be followed by a symposium held in 2020 in the Basque Country (Spain), focused on the support provided by action research for the design and preparation of public policies and organised by Orkestra, the Basque Institute of Competitiveness.

In one way or another, the conferences and meetings mentioned show, in addition to the fact that there is an action research network, the need to identify bridges between research and social challenges for the design and implementation of public policies. From a European perspective as indicated by Pot, Totterdill and Dhondt (2017) this issues gained a recognition with the Commission's Green Paper "Partnership for a new organisation of work" and the policy document "Modernising the organisation of work – a positive approach to change" (See Ennals, 1998). Another good example of networking can be found in the European Workplace Innovation Network (EUWIN), created under request of the European Commission (2013-2017), to exchange good practices and stablish alliances of employers, trade unions, governments, knowledge agents and research organisations. As pointed by Dhondt, Totterdill and Van Hootgem (2019, p. 37) "the European Commission wanted to spread the idea that innovation in companies not only was the result of R&D investments but needed to be supported by the work practices in companies too!". Nowadays EUWIN remains functioning as a loosely coupled network to support any action at the EU-level on the topic.

2. Context

Many of the efforts made in favour of adopting new forms of work organisation have been expressed in the shape of activities organised jointly by public institutions, actors from the labour market and research. From among the different experiences developed during the last half century, we can identify some where action research has played a role. I am referring, specifically, to initiatives that have been described on several occasions (Gustavsen, Hansson & Qvale, 2008). First it was the LOM (Leadership, Organisation and Management) programme in Sweden (1985-90) organised by the Work Environment Fund in co-operation with agents from the labour market (Gustavsen, 1992; Naschold et al., 1993). This programme offered financial support to many interventions in companies and organisations by providing tax reinvestment schemes in jobs at national level (Gustavsen et al., 1996). Then came the Enterprise Development 2000 programme (1994–2000) organised by the Norwegian Work Research Institute, a programme with a regional focus and deployment that was supported by the labour market parties (employers and trade unions), involving both researchers and other development actors (Gustavsen et al., 1998; Levin [Ed.], 2002). Value Creation 2010 is a third example, a programme developed between 2001-2007 also in Norway (Gustavsen, 2001, 2008). These Nordic experiences are proof of the interest in creating development coalitions (Ennals & Gustavsen, 1999) through action research (Gustavsen, 2007b, 2011; Pålshaugen, 2014; Greenwood [Ed.], 1999). To these three references, with widespread recognition in the action research community due to their use of research methodology, I should add the Humanization of Work/Work and Technology programme and the Finnish National Workplace Development Programme. Both experiences were respectively launched by governments of Germany (Fricke, 1997, 2000, 2011) and Finland (Alasoini, 1997, 2004, 2014, 2015). It should be mentioned that all the programmes indicated have been developed based on national agreements, and that these actions have been integrated into broad institutional frameworks.

The choice of the above-mentioned programmes is justified by the logic of extracting local experiences, which in generic terms can help to understand the programmes as a bridge to reform working life in Europe. In countries such as Norway and Sweden, experiments related to industrial democracy or the redesign of job positions date back to 1960. In other countries such as Finland, the Government's role and the centralised nature of the innovation and development policies has been a feature since 1990. Although most of these experiences are circumscribed to what has been called the Scandinavian model, the lessons from this experience favour a continuity or line of development from which it is possible to draw and adopt conclusions. This is why the approach used in this article seeks to support itself with cases that make it possible to explain and understand the progress of these programmes over the course of 50 years. This in turn entails an analysis of the European approach to work organisation (Ennals & Gustavsen, 1999) and Programme Theory (Alasoini, 2016).

3. The emergence and evolution of the Programmes

Despite certain common trends, the evolution and development of working life in Europe has been different as regards approaches, designs and institutional arrangements (Gustavsen et al., 2001; Alasoini, 2009b, 2016; Naschold, 1993). In recent history, the interest shown by governments and the actors of the labour market in the search for new forms of work organisation have varied depending on the period and country in question.

The first *experiments* by K. Lewin focused on the replacement of Taylorism with autonomous forms of work organisation. Using field experiments as a starting point, a series of activities emerged in European industrialised countries in the form of programmes. This emergence must be understood within the context of the debate on industrial democracy that arose around 1960 as a result of the problems associated with the crisis of Taylorism, Fordism and the mass production model. These activities have been developed under concepts that include the humanisation of work, industrial democracy, developmental work, leadership, organisation and co-determination, value creation and organisational development. Since then and up until today, certain European countries, led by the Nordic countries and Germany, have implemented programmes to develop work organisation and promote workplace innovation. From among the studies carried out (Naschold, 1993, 1994; Business Decisions Limited, 2000; Gustavsen et al., 2001; Brödner & Latniak, 2003; Alasoini, 2009; Alasoini et al., 2005; Totterdill et al., 2009; Eeckelaert et al., 2012), it can be concluded that the number of initiatives of this type continues to be limited (Alasoini, Ramstad & Totterdill, 2017). With similar effects, the European community policy (Kesselring, Blasy & Scoppetta, 2014) in this field has been described as fragmented (Ennals & Gustavsen, 1999; Ennals, 2002; Pot, Totterdill & Dhondt, 2016; Totterdill et al., 2009).

Public intervention, whether it is at European, national or local level, resembles a kaleidoscope (Van Beinum, 1993). An example of this can be found in the variety of ways that the programmes are launched and financed (Pot, 2011). In certain cases such as in Sweden, Finland, Germany, France and Scotland the government or governmental agencies have played a key role. In other cases, in countries such as Norway, Denmark, Ireland and

the Netherlands, programme governance has been carried out by the labour market actors. In cases such as Emilia-Romagna (Italy), North Rhine-Westphalia (Germany) and the Basque Country (Spain) it is the regional actors and institutions who promote or have promoted the programmes.

During their long history, learning from the programmes has been a subject of interest and analysis. Specifically, in aspects linked to the capacity for diffusion of new forms of work organisation and the social legitimacy of such interventions (Naschold et al., 1993; Oehlke, 2001; Levin, 2002; Pålshaugen, 2009, 2014; Gustavsen, 2008; Riegler, 2008; Arnkil, 2008; Zettel, 2010; Alasoini, 2016). While the problems of diffusion refer to the difficulty of using the knowledge gained from individual projects in a larger number of organisations and interest groups, social legitimacy refers to the ability of the programmes to generate positive effects that transcend them and the justification in terms of public intervention (Alasoini, 2018). For certain sensitivities, work organisation is a private matter between a company and its employees. In order for programmes financed with public resources to maintain their legitimacy, it is necessary that the effects generated in working life are inclusive and based on learning that is sustainable in the long term (Alasoini, 1999, pp.4-5; 2016, p. 52).

It is precisely the relationship between public action, on the one hand, and the development processes in working life on the other, which are the starting point to consider the programmes as bridges. This article aims to explore these matters in more depth, with a particular focus on learning process and the learning subjects of the programmes. However, due to the institutional differences between the countries and regions that implement these policies, learning between programmes remains as a complex task (Riegler, 2008; Pålshaugen, 2009; Alasoini, 2009). This article pursues a socio-political perspective and focuses on programme-level aspects. By reviewing analytical models² generated by previous action-research, my motivation and interest looks towards the description and analysis of the activities and policies used to promote participation in the shape of programmes.

This is of particular importance for Gipuzkoa, a province of the Basque Country (Spain), where policies in favour of workers' participation have a particular root. Being the cradle of co-operativism, the territory of Gipuzkoa has implemented programmes for the promotion of workers participation (Pomares, Luna & Unceta, 2016; Pomares, 2018; 2019). Designed as policy instruments for the implementation and development of organisational human-centred models, workplace innovation programmes are framed within a broader context such as innovation. An example of how action research can facilitate a better design and implementation of programmes can be found in Gipuzkoa Workplace Innovation; a 5 year action research project, which addressing programme level issues. Through the 2014-2019 action research has been conducted in collaboration with the European Workplace Innovation Network (EUWIN), which provides a scene to learn from other EU level programme experiences. Additionally, action research also has its path in the Territory of

2 These models have been developed and disseminated in the action research community at the conferences mentioned above (Kauppinen & Lahtonen, 1994), in assessment reports (Naschold, 1993; 1994), in research and co-operation projects (Alasoini et al., 2005; Zettel, 2010) and in other publications and articles (Alasoini, 2009b; 2016).

Gipuzkoa; Fagor's experience, edited by Greenwood and Santos (1992), and other more recent projects, such as Gipuzkoa Sarean (Karlsen & Larrea, 2014, 2016), account for this.

4. The conceptualisation of the Programmes

“Programmes operate at a different level than stand-alone workplace development projects do”
Alasoini, 2016, p. 40.

The actions aimed at reforming working life can be launched from different angles that range from business initiatives that include the process of change and development, to other more broader ones that take the shape of programmes. As mentioned at the start of this article, in some countries, the *public* takes the shape of an agent of change in working life (Gustavsen et al., 1996). In Europe, the need to establish policies and mechanisms focused on growth and progress has determined the interest of policymakers in adopting formulas in favour of working life quality and the improvement of productivity (Pot et al., 2016). However, the political response throughout Europe has been unequal (Oeij, Rus & Pot, 2017 [Eds.]; Pot et al., 2017).

Given that the programmes reflect the contemporary changes that take place in the social and economic dimensions (Fricke, 2003) and depend on the context they operate in, they can take a variety of forms (Gustavsen, 2008, p. 16). As regards innovation policies, public action can be carried out by using a diverse range of political instruments (Borrás & Edquist, 2013). Relationships based on regulation typically consist of a group of legal links between a company and an agency or public institution.

In relation to work organisation, at the more general level, we can refer to hard and soft forms of regulation. While the first concept refers to legislation and other binding regulations such as collective agreements or other more or less binding regulations applied broadly, soft regulation indicates a persuasive and non-binding political intervention. Both types, hard and soft regulation, can be divided into direct and indirect forms of intervention (Alasoini, 2011, 2016; Alasoini, Ramstad & Totterdill, 2017).

“A soft approach can be a useful policy option, especially in situations where the objects for change (companies) are heterogeneous; processes leading to desired changes (workplace innovations) can take different shapes and means used in the promotion of changes (the introduction of new organizational and management practices) are of a sensitive nature” (Alasoini, 2011, p. 29)

Soft instruments are distinguished from the others due to their voluntary and non-coercive nature, where public and private stakeholders establish forms of cooperation that are not strongly hierarchical and where there is a mutual exchange of information (Borrás & Edquist, 2013). Many of the alternative experiences to traditional regulations have emerged from the programmes (Ennals & Gustavsen, 1999, p. 71). It can therefore be stated that programmes are a form of regulation widely used to facilitate workplace innovation that range from general frameworks of policies and recommendations, or the provision of training and information frameworks on good practices, to more direct forms such as the provision of advice and consultancy services, comparative evaluation tools, financing lines, sub-

sidies or tax incentives for companies and organisations (Alasoini, 2008; 2009; Alasoini et al., 2005).

Programmes, unlike projects, are more complex in nature and have a larger scope and timescale (Naschold, 1994). In general, programmes have been understood as temporary organisations (Turner & Müller, 2003), temporary systems (Miles, 1964; Packendorff, 1995) and as fixed-term institutionalised activities (Alasoini, 2008). In the literature of management and change, programmes are understood as mechanisms that simultaneously manage, based on a series of pre-planned activities, a series of action-oriented projects (Ferns, 1991, Gray, 1997; Pellegrini, 2002). Conceptualised as a phenomenon of a nature qualitatively different to projects, programmes have been understood as vehicles for strategic implementation and organisational renewal (Pellegrini, 1997); in a traditional sense, programmes have been characterised as support tools for the management of a portfolio of interrelated projects focused on achieving goals that are unachievable via the management of individual projects (Reiss, 1996; Pellegrini, 1997).

However, although the above definitions and approaches may provide a generic conceptualisation of the term, in the case of programmes created for dealing with complex objects such as the reform of working life, programmes as a public policy tool have further particular features. While some programmes operate as simple administrative or financial umbrellas, or as tools for financing projects (Alasoini, 2008, p. 67) others establish a common foundation in the creation of a framework shared by the actors involved (Gustavsen, 1994, p. 15). In coherence with the above, based on the idea that a programme consists of a group of related activities and projects that includes a variety of stakeholders (Brulin & Svensson, 2012), Alasoini (2008; 2016) establishes the existence of three characteristic aspects:

- A shared framework that applies to several organisations simultaneously guides the development.
- The management and the staff of the participating organisations, and other major stakeholder groups such as policymakers, social partners, researchers, consultants and other external experts to the organisation in question agree on the content of the framework.
- The involved organisations engage in an exchange of information, interaction and co-operation.

According to Gustavsen (2008, p. 16) “a programme aims at making enterprise level actors initiate changes and offers support to processes that emerge if the local parties decide to make real the intention of the programme. Beyond this, programmes can be of many forms”. With these basic aspects, the programmes can acquire different forms and strategies depending on criteria such as the size of the target group, the nature of the participation, the level of expert knowledge and the role of research, among others (Alasoini, 2005; Gustavsen, 2008). Public programmes designed to promote organisational change and innovation are generally run with the management and staff actively working alongside a group of researchers. A feature that is central to the approach of these policies is that they complement other policy frameworks (Lorenz, 2013) such as those related to employment, maintaining working skills, lifelong learning and working life quality (Alasoini, 1999, pp. 2-3).

5. Objectives of the Programmes: strategies for bridging micro and macro levels

Developing a policy aimed at promoting innovation in work organisation starts off with particular aspects such as the objectives it pursues, the implementation methods and the publicity of the results (Alasoini, 1999, p. 4-5). The main objective of a policy for workplace development must be found in the simultaneous improvement of productivity levels and the legitimate interests of the actors involved. As regards the implementation methods, the actors involved have, at least in principle, the chance to participate in the planning and implementation of activities to be developed within the programme. And lastly, the publicity of the results derived from the adoption of new forms of organisation received with public support require publicity.

Each programme has a defined role and function (Alasoini, 2008). Programmes based on public action respond to different motivations and objectives, and their analysis can be carried out in light of 4 dimensions (Alasoini, 2004): the objectives of the public policy, the objectives of the programme, the generative results and the results at the workplace level. Firstly, the public policy objectives describe the types of social phenomena that an intervention in the form of a programme must have an impact on. In general, the objectives at this level are defined in the mission declaration of a programme. Secondly, the goals at programme level are described as the activities promoted, by means of the available resources, in order to achieve the targets indicated in the objectives of the public policy. Thirdly, the objectives and generative results refer to the ways in which the results and the experiences obtained in individual projects benefit other workplaces, stakeholders or the general public. The objective focuses on the dissemination of new forms, practices and methods of work organisation that leads to new ideas or applications in the contexts where it is applied. Finally, programmes also have objectives at the workplace level that include objectives related to immediate improvements in the activities directed by the project and their sustainability. The objective at job level is to facilitate the adoption of sustainable production models through the action.

As has been stated, another feature of the programmes is related to the type of objectives that they pursue: the production of workplace innovations (WPI). As suggested by Pot, Totterdill & Dhondt (2016, p. 15), the term “describes the participatory and inclusive nature of innovations that embed workplace practices grounded in continuing reflection, learning and improvements in the way in which organisations manage their employees, organise work and deploy technologies”. Referring to a wider context Totterdill & Fricke (2004, p. 3) stress that:

“Critically, workplace innovation should be seen as the product of a complex process of learning grounded in, for example, vertical and horizontal interaction within firms, networking between firms (industry associations, supply chain relationships, etc.), public policy, vocational training, industrial relations, the financial system, and so on”

In terms of the programme, the objectives have a twofold dimension. Naschold and Alasoini stress this aspect. For example, Naschold (1994, p. 121) suggests that the main objective of the programmes “is not only to bring about improvements at the micro level, but also to induce spin-off and linkage effects leading to improvements in social welfare and productivity at macro-level”. Similarly, Alasoini argues that,

“Programmes do not basically aim (only) at micro-level (company- or organization-level) changes. Clearly distinguishable positive externalities, which appear at best as cumulative innovations, can be considered minimum targets of any programme. Cumulative innovations can in turn lead to changes among a larger number of work organizations or, at most, to macro-level changes” (Alasoini, 2016, p. 34).

According to both authors, establishing objectives for programmes covers two main dimensions: productivity/well-being and micro/macro levels. According to Alasoini, the conditions that make the above possible result from the conjunction of two criteria or strategies. Firstly, the programme strategies must include elements that help to simultaneously improve productivity and the quality of working life at both micro (at the company or organisation level) and macro (public policy sphere where it is implemented) levels. Secondly, these strategies must include elements that facilitate building bridges between the micro and macro levels (Alasoini, 2016, p. 99).

6. Evolution in the design of the Programmes

The design of the programmes has varied during recent decades. Gustavsen (2006) organises this evolution into three sequential phases that he calls demonstration, diffusion and generativity programmes. The first generation of programmes is based on the idea of identifying new forms of work organisation through the description and discussion in terms of research of *star cases*, for their subsequent demonstration of results to a broader group of actors. Due to the problems associated with a limited capacity for the transfer and adaptation of the solutions identified, the demonstration programmes acquire mechanisms for the promotion of learning-based forms of work organisation. During a second phase, by means of *diffusion programmes*, new initiatives are introduced with a focus on aspects such as information, education and training. During a third phase, generative programmes emerge, whose main objective lies in their ability to support transitions towards the adoption of learning-focused forms of work organisation.

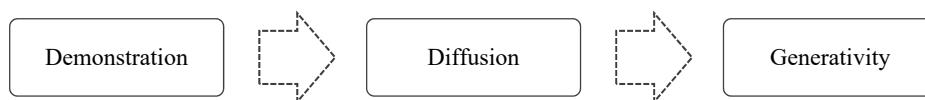


Figure 1: Programme design transition. Source: Gustavsen, 2006.

While in the first programmes efforts focused on a group of exemplary case studies, subsequent initiatives have focused on aspects related to how to achieve far-reaching changes and sufficient critical mass. To the extent that *star cases* tended to disappear, horizontal interaction and cooperation between companies replaced the way in which organisations conceived change (Gustavsen, 2007a). The difficulties that the first programmes encountered with the diffusion of the results led to the need to increase the mass of participants and encourage them to establish networks between them. During the ensuing decades, the networks started to be considered as learning tools instead of simply being the channel for disseminating information (Ennals & Gustavsen 1999; Gustavsen et al., 2001; Alasoini, 2018a,

2018b). The strategies for improving the capacity to produce generative results are linked to the development of the efficiency of the programme's information diffusion channels. Instead of limiting participation to a few demonstrative projects, alternative programme strategies include a high number of workplaces, R&D institutes and other stakeholders with permanent, long-term interaction. This strategy represents an alternative approach based on interactive or recurrent innovative logic, as opposed to a linear model based on sequential events (Gustavsen, Hart & Hofmaier, 1991; Alasoini, 2018b).

7. From best practices to learning-oriented models

Programmes have undergone a transformation through changes in the design and implementation methods. Starting from institutional differences, learning from previous programmes and experiences is an issue that, although complex, requires frameworks for the identification of criteria that favour a better understanding of how programmes operate. These can be addressed through existing analytical frameworks.

Based on Naschold's³ (1993, 1994) model of *good practices*, which has been used for the analysis of the strategies used by the programmes, and the subsequent conceptual and methodological development carried out by Alasoini⁴ (2009, 2016, see also Alasoini et al., 2005), in this section the six dimensions that make up this analytical framework are presented. The characteristics described below are six: the political context, learning orientation, participation, horizontal networking, infrastructure and the programme's resources.

Table 1: Six dimensions for understanding programmes

Dimension	Explanation
Policy context	Describes the strategic justification, identifies major players, sets the territorial scope and the research or development focus of a programme.
Learning	Identifies the sources for learning and its orientation.
Participation	Analyses the focus of the activities, the influence of participants in the development activities and their inclusiveness in terms of gender and ageing issues.
Horizontal networking	Explores how strongly activities are connected to each other among workplaces, projects and organisations.
Infrastructure	Identifies how research and training are included in programme activities and the diversity level of the expertise provided by R&D (public and private) infrastructure supporting the development.
Aims and resources	Describes tangible and intangible resources provided by the programme

Resource: Alasoini, 2009

3 The model was presented at the conference held in Helsinki (Finland) in 1993 "Active Society with Action Research" and is documented in a volume published by Kaupinnen & Lahtonen (1994) "National Action Research Programmes in the 1990's". The model can also be consulted in "Constructing the New Industrial Society" edited by Naschold et al., 1993.

4 The revision carried out by Alasoini is within the framework of the Work In Net Project (Zettel, 2010). This model provides a revision of the content and methodology proposed by Naschold. The model, which over the years has been updated several times, can be consulted in several publications (Alasoini et al. 2005; Alasoini, 2009, 2016).

These six dimensions encourage a better understanding of the critical factors for the improvement of the planning and implementation of the programme:

The strategic justification and the political context of the programme enable an analysis of the reasons or justifications for the strategies adopted. This analysis is carried out based on the understanding of whether the focus of the programme is at a national or regional level, and on the focus of the programme towards research and/or, if applicable, development, and the role of the main actors. The scope of action of a programme is essentially determined by the nature of the public body or institution that drives and promotes the activity and the territorial space in which it is implemented. In this sense, while certain programmes may be at a European or national level, the regional perspective has become relevant (Fricke & Totterdill [Eds.], 2004; Gustavsen, 2006; Gustavsen et al., 2001; Gustavsen, 2007b; Levin, 2002; Qvale, 2008). Alongside the scope of action, the strategies of the programmes may be based on supporting the development of operations or be directly or indirectly supported by research activities (use of data, research strategies and methods...). According to Naschold (1994, p. 111) the strategic justification of programmes must lie in macro aspects related to the industrial policy. In the absence of this link and of adequate ties to the development goals of organisations, programmes can turn out to be interventions that react to problems caused by new technologies, production models or management methods. However, Alasoini (2016, p. 51) argues that more than the subordination of the strategic justification of the programmes to the industrial policy, it is about broadening the foundations of the policy through innovation. In order for the programmes to support new emerging structures it is necessary for there to be an integration of the workplace innovation policy within the scope of the industrial policy (Alasoini, 2009). For this reason, along with the participation of the actors of the industrial system, the inclusion of agents from the industrial relations and from R&D system complements this justification. On the one hand, the participation of actors from the industrial relations system reinforces the social legitimacy of the actions, strengthening the link between the improvement in productivity and the quality of working life, while the inclusion of R&D agents equips the programmes with the capacity to provide new solutions based directly or indirectly on research (Alasoini, 2016; p. 116).

The learning-based orientation of programmes enables an analysis of the reference frameworks of a programme. In general, by focus we understand the way in which programmes support companies and workplaces in the adaptation to change (Alasoini, 2005). The strategies and reference frameworks used by the programmes can vary according to three levels, international, national or regional. Although all programmes are local configurations, instead of identifying a single model or reference framework, the programmes can learn from other programmes and initiatives developed in other contexts (Alasoini, 2009). In this sense, the learning-focus of a programme is understood as “the readiness of programme implementers to monitor developments elsewhere with an open mind and adopt the ideas for local reinvention” (Alasoini, 2016, p. 117). This is why the oversight and monitoring of the programmes can include external reference frameworks in combination with own or local frameworks.

Participation, as a third dimension, directs attention to aspects that determine the way in which the objectives and the development operations designed and implemented in a programme are defined. Programmes can differ in their instrumentation offering design or

process-based solutions. Naschold (1993) argues that instead of the design solutions traditionally provided by external people, programmes should include the actors at the workplace level. Thus, the goal of the programmes must be a type of intervention that combines the design and guidance of the process of change along with broad participation in the workplace. This dimension analyses the strategies used by the programmes in relation to the influence and level of participation of the workers and workplaces on the content of the programmes and the activities or projects developed. In this sense the preference is that the division between the design and guidance of the process must be balanced. The mobilisation of the actors in the workplace in the identification of the objectives of the programmes and projects also includes the perspective of social inclusion, with a particular focus on matters such as the gender perspective or age (Alasoini, 2009, 2016).

The fourth principle is *that the development strategy must be backed and guided by a solid and advanced infrastructure* that includes a stock of knowledge and a sufficient number of experts. One of the most recognised effects of the programmes is related to the creation of local infrastructures; the private and institutional relationships promoted by the programmes can become structures for the search of new development opportunities. The infrastructure is understood as the development of a productive cooperation between actors and systems (Gustavsen, 1998) and refers both to public national/regional centres and private ones that support the innovation of organisations (Naschold, 1993). Public sources include universities, public research institutes, polytechnics, education and training institutes (Ramstad, 2009), while private centres include workplaces, development agencies, R&D organisations and professional associations (Alasoini, 2009b: 623). The infrastructure is analysed by means of the role that the programme plays in the educational activities and developments as an instrument to strengthen the fabric based on expert knowledge (Alasoini, 2016: p. 64).

The fifth characteristic of the model is *the creation of horizontal networks that favour the diffusion of information and the creation of new knowledge*, instead of independent development projects. Networks and other types of relationships between organisations are of critical importance in contexts of development (Gustavsen, 1998; Ennals & Gustavsen, 1999), to the point of being considered "the Achilles' heel of programmes" (Alasoini, 2016, p. 71). This dimension analyses the type of horizontal connection of the actors at a project or workplace level. As the programmes are used for building a bridge between the strategic objectives of the organisations involved and the objectives of the programme itself, this dimension becomes particularly relevant. Networking can take place in many different ways (Alasoini et al., 2005, p. 40); within the projects, through cooperation between projects, through organising interactive debate forums, training sessions or seminars or the supply of documentary material for the diffusion of information (e.g. publications, online information records of cases of good practices). Although the opportunities for learning derived from horizontal networking-focused activities are important in terms of sustainability, their potential is dependent on the diversity and amplitude of the participants insofar as they favour the generation and diffusion of knowledge (Alasoini, 2009a: 161; Andersson, 2006). Networks are considered an alternative to markets and hierarchies, therefore they are of particular importance for productive structures dominated by small and medium-sized enterprises (Naschold, 1994, p. 137). Networking can operate not only in terms of exchanges of infor-

mation between participants in the project, but also as an intermediate-level structure that facilitates further exchanges of information, both inside and outside the programme (Alasoini, 2011, pp. 36-37).

The sixth dimension refers to *the adaptation of the programme's resources to the objective and purposes*. It is possible that the programmes have limited effectiveness if the resources are not fully used over time (Naschold, 1993; Alasoini, 2016; Qvale, 1994). Thus, the volume and composition of the resources are highly relevant to achieve the programme's objectives (Naschold, 1994, p. 112). Aspects such as the financial budget, the number and experience of the staff in the programme and the time structure are decisive as tangible elements. However, in the case of development programmes, intangible aspects such as the visions, guiding principles, concepts for the development of the programmes, and the latter's ability to use different strategies or networks for diffusion are fundamental (Alasoini, 2016, pp. 117-118). These matters, in particular those related to the skills and level of knowledge of the staff in the programme, the commitment and the learning skills, have a positive influence on the results.

The six-dimension model described above frames how programme design and implementation could facilitate, through action research, a learning-oriented form of cooperation, collaboration and interaction. The next section explores the link between action research and programmes in a context of action research.

8. Programmes as vehicles for research and development

“A programme is an umbrella organization, which links a number of R&D efforts to each other that is taken to mean explicitly organised efforts aiming at intervening in workplace processes”
Gustavsen, 2006, p. 320.

Although approaches to working life assisted and supported by research have had a long and complex evolution (Gustavsen, 2007a), it is debatable whether the reform of working life and the adoption of new forms of work organisation in Europe is programmatic in nature and is assisted by research. Programmatic approaches are known in development literature, where change is understood as an iterative process. The development of working life based on programmes refers to the existence of a shared framework, the content of which has been agreed upon, and whose process is based on an exchange of information and experience based on cooperation and interaction.

Programmes are also tools for the development of work contexts. Research is a type of public resource, which can play a relevant role in the development processes addressed by programmes (Ennals & Gustavsen, pp. 173-176). The assistance of research has been justified by the complexity of adopting new forms of work organisation (Gustavsen, 2006, pp. 322-324). In this sense, research-based approaches aim to produce new knowledge that is applicable in the design of solutions or processes of change (Alasoini, 2005, pp. 43-46). The role of research at a programme level can be represented according to the following aspects:

- The programme uses theoretical models supported by research or experiences that make it possible to identify objects and the way they relate to each other.
- Research questions are proposed in the form of hypotheses on the theoretical and practical foundation for critical examination. These hypotheses can be adapted throughout the process.
- Depending on the critical examination, the research draws conclusions for the preparation of (identified) theoretical models or the reasoning behind them (Alasoini, 2006, p. 45).

Development supported by research at a programme level is usually established in light of three criteria. However, this approach varies from one case to another. The three criteria for research-based development are, first, that local projects are focused on creating models, methods or tools with a broader scope than the original application; second, that the implementation of the project requires research methods and strategies; and third, that the scientific assessments are included as an integral part of the project (Alasoini, 1999, p. 6). Practical examples prove that the role of research covers functions such as the creation of reference frameworks in alternative organisational relationships and that it helps to create, prove and use methodologies and forms of work according to the requirements of the process (Ennals & Gustavsen, 1999, p. 175).

The contribution of research to the reform of working life has acquired different forms (Gustavsen, 1992), where action research plays an important role. An example of this are the studies carried out using different approaches and research strategies (van Eijnatten, 1993; Greenwood & Levin, 2007; Svensson, Ellström & Brulin, 2007; Svensson et al., 2007; Engeström, 2005; Alasoini, 2016). Action research (AR) (Greenwood & Lewin, 2007) is a co-generative form of research; i.e., a strategy for social research developed in collaboration between a researcher and the owners of a problem. In a general sense we could say that AR covers different traditions that range from action science (Argyris, Putnam & Smith, 1987), participatory action research (Whyte [Ed.], 1991), participatory research (Fals Borfa, 2000), socio-technical systems theory (van Eijnatten, 1993) and democratic dialogue (Gustavsen, 1992). The differences of these traditions are identifiable, to a large extent, in the way that the research is carried out. As a result we can talk about different strategies (Pålshaugen, 2014) where dialogue acquires particular relevance in the identification of the research questions (Greenwood, 1989, Alasoini, 1999; Pålshaugen, 2009). When providing an answer to these questions, action research has been structured around three questions:

- How to create democratic relations to the field subjects – as a method of research
- How to create new scientific knowledge from constructive social science research processes
- How to create innovative structures aiming at the continuation of participative design and change processes beyond the limited range of projects and programmes (Fricke, 1994, p. 55)

Although it does not correspond to this article to explore these questions in more depth, it does, in turn, seek to position action research in relation to the programmes for reforming working life. In general terms, we can appreciate that “action research in working life is

presumed to be useful to various groups of actors, both within the enterprises and within organisations that are somehow devoted to working life development, reforms and politics” (Pålshaugen, 2009; p. 232). In line with this reflection, the goals of AR are twofold: on the one hand, the use of scientific knowledge in practical development and change processes and, on the other, the generation of new knowledge for the research community that is useful for the actors involved in the development and change process (Pålshaugen, 2009: p. 236-242).

Historically, action research in working life has focused its efforts on changing individual organisations (or even parts of a single organisation), in detriment of the inter-organisational level. In this sense, with the exception of the Scandinavian experiences, action research literature has barely explored the specific aspects of large-scale change (Alasoini, 2016). The reasons can be found in the fact that in this tradition the use of field experiments has exerted strong control, to the extent that much of the history of action research has been limited to projects (Gustavsen, 1998). Next section reflects on how programmes can be useful bridges to connect, through action research in working life, a great variety of knowledge in favour of working life reform.

9. Bridging Programme Learning and Policy Learning

“A programme seeks actors and processes to exert influence on”
Naschold, 1993, p. 43.

Generating changes in work organisation requires developing new practices and narratives in cooperation with a community of stakeholders. Work organisation is a matter that transcends the local framework and which depends on a wider context (Gustavsen, 2007b, p. 651). Public programmes or initiatives require public rationales; they must establish objectives that correspond to the external challenges and the local realities. Here the aim is that a programme has a systemic impact, which involves a deep understanding of the programme's learnings (Ennals, Johnsen, & Normann, 2012).

Action research is mainly concerned with the development of knowledge (Johnsen et al., 2009); in this sense it could be argued that it establishes a context for learning (Greenwood & Levin, 2007). However, this learning process can become complex as it increases the number of participants and its scope in the field (Martin, 2008). The challenge is focused on guiding the learning process through the different levels of actors, which can create tensions between top-down and bottom-up approaches (Ennals, Johnsen & Normann, 2012).

In general, three actor systems are identified (Naschold, 1994, p. 111): the industrial policy, the industrial relations system and the research and development system. In this framework, programmes represent a collective agency (Alasoini, 2016). As can be seen in the table, the actors that form part of the programmes acquire different roles; i.e., they are circumscribed in different domains of different policies

Table 2: System, actors and role in the development Programmes.

System	Actors	Role
Industrial policy	Public administration, labour market organisations, the scientific community	Establishing the general framework for directing the activities
Industrial relations	Collective organisations at company or supra-company level	Social legitimisation of the activities
Research and Development	R&D units of private companies and of the public innovation system	Support from research and development activities

Source: Naschold, 1993; Alasoini, 2016.

A common feature of programmes comes from the creation of new levels of collaboration between local actors and governments, developing different institutional arrangements that mediate between the different roles and interests of the participants. A partnership can be seen as an example that is strategic in nature at system level; a partnership represents a form of organisational cooperation. The concept of development coalitions, extensively discussed by Ennals & Gustavsen (1999), operates in a similar sense. This is why the role that support structures formed by researchers, workers, works council representatives, management, programme managers and policymakers play is so critical (Riegler, 2008). In AR, knowledge is built and co-generated locally through a reflective process between researchers and professionals (Greenwood & Levin, 2007).

In this case, the learning subjects are the participants of the programme and those responsible for formulating public policies (Alasoini, 2016, pp. 83-84). In this context, the concept of a programme, both in theory and in practice, is of particular interest. Although they operate in different contexts, programmes can be used as resources for other subjects that are carrying out similar practical processes (Pålshaugen, 2009). In this sense, good practices should be understood as generative ideas instead of ready-made objects, which allows the general knowledge of specific programmes to be regenerated as something useful for others subjects (Alasoini, 2006; 2008; Arnkil, 2008, Pålshaugen, 2009). However, experience shows that the *good practices* created by these projects have been poorly extended (Qvale, 2002, Arnkil, 2004; Brulin & Svensson, 2012; Fricke, 2003; Riegler, 2008; Gustavsen, 2008).

In terms of learning, the ideal effects produced are programme learning and policy learning; while the former refers to the learning that takes place *within* the programme during its implementation, the second, policy learning, refers to the knowledge and learning that extends to the design of new generation programmes (Alasoini, 2016, p. 110). This is why it is decisive, during both the design and implementation phases, to establish mechanisms that enable the learning subjects to identify sources, resources and actions aimed at learning from the exterior. The conditions of possibility for this type of learning, according to Alasoini (2008, pp. 65-67), are based on the capacity of the programmes to act as development systems. However, and as pointed out by Riegler (2008, p. 110), the learning resulting from public initiative development programmes has a condition of possibility of generating an impact when there is the existence of strong participative structures supplemented as innovative and open cultures.

10. Concluding remarks

In “Building Better Programmes: Learning Networks in the Promotion of Workplace Innovation” Alasoini (2008) suggests a taxonomy of the principles, elements, methods and types of projects to be used by programmes in order to achieve the objectives described in this article. Based on the model, programmes as a production and development system are susceptible of generating learning (at programme level and from public policies) about design, planning and implementation. However, except in European countries and regions with active policies for the promotion of new forms of work organisation, the presence of these programmes seems to be limited (Kesselring et al., 2014; Alasoini et al., 2017). Some of the reasons may be found in the limitations of current policy frameworks (Brödner & Latniak, 2002; Business Decisions Limited, 2002; Totterdill, Dhondt & Milsome, 2002; Totterdill, 2015; Ennals, 2002).

In the digital age, where traditional forms of employment and work are undergoing a profound transformation, the future of programmes involves broadening the scope of traditional industrial policies and opening up innovation policies to related fields such as workplace innovation (Alasoini, 2011, 2012). It is therefore important to pay attention to the design and implementation principles of the types of programmes described in this article, in particular to the objectives, the support processes and the participating agents. As regards the objectives of the programmes, their focus must be aimed at achieving simultaneous improvements in productivity and job quality, at both micro (jobs) and macro (programme) levels. As for the design and implementation of the programmes, three types of knowledge are identified (Alasoini, 2011); about the design, the process and the diffusion. Firstly, the implementers of the programmes must have knowledge about the factors that influence changes in organisations (*design knowledge*); secondly, there must be a deeper knowledge about the different processes of change (*process knowledge*), both those that are guided by external expert knowledge (design-oriented) and in participative models (process-oriented); and thirdly, different strategies are required that enable an improvement in the creation and diffusion of the solutions generated by the programme (*dissemination knowledge*).

Part of the learnings accumulated in Europe over the course of more than five decades through the programmes can be used as a guide for the challenges that companies currently face. Like in the 70s and 80s (programmable machine tools, flexible production systems and automated control processes), they can shine a light on how the programmes must be designed and implemented in the current Digital Age, where automation, robotisation and digitisation have an impact on work organisation (Alasoini, 2016; Fricke, 2019).

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4.2 Publication 2

The article presents an innovation framework at the system level and at the actor level. It addresses the relationship between regional innovation policy and workplace innovation. The document consists of two parts, a general review of the literature on regional innovation systems and workplace innovation, and a part in which innovation programmes in the Basque Country are presented and analysed.

The data is drawn from an analysis of the literature and official documents that contain the description of programmes, bulletins and reports and plans by governmental entities such as the Basque Government and the Provincial Government of Gipuzkoa. The article was published in the *European Journal of Workplace Innovation* in December 2019.

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Revising workers participation in regional innovation systems: a study of workplace innovation programmes in the Basque Country.

Egoitz Pomares

Abstract

The article analyses two workplace innovation programmes from the perspective of regional innovation systems and the design of public policies. In this sense, the programmes are described as political tools that are part of the Science, Innovation and Technology Plan 2020 of the Basque Autonomous Community. The regional perspective and the participation of workers are key matters that acquire relevance within the framework of European smart specialisation policies, as well as for regional development and cohesion.

Keywords: Workplace innovation, programmes, regional innovation system, innovation policy

Introduction

Regions are considered to be decisive for economic growth and social cohesion in the EU. Regional ecosystems are strategic spheres of production capacity and the creation of quality employment. Since the early 1990s, the popularity of the concept of regional innovation (Asheim & Gertler 2005) leads us to consider the region as an adequate scale for the support of innovation-based learning economies (Doloreux & Parto 2005). Since 2014 the *Smart Specialisation Strategies*, in particular those that focus on SMEs, are the central core of the EU's regional policy (European Commission, 2012).

Workplace Innovation is a concept with a track record in European politics (Pot et al. 2016). Directly related to the participation of workers due to its origins in sociotechnical systems (STS), the term has been reflected in public policies in the form of tools or programmes that date back to the 1960s.

Today, the participation of workers and promotion by means of programmes have acquired certain relevance in the search for solutions for the simultaneous improvement of productivity and the quality of jobs. Aspects that are directly related to the regional sphere. Given the importance of innovation and micro-factors, regions have become essential spaces for building competitive advantages and, therefore, for the development of territorial strategies (Navarro 2015).

The Basque Country is a good case, due to its high level of political autonomy (Cooke & Morgan 1998), its innovation system (Cooke et al. 2000) and the positive external assessments (OECD 2011; Morgan 2013). As a result, the article presents two programmes to foster the participation of workers in the Basque Country. The article is organised as follows; the first section defines the theoretical framework based on the regional innovation systems and policies. The second section contains different perspectives on the participation of workers in innovation policies. The third section revises the instruments for the design of these types of policies. The fourth section describes the Basque Country's innovation system and the two Participation Programmes. The article concludes with a discussion section, and conclusions and considerations about the orientation and design of these policies within the regional context.

Innovation within the regional context.

The theory of Systems of Innovation (SI) (Freeman 1987; Lundvall 1992) has had a huge influence on the design of policies (OECD 2005, 2011). Based on this theory, innovation is a non-linear interactive process, in which stakeholders interact with a variety of other organisations and institutions. This process is characterised by reciprocity and feedback mechanisms that determine the success of the innovation. Within this theoretical framework regions are considered as important bases of political, economic and social coordination (Lundvall & Borrás 1997: 39), a matter that has acquired relevance in the theoretical, empirical and political field (Asheim et al. 2011).

An approach based on a regional innovation system (RIS) is a strategic instrument for the analysis and implementation of regional innovation policies (Asheim 2007) to the extent that it responds to specific features, challenges and needs in each region (Tödtling & Trippel 2005; Tödtling et al. 2013; Asheim et al. 2013). The RIS has been conceptualised in a limited sense and in a broad sense (Lundvall 1992; Asheim & Gertler 2005). The limited definition mainly includes the R&D functions of universities and research institutes in a top-down model of scientific and technological policies, while the broad definition includes the entire range of organisations of the region's learning and innovation system (Asheim & Gertler 2005).

Similarly, innovation policies can also be classified in a strict or broad sense (see Edquist 1997, 2001; Edquist et al. 2009; Schienstock & Hämäläinen 2001). Traditionally, the goal of the innovation policy has been the development and dissemination of technology, mainly through the production of new products or processes (Lundvall 1992). While according to the strict vision, the policy must have a

fundamentally technological component and is determined from the top down, in a broad innovation policy the process is observed by the interaction that arises from the collaboration between different stakeholders as it adds a variety of sources of knowledge and interactions in organisational processes (Edquist et al. 2009). This means acquiring a conception that transcends R&D policies and technological innovation towards aspects such as organisational learning and innovation (Cooke et al. 2000, Asheim et al. 2003; Lundvall 2004). In other words, an innovation policy with such a broad foundation concurs with the perspective of the innovation system that defines it as an interactive learning system focused on the creation of, among others, social innovations¹ (Lorenz & Lundvall 2006).

The two conceptions of the policy are related to the different forms of innovation (Jensen et al. 2007). The forms of innovation show the differences of the learning and innovation processes in that they indicate the main ways in which companies organise and produce innovations and learning. While the STI (*science, technology & innovation*) form of innovation is of a restrictive nature (offer) and is based on a strategy marked by a scientific drive with a clear technological vocation, the DUI (*doing, using, interacting*) form is market-oriented (demand) and focuses on the development of organisational skills and innovations (Jensen et al. 2007). This is why the limited version of the RIS concurs with the STI innovation form, while the broader definition is associated with the DUI form (Lundvall 2008). However, studies point out the fact that the companies which combine the DUI and STI innovation forms are generally more innovative than companies that focus on just one of the forms (Jensen et al. 2007: 685).

Within this framework, the government is considered to be a core stakeholder (e.g. Borrás & Edquist 2013; Woolthuis et al. 2005). Traditionally, government action has been aimed at solving the market's deficiencies, limiting the action and intervention of public policies for the creation of incentives in R&D (e.g. see Kline & Rosenberg 2010; Metcalfe & Hughes 1993). The (neoclassical) approach downplays the importance of the specific institutional framework in which the innovation is carried out. Starting with the interactions between stakeholders and institutions, the theory of SI has identified others as a starting point in the design of regional innovation policies (Tödtling & Trippl 2005).

According to certain studies (Edquist 2001; Borrás et al. 2009; Chaminade & Edquist 2006) innovation policies must be designed to respond to specific problems, which correspond to the deficiencies of the innovation system. These problems have been classified into two types; as errors in the interaction of the system's components or as errors derived from the operation of the system (Woolthuis et al. 2005; Chaminade & Edquist 2006). In this article we will focus on matters related to the former.

The approach of the broad innovation policy (see Edquist et al. 2009) involves, in addition to the technological focus, the inclusion of other innovations. In line with these arguments Piirainen & Koski (2003; 2004: 320-322) identify three approaches in innovation policies; the traditional approach, the reduced systemic approach and the broad systemic approach. Based on this classification, differences in five aspects of the innovation policies are established. These aspects include features that range from the policy's objectives, the national/regional competitive base, the innovations pursued or desired, the justification for the public intervention and the activities associated with the innovation. This approach can be summarised as follows:

- The objective of the *traditional innovation policy* is to generate economic growth via the promotion of technological advances and support for linear scientific policies.

¹ Social innovations have been conceptualised in the literature as “organisational innovation” (Hage 1999; Lam 2004), “workplace innovation” (Totterdill 2010; Pot 2011), and “social innovation at the workplace” (Eeckelaert et al. 2012). A broader study on the concept can be found in *Workplace innovation: Theory, research and practice* (Oeij et al. 2017)

- The objective of the *narrow systemic innovation policy* includes aspects related to the dissemination of technology, considering innovation due to its interactive nature.
- The *broad systemic innovation policy* bases the justification of the intervention on the weaknesses and deficiencies of the system, meaning that its objective is to promote aspects such as innovation, growth, cohesion and social well-being.

Similarly, it has been argued that (technological and industrial) policies should be designed broadly to take into account the social context, as the learning process is conceptualised as "an interactive and socially integrated process" (Lundvall 1999: 20).

The change from a narrow innovation policy to a broader one is a change in many aspects. The examples of how to integrate the users in the innovation processes by means of innovation policies are therefore scarce. Some of them can be found in public programmes and policies oriented towards the promotion of participation; in particular models characterised as divergent from traditional designs (Arnkil 2004; Arnkil et al. 2010), such as the case of Finland, where the government's role in the development of the workplace and in the innovation policy has been stronger than in other European countries (Alasoini 2016: 69).

Participation in the context of innovation policies.

In a scenario dominated by robotisation, automation and digitalisation, innovation policies in a broad sense must, in addition, facilitate the adaptation of workers by generating a collective learning process in an inclusive and participatory manner. This would be based on an interactive or recursive innovation model, including a relatively large number of workplaces, R&D units and other stakeholders in a permanent interaction with a long-term view (Alasoini 2006).

In general terms, the participation of workers has been conceptualised from two perspectives. The first refers to an integrating vision, the main argument for which is found in the effects of participation on efficiency. This approach is understood as a tool, a style and management technique used to persuade workers who participate in the achievement of the company's objectives and goals. The second corresponds to a critical paradigm of the Taylorist organisation of work, and seeks a balanced decision-making power between work and capital (industrial democracy) (Lahera 2004).

The participation of workers mainly comes in two forms; direct participation and indirect participation (carried out by means of representatives). The combination of both forms of participation has been conceptualised as the *employee voice* (Boxall & Purcell 2011).

Despite the importance of the traditional forms of representative and direct participation, the participation of workers in processes and in decision-making that is strategic for the organisation is decisive, in particular within the context of rapid technological change, as a method to create novel solutions (Alasoini 2012: 262). Aside from the differences between one form and the other, the term participation is understood here in a broad sense; in other words, as the different institutions and organisations, forms, levels and mechanisms by which employees directly and/or through representatives can influence matters related to the organisation of work and which have an impact on the operation and decision-making of a company.

Pot (2011) defines this type of participation as "new and combined interventions in the fields of work organisation, human resource management and supportive technologies". In this sense, there is a large amount of academic literature that classifies the new forms of workplaces identified as "innovative, high-performance, new, or flexible" (Bauer 2004). Despite the differences in the terms, the transformation from a hierarchical type of organisational culture to more flexible structures and horizontal relationships of power are at the core of the concept of workplace innovation. However, Alasoini stresses that "the concept is not limited to the adoption of a ready-made set of 'high-

performance’ work practices, but refers to collaboratively constructed changes in a company’s organisational and management practices that lead to simultaneous improvements in productivity (e.g. work productivity, product quality, process flow) and quality of working life (e.g. opportunities for development and the influence of employees on the work, employee well-being) and that also supports other types of innovation” (Alasoini 2011: 25).

Alasoini argues that in the industrial relations-based policy and in the science and technology-oriented innovation policy, the participation of workers has been approached as a method for the adoption of new solutions developed jointly by the management and external experts (Alasoini 2011). The broad participation of employees in innovation activities within companies must be backed by management processes and practices that are based on management principles different to those used in the Taylorist work organisation model (Alasoni 2012; Cressey et al. 2013). The author argues that limiting participation to the adoption of specific management and organisation practices can be considered as corrective measures for problems derived from technological change, production and organisation models (Alasoini 2004, 2005; Alasoini et al. 2005).

Table 1: different policy rationales on participation

	Industrial relations-based workplace development policy	Science and technology-oriented innovation policy	Broad-based innovation policy
Forms of participation	Direct and representative participation	Direct and representative participation	<i>Workplace Innovation</i>
Typical objects of participation	Work tasks, work organisation and working conditions	New products and processes	New products, services, processes, business models, work organisation, etc.
Rationale of participation	<p>Employees have the right to participate through delegation, consultation, hearing or having access to relevant information.</p> <p>Collaboration between management and employees improves the quality and novelty value of new solutions.</p>	<p>Participation helps overcome employee resistance to the adoption of new solutions.</p> <p>Adapt solutions, developed jointly by management and experts, to better suit local conditions by giving employees an opportunity to implement small adjustments.</p>	<p>Participation is a key success factor in complex environments where networking, fast renewal and innovation are central competitive factors.</p> <p>Generates collective learning and reinforces a sense of inclusiveness among employees in connection with rapid changes.</p>

Source: Alasoini 2013.

Alternatively to this perspective, the participation of workers from the viewpoint of a broad policy surpasses the traditional vision of industrial relations and the activity of technology-oriented innovation, incorporating workers as key factors of the competitiveness of organisations and including workers in innovation activities as a factor that supports the quality of work, respectively (Alasoini

2012: 256). From this approach Alasoini (2016: 99) argues that the strategies of the programmes must include 1) elements that help to improve productivity and QWL simultaneously at a micro (e.g. local and regional organisations) and macro levels (e.g. the regional level), and, 2) elements that facilitate the construction of bridges between the micro and macro levels.

From the perspective of regional development, Totterdill (1999: 28) argues that a workplace innovation-based competitiveness model involves an alternative approach with respect to participation and the organisation of work. Thus the importance of regions lies in their ability to act as focal points, therefore, of their capacity to unblock their own innovation resources. This aligns with the concept of regional innovation ecosystems (Isenberg 2010; Stam 2015) that focus on the creation of a production system. This perspective would lead to solutions to problems, which are partly subject to limitations related to the participation of workers in processes of change and innovation and the ways in which work is organised. Limitations that have to do, at least partly, with the lack of coalitions for learning-oriented cooperation (Ennals & Gustavsen 1999) and which affect the regional sphere (Fricke & Totterdill 2004). Here, the regional system is considered to be "the intellectual framework to guide public action" (Coenen & Asheim 2006).

As a result, the links between the organisation of work and the dynamics of innovation at a company level (and other sectoral, regional and national innovation systems) can influence the improvement of the innovation capacities of workers (Fricke 1983) and the transformation of ideas into new products and processes (Arundel et al. 2007) through workplace innovation.

Policies, Programmes and Public intervention.

A form of public intervention for the generation of workplace innovation is carried out by means of designing public policies. Specifically, through "a set of techniques by which governmental authorities wield their power in attempting to ensure support and effect or prevent social change", also called instruments (Vedung 1998: 2). In general, the instruments are divided into three groups; as regulations, economic transfers and soft instruments (e.g. Borrás & Edquist 2013). Soft instruments are distinguished from the others due to their voluntary and non-coercive nature, where public and private stakeholders establish forms of cooperation that are not strongly hierarchical and where there is a mutual exchange of information (Borrás & Edquist 2013: 1516). This is why the instruments are recurrent, due to their usefulness when the diversity of stakeholders and the complexity of the intervention subjects is high (Trubek & Trubek 2005), or to guide learning processes and experimentation in the design and implementation of public policies.

In Europe, as regards participation, public intervention has not always led to legislative reforms, but rather to soft forms of regulation (Forsyth et al. 2006; Trubek & Trubek 2005; Alasoini 2008; Alasoini et al. 2017). Thus, a programme is ideally identified as a soft instrument of political intervention. From an institutional perspective, programmes are understood as an activity with a set duration (Alasoini 2011: 30). This means orienting research towards the institutional separation (Alasoini 2008) between jobs and the innovation policy.

Conceptually, programmes are characterised by 1) simultaneously gathering a broad range of organisations within a defined time frame, 2) the agreement on the content of the framework between the workers, the employees and other stakeholders (social agents, research, education, government). And 3) that the participants in the programme are committed to the exchange of information and cooperation (interaction) (Alasoini 2008: 63).

The programmes, as instruments to obtain workplace innovation, can be considered as production systems and development systems. In their ideal form, the programmes must be capable of renewing

themselves (learning from the programme) and of contributing towards improving the activities of the programme within a broader context (learning of policies) (Alasoini 2016: 53). As a production system, a programme must produce results in productivity and QWL at micro and macro levels (Alasoini 2016: 83-84), while, as a development system, a programme must generate learning at the level of programmes and at the level of public policy. From this approach, Programmes as the instruments of public policies have raised interest, in particular in relation to the impacts of technological change derived from digitalisation, robotisation and the automation of work processes and the way these challenges are tackled through the modernisation of socio-economic institutions (Pérez 2004; Freeman & Perez 1988) and the role of the Public Administration (Mazzucato 2014).

The regional approach in the Basque Country.

The participation of workers has acquired relevance in the political agendas of the Basque Country. Most of the arguments in favour of the participation of workers are currently based on aspects that link the increase in business competitiveness with higher levels of organisational innovation.

An interesting example in the search for solutions are the worker participation programmes promoted by the Government of the Basque Autonomous Community (NUTS2) and the Provincial Government of Gipuzkoa (NUTS3) implemented starting in 2013. Both are included as instruments to support innovation in the STI Plan.

The next section summarises the innovation policy of the Basque Autonomous Community and its evolution and describes the participation-based promotion programmes. According to the aims of this article, the focus is on participation in terms of workplace innovation and leaves out of its scope of analysis other programmes to foster the social economy or co-operativism.

Background

The evolution and track record of the Science, Technology and Innovation policy in the Basque Country dates back to three decades ago, in the 1980s, and is characterised by its continuity (OECD 2011: 42). The institutional configuration of the Basque Autonomous Community, its self-government capacity, the regime of competences transferred from the Spanish central Administration and the characteristic fiscal decentralisation in the provinces it is comprised of, make the region a holistic case study within the framework of regional public policies (Navarro et al. 2013).

The development of the policies and the evolution of the STI System can be structured into three phases. The decade of the 1980s is defined by the constitution of the Government of the Basque Autonomous Community after the end of Franco's regime and focuses on the industrial reconversion of the Basque economy. This phase has its greatest exponent in the creation of technology centres that reaches its highest point with the creation of the Network of STI Agents in 1997.

All this leads to a subsequent phase, focused on improving the efficiency of Basque companies, fostering non-R&D-based diversification and internationalisation in the late 1990s. During this period, known as the combined offer and demand policy, efforts focus on the consolidation and concentration on priorities in technological knowledge and innovation among the main business and social stakeholders.

During the 2000s, the third phase, the system evolves towards an approach of innovation and science-driven industrial diversification, known as the results-oriented policy, whose main objectives were aimed both at the diversification of the business fabric and at achieving results in terms of science, technology and innovation (Valdaliso 2015). During this phase the Basque STI Council was created

(2007), as the body for participation in STI policies, comprised by the Basque Government and the three provincial (sub-regional) administrative institutions.

Innovation strategies and policies in the Basque Country have prioritised an R&D-based technological policy model, with a clear industrial orientation in comparison to other non-R&D-based scientific or innovation models. In general terms, the innovation strategy and policy has been more focused on offer (creation of infrastructures) than on demand (absorption capacity of companies). This results in low levels of organisational innovation. Part of these deficiencies have been associated with the difficulty to create learning spaces in workplaces (Orkestra 2015: 24) and with the governance structure of companies (Navarro 2010a).

The STI Plan

With the arrival of the new plan (PCTI 2020₂) in 2014, which includes the Smart Specialisation Strategy promoted by the European commission. As such, the Plan focuses on three strategic priorities (Advanced Manufacturing, Energy, Biosciences/Health) that are implemented in six objectives, one of them in particular based on an increase in the number of innovative companies. The objective of the Plan is expressed as follows:

“To improve the well-being, sustainable economic growth and employment of Basque society by means of a research and innovation policy based on smart specialisation and on the improvement of the efficiency of the Science, Technology and Innovation System (STI Plan 2020)”.

In the new strategy, business innovation is of a cross-cutting nature. The low levels of technological and non-technological innovation and the failure to achieve the objectives of the previous 2015 Plan contextualise the framework for the instruments to support the innovation ecosystem of the new STI plan in the 2020 horizon. As regards the levels of non-technological innovation, it should be mentioned that the levels, far from improving, fall during the period (2010-2015) of the preceding plan (STI Plan 2020).

The STI Network

From the point of view of the components of the system, the Basque Administration has carried out a policy that has been strongly mediated by the activity of technology centres. But with the adoption of the new plan, the Network of STI agents (2015) has been reorganised, and there is a restructuring of the public expenditure started in 1990. Based on this re-orientation, problems (offer and demand) are identified, such as the lack of specialisation and research capacity and the lack of absorption capacity of companies (Navarro 2010b; Valdaliso 2010). After the change, the Network³ is structured by 120 organisations that comprise the regional innovation system in three sub-systems; scientific and university (universities and research centres of excellence); technological innovation and development (technology centres, certification and laboratory entities, company R&D units, healthcare R&D units, etc.); and support for innovation (technology parks, intermediaries, etc.).

As for companies, the Basque administration implements an indirect support policy, by means of developing infrastructures (provision of technology), not directly oriented towards the improvement of

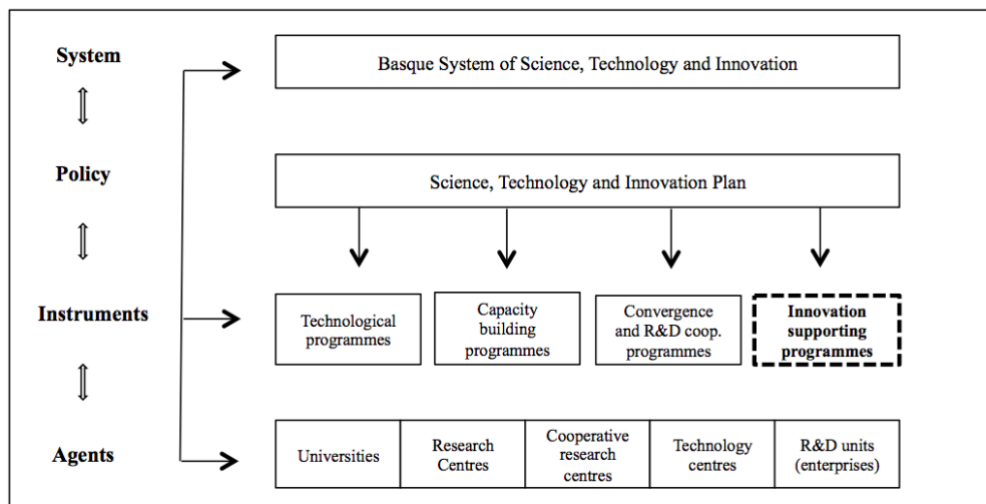
²http://www.euskadi.eus/contenidos/informacion/pcti_euskadi_2020/es_def/adjuntos/pcti_libro_en.pdf

³According to the assessments carried out (Morgan 2013), the Basque country is considered to be a European region with a high level of institutional thickness (Amin & Thrift 1995).

absorption capacities (Navarro 2010b). The analysis of the economic production fabric for the 2010-2015 period describes a "pattern of innovation oriented towards the development of technological innovation (characterised by high R&D expenditure, innovation oriented towards new products and processes and a significant profile of STI collaborations), of a markedly incremental nature (development of products that only represent a novelty for the company), with the characteristic effects of an operation strategy in the company (that is, it increases the quality of the current product or increases the product range), repetitive over time and concentrated in medium and large companies (with more than 50 workers)" (Orkestra 2017: 78-79).

The instruments (policy mix)

The instruments included in the Plan (see picture 1) range from programmes for technological upskilling, to the generation of skills, the convergence of skills and cooperation in R&D and support for innovation. The main beneficiaries of the instruments are companies (strengthening of technological and innovative skills) and the agents of the Network (reinforcement of scientific and technological skills). The instruments grouped in the above categories consist of support programmes and services for companies, as well as for agents in the R&D value chain.



Picture 1: Policy mix instruments contained in the STI Plan

Source: Basque Government – STI Policy mix instruments.

As pointed out, interest in participation in the design and orientation of the policies is marked by the weakness of the innovative capacity of Basque companies. The analyses carried out associate the lack of adjustment between the innovation input and the impact of the innovation with the lack of adequate organisational models for the exploration and exploitation of knowledge (Orkestra 2017: 78-79).

Within this context, during the 2013-2014 period some participation programmes were launched in the Basque Autonomous Community, defined as support instruments within the policy mix of the STI Plan. The next point describes two approaches; a regional programme (RP) and a sub-regional or provincial level programme (SP) oriented towards the promotion of participation and an increase in business innovation.

The programmes: two approaches to the promotion of participation.

It should be clarified that although the two programmes are included as instruments to support the

policy mix of the STI Plan, the origin and design come from Administrations at different administrative-territorial levels. The regulatory competences for innovation are at an Autonomous Community level; however, the STI Plan is governed by the Basque STI Council, where the government of Gipuzkoa (with a sub-regional scope) participates. On the other hand, even though the SP instrument is incorporated as an instrument to support the plan, its origin is in the territory's social economic development policy (one third of the Autonomous Community). A more detailed analysis of these and other implications, such as multilevel governance, have been developed in some analyses (Pomares 2018; Pomares et al. 2016).

In general terms, the central idea of both programmes consists of expanding the objective of the innovation policy, focusing on positive results derived from technological and non-technological innovations. In both cases, the RP and SP programmes are defined by the use of concepts such as workplace innovation, participation, social innovations, non-technological innovations, organisational process innovations and organisational innovations, in line with those used in other models of European programmes (Business Decisions Limited 2000; Brödner & Latniak 2003; Eeckelaert et al. 2012; Oeij et al. 2017).

A reasoning that underlies both Programmes is that, although they are contextualised within a framework to foster endogenous development and an increase of the levels of business innovation, the issue of the relocation of the decision-making centres of companies is recurrent in the narratives that support participation (in particular participation in the capital or financial participation, also promoted by both programmes by means of deductions or tax incentives).

The Regional Programme (RP) and the Sub-regional Programme (SP).

The Regional Programme (RP) started its activity in 2014 and has its origins in the policies of the Department of Competitiveness (Basque Government) and the business development Agency (SPRI). The programme also includes the participation of the three provincial Administrations that comprise the Basque Country. The geographical scope of this programme is the Basque Autonomous Community and is of a sectoral nature due to its origin in the Industry Plans (2014-2016). This programme limits participation to companies with industrial activities and with 10 employees.

This annual programme is mainly aimed at companies, by financing the preparation of diagnoses, the design of plans and their follow-up in financial participation, management and results projects. The programme establishes a prior diagnosis as a condition, an activity that can be carried out internally or by hiring external experts. This approach has its origin, as has been indicated, in the high percentage of companies with certification systems in advanced management or total quality models (TQM).

Table 2: Objectives of the Programmes

Objectives	Regional Programme (RP)	Sub-regional Programme (SP)
Programme-level	To support the development of competitive improvement activities in companies through actions aimed at the participation of Company workers.	To promote the grounding, continuity and competitiveness of companies through the co-responsible, active and effective participation of all the people in the company.
Generative level	Limited to individual projects; not oriented towards the dissemination of new practices, models, etc...	It considers dissemination and expansion as one of the main activities of the Programme
Workplace level	To improve the capacity of sectoral organisations through the preparation of individual projects based on diagnoses, plans and the implementation of participative organisational models.	To increase the number of organisations with participative models through individual projects in cooperation and/or as a network through R&D, its expansion and dissemination.

Source: own elaboration

The Sub-regional Programme (SP) starts its activity in 2013 and is created by the Department of Economic Promotion (Provincial Government of Gipuzkoa). Its geographical scope is provincial/sub-regional and is based on the territorial socio-economic development policy. Unlike the regional programme, it does not establish sectoral limits over the type of activity or the number of employees, and considers other social, economic, education and production agents as stakeholders. The programme finances R&D activities and projects, in addition to the expansion and dissemination of the resulting experiences.

Table 3: WPI programmes as policy instruments contained in the STI Plan

Name of the instrument	Innobideak Pertsonak (RP)	Participation Programme (SP)
Scope	Regional (NUTS2)	Sub-regional / Provincial (NUTS3)
Category of the STI Instrument	Support for the business innovation ecosystem	Support for the business innovation ecosystem
Department in charge	Department of Economic Development and Competitiveness - Basque Government.	Department of Economic Promotion - Provincial Government of Gipuzkoa
Origin	Industrialisation Plan 2014-2016	Commitment to the Territory / Commitment to People strategy
Description	To promote the participation of workers in the company to improve competitiveness and social cohesion.	To promote experimentation and intervention in formulas of organisational innovation.
Forms of participation promoted	Participation in Management Participation in Results Participation in Ownership	Participation in Management Participation in results Participation in Ownership
Types of Projects	Individual projects	Individual, in cooperation or in a network
Types of activities	Initial Diagnosis Design of Plans Accompaniment	R&D Projects Diffusion project
Size of Companies	More than 10 workers	No requirements
Participants	Companies (extractive industrial, processing, production, technical services linked to the production processes of the aforementioned and from the field of the information and communication society).	Companies and business associations Trade union organisations STI Network Agents Strategic entities of an educational, economic-social, local and/or regional nature
Types of services provided	Co-financing (50%)	Total financing in R&D projects Partial financing (75%) in expansion and dissemination projects

Source: Basque Government, own elaboration

The main difference between the two programmes is found in the type of project and the types of stakeholders that are eligible. While in the regional sphere the programme finances diagnosis processes, the preparation of plans and monitoring companies mainly from the industrial sector, in the sub-regional sphere the programme promotes R&D projects, the expansion and dissemination of business organisations, and other types of agents of the innovation system. This difference has an impact on the type of activity financed; while at the regional level only individual projects in workplaces are considered, the sub-regional programme extends financing to projects in co-operation with other organisations (social, economic, educational, strategic) and/or companies, as well as for the creation of networks.

Both programmes have their own particular designs and orientations. The RP has a limited scope due to its sectoral nature, limiting participation to individual projects that must follow a diagnosis-based logic, the preparation of plans and their implementation. The participation of education, social or research agents is not possible, and the programme does not establish mechanisms or instruments that make the dissemination of the knowledge generated possible.

With a broad orientation, in that it includes a wide variety of stakeholders (universities, vocational training centres, trade unions, business associations, STI network stakeholders) in the development of individual projects, in co-operation or as a network, the RP guides the activities towards research and the development, dissemination and expansion of the knowledge generated within the framework of the programme.

Discussion

Based on the different approaches to the innovation systems revised, the Basque innovation system can be classified as traditional. The participation of workers as an element to seek innovative solutions to the organisation of work has acquired certain relevance and visibility in the Basque Country starting in the 2010s. However, in the early 1990s, the organisational structure of Basque companies was simple due to the employment size. The evolution and changes in the organisation of work in organisations of the Basque Country has been incentivised, in particular by the ISO certification systems and *European Foundation Quality Management* (EFQM). This evolution took place in particular from 1992 onwards, with the creation of the Basque Foundation for Quality (Euskalit). Starting in 2010, the region is at the lead with the highest number of awarded companies in the European scoreboard. Similarly, it takes place with the proliferation of Corporate Social Responsibility strategies adopted by companies, particularly due to their perception and assessment as an instrument for the improvement of social commitment and relations with employees, which has its impact (Unceta & Gurrutxaga 2005).

The incorporation of new technologies, the higher intensity in R&D and changes in the markets are identified as the main causes among company directives (1996-2001) behind the changes in organisation and management structures, management tools and techniques and the human resource base of companies. In the early 2000s, there is an increase in practices such as ISO 9000 quality management systems, occupational risk prevention plans, diagnosis and training plans, competitor analyses, customer satisfaction surveys, mission and vision definitions, treasury management systems, 5s and continuous improvement (Lahera 2004; Valdaliso 2010; Guler et al. 2002). The type of practices offers an idea of the type of rhetoric and the management style of directives (Barley & Kunda 1992; Abrahamson 1996) used during the period described.

The field studies carried out at machine-tool companies show that the adoption of new forms of work organisation are carried out, mainly, based on regulations and work procedure descriptions designed in technical offices, demonstrating the absence of use of participative forms (carried out directly or by means of representatives) (Lahera 2004).

Although the Basque Country has a tradition, shown through the co-operative experience of Mondragon (MCC) and its broad social capital as a foundation for high levels of co-operation (business to business and business to technology centres), the participation of workers from the perspective of workplace innovation or organisational innovation has barely been studied. Most of the improvements in working conditions have been related to the production capacity model and to collective bargaining.

The Basque Country has been a region rich in negotiation, particularly in the industrial sector. However, recent labour reforms, in particular that of 2012, change this situation; workers covered by an agreement negotiated in the Basque Autonomous Community, after lodging complaints and the non-renewal of the agreement, go on to depend on a state-level agreement or find themselves without the coverage of any agreement at all. According to the Basque Council of Labour Relations⁴ (2017) during the 2011-2017 period, state-level agreements have grown in terms of coverage (affected workers) by 20%, while during the same period the agreements recorded in the Basque Autonomous Community fell by 35%. In addition, most of the agreements relinquished from 2013 onwards are particular agreements recorded in the Basque Country (Consejo Vasco de Relaciones Laborales 2017).

As for non-technological innovations (organisational and marketing), the indicators of the *Regional Innovation Scoreboard 2017* show that the percentage of innovative Basque companies in these fields is still low in the regional European scoreboard. Navarro (2010a) points to evidence about forms of work organisation based on *constrained learning* models (Lorenz & Valeyre 2005), as opposed to the forms based on *discretionary learning*, more typical of the more innovative regions at levels higher than the regional sphere (NUTS 1). Huerta & García (2004), quoted in Navarro 2010a, point to the culture of quality and the inertia of old organisation models as an obstacle for the emergence of new ways of organising work.

Conclusions

As we have seen, one of the weaknesses of the Basque system is in the low levels of organisational innovation. One way to improve the absorption capacity of regional companies could be through programmes to change the governance and control structures of organisations (Navarro 2010a). Establishing the focus of innovation on companies and workers by means of programmes can lead to effects on the creation of institutions to search for solutions capable of generating improvements in the productivity and quality of work, and the creation of bridges among the different knowledge bases available in the region.

Faced with these matters, it seems necessary for the Administration to not only foster and promote them, but also to learn how to develop horizontal and participative public policies with the stakeholders of the innovation system. The programmes represent institutional frameworks which can contribute towards transforming organisational models through public entrepreneurship, insofar as are capable of attracting a critical number of stakeholders and organisations in a research, co-operation, information exchange and regional interaction process (Fricke & Totterdill 2004). It is therefore important to consider the gaps of political knowledge, and to explore in more depth issues such as the design, process and dissemination of workplace innovation;

- Design knowledge refers to the ability to explore the current and future scenarios of

⁴ The Basque Council of Labour Relations is a public institution created as a body for permanent dialogue and meetings between the trade union and business confederations and as a consultant body for social and occupational matters for the Basque Government and Parliament. It is participated by the most representative trade unions and business associations.

⁵ <https://ec.europa.eu/docsroom/documents/24186>

- companies;
- Process knowledge means helping companies to find adequate ways to implement participative processes of change on the foundation of theories or models of change and development intervention;
- Dissemination knowledge is useful to support the transfer and dissemination of experiences and processes of change and intervention for the benefit of the stakeholders that do not participate in the projects (Alasoini 2011: 30-38).

Understanding the programmes as an institutionalised activity (Alasoini 2011) means building spaces for learning and cooperation that can bring together a critical mass of organisations and stakeholders (Ennals & Gustavsen 1999) as a source for the production of innovations in learning based on the design of instruments and public policies with a social impact (Lundvall 1999).

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4.3 Publication 3

The third article is about regional policy initiatives to promote and support workplace innovation through the analysis at meso level of matters associated with multilevel governance. This article contains basic data of the programme that are updated in this document's section of results.

This research expands the application context of the programmes. In this case the Smart Specialisation Strategies are used as a vehicle to analyse the potential of the programme in Gipuzkoa to generate alternative learning spaces in the policy sphere. The data included in the article are sourced from studying the literature and from the two interviews carried out with the team responsible (2 people) for the programme at the Provincial Government of Gipuzkoa in December 2017 and September 2018. The data used to characterise the functioning of the programme is obtained from the official bulletins of the public call, which announce the organisations included, and data provided, by the Department of Economic Promotion in October 2018.

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Alternative Learning Frameworks: Workplace Innovation Programmes and Smart Specialisation Policies in the Basque Country

Egoitz Pomares

Abstract

The paper explores alternative learning frameworks addressing the adaptation of socio-economic institutions to emerging technological paradigms. Based on workplace innovation and development programmes, an exploratory model is presented considering multi-level governance issues. The framework can contribute to better policy implementation of smart specialisation strategies, considering workplace innovation programmes as institutional entrepreneurs. In this sense the framework is applied, in a constructivist way, to regional, sub-regional and organisational institutional contexts.

Key words: workplace innovation, development programmes, policy learning, programme learning, governance, experimental institutions, and technological revolution.

Marcos de aprendizaje alternativos: programas de innovación en contextos de trabajo y políticas de especialización inteligente en el País Vasco.

Resumen

El artículo explora marcos de aprendizaje alternativos que permitan abordar la adaptación de las instituciones socioeconómicas a los paradigmas tecnológicos emergentes. Sobre la base de los programas de innovación y desarrollo en contextos de trabajo, se presenta un modelo exploratorio teniendo en cuenta la gobernanza multinivel. El marco pretende contribuir a una mejor implementación de políticas de estrategias de especialización inteligente considerando los programas de innovación en los contextos de trabajo como emprendedores institucionales. En este sentido, el marco se presenta, con un carácter constructivista, a contextos institucionales regionales, subregionales y organizacionales.

Palabras clave: innovación en contextos de trabajo, programas de desarrollo, aprendizaje de políticas, aprendizaje de programas, gobernanza, instituciones experimentales y revolución tecnológica.

1. Introduction

Digitalisation is a central aspect of a wider economic transformation that includes robotisation, automation and new production processes. This phenomenon has been conceptualised as Industry 4.0. The term, used by the German government for the first time in 2011 refers to a high-tech strategy. After mechanisation, electrification and information, the 4.0 concept is considered as part of the so-called fourth industrial revolution. Phenomena like globalisation and technological change force public and private sector organisations to develop new products, new services and new forms of production.

Technological revolutions represent a paradigm shift for society, business and work that need to be analysed from a systemic perspective (Garmann Johnsen et al 2018). In particular amongst others, technological shifts attract political attention due to their direct implications on jobs, work-processes and skills demand and supply. These issues are included in the New Qualifications Agenda for Europe (European Commission 2016) stressing the need for the labour market and national vocational, education and training systems to be able to provide a skilled workforce for the digital transformation. Skill gaps are relevant for companies, as there may be significant shortages in the actual workforce (Fernandez-Macias 2012). In line with this, it is recognised that skill acquisition can be realised through a diverse variety of forms beyond formal initial education, which includes the workplace (Cedefop 2015; OECD 2010; European Commission 2001). Due to the technological transformation, the current societal context requires a new integration of theoretical and practical knowledge on the organisation (Dhondt & Van Hootegem 2015). Skills gaps can arise because workplaces are integrated in dynamic environments, an issue that addresses workplace and lifelong learning (Cedefop 2015, 85-87). For these reasons, workers adaptability throughout working life is considered to be a critical factor (European Commission 2001). In overall the globalisation of the economy, the introduction of disruptive technologies, demographic, social, cultural and environmental changes will shape working life in the next years. Thus two interlinked limitations are identified to mainstream policy (Lorenz et al. 2016): the first refers to tacit knowledge acquired in daily work and problem solving experience; and the second concerns the work organisation and the way this affects employees in their learning and skill development processes.

Technological unemployment represents a major area of concern in the academic and policy-making environments, but as pointed by Lundvall (2013, 51) few attempts can be identified concerning how innovation relates to work processes. Lundvall argues the importance of workplace learning as a factor in the understanding of the how work and innovation processes are linked. Following Lorenz (2013, 86-71) he concludes that in innovation studies research on work organisation and organisational design has been marginal, and points out the importance of institutional framework conditions for learning and innovation, also acknowledging the relevance of micro-policy initiatives, that focus on organisational change and innovation at workplace level.

An exception can be found in some experiences in the northern part of Europe, with workplace development programmes and initiatives launched in the 60's and the 70's. Main topics at that time were focused in the Scandinavian countries and Germany as part of the Quality of Working Life movement and the humanisation and democratisation of work. In

the last 40 years action research has played a dominant role in this area as Gustavsen (i.e. 1996, 2004) and Fricke (i.e. 1997, 2003) have documented.

In the present, Workplace innovation (WPI) is a good example of the growing interest in holistic approaches to work organisation (European Commission, 2014; OECD, 2010). WPI is an inherently social process, which creates self-sustaining development by learning from various sources and through experimentation (Pot et al. 2016).

The concept of WPI refer to “strategically induced and participatory adopted changes in an organization’s practice of managing, organising and deploying human and non-human resources that lead to simultaneous improved organizational performance and improved quality of working life” (Eeckelaert et al., 2012; 8).

In addition the concept refers to “collaboratively *constructed* changes that also supports other types of innovation” (Alasoini 2011, 25). As *constructed*, workplace innovations can be analysed by using three-dimensional approach based on the content, the process and the context in which it occurs. This view is important, considering that innovative practices derived from organisational or managerial change may include technology change, network relations and employment and labour relation (Alasoini, 2011, 35-36). These issues are of concern in the so-called fourth industrial revolution.

Thus, the main argument of this article addresses the issue of workplace innovation and its potential link to macro-industrial policies in the light of the technological transformation and regionally based specialisation strategies. For this purpose, regional policy and governance will be the central object of analysis. The paper focuses on the potential contribution of workplace development programmes, supporting the implementation of smart specialisation strategies by contributing to new forms of work organisation and innovation processes from a learning perspective. Thus, three major areas comprise this paper; skills and workplace learning, smart specialisation strategies and workplace development programmes. For this purpose, I will focus on the analysis of policies that are being developed in the Basque Country (Spain) with a special focus on the province of Gipuzkoa; one the three territories composing the Autonomous Community of the Basque Country.

The paper is organised in four conceptual parts; first, a framework of technological revolutions and its impact on social and economic institutions is explained (Perez 2004); the second part focuses on workplace development theory programme (Alasoini 2016) and workplace innovation. Considering the above mentioned, the main focus on this paper explores the plausible potentiality of public initiated workplace innovation programmes able to produce learning aimed at better policy implementation, through alternative links between the macro (regional) and the micro (local organisations and stakeholders) policy spheres that can support adaptation to rapid changes through an entrepreneurial discovery process. In a constructivist way the paper explores how skills and competence building through workplace learning could be linked. For this purpose workplace innovation and its Programme Theory (Alasoini 2016) articulates the link to top-down policy of smart specialisation at regional level, and the bottom-up emergence of the entrepreneurial discovery process that happen at organisational level. Workplace innovation or development programmes are here identified as *meso*-level policy spheres of articulation capable of creating alternative and complementary learning spaces based on broad participation. The third part analyses the potential contribution of policies being developed

at provincial level (sub-regional) as complementary or alternatives to support the mentioned digital transformations. The fourth part summarises some findings about the WPI programme in Gipuzkoa through an analytical dimension in a context of multilevel governance. Data will show the potential of cumulative knowledge and its capabilities of expansion. Beside some conclusion on the general framework will be introduced.

2. Technological, economic and social transformations

Considering digital change is of interest to understanding how transformation happens in cyclical terms. Each technological revolution involves the replacement or modernisation of some technologies by others, in the so-called long waves covering a period of 50 years according to the Schumpeterian interpretation. Long waves of economic transformation can be divided in two interrelated dynamics of growth and recession of 20-30 years each (Perez 2004). According to Carlota Perez, based on T.S Kuhn's view of paradigms, the introduction of a new technological pattern is originated by the depletion of the older one. She argues that two operating subsystems can be identified in the capitalist model: the techno-economic and the socio-institutional. Each technological revolution is driven by a technological pattern, which generates changes at individual, organisational and societal level. A technological revolution is defined as a set of technologies, products and industries with the ability to boost waves of long-term development; therefore, each revolution is based on a set of interrelated technologies and organisational principles that leads to the modernisation of the productive system, giving entry to a new techno-economic paradigm (Perez 2004).

"A techno-economic paradigm is a model of optimal practice constituted by a set of technological and organizational, generic and ubiquitous principles, which represents the most effective way to apply the technological revolution and to use it to modernize the rest of the economy. When the adoption is generalised, these principles become the basis of common sense for the organization of any activity and the restructuring of any institution" (Perez 2004, 41).

In this context of transformation, individual actors and companies represent central subjects of change from which new organisational paradigms emerge. Considering this, the formal structures of organisations arise in highly institutionalised contexts (Meyer & Rowan 1977) characterised by rules and requirements to which organizations must adjust in order to receive support and legitimacy (DiMaggio & Powell 1983). With institutionalised frameworks, elements of the rational structure are deeply rooted in organisations. Thus organisations are influenced by normative, cognitive and cultural models, which are embedded in the organisational structure design (Meyer & Rowan 1977, DiMaggio & Power 1983, March & Olsen 1989). In these terms, the process of adopting certain practices are done independently of their effectiveness with regard to the particular organisational contexts where they operate. The homogenisation process that includes organisational structures and practices is defined by the term *institutional isomorphism* (DiMaggio & Powell 1983, Hannan & Freeman 1977).

Isomorphism "forces a unit of a population to resemble other units that face the same set of environmental conditions" (DiMaggio & Powell 1983: 149).

Based on this theory, once the organisational models become institutionalised they tend to spread, which means that the organisational structures become more and more similar to each other. DiMaggio and Powell (1983) theorise about the limitation that the adoption of these institutionalised behaviours have for the innovative capacity of the organisation, which brings on organisations to be trapped in institutionalised trajectories or path dependency issues (Mahoney 2000; Lagerholm & Malmberg 2009).

Institutionalised structures, once they have been developed and disseminated in a given organisational field, limit and constrain the ability to develop new structures to adapt change. When paradigm shift take place, occupations change in a dynamic manner originated by changes in the organisation of the production. The diffusion of new form of production models generates new types of qualifications, demanding new occupations able to create new products and services align to the new technological pattern, which means a change in the occupational structure.

These changes and adjustments are generally translated, as indicated in the introduction, into new demanded competencies and skills (having their origin in the process of dissemination and installation of new transformations) that are conceptualised as waves of development (Perez 2004, 46-47). In that sense the socio-institutional environment can facilitate the adoption of new paradigms that entail the need for new innovative skills (Fricke 1983, 2012), which flourish in a process of complex mechanisms of adaptation. For this purpose, social sciences need to pay attention to the changing tendencies of emerging technological patterns, in order to transform and align the socio-institutional system.

Without an effective transformation of the socio-institutional sphere, able to regulate and facilitate the installation and development of the emerging paradigm, this becomes de-aligned from the techno-economical sphere, which derives tension between both sub-systems; as the technological parading changes more obsolete, turns the socio-institutional sphere having an impact on social cohesion and sustainability. In the paradigm change new organisational designs emerge, which are conducive to new ways of interaction and networking.

Having explained how technological revolution impacts in the socio-economical setting, the actual 4.0 transformation represents a shift that entails the need to deepen into a better understanding of the installation and deployment processes, which can be translated in terms of a tension between the new and the old qualifications and an extension of occupation, organisational design and labour market structure.

3. Learning, Participation and Innovative qualifications in the workplace

Conceptually competencies and skills can be generic or specific, and can be acquired through formal and informal learning processes. Formal learning refers to the acquisition of individual competencies, capabilities and skills within educational institutions, as informal education relates to the other processes, which occurs through embodied practices in non-educational settings such as workplaces. Traditionally, formal and informal learning are considered as separate spheres, considering the prevalence of formal learning over the

informal type (Malcolm et al. 2003). However, both formal and informal learning have a common denominator, based on the development and expansion of skills during working life (Cedefop 2015).

In this sense, a particular area of policy concern is associated with the underutilisation of skills (Green & Zhu, 2010) and the way digital transformation will impact on job quality (Warhurst et al. 2017). Werner Fricke (1983) argues that the innovative capacity of workers is often not realised, due to the many different types of obstacles that the worker cannot address. Some of these barriers can be identified in the hierarchical structure of companies, and their organisation and taylorisation of work within these structures. These conditions have been aggravated due to the influence of external experts, resulting in the isolation of workers with respect to the division of labour. All these relate to “factors in the work environment which determine the extent to which employees can make full use of their competencies and creative potential, thereby promoting job satisfaction and personal development (Totterdill & Hague 2004, 46).

In this context, the creative potential that occurs in the dialogical relations to which mutually responsive reactions can give rise are excluded (Gustavsen 1993; Shotter 2004), thus the capacity for participation and self-determination are often blocked. In a context emerging forms of work organisation, based on learning and experimentation workplace must address interdependent arenas able to stimulate knowledge and creativity, workplace partnership and employee participation, and job enrichment and team-working (Totterdill & Hague 2004) which enhances democracy at the workplace.

The participatory capacity of employees has been defined as innovative qualifications (Fricke 1983). Innovative qualifications are the basis of the workers’ ability to organise their working conditions according to their interest, which provides opportunities to act as subjects of their work (Fricke 2012, 162). Innovative qualifications must be distinguished in their origin and use as capacities for production and reproduction that are developed through a continuous process of learning and reflection. Two types of qualifications linked to the action (work) are identified in this approach: the vocational and the innovative. The former refers to qualifications required to fulfil the task and the objectives of the work; the later defines the creation of alternative elements in the labour situation, which responds to the workers’ interest over the operational design of established work organisation patterns (Fricke 2012). It can be argued that search for convergence can be mean of a *new collective bargaining* (Cressey, Totterdill & Exton 2013) in which employees gain confidence, empowerment and intrinsic rewards, by making their tacit knowledge and creativity available as a resource for organisational improvement and innovation (Totterdill 2017). Overall, the institutional environment has significance for the evolution of practical solutions at organisational level. This reinforces the importance of actors in regards of workplace development (Alasoini 2009).

Considering the above mentioned, how organisations and individuals are constrained by institutional isomorphism and its effect on organisational practices having an impact on the potential contribution of workers knowledge and experience, in the next section a link that connects those emergent processes will be introduced in the context of new research and development policies.

4. Workplace Innovation and development programmes

As pointed in the introduction, workplace innovation is a social process that can contribute to better policy implementation and the adjustment of social and economic institutions. Different policy approaches can be made to promote workplace innovation. A usual distinction is made between hard or legislative intervention, soft or non-binding or deregulation (Alasoini 2011; Alasoini, Ramstad & Totterdill 2017); this can be summarised in the policy matrix below.

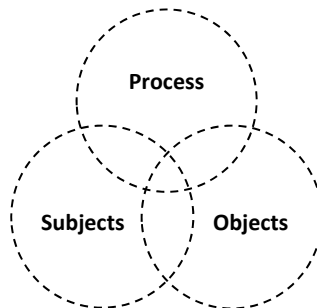
Table 1: Policy Matrix in the promotion of workplace innovation

<p>Hard/Indirect regulation Directives or binding rules which focus indirectly on workplace innovation through some other policy area</p>		<p>Hard/direct regulation Directive or binding rules which focus directly on workplace innovation</p>
<p>Soft/ Indirect regulation General policy frameworks and recommendations</p>	<p>Soft/Intermediate-stage regulation Education and training programmes, research, learning networks, etc.</p>	<p>Soft/Direct regulation Subsidised consultancy, development and action-oriented research projects, tax credits, etc.</p>

Source: Alasoini 2011; Alasoini, Ramstad & Totterdil, 2017.

Development programmes have been a “widely used soft form of regulation to promote the development of working life in different countries” (Alasoini 2009; 2016, 27) “which generally utilise direct and intermediate-stage measures” (Alasoini 2016, 35) “launched and governed by key regime actors with an aim to support sociotechnical transitions” (Ibid. 2016, 39). Ideally a programme, as a soft form of policy intervention, means a fixed-term institutionalised activity (Alasoini 2011, 30). Thus a programme is understood as the conjunction of three aspects (Alasoini, 2008); first, several organisations participate in a development process guided by a shared framework; second, the content to be developed within the framework is agreed by the organisations, and other stakeholders groups like government, social partners, researchers, consultants and other experts; third, the development process requires interaction, co-operation and information exchange.

Chart 1: Programme framework, subject, object and process of learning



Source: adapted from Alasoini (2008).

In the analysis of the adaptation of emerging techno-economic paradigms and having in consideration organisational isomorphism, the modernisation of social institutions is identified as a driver for successful change. From a sociological perspective the tension between structure and agency has been explained using the concept of entrepreneurial institutions (Battilana et al. 2009; Garud et al. 2007) which refers to “agents who initiate changes that break with the prevailing institutional logic within a given context by actively participating in the implementation of these changes through the active mobilisation of resources”. The concept of development programmes as institutional entrepreneurs has been introduced by Tuomo Alasoini (2016):

“Workplace development programmes represent a collective or distributed agency that typically comprises the parties involved in expanded triple helix co-operation.” (Alasoini 2016, 29).

The European Commission is driving new policy concepts founded in Research and Innovation Strategies for Smart Specialisations (RIS3), aiming to reach Europe 2020 strategy objectives. In this framework all member state regions are required to have a strategy, in order to receive funding from the European Regional Development Fund. RIS3 are defined as integrated, place-based economic transformation agendas, which focus policy support and investments on key challenges and needs, for knowledge-based development as building regional/national strengths, competitive advantages and potential for excellence (European Commission 2012).

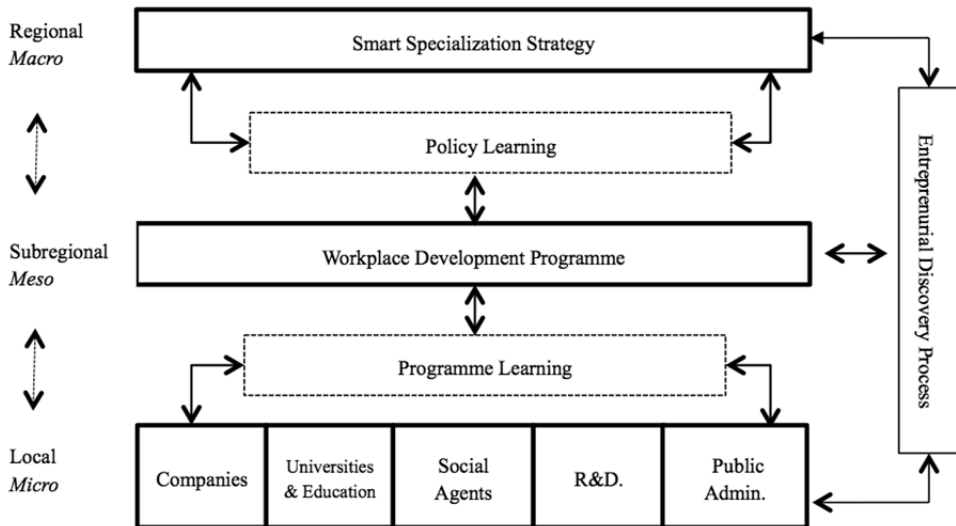
However specialisation must be interpreted as an exercise of diversification instead of pure specialisation (McCann & Ortega-Argilés 2011). Conceptually, the implementation process of the strategy marks regional priorities through an *entrepreneurial discovery process* in which all key stakeholders collectively seek and agree on strategic priorities (Foray et al 2012). Originally the concept refers to (Foray et al., 2009; Foray 2009) the learning process in which a region, driven by entrepreneurs, gradually discovers prioritisation areas in R&D and innovation linking the ability to transform current economic structure to a path of growth and employment. Entrepreneurs must be understood in a broad sense, including companies, higher education institutions, public research institutes, researchers and so on) gathering anyone who is in the best position to combine different approaches for new market opportunities in a creative manner (IPTS 2012).

The rationale supporting RIS3 is based on coordination and governance as a key issue. Within the RIS3 framework interaction between institutions and actors can be linked to the perspective of regional learning (Lundvall 1996; Gustavsen, Nyhan & Ennals 2007). As pointed by OECD (1996) learning economy requires a rapid and continuous adaptation of skills. This addresses organisational arenas where research and participation (Gustavsen 2005; 2017; Fricke & Totterdill, 2004) can potentially contribute to the process of transformation (Totterdill 2018) and systemic change (Garmann Johnsen et al. 2018).

Considering the above mentioned, the main focus on this paper explores the plausible potentiality of public initiated Workplace Development Programmes able to produce links between the macro (regional) and the micro (local organisations and stakeholders) policy spheres that support adaptation to rapid changes through an entrepreneurial discovery process. For this purpose, the Programme Theory developed by Tuomo Alasoini (2016) articulates the link between the top-down policy of smart specialisation at regional level, and the bottom-up emergence of the entrepreneurial discovery process that happens at the

organisational level. Development Programmes are here identified as *meso* policy spheres of articulation.

Diagram 1: Integrated dynamic framework



Source: Own elaboration.

According to the systemic framework, Workplace Development Programmes should be understood as a production and development system:

“As production system a programme is called on to produce outcomes derived from the role and function of the programme (...). As a development system, on the other hand, a programme should produce programme learning and policy learning” (Alasoini 2008, 64).

Ideally a programme can act as an interactive learning space where learning and knowledge creation requires a shared and common space (Alasoini 2006) or a development coalition (Ennals & Gustavsen 1999) fostering joint learning and knowledge creation. In this framework programmes are introduced as dynamic systems capable to generate learning at programme and policy levels. The former: programme learning, refers to the learning during the implementation where subjects of learning are the programme implementers. The latter: policy learning, contributes to a broader context of learning including policy-makers (Alasoini 2008, 66).

“Programme learning refers to learning that occurs *inside* the programme during its implementation, whereas policy learning *transcends* the programme and extends to the role and function of the next-generation programme” (Alasoini 2016, 84).

Publicly promoted development programmes focusing on workplace innovation have demonstrated improvements in terms of productivity and quality of working life (i.e. Gustavsen et al. 1996; Alasoini 2006). Gustavsen’s ideas (2003, 2004) about programmes

as generative mechanisms for social change point out the challenge to create interactive and parallel processes in a variety of organisations simultaneously. Thus, the impact of programmes can be understood as cumulative and mutually supportive innovations able to produce change in Society. This change can be produced at regime level (i.e. national, regional, sectorial level) as new paradigms of work organisation. As noted before, workplace innovation also supports other types of innovations. Programmes to produce change at regime levels depend, not only by the programme's characteristics, but other economic and social benefits that this innovation can produce (Alasoini 2016, 105-106).

Based on a constructivist view, the next section exemplifies a potential regional learning approach in the Basque Country combining regional policy making addressed to companies and other stakeholders in a broad sense that pivots through sub-regional policy interventions based on workplace innovation. To do this, the institutional context of both regional and sub-regional (territorial) scenarios and how learning can be fostered will be explained.

5. The institutional context in a nutshell

The institutional Basque system is highly de-centralized with respect to the Spanish State, with the capacity to establish its own self-governing bodies granted through the Statute of Autonomy, which is recognised constitutionally. This means rights over self-tax regulation, healthcare, public safety, education and territorial organisation. Within this institutional framework each province of the Basque Autonomous Community has its own public budget and tax regulations policy to manage public policies, in particular in areas related to social, knowledge and economic promotion areas. A more in deep analysis of the regional innovation systems and its institutional context have been describe elsewhere (i.e. Pomares et al. 2016).

From a European comparative perspective, the Basque Country excels in three dimensions: human resources, attractive research systems, and favourable environment to innovation (Eustat & European Commission – EIS 2017). In regards to the training of human resources, considered as key to innovation, the region stands out by exceeding the EU averages in three key areas; new graduate doctors between 25 and 34 years, population between 25 and 34 years with tertiary education, and the level of inhabitants comprised between 25 to 64 years participating in lifelong learning activities. Regional performance is also above the average of the EU (Eurostat, 2017-Eustat 2017).

Within the regional development approaches, the Basque Country has been characterised as a successful history of regional transformation (OECD 2011). The European Commission also determines the region as an example of good practice regarding the RIS3 (Aranguren, Morgan & Wilson 2016). The Basque RIS3 is included in the Innovation, Science and Technology Plan 2020 (Gobierno Vasco 2015), which has defined 3 priorities aimed at advanced manufacturing, energy and biosciences. Along with this, a series of opportunities have been identified, such as cultural and creative industries, urban planning & regeneration, nutrition and ecosystems (Gobierno Vasco 2014). Advanced manufacturing (aeronautical, naval and railway, automotive, machine tools, capital goods)

represents one of the areas of regional transformation regarding Industry 4.0 concept. However, the RIS3 implementation process brings some challenges (Navarro et al. 2012). One of them is considered to be multilevel governance (Morgan 2016). Multilevel governance is a key challenge, especially in the Basque Country, which is composed by three territories (provinces) with their own institutions (Provincial Councils) and its polycentric orientation (Pomares et al. 2016).

One of the distinguishing characteristics of the Basque RIS3 process is the appearance of emerging plans located at territorial levels, considered as local experimentation opportunities, aligned to the emerging models of experimental governance in the EU (Morgan 2016). Experimental governance (Sabel & Zeitlin 2012) has gained academic and political attention regarding its potential impact for learning in the public policy making of EU member states. The term refers to a multi-level architecture, which links in an iterative cycle oriented to learning processes broad framework goals, discretion to lower levels in the goal implementation, practices of regular reporting and assessment, and periodical revision of frameworks (Sabel & Zeitlin 2012, 169).

6. Territorial approach to the Province of Gipuzkoa

With regard to the promotion of knowledge, innovation and economic policies, the Territory of Gipuzkoa has been aligning its development to the EU Lisbon Strategy. First lifelong learning public programmes were launched in the mid 80's along with information and technology-based investment initiatives. Since 2014 the Territory has been active in policy-making focusing on participation. First workplace innovation programmes in this period promoted workers' participation in management, strategic decision-making, results and capital. In 2016 a provincial tax rule was introduced to support workers participation in the capital of company level, which can be understood as a policy mix complementing development programmes.

Workers participation has gained importance in the political agenda as a driver for competitiveness and social cohesion. An example of this political interest can be found in the Strategic Management Plan (2015-2019) and the *Etorkizuna Eraikiz* (Building the Future, in Basque language) Programme, which focuses on the institutionalisation of a new collaborative governance model oriented to the strengthening of the endogenous capacities of the Territory (Barandiaran & Luna 2018). Considering the Territory as a system of action (Luhman 1995) public policy-making has turned from traditional to more open and innovative design that can be conceptualised as meta-governance (Jessop 2003; Kooiman 2003; Sorensen & Torfing 2005, 2007). In this scenario, meta governance refers to the analysis of policy actions which integrates diverse collaboration through different experimental and strategic programmes on economic, social, political and cultural arenas, including climate change, active aging, employment, cyber security, education, gender, work and family balance and workplace innovation among others (Barandiaran & Luna 2018). In regards to policymaking, Gipuzkoa has experienced action research and its contribution policy learning (Karlsen & Larrea 2014a; Karlsen & Larrea 2014b), a feature that reinforces the open and collaborative character of the territory and its institutions.

Understanding the multi-level governance of the Basque Country and considering sub-regional (territorial) policy spheres, the potential contribution of the experimental institutions, such as workplace innovation programmes, can support the entrepreneurial discovery process in an alternative strategy. In this sense, workplace innovation can result as a driver to promote learning arenas aimed at productivity and quality of working life.

7. Workplace Innovation Programme's Analytical dimensions

The purpose of this section is oriented to locate the territorial Workplace Development Programme promoted by the Economic and Knowledge Promotion Directorate of the Provincial Government of Gipuzkoa. Based on previous research more information on the programme can be found elsewhere (Pomares et al. 2016; Alasoini, Ramstad & Totterdill 2017)). To do this in a complementary manner, the methodologically revised F. Naschold's framework, designed by Tuomo Alasoini (2009, 2016, 115-118) as a learning oriented model will be applied.

Both the original and the revised model are based in six generic principles considered as crucial for the social impact of programmes (Alasoini, 2009): policy context, orientation, participation, horizontal networking, aim and resources and infrastructure.

- *Policy Context:* Based on the programme description on the aim is addressed to workers participation (capital, results, strategic decision making and management) by the promotion of people's centred approaches, learning, territorial development and social cohesion. The programme's strategic justification relies primarily on sustainability territorially rooted decision-making power and lifelong learning to improve productivity and better quality of working life. Macro-industrial policy issues such as digitalisation, robotisation, automatisisation, globalisation, competition and delocalisation must be considered as underlying external pressures in the territory. This links programme and company or workplace levels by guiding development activities. Integrated into a broader knowledge promotion policy of Gipuzkoa, the programme supports other policies at the macro-level (Basque Country) as smart specialisation strategies, which aims to impact on territorial socio-economic performance. As a special feature, the strategy relies on the promotion of participated business structures as a key driver for endogenous socio-economic development. Thus the social legitimacy addresses territorial industrial relations and social dialogue at company level. Research is contained in the aim of the programme as a foundation to explore new formulas on participation and work organisation including territorial research system. The design of the programme emerges from the Provincial Government, and involves in its implementation to businesses, research organisations of STI network, higher education institutions and training centres, social partners and other strategic organisations. The focus of the programme is based on the sub-regional level.
- *Orientation:* The programme's goal setting is focused on strengthening the territorial business ecosystem, through workplace innovations and people's centred systems, skills and competence building, organisational or individual learning and networking between participants. In the light of the programme this means of new forms of work

organisation to be developed by research, new methodologies, instruments, evaluation models, and the diffusion, socialisation and experimentation. Overall, the orientations mainly aim at fostering emerging objects for development based on local reinvention as “useful practices” more than “best practices” (Alasoini 2016, 116).

- *Participation:* Workers participation at workplace and company level is contained in a broad way. Gender and age issues are central, which are embedded on sustainable and more cohesive formulas of territorial development policies. The programme is more process than design oriented, as it promotes research on new formulas for workers participation at broad company level issues. The process driven dimension is contained in the goal of the programme by the promotion of participation among managers, workers, researches, social agents and education or training institutions (mobilisation), the inclusion of gender and ageing issues in regards of business continuation and sustainability (social inclusion), and the openness of different partners considering a right balance, able to include different interest and aspirations of a variety of actors (dialogue) (Alasoini 2016, 117).
- *Aim and Resources:* Main objectives can be identified on economic and social development on a sustainable territorial transition, which are integrated in the Programme’s vision and guidelines as described before (intellectual resource) (Pomares et al. 2016). For this purpose, the programme resources are primarily based on economic funding (material resources) for learning based R&D and diffusion activities. The programme has an annual periodicity where participating players (individually or by association in networks) submit development projects (R&D or Diffusion), which are funded. The cost susceptible to being financially covered depends on eligibility criteria such as the innovative nature of activities, the coherence of project activities and methodologies, with the programme goal setting, and the impact, quality and intensity of cooperation in participatory processes (Pomares et al 2016, 119). Other types of resources such as the participation in new or established networks, and the dissemination are also included (social resources), but this depends on implementers and the purposed projects by participants. The programme includes diffusion-and-extension-based activities to sustain or create intermediate or cross-organisational learning networks for dissemination of practices (Alasoini 2016, 118).
- *Networking:* Based on the territorial axis, the programme focuses on the organisational and/or workplace level based on learning by interaction, co-operation and participation, which includes a diverse class of players. This includes individual workplaces, business organisations, social agents, research centre or higher education or training centres. Learning and networking is promoted through research and development projects or diffusion activities.
- *Infrastructure:* The programme is oriented to promote territorially based cooperation and interaction as a vehicle to strengthening social and economic development based on knowledge. For this purpose, in order to be addressed exclusively to business or private organisations it comprises also other actors from the social, economic and knowledge areas, such as research centres, education and social agents.

8. Findings

This section focuses on programme-level issues: Workplace Innovation programmes. To understand the effectiveness it is important to consider programme design and implementation (Alasoini 2016, 40). However, this paper, as driven by a constructivist view, focuses on the potential and integrated framework that Workplace Innovation Programmes are able to support considering other regional policies. The main objective is therefore in describing the contextual factors capable of producing this approach instead of doing an evaluation. In particular, the purpose is to increase the capacity of companies' capacity for learning and adapt (Alasoini 2016, 27) by using broad based participation supporting other regional policies such as smart specialisation. In spite of the supportive capacity of the programme to support other policy spheres aiming at socio-economic development, each programme has its own goals. Ideally, four types of different goals can be addressed in terms of assessment (Alasoini 2006):

- *Public policy goals* addressing the rationale such as i.e. socio-economic development, productivity growth, working life reform, regional development, cooperation or development of networks or clusters.
- *Programme level goals*, which refer to the alignment to the way programme is implemented and resourced to realise, desired change and determined policy goals.
- *Generative results* or external effects mean the capacity of developed activities to be transferred from individual workplace and organisations and benefit to other spheres.
- *Workplace level* results consist on the outcomes generated by the development carried out inside the programme.

Having this in mind, for the purpose of this paper, in this section the main focus will be to describe a combined approach to the way the programme has been implemented. With minor changes (i.e. the title of the programme) since its launching in 2014 workplace innovation has been described as the integration of people, skills and technology based on innovative forms of work organisation through autonomy and learning as a source of productivity and quality of working life (Pomares et al., 2016). In regards of public budgeting, the programme has an annual investment of 3M. In overall between 2014 and 2017 the expenditure reached 13.4 million euros. The total investment in the programme considering the annual public budget of the Economic Promotion Directorate reaches almost 15%. It has to be considered that the Economic Promotion Department is composed by 5 Directorates: Economic Promotion DG, Innovation and Internationalisation DG, Agriculture and Rural Development DG, Mountains and Nature DG, Territorial Balance DG.

Table 2: Budget and programme funding.

	2014	2015	2016	2017	Total
Total Funding (million Euros)	3.3 M. €	3.2 M. €	3.4 M. €	3.4 M. €	13.4M. €
% Of the Economy DG Budget	15,35%	21,31%	11,68%	11,39%	14,93%

% Of the Government Budget	0,44%	0,44%	0,43%	0,41%	0,43%
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Source: Government of Gipuzkoa. Own Elaboration.

The WPI Programme policy goal is set on socio-economic endogenous development as it contributes to other programme and policy spheres in different levels. The unit of analysis in this framework is the number of approved projects in the WPI programme. Following Alasoini, different type of activities can be developed in this framework. In theory programmes can address desirable effects and changes by developing three types of projects: user oriented projects, method based project and learning networks. Each of development projects (potentially) can generate different types of outcomes. In example, three main types of projects are identified within the WPI Programme Theory (Alasoini 2008): user oriented, method based and learning network projects. Each of these development activities differs in terms of the capacity to generate results. User oriented projects generate new design or development systems able to be extended and transferred to others. Method based projects refers to implementation of standards reducing the customised developments. Learning networks represent a hybridisation of user oriented and method based developments, which can contribute to broader learning effects.

In focus, within the WPI Programme of analysis participants can propose several projects for each programme period. In the table below a resume of the approved projects is shown. In overall during 2014 and 2017 a total of 430 projects have been developed. The three types of development activities above can be included, but with regard to available data and the aim of this research, the focus is set on the nature of funded activities. For this purpose a further division between research & development or diffusion projects can be made. Data shows a total of 430 projects, with up to one hundred funded projects per year (see table n. 3). In regards of the type of activities funded within projects, R&D project represent 47,1% and Diffusion activities are 52,9%.

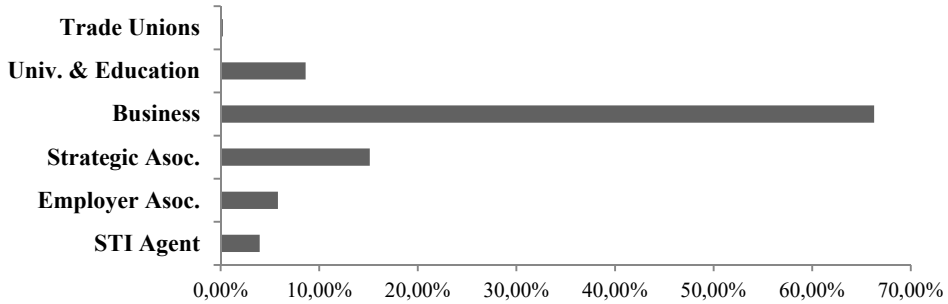
Table 3: Participating Projects.

	2014	2015	2016	2017	Total
Total Projects	103	116	115	96	430
R&D	45,63%	49,57%	47,83%	45,26%	47,10%
Diffusion	54,37%	50,43%	52,17%	54,74%	52,90%

Source: Government of Gipuzkoa. Own Elaboration.

Major players in the programme (over the period 2014-2017) are projects led by Business (66%) and followed by projects of Strategic Associations (15%), such as county economic development agencies. Minor players are Universities and Education Centres (9%), Employers Associations (6%) and Science Technology and Innovation Agents (4%). There was only one project by Trade Unions in the first year of the programme.

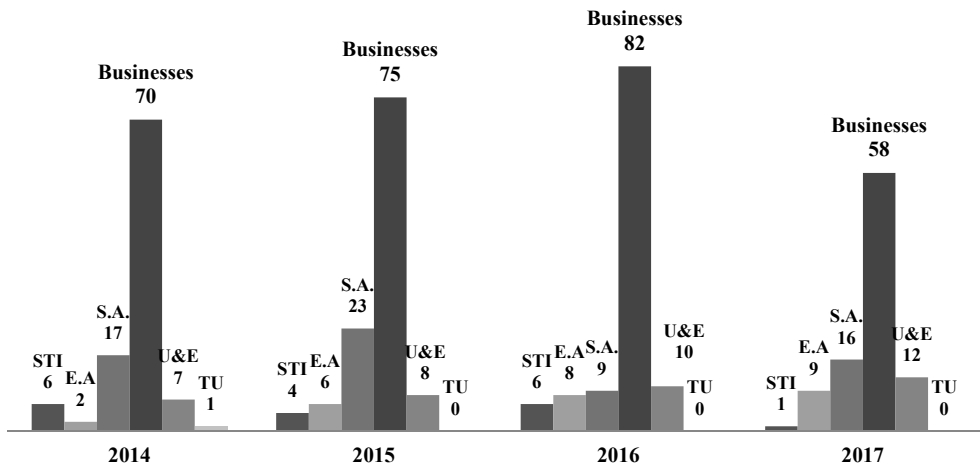
Chart 2: Percentage of participating projects (2014-2017) by player type.



Source: Government of Gipuzkoa. Own elaboration.

In the chart a detailed number of participant projects classified by agents shows that more than half of the funded projects are led directly by companies. As pointed out above, territorially based strategic associations, followed by universities, training and education centres, employer associations and STI agents, take part in less substantial mode. Trade Union project representation is symbolic. However, using the project as a unit of analysis does not describe the nature and goal of approved project. Many of the projects developed by minor agents can be addressed to a large number of activities or companies (i.e. County economic development agencies which gather country-based organisation networks, or universities and ST agents developing activities and projects addressing infrastructure or territorial capacity building).

Chart 3: Number of participating projects by player type and per year.



STI=Science, Technology and Innovation Agents; E.A=Employer Associations; S.A.=Strategic Associations; B=Business; U&E=University and Education Centres; TU=Trade Unions

Source: Government of Gipuzkoa. Own elaboration.

9. Conclusion

Strategic justifications for WPI Public Programme originally were set on working life reform, participation and industrial democracy. As part of the socio-technological school, workplace innovation has been described as *constructed* and *participatory* changes able to produce simultaneous improvements in productivity and quality of working life, but also supporting other type of innovations. Technological shifts require rapid adaptation at workplace level, which should be supported by the modernization of socio-economic institutions (Perez 2004) in order to reach well-balanced transformation of work, organisations and society. Workplace Innovation Programmes as Institutional Entrepreneurs (Alasoini 2016) are examples of alternative modes for learning able to produce better policy implementation. In particular, the regional setting gains importance in terms of the experimental character of institutions and multi-level governance structures as they create complementary routes linking micro, meso and macro spheres. In this sense “causation is contingent on the context” so “produced Programme and Policy learning must be understood as dependant on the content” (Alasoini 2016, 116).

Workplace Innovation and public promoted Programmes can be pivotal, contributing to broad innovation strategies able to produce better understanding when complex objects (i.e. work organisation, new technology implementation, technological disruption, working life reform, job quality or welfare state and tax systems) require integrated approaches. To reach desirable social changes, broad based participation is required, including a wide range of actors that simultaneously work with shared complex object can interact, co-operate and exchange knowledge and experience. For this reason, it is important to consider Programmes as (learning) mechanisms to transform social institutions as working life.

Within the particular scenario of Gipuzkoa and the Basque Country, a four-year period of investment in areas focused on work-organisation, participation and learning shows that alternative institutional learning frameworks can be designed. The vision of the Government in Gipuzkoa (since the 80's) and its learning and sustainability based policy orientation is an example of that.

The challenge now is set on creating (social and political) awareness on the potential complementarity of these programmes, in regards of social transformation, as they can produce niche innovations and cumulative knowledge. As shown in the findings, more than 13 M. euros investment and 430 projects have been developed by a large number of companies, territorially based strategic associations, universities and education centres, employer associations. Trade Unions participation still remains low. For this reason, future research must be guided to the analysis of the results and the generative capacity of the Programme to reach policy and programme goals. This can contribute to a better understanding of new ways for cooperation, learning and new forms of work organisation within local contexts able to be expanded in regional contexts.

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