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Surveillance and Foresight Process of the Sustainable City Context: Innovation Potential Niches and Trends at the European Level

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Abstract: Over the last decades, the environmental situation of the planet has worsened. Much of the pollution and energy consumption is attributed to cities, which are expected to increase in size and population in the coming years. It is therefore necessary to develop systems to make them more sustainable and resilient. In this regard, different agendas, strategies, and regulations have been published, such as the 2030 Agenda. The current research carried out a surveillance and foresight process at the European level in the field of the sustainable city, analyzing actions accomplished, ongoing, or forthcoming from 2014 to the present (2020) and coming years. The objective is to identify the potential niches and opportunities for decision making to develop successful projects in this sector. The study concludes that one of the most promoted themes is related to the environment, highlighting nature and biodiversity in cities to improve environmental quality and achieve the decarbonization necessary to fight climate change. Furthermore, society plays an important role, emphasizing the need to promote the population's inclusion and empowerment. It also underlines the promotion of urban regeneration, which should include energy transition and digitalization to create smart cities, with local circular economies.

Keywords: surveillance and foresight process; sustainable cities development; international trends; 2030 Agenda



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1. Introduction

The current environmental situation of the world is becoming critical. As a consequence, during the COP25 in Madrid in 2019, the European Commission (EC) declared a climate and environmental state of emergency at the international level [1,2], commented in their study that climate change has caused a significant impact on the human living environment. In the case of cities and metropolitan areas, which are defined as hubs of economic growth, it is considered that they contribute to approximately 80% of the world's gross domestic product (GDP) [3]. Moreover, 71% of energy-related greenhouse gas (GHG) emissions, and 60% of resource use, can be assigned to cities [4]. In this regard, it is expected that by 2050, the world's population living in cities will increase by 13%, reaching a total of 68% of the world's population [5]. This equals an estimated increase of 1.2 million km² of the urban land cover in 18 years, almost tripling the urban surface since 2000 [6]. Thus, this anticipated growth of cities is expected to bring up unprecedented sustainability challenges, both at the infrastructure and environmental levels [6,7]. For example, it has been reported that, since 2016, more than half of the world's urban population has been exposed to air pollution levels at least 2.5 times higher than the safe standard [8], an issue that has to be addressed. Therefore, the European Commission has underlined the importance of promoting urban adaptation and achieving climate neutrality by 2050 [1].

In this regard, in the last few years, different strategies and guidelines have been defined in the public sphere in order to find solutions to solve the social, demographic, economic, environmental, and health issues that the world is currently facing [9,10]. It should be stressed that in 2015, the United Nations (UN) published the 2030 Agenda, in which 17 Sustainable Development Goals (SDGs) are established in order to eradicate poverty and achieve sustainable development by 2030 [8]. The agenda balances the three dimensions of sustainable development: economic, social, and environmental [11]. In addition, the New Urban Agenda (NUA) was introduced in 2016, establishing guidelines for the development of cities over the next 20 years in order to promote more inclusive, compact, and connected cities through urban planning and design, governance, legislation, and urban economy [12]. Based on these two agendas, other guidelines, plans, and strategies have been developed at the European, national, and regional level. Notably, “My Agenda for Europe: Political Guidelines for the Next European Commission, 2019–2024” [13] was published by the EC, and it defines its six priorities for the period of 2019–2024. From these, the European Green Deal is notable, settled to provide the EU with a sustainable economy, a Europe adapted to the digital era, and an economy at the service of the citizens [14,15]. Other programs, strategies, and plans related to the urban sector [16], which are directly or indirectly connected to the 2030 Agenda and the NAU, have been developed at the European level. However, as the 2019 SDG Report [17] shows, and some authors also argue, “it can be stated that difficulties remain in terms of implementation” [18].

Thus, in order to promote the implementation of these agendas, the EU has created different European Framework Programs [19,20]. Among them, the European Framework Program for Research and Innovation, which has funded a wide number of projects, is worth mentioning. Its current main program is Horizon Europe, which highlights green and digital transitions as key to Europe’s future prosperity and resilience [20].

Similarly, beyond the policies and guidelines established at a theoretical level, networks and initiatives, such as C40 Cities or URBACT [21,22], have been created for the same purpose, but with a focus on practical experience. Their work is important in order to promote sustainable and innovative projects, produce publications, serve as a database, provide support, create networking, and keep the sector up to date with the latest innovations and advances in the field. Likewise, there are also European awards, whose aim is to recognize the efforts and good practices carried out by cities and stakeholders. This is the case of the European Green Capital, Green Solutions Awards, and the European Mobility Week Awards [7].

In addition, there is a multitude of research and studies, from various disciplines, looking for mechanisms and pathways that can contribute to sustainable urban development. For example, several studies focus on the energy issue. Some researchers propose tools for sustainable urban energy optimization [23], others focus on the research of urban metabolism [24], and some present a more social approach, proposing local energy communities (LEC) as a key mechanism [25]. The economic point of view is also presented in the literature. In this sense, the defense of the sharing economy is linked to sustainability in smart cities [7] and understood as “a socio-economic trend that has the potential to stimulate sustainable economic development and energy efficiency” [26]. Finally, it is worth mentioning other studies that focus on actions in some components of the city. For example, there are many studies on sustainable urban mobility [27,28], and there are studies that propose urban factories as tools to promote sustainable development [29], which is interesting, given that this is a controversial topic due to the frequent association of industry with environmental impact.

All of the above demonstrates the interest in responding to the need to promote and create sustainable, resilient cities with low environmental impact, providing solutions to the future needs of society. However, it is necessary to understand how the sustainable cities sector has evolved and how the urbanization process will be developed in the coming years, taking into account the most interesting and successful strategies. The fact that the themes covered by the sustainable city field are very wide-ranging and interrelated makes it

difficult to know which are the real strategic lines for innovation and, as a result, the efforts are too diversified. In other words, there is a lack of clear information determining the most important topics at present and in the near future on which to focus and concentrate efforts. It is, therefore, important to know which are the most relevant themes or strategies promoted in the last few years and the agents driving these trends. For this purpose, one of the systems used to assess relevant themes and strategies involves carrying out a surveillance and foresight process to detect the aforementioned factors, contributing to informed decision making in defining projects and evaluating future actions. In this sense, there are several interesting studies based on foresight tools or methods [30–32].

The main objective of this paper is to identify the innovative potential niches and opportunities of the sustainable cities sector, at a global level, for their subsequent application to specific local contexts. It also seeks to identify the main international trends and the topics that are the most noteworthy to be taken into account when it comes to defining new disruptive and innovative projects with great potential of success in order to position these at the forefront of the sector. In addition, for the research centers, universities, and other institutions promoting innovative projects, one of the most effective systems for developing such projects is through the support of European funds, in collaboration with other international organizations. Furthermore, the global regulatory framework affecting decision making in the local, regional, state, or European context begins at the European level. For this reason, the current research has accomplished a surveillance and prospective evaluation process of the sustainable cities context at the European level.

2. Methodology

As mentioned above, the surveillance and foresight process has been carried out at the European level, understanding surveillance as the process of collecting data on the actions and activities undertaken so far, transforming it into knowledge, and analyzing and assessing the results obtained. The foresight process is referred to as the analysis of possible future outcomes based on the surveillance process conducted, combining evidence with elements such as intuition. This choice was made because the study aims to be able to define new innovative and successful projects to be developed at the University of the Basque Country, taking into account the European context, as mentioned above. Therefore, the present study has been limited to the European level.

Regarding the methodology approach, the procedure of the surveillance and foresight process has been carried out in two phases: phase 1, the surveillance process, which includes the definition of the study framework and analysis of the context, and phase 2, the foresight process, which comprises a comparative assessment of the surveillance results with EU and UN trends (stage 1) and the definition of the niches of opportunity or conclusions (stage 2). The first phase, in turn, is composed of 3 stages, as indicated in Figure 1: selection of the topics (stage 1: topics), the definition of the scope of the study (stage 2: groups of actions), and the definition and analysis of the context (stage 3: context).

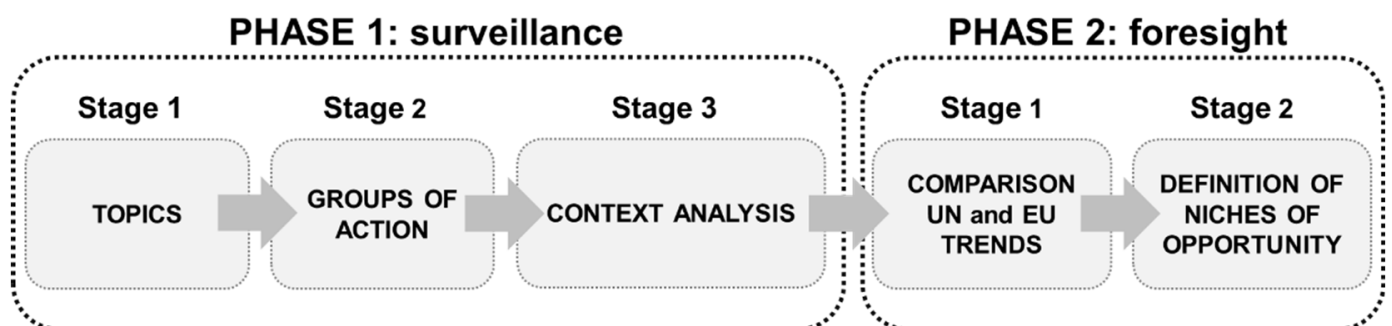


Figure 1. Phases of the surveillance and foresight process carried out in the present study.

2.1. PHASE 1: Surveillance Process

The literature review, or surveillance, was conducted on official websites and papers retrieved from Cordis, Europa.eu, CDTI, Innobasque, RIS3euskadi, and Google Scholar. Moreover, as noted previously, this phase is divided into 3 stages:

- **Stage 1:** in this stage, of the topics on which the surveillance and foresight processes would be carried out were identified, limiting the study to a certain framework of the wide range of topics related to the sector. In order to choose these topics, different surveillance studies were analyzed, as well as the lines that are currently being promoted by Urban Plans and Agendas in Europe [8–10,12,13], in the field of sustainable cities. As a result of this review, it was decided that the most appropriate choice was to adopt the topics list selected by the study carried out by [25], to which the present work is closely linked, as they share part of the research. Accordingly, only actions related to the followed topics have been retained for this study: smart cities, energy renovation of buildings, energy, urban resilience, nature-based solutions, the human factor, and governance.
- **Stage 2,** where the scope of the study was selected, the specific contexts, or “groups of actions” in which the surveillance process will be carried out within each of the previously defined topics were determined. As in the previous stage, given the diversity of action typologies, it has been necessary to classify the actions by groups, thereby delimiting them by categories. In order to define these groups or categories, an evaluation of the types of actions that are promote the sustainable development of cities has been achieved (European Commission, environment; European Commission, cities; and urban development). This means that the groups of actions selected will be based on those that have European recognition and/or impact as drivers of trends. The groups of actions for which the surveillance process has been carried out are:
 - **European awards** that give recognition to the most outstanding actions carried out by innovative and/or successful cities and projects to make cities more sustainable environments.
 - **Networks and initiatives** committed to climate change and sustainable development of cities.
 - **UN analysis reports** establishing the trends to be developed over the coming years.
 - **Funding** by European call for proposals, open or forthcoming, related to sustainable cities that were published during the project study period (November 2020 to January 2021) and the evolution of topics of European grants since 2014.
 - **Innovation and research projects** that have received grants from the European Commission, along with international recognition due to their degree of interest in the development of the EU. Projects which have been carried out in recent years, are currently underway, or have just started were considered in the study.
 - **Existing UN and European agendas, plans, and regulations** to promote the sustainable development of cities and address climate change. These provide the basis for the consequent development of action policies and strategies at a national and regional level.
 - **European Framework Program for Research and Innovation Horizon Europe**, the main themes on which it is focused and in which European funds will be invested in the coming years are analyzed.
- **Stage 3,** in which the surveillance study has been carried out. First of all, due to the diversity of sources and groups of actions to be assessed, it has been considered necessary to determine contexts in which these actions can be grouped and will be analyzed, according to the type of impact or scope they may have. In this way, the surveillance process has been carried out by classifying the actions studied by time, past-present, and near-future context, and by type of implementation, theoretical or practical. Therefore, an action is considered “practical” when it is based on a tangible action with a direct impact on cities or urban spaces. Similarly, it is considered “theoretical” when

the activity is at a lower stage of definition, where ideas and strategies are put forward, but not physically implemented. Regarding the timeframe, it is considered that the past-present context encompasses all those theoretical and practical actions that have been conducted and implemented over the last 15 years (since 2014), when the European Framework Program Horizon 2020 (H2020) started [19]. The future context has been defined by taking into account the open and forthcoming calls for proposals published by the EC and the trends set by the EU for the next Research and Innovation Framework Program, Horizon Europe. This period includes the timeframe from 1 June 2020 to 31 December 2020, in which the present study was carried out. The time frame chosen and the decisions made regarding topics and themes of analysis determine the results of the study, as they limit the search in terms of time and scope.

For each action, the main objectives and work topics/themes, their relevant concepts and results, and possible useful data that can provide a source of knowledge for future projects have been indicated. The work themes and main objectives of each action are the data on which this study will be focussed in the following phases.

Due to the large list of themes obtained as a result of the assessment, the objectives and work themes detected have been grouped according to the thematic priorities of EU cities according to the European Union's website: Cities and Urban Development (European Commission, Cities and Urban Development), which, moreover, are in line with the action plans proposed by the Urban Agenda [11,33–35]. The aim is to be able to carry out an equitable system of evaluation for all actions. Thereby, the thematic areas into which the objectives and work themes detected during the surveillance have been grouped are: energy transition, housing, the inclusion of migrants and refugees, urban poverty, sustainable use of land and nature-based solutions, climate adaptation, circular economy, security in public spaces, culture and cultural heritage, public procurement, digital transition, air quality, urban mobility, and jobs and skills.

Finally, the analysis of the results has been carried out by determining which are the most promoted themes among the actions studied. In other words, the number of times that the theme appears, out of the total number of actions studied, as shown in Equation. In addition, it has been considered an action of interest, or with a high degree of promotion, when it has a result equal to or greater than 50%. The frequency indicates the level of promotion. This does not mean that, in terms of significance, these are the most important areas to implement.

The equation for calculating the level of promotion of each action is:

$$\frac{\text{number of times a thematic has been considered as the main objective or work theme in the studied actions(number)}}{\text{Total of actions studied(number)}} = \text{level of promotion (\%)}$$

Among all the data analyzed, a total of 69 projects, 9 initiatives, 9 plans and agendas, 3 European awards, 2 UN reports, 2 city rankings, and 35 calls for proposals have been selected and thoroughly studied.

2.2. PHASE 2: Foresight Process

This phase is also divided into two stages:

- **Stage 1**, a comparative study has been carried out between the results obtained through the monitoring (phase 1) and the objectives of the 2030 Agenda, the megatrends established by the UN [36], the UN SDGs, and the main objectives of the EU and its Horizon Europe framework program. In addition, it has been assessed if there is coherence between them.
- **Stage 2**, in this stage, a foresight process was conducted in order to identify the niches of opportunity for the promotion of new successful, disruptive, and innovative projects in the field of sustainable development in cities at the European level. That is, based on the results of the surveillance study and the comparative study mentioned above, the themes with the highest level of promotion that are also being encouraged by the EU and the UN have been determined.

3. Results

Using the surveillance and foresight process presented above, results for each action group have been obtained and analyzed. Subsequently, these results have been assessed and grouped by context (past-present and future) and type of action (theoretical and practical). A short explanation of the results obtained in each phase and the most promoted themes are shown in Figure 2:

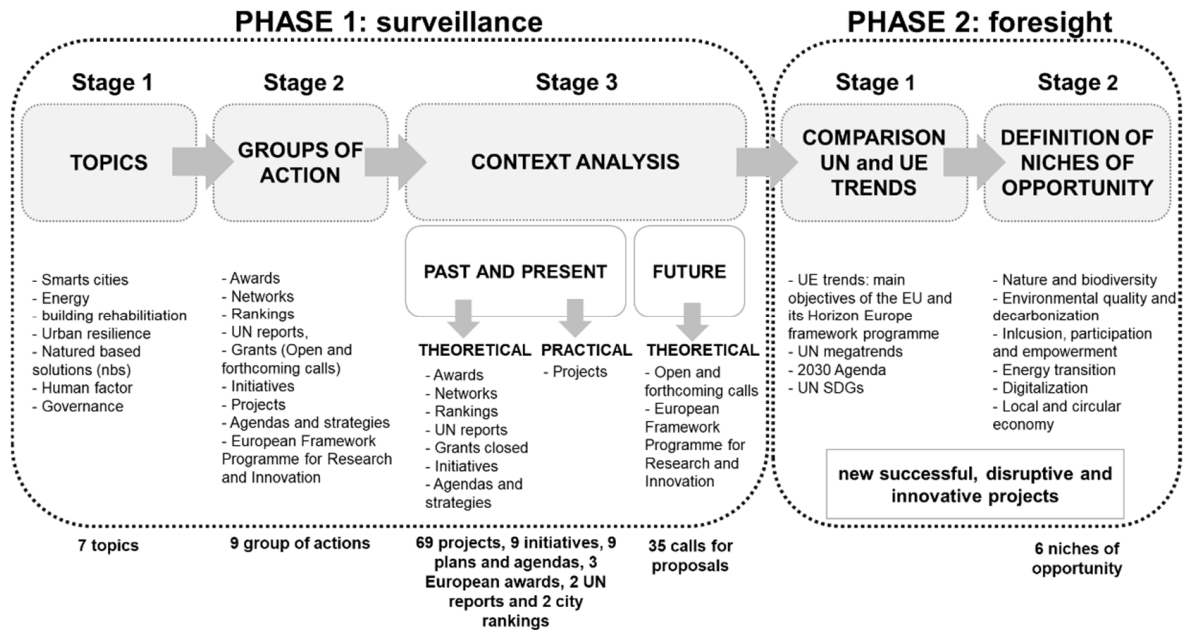


Figure 2. Summary of the results of each phase and stage.

3.1. PHASE 1

The results and level of promotion of each thematic area are presented in Figure 3:

	PAST-PRESENT		FUTURE
	Practical	Theoretical	Theoretical
	Projects	Initiatives, awards, networks, reports,...	European open grants
Energy transition	32%	70%	20%
Housing	39%	50%	60%
Inclusion of migrants and refugees	26%	35%	9%
Urban poverty	28%	55%	40%
Sustainable use of land and NBS	17%	45%	9%
Climate adaptation	58%	65%	51%
Circular economy	80%	90%	77%
Security in public spaces	1%	15%	6%
Culture and Cultural Heritage	68%	65%	46%
Public procurement	12%	25%	0%
Digital transition	75%	75%	63%
Air quality	74%	70%	57%
Urban mobility	55%	65%	29%
Jobs and skills	0%	25%	0%

Figure 3. Diagram of results analysis; percentage of repetition of each thematic, by a group of actions and context.

3.1.1. Past-Present: Theoretical Actions

As the surveillance process has been carried out at an international level, it has been observed that the actions promote a wide range of the topics proposed. Among the actions analysed, in the case of **networks and initiatives**, it is worth highlighting some, such as the European Territorial Cooperation Program URBACT [22], which has several networks divided into five themes: inclusion, urban development, environment, governance, and economy. However, some of the actions studied are more specific, focusing mainly on one issue, such as ECOLISE [37], which is focused on the social aspect, and whose main guiding principles are co-creation, social justice, and ecological integrity.

As in networks, some **agendas** are global and cover a wide range of issues. This is the case of the 2030 Urban Agenda [11], which comprises all of the topics. However, others are more specific policies or strategies and are mainly focused on a single issue, such as, for example, the guidelines for a sustainable urban mobility plan for Europe [38].

In the case of the **awards**, it is noteworthy that, in addition to analyzing the topics promoted in the last edition, the evolution of the indicators on which the award is based are also studied. Thus, for example, the European Green Capital Awards [7], are based on 12 environmental indicators. Taking into account the last 4 awards, it has been observed that in the 2018 and 2019 editions, the indicators were the same. Nevertheless, since 2020, they become more specific in some topics and more generalized in others; despite this, the focus remains the same.

3.1.2. Past-Present: Practical Actions

Regarding the projects analysed, it can be observed that most of them cover several themes and do not focus on a single one. Therefore, out of the 69 projects analysed, 19 of them cover between 8 and 14 themes, and 55% of the projects address between 4 and 7 themes. Only 12, or 17% of the projects assessed, focus on fewer than 3 themes. The maximum number of themes encompassed in a project is 10 out of 14, which is the case for 4 (6%) of the projects. The same number of projects focus on only one theme. Therefore, most of the time, a project tends to work on more than 4 thematic areas. The 69 projects studied have been promoted by European funds and are of international interest. However, there is considerable diversity among them in terms of their nature, the topics they cover, the scale of the action area, or even the level of implementation. For example, while the COHES3ION project (2019–2023) [39] focuses on analysing governance models and learning from other cases, the SMARTENCITY project (2016–2022) [40] aims at sustainable urban transformation that is smart and resource-efficient and has living labs for experimentation. In this way, the second project covers a much wider scope of actions and is enriched by the implementation of the strategies in project case studies or living labs.

3.1.3. Future: Theoretical Actions

Analyzing the evolution of the grants that have been proposed since 2014, it can be observed that, of the total number of calls (open and closed), 64% have some kind of relation with sustainable cities. Of those that are currently open in the study period (November 2020 to January 2021), the percentage is 46%. Of the 4417 total grants and subsidies that have been published since 2014, only 76 are open in the present study period. This represents 2% of the total.

Surfing the EC website and filtering the calls for proposals according to the classification by focus area available on the website, the topics regarding building a low-carbon, climate-resilient future (LC) and digitalizing and transforming European industry and service (DT) account for 10% of the total (open and closed) and about 30% of open grants. Therefore, it can be concluded that their promotion is currently higher than in the past. Similarly, when they are classified by program part (see Figure 4), climate action, environment, resource efficiency, and raw materials correspond to 26.5% of the total grants. However, at present, only 6.6% of the open calls deal with this topic. In contrast, climate action, environment, resource efficiency, and raw materials have a much lower overall

promotion (4.8% of total grants), but are currently being proposed more often (11.8% of total open grants).

	% of OPEN grants out of total section (2014–2021)	% of OPEN AND CLOSED grants out of total section (2014–2021)
PROGRAMME PART		
Excellent Science		
Future and Emerging Technologies (FET)	0%	1%
Information and Communication Technologies	1%	6%
Societal Challenges		
Health, demographic change and wellbeing	0%	7%
Secure, clean and efficient energy	7%	9%
Smart, green and integrated transport	3%	27%
Climate action, environment, resource efficiency and raw materials	12%	5%
Europe in a changing world - inclusive, innovative and reflective societies	4%	4%
Secure societies - protecting freedom and security of Europe and its citizens	0%	3%
Science with and for Society	0%	2%
The European Institute of Innovation and Technology (EIT)	0%	0%
FOCUS AREA		
Building a low-carbon, climate resilient future (LC)	28%	7%
Digitalising and transforming European industry and service (DT)	1%	2%

Figure 4. Percentage of calls related to sustainable cities since 2014 (open and closed).

3.2. PHASE 2

Next, the UN and EU trends were investigated. Subsequently, they were compared with the results collected in the surveillance process described above.

3.2.1. UN Megatrends

In the United Nations (2020) report, they define the megatrends which have shaped the world over time, and the progress has been subjected to analysis. These are climate change and environmental degradation, demographic changes, population aging, sustainable urbanization, the emergence of digital technologies, and the emergence of inequalities. The UN highlights that climate change, environmental degradation, and inequalities are not inevitable issues; rather, they are the result of outright policy failures. In this regard, they propose different strategies and targets to alleviate the problems encountered by these failures. Related to sustainable cities, waste management, nature and biodiversity, climate change, sustainable mobility, governance, social inclusion, participation and empowerment, resilience, circular and local economy, smart cities, and energy transition are highlighted.

3.2.2. European Framework Program for Research and Innovation

One of the important frameworks that the European Commission is promoting is the Framework Program for Research and Innovation [41]. It provides funding to strengthen the EU's position regarding science, industry and technology, innovation and research, and employment and small businesses, and it also addresses major societal challenges such as climate change, sustainable transport, and renewable energy. In the specific case of the new program for the period 2021–2027, Horizon Europe will mainly target the European Recovery and Resilience facility through the promotion of digitalization, energy rehabilitation, and green transition. It also tackles climate change, helps to achieve the UN's sustainable development goals, and boosts the EU's competitiveness and growth. In addition, health has taken a leading role in the last year due to the current COVID crisis, comprising 2% of the total grants since 2014 [42].

3.2.3. 2030 Agenda

If the results of stage 3 of phase 1 are compared to the themes addressed by the UN SDGs, the UN megatrends and the EU's tendencies toward developed in the coming years, it can be observed that the 2030 Agenda covers all the topics studied and detected in the surveillance process. The same goes for the SDGs. Although all the SDGs are related (directly or indirectly) to the themes underlined in this study, it is worth highlighting SDG 11: sustainable cities and communities, which is consistent with all the themes studied. In addition, all the most promoted topics identified in the surveillance process are among those proposed as trends by the EU and the UN. However, in the case of the EU, it underlines other topics that are not among those considered the most promoted at the surveillance level, such as **social inclusion, active learning, employment, and green transition**. Similarly, the UN also commented on the importance of **governance and social inclusion**, which have not been identified as major trends in the surveillance process.

4. Discussion

4.1. PHASE 1

Based on the results obtained in the study and the analysis of the information presented in Figures 3 and 5, it is considered that:

- Regarding the results obtained in the analysis of the **past-present context at the theoretical level**, it can be considered that the most promoted themes in the past-present context at the theoretical level are the majority (9 out of the 14 defined themes) (see Figures 3 and 5). Among these themes, the **circular economy** stands out, which is considered in 90% of the actions; the **digital transition** is present in 75% and **energy transition and air quality** are promoted in 70% of the studied actions. In relation to the **past-present context at the practical level**, from the projects analyzed, it can be observed that most of them cover several themes and do not focus on a single one. Most of the time, a project tends to work on more than 4 thematic areas. In addition, it can be seen that, among all the projects that have been thoroughly analyzed, it has been observed, as shown in Figure 3, that the primarily emphasized themes (more than 50%) are: **climate adaptation, culture, and cultural heritage, digital transition, air quality, and urban mobility**. These results underline that the themes are cross-cutting and not exclusive; they are usually complementary and interrelated. This shows that there is a tendency to promote multidisciplinary or multi-thematic actions in order to promote integrated interventions.
- On other hand, respecting the past-present context as a whole (practical + theoretical), **energy transition, climate adaptation, circular economy, culture and cultural heritage, digital transition, air quality, and urban mobility** are of note. Similarly, regarding the future context at a theoretical level, taking into account the open calls and forthcoming research during the period of the current study and considering the thematic areas defined in the analysis, it is observed that the most promoted topics are: **circular economy, digital transition, housing, air quality, and climate adaptation**.
- Subsequently, analyzing the overall most promoted issues, considering the two contexts jointly, the following topics with major importance are almost the same as those marked in the context of past-present studies, that is, **climate adaptation, circular economy, culture and cultural heritage, digital transition, air quality, and urban mobility**. In addition, certain themes, such as **energy transition, sustainable use of land and NBS, and urban mobility**, decreased radically in promotion between the past-present and the future. Contrastingly, studies dealing with **housing** increase in the future. Hence, this may be linked to the time span of the study with regard to the future context, which is shorter than in the past-present context. On the other hand, it is worth noting that **circular economy** is the most promoted theme in all periods. Finally, it has been remarked that there are thematic areas with a very low promotion, as is the case of **security in public spaces, jobs and skills, and public procurement**. This result could be related to the topics selected in stage 1, phase 1. At the same

time, it can be emphasized that most of the themes have been more often promoted in a theoretical way, rather than at a practical level, especially during the past-present period, which could be interpreted as a difficulty in transferring the theoretical actions into implementation.

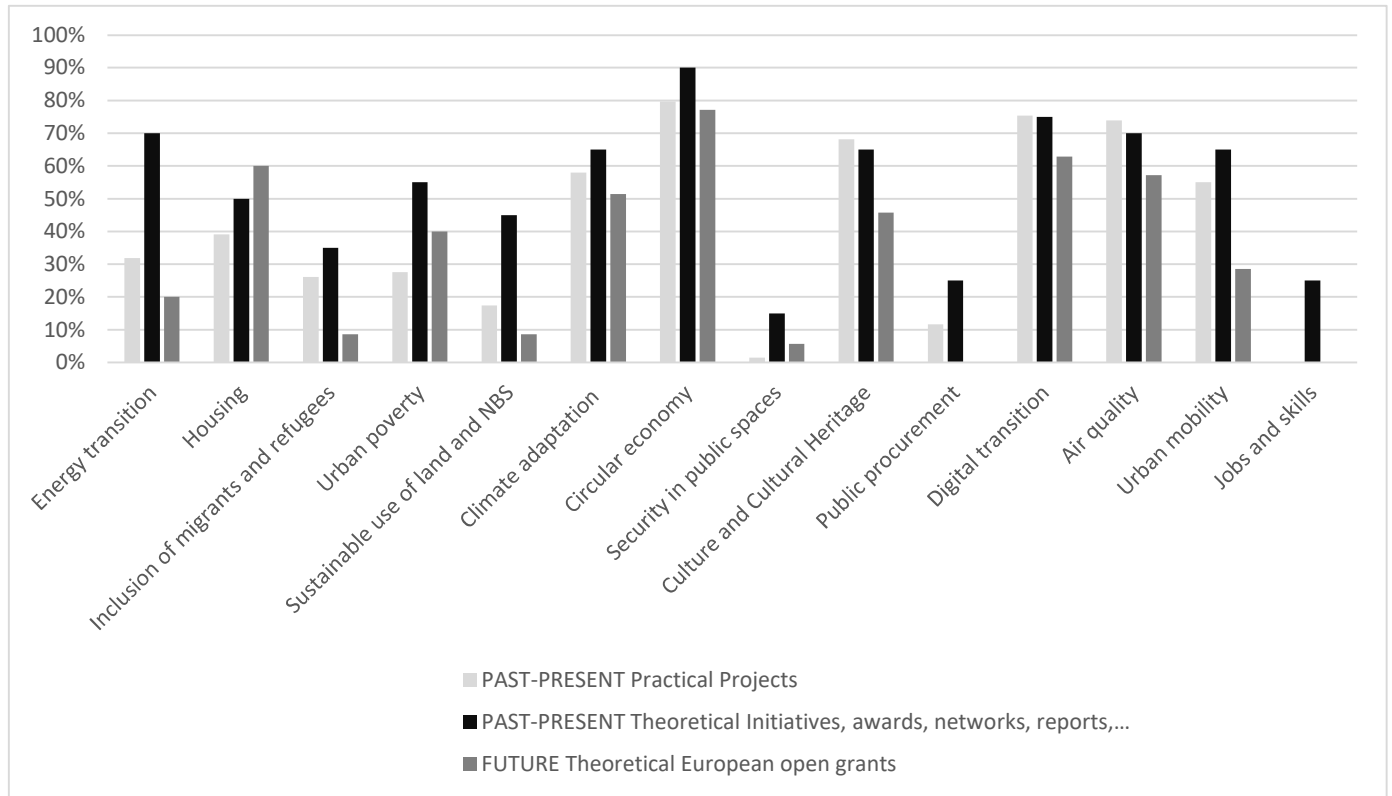


Figure 5. Comparison of the level of promotion of the themes in each context.

As mentioned above, the notable differences in the frequency of some themes between the past-present and the future may be related to the time span of the study with respect to the future context, which is shorter than in the past-present context.

4.2. PHASE 2

The 2030 Agenda covers all the topics studied and detected in the surveillance process. In addition, all of the most promoted topics identified in the surveillance process are among those proposed as trends by the EU and the UN. However, in the case of the EU, it highlights other topics that are not among those considered as the most promoted at the surveillance level, such as **social inclusion, active learning, employment, and green transition**. Similarly, the UN also commented on the importance of **governance and social inclusion**, which have not been identified as the main trends in the surveillance process.

It has also been observed that the topics analyzed are not being promoted to the same degree at the theoretical and practical level and/or by period. **Climate adaptation, circular economy, digital transition, and air quality** are promoted (over 50%) in all three contexts (past-present, future, and UN and EU trends). In the case of **energy transition, urban poverty, and culture and cultural heritage**, these are promoted at a theoretical level in the past-present context and trends, but not as promoted in the future context. This may be due to the short period for calls for proposals open for analysis in this study. **Housing and urban poverty** are only promoted in the theoretical past-present context and trends of the UN and EU, but are less promoted at the practical level.

4.3. General Overview

This monitoring exercise allows for a more reliable prediction of future trends in the sector. In other words, the work achieved can help the different organizations involved in the field of sustainable cities in decision making, focusing on the most important current topics and in the definition of innovative and successful projects that are in harmony with the real and most important ongoing and future trends.

However, it must be noted that any monitoring and foresight process has its limitations. There are several reasons for this. On the one hand, because the field of sustainable cities is very extensive, there are a large number of initiatives, projects, and strategies proposed, covering a wide range of fields of action. On the other hand, in the process, it is necessary to carry out an analysis based on an interpretation of the actions, defining which themes are included in their objectives or main goals. Sometimes this process is clear, but in other cases, it is open to different understandings, as the description of the actions is not clear or defined. Consequently, the results obtained are conditioned by the type of monitoring carried out, the themes taken into account, and the study period. Thus, the results are subject to the type of interpretation carried out.

Furthermore, if the number of actions, the themes, and the study period of the current project were extended and the surveillance methodology was changed, the results could be different. Moreover, as a forecasting of the future based on experiences, it would be interesting to be able to continue this surveillance work by including new experiences and projects. In addition, the time frame should be extended, especially in the future context. The project also continues with the study of the applicability of these trends detected at the European level in the specific local-regional reality of the Basque Country in Spain, analyzing the scope and implementation of the strategies promoted by local urban agendas in relation to European and national trends [43].

5. Conclusions

In the last few years, due to the environmental degradation of the world, different initiatives, strategies, plans, agendas, awards, and networks have emerged, at an international, national, and regional level, in order to promote and build more sustainable and resilient cities. In this regard, the current project has detected the necessity of understanding how the sustainable cities sector has evolved and has identified the tendencies related to urban innovation. For this purpose, a surveillance and foresight process, based on the analysis of actions carried out, in progress or forthcoming, from 2014 to the present (2020), as well as regarding the coming years, was carried out. This study aimed to understand the international context of the sector and to detect the main international trends and the themes that are the most noteworthy to consider when defining new innovative, disruptive projects with great possibilities of success to take positions at the forefront of the sector. This process was carried out at the European level. However, it should be born in mind that the results obtained are constrained by the decisions made, as well as the scope and analysis time frame of the project. If the number of actions, the themes, and the study period of the current project were extended and the surveillance methodology was changed, the results could be different.

The study concludes that one of the topics to which organizations are currently paying special attention is the topic related to the **environment**, highlighting the importance of introducing **climate adaptation** in cities to improve **air quality** and achieve the levels of **decarbonization** necessary to win the fight against climate change. It also underlines the promotion of **urban regeneration**, which should include **energy transition**, **digitalization** to create **smart cities**, and the fostering of a **local and circular economy**. Furthermore, society plays an important role in the UN and UE, emphasizing the need to promote **inclusion, participation, and empowerment** of the population. These themes are those considered to have the greatest innovative potential and can be identified as niches of opportunity and trend at the European level.

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