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Unveiling evidence-based decision making in policy: insights from an Italian case study

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Abstract

This thesis explores in depth the central role of evidence-based decision making (EBP) in public policy, facilitating higher quality decisions and efficient resource allocation.

The objectives of the study include identifying the facilitation requirements for EBP adoption through an Italian case study, surveying the range of evidence sources used by policy makers and exploring the intricate interaction between policy makers and technical offices.

Using a case study methodology, the research focuses on the 'SOLITUDE' project implemented in a municipality in Northern Italy. The research design integrates mixed methods to ensure triangulation and complementarity. Data collection involves six interviews and a survey of 56 decision-makers. Content analysis examines qualitative data, while descriptive statistical analysis analyses quantitative data.

The results obtained from the data analysis highlight crucial factors influencing the assimilation of evidence into decision-making processes. The absence of training among public administrators, especially in smaller municipalities, the lack of dedicated staff and adequate tools for effective governance of the evidence collection and analysis process, significantly hampers its use. Furthermore, increased data availability, stakeholder involvement, transparent dissemination of information and effective communication emerge as vital elements for evidence-driven decision-making. The analysis also highlighted fourteen criteria for selecting evidence sources, of which the reliability of the sources, their knowledge and expertise have the most significant impact on the decision-maker's choice. Functionality, responsiveness to policy objectives and ease of access also play an important role. Obstacles to the relationship between politicians and administrative bodies include staff shortages, slow response rates, the competence and motivation of administrative staff, bureaucratic complexities, poor digitisation and communication barriers.

The findings of this study contribute substantially to a holistic understanding of evidence-based policy-making, its challenges, facilitation pathways and the intricate dynamics between politicians and administrative bodies.

Keywords: evidence-based policy, public policy, facilitators, sources of evidence, politician-administrative body relationship.

Abstract in Italian

Questa tesi esplora a fondo il ruolo centrale del processo decisionale basato sulle evidenze (EBP) nelle politiche pubbliche, facilitando decisioni di qualità superiore e un'allocazione efficiente delle risorse.

Gli obiettivi dello studio includono l'identificazione dei requisiti di facilitazione per l'adozione dell'EBP attraverso un caso di studio italiano, la rilevazione della gamma di fonti di evidenza utilizzate dai decisori politici e l'esplorazione dell'intricata interazione tra decisori politici e uffici tecnici.

Utilizzando una metodologia di studio di caso, la ricerca si concentra sul progetto "SOLITUDE" attuato in un comune del Nord Italia. Il disegno di ricerca integra metodi misti per garantire triangolazione e complementarità. La raccolta dei dati prevede sei interviste e un sondaggio su 56 decisori. L'analisi del contenuto esamina i dati qualitativi, mentre l'analisi statistica descrittiva analizza i dati quantitativi.

I risultati ottenuti dall'analisi dei dati evidenziano i fattori cruciali che influenzano l'assimilazione delle evidenze nei processi decisionali. L'assenza di formazione tra gli amministratori pubblici, soprattutto nei comuni più piccoli, la mancanza di personale dedicato e di strumenti adeguati a una governance efficace del processo di raccolta e analisi delle evidenze, ne ostacola significativamente l'utilizzo. Inoltre, una maggiore disponibilità di dati, il coinvolgimento degli stakeholder, la diffusione trasparente delle informazioni e una comunicazione efficace emergono come elementi vitali per un processo decisionale guidato dalle evidenze. L'analisi ha inoltre evidenziato quattordici criteri di selezione delle fonti di evidenza, di cui l'affidabilità delle fonti, la loro conoscenza e competenza hanno l'impatto più significativo sulla scelta del decisore politico. Anche la funzionalità, la conformità agli obiettivi politici e la facilità di accesso giocano un ruolo importante. Gli ostacoli al rapporto tra politici e organi amministrativi includono la carenza di personale, la lentezza dei tassi di risposta, la competenza e la motivazione del personale amministrativo, le complessità burocratiche, la scarsa digitalizzazione e le barriere di comunicazione.

I risultati di questo studio contribuiscono in modo sostanziale a una comprensione olistica del policy-making basato sull'evidenza, delle sue sfide, dei percorsi di facilitazione e delle intricate dinamiche tra politici e organi amministrativi.

Parole chiave: Processo decisionale basato sull'evidenza, politiche pubbliche, facilitatori, fonti di evidenza, rapporto politici-organi amministrativi.

Chapter 1: Introduction

Evidence-based decision-making, in an all-sectors management context, is described by Baba and HakemZadeh [31] as a dynamic process through which evidence is obtained, interpreted, and used as a basis of decision making.

The origins of the evidence-based movement can be traced back to the field of health, where it first emerged as evidence-based medicine [35]. In the realm of politics, the acknowledgment the recognition of the usefulness of evidence is not a new concept [32]. Some see the idea of evidence-based policy (EBP) dating back at least to the 1950s [36]. Today, the adoption or intention to extensively employ this approach is widespread in numerous countries.

EBP is advantageous because it enhances the quantity and quality of data utilized in decision-making, as well as the methods utilized to assess these data. The reasoning is that, incorporating the most comprehensive information available, decision-making would be improved, and the outcomes of policies would be better [38].

Moreover, it allows a better allocation of public resources. That is especially important nowadays. In fact, the limited budgets of public authorities lead to necessity to ensure that public funds are not wasted on ineffective policies and programs.

Indeed, among its several activities, one of the goals of the European Union is to foster the adoption of this approach in member states at national and local level. European Union, as it will be explained in other chapters, has developed many initiatives to support EBP directed towards EU agencies, governments, scientists, and policy makers.

Furthermore, there are tools that can support policymakers in applying evidence-based approaches. These instruments are provided by private organizations as well as by public ones, mainly by the European Union.

Nevertheless, certain barriers hinder its adoption at a local level. To overcome them, and further facilitate EBP, facilitators are needed.

In EBP, the relationship between policymakers and the technical-administrative apparatus is crucial [44]. Policymakers rely on a technical office to receive supports in research, data analysis, and interpretation, while administrative employees seek clear guidance and communication from policymakers to understand strategic objectives and develop new policies. However, also in this context, there are factors that hinder a proficient and efficient relationship [33] [14].

The thesis objectives are to investigate what potential information, training and facilitation needs public decision makers have in order to improve their ability to use evidence in their role as policy makers; what criteria influence the choice and use of the sources of evidence by policymakers; and, finally, what factors hinder a productive and efficient relationship between policy makers and municipal technical offices.

To meet these research objectives, a case study of a project implemented in a municipality in Northern Italy, was analysed. In this thesis, we will refer to the analysed project as the pseudonym "SOLITUDE," chosen to safeguard the privacy of the involved municipal entity and the individuals contributing to its implementation. SOLITUDINE is the winner of the U.I.A. Urban Innovative Actions call, a programme financed by the European Regional Development Fund (ERDF), introduced by the European Union to tackle urban challenges and promote sustainable urban development through innovative approaches. The programme is part of the European Union's cohesion policy, which aims to reduce economic, social and territorial disparities between the different regions of the Union to ensure balanced and sustainable growth, and according to Article 8 ERDF, the initiative has a total budget of EUR 372 million for the period 2014-2020.

The SOLITUDINE project focused on addressing the challenges resulting from demographic change. Considering the declining birth rate, an ageing population and a significant proportion of single-person households, the municipality sought to find solutions to effectively combat loneliness, a problem that manifests itself as a common consequence of these demographic changes. Adopting a bottom-up approach, the project involved collaboration with various local actors, including universities, associations, cooperatives and citizens already active in the community.

The case study was conducted through an internship at the municipality's Community Policy Office, which provided a unique context for data collection and analysis. During the internship, the research team administered questionnaires and conducted interviews to collect relevant data that served as the basis for the subsequent analysis. More specifically, a survey was submitted to 187 decision-makers in the municipality and six interviews were conducted with different politicians.

Chapter 2 of this thesis will present a literature review divided into three distinct sections.

The first section will focus on elucidating the objectives, functioning and basic principles of cohesion policies, being the context in which the case study takes place. After clarifying and explaining these fundamental principles, the functioning of the programming cycles will be outlined. In addition, a detailed description of the principle of smart specialisation, as one of the key pillars of cohesion policy, will be provided, along with the concept of place-based

innovation. To conclude this section, a comprehensive account of the Urban Innovative Actions (UIA) programme will be presented.

Moving on to the second part of the literature review, the focus will be on the evaluation of the impact of cohesion policy. In the initial part, special attention will be devoted to Europe, exploring the factors that contribute to the heterogeneity of the effects of cohesion policy. Subsequently, the focus will move to the context of Italian cohesion policy funds and governance. This literature chapter will highlight how institutional and governance heterogeneity between regions and countries influences the design, implementation and impact of cohesion policy, while the following chapter will analyse how an evidence-based policy can mitigate this heterogeneity factor, reducing the economic and social gap between EU regions.

Section three will be entirely devoted to evidence-based policies (EBP). Before presenting a clear definition, the concept of evidence and its different typologies will be explained. Next, the definition and benefits of adopting EBPs will be discussed. This will be followed by a detailed exploration of the implementation of such policies, including the principles guiding the selection and use of evidence, the various ways in which it can be employed and its application at each stage of the policy process. A brief description of the role of technical offices will be presented as well as initiatives promoted by the EU to support EBP.

Next, in the chapter 3 the case study will be described. Secondly, all the phases of the methodology employed to analyse interviews and questionnaire will be illustrated.

Chapter 4 contains a detailed description of the results obtained during the analysis of the collected data, divided into three parts, each corresponding to a research question. A discussion of the findings is provided in Chapter 5; the first three sections are devoted to the three research questions, while the last section illustrates the limitations of this study and possible directions for future research.

Chapter 2: Literature Review

This chapter presents the literature review divided into three distinct sections.

As the case study examined in this dissertation is part of the Urban Innovative Actions programme of the European Union's cohesion policies, the first section will focus on elucidating the objectives, functioning and fundamental principles of cohesion policies.

Moving on to the second part of the literature review, the focus will be on assessing the impact of cohesion policy, with a specific focus on Italy. This literature section highlights how institutional and governance heterogeneity across regions and countries shapes cohesion policy's design, implementation, and impact, while the subsequent section will delve into how evidence-based policy can mitigate this heterogeneity factor, narrowing the economic and social gap among EU regions.

The third section will be entirely devoted to evidence-based policies (EBP). The definition and benefits of adopting EBPs will be discussed. This will be followed by a detailed exploration of the implementation of such policies and finally a brief description of the role of technical offices and the initiatives promoted by the EU to support EBPs will be presented.

2.1 Objectives, functioning and principles of Cohesion Policies

Cohesion Policies

Cohesion policy is a European Union's policy that aims to reduce economic, social, and territorial disparities between different regions of the Union in order to ensure a balanced and sustainable growth. In the following years, as new countries joined the EU, cohesion policy underwent several developments and reforms. Its fundamental principles are:

- Additionality: the principle enshrines the need that, in order to ensure a effective economic impact of Structural Fund resources, European aid should not replace economic intervention of the Member State, but should be additional and synergetic with it.

- Concentration: cohesion policy interventions focus in the planning phase on the most relevant needs, and in the programming phase on the most effective measures,

through the combined allocation of financial resources between actions, beneficiaries and geographical areas, and the integration of Structural Funds with other available financial instruments.

- Programming: cohesion policy interventions are defined on the basis of multiannual programming activity negotiated between the Region, the Member State and the European Commission through the adoption of Programmes and the implementation of surveillance and monitoring activities.
- Complementarity: the principle establishes the possibility for the European Union to intervene in areas that do not fall within its exclusive competence, if the objectives pursued cannot be achieved by the Member State or can be better achieved at European level.
- Partnership: the principle states that the definition, management and evaluation phase of cohesion policy programming should be developed on the basis of consultation between the European Commission, the competent authorities at national, regional and local level, and the economic and social partners.

Currently, cohesion policy is mainly financed through the European Regional Development Fund (ERDF) and the European Social Fund (ESF). For the allocation of cohesion policy resources, European regions are distinguished into 'less developed', 'transition' and 'more developed' regions, based on the level of their GDP, respectively below 75 per cent, between 75 per cent and 100 per cent, above 100 per cent of the European average[1].

Programming Cycle

The programming cycles of European Union cohesion policies represent the temporal and strategic framework, established for a period of seven years, within which member states plan and implement policies aimed at reducing regional disparities and promoting economic and social cohesion. These cycles provide a structured approach for the allocation and management of financial resources from the European Structural and Investment Funds (ESIF) across EU regions. The programming cycles are closely aligned with the Multiannual Financial Framework (MFF), which sets the EU budgetary framework, i.e. the overall financial allocations for different policies, for a specific period, usually seven years.

At the beginning of each programming cycle, the Member States and the European Commission jointly develop a Partnership Agreement (PA), which sets out the strategic priorities and investment objectives for the use of ESIF funds within the country or region and the financial allocation for each fund.

Based on the PA, Member States or regional authorities develop Operational Programmes (OPs) which outline specific actions, measures, and projects to be implemented during the programming period. OPs are adapted to meet the specific needs and challenges of each region, taking into account EU thematic objectives and investment priorities. In Italy, the 2014-2020 EU programming foresaw the implementation of 75 co-financed operational programmes using the resources of the four European Structural and Investment Funds: European Regional Development Fund (ERDF), European Social Fund (ESF), European Agricultural Fund for Rural Development (EAFRD) and European Maritime and Fisheries Fund (EMFF).

Operational Programmes (OPs) are divided into National Operational Programmes (NOPs) and Regional Operational Programmes (ROPs) and use the resources of one or more Structural Funds. The body responsible for the OP is called the Managing Authority, which may be directly a Member State, or other public or private bodies designated by the Member State.

National Operational Programmes (NOPs) are managed at national level and cover the whole territory. Each of them focuses on a thematic aspect of particular relevance for the country, corresponding to one or more of the Objectives defined at EU level for the use of Structural Funds. The themes identified by the Italian NOPs for the 2014-2020 programming period are: infrastructure, culture, legality, enterprises, research, urban policies, governance, social inclusion, youth, employment, schools, rural development and fisheries.

The Regional Operational Programmes (ROPs) are owned by a Local Authority (Region or Autonomous Province), are mono-fund and multi-fund and concern the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the European Agricultural Fund for Rural Development (EAFRD), depending on the types of funds made available to the Regions.

During the programming cycle, the responsible Managing Authorities oversee the implementation of the OPs, ensuring that projects are implemented effectively and in accordance with EU regulations. There are also regular processes for monitoring and evaluating the progress and impact of the projects financed to make necessary adjustments to the implementation strategy. An important moment of evaluation takes place in the middle of the programming period, during the mid-term review, which has the aim to adapt the implementation plan of the OPs to emerging opportunities or threats.

At the end of the programming cycle, managing authorities close the OPs and submit final reports on project results and outcomes. These reports provide an overview of the progress

made towards the defined objectives and contribute to the overall assessment of the effectiveness and impact of cohesion policies.

After the closure of the previous programming cycle, a new cycle begins, with the development of a new Partnership Agreement and the subsequent preparation of new Operational Programmes. This ensures a continuous and iterative process of planning, implementation, and evaluation of cohesion policies.[2]

By reading how a programming cycle works, it's clear how effective cohesion policies require strong administrative capacity for planning, implementation and evaluation activities: identifying the needs of citizens and businesses, designing services, developing calls for tenders, establishing and enforcing regulations, meeting project deadlines, verifying results, proposing timely decisions and ensuring follow-up actions. This inevitably requires investment in institutional capacity, which, as defined by the European Commission, comprises three key areas:

- Governance in the narrow meaning of the term, which refers to the organisational structures and decision-making processes that govern the functioning of institutions and public organisations that implement policies.
- Tools used by institutions, which include methods, guidelines, manuals, procedures, practices, routines, forms and information systems that facilitate operational processes.
- Human resource management, which includes the mechanisms for recruiting, training, motivating and empowering people working in and for the institutions. [3]

Smart Specialization

The implementation of the European Structural and Investment Funds is based on the partnership principle, which involves multi-level governance and collaboration among regional and local authorities, public institutions, civil society organizations, universities, research centres, and other stakeholders. Another guiding principle of cohesion policy is smart specialization, which aims to enhance competitiveness by setting different priorities at the national or regional level.

Smart specialization is a place-based approach, where regions identify and leverage their specific strengths and competitive advantages to promote economic development and growth. It involves developing a strategic vision that matches research and innovation capabilities with local business demands and required skills, this entails the selection of a limited number of well-identified priorities for knowledge-based investments, as resources

are limited. This process of entrepreneurial discovery should not be done with a top-down approach, but should involve various actors, including industries, educational and research institutions, public administrations and civil society, in order to identify areas in which regions or countries have a competitive advantage or growth potential, and thus in which to invest for sustainable economic development based on a region's specific knowledge and infrastructure[4].

As the governance process of smart specialisation is crucial for the quality of the strategy, Regulation (EU) 2021/1058 of the European Parliament and the Council on the European regional development fund and the cohesion fund stipulates that the ERDF should provide support for the development and capacity building necessary for an efficient business discovery process and for the preparation or updating of smart specialisation strategies[5].The regulation furthermore states that these strategies should also promote social innovation, inclusive access to high quality employment and support social economy actors such as cooperatives, mutuals, non-profit associations and social enterprises[5].Additionally, the ERDF should support the transition from institutional assistance to proximity-based support, aiming to prevent community segregation, facilitate social integration, and ensure independent living conditions. Cooperation among local and regional partners within a member state or across different member states should be encouraged, fostering the implementation of regional strategies.

Since the objective of this regulation is to strengthen economic, social and territorial cohesion within the Union, and the Member States alone cannot sufficiently achieve this objective, precisely because of the considerable development gaps between regions, actions at Union level are necessary in accordance with the principle of subsidiarity, as set out in Article 5 of the Treaty on European Union[6]while respecting the principle of proportionality. According to the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall take action only if the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather be better achieved by the Union, by reason of the scale or effects of the proposed action. On the other hand, in accordance with the principle of proportionality, the content and form of Union action is limited to what is necessary to achieve the objectives of the Treaties.

Place-Based Innovation

The concept of place-based innovation was introduced into European policies with the aim of promoting sustainable and regionally focused economic development. An important contribution to the introduction of the concept of place-based innovation in European cohesion policies was made by the report "An Agenda for a Reformed Cohesion Policy", published in 2009 by the European Commission, commissioned by the European Commissioner for Regional Policy, Danuta Hübner, and led by Italian economist Fabrizio Barca [7].According to the report, a place-based approach is a development approach that takes into account the specific characteristics and needs of a particular place or region. It aims to increase efficiency by exploiting all economic and institutional opportunities and every feasible agglomeration or network effect. This approach is based on the idea that local actors are best placed to identify and address the challenges and opportunities of their region and that public interventions should be place-based and subject to public control. The report argues that a place-based approach should be the model for policies to increase efficiency in both urban and rural areas, in both developed and lagging regions. Finally, it makes numerous recommendations aimed at addressing the weaknesses identified in the current cohesion policy and improving its effectiveness, some of them are:

- Concentrate resources: The report suggests that a large share of the EU budget should be allocated to a place-based strategy that can integrate market unification and the erosion of national influence on economic developments.

- Aligning subsidies to results: The report recommends aligning subsidies to the achievement of specific outcomes, focusing on results rather than inputs. This approach aims to ensure that funding is used effectively and produces tangible benefits.

- Mobilisation and learning: The report emphasises the importance of mobilising local actors and stakeholders in the decision-making process. It suggests promoting partnerships and collaborations between different actors to harness local knowledge and expertise.

To summarise, Barca report highlighted the importance of focusing on creating an environment conducive to innovation and local economic development, taking into account local characteristics, skills and specificities to promote economic growth and effectively address regional challenges. This perspective also emphasised the importance of actively

involving local communities, economic and social actors, research institutes and universities in the definition and implementation of regional development strategies. Subsequently, the concept of place-based innovation has been mainstreamed in European policies, including cohesion policy, and smart specialisation.

Urban Innovative Actions

From Article 48 of the Regulation (EU) 2021/1058 of the European Parliament and of the Council on the European regional development fund and the cohesion fund, emerges the strong sustainable urban development dimension of the European Cohesion policy. The article states:

"Within the framework of sustainable urban development, it is considered necessary to support integrated territorial development in order to more effectively tackle the economic, environmental, climate, demographic and social challenges affecting urban areas, including functional urban areas, while taking into account the need to promote urban-rural linkages. Support targeting urban areas might take a form of a separate programme or a separate priority and should be able to benefit from a multi-fund approach. The principles for selecting the urban areas where integrated actions for sustainable urban development are to be implemented, and the indicative amounts for those actions, should be set out in the programmes under the Investment for jobs and growth goal with a minimum target of 8 % of the ERDF resources allocated at national level for that purpose. It should also be established that this percentage should be respected throughout the programming period in the case of transfer between priorities within a programme or between programmes, including at the mid-term review."[5]

About 72 percent of the EU's total population-live in cities, towns, and suburbs. Urban areas face multiple and increasingly complex issues, so they must be engines of new ideas and solutions, dynamic places where change happens on a large scale and at a fast pace.

To meet these challenges, urban authorities must go beyond traditional policies and services by being both brave and innovative. This is why, in the 2014-2020 programming cycle, 115 billion euros from cohesion policy funds were invested in cities, financing more than 980 sustainable urban development strategies managed directly by urban authorities [8].In parallel with these major urban investments, the Urban Innovative Actions (UIA) initiative has given direct support for cities to test new innovative ideas, providing urban areas across Europe with resources to test new and unproven solutions to urban challenges that would otherwise not be put into practice due to the reluctance of urban authorities to use their funds to test new, untried and therefore risky ideas. Under ERDF Article 8, the initiative has

a total budget of 372 million euros for the 2014-2020 period. The initiative supports urban authority of more than 50 000 inhabitants, or a grouping of urban authorities with a total population of a least 50 000 inhabitants.

Projects funded by UIA must be:

- Innovative: meaning that they have never been implemented before anywhere else in Europe.

- Participative: all key stakeholders must be involved in the project both during the design and implementation phase.

- Of good quality: having realistic objectives, coherent activities and effective management.

- Measurable: the outcomes and impact of the project on the local environment must be measured and quantified.

- Transferable: the projects must address an urban challenge that is relevant to other urban authorities in Europe.[9]

For the period 2021-2027, the urban dimension of cohesion policy has been further strengthened[8]. In fact, the new policy objective "A Europe Closer to Citizens" has been introduced into the main policy framework as a strengthened commitment for an integrated territorial development to promote sustainable urban development. The reinforcement of the sustainable urban development dimension of cohesion policy demonstrates the EU's belief that cities should be involved in designing and implementing policy responses to their local challenges. The Cohesion Policy legislative package for 2021-2027 includes the establishment of a European Urban Initiative (EUI), according to Article 49 of the regulation:

"In order to identify or provide solutions which address issues relating to sustainable urban development at Union level, the Urban Innovative Actions in the area of sustainable urban development should be replaced by a European Urban Initiative, to be implemented under direct or indirect management. That initiative should cover all urban areas, including functional urban areas and support the Urban Agenda for the European Union. To stimulate participation of local authorities in the thematic partnerships under the Urban Agenda, the ERDF should provide support for organisational costs related to such participation. The initiative could include inter-governmental

cooperation on urban matters, in particular cooperation aimed at capacity building at local level to achieve UN Sustainable Development Goals. Member States, regional and local authorities should be actively involved in managing and implementing the European Urban Initiative. Actions agreed within such a management model could include exchange for regional and local representatives. Actions undertaken within the European Urban Initiative should promote urban-rural linkages within functional urban areas. Cooperation with European Network for Rural Development is of particular importance in this respect."[5]

The EUI program aims to target urban innovations in a more rigorous "bottom-up" logic and emphasizes the demarcation and complementarity between the EUI and other EU budget opportunities to support innovation. In addition, the program recognizes the need for a support mechanism to enable the structured and systematic transfer of knowledge from successful urban innovative actions to other urban realities in Europe. Indeed, in the 2014-2020 period, the Urban Innovative Actions pilot initiative supported innovations that have the potential to be transferred and replicated by other European cities, but UIA projects are neither sufficiently equipped nor financially incentivised to undertake this process on their own. The specific objectives of the EUI are therefore:

- Enabling the transnational transfer and replication of successful urban innovative actions (2014-2020) and EUI innovative actions, ideally with the support of cohesion policy funds (and/or other funding sources).

- Contributing to the capacity building of cohesion policy beneficiaries, particularly cities, by strengthening their capabilities and innovation profiles.[8]

2.2 The impact of Cohesion Policies

The expected economic cohesion effects between EU countries have not yet materialised within the framework of cohesion policy, as strong economic and social disparities still remain [3]. This chapter of literature shows how the heterogeneity of institutional conditions and quality of governance between regions and countries significantly influences the design, implementation and impact of cohesion policy. The following chapter will elaborate on how evidence-based policy can improve the quality of decision-making, helping to diminish one of the factors of heterogeneity that contributes to the economic and social gap between regions in the European Union.

Impact of Cohesion Policy in Europe

After more than 30 years of cohesion policy, deep economic and social disparities remain in Europe, both between countries and regions of the same country. A considerable number of empirical studies have been done to assess the effectiveness of cohesion policy [10], but although evaluation techniques have been refined over time, the lack of harmonized and common long-term data and the presence of many factors that can influence the results of the policy have led to a proliferation of studies divided not only on the method and data adopted but also, and more importantly, on the obtained results. Only recently, some empirical work based on counterfactual analysis, an evaluation design that can employ statistical technique with the aim to obtain a quantitative measure of the impact of policies by relying on robust econometric methods, has repeatedly reported the existence of an overall positive and significant effect of cohesion policy on economic growth, which has, however, remained rather moderate, especially when compared to the allocated resources.

Several studies regarding the heterogeneity analysis of the effects of structural funds, extensively highlight how the impacts of cohesion policy are not homogeneous but differ on the basis of both the characteristics of the intervention, the structural characteristics and specificities of the territories, and the contextual characteristics, which relate to institutional capacities, social culture and policy-related objectives.[10]

Factors of heterogeneity

The first factor of heterogeneity concerns the different intensity of financial support that is present at different levels: both between convergence and non-convergence regions and between provinces in the same region. This difference in funding in many cases is really high: regions with the highest funding intensity receive up to 11 times more funds per capita than those with low intensity[10]. Therefore, studies were conducted to assess whether the relationship between treatment intensity and the impact of structural funds was linear.

Empirical analysis shows that this relationship, technically called the "dose-response function", is not linear and that there is a maximum intensity of transfers, beyond which the impact on growth becomes negligible or null. Thus, policy efficiency would be improved simply by redistributing funding to regions with lower aid intensity. Why does the marginal efficiency of transfers decrease after a certain level, i.e. why does the dose-response function become concave at a certain point? Several justifications are possible: the most obvious one relates to the presence of diminishing returns on investments financed by the structural funds, which may vary depending on the region's stage of development, the quantity and quality of social capital and potential demand. A different justification, on the other hand, concerns the existence of a limitation in the absorption capacity of funds in countries and regions, especially in less developed ones. The European Commission attributes this effect to a lack of administrative capacity and the limited quality of institutions that program and manage European funding. A further reason can be identified in the fact that a large amount of Structural Funds funding may lead to their use as substitutes for and not as a complement to national or regional funds, undermining the principle of additionality, one of the four principles of cohesion policy, which stipulates that Community aid must not result in a reduction of the Member State's commitment, but must be additional to it.

The second factor of heterogeneities can be summarized in the notion of "territorial capital," which encompasses the structural economic, cultural, social and environmental characteristics of each region.

The study carried out by the Senate of the Republic's Impact assessment Office on the 2000-2006 programming period[10] sought to answer the following questions:

1) What is the relationship between territorial capital and economic growth?

2)How and to what extent does territorial capital act as a filter for the impact on economic growth of regional policies?

In answer to the first question, the empirical analysis shows that territorial capital acts as a facilitator for policies whose main objective is to stimulate economic growth, while those

policies more focused on objectives in the social sphere can in turn contribute to the strengthening of specific elements of territorial capital and thus in the long run, have an indirect impact on economic growth.

With regard to the second question, i.e. the role of territorial capital in reinforcing the effect of cohesion policy investments, the analysis shows that the relevant element is not the absolute endowment of territorial capital, but the type of resources owned. In particular, a complementary relationship emerges between territorial capital and regional policy: regions that are more endowed of tangible elements[1] tend to be characterized by greater effectiveness of policies that act on intangible elements[2], and vice versa. Policies on intangible elements, on the contrary, tend to be less effective in contexts rich in intangible territorial resources. Therefore, to ensure that policies implemented with structural funds are effective, their objectives must be consistent with the above-mentioned territorial complementarities.

The final factor of heterogeneity concerns the institutional conditions and quality of governance in which the implementation of cohesion policy hinges, which can differ widely across regions and countries, with major implications for the quality of policy design, implementation and effectiveness, which is reflected on the heterogeneity of the effects. The effectiveness of cohesion policies is strongly influenced by the public administrative capacity of countries and regions.

In order to identify the needs of citizens and businesses, to design services, to draft calls for tenders, to respect timeframes for implementation and to verify results, it is necessary to invest in institutional capacity (for the definition see chapter 2.1) and in innovative capacity building models that support cohesion policy administrations in the programming, implementation and evaluation of policies in a co-design and accompanying perspective, and not as a traditional technical assistance activity. Co-design and accompanying processes are based on the principle that the resolution of many critical issues related to the implementation of cohesion policies requires multi-level governance based on the principle of enhanced cooperation. This means defining an 'implementation model' of intervention choices, to ensure the achievement of agreed objectives, through participatory modalities and to guarantee the integration of different levels of programming and implementation.

During the 2014-2020 programming cycle, extraordinary support task forces have played an important role for Managing Authorities lagging behind in the implementation and spending of Operational Programmes, implementing effective enhanced cooperation actions aimed at strengthening the capacity of public administration to fully and timely implement programmes[1]. The Regional Task Forces are composed of highly professional experts with the objective of supporting the Managing Authorities of the Convergence

Objective regions in identifying the criticalities that prevent a timely implementation of the Operational Programmes, promoting the most suitable solutions also for reaching the expenditure target and avoid the risk of decommitment. The teams of experts were specifically identified on the basis of the accompaniment needs that emerged with reference to each territory and were composed of multidisciplinary professionals able to guarantee adequate support with respect to all aspects of the "chain": programming, planning, implementation, monitoring and reporting.

Impact of cohesion policy in Italy

An analysis of the performance of the programming cycles, particularly of the 2014-20 period, highlights how Italy, one of the largest beneficiaries of cohesion funds, ranks last in terms of efficiency and effectiveness in the use of allocated resources[1]. Italy is strongly affected by a phenomenon known as the 'development trap', used to describe the situation of territories in which the expected reduction in disparities between regions does not occur, but instead there is a tendency for the disparities to increase. This phenomenon helps to understand why cohesion policy has been successful mainly in Eastern European countries, while in Southern European countries, particularly Italy, Greece and Spain, development and convergence have progressively slowed down to a state of stagnation after the achievement of average income values. In these countries, in fact, once the primary investment phase was over, there was no attempt to redirect investment from basic infrastructures to new necessary conditions enabling development: highly qualified training, innovation, improvement in the quality of services and local administrations that address the problem of the governance quality deficit, a factor that we observed to be a determining factor in the effectiveness of cohesion policies [3].

The risk of a region being in a 'development trap' in a given year is assessed by reference to the growth of GDP, productivity and employment, and in relation to the growth of the Member State in which it is located. Generally speaking, 'development trapped' is defined as regions that experience such a condition for 15 years or more, regardless of their initial level of development. Such regions are particularly concentrated in Italy and Greece: these are regions that, despite receiving substantial support from cohesion policy, have struggled to sustain long-term growth [7].

While there are various reasons for falling into a development trap, levels of added value in industry, human capital, innovation endowment and institutional quality are certainly determining factors. The latter point, in particular, highlights how regions with better quality government and a more favourable institutional environment are more likely to

avoid the risk of being trapped in development even if they belong to the category of less developed regions.

Despite internal differences between macro-areas, Italy has positioned itself entirely on negative values of the European Government Quality Index (EQI), with the sole exception of the Autonomous Province of Trento. The EQI is the only measure of institutional quality available at regional level in the European Union, and it defines institutional quality as a multidimensional concept consisting of impartiality and high quality of public service delivery, together with a low level of corruption[11].

Italian Cohesion-policy funds

Since 2015, the European Commission has started publishing open-format data on the use of the European Structural and Investment Funds (EIS) of the 2014-20 cycle that can be viewed on the 'Cohesion Open Data Platform' portal. It gives an overall picture of the progress of programming at European level, which is a useful comparative approximation of Member States' capacity to manage Cohesion Policy resources. The portal makes it possible to view, for each Thematic Objective, Country, Fund or Programme, the resources programmed, the resources allocated to projects and the expenditure incurred by beneficiaries (i.e. the entities ultimately responsible for spending the resources). According to the European Platform, with reference to the Structural Funds, excluding the Cohesion Fund, of which it is not a beneficiary, Italy ranks second in terms of overall resources allocated, while it ranks second lowest in terms of expenditure incurred by beneficiaries.

As mentioned in the previous chapter, European Union allocates specific financial resources to each Member State on the basis of the Partnership Agreement, to which are added the national resources made available by the Member States themselves, which are aimed in an integrated way towards the achievement of cohesion policy objectives. The origin of the financial resources, either from the European or the national budget, distinguishes European cohesion policy from so-called national cohesion policy. The two main European Cohesion Policy Funds are:

- The European Regional Development Fund (ERDF): aimed at the creation and modernisation of infrastructure, competitiveness of production systems, research, and innovation.
- The European Social Fund (ESF): geared to promoting access to employment and participation in the labour market, as well as social inclusion.

The national cohesion policy funds in Italy are:
- The Rotation Fund

- The Development and Cohesion Fund

The national cohesion policy includes, in addition to the national resources allocated to the co-financing of NOPs and ROPs, the resources allocated to the Complementary Operational Programmes (COPs) and the additional national resources of the Development and Cohesion Fund (FSC). The 2014-20 COPs are designed to pursue the same strategic aims as the EIS Funds and contribute to the greater impact of operational interventions and their efficient financial implementation. These programmes are designed to overcome delays in the use of Structural Fund resources and to strengthen the effectiveness of interventions through the strategic reprogramming of some regional programmes that are lagging behind the best performing ones.

Principle of automatic decommitment

The operation of the SIE Funds of the European Cohesion Policy requires that the expenses incurred during the implementation of the relative interventions are reimbursed on the basis of "payment requests", i.e. reimbursement requests that, once they have passed the required formal control, are certified by a designated Authority (so-called Certifying Authority). The verification of the expenditure trend of the EIS Programmes is carried out annually on the basis of target thresholds, i.e. minimum expenditure objectives linked to the annual budget commitments related to each Operational Programme, the non-achievement of which entails the cutting of an amount of resources equal to the difference between the target to be achieved and the actual expenditure realised and certified in the financial year of reference. This mechanism is called "automatic decommitment". Article 136 of Regulation 1303 of 2013 states:

"The Commission shall decommit any part of the amount in an Operational Programme that has not been used for payment of the initial and annual pre-financing and interim payments by 31 December of the third financial year following the year of budget commitment under the Operational Programme." [12]

The verification, which therefore takes place every year, starting from the third financial year following that of the budgetary commitment, is precisely defined as "n+3", indicating with "n" the year of reference of the EU budget commitment. This verification only concerns the EU co-financing share of the Programmes, with respect to which the risk of automatic decommitment arises, while it does not concern the national co-financing share.

Cohesion policy governance in Italy

Consistent with the principle of multi-level governance, the Italian cohesion policy system is composed of a plurality of actors at various levels of government. Programming, coordination, monitoring and accompanying functions are entrusted to:

- The Department for Cohesion Policies (DPC): supporting structure to the President of the Council of Ministers for the connection between European institutions and state and regional administrations.
- The Agency for Territorial Cohesion (ACT): entrusted with the coordination, monitoring and support function.
- The Evaluation and Analysis Unit for Programming
- The Nucleus for Verification and Control
- Other actors operating in the system include:
  - FSC Steering Committee: formed by representatives of the relevant administrations, Regions and Autonomous Provinces; it ensures the link between the political and operational dimensions to facilitate effective integration between public interventions.
  - CIPESS (Interministerial Committee for Economic Planning and Sustainable Development) intervenes with specific resolutions in the planning phase, in the allocation of Development and Cohesion Fund resources and in the approval of operational plans.
  - the General Inspectorate for Financial Relations with the European Union (IGRUE), of the Ministry of Economy and Finance, it manages the Rotation Fund for the implementation of national policies and is the only accounting centre managing all cohesion policy resources. [1]

Considerations at the end of the 2014-2020 programming cycle

In terms of financial and expenditure progress achieved, the overall national expenditure certified by the European Commission for the implementation of the 51 Operational Programmes exceeded the threshold for automatic decommitment (payment claims stood at EUR 28 billion, against a minimum target set at EUR 18.48 billion). However, comparing financial progress data between categories of regions reveals differences of more than 15 percentage points between more developed regions and less developed and transition regions, confirming their lower capacity to absorb funds. Even comparing the data on the state of implementation of the cohesion policy of the 2014-2020 cycle, collected on the Cohesion Open Data Platform and also confirmed by the National Monitoring System, it can be seen that, as of 30 September 2022, Italy is in second place in terms of the amount of resources allocated, but second to last in terms of percentage of expenditure (55% of the planned against a European average of 69%). The same data also show that the principle of additionality envisaged by the Treaties has been violated, since the resources of the cohesion policy funds have been used to replace ordinary policies, also due to the reduction in investments as a result of the cuts required from Member States by the Stability Pact.

More in detail, the total 43 billion spent out of the total 126.6 billion of the programming, is composed of:

- €35 billion for European cohesion policy, of which €28 billion are European resources and €7 billion national and regional resources (if we consider interventions against the Covid emergency, these values are reduced to €24 billion of European resources and €5 billion of national and regional resources).
- 8 billion for national cohesion policy. [1]

The reason for this imbalance is the lack of an automatic decommitment constraint on national resources and thus of an effective incentive for their utilisation. This has prompted programme administrations to report on projects financed with national resources under the European Funds' implementation programmes, postponing in the course of the year the use of national resources in order to achieve the accounting result required at European level so as not to lose Structural Fund resources[1]. However, this practice is no longer sustainable, both because it disregards the actual objectives of cohesion policies (first and foremost, the principle of additionality) and because it neglects the quality of interventions that are functional to the economic and social development of the Union's territories, to reduce their disparities. A combined reading of these data shows the lack of integration of structural and national funds towards the pursuit of cohesion policy objectives. Moreover,

the POCs, which were created to develop synergies with ROPs and NOPs, were actually used for different functions; the expected complementarity has found a limitation also in the way they were conceived, with different rules from the Structural Funds programmes, less stringent monitoring procedures, and the possibility of internal reshuffling without the approval of the CIPESS or of other collegial bodies.

A further critical aspect relates to the management and monitoring systems of cohesion programmes and instruments, which are heterogeneous and unable to provide adequate data to support public decision-making for such a complex policy, especially because of the necessary integration of the European and national components.

2.3 Evidence-based Policies

What is evidence?

In order to illustrate evidence-based policy, firstly it is necessary to explain what is meant by "evidence".

There is an absence of a clear definition of the term "evidence" in the context of evidence-based policy decision-making. This creates challenges in understanding the process and in developing actions to address obstacles related to evidence uptake. [13]

However, it is possible to say that evidence is an objective information bearing some relationship to a reality that is independent of the observer, or using simpler words, it is information (information is data that has meaning) "that affects existing beliefs of people about significant features of the problem under study and how it might be solved or mitigated".[14]

Types of evidence

The term evidence-based policy is used in the literature, yet largely relates to only one type of evidence—research. But there are more types of evidence [15]. Evidence usually falls into three main types: research evidence, contextual evidence and experiential evidence [16].Click or tap here to enter text.

Research evidence, sometimes referred to as "scientific evidence," consists of factual information that can be quantitative or qualitative in nature. It primarily focuses on assessing the effectiveness of specific solutions or options. Sources of research evidence include performance monitoring, research studies, surveys, and evaluations. The credibility and persuasiveness of research evidence are increased when the study or evaluation adheres to recognized methodologies and practices.

There are multiples sources of research evidence, the most important are:

- Systematic reviews/meta-analysis: These involve identifying, evaluating, and synthesizing empirical evidence that meet specific criteria to address a research question. Explicit methods are employed to minimize bias, and statistical results are pooled to derive conclusions.

- Randomized control trials (RCTs): Also known as experimental design, these studies compare two or more groups from a population of interest. Participants are randomly selected or assigned to different groups, allowing for the testing of cause-and-effect relationships.
- Quasi-experimental design: In this approach, interventions are implemented without random group allocation. The natural population, case matching, or matched comparison groups are used. Various types of analysis can be performed.

Cost benefit analysis can provide evidence to support decisions making process, too [17]. It can contribute to define, explore and assess the positive and negative effects of different policy options for a certain policy problem [18], thus contributing to evidence-based policy[19].

Contextual evidence is derived from the specific characteristics and dynamics of a local setting, including its population. It helps assess the need, feasibility, acceptance, and usefulness of an intervention or policy within that particular context.

Questions addressed by contextual evidence include:

- What are the attributes of the individuals who will be impacted by the policy? How does the issue, problem, or opportunity affect them?
- Who will be responsible for implementing the policy? Do they possess the necessary skills, resources, and capacity to carry it out effectively?
- Do the strengths identified in the research evidence align with the needs and aspirations of the target population? Can it address the diverse needs within the population?

Examples of contextual data and information are: location specific such as community needs, community resources…; operational such as regional performance, capacity and capability of organisations; population such as income, gender, education…

To qualify as evidence, contextual information must undergo systematic collection and analysis. Various sources contribute to contextual evidence, and the most significant ones are:

- Process or formative evaluation: A process evaluation assesses whether an initiative is meeting expectations by examining its implementation, operational processes, and service delivery. It involves collecting information through interviews, focus groups, observation, surveys, and analysis of administrative data.
- Surveys or census: Surveys are a method for gathering the opinions or experiences of a group, often used to summarize results for a larger population. They provide data

that can describe population characteristics at a specific time and identify associations between factors.

- Longitudinal/cohort studies: These are observational studies that track the same group of individuals over a period of time to gather repeated information about their lives.
- Ethnography: Ethnography involves detailed observations and interviews to explore social interactions, behaviours, and perceptions within groups, teams, organizations, and communities.

Experiential evidence encompasses the practical knowledge and expertise derived from individuals who have direct experience and familiarity with the specific issue, location, or subject being studied. People who are sources of experiential evidence have often accumulated their knowledge over time – they have what is known as 'intuitive or tacit knowledge'.

Experiential evidence is drawn from people and their experiences in a variety of ways:

- Case studies, focus groups, provider and user feedback can be used to provide insight into how services or interventions are received. Policy learning from other jurisdictions is an additional source of evidence for policy and program development. As policy networks expand and communication channels improve, the adoption of policy frameworks from elsewhere has become more common. However, it is important to note that many decisions regarding policy borrowing and diffusion are politically motivated rather than evidence-based in their design and implementation. Thus, there are many challenges and risks associated with policy transfer and diffusion, and they are well-documented [20] [9].
- Survey
- Ethnography

Open data

About sources of evidence, open data deserves to be described in a dedicated section.

According to the Italian Code of Digital Administration (CAD), open data refers to information that is freely accessible to all, without any restrictions on its use. These data are provided in an open format, making them easily reusable and exchangeable on the web, without limitations such as copyright or patents. The aim of making data available and accessible to the public is not merely an innovation for a select few specialists but involves everyone [22].

Having free data available has many benefits, for policymakers' activities too: open data can significantly simplify the decision-making process. By granting access to open data, policymakers can make more informed choices, having more evidence at their disposal. They can utilize the data to evaluate various policy options, assess the potential impact of decisions, and identify areas that require improvement [23] [24].

Open data are helpful in monitoring public policies too. They enable individuals to gain insights into government actions and evaluate policy decisions. As a consequence, citizens can provide feedback on the impact of public policies and, as already mentioned, feedbacks are one of the methods that can be useful in the step of monitoring the implementation of a policy or a programme [23].

Following the successful implementation of platforms like www.data.gov.uk in the UK and www.data.gov in the United States, the concept of "Open Data" has made its way to Italy. Portale dei dati aperti della PA (Portal of Open Data for the Public Administration), available at www.dati.gov.it, has been established to promote the reuse of public information for citizens, businesses, trade associations, and public administrations themselves. In Italy there is also OpenPolis, a private foundation that released in 2006 its first online platform, and others have followed. They contribute to the publication of institutions' data in Italy. The foundation reaches an increasing number of users including not only private actors such as associations, companies, citizens, but also regional and local administrations. At European level, EU has published 11 courses, 9 of which directed also to civil servants, focused on understanding open data and how to concretely use them [25].

Additionally, EU provides many other resources where it is possible to gather information and evidence [26]:

- Knowledge4Policy (K4P) is the EU Commission's platform create purposefully for evidence-based policymaking. Among its tasks, it publishes scientific knowledge tailored for policymakers [27].
- KnowSDGs (Knowledge base for the Sustainable Development Goals) platform organises knowledge on policies, indicators, methods and data to support the evidence-based implementation of the SDGs
- OpenAIRE, a platform financed by EU, supports open data in Europe by publishing EU-funded research results, including scientific publications and research data [28].
- The EU Agencies Network on Science Advice (EU-ANSA) is a specialized sub-network operating within the broader Heads of EU Agencies Network. Established in 2013, it brings together scientific personnel from 15 EU agencies. These agencies, which have a significant scientific focus in their activities, are entrusted with the responsibility of providing scientific and technical advice to policymakers at both the EU and Member State levels.
- Eurostat provides free access to statistics at European level (from data collected by statistical authorities of Member States) using harmonised methodologies that enable comparisons between countries and regions;
- Eurobarometer monitors public opinion in Member States and provides results representative of the targeted populations on major topics;

Principles for selecting and using evidence in policy

Evidence is usually sought to show effectiveness ("it works"), show the need for policy action ("it solves a problem"), guide effective implementation ("it can be done"), and show cost effectiveness ("it is feasible and may even save money") [3].

However, evidence goes beyond mere effectiveness or the demonstration of problem-solving capabilities. It must stem from rigorous and reliable knowledge and, only then, its utilization within the policy process can take place [29]. Effectively selecting and utilizing evidence with integrity entails a commitment to avoid manipulation or cherry-picking of evidence to suit predetermined outcomes. When gathering evidence, adherence to three guiding principles ensures its selection is consistent and effective. These principles, that are applicable to all types of evidence, are the following: appropriate, credible and transparent [16].

The term appropriate responds to the question: What do you need to know from the evidence? When considering evidence within the policy process, it is essential to determine its suitability for the specific policy setting. Clearly defining the policy question or problem

is crucial. However, articulating a policy question that is overly broad, multi-faceted, or lacking a clear connection between the problem definition and the desired outcome can present challenges in effectively utilizing the evidence base.

Furthermore, the concept of appropriateness extends to seek evidence that is applicable to the local context and target population. It is important to recognize that even if evidence demonstrates effectiveness in one community or population, it cannot be automatically assumed to be universally applicable. Local variations and specific circumstances may influence the feasibility and success of implementing evidence-based solutions [16].

Once the most appropriate sources of evidence have been identified, the next consideration is the quality or credibility of the evidence. This involves assessing various aspects, such as the source's reputation, research design, methods, and analysis employed in addressing the research question. It is important to evaluate whether the methodology used for gathering and analysing the evidence followed valid and reliable practices to minimize the risk of bias. For instance, it is helpful to examine the funding source or the entity that commissioned the research. Government agencies, public entities, professional bodies, or national organizations generally provide a degree of neutrality. However, research funded by sector groups may involve conflicts of interest, and it is necessary to be cautious in such cases. Assessing the quality of research can also be aided by reviewing peer-reviewed journals and reports published by reputable organizations [16].

The following table gives examples of what can be considered credible evidence for each type of case.

Table 1: Credible evidence

Evidence type	What credible evidence might look like
Research evidence	Scientific evidence has specific quality criteria requiring an appropriate and rigorous methodology, which should be made transparent. What 'credible' looks like will vary across the different research designs. For example, research that uses a quantitative methodology tends to have a larger sample size, whereas an appropriate sample size in qualitative research may be smaller but provide much richer insights.
Contextual evidence	Credible contextual evidence is more than a description of the local setting - it includes factors that are most likely to influence policy compliance or implementation, e.g. do existing service providers have the capability and capacity to take on a new programme? Have you considered how well the socio-economic profile of the target population matches the proposed policy or programme? Etc.
Experiential evidence	A single anecdote or personal view from one expert isn't considered credible evidence, but multiple views from people who make up a representative, appropriate sample of the community are a potential source of experiential evidence. Quotes from experiential evidence can be woven into your policy narrative and used to illustrate the themes emerging from published research literature.

Source: [16]

Transparency in evidence use entails being open and honest about the evidence utilized, its application, and the intended purpose. A transparent approach to evidence use involves several aspects:

- Incorporating appropriate and credible evidence throughout the policy process.
- Acknowledging the existence of different interpretations and views of evidence.

- Clearly stating how the evidence was identified, prioritized, and the reasons behind it.
- Recognizing and describing any gaps in the evidence.

Transparency is a principle that extends beyond evidence use to other aspects of policy development. For instance, when generating evidence through research or evaluation, transparency involves making the collection instrument, raw data, and metadata available to others. It also entails being explicit about analytical choices, assumptions, and testing, while disclosing any potential perceived biases, such as financial or other interests[30].

By embracing transparency, policymakers promote accountability and foster a more comprehensive understanding of the evidence utilisation.

Evidence based policy

Evidence-based decision-making, in an all-sectors management context, is described by Baba and HakemZadeh [31] as a dynamic process through which evidence is obtained, interpreted, and used as a basis of decision making. The reasoning is that, just as medical interventions should be tested or evaluated using rigorous standards of evidence, so too should interventions in other social policy realms [32].

In the context of public policy, evidence-based policy aims to improve the likelihood of policy success by enhancing the quantity and quality of information utilized in decision-making processes, as well as the methods employed to assess it. This approach is grounded in the belief that incorporating the most comprehensive information leads to better decision-making, resulting in improved outcomes during policy implementation [33].

Ensuring access to accurate information is a critical aspect for all agencies. However, the way evidence is identified and utilized greatly depends on the unique administrative practices and procedural rules governing information selection within each organization. Consequently, patterns of evidence use and information management exhibit variations across different policy domains such as social policy, economic development, and environmental regulation, as well as among various organizational types engaged in distinct public sector functions like service delivery, regulatory oversight, and policy development [34].

The evidence-based movement began in the field of health, as evidence-based medicine [35]. In the political arena, the recognition of the usefulness of evidence is not exactly a new phenomenon [32]. Some see the idea of EBP dating back at least to the 1950s, reflected in the

work of American political scientist Harold Lasswell, who worked to identify the roles that research can play in addressing policy problems [36]. Yet it was in the 1990s that many see the modern EBP movement taking shape. Some point to the explicit embrace of the concept by the UK Labour government of the time, which declared in its party manifesto of 1997 that 'what counts is what works' [37]. Today the adoption or the intention to widely utilise this approach is more entrenched in several countries.

Evidence-based initiatives are more advanced in particular policy sectors. In social policy, these sectors include health care services, child and youth development, education and vocational skills, crime control and corrections, family services, social care for vulnerable groups, and technology-assisted innovations in service delivery [34].

Why adopting an evidence-based approach?

The purpose of government is to improve the wellbeing of the community in ways that may not be possible by individuals acting alone. However, policymakers can get it wrong, be ineffective or fail to foresee unintended consequences. There is often considerable debate about whether government action has actually led to an improvement and, if so, the extent of the gains. An evidence-based approach to policymaking is one way to improve policy development. It is built around the belief that better decisions will be made if the process is informed by robust evidence [38]. Policymaking that is rooted in sound theory and empirical evidence should lead to better policies and regulations. Academic research can provide important empirical facts and advance our understanding of policy effects, both ex ante and ex post.[39] [29][33]

Policies developed without a solid scientific foundation are less effective in addressing the underlying issues and are more likely to result in unintended consequences. Science plays a crucial role in comprehending policy problems, evaluating various policy options, designing effective solutions, and distinguishing factual information from political considerations in public debates [40].

Furthermore, evidence-based policy not only supports the development of new policies but also facilitates the evaluation and discontinuation of existing policies or programs that are ineffective or inefficient. It provides the necessary evidence to justify decisions to decommission or stop certain initiatives [41].

By adopting an evidence-based policy approach, public funds can be utilized in a more effective manner, allowing for resource allocation in other areas. In times of limited budgets, it is crucial to ensure that public funds are not wasted on ineffective policies and programs.

For instance, simply allocating more money to address a problem may seem beneficial, but it is important to consider whether those resources could be used more efficiently and cost-effectively. An example is the reduction of classroom sizes in schools, which is often assumed to enhance teaching and learning quality by providing more one-on-one attention to students [41]. However, evidence suggests that this action may yield little overall benefit. Instead, research indicates that there are more affordable alternatives with higher impact, such as providing feedback to teachers or implementing peer tutoring.

Another potential benefit is that evidence is persuasive. This means that it may shape policy debates and overcome the influence of sectoral and special interest arguments. When empirical facts and analysis are rooted in theory, they bring a higher level of discipline to policymaking, making it more resistant to political pressures, lobbying, and capture. In other words, by relying on evidence-based policy approaches, policymakers can make informed decisions that prioritize the greater good and are less susceptible to undue influence, ultimately leading to more effective policies [40] [42].

EBP enhances transparency and accountability to stakeholders by providing a clearer basis for decision-making. It enables policymakers to demonstrate that their decisions are grounded in reliable evidence and are aligned with the best available knowledge. As a consequence, EBP has a positive effect on trust too, increasing trust in public policies and in governments in general [39]. 68% of Europeans agree that scientists and researchers should engage in political debates to make sure that decision-making also takes scientific evidence into account. Furthermore, confidence in science and scientists has increased. Globally, those who said they trust scientists 'a lot' rose from 34% in 2018 to 43% by the end of 2020. Thus, policies rooted in knowledge can be beneficial for public administration's image. Another consequence is that, by presenting compelling evidence of the problem along with evidence about potential solutions and expected outcomes, credibility, of funding bids for project or programme promoted by a public institution, improve. Hence, the chances of securing financial support are positively affected.

EBP serve as a valuable source of learning, providing valuable information about how policy program work, and their potential impacts. Additionally, evidence-based policy plays a crucial role in workforce development by identifying the necessary skills and competencies required for successful policy implementation. This knowledge enables policymakers to design targeted training programs and effective recruitment strategies to ensure a skilled and capable workforce [41].

Given these arguments, policymakers, regulators and standard setters are increasingly under pressure to embrace this approach to policymaking and to justify their policies with research and empirical evidence [40].

Models of research utilisation

About knowledge transfer, in literature there is a simplistic way in which evidence use is discussed [32]. Commonly, 'utilisation" is explained as a single binary variable – as if evidence can be 'used' or 'not used'. Social scientists affirm that there are multiple ways to conceptualize the use of evidence, extending beyond the mere adoption or implementation of findings from a specific research study. Many discussions on this topic often reference the work of Carol Weiss [43], who, during the 1970s, developed a framework categorizing seven distinct models of research utilisation:

- Knowledge-Driven Model: This model suggests that emergent research about a social problem will lead to direct application to policy. It assumes the following sequence of events: basic research à applied research à development à application. Examples of this model typically stem from the physical sciences: application of biochemical research led to the development of oral contraceptive pills; advancements in electronics enabled television to expand the number of available broadcast channels. However, a lower number of examples are found in social sciences.

- Problem-solving Model: it is the most common concept of research utilization. It is about directly applying the findings of a specific social science study to a pending decision. When faced with a problem and the need to make a decision, the absence of necessary information or understanding necessitates the use of research to fill the knowledge gap and either generate a solution or choose among alternative solutions. The model has these steps: definition of pending decision à identification of missing knowledge à acquisition of social science research à interpretation of the research for the decision context à policy choice. The underlying expectation is that the research produced will offer immediate and direct applicability.

- Interactive Model: Those involved in policy development actively seek information from diverse sources, including administrators, practitioners, politicians, planners, journalists, clients, interest groups, colleagues, and social scientists. The process is not a linear progression from research to decision-making but a disorderly and interconnected system that lacks clear structure. In this model, the use of research is only a part of a complex process that also employs experience, pressure, political insight, social technologies, and judgment.

- Political model: decision-makers are inclined to accept research only if it aligns with their political interests, supporting a predetermined decision. Evidence is used to justify the problem at hand. Utilizing research to validate a preconceived stance is

also a form of research utilization, which should not be disregarded as insignificant or inappropriate. The only unacceptable practices are distorting and misinterpreting the findings.

- Tactical Model: evidence and research are employed to justify government inaction, delays, or to show that something has been done even if findings are irrelevant.
- Enlightenment Model: the accumulation of research has a gradual and significant impact on shaping concepts and perspectives, which gradually infiltrate the policy process and influence individuals' understanding of social issues.

Stage of policy process

Policy process is composed of many stages, and in each of them evidence utilisation can take place [15] [16]:

- Introduction: The problem is framed. Here, evidence is needed for the following purposes: gain insights into current drivers and trends; assess causes and evaluate the potential consequences for policy outcomes; contemplate the level of change and the expected timeframe that would be deemed acceptable by both politician and the target population.
- Proposal: the policy is formulated. Evidence should help to: determine the feasibility of achieving the desired change; evaluate the cost-effectiveness of a particular option; assess risks, issues, and uncertainties, both present and probable in the future; choose the most suitable solution from the available alternatives.
- Implementation or application. Evidence is required to: assessing the practicality and acceptance of a solution in the real world, as well as identifying the necessary resources for its implementation; understand the feasibility of change; collect early insights about potential impact on all categories of stakeholders.
- Monitoring. Evidence in this stage should be helpful to answer to: Has the policy achieved its outcomes? Has it addressed the problem as initially defined? Are there any unintended consequences? What worked/did not work in implementing and this policy? Among the types of evidence, feedbacks from stakeholders as well as KPI (key performance indicators) are very helpful.

Technical-administrative apparatus

In the context of evidence-based policymaking, and of course not only in this context, technical offices assume an important role.

Administrative workers, indeed, assist policymakers in multiple ways. For instance, they research data useful to address the subject at hand, and then they collect them from various sources. Moreover, they help in analysing and interpreting evidence [44].

Furthermore, it is worth noting that also the point of view of technical offices. They need clear communication and guidance from policymakers to understand what the objectives are in order to be able to assist in developing new policies or monitoring the implemented ones. Otherwise, they would not be able to respond effectively to policymakers' requests.

Despite its relevance, in the literature, employing Scopus and Google Scholar as search engines, there are very few academic papers that cite administrative apparatus in EBP. The focus of scholars is more about researchers and policymakers. Up to now, literature describes only two potential factors that hamper a proficient relationship between policymakers and administrative employees. The first one concerns education. It is needed a highly trained, and hence expensive, workforce that has far-seeing and future-oriented management and excellent information collection and data processing capacities [33] [29].

According to Jennings et al (2012) [14], internal culture is a factor too. It consists of the dominant modes of behaviour, central values, and belief systems that guide action. If the culture is closed and cares little for scientific research findings, then the administrative apparatus is less likely to engage in evidence-based policies.

Nonetheless, to facilitate evidence-based approaches, it would be beneficial to study whether there are other some factors that hinder an efficient relationship between policymakers and municipal technical offices, and if so to determine what they are.

EU initiatives to support EBP

Adopting in the reality evidence-based policy perspective is not an easy task. There are indeed complexities and challenges. Nonetheless, to facilitate the utilization of evidence, policymakers can leverage a range of tools that have been developed specifically for this purpose. These tools are provided by private organizations (such open data platforms) and mainly by the European Union, which is very active in strengthening this type of policy. EU has developed many initiatives directed towards EU agencies, governments, scientists, and policy makers. The latter are described in this chapter, including only the ones that are currently available in Italy. For instance, a European initiative, "science meets region", whose goal is to promote a culture of evidence-informed policymaking, is not currently exploited by domestic institutions.

<u>Sharing of best practices</u>

Identifying and sharing good practices in connecting policymaking with science is instrumental in helping policymakers across Europe to have good examples of programmes or policies based on evidence [34]. To facilitate this exchange of knowledge, the European Union has developed a live repository where Member States and stakeholders can share their best practices on knowledge valorisation in different policy areas. It does not only offers a collection of practices, but also real-life examples and relevant policies that have proven to be effective across different topics [39] [45].

This repository is part of the Knowledge Valorisation Platform. This platform connects players in Europe with the ambition of transforming research outcomes into sustainable products and solutions that benefit the public [46].

At international level, there are organizations whose goal is to foster EBP. Among them, it is possible to mention "Alliance for Useful Evidence". It is an open free network that develops free and useful guides about how to adopt an evidence-based approach in policies [47].

<u>Governance</u>

In the context of evidence-based policy, governance refers to the internal management system that oversees the process of research evidence and its utilization in policymaking. To foster the adoption of EBP, it is necessary to strengthen principles and processes of good governance. This is relevant also regarding trust, given that clear responsibilities,

accountabilities, guidelines and processes helps in building trust between science and policymaking [39] [48] [49] [13] [32].

According to a survey conducted by the Joint Research Centre (JRC), there is room for improvement in governance practices. Approximately six out of ten national experts describe the production and use of scientific knowledge in policymaking in Europe as lacking transparency to the public, and they agree that roles and processes are not clearly defined. The survey also highlights the existence of a challenge regarding trust between science and policymaking [32].

European Commission has created a better regulation toolbox [50]. It concerns principles that the European Commission follows when preparing new proposals and when managing existing legislation. Among these, there are some tools developed specifically for EBP and are applicable generally.

One principle describes good practices for preparing the evidence base that allows policymakers to take informed decisions. It consists of six steps [26]:

1. Understanding. It is crucial to develop a comprehensive understanding of the policy problem as well as of objectives.
2. Mapping: Evidence mapping involves assessing and cataloging existing evidence on a particular topic, along with assessing what further evidence needs to be collected. It is possible to take advantage of boundary organisations. These bodies serve as intermediaries between scientists and policymakers translating, synthesising and communicating research for policy [51, 52] [39]. Many of the platforms mentioned in the paragraph about open data can be considered boundary organizations.
3. Collection. The sources and the methods to gather any missing evidence are chosen. The choice of the methods and approaches is influenced by the already available evidence found in the previous step, as well as by the questions to be answered. A combination of different quantitative and qualitative methods may be used. EU also suggests that, when choosing experts for gathering or interpreting evidence, representatives of various disciplines should be included to avoid "tunnel vision" (it means considering only a perspective about a problem, instead of having a broader understanding).
4. Analysis. Evidence must be assessed critically in an independent and transparent way, ensuring that it is robust and reliable. Peer-review is a widely recognized method of quality assurance that enhances the credibility of the research outcomes. It is also recommended to acknowledge and address various sources of uncertainty that may impact the results. Where feasible, the most relevant sources of uncertainty should be reported, thus contributing to a comprehensive understanding of the

evidence. Any limitations to the data collected or method employed should be acknowledged too.

5. Interpretation. The evidence collected and analysed in earlier stages is translated into knowledge, permitting to draw conclusions. This knowledge serves to guide policymakers in their decision-making process, being useful for current policies and also potentially for future ones. Interpretation of evidence should be as transparent as possible, ensuring that all the choices, assumptions, weights, and value judgements are clearly explained and comprehensible. The interpretation of evidence should be consistently linked to policy objectives.

6. Presentation. The results of previous steps is communicated to final decision-makers. Communication must be clear, tailored to the audience, and should avoid all technical details not strictly needed. It is important to make explicit, as it was done in the precedent phase, all assumptions, value judgments, limitations allowing to reason about which conclusions can and cannot be drawn at this step.

Building individual competences for policymakers

Using evidence for policymaking is demanding. Not only it requires effective processes and institutions but also professionals with the right competences and capacities. Hence, to facilitate EBP, it is needed to train policymakers [39] [53] [29]. Moreover, according to research [14], public administrations with properly trained workers are more likely to use EBP.

The European Commission has several initiatives in this regard for all stakeholders, including researchers, intermediaries… One set of initiatives specifically focuses on policymakers. The JRC, in collaboration with the EU Policymaking Hub of the Commission, developed a competence framework called 'Innovative Policymaking' [39].

The framework draws inspiration from EntreComp, the European Entrepreneurship Competence Framework. It is composed by 36 competences divided into 7 clusters of competences: Advise the political level, Innovate, Work with evidence, Be futures literate, Engage with citizens and stakeholders, Collaborate, and Communicate. Four proficiency levels (Foundational, Intermediate, Advanced, and Expert) are defined for each competence cluster. Progression to higher levels is achieved through various learning methods such as training courses, on-the-job training, peer-to-peer learning, coaching, and mentoring. This framework can be utilized to assess the skills, knowledge, and attitudes of organizations, teams, or individuals, as well as to provide guidance for professional development, including job descriptions, career paths, recruitment, and capacity building [54, 55].

Furthermore, another free tool, Smart4Policy, is available. It is a test that helps to identify personal strengths and weaknesses, allowing to make an informed decision about own personal learning and development plan [56].

Stakeholder involvement

Consulting stakeholders is an important instrument to collect information for evidence-based policymaking [57]. Their practical experience, data and views are helpful in order to deliver higher quality policy initiatives and evaluations of those initiatives [58] [15] [16].

Among the better regulation toolbox provided, EU suggests a guideline for consulting stakeholders based on three phases [57].

In the first one, consultation objectives must be defined. It is needed also a clear mapping of stakeholders relevant for or interested in the policy area concerned. In order to identify them, a tool, that consists of six questions with a set of sub-questions, is provided. Moreover, it must be selected the most appropriate consultation method, that depends on the nature of the initiative, the scope of the consultation, the identified stakeholders, as well as on time and resources required and available. In the second phase, consultation takes place. The targeted stakeholders should be adequately informed about the launch of this activity. The collected data must be analysed. In the last step, the results of this analysis are communicated to policymakers, who can use them as an input for policies or for monitoring already implemented ones.

Chapter 3: Research Design and Methodology

In the previous chapter an analysis of the existing literature was performed to define the concepts surrounding evidence-based policy and EU cohesion policies. More in detail, subchapters 2.1 and 2.2 summarise the existing literature on cohesion policies, in which our case study is embedded, and their impact, while subchapter 2.3 aims to summarise the existing literature on EBPs: the types of evidence for public policies, the analysis of their implementation, the role of technical offices for EBPs, and EU initiatives to support EBPs.

This chapter presents the methodology used to conduct the research. First, the case study conducted through an internship at a municipality in northern Italy where the SOLITUDINE project was implemented will be explained. The second section of the chapter discusses the research framework that was chosen to conduct the study, which is divided into three steps, each of which is covered in a specific subchapter.

The first step will discuss the Conceptualization phase, in which the gaps in the literature and thus the research questions are identified.

Next, the Experiential phase will discuss the research methodology used, that is a mixed methodology in which both quantitative and qualitative methods are used. The reasons and objectives behind the choice of methodology used will be explained in detail. In this phase, the methodology used for data collection, which is based on the administration of a questionnaire and six interviews will be also explained and the objectives and questions of the questionnaire will be showed. Finally, the methodology by which the collected data were analysed will be explained. The steps followed in performing the content analysis will be reported, and concrete examples of the work done on the results of the interviews and the questionnaire will be given.

The last subchapter discusses the methodology with which the last phase i.e., the inferential phase, whose goal is to develop inferences, explanations, and conclusions from the analysis of the collected data.

3.1 Case Study

This section presents a case study of a real-life project undertaken by a municipality in northern Italy, winner of the U.I.A. Urban Innovative Actions call, which received funding from the European Regional Development Fund (ERDF). The project runs for a period of three years, from July 2020 to June 2023, with an extension until June 2024, and European funding of EUR 4 million. Among the 222 proposals received, this project was one of 11 selected by the European Union, demonstrating its potential as a pioneering solution to address the challenges posed by demographic change, in particular by addressing the pressing problem of loneliness in the community.

The case study presented below was conducted through an internship at the Municipality's EU Policy Office, which provided a unique context for data collection and analysis. During the internship, the research team administered questionnaires and conducted interviews to collect relevant data that served as the basis for the subsequent analysis.

3.1.1 Context and objectives

The Urban Innovative Actions (UIA) programme was introduced by the European Union to address urban challenges and promote sustainable urban development through innovative approaches. Operating within the framework of the European Regional Development Fund (ERDF), UIA's main objectives include promoting collaboration between European cities, sharing knowledge and best practices, and financially supporting ambitious projects with significant potential for positive transformation of urban areas.

The Municipality of the case study chose to focus on the issue of demographic change, driven by a worrying decrease in the birth rate and an increase in the ageing population, as well as a significant increase in single-person households, which account for 41% of the third district, which has been chosen for the representativeness of its urban demography. In light of these challenges, the municipality sought to respond to the prevailing problem of loneliness within the community, identifying it as a key area of intervention. The overall objective of the project was to develop innovative strategies to address loneliness in a collaborative manner, involving eight partners from research and civil society in the territory.

3.1.2 Methodology and UIA funding

The municipality's application for UIA funding followed a two-step approach. Initially, they submitted a project proposal outlining the specific challenges they intended to address and their innovative solutions to tackle loneliness in the third district. The expert evaluators reviewed the proposals based on criteria such as innovation, relevance to the chosen theme, sustainability, and replication potential. Being the chosen candidate, the municipality proceeded to the second stage, where it gave a detailed presentation of the project to the jury, culminating in receiving funding to implement the innovative intervention.

3.1.3 Themes and focus areas of the project

UIA identifies four main themes that projects must address to be eligible for funding: urban poverty, urban economy, urban environment, and urban mobility. Each theme includes several specific issues aligned with the programme's overall objectives. They are:

1. Air quality
2. Circular Economy
3. Climate Adaptation
4. Culture and Cultural Heritage
5. Demographic change
6. Digital transition
7. Energy transition
8. Housing
9. Integration of migrants and refugees
10. Jobs and skills in the local economy
11. Sustainable use of land and nature-based solutions
12. Urban mobility
13. Urban poverty
14. Urban security

The municipality's project focused on addressing the challenges arising from demographic change. Considering the declining birth rate, an ageing population and a significant proportion of single-person households in the third district, the municipality sought to find solutions that would effectively combat loneliness, a problem that manifests itself as a common consequence of these demographic changes. Adopting a bottom-up approach, the project involved collaboration with various local actors, including university, associations,

cooperatives and citizens already active in the community. Specifically, the project's partners are:

- The municipality
- 1 university
- 5 local cooperatives
- 1 local association

3.1.4 Implementation and "Loneliness Index" (LoIx)

The solution proposed by the project revolved around the development of a statistical index known as the "Loneliness Levels Index" (LoIx). The university research centre collaborated in the creation of this index, which seeks to measure levels of loneliness in the community. The LoIx was developed through the administration of questionnaires to households in the third district, comprehensively analysing the causes and dimensions of loneliness in the community. In addition to being a key performance indicator of the project, the LoIx can also be useful for policy makers to have a frame of reference on the state of well-being/illness of the community and make more targeted, effective and sustainable decisions. It analyses the causes of loneliness and defines its variables in the psycho-physical, socio-relational and economic dimensions.

3.1.5 Expected results

With a clear focus on mitigating loneliness and its effects, the municipality's project aimed to achieve several significant outcomes:

- Creation of preconditions for new social interactions and social generations.
- Reduction of urban decay and decrease in the perception of decay.
- Increase in the number of hours spent in relational contexts for recipients with an initial LoIx score on the critical threshold.
- Improvement of the attractiveness of the area and neighbourhoods, making them more family friendly.
- Improved living conditions for low-income families with equal resources.
- Increased adoption of virtuous and sustainable behaviour and non-monetised solidarity practices and exchanges.

3.2 Methodology

To explore the aims of this dissertation, the framework proposed by Teddlie and Tashakkori [60], whose work is based on an analysis of approximately 40 different mixed methods design typologies in the literature [61], was followed. It consists of the following three steps, each of which has its own specific goals:

1. Conceptualization phase: its objectives are literature's gaps evaluation and research questions formulation.
2. Experiential phase: are defined here the research approach, the data collection and data analysis methodology.
3. Inferential phase: it aims to derive inferences, explanations, and conclusions from the analysis of the collected data.

The following chart summarizes the research framework used and which will be explained in detail in this chapter.

Table 2: Research Framework
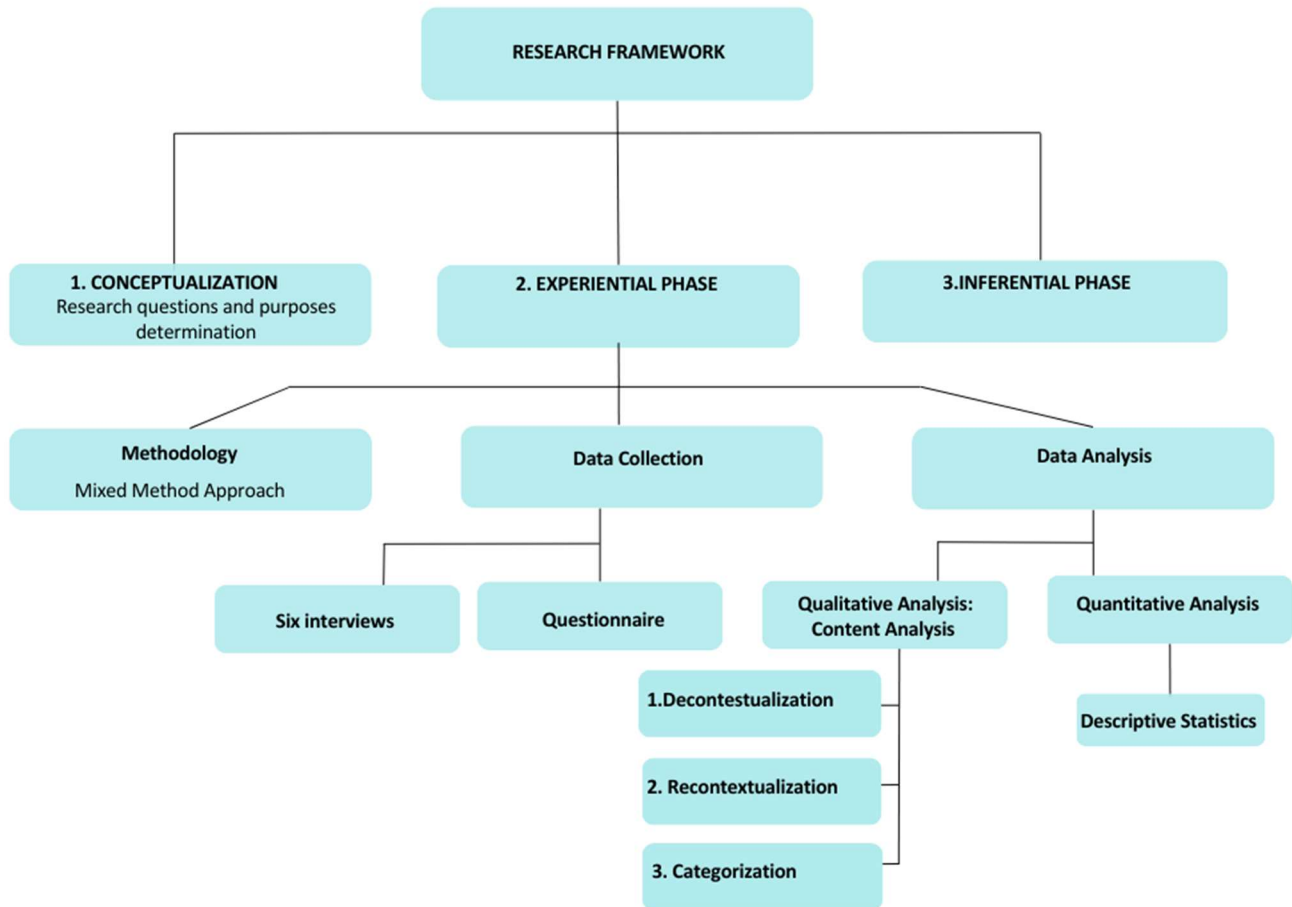
3.2.1 Conceptualization phase

In this step, formation of research questions guiding the investigation takes place [60]. Before, literature gaps are evaluated, and research questions are then identified accordingly.

As mentioned in the chapter 2 section 3, the evidence-based approach to policy-making presents numerous advantages. Firstly, it enhances decision-making capabilities by enabling the use of robust evidence to support the formulation of new policies [38]. Secondly, and equally significant, it facilitates the evaluation of existing policies or programs, leading to the identification of ineffective or inefficient ones [41]. This, in turn, allows for the optimal allocation of public resources. Moreover, adopting an evidence-based approach improves transparency and accountability to stakeholders, providing a clear

foundation for decision-making. Consequently, public trust in policies and governments is positively influenced [39].

As a result, advocating for a broader implementation of this approach becomes highly desirable. The objective of this thesis is to investigate, within a small local context employing a case study, potential facilitators for its successful application. Indeed, up to now, in the literature there are no analysis of Italian case study about EBP focused on potential facilitators.

Thus, the first research question is:

What are the potential information, training needs, and facilitators for public decision makers to improve their ability to use evidence in their role as policy makers?

Policymakers have access to a multitude of sources from which they can draw evidence to inform their decisions. During their activities, they are tasked with the responsibility of determining which source or sources to consider. In order to facilitate the adoption of evidence-based policies, among the several potential measures that can be undertaken, it is also desirable to make it easier for policymakers to access and utilize these sources. However, despite the importance of this aspect in the evidence-based context, this topic is not studied in the existing body of literature.

Thus, one of the objective of this thesis is to address and bridge this gap by identifying the factors that exert influence over the selection and utilization of sources of evidence by policymakers. This may lead to laying the groundwork for future studies that could investigate potential facilitators that improve the accessibility and use of these crucial sources.

Therefore, the second research question is:

What are the criteria influencing the choice and use of the sources of evidence by policymakers?

In the context of evidence-based policymaking, administrative apparatus assists decision-makers in researching, collecting, analysing, and interpreting evidence. Conversely, technical offices seek clear guidance and communication from policymakers to understand strategic objectives and develop new policies. A harmonious relationship between these

entities fosters open information sharing, enabling prompt and effective responses to emerging challenges.

Despite their relevance, in the literature there are very few academic papers that cite administrative workers EBP. The focus of scholars is more about researchers and policymakers. As it was explained in chapter 2, in the literature there are only two factors that may hamper a proficient relationship between policymakers and administrative employees. Nonetheless, to facilitate evidence-based approaches, it would be beneficial to study whether there are other some factors that hinder an efficient relationship, and if so to determine what they are. Hence, this dissertation aims to fill this gap, too.

Therefore, the last research question is:

In the context of evidence-based policy, are there factors, and if so what are they, that hinder a proficient and efficient relationship between policymakers and municipal technical offices?

For a better understanding for readers, the research purposes are explained in the subsequent phase, even if they were determined while performing this step.

3.2.2 Experiential phase

In this second phase, decisions about methodology, data collection and analysis are made.

Methodology

First of all, the methodology is a mixed one. The concept of mixed method research is rooted in the foundational work of Johnson et al [62], who synthesized the perspectives of numerous scholars in the field of mixed methods. At its core, mixed methods research represents a distinctive approach in which researchers employ both qualitative and quantitative methods within a single study, thereby incorporating the insights and paradigms inherent in each method.

This research approach attracts various academic discussions that include both philosophical and practical aspects of mixed methods research. Some scholars delve into the philosophical dimension, considering the epistemological and ontological aspects that emerge when combining qualitative and quantitative approaches. Others focus on the

practical aspects, with the aim of clarifying the different rationales and motivations for conducting mixed methods studies [63]. The latter approach is the one used in this dissertation, where mixed methods research is used with the intention of producing a 'better understanding' of a phenomenon.

More in detail, scholars have extensively explored various typologies of mixed methods research purposes. A notable study by Greene et al. in 1989 [64] involved a comprehensive content analysis of 57 mixed methods evaluation studies, resulting in the identification of five primary purposes of mixed methods research: triangulation, complementarity, development, initiation, and expansion. The present research aligns with two of these established purposes: triangulation and complementarity.

Studies employing mixed methods for triangulation seek to improve the validity of their inferences by searching for convergence between the results obtained from various methods. In triangulation studies, different methods are used to measure the same phenomenon, applied independently to maintain their integrity and avoid mutual influences. Qualitative and quantitative data are analysed separately, but during the interpretation phase, all data sources are examined to identify evidence of corroboration and convergence [64].

As cited by Lincoln (1985) [66] there are four major types of triangulations:

- Source triangulation: assesses whether a finding occurs in the same way under different circumstances [67].
- Investigator triangulation: implies the corroboration of one investigator's finding with the findings of another investigator.
- Theory triangulation: involves confirming a finding by corroborating it across different theories).
- Methods triangulation: entails gathering information through various data collection methods (e.g., observation, interviews, documents) to validate findings from one method against another method.

This thesis only aligns with the latter type of triangulation. Indeed, to answer to the first research question (following the order in which they were presented above) data is collected through interviews and a questionnaire, while for the second research question, interviews and closed-ended questions in the questionnaire are employed.

The aim was to give complementarity to the analysis, to achieve a more complete understanding of a complex phenomenon by using a variety of methods to investigate its different facets [65]. Indeed, by examining different aspects of a phenomenon with a mix of

methods, a more complete understanding can emerge, as the results of one method enhance, elaborate, clarify, or complement the results of the other method[64].

This is the case of the research question number two, where the quantitative data, collected by closed-ended quantitative questions in the questionnaire, complemented the qualitative data, collected through interviews, by providing information about the usage of the sources of evidence by policymakers.

Differently, regarding the third research question, instead of a mixed method, only a qualitative analysis, specifically a content analysis, is performed. More details will be provided later.

Data collection

With reference to data collection, six interviews were conducted to:

-European policies director of the considered municipality[1]

-Councillor of the district involved in the SOLITUDINE project

-President of the district involved in the SOLITUDINE project

- Municipal councillor of another municipality in northern Italy

-Vice-president of the district involved in the SOLITUDINE project

-Municipal councillor with responsibility for European policies of the municipality involved

The goal was to gain insights about:

- the usage of sources of evidence available for collecting evidence in policymaking, as well as factors that affects their choice and utilisation;
- whether evidence is collected for monitoring implementation of policies and, if so, through which instruments;
- barriers to the use of evidence, and proposals to facilitate their utilization;
- educational necessities for embracing an evidence-based approach;
- use of evidence in the SOLITUDINE project, as well as problematic issues associated with this project,
- relationships between policymakers and administrative employees.

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[1] Chapter 4 will refer to the interviewees as Policy makers 1,2, 3, 4, 5, 6 respectively, respecting the order in which they are presented here.

Moreover, data were collected also through a survey submitted to 187 policy makers from the municipality in question. The questionnaire was created by the municipality's European policy office together with the researchers support and was administered directly by the municipality via an email to the politicians. However, while 148 people opened it, only 56 of them decided to complete it and answer to all the questions. Qualitative responses were collected, while quantitative ones were analysed by the Statistics Office through statistical tools, and the results were then sent to researchers in a file Excel format.

The objective of this survey was to get information regarding:

- use of sources of evidence in the designing phase of a policy;
- utilization of sources of evidence to monitor actual results of policies;
- reasons that influence choice and utilisation of these sources;
- barriers to the use of evidence, and proposals to facilitate their utilization;
- educational needs for adopting an evidence-based approach;
- strengths and weaknesses about the relationships between policymakers and administrative employees.

Questions asked in the survey were the followings:

- How much do you make use of each of the source of evidence below for the purpose of policy decision-making you are called upon to do for your public office? Respondents were asked to rate their usage of each source on a scale ranging from "never" (1 point), "rarely" (2 points), "sometimes" (3 points), "often" (4 points), to "always" (5 points).
- If so, with which tools do you verify the impact of the policy decision-making processes in which you participate? Tools indicated are four.
- On a scale of 1 to 4 (1=not at all, 2=little, 3=somewhat, 4=very much), how much influence does each of the following criteria have on your choice of the above sources?

The last two questions were open-ended ones:

- What information, educational needs and facilitators, if any, do you feel you need to improve your capacity as a public decision maker?
- What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?

Analysis of data

As stated before, a mixed method is applied to analyse data. More in detail, content analysis and an analysis of quantitative data, collected through the survey, were performed.

Content analysis

Krippendorff (2004) defined content analysis as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use"[68]. Downe-Wambolt (1992) emphasizes that content analysis goes beyond mere counting, aiming to establish connections between the results and their context or the environment in which they originated: "Content analysis is a research method that provides a systematic and objective means to make valid inferences from verbal, visual, or written data in order to describe and quantify specific phenomena"[69].

In all research, including the ones that apply content analysis, it is crucial to state whether it is based on either inductive or deductive reasoning. Inductive reasoning involves drawing conclusions from gathered data and integrating new information into theories. Researchers analyse the text to identify meaningful items that address the research questions. On the other hand, deductive reasoning follows the opposite approach, where researchers seek predetermined, existing subjects by testing hypotheses or principles [70–72]. While content analysis can be used in both cases, this dissertation aligns with an inductive reasoning.

All forms of written texts are applicable for content analysis, including content coming from surveys and interviews as this is the case of this dissertation. Indeed, there are no specific rules that must be followed about where the material comes from [72] [71, 73][68].

The researcher must decide between a manifest analysis or a latent analysis. In a manifest analysis, the researcher closely describes what informants actually say, using their words and focusing on visible and apparent aspects of the text. Conversely, a latent analysis delves deeper into an interpretive level, aiming to uncover the underlying meaning of the text. The analysis provided in this case is a latent one [68, 70, 71].

To enhance the validity, as it is recommended in the literature, at least two investigators, as this is the case of this dissertation, should conduct the analysis separately and then discuss their findings in order to achieve consensus. [72, 73].

Content analysis consists of three stages [74].

<u>Stage 1, decontextualization</u>

After familiarizing with the text, it was divided into smaller meaning units. A meaning unit is the smallest unit that contains some of the insights required for addressing the research questions. Each unit, depending on the context, consists of a word, a sentence or even a paragraph [71, 74]. Each identified meaning unit was assigned a code, and this process is commonly referred to as the "open coding process" in the literature[71].

Given that, as mentioned before, this dissertation does not have a deductive reasoning design, codes were created inductively, and the list was generated during the process [71].

It is rare that codes are right the first time[76]. Hence, the coding process was performed more than one time, with many corrections. For example, one interview was coded first, then the second one etc. The second data set influenced and affected the recoding of the first interview, and the consequent coding of the remaining interviews.

Coding was done manually, and following the theory suggested by Saldanha [76] in which several coding methods are proposed. After a first review of the survey and interviews, and after a careful analysis of the methods suggested by Saldanha, three coding methods were chosen:

- Descriptive Coding. It summarizes in a word or short phrase the basic topic of a passage of qualitative data. These codes should represent the topic itself, rather than serving as content abbreviations. Descriptive Coding is suitable for virtually all qualitative studies, including interviews transcripts and content analysis.
- Magnitude coding. It involves assigning an additional alphanumeric or symbolic code or subcode to an existing coded datum or category, indicating its intensity, frequency, direction, presence, or evaluative content. Among many studies, it is appropriate for a content analysis too.
- Simultaneous Coding. It is the application of two or more different codes to a single qualitative datum. Indeed, as explained, two coding methods, descriptive and magnitude, are employed. Simultaneous coding is justified because on one hand there is the need to identify each topic that can be helpful to address research questions, while on the other hand it is helpful to take into account the intensity and frequency of those topics.

Below, in the table, there are some examples of coding activity performed.

Table 3: Examples of the coding activity

CODES	QUESTIONS	TEXTS
Continuous learning	Do you think a training course, even though your timetable is always very tight, can be a solution to the lack of skills?	Training courses are really needed, but not short ones also long and continuous ones
Need for political class education	Did you feel the need for additional human resources dedicated to the governance of the project?	Politics lacks a training school that starts from the very basics. I mean, I am a law student, so the legislation is sometimes not difficult for me to interpret. But for many administrators there is this difficulty. [...] So there is a lack of training because politicians often improvise [...] those who are politicians have no training, they do it in the field, and this often does not allow them to have a complete vision, to know all the regulations, to know the procedures.
Law education	What information, educational needs and facilitators, if any, do you feel you need to improve your capacity as a public decision maker?	Ongoing training on: European Union legislation and planning tools, National legislation and planning tools, Territorial Authorities' legislation and planning tools.
Policymakers' competence	Do you think there are daily barriers to the use of evidence?	The inability to read data is a problem with the training of the political class. [...] If you don't know how to read and you don't know how to understand, you have to become able to do it, because otherwise you are not able to do your job, which is to solve the problems of the citizens and give answers to what those who voted for you ask for. So this is another barrier that is definitely there.

Personnel	How do you judge the quality of the relationship with the technical offices?	There is a shortage of staff [...] And then ideas are often abandoned, even needs for information, etc., because the offices do not respond, are unable to respond. This is a great deficiency.
Workload	What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?	Work overload that does not allow the grounding of many policy initiatives.
Personnel, 2	Which barriers do you encounter and which do you think are the most relevant in your context?	Another barrier is ignorance of the issue, a burecreautic overload whereby there is never enough staff in public offices in theory and therefore, unless it comes from the political decision-maker, one will never go deep into the subject of evidence.
Hirings	What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?	Recruitment would be needed to make up for certain workloads organisation of working time.

Stage 2, The recontextualization

Once the meaning units were identified, a thorough examination was conducted to ensure that all content aspects related to the aim were covered[73]. The original text was reviewed in conjunction with the final list of meaning units. Despite this process, unmarked text, as commonly encountered in content analysis, remained. Subsequently, the unmarked text was assessed to determine its relevance for inclusion. Indeed, if the unmarked text provides some answers to the research question, it must be incorporated into the analysis; otherwise, these parts must be excluded [76].

<u>Stage 3, The categorisation</u>

In the categorization process, some codes were merged together because they were conceptually similar and infrequent codes were evaluated for their relevance in the overall coding scheme. Additionally, certain codes that initially appeared promising were eliminated entirely if they were deemed "marginal" or "redundant". In simpler words, codes were reorganized to develop a shorter list of categories.[76]

Identified themes and categories should be internally homogeneous and externally heterogeneous, which means that no data should fall between two groups nor fit into more than one group. [78, 79]

In the next page, in the table, there are some examples of categorization process performed. As it can be note, some codes were merged together resulting in the creation of the "education" category, while others created the category "lack of personnel".

Table 4: Examples of the coding activity

CATEGORIES	CODES	QUESTIONS	TEXTS
Education	Continuous learning	Do you think a training course, even though your timetable is always very tight, can be a solution to the lack of skills?	Training courses are really needed, but not short ones also long and continuous ones
Education	Need for political class education	Did you feel the need for additional human resources dedicated to the governance of the project?	Politics lacks a training school that starts from the very basics. I mean, I am a law student, so the legislation is sometimes not difficult for me to interpret. But for many administrators there is this difficulty. [...] So there is a lack of training because politicians often improvise [...] those who are politicians have no training, they do it in the field, and this often does not allow them to have a complete vision, to know all the regulations, to know the procedures.
Education	Law education	What information, educational needs and facilitators, if any, do you feel you need to improve your capacity as a public decision maker?	Ongoing training on: European Union legislation and planning tools, National legislation and planning tools, Territorial Authorities' legislation and planning tools.
Education	Policymakers' competence	Do you think there are daily barriers to the use of evidence?	The inability to read data is a problem with the training of the political class. [...] If you don't know how to read and you

			don't know how to understand, you have to become able to do it, because otherwise you are not able to do your job, which is to solve the problems of the citizens and give answers to what those who voted for you ask for. So this is another barrier that is definitely there.
Lack of personnel	Personnel	How do you judge the quality of the relationship with the technical offices?	There is a shortage of staff [...] And then ideas are often abandoned, even needs for information, etc., because the offices do not respond, are unable to respond. This is a great deficiency.
Lack of personnel	Workload	What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?	Work overload that does not allow the grounding of many policy initiatives.
Lack of personnel	Personnel, 2	Which barriers do you encounter and which do you think are the most relevant in your context?	Another barrier is ignorance of the issue, a burecreautic overload whereby there is never enough staff in public offices in theory and therefore, unless it comes from the political decision-maker, one will never go deep into the subject of evidence.

Lack of personnel	Hirings	What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?	Recruitment would be needed to make up for certain workloads organisation of working time.

According to Bengtsson [75] there is also a fourth step, called compilation. Nevertheless, the framework adopted in this dissertation, the one proposed by Teddlie and Tashakkori[61], includes this activity in the next step, the inferential one, and not in the current one. Hence, it will be explained later.

Analysis of quantitative data

Instead, regarding quantitative data collected through the survey, descriptive statistics was employed. More in detail, distribution of responses were taken in account, and mean as well as standard deviation of answers about the usage of sources of evidence by policymakers were computed for each source.

3.2.3 Inferential phase

In this last phase, the goal is to develop inferences, explanations, conclusions and potentially emerging theories. Thus, this step ensures that all data are integrated into a coherent set of understanding [60].

Firstly, conclusion from quantitative data were derived and the last passage of content analysis was performed. In this stage, known as compilation, the analysis and writing up process begins, with the goal to draw inferences and conclusions. A summary of categories is created to allow the reader to get a quick overview of the results. Subsequently, results from quantitative data and content analysis were integrated into a unique, coherent and comprehensive understanding [62].

Finally, to enhance the study's validity, in the literature it is suggested to conduct a respondent validation, also known as a member check: results are presented to respondents in order to seek their agreement and confirmation about the conclusions [70].

Chapter 4: Findings

The previous chapter illustrated the case study on which this study is based, and the methodology used to conduct the research.

This chapter will present the findings of the analysis performed, divided into three parts each one corresponding to a research question. At the beginning of the first and the last sub-chapters, a table summarising the categories identified during the content analysis to answer each research question is given. While the summary table on the findings of the second research question is presented in the middle of the sub-chapter, after the quantitative analysis of the closed answers of the questionnaire.

After having performed the conceptualization and experiential phases, that were explained in the previous chapter, these findings were obtained during the last phase of the research process: the inferential phase. The objective here is to draw explanations, conclusions, and potentially emerging theories.

4.1 Findings about research question 1

What are the potential information, training needs, and facilitators of public decision makers to improve their ability to use evidence in their role as policy makers?

The table shows the categories identified during the content analysis to answer the first research question:

Table 5: Answer to the first research question

What are the potential information, training needs, and facilitators of public decision makers to improve their ability to use evidence in their role as policy makers?	Personal training
	Data availability
	Governance
	Stakeholder's involvement
	Communication
	More available time
	Internal culture

Both the interviews and the answers to the questionnaire show that the most frequently cited barrier to the use of evidence is the **lack of personal training** of the public administrator. For example, one policy maker said:

"Politics lacks a training school that starts right from the basics. I am a law student, so the legislation for me is sometimes not difficult to interpret. But for so many administrators there is this difficulty. [...] So there's a lack of training because politicians often kind of improvise [...] those who are politicians don't have training, they do it in the field, and that often doesn't allow you maybe to have a complete view, to know all the regulations, to know the procedures."

Policymaker 3

In addition, the interviewees perceived that the smaller the unit of analysis (in smaller municipalities), the more decisive this barrier is in the non-use of EBP. For instance, another policy maker stated:

"[…] the smaller the reality of analysis is, the more important the level of training and personal preparation becomes, because it's not part of the baggage of hard skills that in the public side you have to know how to handle, it's a plus that's useful"

Policymaker 4

The lack of a training school for public administrators, once elected, is perceived as a problem by all respondents. It is also seen as the cause of the failure to use evidence in decision-making processes, since if the politician does not ask the technical offices to provide him with evidence, they do not act independently, in most cases. Indeed, one interviewee declared:

"I believe that the greatest training need is of the political class, not the technical one. Then the politician asks the bureaucratic apparatus to gather a certain kind of evidence. So, (training) tools should be directed to the political class, because it is very difficult for an office to suggest to a political party how to make a decision."

Policymaker 4

Among those interviewed, the opinion emerges that, nevertheless, the responsibility to inform oneself about the available evidence and to learn how to read and interpret it (despite the specific language in which it is often reported), lies with the politician, because it is part of his job. So states one of the respondent politicians:

"The inability to read data is therefore a problem of training the political class. [...] If you can't read you can't understand, you have to become able to do so, because otherwise you are not able to do your job, which is to solve citizens' problems and give answers to the people who voted for you are asking for."

Policymaker 6

In contrast, another politician interviewed mentioned the need to have two-level teaching:

"We will always necessarily move toward a more integrated European policy, that is, increasingly important, with subsidiarity going increasingly upward for certain issues, and increasingly downward for others. Over all this, if the powers of the European Union are strengthened undoubtedly, training courses must be done on two levels: at the local level and on the European level."

Policymaker 4

The two levels of teaching identified by the respondent are:

-National and local level: training on National and Local Planning Instruments and Regulations, knowledge of the tools and skills of technical offices, continuous in-depth studies on the evolution of the subject of interest, and training on the use of data translated by experts in the field.

-European level: training on European Union Regulations and Planning Instruments.

Secondly, an improvement in **data availability** is acknowledged to be an important facilitator of the use of evidence. From both the interviews and the questionnaires, it emerges how the possibility of access to archives characterised by clarity and completeness of data would decrease the time required to consult these tools and the quality of the cost-benefit analysis. In fact, several interviewees state that their attempt to use evidence to

support their work was often impeded by the lack or incompleteness of information. To demonstrate this, some of the answers to the question in the survey *"What, if any, information and training needs and facilitators do you feel you need to improve your public decision-making capacity?"* are given below:

- *"Access to Clear and Simple Data"*
- *"Access to PA Open Data, reports and statistical surveys."*
- *"Quick and reachable consultation tools"*
- *"Need to know information source material quickly and completely".*

An example is the case of the missing data available on disabled people who do not attend day care centres, rendering it impossible to make informed political decisions on the basis of objective data. This emerges from the following interview extract:

"I had found myself doing a project on the topic of disability, about which there is not much data available except for those who access day care centres. On the disabled who are cared for at home by their families, there is no data, so there is only partial information".

Policymaker 5

As can be seen from the following answers to the survey's question: *"What information, educational needs and facilitators, if any, do you feel you need to improve your capacity as a public decision maker?":*

- *"Scientific data and analysis, a collection of the perceptions and opinions of the citizenry, which must in turn be weighed against the objective data available."*
- *"Clearer and more transparent data, not just economic data, in order to do a proper cost-benefit analysis."*
- *"Greater completeness of data."*

it's clear the need to have access to data not only of an economic or scientific nature, but also of a sociological nature, in order to be able to make an economic-social impact assessment of a policy decision.

Continuing with the inferential analysis, one of the most densely populated categories results to be the **Governance**, which refers to the internal management system overseeing the process of finding evidence and its use in policymaking. From the interviews and the questionnaire, it emerges that the lack of personnel dedicated to the governance of evidence during the implementation of the project negatively impacted the results. For example, an interviewed said that:

"In my opinion there should have been a need for a person physically present in the constituency [...] hired by the municipality to represent the institution [...]an operational arm of the project connected to the district. That would have facilitated us more."

Policymaker 3

While the analysis reveals that evidence was used in the project construction phase, especially demographic data made available by the municipality and analyses related to the urban contexts in which loneliness develops, the following interviewed stated that there was neither no use of evidence in the formation of the partners' budgets:

"The budget was actually proposed by the beneficiaries. [...] I believe that in this respect, the municipality should have a little more of a guiding role and define a cap".

Policymaker 1

From the excerpt below of an interview, it is revealed that evidence was also not used in the selection of the partners themselves. Indeed, they were chosen because they were already active and known in the area, and not because there was any evidence that they provided the best service; the interviewee in question stated how this practice is consolidated in the partnerships with the third sector, undermining the competition, especially in this project's case, since the UIA call specifically requests experimentation with new ways of providing a service to the city.

"This is where another issue comes in, namely the criteria by which these partners are chosen. Often and often the criterion of knowledge of the territory prevails: we know him, he knows the territory

and we know that he works well. This is a mechanism that often happens and obviously leads to precluding other resources, other actors that may be in the territory.

And so you don't create competition, which was another problem with the project in my opinion, because, creating competition, even with respect to such a theme where it was required not for the partner to do what he is usually used to doing but to do something different with respect to this specific theme was an important factor required by the EU call."

Policymaker 1

Finally, another problem that emerges from the interviews and which can always be enclosed within the Governance category is the difficulty in bringing the use of evidence into the concrete decision-making processes, because often those who know, and use evidence do not have the capacity to act through it by transforming it into actions or decisions. Indeed one respondent said:

"My perception is that there is difficulty in translating data into decision making and service improvements."

Policymaker 1

This problem is partly caused by the lack of clarity about who has the duty to produce or use evidence. Knowledge about accountability and process structure can be considered additional facilitators in this regard, as the following two questionnaire responses suggest:

""What information, educational needs and facilitators, if any, do you feel you need to improve your capacity as a public decision maker?":

- *"Knowledge of responsibility bearers in the processes that take place".*
- *"Process structure (who does what) needs to be more defined and structured for all participants".*

Increasing **the stakeholder's involvement** and thus the interactions between those who produce, and use evidence is another very important theme among the facilitators mentioned by the interviewees and respondents. This would entail both greater information sharing, and thus greater transparency for reaching shared decisions, and better

collaboration. The lack of collaboration between project partners and between partners and the municipality had a negative impact on the project on two fronts. The first is the lack of synergy and complementarity between the activities proposed to the beneficiaries:

"During a meeting with all the partners, this thing here came up among the issues. That is, that there was no real collaboration. Although the goal was common [...]."

Policymaker 2

The second is the lack of monitoring of the beneficiaries by the partners and thus the difficulty for the municipality's offices to supervise performance and consequently to redirect activities. For example, if a proposed activity had no participants, it could be suspended, and funds redirected to another one. Or vice versa, if one person participated in many activities during the week, a subscription could be considered, in order to enable the project to be economically sustainable over time. These considerations need supporting evidence and the collaboration of partners to produce it:

"Each partner will then manage its own monitoring. These databases are also used to understand which activities have been successful or not, whether they reach the same people or different people, etc. Clearly, it would have been useful if this was systematic and it has not been, both because the municipality is lacking tools and staff and because the data are not being provided systematically by the partners (who are also months late). There is another aspect to note regarding the difficulty of communicating the importance of monitoring, not only to project partners but also to grantees. In addition to the seven partners there are about 20 grantee associations that feel an extra burden is imposed on them.

So there is monitoring, but it does not go hand in hand with the project. We agreed at the beginning of the project that this qualitative monitoring should be monthly. There are only a couple of partners who send me every month. The others don't, every 6 months. Then, in my opinion, they don't even really send me all the data they need."

Policymaker 1

Communication is perceived by interviewees and respondents as another facilitator for EBP in two different meanings. Firstly, communicating evidence by adopting the point of view

of policy makers and not researchers would be an important help, as can be inferred from the following interview:

"At the communication level, on the other hand, I believe that scientific research has canons of communication that are also difficult not to adhere to. It's kind of the onus is on those who want to use that data to go and study things the way they were presented and report."

Policymaker 6

In fact, although this last interviewee considers it to be the duty of the administrator to study how to interpret data, that must necessarily be communicated in accordance with a specific canon of communication that may be difficult to understand by the local administrator, practice shows that this represents a major barrier to the use of evidence in policymaking. As emerges from another interview regarding the project and the presentation of the report on the first calculation of LoIx (the index, as previously mentioned, was produced, and analysed by a university research body):

"We made the presentation of the LoIx report to the city council, but the audience did not show interest. Also, because the language that was used was not simple and immediate. [...] The report they presented shows graphs and data that exposed in this way are not useful to a public decision maker. There is a disconnection between academia and reality. They have theoretical experience but lack the perception of reality that those working on the territory have. This is another critical issue encountered in the reading and use of evidence."

Policymaker 1

Secondly, communication between administrators from different municipalities for the sharing of best practices is seen as a facilitator for the creation of a network for the production and use of evidence from the respondents. Some of their answers to the question: *""What information, educational needs and facilitators, if any, do you feel you need to improve your capacity as a public decision maker?"* are:

- *"Sharing of best practices tested by entities."*
- *"Knowledge of experiences gained in other administrative contexts by dialoguing with other local administrators."*

- *"Collection of information, so-called best practices, from other and other policy makers."*

Continuing further, the analysis reveals that one of the factors most influencing the non-use of evidence is the **lack of time**, which affects both the individual administrator and the entire public apparatus, as reflected in the following words of two of the interviewees:

"Time constraint is the most relevant barrier that affects not the individual politician but the entire public apparatus."

Policymaker 4

"*Returning to the SOLITUDINE project, I believe it was a management in a hurry, without moments to evaluate the results that were being achieved, what could have been done differently or better. From my point of view due to lack of time*".

Policymaker 1

These interviews reveal that little importance is given to the evaluation of the results during and after the execution of a project. The following interviewee, instead, gives us another perspective on the issue:

"Time is not an issue, in the sense that what the policy maker should do is in good part have time to study the evidence, to process it, and then master it and know how to use it then for policy and for the policy choices he or she goes to make. In my opinion that is a basic requirement of anybody who wants to do public administration [...]. So the policy maker definitely has to find the time to do this work in my opinion."

Policymaker 6

In this interview, it appears that time is not really an issue since spending time studying data to support policy decisions should be a priority of the administrator. According to another respondent, however, there is in general in the public apparatus an excessive concentration of economic and human resources only in the phase of regulatory execution (which obliges to do things by a certain date), while insufficient importance is given to the phase of public policy evaluation in the very near future.

"Economic and human resources are made available only in the implementation phase, understood as regulatory enforcement that obligates you to do something by a certain date, with the threat that if you don't do things on time, you won't receive the funds".

Policymaker 4

Finally, the presence of an **internal culture** and an evidence-oriented environment emerges as an important facilitator. The analysis shows that in Italy the use of evidence is limited to the decision-making phase and only if exists an obligation to provide it. In fact, evidence is considered a tool for policy transparency rather than a support for decision making. At the local level, according to some respondents, the use of evidence occurs only when a feasibility study is requested from the offices or when a forecast analysis is required.

We only use evidence in decision-making and only if it has to be used.

Policymaker 2

From the analysis of some answers on the management of the SOLITUDINE project, it is clear that the lack of an evidence-oriented culture, both within the municipality and in the partners, influenced the selection of partners, as well as the partners' failure to use evidence in the determination of budgets, and the partners' lack of monitoring of the beneficiaries of the activities.

" [...] So to conclude, certainly the successes and non-successes of the SOLITUDINE project is linked to the issue of the use of evidence."

Policymaker 1

4.2 Findings about research question 2

What are the criteria influencing the choice and use of the sources of evidence by policymakers?

Before answering to this research question, thanks to the survey, it was possible to have data about the usage of the sources of evidence by decision makers.

Indeed, in the survey there are two closed-ended questions related to their use in the policy decision-making process. In the first question, participants were asked to indicate their usage of various sources:

- Open Data, reports and statistical surveys
- Legislation and planning tools of the European Union
- National legislation and planning instruments
- Legislation and planning instruments of local authorities
- Studies, research, and publications from universities and research institutes
- Cost/benefit analysis of possible alternatives
- Autonomous research on practices and best practices from other territories
- Press articles
- Learning from personal training/organized periodic updates
- Public debates, opinion sharing
- Information collected from informal relationships and social groups
- Perceptions
- Other sources.

As explained in chapter 3, section 2.2, respondents were asked to rate their usage of each element on a scale ranging from "never" (1 point), "rarely" (2 points), "sometimes" (3 points), "often" (4 points), to "always" (5 points). The distribution of responses per each source were taken into account to describe the results. Moreover, the mean and standard deviation were calculated for each one. Calculating the mean helps determine the average level of source usage across all respondents. It provides an overall idea of how frequently these sources are utilized in the policy decision-making process. On the other hand, the standard deviation quantifies the dispersion or variability of responses around the mean. The two following tables show distribution of responses per each source as well as the mean and standard deviation of the score of each source.

Table 6: Distribution of responses per each source expressed in percentage

Source of evidence	Never	Rarely	Sometimes	Often	Always
Autonomous research on practices and best practices from other territories	5,4	23,2	19,6	30,4	21,4
Press articles	1,8	5,4	28,6	42,9	21,4
Public debates, opinion sharing	1,8	7,1	32,1	37,5	21,4
Information collected from informal relationships and social groups	9,1	7,3	21,8	40,0	21,8
Learning from personal training/organized periodic updates	5,4	23,2	19,6	30,4	21,4
Perceptions	8,2	18,4	40,8	20,4	12,2
Cost/benefit analysis of possible alternatives	18,2	14,5	23,6	30,9	12,7
Legislation and planning instruments of local authorities	17,5	12,3	26,3	42,1	1,8
National legislation and planning instruments	16,1	21,4	28,6	26,8	7,1
Studies, research, and publications from universities and research institutes	16,1	19,6	37,5	19,6	7,1
Open Data, reports and statistical surveys	21,4	26,8	25,0	23,2	3,6
Legislation and planning tools of the European Union	28,6	39,3	17,9	12,5	1,8
Others	63,6	36,4	0	0	0

Table 7: Mean and Standard Deviation of Information Source Usage Scores

Source of evidence	Average	Standard deviation
Autonomous research on practices and best practices from other territories	3.79	1.04734845
Press articles	3.77	0.906151033
Public debates, opinion sharing	3.70	0.943391353
Information collected from informal relationships and social groups	3.58	1.170717
Learning from personal training/organized periodic updates	3.39	1.205324074
Perceptions	3.10	1.09255174
Cost/benefit analysis of possible alternatives	3.05	1.299205097
Legislation and planning instruments of local authorities	2.98	1.1469445
National legislation and planning instruments	2.88	1.181138978
Studies, research, and publications from universities and research institutes	2.82	1.135579507
Open Data, reports and statistical surveys	2.61	1.160027269
Legislation and planning tools of the European Union	2.20	1.042312725
Others	1.33	0.471404521

The analysis of the data provides valuable insights into the patterns of sources usage among the surveyed politicians.

Among the sources under consideration, 'Autonomous research on practices and best practices from other territories' stood out with notable usage patterns among the surveyed politicians in their policy decision-making process. The breakdown of responses is as follows: 5.4% of respondents indicated 'never,' 23.2% mentioned 'rarely,' 19.6% reported 'sometimes,' 30.4% stated 'often,' and 21.4% affirmed 'always.' The mean at 3,79 suggests a

tendency toward 'often,' which aligns with the 30.4% of respondents who indicated this level of usage.

In second place there is the "Press articles" element. Participants' choices were distributed as follows: 1.8% chose 'never,' 5.4% favoured 'rarely,' 28.6% 'sometimes,' 42.9% 'often,' and 21.4% 'always'. The mean score of 3.77, suggests a strong tendency toward 'often,' which is corroborated by the substantial 42.9% of respondents indicating this level of utilization and by less than 10% indicating 'rarely' or 'never'.

Ranked third, regarding 'Public debates, opinion sharing,' 1.8% of respondents indicated 'never,' 7.1% reported 'rarely,' 32.1% 'sometimes,' 37.5% 'often,' and 21.4% 'always.' The mean score of 3.70 implies a pronounced leaning toward 'often,' a sentiment mirrored by the substantial 58.95% of respondents who indicated at least 'often' as answer.

Turning the focus to "Information collected from informal relationships and social groups" the responses are distributed as follows: 9.1% of participants chose 'never,' 7.3 % opted for 'rarely,' 21.8% indicated 'sometimes,' 40% selected 'often,' and 21.8% endorsed 'always.' Its score, standing at 3.58, could be interpreted as leaning toward 'often' given that more than 60% indicate at least 'often'. The standard deviation, which quantifies the dispersion of responses, standing at 1.68, represents the highest among all sources. This higher dispersion indicates greater variability in responses than the other sources.

Regarding "Learning from personal training/organized periodic updates" participants choices were distributed as follows: 5.4% chose 'never', 23.2% favoured 'rarely', 19.6% picked 'sometimes', 30.4% settled on 'often', and 21.4% opted for 'always'.

"Perceptions" had a mean score of 3.10 suggesting that they are taken into account only sometimes by decision-makers. Indeed 40% indicated 'sometimes,' while only around 20% expressed 'rarely' or 'often'.

The distribution of participant responses about "Cost/benefit analysis of possible alternatives" is as follows: 'Never' garnered 18.2%, 'Rarely' received 14.5%, 'Sometimes' accounted for 23.6%, 'Often' constituted 30.9%, and 'Always' represented 12.7%.

With only slightly lower score, standing at 2.98, the responses for "Legislation and planning instruments of local authorities" are distributed similarly to "cost/benefit analysis".

"National legislation and planning instruments" received a mean score of 2.88. It can be interpreted as leaning toward 'sometimes', given that the two extremes, that are of course 'never' and 'rarely' as well as 'often' and 'always', received similar preferences by policymakers, 37% and 34% respectively.

Turning the focus on "Studies, research, and publications from universities and research institutes" only around 20% respondents express a frequent usage and even less than 10% (precisely 7.1%) state that always employs studies and research. Higher percentages are registered for the other variables: 16.1% 'never', 19.6% 'rarely', 37.5% 'sometimes'.

A low consideration is present also for "Open Data, reports, and statistical surveys" given that the mean score of 2.61, and the distribution of responses is as follows: 21.4% chose 'never', 26.8% favoured 'rarely', 25% picked 'sometimes', 23.2% settled on 'often', and only 3.6% opted for 'always'.

Lastly, "Legislation and planning tools of the European Union" received the lowest mean score of 2.20, indicating a very low usage of EU-level regulations and planning instruments. Indeed, around 70% reported to never or rarely employ them, while only roughly 15% expressed a frequent usage.

The significant low score of "other sources", along with its lowest standard deviation, suggests that no other tool is considered by policymakers. More in detail, only 'never' and 'rarely' were picked by respondents, with 64% and 36% respectively.

The second question focused on sources of evidence used to assess and monitor the impact of policy decision-making processes. They were:

- Open Data from Public Administration
- Feedback from recipients (informal/social contacts)
- Socio-economic/financial/environmental indicators
- Cost/benefit analysis.

For this question, respondents were only required to indicate whether they use each source, without assigning any usage frequency or rating. This provides a straightforward insight into their adoption.

Feedbacks are taken into account by 3 out of 4 people (74%), being by the far the most used element. Socio-economic/financial/environmental indicators and open data are employed to a much lower extent, respectively only by 37% and 30% of respondents. Finally, only 16% people reported to use cost/benefit analysis to monitor policies.

Finally, the answers to the closed question of the questionnaire: *"On a scale of 1 to 4 (1=not at all, 2=little, 3=somewhat, 4=very much), how much influence does each of the following criteria have on your choice of the above sources?"* were analysed by considering distribution of responses per each criteria, and by calculating the mean and standard deviation of the score assigned to each of the criteria. The results are shown in the following tables.

Table 8: Distribution of responses per each criteria expressed in percentage

Criteria	Not at all	Little	Somewhat	Very much
Reliability and knowledge of the tool	1,8	5,4	26,8	66,1
Mastery of the subject and competence	0	12,7	27,3	60
Functionality, pragmatics and purpose versus objectives	1,8	7,0	43,9	47,4
Ease of access to information	0	8,9	48,2	42,9
The availability of time	0	15,1	39,6	45,3
The simplicity, immediacy and understanding of information	0	16,1	39,3	44,6
The plurality of viewpoints investigated	0	14,5	58,2	27,3
Personal beliefs	10,9	18,2	45,5	25,5
Personal interests	21,8	20,0	40,0	18,2
Intuition	21,8	25,5	41,8	10,9
The diffusion and resonance given by the mass media	14,5	45,5	30,9	9,1
Beliefs induced by membership in a political group	22,2	40,7	29,6	7,4
Other	36,7	64,3	0	0

Table 9: Mean and Standard Deviation of Source selection criteria

	Average	Standard deviation
Reliability and knowledge of the source	3,571	0,677631
Competence	3,473	0,709790
Functionality, pragmatics and purpose versus objectives	3,368	0,691593
Ease of access to information	3,339	0,634620
The availability of time	3,302	0,715987
The simplicity, immediacy and understanding of information	3,298	0,724627
The plurality of viewpoints investigated	3,127	0,634022
Personal beliefs	2,855	0,922806
Personal interests	2,545	1,023686
Intuition	2,418	0,947550
The diffusion and resonance given by the mass media	2,345	0,835968
Beliefs induced by membership in a political group	2,222	0,874890
Other	1,667	0,471405

Almost all the factor presented in the survey were also found in the interviews, which revealed two further aspects that influence the choice of information sources: incentive and /or obligations and lack of sources. By integrating these data with those from the interviews, it was possible to compose the list, available in the table below, of the 14 criteria that influence the choice and use of the sources of evidence by policymakers.

Table 10: Answer to the second research question

What are the criteria influencing the choice and use of the sources of evidence by policymakers?	Reliability and knowledge of the source
	Competence
	Functionality, pragmatics, and purpose versus objectives
	Ease of access to source and information present in the source
	Availability of time
	Simplicity, immediacy, and understanding of information
	The plurality of viewpoints investigated
	Diffusion and resonance given by the mass media
	Personal beliefs
	Personal interests
	Intuition
	Beliefs induced by membership in a political group
	Incentives and/or obligations
	Lack of sources

The factor that holds the greatest influence is "**Reliability and knowledge of the source**". It scores approximately 3.5 in the survey and falls between 'somewhat' and 'very much', indeed more than 90% of respondents indicated 'somewhat' or 'very much' as answer. It must be considered from two perspectives.

Firstly, reliability is a crucial aspect that policymakers take into account when selecting sources of information. Policymakers indicated that they place an higher level of confidence in reputable journals that publish research findings, such as the Lancet, the New England Journal of Medicine, or Science. Similarly, research provided by trusted international organizations, like the World Health Organization (WHO), is more likely to be utilized [48]. Policymakers value the quality and authoritativeness of tools, as it ensures the credibility of the evidence they use in their policy decisions [13].

Secondly, even it may seem trivial, knowledge of the source is important too. A source cannot be used if policymaker is unaware of its existence. The interviews revealed that not all members of the municipal council, councillors, or workers within the municipality are aware of their existence and potential.

"I know them, some of my colleagues know them, but not all, because it depends on the background/other profession of a counsellor. […] The Council is aware of them, perhaps not the whole Council members, but certainly a good part, whereas about councillors I find it hard to believe except in the case of individuals who have attended specific academic courses."

Policymaker 4

The second factor that most influences the choice and use of source is the competence. 60% of respondents picked 'very much', and no one said that he or she does not attribute importance to competence at all. **Competence** refers to policymakers' proficiency in utilizing various sources that support evidence-based decision-making. Whether it is navigating open data platforms, accessing research publications, or utilizing other tools, policymakers who possess the necessary competence can efficiently and easily extract relevant information to inform their policies. The level of familiarity with a source is perceived by policy makers as depending on the individual's personal background, including their profession before assuming a public office and his or her academic background.

As it was already mentioned in the chapter 2 section 3, there are plenty of courses. For example, at European level, the European Commission has published 11 courses, 9 of which directed also to civil servants, focused on understanding open data and how to concretely use them. In the municipality involved in the SOLITUDINE project, in 2022 a course about open data was provided.

Competence is intended also as mastery of subject at hand. The choice of a source is influenced also by the personal knowledge of the policymaker about the specific subject.

"I rely mainly on my personal education, and in my decision-making process both training, sensitivity and political direction often intersect."

Policymaker 5

One of the crucial factors that policymakers consider "quite" significant is "**Functionality, pragmatics, and purpose versus objectives**." 'Somewhat' and 'very much' were selected respectively by 43.9% and 47.4% people. This factor ranks as the third most important among the various criteria evaluated in the survey. Indeed, policymakers tend to favour

sources that directly contribute to address their policy objectives and their needs, as well as to allow collect evidence relevant to their focus area. Decision makers are interested in data that can demonstrate whether results were realized and to what extent. Indicators such as LoIx in SOLITUDINE project is just one example that can facilitate this goal.

"We have entered the phase where we are collecting results one after the other, and the LoIx is one of them. It is the index of loneliness, which is an analytical tool that you can use in the future for other types of choices, policies... [...] Let's say that here too, in the reporting phase, it will be necessary to arrive at data that are scientifically, how should I say, transferable. So, data that can show that you have reached a b and c, and on this I think the biggest thing is indeed the LoIx index."

Policymaker 6

Among the various criteria considered by policymakers when selecting tools to support evidence-based policy, "**Ease of access to source and information present in the source**" is perceived as quite significant. Around 90% of respondents indicated 'somewhat' or 'very much' as answer. Policymakers recognize the importance of having easy and convenient access to sources and to the information contained within them to facilitate their decision-making process. An easy and efficient access can save valuable time and resources. The low standard deviation associated with this criterion suggests a level of consensus among the respondents, signifying that decision makers generally agree on the significance of this aspect.

Of course, regarding SOLITUDINE project, this variable was important. Policymakers involved appreciated the fact that, in the call UIA scientific data were made available, along with suggestions about indicators useful in the monitoring phase. To further highlight the importance of an easy access, interviewers complained that monitoring phase is hampered by a late and not complete delivery, by partners of SOLITUDINE, of evidence about state of the art of the project.

"There are only a couple of partners (she refers to project monitoring) who send me data every month. The others don't, they send every 6 months. Then, in my opinion, they don't even send me all the data they need."

Policymaker 1

Another element that affects quite the choice is the **availability of time**. While only 15% of interviewers selected 'little', 39.6% and 45.3% picked 'somewhat' and 'very much'. Obviously, policymakers are involved in multiple activities and do not have infinite time at hand. According to some research [40] [48], indeed, seeking evidence and using sources is a lengthy and time-consuming process. Sometimes, sources of information are complex to be understood and thus more time is needed, and reports and studies are too long.

"In my role, time is precious. I have many responsibilities and deadlines, so I cannot dedicate many hours. Lengthy reports, even if they can be very valuable, can sometimes be a luxury we can't afford given that our schedules are very busy."

Policymaker 2

The **simplicity, immediacy, and understanding of information** present in the sources has a role too, scoring an average of approximately 3.2 in the survey and categorized as 'somewhat'. The distribution of participant responses is as follows: no one chose 'not at all', 'little' received 5.4%, 'somewhat' accounted for 28.6%, 'Often' constituted 42.9%, and 'Always' represented 21.4%.

Policymakers prioritize sources that provide clear and easily comprehensible information. They seek straightforward narratives that present evidence in a user-friendly manner, avoiding excessive jargon when possible. They want to quickly get the key insights as the time available, as it was already stated, is not a lot. About immediacy of information policymakers need timely access to relevant data and research findings to make informed decisions promptly. Regarding SOLITUDINE project, one of the complaints is about not having a platform dedicated to monitoring partners, in which information is available immediately.

"It is clear that having a complete management system that, for example, once you enter the data you can also print the release [...] makes it easier for us. Having a management that handles all these things, related to monitoring, shared with partners is something that facilitates us."

Policymaker 1

Regarding the factor "**The plurality of viewpoints investigated**," policymakers rated it with an average score of 3.1 in the survey, indicating that it is considered relatively influential in

their selection of sources of evidence, even if to a lower extent compared to all the factor abovementioned. In fact, the percentage of people indicating 'very much' as answer is quite lower than the other factors, while 'somewhat' obtained around 60% of answers. The plurality of viewpoints refers to the practice of considering multiple perspectives in a source. By exploring a variety of viewpoints, policymakers can gain a more comprehensive understanding of complex issues and potential solutions.

About **diffusion and resonance given by the mass media**, it is helpful to explain that media diffusion refers to how widely information about existence of a source or specific research are disseminated through various channels such as news outlets, social media, or other means of communication. Resonance, on the other hand, highlights the level of public engagement and attention generated by the information or research in question.

This element plays a relatively limited role in influencing policymakers' choices. With a mean score of 2.3, indicating a "low" level of impact, with around 60% opting for 'little' or 'not al all', and being the penultimate criteria in the ranking, policymakers appear not to attribute importance to it compared to other variables.

Among the factors influencing the decision-makers' decision, some are related not to the sources themselves but rather to the policymakers. These factors include "**personal beliefs,**" "**personal interests,**" **and** "**intuition**". The survey results show that "personal beliefs" are considered almost "quite" influential, with around 60% respondent opting for 'somewhat' or 'very much' and an average score of 2.8, while "personal interests" and "intuition" have a little importance. All three factors exhibit relatively high standard deviations, around one point, indicating considerable variability in the level of consensus among the respondents, signifying that the influence of these factors in policymakers' choices varies a lot depending on individual.

Personal beliefs can influence the willingness to employ a source, while, on account of intuition, policymakers may rely on gut feelings or intuitive judgments. This might not always align with choice of the most suitable element for the specific situation in question.

Personal interest can introduce a bias, called technical bias. It occurs when a set of source or set of evidence is cherry-picked to only highlight those pieces of evidence which support a desired outcome. This is particularly pertinent in policy debates concerning complex or uncertain issues where there may be many pieces of relevant, and often contradictory, information [32] [80].

Beliefs induced by membership in a political group concerns the influence, of an individual's political affiliation, on his or her decision-making process when selecting sources or elements to support evidence-based practices. With a low average score and 22%

and 40.7% respondents opting for 'not at all' and 'little', this criterion is considered to have limited impact and ranks last among the considerations of policymakers. Again, technical bias may arise: the political environment influences the decision about which source consider, and the decision is driven by a desired objective [27].

In one of the interviews conducted, only a respondent said that he would consider sources that align with and reinforce his political group's beliefs. This highlights the importance of self-awareness and critical reflection in ensuring that personal beliefs do not bias the selection and use of such sources.

"In thinking about what I want to use and to propose I will reinforce a belief of mine, that is, a belief of ours in the majority movement."

Policymaker 5

In the survey, among the criteria there was a last one, called "other", that refers to any other possible criteria not explicitly mentioned. This factor obtained a very low score. Additionally, it possesses the lowest standard deviation among all the criteria, suggesting a tight clustering of responses around the "not at all" value.

From these findings, it can be inferred that policymakers' focus primarily revolves around the other factors listed in the survey, and no additional criteria were deemed significant. However, other two elements emerged from interviews, and they must be taken into account given that these two new elements were not mentioned just once but rather often.

Firstly, decision-makers must be willing to use these sources. Hence, there should be some **incentives and/or obligations.**

In the SOLITUDINE project, the usage of tools to monitor the project, such as Socio-economic/financial/environmental indicators, from which collecting evidence, are specifically requested by the UIA call. If the municipality is not compliant with this duty, it will lose the access to fundings. A similar discourse is applied to the famous Recovery and resilience plan. Without these obligations, considering the lack of time stated before, probably not all these activities would have been carried out.

"All these things here (he refers to money allocated and spent, and the progress of activities) are also monitored because often a programme like UIA asks you to account for them and explain them."

Policymaker 6

This topic concerns also the partners of this project. From them, the municipality expects the usage of tools (such as kpi and reports) to communicate data about state of the art of the activities. Nevertheless, policymakers complain that it is tough to let them understand the importance of this activity, and instead partners feel an extra burden is being imposed on them. Hence an incentive system is recommended. Interviewers also point out that it should be better that the municipality guides and assists partners in doing this activity.

"There is another aspect to emphasise concerning the difficulty of communicating, not only to the project partners but also to the grantees, the importance of monitoring. In addition to the seven partners, there are about 20 beneficiary associations that feel an extra burden imposed on them…It would be good if the municipality also played a role and gave guidance with regard to the direction of the activities (managed by the partners)."

Policymaker 1

The second factor that emerged was the **lack of sources**. Indeed, even if it may seem trivial, a factor that obstacle the usage of sources is the lack of sources themselves. As a result, inefficiencies may arise. For example, regarding SOLITUDINE project, respondents complained that the monitoring activity was obstructed by a lack of a proper management software. As a consequence, the use of software not deemed fit for purpose, such as Excel and Access, does not allow monitoring to go hand in hand with the project, and the effectiveness of this monitoring activity is limited. Moreover, the process to buy a suitable tool is not straightforward due to the need to secure fundings and the duty to incur in long internal bureaucratic process. This management software would allow also to spend less time in analysing information.

"There are certainly forms of data collection but the lack of a management system to support this, limits the effectiveness of this activity. So, there is monitoring, but it does not go hand in hand with the project. […] I've just had a meeting about this, and the means are not adequate, i.e. we work with Excel files, Access files. I have spoken with my colleagues because I wanted to make a small investment in a management software, but there are a lot of difficulties in being able to implement it within the municipality, let's say, it's not so immediate."

Policymaker 1

Even if they do not address the research question, a further insight emerged from the interview that deserves to be described. It is about having a long-term vision.

More in detail, regarding LoIx, policymakers emphasize the need for creating useful tools, from which collecting evidence, that serve not only the immediate project but also have lasting value. They caution against solely focusing on specific projects and then discontinuing their use afterward, leading to missed opportunities. Instead, they highlight the importance of incorporating a forward-looking perspective into the development and implementation of sources of evidence. Using LoIx and other indicators beyond the current project's scope is useful to avoid wasting the resources invested in its development.

Concerning the data collected by the SOLITUDINE project, the interviewees express the intention to make it available to also all relevant external stakeholders who may need it in the future. By allowing other operators to access this data, these operators can run in the future their activities based on evidence-based approaches.

"The loneliness index (LoIx) is conceived as a tool in the hands of the public decision maker that must be used continuously in the future. Otherwise, it will remain only a functional tool for this project. But if one thinks of all the resources that have been spent, it would really be a waste. […] It should be better to do useful things that serve not only the project of the moment. […] "And there too (talking about LoIx and monitoring of other data) we want there to be continuity, i.e. this questionnaire to be made available also to those service providers who want to continue monitoring these aspects in the future and ensure a flow of data. "

Policymaker 1

4.3 Findings about research question 3

In the context of evidence-based policy, are there factors, and if so, what are they, that hinder a proficient and efficient relationship between policymakers and municipal technical offices?

The table shows the categories identified during the content analysis to answer the last research question:

Table 11: Answer to the third research question

In the context of evidence-based policy, are there factors, and if so, what are they, that hinder a proficient and efficient relationship between policymakers and municipal technical offices?	Scarcity of personnel
	Slowness
	Competence of administrative employees
	Lack of motivation
	Self-referential attitude
	Bureaucracy
	Internal organisation
	Digitalization
	Insufficient knowledge of policymakers about various aspects of the technical/administrative apparatus
	Struggle to access the necessary information
	Lack of a comprehensive vision
	Lack of effective communication

In the municipality, the administrative apparatus is the structure responsible for managing day-to-day operations, public services, finances, and human resources, as well as units specialized in technical subjects such as urban planning, statistical office and many others.

In general, in the context of evidence-based policymaking, the relationship between policymakers and the technical offices is important. Indeed, on one hand workers in offices need clear directives and communication from policymakers, otherwise, they would not be able to respond effectively to policymakers' requests; on the other hand, policymakers have the necessity to have an administrative apparatus able to support them in all the tasks, such as, for instance, research, collection, analysis, interpretation of evidence.

The analysis performed reveals a concerning **scarcity of personnel** within the technical and administrative offices at the municipal level. This shortage of personnel contributes to a series of challenges that significantly impact the successful implementation of evidence-based policies.

The reduced workforce within the technical and administrative offices faces difficulties in adequately processing and analysing complex evidence. This limitation diminishes the potential for evidence to be effectively utilized in policies. As a result, the quality and comprehensiveness of evidence-based initiatives may suffer, leading to policy measures that are less effective.

Lack of personnel can be seen from the following answer to the survey's question: "*What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?*":

"*The organisational structure suffers from serious quantitative deficiencies. [...] Recruitment would be necessary to compensate for workloads.*"

Moreover, the work overload does not only impede many of the policy initiatives to be grounded, but also it often leads to abandoned ideas due to the offices' inability to respond promptly and effectively, further exacerbating the challenges faced by evidence-based policy implementation.

"*Ideas, information needs etc., are often abandoned because the offices do not respond, are unable to respond. This is a great deficiency.*"

Policymaker 5

Probably connected to the lack of personnel, there is another element: **the slowness.** Policymakers, indeed, complain that administrative employees have a poor responsiveness and long response time to their requests. Policymakers may face delays in accessing crucial evidence, leading to uninformed decision-making. Here's two examples of answers coming from the survey:

- "*Extreme slowness in responses.*"
- "*Poor responsiveness of the technical administrative staff.*"

An important point is the **competence of administrative employees**. The workforce not that often has knowledge and skills necessary for analysing data, interpreting evidence, and applying it to policymaking effectively. This competence gap can lead to suboptimal decision-making and limit the ability to develop evidence-based policies. There is also a lack of managerial competencies, that are needed to plan, act, coordinate and control the overall processes.

As can be seen from the following answers to the survey's question: *"What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?"*:

- *"Poor preparation of technical administrative staff."*
- *"Managerial skills capable of planning-acting-control are lacking."*
- *"Staff training has to be rebuilt."*

Furthermore, municipality do not have enough young workers who should have more innovative perspectives and up-to-date knowledge. Young skilled people are more amenable to seek a job in the private sector due to higher wages and more possibilities of career.

To demonstrate this, some of the answers to the question in the survey *"What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?"* are given below:

- *"More young staff are needed, with an innovative and up-to-date outlook; training is needed with respect to the changing environment, in language above all."*
- *"Recruitment is needed for skills that are not yet present in-house."*

Nevertheless, in general, administrative employees possess more technical knowledge than policymakers. For example, in the municipality analized, there is the statistical office, responsible for analysing numerical data. However, it is rare for a policymaker to possess statistical expertise on par with the technical staff in the statistical office. These types of asymmetries can create situations where the technical/administrative apparatus takes advantage, for its own interests, of its superior knowledge and expertise compared to policymakers. This fact will be reported also later.

A notable issue observed in the analysis pertains to the **lack of motivation** among personnel within the technical and administrative offices at the municipal level. Some personnel engaged in routine work without the ambition to improve the internal functioning of the administrative machinery, or to actively seek efficient improvements for the benefit of all employees and of the city's community, poses a significant hurdle. This lack of motivation obstacles the potential growth and advancement of the administrative apparatus, which could ultimately lead to more effective evidence-based practices.

One answer, that is about lack of motivation, to the survey's question *"What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?"* is:

"Tendency to routine work without ambition to want to improve the internal functioning of the administrative machine and without adequate effort to achieve this, which would benefit every employee. Lack of ambition to actually want to bring effective improvements to the city community."

Another aspect that emerges from the survey and the interviews is that the technical and administrative apparatus demonstrates a **self-referential attitude**, prioritizing the protection and preservation of the bureaucratic machinery over seeking solutions to improve citizen services. Policymakers may struggle to engage and collaborate with personnel who do not fully embrace the principles of EBP or prioritize citizen welfare. This disconnection between policymakers and the technical and administrative apparatus creates inefficiencies in the EBP implementation process.

Similarly, there is lack of awareness that the technical and administrative apparatus can be considered as a "service" meant to satisfy the needs of the community. Indeed, administrative employees have a low citizen-oriented attitude resulting in a low ability to read and perceive the problems of the area in a suitable way. Thus, it is more difficult to gather and use evidence for policies and to address real citizens' needs. Indeed, some answers to the survey highlight this:

- *"The tendency to 'protect itself' (understood as the bureaucratic machine), to the detriment of seeking solutions to improve service to citizens."*
- *"The sometimes poorly citizen-oriented attitude (lack of awareness of being a 'service')."*
- *"Inability to read and perceive the problems of the territory in a timely manner on the part of both politicians and the technical administrative apparatus."*

Bureaucracy is one of the most reported weakness in the analysis performed. The administrative machinery is often characterized by complex regulation and procedures, which can impede the efficient utilization of evidence in policy formulation.

Furthermore, an excessive amount of bureaucracy and administrative bottlenecks can render the system less agile and receptive to new information, hindering the ability to adapt quickly to emerging evidence. Concerning bureaucracy, another issue is the channelling of resources primarily toward certain offices. Given that resources are concentrated within limited offices, other areas may suffer from a lack of necessary support and attention, hindering their ability to contribute to evidence-based policy development.

To demonstrate this, some of the answers reported in the survey were the followings:

- *"Complexity of the bureaucratic machine."*
- *"We need less bureaucracy and administrative red tape, to simplify without trivialising, to make the system more agile and receptive."*
- *"Resources are channelled only towards certain structures."*

Connected to this topic, there is not an **internal organisation** to support evidence-based policy development. Policymakers complain that there is not a clear structure and clear roles about the activities of collecting and analysing evidence. Hence, there is a need to design an internal body created purposefully for this scope.

"What we need to do is to distribute the structure internally so that there are offices in charge, people in charge of doing all this study, this documentation, this analytical and statistical preparation that then goes to support the political choices."

Policymaker 6

"There are certainly forms of data collection but the lack of a structure limits the effectiveness of this activity."

Policymaker 1

The analysis highlights also a deficiency in the level of **digitalization** within the technical and administrative apparatus of the municipality. The lack of digital tools and platforms hinders the efficient storage and retrieval of relevant data and evidence. Interviewers

complain about the lack of adequate resources and databases. Additionally, a low level of digitalization does not help in fostering collaboration, and sharing data quickly and efficiently, between policymakers and administrative employees.

To show this, one answer to the survey's question *"What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?"* is given below:

"There is very little or no digitisation, which would be very important to retrieve data easily and to collaborate better."

Another factor that deserves to be mentioned is the **insufficient knowledge of policymakers about various aspects of the technical/administrative apparatus**.

Policymakers complain a lack of clarity about roles, administrative processes, responsibilities and competencies within the administrative structure. This can make challenging for them to identify the appropriate office or individual to address specific issues or seek expert advice. It can also lead to delays in accessing relevant information and expertise necessary for evidence-based policy development.

Moreover, lacking practical knowledge about administrative procedures lead to rely on administrative employees for decision-making. This reliance can lead to a situation where the policymaker's ability to make the best choices is constrained by the preferences and perspectives of technical/administrative apparatus. This emerged from interviews and survey responses:

- *"Lack of completeness of information of the facilities and resources available."* (from the survey)
- *"Difficulty in identifying the appropriate office/contact person for the issue."* (from the survey)
- *"You may know the legislation, but if you lack concreteness, meaning that you do not know the procedures, you will always have a technician, who knows more than you, and who may not allow you to make the best choices if they do not suit him."* Policymaker 3

Another point is the **struggle to access the necessary information** possessed by the technical/administrative apparatus. Policymakers often require comprehensive data and insights to make well-informed decisions, but they complain difficulties in obtaining the information they need from the technical/administrative apparatus. This may be the result

of other factors already mentioned, such as bureaucratic hurdles, low level of motivation of workers and a low level of digitalization. A concern is also the difficulty in tracking the progress of activities requested by policymakers to the technical/administrative apparatus, as it can noticed in the answers below to the survey's question *"What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?"*:

"Possibility of unfiltered access to information".

"Difficulties in obtaining evidence of the progress of activities".

From the analysis a **lack of a comprehensive vision** emerged. Because of actors who do not have a comprehensive vision, the coordination and collaboration between different administrative units and policymakers may be compromised. This issue is strengthened also by the multiple districts that are part of the municipality. In many cases, workers within districts and even district's councillors lack the vision about the overarching vision and objectives of the municipality. Another contributing factor to this weakness is the lack of regular organizational meetings. Such meetings are crucial for fostering a shared understanding of the larger issues at hand and for ensuring that evidence-based policies are managed consistently across different areas of the municipality.

The lack of a comprehensive vision is shown by policymakers as it follows:

"An overall vision of the issues to be addressed with regular training appointments would be necessary. The 'vision' of a district councillor risks being too limited if he does not know that of the municipal administration. "

"There is a lack of periodic organisational meetings."

One of the significant weaknesses is the **lack of effective communication** both among different offices within the administrative apparatus and between these offices and policymakers. These issues, that is emphasized also due to a low level of digitalization, poses several challenges to the successful adoption of evidence-based policy.

Firstly, there is often a low communication among various offices. Silos can form, where each office focuses solely on its specific tasks and objectives, resulting in a fragmented flow of information. This lack of inter-office communication can prevent a comprehensive understanding of topics that are at the centre of policies.

To demonstrate this, one answer to the survey's question *"What are the weaknesses in the relationship with the offices and technical-administrative apparatus of the municipality?"* is given below:

"There is an inability of the offices to communicate with each other."

Secondly, communication between offices and policymakers is inadequate. This could be due to lack of skills in communicating evidence and data, a lack of proper channels for sharing information, and to the difficulty in communicating complex information in an easy way to policymakers who, depending on the individual, may not possess knowledge in that particular topic.

"This step (he is referring to the difficulty of translating data into decisions) is missing both from a politician's point of view, and from the point of view of the technician who is aware of it but struggles to communicate it to the decision-maker, and sometimes even from his superior in the office."

Policymaker 1

Chapter 5: Discussion of the findings, and further developments

In previous chapter findings of the analysis performed were illustrated. In this discussion and conclusion chapter, we analyse how this research contributes to filling the gaps identified in the literature, as evidenced by our answers to the three research questions. Furthermore, the final section will shed light on the limitations of this study and outline potential avenues for future research efforts.

5.1 Conclusions about research questions 1

As explained in previous chapters, the evidence-based approach to policy-making presents numerous advantages. It enhances decision-making capabilities by enabling the use of robust evidence to support the formulation of new policies [38], as well as it facilitates the evaluation of existing policies or programs, leading to the identification of ineffective or inefficient ones [41]. As a consequence, it is easier to get an improved allocation of public resources. Furthermore, it improves transparency and accountability to stakeholders, providing a clear foundation for decision-making, positively affecting public trust in policies and in public institutions [39].

Consequently, it would be desirable to have wider adoption of it. This dissertation made a contribution to the identification of the information, training and facilitation needs of public administrators in their role as policymakers, with the aim of improving their ability to use evidence-based policies effectively. To do so, this study considers a real case study that took place in small local context in Italy. So far, in the literature there are no analysis of Italian case study about EBP focused on potential facilitators. The results of the qualitative analysis, which included 56 questionnaires and 6 interviews, shed light on several crucial factors influencing the use of evidence in decision-making processes.

The lack of personal training among public administrators is one of the main barriers to the use of evidence, especially in smaller municipalities. However, having trained and competent staff is not enough; governance plays a key role, and it is necessary to have dedicated staff and the right tools to supervise the use of data, especially during project implementation.

Furthermore, improved data availability is crucial for informed decision-making, including sociological data for socio-economic impact assessments. Stakeholder involvement, transparent information sharing, and collaboration also contribute to improved evidence-based decision-making. Effective communication of evidence from the decision-maker's perspective is essential for its practical use and would alleviate the problem of time constraints that hinder the use of evidence and the evaluation of results during and after projects. Finally, cultivating an evidence-oriented culture both within municipalities and by partners provides a significant contribution to the use of evidence in decision-making processes.

5.2 Conclusions about research question 2

There are more types of evidence that can be considered in a policy context [15]. Evidence usually falls into three main types: research evidence, contextual evidence and experiential evidence [16]. It is possible to collect these 3 types of evidence from multiple resources [16], such as for example from studies, publications, surveys, open data platforms and many others.

This dissertation made it possible a better understanding of the usage by policymaker of sources of information for evidence-based policies, and off the criteria that affects their selection and utilisation.

Indeed, despite the importance of this aspect for the adoption and diffusion of evidence-based approaches, this topic is poorly studied in the existing body of literature. Hence, one of the objectives of this thesis is to address this gap.

Regarding sources that can be considered in the decision-making process, respondents were asked to rate their usage of each source on a scale ranging from "never" (1 point), to "always" (5 points), distribution of responses per point in % were considered, and mean along with standard deviation were calculated for each one. The most rated one were "Autonomous research on practices and best practices from other territories", "Press articles", "Public debates, opinion sharing" and "Information collected from informal relationships and social groups". "Perceptions", "Learning from personal training/organized periodic updates", "Cost/benefit analysis of possible alternatives" and "Legislation and planning instruments of local authorities" are instead taken into account only sometimes. "Studies, research, and publications from universities and research institutes" and "Open Data, reports, and statistical surveys" are used less frequently. Finally, "Legislation and planning tools of the European Union" received a store that

indicates a rare consideration. Given that the category "other sources" obtained a considerable low score, and a low standard deviation, it possible to infer that no other sources, apart from the ones above mentioned, are employed.

Concerning instruments used to assess and monitor policies, feedbacks from stakeholders are considered by around 75% respondents, whereas Socio-economic, financial, environmental indicators by less than 40% and open data by 30% people. In the last position, there is cost/benefit analysis, being employed only by 16% decision makers.

Addressing the research question at hand, 14 criteria emerged from the analysis. Reliability and knowledge of the source is the most important one. It is about reputation of the sources of information, and the effective knowledge of them by policymakers.

The second most important is competence, intended as ability to use these sources as well as mastery of subject at hand.

Functionality, pragmatics, and purpose versus objectives, that ranks as the third most important among the various criteria, means that sources that directly contribute to address policy objectives and their needs are preferred by policymakers.

The easiness of access to sources and information therein, as well as availability of time, are other two important aspects.

Other factors considered quite influential, are the plurality of viewpoints investigated, that refers to the practice of considering multiple perspectives in a source, and simplicity, immediacy, and understanding of information available therein.

Conversely, there are some factors that pertain not to the sources themselves but rather to the policymakers: personal beliefs, personal interests, intuition, and beliefs induced by membership in a political group that ranks last. Personal beliefs are quite influential, whereas the others have a low impact in the choice of policymakers. All of them display high standard deviations, around one point, indicating considerable variability in the level of consensus among decision makers. Focusing on personal interest, a bias, called technical bias, may arises. It is the tendency to selectively pick sources or evidence, emphasizing only those pieces that align with the desired outcome.

Among criterion that has a low influence there is the diffusion of a source, and resonance attributed to it by the mass media.

From the interview two more factors were found. The choice and usage of a source is influenced also by any incentive or obligation associated with its utilization. Furthermore, the lack of proper sources themselves of course negatively affects the utilisation by

policymakers. In the interviews, respondents complained about the lack of a management software to monitor partners' activities.

There are two criteria in the survey, "reliability and knowledge of the source" and "competence", that encompass more criteria. Indeed, as stated before, "reliability and knowledge of the source" can be divided into reliability and knowledge, whereas "competence" consists of the ability to use these instruments and the mastery of subject at hand. Thus, it was not possible to infer the influence on policymakers of each of these four factors individually. To have more precise results, new research should investigate each criterion individually.

5.3 Conclusions about research question 3

As a final remark, this exploratory study contributes to expanding knowledge about reasons that hamper a proficient and efficient relationship between policymakers and municipal technical offices.

Having a good relationship, in fact, is beneficial for the adoption of evidence-based policies, given that administrative employees can provide support to policymakers in multiple tasks. For example, they look for useful information to address the subject at hand. They also help in analysing and interpreting evidence [44]. However, there is a lack of literature about this topic. Hence, one of the goals of this dissertation was to fill this gap.

To sum up, the analysis identified 12 factors that act as a barrier. They are the following:

- Lack of personnel. This shortage of workers leads to an excessive workload. Thus, many policy initiatives are not well grounded, and others are even abandoned due to the inability to respond promptly.
- Slowness. Policymakers suffer from delays in having answers to requests to administrative apparatus.
- Competence of administrative employees. Even if, often, they have more technical knowledge than policymakers, they lack competences too about evidence-based practises.
- Lack of motivation. Members of technical offices are not enough motivated in their jobs, representing a brake to the improvement of EBP.
- Self-referential attitude. Their focus is on safeguarding and maintaining the bureaucratic machinery rather than actively seeking ways to improve services to policymakers and ultimately to citizen.

- Bureaucracy. Administrative apparatus, that has complex regulation, procedures and bottlenecks, makes the system less efficient.
- Internal organisation. Up to now, in the municipality there is not an internal structure and internal processes designed purposefully for supporting evidence-based policies.
- Low level of digitalization. As a result, storage and sharing evidence, as well as internal tasks in the offices, are penalised.
- Insufficient knowledge of policymakers about various aspects of the technical/administrative apparatus. Policymakers struggle with unclear roles, administrative processes, responsibilities, and competencies within the technical offices, making it difficult for them to identify the appropriate office or individual for specific issues.
- Struggle to access the necessary information. Policymakers express complications in accessing the necessary information from the technical/administrative apparatus.
- Lack of a comprehensive vision. Consequently, the coordination and collaboration between administrative units and policymakers is disadvantaged.
- Lack of effective communication. This takes place not only toward policymakers but also among technical offices themselves.

Potential solutions to improve this relationship were not the goal of this dissertation. Nevertheless, based on the above-mentioned barriers, it would be advised to increase personnel, as well as to provide education courses to improve their skills and some initiatives to raise their motivation. Investments in digitisation and a reorganisation of the entire bureaucratic machinery are needed to facilitate access to information, reduce complexity and provide better support for evidence-based policies. Finally, solution about how to improve communication must be studied.

5.4 Limitations and further developments

While this research provides valuable insights into evidence-based policies and the related challenges faced by local administrators, it is essential to recognise its limitations on which future developments can be based by focusing on specific aspects. The most significant research limitations that have been identified are the following.

Firstly, there is a **Case Study limitation**. In fact, while case studies provide valuable insights into complex phenomena, they inherently lack the ability to generalize findings to a broader population of, in this case, local administrators. It is crucial to recognize that centring on the particular experience of a municipality in Northern Italy and the execution of the SOLITUDE project could constrain the extrapolation of findings to different municipal environments. The distinctive attributes of this Northern Italian municipality, along with the specific project under consideration, might not offer a representative portrayal of alternative contexts, thereby potentially influencing the external validity of the outcomes.

Furthermore, there is a limitation connected to the **sample size**, too. The sample size, consisting of six people interviewed and 56 completed questionnaires, is relatively small. While the mixed-methods approach allows for triangulation and a deeper understanding, the limited sample size might not fully capture the diverse perspectives and experiences of all local administrators. Thus, the results should be interpreted with caution, considering this constraint.

There is also the issue of the **social desirability bias** limitation. Data collected was based on participants' self-declarations. Therefore, they can be subject to bias. Some participants may have been inclined to respond in a manner that portrays them in a favourable light, consciously or subconsciously aligning their answers with what is perceived as more socially acceptable, potentially affecting the accuracy of the data.

Based on the identified limitations, the following direction for future research development can be suggested: **a Cross-Case Study and Comparative Analysis**. Indeed, to enhance the generalizability of findings, future studies could involve a larger and more diverse sample of local administrators from various municipalities. Adopting a cross-case analysis, comparing different municipal contexts and policy settings, would provide a more comprehensive understanding of barriers related to evidence-based policies, to the tools and to relationship between technical offices and policymakers.

Longitudinal studies would contribute to assess the generalizability of the findings of this dissertation. Examining the municipality over different time periods helps determine robustness and applicability, of results of this thesis, in various settings.

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