

# Capturing user needs at the local level: a pillar for a listening architecture

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## Abstract

Driving future statistical production according to user expectations is a key concern for official statistical institutes. As stated in principle 11 of the European Statistics Code of practice, relevance is based upon NSIs capacity to meet the needs of users, hence the necessity of "procedures [...] to consult users, verify the relevance and usefulness of existing statistics with regard to their current needs and to examine and anticipate their new needs and priorities." (indicator 11.1).

In this perspective, the French NSI Insee has enlarged the range of its listening channels, relying on both quantitative and qualitative measures, and addressing a large range of users, like public administrations, researchers, journalists, private companies... till the civil society as a whole. Internet surveys, focus groups, satisfaction surveys, prospective interviews with public stakeholders, monitoring of social networks are all facets of this system. Proper consideration of geographic scales and regional interests in these listening devices is also a priority identified by Insee, in order to best guide the production of local statistics, when the demand for geospatial information is rapidly growing.

To critically examine the listening channels set up for regional users, a review was carried out for the year 2023. It was based on the reflections of Unece (report "measuring the value of official statistics", 2022) and the Committee on Statistics and Statistical Policy (20th meeting, 2023, conference on "how could statistical organizations become better listeners"), and more generally on academic works studying listening architectures in organizations ("Creating an 'architecture of listening' in organizations", Macnamara, 2015). The review had various deliverables, first of them being a global view of regional users diversity, described through a dozen of "personas". The latter were used to design user stories and better contextualize use cases of regional statistics. The review then identified the channels for capturing local needs, whether through direct exchanges (interviews, focus groups, surveys) or indirect (monitoring user expression channels such as social networks). A typology of capture channels has been established, so as to identify contributions and limits for each of them. The review focused especially on the necessary distinction between promoting channel, usually "product-driven" way of interacting with users, and listening channels, which are "need-driven" way to achieve engagement with users.

This regional review is part of new national strategic plan to strengthen quality at Insee and ONAs, consistent with the recommendations of the last peer review carried out in France.

**Keywords:** users, listening channels, relevance of statistics, audience segmentation, regional level

## 1. Introduction

Understanding user needs is a prerequisite for defining effective and relevant production and dissemination in accordance with the principle 11 of the European Statistics Code of practice, which emphasizes relevance. Specifically, indicator 11.1 recommends the implementation of procedures to consult users, verify the relevance and usefulness of statistics, and anticipate new needs.

Within the French NSI Insee, taking into account the expectations of users of statistical information has long been ingrained in practices, as evidenced by the numerous listening channels targeting diverse audiences such as public administrations, researchers, journalists, as well as business owners or high school students from civil society. Internet surveys, focus groups, satisfaction surveys, prospective interviews with public stakeholders, monitoring of social networks ... are some facets of the existing listening architecture. Several previous internal initiatives since 2000' have already underlined the importance of these channels in light of principle 11 of the European Statistics Code of practice. The most recent one is the *Insee 2025* strategy, entitled "Let the figures speak and reach out to all audiences".

One of the particularities of Insee is its territorial organization, with 15 regional directorates responsible for carrying out Insee's missions at the regional level, fostering privileged contact with local stakeholders. In this context, the crucial role of regional directorates in listening to needs, especially regarding the production of local information, has been identified for many years. As a result, each regional directorate now participates in the listening process: meetings with local partners, participation in local consultation bodies, relations with regional media, etc.

The European peer review carried out in France in 2021 has been an opportunity for Insee and the entire public statistical system to engage in a reflection based on strengths and weaknesses analyses and the self-assessment questionnaire. This led to develop an ambitious quality strategy for 2022-2027, going beyond the 16 recommendations made by the peers. Among the avenues for improvement, the need has arisen to identify the channels for capturing users' needs in local statistical information and to analyse their relevance.

These reflections echo those of other NSIs at the European level as well as international studies, as discussed in the 20<sup>th</sup> meeting of the Committee on Statistics and Statistical Policy at OECD. Jim Macnamara (2015) underlines the need for organisations to create an 'architecture of listening' rather than just an 'architecture of speaking', in order to achieve two-way communication, engagement, dialogue, and relationships. This involves a distinction

between statistical production and outputs (through the media, for example) on one hand, and outcomes and impacts on the other hand, in other words, what the public does with the production and its societal implications. Macnamara also emphasizes the interpreting, analysis and response as a big part of listening. Furthermore, the UNECE report '*Measuring the value of official Statistics: testing and developing a measurement framework*' advocates for understanding the value of statistical production from a customer-based perspective (based on the actual usage by users) rather than from a production-based perspective (based on products and services delivered). This implies defining intended outcomes beforehand and ensuring that meaningful metrics are available to track them.

In light of these elements, this paper aims to identify the channels for capturing user needs at the regional level and provide initial elements to analyse their relevance. This review has been conducted by a working group composed of qualified individuals from various national and regional services of Insee and the National Council for Statistical Information (Cnis), allowing for the benefit of broad and diverse collective knowledge. The core of this article is to deliver its initial findings: the analysis of the segmentation of the institute's regional audiences, the inventory of listening channels covering these audiences, and then the critical examination of the relevance of these mechanisms (including their potential deficiencies), that is, their ability to appropriately reflect changes in needs.

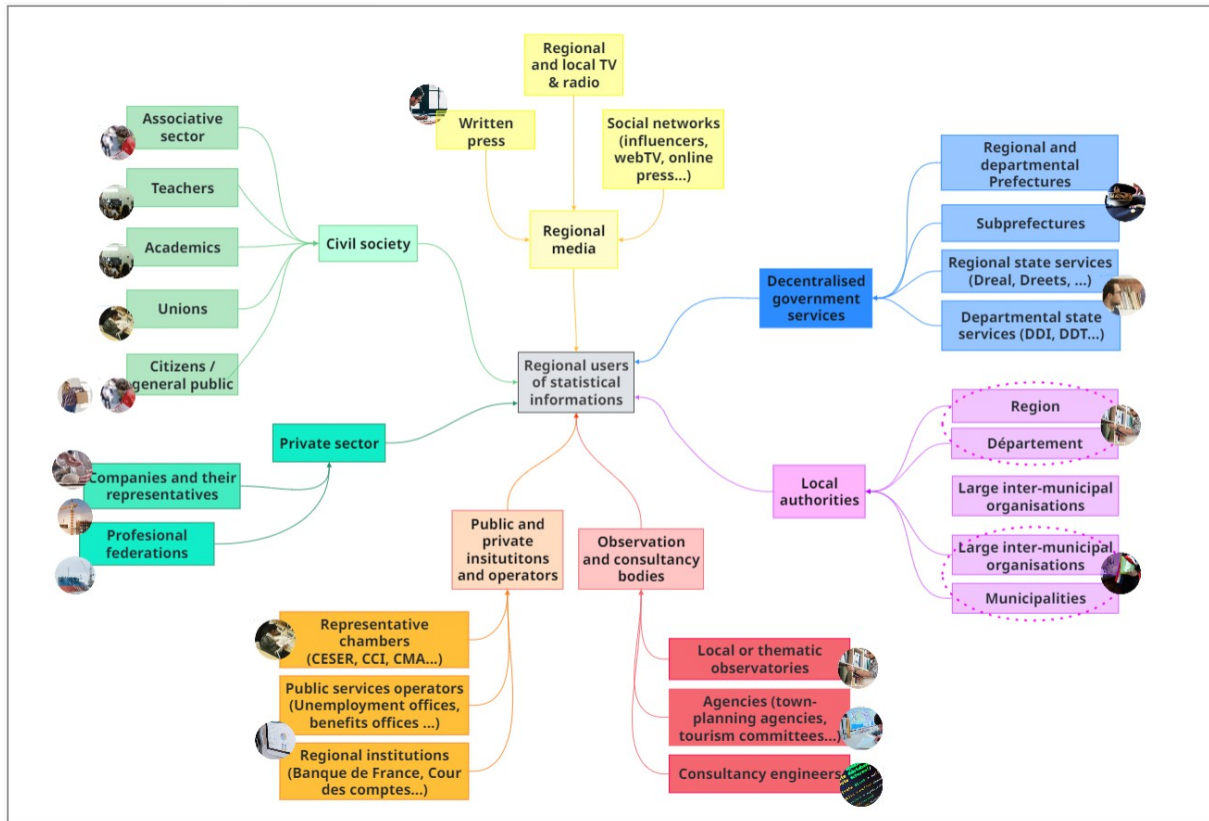
## **2. Exploring the diversity of regional users**

In order to evaluate the institute's ability to listen to users' needs in local statistical information and to verify that all users were covered by at least one listening channel, the first step was to explore the diversity of those users and of the way in which they use data.

### **2.1 Mapping of regional users**

Based on our collective knowledge and by initiating a discussion within the working group, we began by mapping the regional and local users. The objective was to identify all the users, including not only actual, but also potential users. This work led us to identify 26 types of user, grouped into 7 main branches which distinguish users according to their nature (see figure 1).

Figure 1 : Mapping of regional users



On the left side, two branches refer to the lesser-known users of the institute, to whom we have therefore paid particular attention : civil society (associative sector, teachers, academics, unions and general public), and the private sector.

In contrast, on the right side of the map, two branches bring together the institute's best-known users, with whom there are frequent exchanges: users belonging to the decentralised government services and local authorities. These branches finally represent the public sector.

On the central part of the map, three branches of users refer to users who have the particularity of being both direct users and intermediaries, insofar as they act as an interface with other users. These are the media, observation and consultancy bodies, and public and private institutions and operators.

## 2.2 Description of *personas*

To complement this, we then produced several "*persona* records" (see example in appendix 1) in order to describe the various contexts of use and relationships with the NSI of the different users. The aim was to put ourselves in the place of potential users so that we could better grasp the opportunities available to them to express their needs.

Inspired by the work carried out by Eurostat in 2020 as part of the DIGICOM project (Digital communication, User analytics and Innovative products), we mobilised the personas method, which we adapted slightly in order to draft 'prota-personas'. Popularised by Alan Cooper in 1999, this method suggests that the user should be portrayed in the form of a record that tells his personality, his story and his expectations, in order to design a product that takes account of the user experience and meets his needs.

The structure of the record adopted here comprises six sections. Four of them contain checkbox categories and are designed to describe the persona's skills, the objective he is pursuing, the type of data he uses and the type of relationship he has with the institute. Another section aims to describe the user experience in narrative terms, and a final section asks how the needs of the persona can be captured and taken into account by the NSI.

Once the structure of the record was defined, 15 records were produced, the profile of the proto-persona being chosen in order to have at least one record per branch while favouring the categories of users with whom the regional directorates have less regular contact. This has proved to be a good tool for identifying little-known ways of using statistics, that are not always taken into account.

### **2.3 Conclusion**

The mapping of regional users combined with the structuring and filling of the persona records highlighted the diversity of the users and user stories, with their distinct expectations in terms of how to access and mobilise statistics. It appeared that these are far more numerous and diverse than those with whom the regional directorates interact on a daily basis. In order to communicate these results and encourage agents to consider all users, these materials should be used as part of in-house training courses.

## **3. Critical review of listening channels**

Based on this mapping of users and personas, a number of listening channels have already naturally emerged. In this section, we present an exhaustive review of the listening channels and their characteristics, and an analysis of each of them.

### **3.1 A variety of listening channels to capture the diversity of audiences**

We have identified 19 listening channels which can be grouped into 3 categories according to the way the needs are captured (Table 1). The first category concerns so-called "direct" channels, meaning their primary objective is to identify the needs of regional users through direct and explicit questioning of Insee. The second category encompasses the listening

channels referred to as “indirect”, in the sense that their existence effectively allows capturing a certain number of user needs, but without it being their primary objective, nor the subject of explicit demand from Insee. The third and final group refers to channels that are not strictly channels for capturing needs, but rather channels for communicating and showcasing the institute's work. However, they also represent an important potential for listening to regional user needs, hence their inclusion in our analysis.

Table 1: Typology of listening channels

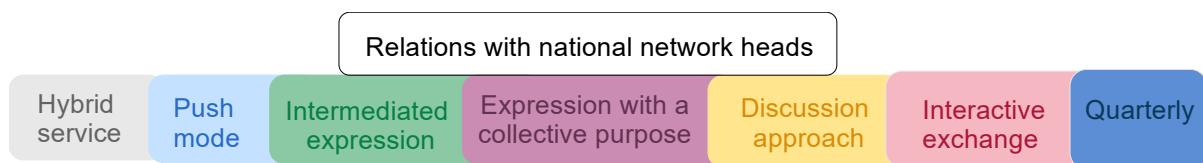
<b>Direct channels</b>	<b>Indirect channels</b>	<b>Communication and valorization channels</b>
Meeting at the request of a local stakeholder	Formal exchanges within institutional circles	X (Twitter) / LinkedIn
Listening tour for our partners	Informal exchanges in observatories and clubs	Social network monitoring
Feedback of users' needs to the national steering committee	Press review	Press meetings
Expression at the CNIS (National Council for Statistical Information)	Survey on the insee.fr website	External communications
Expression in local committees between producers and users of official statistics	Specific satisfaction survey	Participation in trade fairs and forums
Relations with national network heads	Feedback via Insee contact (user assistance)	Initiatives for teachers
Focus group with users		

Each of these channels refers to one or several users identified in the preceding section. For example, relationships with the national network heads enable the identification of needs from decentralized state services, as well as from various levels of local authorities (via elected officials' associations) and from observation and advisory bodies such as urban planning agencies or thematic observatories.

To better understand the ins and outs of each of these channels, they can be described using a 7-strand genotype, as described in appendix 2 (general framework) and in Figure 2 (example of a genotype for relations with the national network heads). The first strand characterizes the nature of the relationship with the user and, consequently, the general framework of listening: is the relationship personalized and accompanied by partnership work and a “tailor-made service” (for example, with a regional public actor, listening can take the form of a dedicated meeting and ends up in dedicated local studies) ? Is the relationship more generic in nature (for example, with the general public through insee.fr), with a so-called “universal service” in the sense that it relies on pre-existing statistical products?

Finally, is it an “hybrid service”, relying both on tailor-made and off-the-shelf offers, and therefore listening from both modalities ? ? The second strand describes how needs are expressed, whether it is spontaneous, in response to a request from Insee or the result of monitoring. The third strand qualifies whether the expression is direct or mediated, the fourth whether the expression is individual or collective in nature. The fifth strand characterizes the approach to the channel: listening, responding, discussing or directing the user. Finally, the sixth and seventh strands code for the interactive or sequential nature of the exchange, and its frequency.

Figure 2: Example of a 7-strand genotype: relations with national network heads



### 3.2 Detailed analysis of each listening channel

For each of these channels, a one-page analysis sheet has been drawn up containing 5 headings addressing several issues. An example is given in appendix 3 of the listening done through informal exchanges in observatories and clubs. The first two headings consist of a summary description of the system and the audiences covered, based on elements identified in the mapping of audiences and the characterisation of listening channels. The third section describes the nature of the contributions made as a result of the listening process: it thus makes it possible to initiate reflection on the channel’s ability to reflect users’ needs and the way in which this has a feedback effect on Insee’s output. In the example of informal exchanges in observatories, it enables to identify the primary demand for knowledge, but also to monitor the actual use made of our products. The thematic specialisation of the observatories contributes to an in-depth expression of the needs of the parties involved, who generally have an advanced knowledge of the subjects. In addition, the fourth section details the way in which this listening is formalised and capitalised on within the institute (for example: ad-hoc reports, references in work programmes). The fifth section gives some initial suggestions for improvement and concrete proposals for enhancing the effectiveness of the listening system. In the case of exchanges within the observatories, one area for improvement could be to supplement local feedback with feedback for the benefit of Insee as a whole (general directorate and regional directorates).

### **3.3 Conclusion**

This review demonstrated the wide variety of methods used within the institute for capturing needs (push/pull modes, interactive/sequential exchanges, etc.), which makes it possible to adapt to the diversity of regional audiences highlighted in the previous section. The analysis of each listening channel also provides an initial basis for making observations and identifying areas for improvement. As a follow-up, a more detailed examination of three listening systems is planned: focus groups with regional users, listening tours of regional partners, and social media monitoring.

## **4. Cross-cutting insights: towards a listening architecture?**

A number of cross-cutting insights can be drawn from those reviews of regional users and existing listening channels to capture their needs.

Firstly, the distinction between national and regional users is more complex than initially thought. Indeed, users' needs are not strictly defined by their geographical location, but rather by the nature of their requests. In addition, there is a degree of complementarity between the different levels, for example with national entities representing regional users (the "network head" concept). This suggests the need for a multi-level listening system. In this system, the strength of the regional approach lies in its ability to offer a direct, non-intermediated expression of needs, thanks to the proximity effect, while the national level will only offer an indirect expression to these actors through their national representative, so-called "network head".

Secondly, this work brought to light the specific needs of the general public – and the great complexity to grasp its expectations. Unlike institutional players, the needs of civil society are often captured through secondary channels, such as user support or satisfaction surveys. The great heterogeneity of this public, which brings together a multitude of players and individual situations, has been identified as a source of difficulty in listening to them and organising feedback on their needs. The development of focus groups aimed at these users is an avenue worth exploring, but first requires the definition of a relevant listening unit, i.e. people with sufficient common factors in their user history (e.g. teachers, company founders, etc.).

This work has also identified weaknesses in the way Insee listens to its regional users and has identified areas for improvement. An analysis of the different listening channels revealed that they are often managed in a disjointed way, valued independently of each other without any real interconnection between them or pooling at the NSI level. This observation is also



reflected in our methodology, with an analysis of channels taken one after the other. This approach certainly needs to be questioned with a view to building a listening architecture with a feedback loop on the institute's output. Efforts to conduct a transversal reading of these listening systems should nevertheless be noted, particularly under the impetus of the Communication and Public Services Department, which is responsible for orchestrating some of these channels, and each year draws up an assessment of these systems, shared with the various Insee entities.

Another important area for improvement concerns the use of listening channels. Some channels, although potentially rich in information, are not exploited to their full potential because their primary objective is not to identify needs. This involves, for example, participation in trade fairs for business creators or training activities for specific audiences such as teachers. To overcome this, the first step would be to communicate with the staff in charge of these systems to make them aware of their potential for listening; the second would be to put in place processes to enrich these channels, for example with questioning grids.

In addition, the analysis of the various channels revealed a tendency for them to focus more on promotion or communication than on listening to needs. On the one hand, this can be explained by the fact that a certain number of these systems are primarily communication channels, such as press conferences: there is an opportunity here to develop listening skills from a pre-existing system. On the other hand, even within the framework of pure listening channels, for example in meetings with local public authorities, there may be a strong temptation to deviate the listening according to our response capacities. These considerations relate directly to the ability of NSIs to hear what is being asked of them and to design a system that has a feedback effect on statistical output (moving from an architecture of speaking to an architecture of listening).

Finally, despite the richness of the signals picked up through the various listening channels, there is undoubtedly a significant loss due to a lack of capitalisation, particularly in over-the-counter interactions. So that listening can guide the institute at all levels, both in regional directorates and general directorate, it seems essential to step up efforts to consolidate and pool the information gathered from all audiences.

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# Appendix

## Appendix 1 : Example of a persona record: student activist in an association

### Student activist in an association

*Function :*  
active member of an association

*User type :*  
Beginner-level users, with a focus on essential messages and an intermediate territorial anchorage.

**Level of statistical skills**  
from 1 (beginner) to 3 (expert)  
● ○ ○

**Level of computer skills**  
from 1 (beginner) to 3 (expert)  
● ● ○

**Level of knowledge of sources and data**  
from 1 (beginner) to 3 (expert)  
● ○ ○

**Level of proximity to Insee regional directorates**  
from 1 (beginner) to 3 (expert)  
● ○ ○

Skills

**Why does he use Insee's local statistics?**

- ▶ To identify key issues for public debate
- ▶ **To improve his knowledge on one or more topics with reliable and comparable data**
- ▶ To provide statistical reference information to third parties (customers, elected representatives, the general public), with or without further processing.
- ▶ To supply an information system
- ▶ To evaluate public policies
- ▶ **To hear from the "experts" on a topical issue**

What for?

**Telling the user experience of this persona**

In order to raise public awareness, an association for the protection of biodiversity is launching a petition against the construction of a new economic activity zone. It asked one of its young activists to draw up an argument, pointing out the excessive urbanisation in the region, with figures to support the argument.

**What type of regional (territorial, local) statistics does he use?**

- ▶ Raw data and metadata
- ▶ **Aggregated and/or viewed data (graphs, maps, tables, dynamic reports)**
- ▶ **Analysed data (studies, publications)**
- ▶ Statistical methods and information on sources

What?

**How does he interact with Insee, in particular with the regional directorate?**

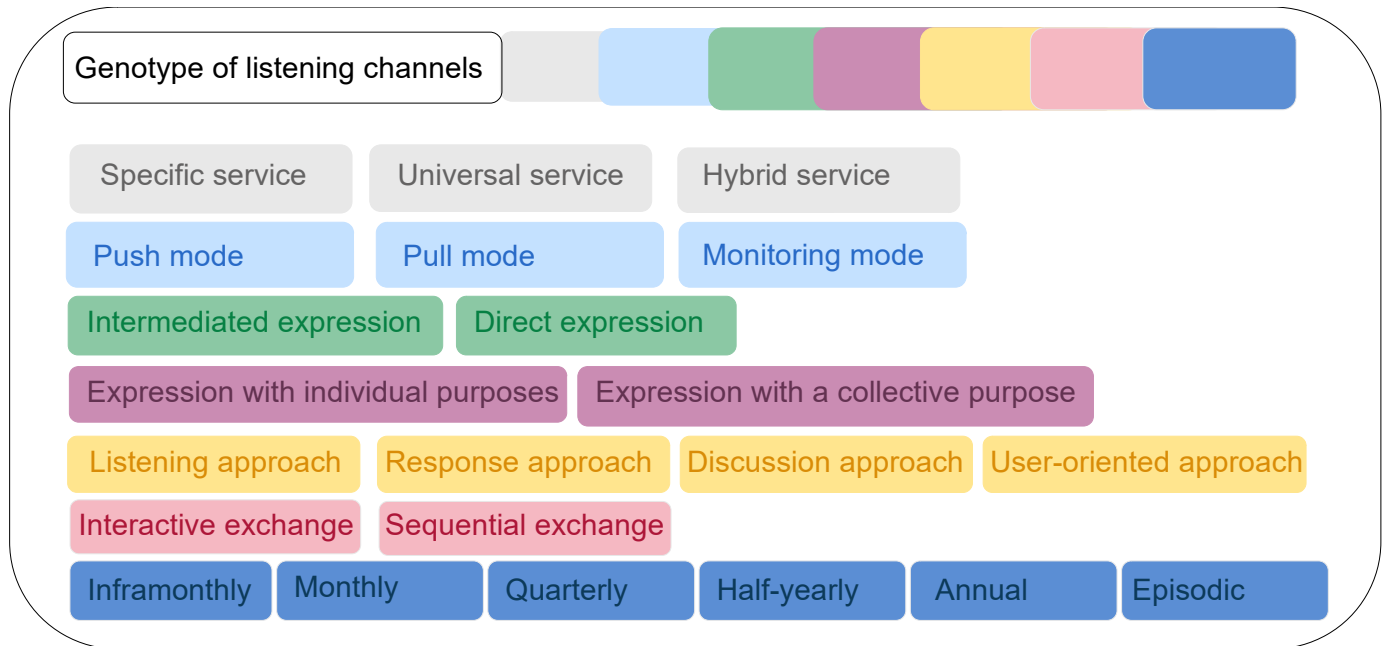
- ▶ **Uses insee.fr independently, and uses contact@insee.fr to ask questions**
- ▶ Asks for customised products and/or expert advice
- ▶ Attends presentations given by the director or the regional establishment.
- ▶ He has direct contact with INSEE experts or the press office/external communications department.
- ▶ He works in collaboration with the director or the regional establishment.

How?

**How do we capture his needs? What are the resulting benefits?**

- ▶ No direct knowledge of his needs, unless he responds to an online Inseenaute survey
- ▶ Benefits : (i) better understanding of information needs for a 'general public' coverage of topical issues
- ▶ (ii) enables us to improve our access to audiences who are not specialists in statistical data

## Appendix 2: 7-strand genotype of listening channels



## Appendix 3: Detailed analysis of a listening channel: informal exchanges in observatories and clubs

## Informal exchanges in observatories and regional clubs



Hybrid service	Push & pull mode	Direct expression	Expression with individual purposes	Discussion approach	Interactive exchange	Quarterly/monthly
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Concise description of the listening channel	Covered audiences
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Multi-institutional mechanisms called "observatories" or "clubs" aim to connect multiple stakeholders with a common theme (e.g., "mobility and transportation," "economic trends," "social inclusion," "environment-climate," "construction-housing," "employment-training," "tourism"). They can be structured under a legal entity, such as a GIP (Groupement d'intérêt public), defining their missions, member structures, and funding. Alternatively, they may have a lighter framework, based on voluntary participation in meetings. The landscape of observatories/clubs varies by region, although some patterns are common (e.g., the network of CARIF-OREF, supported by the State and Regional Council in each region). Insee's regional directorates are typically members or associated structures of these observatories, sometimes even as founding members or facilitators (e.g., business cycle clubs). Importantly, DR Insee are regularly requested to present study results and/or monitoring data in these domains (e.g., economic indicators or thematic dashboards).

Observatories and regional clubs are composed of various types of institutions that are members or occasional participants, including:

- Regional or departmental services of the State
- Local authorities
- Specialized agencies (urban planning), public service operators (such as employment centers, social security organizations), regional institutions (such as the Bank of France)
- Occasionally, private professionals (federations, business groups)

These institutions are typically represented by actors ranging from service managers (e.g., head of knowledge service in a DREAL, head of Mobility service in an urban community) to study and expertise professions (study officer in a local authority or federation, geomatics specialist in a planning agency, statistician in a public service operator).

*History: Observatories and clubs have been positioned as "relay actors" in the national strategy for regional action as it was redefined in 2019 ("the various observatories should be considered as high-level partners, positioned alongside Insee rather than in competition. They can be effective relays for accessing decision-makers"). This is a confirmation of a well-established position in regional practices since the early 2000s.*

Nature of contributions	Formalization of listening
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The very nature of observatories and clubs makes them places of sharing and expression. They bring together the knowledge outputs of each organization, alongside the needs for studies and analysis from public decision-makers. The contribution is thus twofold: (1) identifying the "primary demand" for data and knowledge, and (2) tracking the actual use of our data in observation structures through the studies they publish, and what the "derived demand" for studies is to complement the work of these observatories in terms of analysis and interpretation of data on targeted issues. Participating in these structures is therefore, in itself, a mode of listening to identify new regional study issues and expectations for data and indicators, at a level that intersects a political and a technical component. The thematic specialization of the observatory ensures a qualified expression – stakeholders have an advanced understanding of the subject matter and, most often, knowledge of the sources, data, and concepts related to it. Therefore, the expressed needs tend to be at a rather profound level.

The listening dimension within observatories is informal and remains under the responsibility of the Insee representative and his ability to transcribe the terms of the debates he attends. Insee's regional directorates typically extract from their participation in observatories elements for programming partnership studies and services to be provided (such as advisory services or provision via the universal service). Practices can range from drafting a report for each observatory meeting, to mentioning anticipated work in the regional directorate's work program, to including it in weekly or monthly meeting reports for service follow-ups.

*Examples of reporting: Few written traces shared in the reports of regional directorates. Conversely, the observatories themselves produce summaries and activity plans that may mention areas of statistical cooperation, including on national networks (e.g., <https://www.intercariforef.org/>).*

Areas for improvement
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**Observation**

- The system is well established and fits within regional institutional histories: each Regional Directorate has been able to develop or specialize its participation according to the priorities to be addressed and the quality of the instances' operation.
- The system's purpose is to share knowledge productions: listening is not its ultimate goal, but nevertheless an important component, with the particularity of being able to intersect the expectations of a plurality of actors.
- The listening captured at the regional level is already well exploited for local needs and integrated into regional directorates' work programs.
- For some of these observatories, listening is also established at the national level.

**Proposals**

- A few Regional Directorates could be identified as "lead agencies" due to their increased involvement in certain types of observatories, with a mandate to supplement their local listening with listening for the benefit of the network, particularly on behalf of the national centers of expertise on the subject.