



Policy Cloud  
Cloud for Data-Driven Policy Management

## CLOUD FOR DATA-DRIVEN POLICY MANAGEMENT

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**Abstract:** This document is the third of the series of deliverables that detail the evaluation process. In particular, this report details the outcomes of the evaluation of the PolicyCLOUD technologies and the benefits they provide to the use cases obtained in the co-creation & evaluation workshops.

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## Abbreviations and Acronyms

Abbreviation/Acronym	Definition
EC	European Commission
EOSC	European Open Science Cloud
PDT	Policy Development Toolkit
PP	Public Policy
IA	Impact Analysis
QV	Quality Validation
IS	Information Systems
ICT	Information and Communications Technology
SUS	System Usability Scale
TAM	Technology Acceptance Model
UMUX	Usability Metric for User Experience
UTAUT	Unified Theory of Acceptance and Use of Technology
HMI	Human-Machine Interfaces
NA	Not Answered

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## Executive Summary

This document is the third of the series of deliverables that detail the evaluation process. In particular, this report details the outcomes of the evaluation of the PolicyCLOUD technologies and the benefits they provide to the use cases obtained in the co-creation & evaluation workshops carried out along the 3rd year of the project. This document gathers how the present project can evolve in the future and next steps to follow.

D6.5 [10] explained the implementation of the evaluation methodology differentiating between Impact Analysis (IA) evaluations and Quality Validations (QV). As an introduction, the Public Policies Implementation Process was described, considering how the PolicyCLOUD project contributes to it at the different stages of the process, also presenting the way the policy definition and implementation process is linked to the evaluation methodology proposed.

In D6.14 [12] the most important improvement from the first deliverable of the series, Deliverable D6.5, was the implementation and the results of the evaluation for the different uses cases. The implementation was carried out during different workshops for each use case. The impact analysis reported by the policy makers, highlighted that the main problems they face, are lack of data, inaccurate data and lack of standards. This is a major barrier to implementing new policies in any field. In addition, data is decentralised and fragmented and very difficult to access. All this makes the quality of data available to policy makers from different sources, very low and unreliable.

The present deliverable (D6.15) reviews the evaluation method, including some new questions, and presents a new revision from policy makers gathered in the co-creation workshops carried out during the third year of the project. D6.15 follows the same structure of D6.14 and explains the results obtained in those workshops.

In the third year's evaluation, valuable feedback has been received regarding the quality assessment of our platform. The system has been thoroughly evaluated and the most important use cases have been successfully implemented. While the feedback has been generally positive, it is remarkable that there is still work to be done in order to turn our platform into a production-ready tool that is suitable for use by policy makers. To successfully market the PolicyCLOUD system in the future, a commitment has been made to continuously enhance the platform to make it as efficient and helpful as possible.

It is significant to note that due to Camden's withdrawal in March 2022, the London use case could not be assessed during this final stage of the project.

# 1 Introduction

## 1.1 Purpose and Scope

The purpose of this document is to present the results of the evaluation process, it is a continuation of the deliverable D6.5 [10] and completes the work carried out in D6.12 [11]. The deliverable provides the initial results of the evaluation, which tries to validate the innovative tools and modules developed within the project, specifically the Policy Development Toolkit (PDT) and the use cases scenarios. Different statistics have been performed to analyse the different use cases and the PDT and a summary or conclusions has been generated that will be shared with other WPs to take into account policy Makers feedback.

## 1.2 Summary of changes

The executive summary, the introduction (section 1) and the overall organization of the text have been updated in this version. Following the assessment technique for the various scenarios, a general description of how the evaluation process was implemented within the co-creation meetings is presented. Finally, the various outcomes gathered are written down, as well as the various conclusions and policy makers comments. The abovementioned is covered in sections 7, 8, and 9, which are new sections in this document.

This third document provides the results obtained during the co-creation workshops which have taken place along the last year of the project.

## 1.3 Structure of the document

The document is structured as follows:

Initially, section 2 “Public Policies Implementation Process” provides a brief review of the public policy making process considering how the PolicyCLOUD project contributes to this aim at the different stages of this process, serving as an introduction and establishing how the policy definition and implementation process is linked to the evaluation methodology proposed in the following section.

Section 3 related to the Evaluation and Recommendation Process, begins with a brief introduction to the key points on which the methodology is based: impact assessment, technology acceptance and validation of the interaction and usability aspects. With these concepts in mind, the proposed methodology for evaluation and recommendation is presented. It consists of different interventions throughout the project to evaluate, both, the expected impact of PolicyCLOUD as a project that could contribute to evidence-based policy development and, to this end, whether the solutions provided within the project, especially the PolicyCLOUD PDT, will contribute to this function and to what extent.

In section 4, the Use Cases Evaluation section, the particularities for the evaluation of each case of use will be defined. Section 5 explains how the evaluation was implemented during the co-creation sessions for each of the use cases. Section 6 presents the various outcomes collected for each of the use cases and includes a summary of the overall results.

Starting in section 7, evaluation process tasks carried out through the last year of the project are explained. Specifically, section 7 explains new questions integrated in the evaluation process and in section 8, results obtained in different workshops are explained. Section 9 shows a brief summary of the conclusions and recommendations for future projects.

## 2 Public Policies Implementation Process

As illustrated in the Deliverable D5.2 [1], a Public Policy (PP) is a plan, course of action, or set of regulations adopted by the policy makers to influence and determine decisions or procedures that affect a group of public and private actors in order to achieve a desired outcome.

Policy Makers gather information through different methods, like public consultation and scientific research, to extract the necessary knowledge base and create a policy. In PolicyCLOUD, we define policy makers as government bureaucrats and technocrats from various sectors (e.g., healthcare, education, security, environment, etc.) and public sector staff who implement and evaluate programs and therefore they will be the main actor considered in the evaluation process and the ones able to determine the impact of the proposed policies and those responsible to determine whether the tools proposed in the project, especially the PDT, serve to facilitate the modelling and implementation of new policies thanks to new technologies like Open Data, Big Data, AI and Cloud services.

Policy makers have to take into account the context and characteristics of the geographic area (e.g., region) where the policy has to be implemented, with the purpose of driving the PP content and the actors that have to be considered during its design. And finally, to close the Policy Analysis Circle proposed by Gagnon and Labonté [2], the evaluation process has to be taken into account including the definition and Key Performance Indicators (KPIs) to assess the expected impacts.

To implement these public policies, the process of policy making can be seen as a methodology or approach that is defined by seven phases. In the first stage, policy makers define and detail the given problem by characterizing the context, the stakeholders and the variables that affect the policy outcomes. Subsequently, the policy maker identifies the evaluation criteria that are fundamental and most relevant to the decision makers in the implementation process.

Once the problem has been identified and contextualized and the criteria are clear, the next phase consists of generating a list of possible policies; among which the most appropriate options will be selected to be implemented. In the implementation phase, planned actions will be carried out in order to achieve the expected impact and results that will be evaluated during the monitoring phase.

The contribution of the PDT proposed by the PolicyCLOUD project is mainly oriented to directly assist the policy maker in the policy creation and decision-making stages, and, indirectly, in the policy implementation and policy evaluation stages.

Therefore, the evaluation process, within the PolicyCLOUD project, will evaluate the impact that the PDT has, how it contributes to the improvement of policy creation and how it makes the policy creation and decision-making processes more efficient. The evaluation process also validates that the ICT prototypes provided are suitable for policy makers, since the purpose of the project is to support policy makers in developing the content of the policies as an evidence-based outcome of the PDT.

## 3 Evaluation and Recommendation Process

### 3.1 Evaluation Process Overview

One of the primary PolicyCLOUD project goals is to support policy makers in developing the content of the policies by providing a valuable tool for allowing policy choices to become more evidence-based and analytical.

Thus, it is important to be able to evaluate the proper development of the tools to be implemented within the framework of the project, and specially the PolicyCLOUD PDT since it is core part in the development of the policies. In addition to the importance of ensuring tools that could provide the quality that policy makers expect, it is also necessary to assess the impact on the process of PP implementation to determine whether they will be incorporated into work practices.

For these reasons, the evaluation process has to consider two main objectives. The first one is to define metrics and KPIs to measure the impact of PolicyCLOUD and its contribution to improve the development of evidence-based policies and the second one, which is to plan and describe the proper methods and tools for the iterative evaluation of the PDT and its validation. To present this methodology with this approach is the objective of the deliverable and it will be based on the following pillars:

- Public Policies Impact Measurement Instruments

These instruments will contain tools and methods from classical literature, which lead us to review and analyse the factors that influence on evidence-based policies and the expected impacts of the project on the policy decision making processes. The tools and methods proposed will be based on solid backgrounds to support the premise that evidence-based policies could contribute to the decrease of the degree of uncertainty and complexity when making policy decisions.

PolicyCLOUD project intends to contribute to evidence-based policies development by providing accurate information and analytical tools for policy makers who have to manage this information in the development process and how this contributes to the perceived impact of information technology on public policies implementation.

- Technology Success and Acceptance Tools

The PDT of PolicyCLOUD is intended to be a tool that will support policy makers in the evidence-based policy design and implementation process. As an ICT tool it is related to the Information Systems and therefore its acceptance has to be evaluated. There are several approaches to assess technology acceptance among which the following can be highlighted. The first ones to be consider could be the Technology Acceptance Model (TAM) [3], which explains why some information systems are more accepted by users than others, and its adaptation, which is the Unified Theory of Acceptance and Use of Technology (UTAUT) [4], that aims to explain user intentions to use an information system and the subsequent usage behavior based on four determinants of usage intention and behavior that are the performance expectancy, the effort expectancy, social influence

and the facilitating conditions. Also, it is interesting to consider the IS Success Model [5], which identifies and describes the relationships among six critical dimensions of IS success: information quality, system quality, service quality, system use/usage intentions, user satisfaction, and net system benefits

- Human-Machine Interfaces Assessments

Closely related to the acceptance of technology and considering that some of these models above mentioned address to some extent this point is the fact that the PolicyCLOUD solutions need to be intuitive and easy to use, so HMI (human-machine interfaces) evaluations should also be considered.

Since the implemented solution is evolving and will present different degrees of maturity throughout the project lifecycle and in the different phases of pilot implementation, the methodology will propose different methods at the different stages of the project to evaluate the HMI. In this regard, usability and user experience methods should be considered. Policy makers expect intuitive app interfaces, and for non-technical people this means using human-machine interfaces. The most reliable approach to choosing the right HMI is to examine the specific needs of the target application and work backwards to confirm that all necessary options are clearly available.

User Experience and usability are very closely related terms. User experience refers to a person's subjective feelings and attitudes when using or interacting with a particular solution. It deals with the sensory and emotional state of a user while usability is an important quality indicator for IS systems that refers to the degree to which products and solutions are effective, easy to use, easy to learn, efficient, error-free, and satisfying to users [6]. It means that usability deals with the user's evaluation of the interfaces. For these kinds of evaluations different approaches may be taken into account including based task methods, and questionnaires like SUS [7], UMUX/UMUX-Lite [8] or HED/UT [9].

## 3.2 Evaluation Methodology

The key objective of the evaluation methodology is to assess the impact of PolicyCLOUD as a project that could contribute to evidence-based policy development and, to this end, it is necessary to especially evaluate whether the PDT achieves this goal.

The methodological approach to reach this goal must investigate the impact that the project tool, the PDT toolkit, will have in the development of public policies based on evidence. For this reason, an evaluation based on different methods and tools will be proposed and the relevant actors for this evaluation phase will be both, policy makers and members of their teams. For this reason, for each use case, we will identify and point out the people we are targeting.

The role of the policy makers within the proposed evaluation process will be twofold. First, these experts will be invited to participate in the analysis of the nature and the importance of policies based on evidence, identifying which are the key factors for their successful implementation. Since this type of research is largely exploratory in nature, the proposed method is to use structure interviews to

determine the impacts and the inherent underlying factors. Thanks to their views, we will get the insights and the expected impacts. Therefore, these methods, i.e., structure interviews that will be conducted throughout the project life cycle, will be referred as **Impact Assessments (IA)**.

Second, drawing from policy makers' experience and knowledge, they will help in the process of determining whether the evaluated PDT provides the expected quality (system, information and interaction) to implement evidence-based policies. The methods used for these validations will be encompassed in what is called **Quality Validations (QV)**, which is highly dependent on the maturity of the PDT. To address these different stages of maturity of the solution along the project, mockups validations and functional prototypes demonstrations will be considered before the final implementation of the deployed PDT and they will allow us to test the functional feasibility of the PDT proposed, the value provided by the PDT and the ability of the solution to assist in the implementation of evidence-based policies.

Results from both evaluations will provide measures and will allow us to have a baseline in the course of the project with impact assessments and the results of the validations and will allow us to analyze the changes that happen after the introduction of new releases or functionalities of the PDT. Each time an evaluation will be performed, the focus and the approach of the evaluation should be determined in relation to the different stages, and we will consider the following types of evaluations: ex-ante, on-going, ex-post, as it is shown in the following Figure.

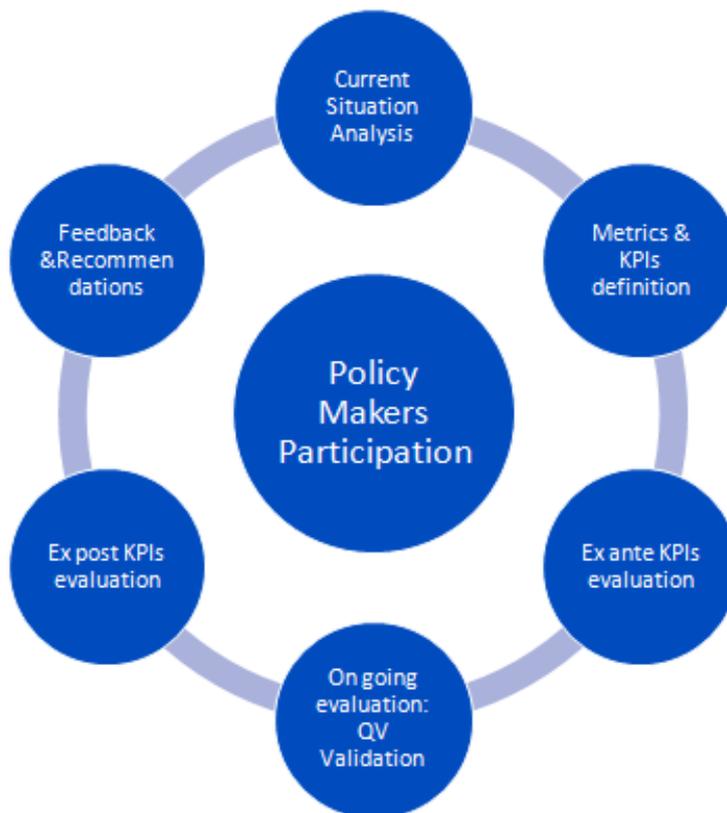


FIGURE 1 - EVALUATION AND RECOMMENDATION CYCLE

To briefly outline the objective of each phase:

- Ex-ante phase: to assess the impact before the intervention, introduction of the PolicyCLOUD toolkit. It means to identify the initial state and to have a preliminary view for each use case of how evidence-based public policies are being implemented.
- Ongoing evaluation: to evaluate the toolkit and its use for new policy development. In these evaluations, suggestions and recommendations will be collected and will allow us to improve the toolkit.
- Ex-post evaluation: assess the impact after the final implementation once the solution will be deployed and ready to use in all the use cases.

Evaluation time	Ex-ante	On-going	Ex-post
Object	Baseline impact assessment	PolicyCLOUD Toolkit validation	Longitudinal impact assessment
Purpose	Evaluation of the impact at t0 before using the toolkit	USE: Evaluate the toolkit and its use for the development of new policies (System and information quality)	Evaluation of the impact on productivity and innovation in the process of policy implementation
Methods	Interview (qual) Survey (quant) Focus Groups (qual)	Observation (qual) Interview (qual) Survey (quant)	Interview (qual) Survey (quant)
Target Audience	Policy Makers & Stakeholders	Policy Makers (analysts)	Policy Makers & Stakeholders

FIGURE 2 - EVALUATION PHASES

### 3.2.1 Impact Analysis Assessment

As mentioned before, to assess the expected impact, qualitative methods are proposed, specifically structured interviews in order to determine the factors and the dimensions on the implementation of evidence-based policies and its importance. This sort of questions will allow us to contextualize and understand the KPIs pursued for each use case and determine how the PDT toolkit could contribute to those objectives and the perceived impact that these technologies, information technologies to support evidence-based policies, could have on the policy development process.

For this purpose, interview guidelines will be provided to the use case leaders who will be involved as facilitators in the evaluation process and who will be responsible for coordinating the evaluation at local use case level, being at this point important to identify for each use case the relevant actors who will be involved in the evaluation and recommendation process.

Once the primary actors are identified, ex-ante impact analysis interview will be conducted. The idea of the interviews will be to gain an understanding and knowledge about the expected impact of the PolicyCLOUD PDT and the subsequent effects on their work and on the policy decision-making processes. Impact evaluations will be carried out throughout the project in order to enable the detection of possible lack of understanding, and in addition with other evaluations and validations, to be used as an evaluation baseline for the project lifecycle.

## 3.2.2 Quality Validation Assessment

QV interventions are sessions aimed at presenting the PDT toolkit to the policy makers so they will be able to determine whether the approach and progress/evolution is adequate for allowing policy choices to become more evidence-based and analytical. In essence, these evaluations are intended to determine whether the PolicyCLOUD toolkit is a valuable tool or not.

The proposed validations include the following methods:

### 1. Mockups validation

Mockups validations are the first planned evaluations to be performed and can include the revision of the use cases and the proposed first user interfaces versions. The idea of conducting these sessions early in the PDT toolkit development process is that they can stimulate new ideas and features updates and trigger new changes on the interface, which could be implemented later on in the next iteration cycles. The focus of these evaluation activities should be to assess the feasibility of the PolicyCLOUD solutions.

The main idea is to use these methods to inquire policy makers to review the user scenarios and about the concepts to be implemented in the prototypes in order to validate them, as well as the functionalities and interaction paradigms. These validations will serve to demonstrate that the solutions meet the requirements and needs of the policy makers in order to implement public policies based on evidence.

The proposed method is to use think aloud tool, which enables inquiring into the cognitive processing of the policy makers, who are instructed to verbalize all their thoughts as they interact with the mockups proposed. Facilitators can encourage participants to share their insights by asking questions while they explore the solution and reveal how they would interact and use the PDT toolkit mockups to develop evidence-based policy.

The validation session approach provides qualitative insight into the policy maker's perceptions of the mockup interfaces and concepts. These qualitative insights can be complemented with quantitative data coming from standardized questionnaires.

### 2. Prototype validations

Once the first versions of the prototypes are available, it is proposed to conduct validations for all the use cases with the policy makers. The proposed method for these validations will be user observations. The idea of the user observations is to address tasks in their actual context, which means to use the prototype to edit policies, establish KPIs, analyze data, etc. The objective of the proposed method is to get a deeper understanding of how policy makers develop new public policies and the influence of the Policy toolkit on this process within their natural environment. This contextual inquiry contributes to demonstrate how they perform their typical tasks and how the support received from the toolkit could contribute to their daily basis.

As previously mentioned, these validations will be carried out using prototypes which may have different degrees of maturity covering from the first version of the prototype, including the next

releases until the final version. What is important for each intervention, where the presented prototype will be validated, is that the PolicyCLOUD toolkit should incorporate a complete piece of functionality (parts of the complete solution) in order to validate its quality, functionality and performance.

### 3. Validation of the final release of the PDT Toolkit

This final validation could be considered as a proof of use of the solution introduced within the PolicyCLOUD project. For this validation, the policy makers involved in the project will convene and they will be able to use the PDT toolkit for their work in an unattended manner.

The idea of this final validation is to understand how the PolicyCLOUD toolkit integrates in their job practices and how they use the toolkit. To gather all the data and insights they will be interviewed to report the benefits, unexpected inconveniences and all the possible outcomes to be able to identify best practices and lessons learnt to achieve new improvements.

## 3.3 Overview of the setting up of an evaluation process

This section provides a brief overview of the general setting up of an evaluation process. The implementation of an evaluation is composed of three main steps: preparation, planning and execution and, the final stage: analysis and conclusions.

The **first step** is the preparation of the evaluation process. It considers the interventions to be carried out and determines the subject, the tools and methods proposed, the artifacts to be used, and the expected impacts, etc. In this step, ethical and legal issues have to be considered as their inclusion is an important topic in research involving human participants.

The **second step** of the evaluation process is planning and execution. Timeline planning for this phase is guided by the development of the PolicyCLOUD Toolkit to support policy makers in the public policies development process. Therefore, we carry out an evaluation each time the tool is presented to the policy makers. At early stages of development, until the prototypes are mature enough, mockups evaluations are considered. Thus, it is seen that the timing depends on the maturity of the artefacts which determines the best moment to perform the validation. In addition, the time window between evaluations is scheduled during the planning phase.

The **final step** of the process is the analysis and conclusions stage. The obtained results aim to determine what to do next and to provide recommendations towards the technical activities of the project, regarding functional improvements, new considerations, etc.; and also help to determine if expected impacts may occur or not.

## 4 Use cases evaluation

In this chapter, it is presented how the evaluation process has been carried out during these three years with the different potential users of the PolicyCLOUD system such as authorities, Policy makers, main companies involved, etc.

After these evaluations, a set of recommendations will be given to improve the different use case scenarios presented and address the performance in the following iterations. More details on these scenarios can be obtained in D6.12 [11].

### 4.1 Use Case 1 – Participatory policies against radicalization

For Use Case 1, participatory policies against radicalization (Maggioli), the primary policy makers who accepted our invitation to act as end users belong to the Lombardy Region. Below, we list the functions and main competences of participants:

DG Education, University, Research, Innovation and Simplification - Simplification, Digital Transformation, and Informative System Unit

- Coordination of relations and initiatives at regional, interregional and national level for the simplification and digitization of administrative processes and procedures in implementation of the Italian Digital Agenda and National Agenda for Simplification.
- Definition and implementation of the strategic program for the simplification and digital transformation in collaboration with the DG, the SIREG bodies, local and functional autonomies.
- Design and implementation of integrated, strategic and transversal projects regarding the simplification and digitization of administrative processes and procedures, in conjunction with the competent General Management, SIREG bodies and local and functional autonomies.
- Simplification of regional processes and procedures and reduction of regulatory burdens.
- Development of tools and methods for co-planning and co-designing IT services and applications.
- Enhancement of regional information assets for the reuse and development of innovative digital services and applications.
- Promotion of open government initiatives and projects.

DG Security - Integrated Urban security and Local Police Unit

- Agreements with central government bodies and local authorities for the development of interventions for fighting organized crime, territorial control, and urban security.
- Implementation of Regional law No. 6/2015 “regional regulation of local police services and promotion of integrated urban security policies”.
- Training programs and projects developed through the enhancement of the Local Police Academy.
- Co-financing of urban security projects and promotion of associations between entities.
- Knowledge of the migratory phenomenon (ORIM) and policies to combat irregular immigration.

- Actions for the knowledge of criminal phenomena and the development of the culture of legality.

It is worth mentioning that in the second and third validation and demonstration phases activities policy makers from local authorities (under the Lombardy Region) were involved as well. So far, confirmation from the following local authorities was received:

- Municipality of Corbetta – Urban Security Unit.
- Municipality of Bergamo – Urban Security Unit.
- Municipality of Martinengo – Urban Security Unit.
- Municipality of Olgiate Comasco – Urban Security Unit.
- Municipality of Rozzano – Urban Security Unit.
- Municipality of Cremona – Judicial Police - Protection of women and minors.

Along the project, Co-creation sessions and workshops have been organised in order to raise awareness of the outcomes of the PolicyCLOUD project and engage with additional stakeholders at regional and local level.

## 4.2 Use Case 2 – Intelligent policies for the development of agrifood industry

For the Use Case 2, Intelligent policies for the development of agrifood industry (Aragon), the primary policy makers identified are part of the Agrifood Promotion and Innovation Division (Department of Agriculture of the Aragon Government). It would be very interesting to be able to count on the General Director and members of the team, since the functions entrusted to them, and the lines of work established by this department are as follows:

- Market Organization Aid Service
- Agri-food Industrialization Service
- Agri-food Promotion and Quality Service
- Agri-food Quality Service: to promote active policies in the commercialization of agri-food products, encouraging their presence in the markets.
- Services for fruit and vegetable sector: provide Information on the fruit and vegetable sector. Fruit and vegetable producers' organizations. Aid and other procedures.
- Services for agricultural and food industries: planning and supervision of the industrialization of agricultural products in Aragon.
- Services for Agri-food promotion: Sponsorship Plans and Awards.
- Services for Agricultural processing companies (SAT): Information on agricultural processing companies (SAT) in Aragon.
- Services for local sale of agri-food products: Information on local sales modalities, agri-food products, and requirements for their sale.
- Services for the wine sector: Information of interest for the vine and wine sector. Formalities on vineyards and the Wine Sector Market Information System. Legislation in force. Winegrowing Registry.

Their participation and involvement are important to bring together the interests of the wine sector in Aragon. They are actively participating in the co-creation sessions.

### 4.3 Use Case 3 – Facilitating urban making and monitoring through crowdsourcing data analysis

Use Case 3, facilitating urban making and monitoring through crowdsourcing data analysis (Sofia), focuses on areas, such as air quality, road infrastructure, urban environment, parking, transport, waste collection. Therefore, the primary policy makers identified are part of Sofia Municipality administration, working within units, responsible for the abovementioned focus areas. Other than Sofia Municipality central administration, there are twenty-four district administrations, which are responsible for policy making on a district level. Sofia also has several organizations, which are governed by Sofia City Council and are responsible for strategy making and project development. Below is a list of responsible entities, concerning definition, implementation and monitoring of policies:

- Air quality: directorate “Environment” and directorate “Climate, Energy and Air” within Sofia Municipality central administration, representatives from the district authorities and the Association for Development of Sofia, which is a non-government entity, established by the City Council.
- Road infrastructure and urban environment.
- Transport and parking: Directorate “Transport and Urban Mobility” within Sofia Municipality, representatives from the district authorities and Sofia Urban Mobility Centre, which is the municipal enterprise, responsible for mobility in Sofia.
- Waste Collection: directorate “Waste Management and Control Activities” within Sofia Municipality.

The Digitalization, Innovation and Economic Development department, responsible for implementation of digital and innovative solutions and improving the internal processes within the organization through innovation was consulted during the co-creation workshops conducted during the last year of the project. Also, SofiaPlan organization, responsible for coordination of the strategic and planning documents of Sofia was consulted. The activities of SofiaPlan are governed by Sofia City Council.

### 4.4 Use Case 4 – Predictive analysis towards unemployment risks identification and policy making

For the Use Case 4, Predictive analysis towards unemployment risks identification and policy making (London) the primary policy makers identified are part of the London Borough of Camden organization (Department of Corporate services). The sub section of policy makers is governed by the head of strategy and the team consist of Policy, officers and designers who are involved in the following:

- Camden's Data Charter: Camden is consulting with residents about how we use and store data. The views of local residents will be used to help Camden write a set of policies and procedures for data usage in the future.

- Development Planning policies: Includes the Local Plan, Policies Map, Site Allocations Plan, Area Plans, North London Waste Plan and Camden Planning Policy Newsletter.
- Planning Policy - Monitoring, Data and Evidence: The Authority Monitoring Report, Retail Survey, and evidence base documents to support the production of the Camden Local Plan and other planning policy.
- Camden Council: Licensing Policy.
- Camden Council: The Council's Tenure Policy.
- Camden Council: Rent Policy.
- Camden Council: The Council's Tenancy or Landlord Policy.
- Camden Council: Parking Policy.
- Camden Council: Pay Policy Statement.
- Camden Council: Decisions for issue Parking Policy Review.
- Camden Council: Parking Permit Policy.
- Camden Council: Landlord Policy Scrutiny Panel.
- Camden's Sex Establishment policy.

Camden also plans to consult the fellow policy makers from fellow local authorities in the second phase activities listed below:

- London Borough of Haringey.
- London Borough of Islington.

London took the decision to leave the project at the end of March 2022, that is the reason why results from London use case haven't been gathered during the third year of the PolicyCLOUD project.

## 5 Implementation of Evaluation Process

### 5.1 Introduction

In this document the tools used to implement the evaluation process will be explained. The evaluation process has been developed during the co-creation meetings held in December 2021 for the different use cases. The information received from the different co-creation meetings at that time, has been described in deliverable 6.12 [11].

### 5.2 Structure of co-creation workshops

Quality Validation interventions are sessions aimed at presenting the PDT toolkit to the policy makers, so they help to determine whether the approach and progress/evolution is adequate for allowing policy choices to become more evidence-based and analytical. In essence, these evaluations are intended to determine whether the PolicyCLOUD toolkit is a valuable tool or not.

Methods uses in those sessions are:

- **Mockup validations**
- **Survey**

Along 2021, different tools have been implemented to facilitate policy makers the new policy development. These tools have been presented in different workshops described in Deliverable 6.12 structured as below:

Slot	Description	Length
#1	<b>Welcoming</b>	5 min
#2	<b>PolicyCLOUD at glance</b> <ul style="list-style-type: none"> <li>• Brief project introduction: goals, consortium, offered services, key stakeholders, pilot use cases</li> <li>• Importance of co-creation workshops</li> </ul>	10 min
#3	<b>Presentation of the use case + demo session</b> <ul style="list-style-type: none"> <li>• Description of different use cases</li> <li>• Detailed explanation of the specific use cases</li> <li>• Demo session: instruments and visualizations available for the first scenarios</li> <li>• Current implementation status</li> <li>• Plan for the next months</li> </ul>	30 min
#4	<b>Open discussion</b> <ul style="list-style-type: none"> <li>• Moderate discussion with the participants about the PolicyCLOUD platform: first impressions, questions</li> </ul>	30 min
#5	<b>Follow-up questionnaire</b> <ul style="list-style-type: none"> <li>• Feedback and recommendations</li> <li>• Evaluation (technical, business...)</li> </ul>	30 min

	<b>Wrap up and meeting closure</b> • Summary and next steps	5 min
--	--	-------

TABLE 1 - GENERAL AGENDA CO-CREATION WORKSHOPS

## 5.3 Feedback questionnaire

To extract a clear opinion from policy makers about the different use cases, the following questionnaire was developed. The objective through this feedback was to classify and identify the type of each user.

Preliminary questions		
<b>1.</b>	<b>Gender</b>	<input type="checkbox"/> Female <input type="checkbox"/> Male
<b>2.</b>	<b>What is your role within the organisation?</b>	
	<input type="checkbox"/> Policy maker <input type="checkbox"/> Data Analyst <input type="checkbox"/> Domain Expert <input type="checkbox"/> Consultant <input type="checkbox"/> Other (please specify): .....	
<b>3.</b>	<b>How many years of experience do you have in your profession?</b>	
	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> Between 2 and 5 years <input type="checkbox"/> Between 6 and 10 years <input type="checkbox"/> More than 10 years	
<b>4.</b>	<b>If you have questions in your daily routine, how do you get answers? (Several answers possible)</b>	
	<input type="checkbox"/> I ask peers <input type="checkbox"/> I ask team members <input type="checkbox"/> I am a member of a professional group, where I can ask <input type="checkbox"/> I am registered on a digital platform for professionals, where I can ask <input type="checkbox"/> I take a look on the internet <input type="checkbox"/> Other (please specify): .....	
<b>5.</b>	<b>Do you have experience with digital platforms?</b>	
	<input type="checkbox"/> Not at all <input type="checkbox"/> Relatively few <input type="checkbox"/> More or less <input type="checkbox"/> Quite a lot <input type="checkbox"/> Very much	

TABLE 2 - FEEDBACK QUESTIONNAIRE. PRELIMINARY QUESTIONS

Once the primary actors are identified, ex-ante impact analysis interview will be conducted. The idea of the interviews will be to gain an understanding and knowledge about the expected impact of the PolicyCLOUD PDT and the subsequent effects on their work and on the policy decision-making processes. In this process we will analyze the requirements expected.

Requirement evaluation	
6.	According to your experience, what are the most common problems policy makers faces in their daily operation?
7.	According to your experience, what is the information that lack policy makers in handling evidence-based policies mostly?
8.	What do you think that an online platform would support policy makers to handle better with the mentioned problems?

**TABLE 3 - FEEDBACK QUESTIONNAIRE. REQUIREMENT EVALUATION**

As a next point the Quality Validation assessment of the different elements of the system is performed. QV interventions are a questionnaire aimed at presenting the PDT toolkit to the policy makers so they will be able to determine whether the approach and progress/evolution is adequate for allowing policy choices to become more evidence-based and analytical. In essence, these evaluations are intended to determine whether the PolicyCLOUD toolkit is a valuable tool or not.

Platform evaluation	
9.	How easy to use is the PolicyCLOUD platform?
	<input type="checkbox"/> Very easy <input type="checkbox"/> Moderately easy <input type="checkbox"/> Slightly easy <input type="checkbox"/> Not at all easy
10.	How user-friendly is the system interface?
	<input type="checkbox"/> Very user-friendly <input type="checkbox"/> Moderately user-friendly <input type="checkbox"/> Slightly user-friendly <input type="checkbox"/> Not at all user-friendly
11.	How successful is the PolicyCLOUD platform in performing the intended tasks?
	<input type="checkbox"/> Very successful <input type="checkbox"/> Moderately successful <input type="checkbox"/> Slightly successful <input type="checkbox"/> Not at all successful
12.	How can we improve PolicyCLOUD platform?
13.	Overall, are you satisfied with the performance of the PolicyCLOUD platform?

	<input type="checkbox"/> Very satisfied <input type="checkbox"/> Moderately satisfied <input type="checkbox"/> Slightly satisfied <input type="checkbox"/> Not at all satisfied
<b>14.</b>	<b>How likely are you going to recommend PolicyCLOUD to other colleagues from your organisation and/or other public organisations?</b>
	<input type="checkbox"/> Very likely <input type="checkbox"/> Moderately likely <input type="checkbox"/> Slightly likely <input type="checkbox"/> Not at all likely

TABLE 4 - FEEDBACK QUESTIONNAIRE. PLATFORM EVALUATION

Policy evaluation	
<b>15.</b>	<b>How easy is to create a Policy Model using the PolicyCLOUD platform?</b>
	<input type="checkbox"/> Very easy <input type="checkbox"/> Moderately easy <input type="checkbox"/> Slightly easy <input type="checkbox"/> Not at all easy
<b>16.</b>	<b>How easy is to define KPIs using the PolicyCLOUD platform?</b>
	<input type="checkbox"/> Very easy <input type="checkbox"/> Moderately easy <input type="checkbox"/> Slightly easy <input type="checkbox"/> Not at all easy
<b>17.</b>	<b>How easy is to assess the KPIs using the PolicyCLOUD platform?</b>
	<input type="checkbox"/> Very easy <input type="checkbox"/> Moderately easy <input type="checkbox"/> Slightly easy <input type="checkbox"/> Not at all easy
<b>18.</b>	<b>How clear are the results (visualisations) of the evaluation of the policies?</b>
	<input type="checkbox"/> Very clear <input type="checkbox"/> Moderately clear <input type="checkbox"/> Slightly clear <input type="checkbox"/> Not at all clear
<b>19.</b>	<b>Any other comment/suggestion you would like to share with us?</b>

TABLE 5 - FEEDBACK QUESTIONNAIRE. POLICY EVALUATION

One of the main points of the QV is the UMUX part.

**UMUX Questionnaire**

ESCENARIO Evaluation Perceived usefulness	
<b>20.</b>	<b>This system's capabilities meet my requirements.</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>21.</b>	<b>Using this system is a frustrating experience.</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>22.</b>	<b>This system is easy to use.</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>23.</b>	<b>I have to spend too much time correcting things with this system</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>24.</b>	<b>Overall, the system is useful for daily operations</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>25.</b>	<b>The system decreases my workload (if negative, implies added effort due to the system)</b>



	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>26.</b>	<b>The system improves the chance to do something that make use of my abilities</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>27.</b>	<b>The system improves the chance to develop new and better ways to do the job</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>28.</b>	<b>The system gives a good overview of the workflow</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>29.</b>	<b>The system improves my level of situational awareness</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>30.</b>	<b>[BUILDING BLOCK XXX] is useful for my daily work (replace [] by use case relevant activity - e.g., Checking part availability through the system is useful for my daily work]</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat

	<input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
--	---

TABLE 6 - UMUX QUESTIONNAIRE. SCENARIO EVALUATION

Ease of use	
<b>31.</b>	<b>The system displays an appropriate amount of information</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>32.</b>	<b>Customizing the displayed information is easy</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>33.</b>	<b>The information displayed is easy to read in all conditions</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>34.</b>	<b>Messages for interaction with the user are clear and easily comprehensible</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>35.</b>	<b>It's easy to find the information that I need</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree

	<input type="checkbox"/> I strongly disagree
<b>36.</b>	<b>Getting used to the system was easy (training effort was low)</b>
	<input type="checkbox"/> I strongly agree <input type="checkbox"/> I agree <input type="checkbox"/> I agree somewhat <input type="checkbox"/> undecided / neutral <input type="checkbox"/> I disagree somewhat <input type="checkbox"/> I disagree <input type="checkbox"/> I strongly disagree
<b>37.</b>	<b>What would you do to improve the tool?</b>

TABLE 7 - UMUX QUESTIONNAIRE. EASE OF USE

## 6 Use case's results 1<sup>st</sup> & 2<sup>nd</sup> year

In this chapter the evaluation results of the different uses cases are presented. In the use case 1 “Participatory policies against radicalization” (Maggioli), the second co-creation and evaluation workshop was held on 2nd December 2021. During the event, the PolicyCLOUD project, the different scenarios developed in collaboration with Lombardy region in their current status of implementation, including the available visualizations were presented. During the workshop, scenario A (Radicalization incidents) was evaluated, which has been fully implemented.

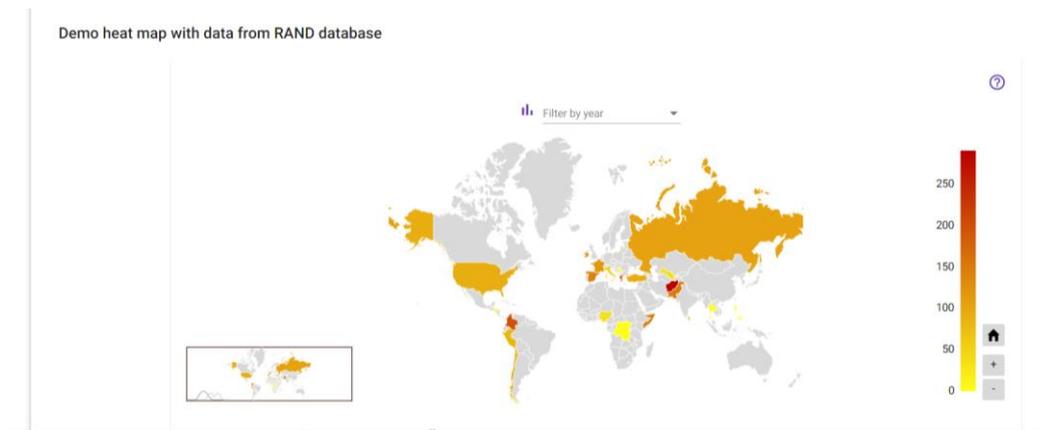


FIGURE 3 - MAGGIOLI DEMO

In the use case 2 “Intelligent policies for the development of agrifood industry” (Aragon), the workshop was held on 28th November,2021 in Zaragoza. During the event, it was evaluated scenario B (Opinions on social media), which has been already implemented and different mockups of the other use cases.

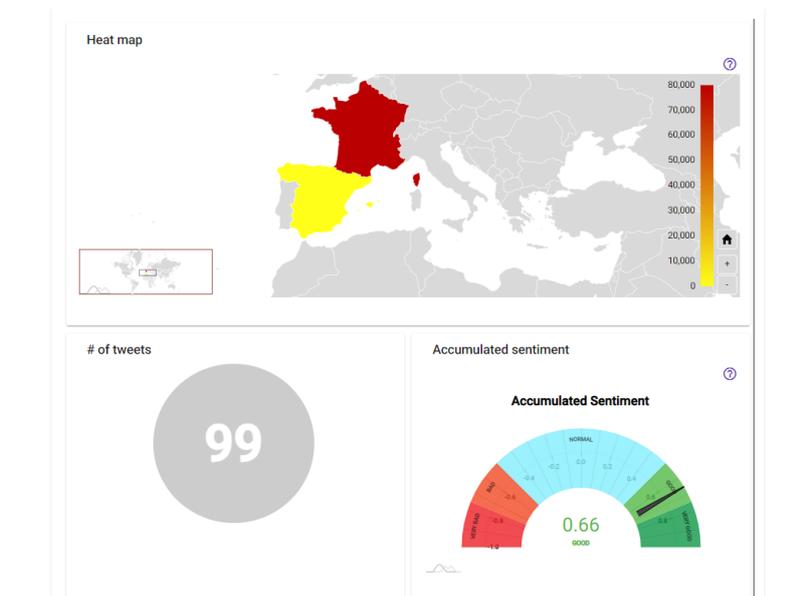


FIGURE 4 - ARAGON DEMO

In the use case 3 “Facilitating urban policy making and monitoring through crowdsourcing data analysis” (Sofia) the workshop was held 13th December 2021. A week before the event, it was sent to the participants:

- The questionnaire for the evaluation and a brief overview of the aspects of the system we would like to discuss in more detail together.
- A link to Sofia’s and Maggioli’s demos, so that they could have more time to experience the platform themselves, get acquainted with the available functionalities, and get a better idea of the focus of the webinar.

During the event, scenario A (Road infrastructure) was evaluated based on the demos available.

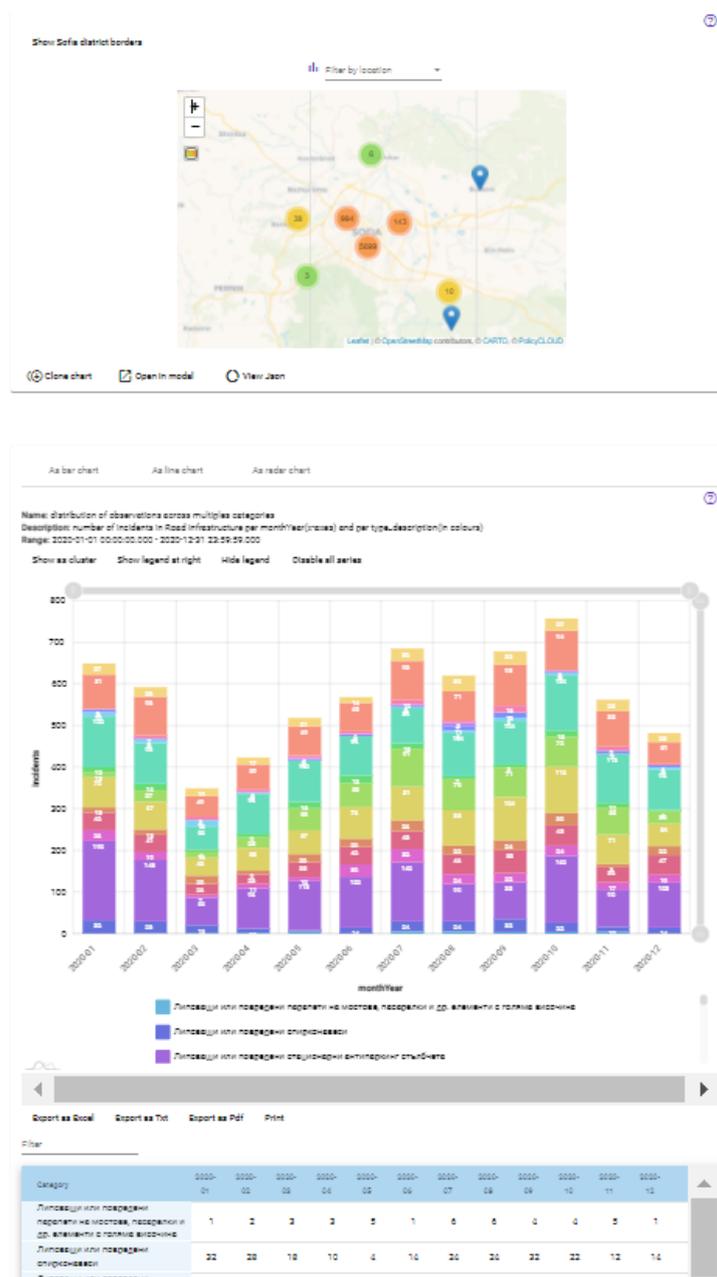


FIGURE 5 - SOFIA DEMO

Finally, for use case 4 “Predictive analysis towards unemployment risks identification and policy making” (London) the workshop was held on December,2021 in London. Scenario A (Analysis of statistics) was evaluated based on the demos available.

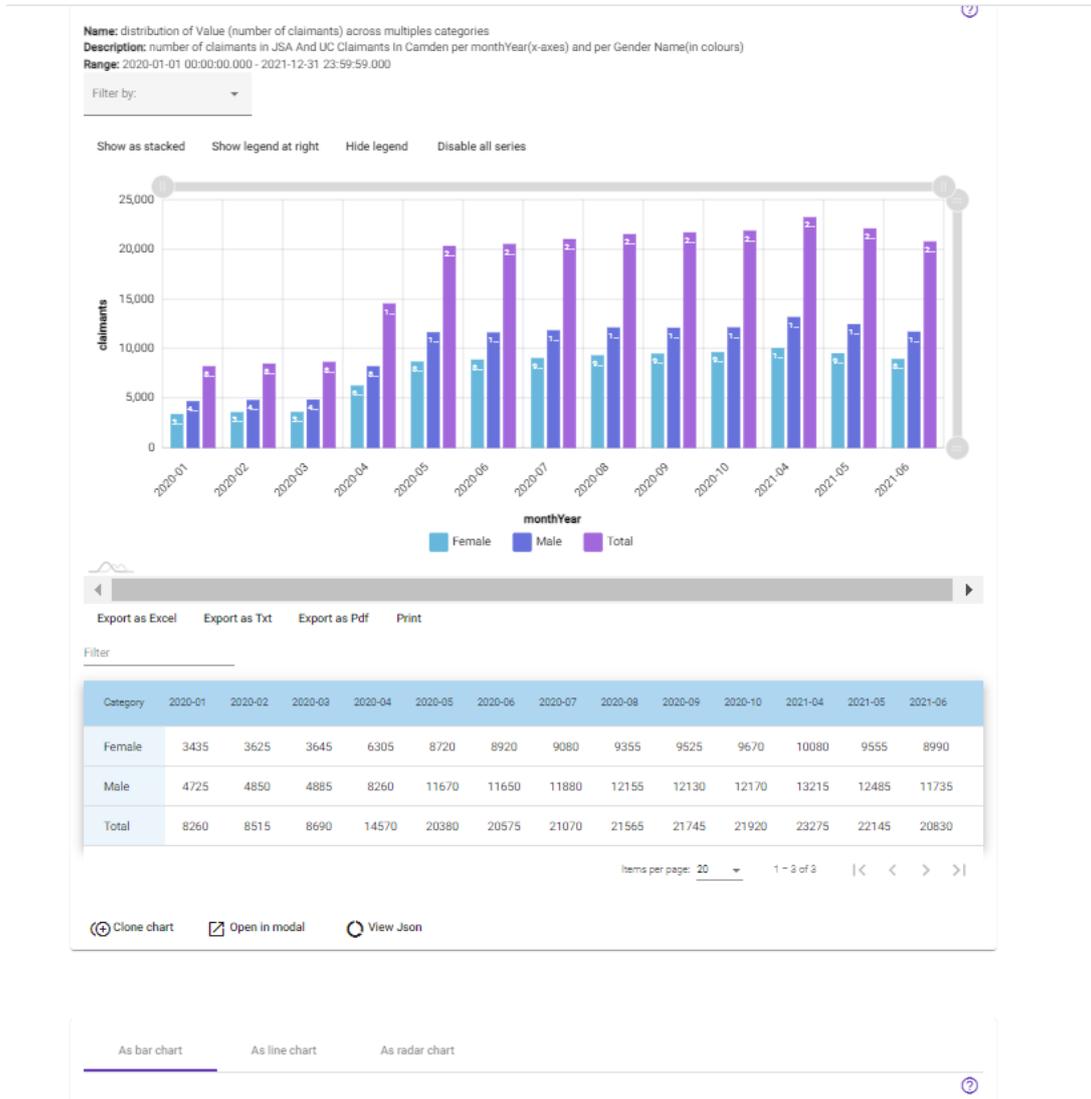


FIGURE 6 - LONDON DEMO

## 6.1 Use case 1. Participatory policies against radicalization (Maggioli)

### *Preliminary questions*

Participation per gender	
	# Participants
Male	9
Female	1
Total	10

TABLE 8 - MAGGIOLI.  
PARTICIPATION PER GENDER

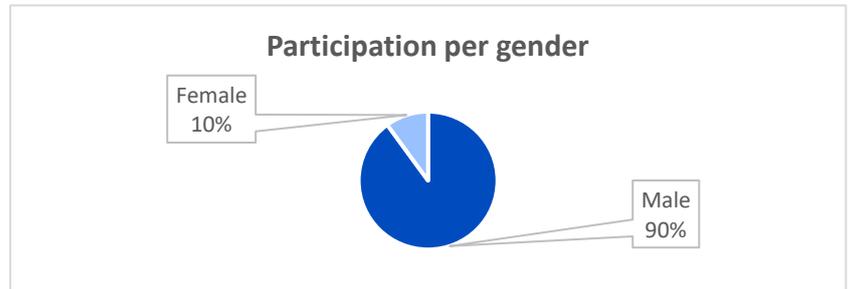


FIGURE 7 - MAGGIOLI. PARTICIPATION PER GENDER.

Years of experience	
	# Participants
<= 1 year	0
2 -5 years	2
6 -10 years	4
> 10 years	4

TABLE 9 - MAGGIOLI. YEARS OF EXPERIENCE

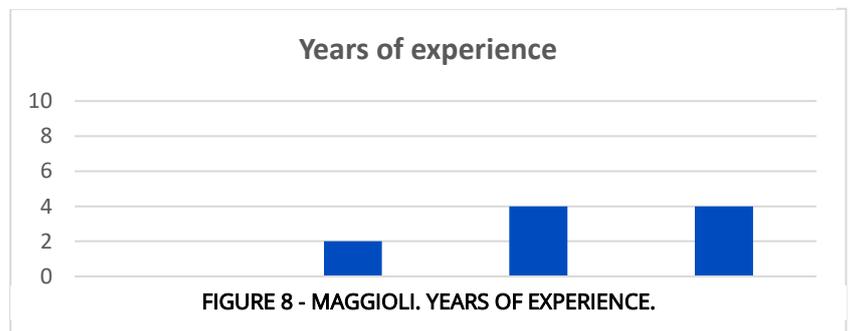


FIGURE 8 - MAGGIOLI. YEARS OF EXPERIENCE.

Role in organization	
Role	# Participants
Policy Makers	6
Data Analyst	0
Domain Expert	4
Consultant	0
Other	0

TABLE 10 - MAGGIOLI. ROLE IN ORGANIZATION

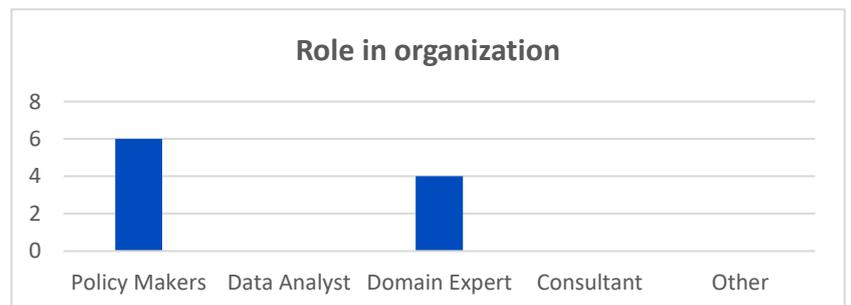


FIGURE 9 - MAGGIOLI. ROLE IN ORGANIZATION

Resolving questions	
	#Participants
Peers	8
Team Members	2
Professional group	0
Digital Platform	0
Look in Internet	0
Other	0

TABLE 11 - MAGGIOLI. RESOLVING QUESTIONS

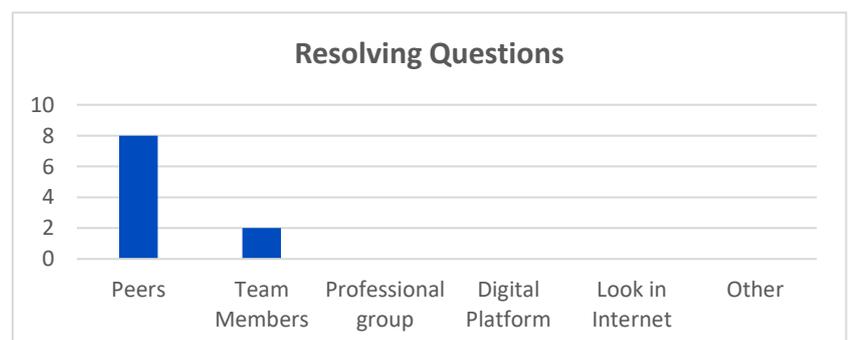


FIGURE 10 - MAGGIOLI. RESOLVING QUESTIONS.

Experience with Digital Platforms	
	# Participants
Not at all	0
Relatively few	3
More or les	2
Quite a lot	4
Very much	1

TABLE 12 - MAGGIOLI. EXPERIENCE WITH DIGITAL PLATFORMS

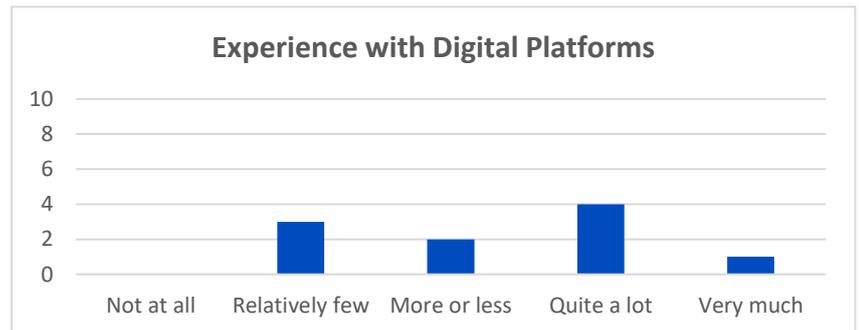


FIGURE 11 - MAGGIOLI. EXPERIENCE WITH DIGITAL PLATFORMS.

### Requirement evaluation

**What are the most common problems policy makers face in their daily operation?**

- Lack of sufficient, up-to-date, systematic data in a machine-readable format is a key challenge preventing policy makers from implementing more data-driven policies.
- Data is mainly fragmented, inaccessible or difficult to access.
- Difficult to rely on to make high quality analysis.
- Lack of coordination between the different stakeholders, especially between entities with different decision powers.

**What is the information that lack policy makers in handling evidence-based policies?**

- Data is not always available in a standardised format.
- Need for a centralised / single entry-point system to collect various sources of data that can be shared among different entities.

**Opinion about creating an online platform to support policy makers**

- Possibility to make use of advanced analytics and visualisation capabilities.
- Possibility to automate many operations that currently are done manually.
- Possibility to integrate data from different sources and formats.
- Possibility to share data between different groups/departments/entities in a standardized format.

### PolicyCLOUD Platform evaluation

Ease of use	
	# Participants
Very easy	4
Moderately easy	6
Slightly easy	0
Not at all easy	0

TABLE 13 - MAGGIOLI. EASE OF USE

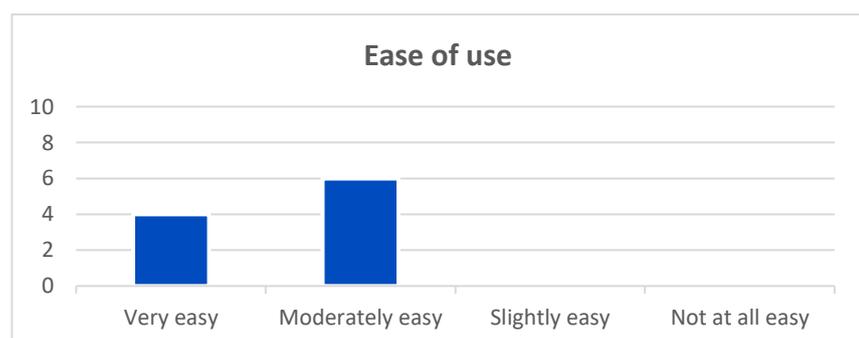


FIGURE 12 - MAGGIOLI. EASE OF USE

User-friendliness	
	# Participants
Very user-friendly	3
Moderately user-friendly	7
Slightly user-friendly	0
Not at all user-friendly	0

TABLE 14 - MAGGIOLI. USER-FRIENDLINESS

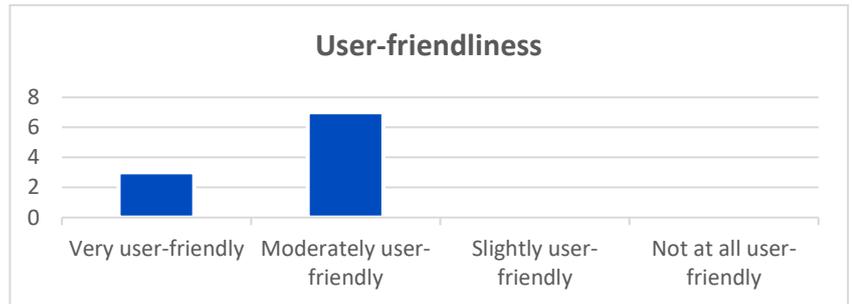


FIGURE 13 - MAGGIOLI. USER-FRIENDLINESS

Successful performing tasks	
	# Participants
Very successful	2
Moderately successful	8
Slightly successful	0
Not at all successful	0

TABLE 15 - MAGGIOLI. SUCCESSFUL PERFORMING TASKS



FIGURE 14 - MAGGIOLI. SUCCESSFUL PERFORMING TASKS

Performance	
	# Participants
Very satisfied	3
Moderately satisfied	7
Slightly satisfied	0
Not at all satisfied	0

TABLE 16 - MAGGIOLI. PERFORMANCE



FIGURE 15 - MAGGIOLI. PERFORMANCE

Recommendation	
	# Participants
Very likely	5
Moderately likely	4
Slightly likely	0
Not at all likely	0

TABLE 17 - MAGGIOLI. RECOMMENDATION

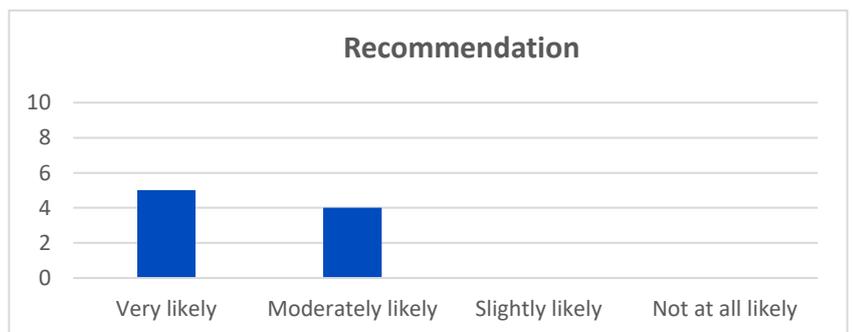


FIGURE 16 - MAGGIOLI. RECOMMENDATION

## Improvements for PolicyCLOUD platform

- Many of the participants said they would like to see the integration of all scenarios running and have a demo account to play with the platform before they recommend any additional features to be added at this stage.
- Include exporting capabilities of the evaluation reporting with the visualisations.
- Include the possibility to have more than one graph visualised per scenario in order to allow for comparative analysis of the results.
- Increase knowledge exchange between the public entities that are partners in the project and possible with other entities that would like to test it before they decide to acquire a license of use.

### Policy evaluation

Ease of Policies Creation	
	# Participants
Very easy	2
Moderately easy	6
Slightly easy	2
Not at all easy	0

TABLE 18 - MAGGIOLI. EASE OF POLICIES CREATION

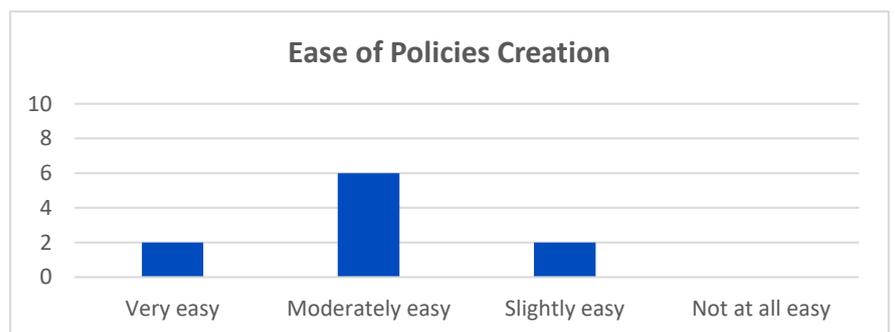


FIGURE 17 - MAGGIOLI. EASE OF POLICIES CREATION

Ease of KPIs Definition	
	# Participants
Very easy	3
Moderately easy	4
Slightly easy	2
Not at all easy	0
NA	1

TABLE 19 - MAGGIOLI. EASE OF KPIS DEFINITION.

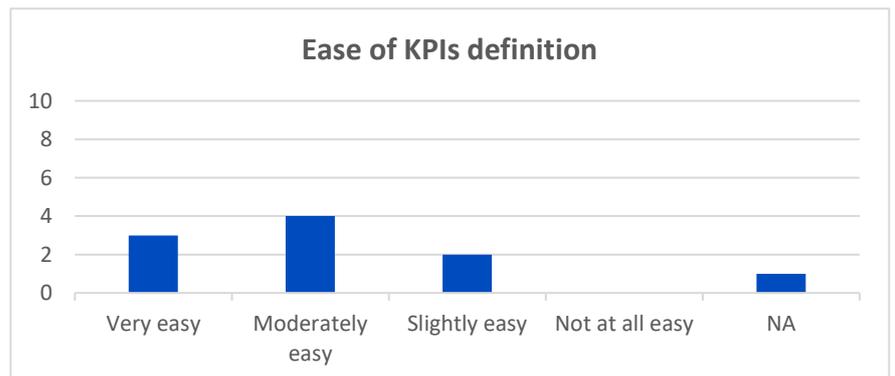


FIGURE 18 - MAGGIOLI. EASE OF KPIS DEFINITION.

Ease of KPIs evaluation	
	# Participants
Very easy	4
Moderately easy	3
Slightly easy	3
Not at all easy	0

TABLE 20 - MAGGIOLI. EASE OF KPIS EVALUATION

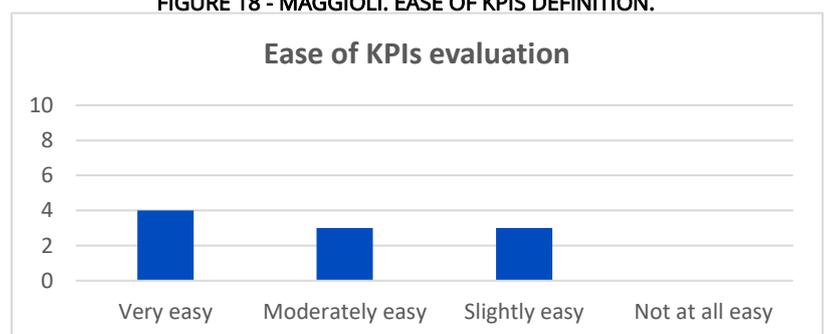


FIGURE 19 - MAGGIOLI. EASE OF KPIS EVALUATION.

Clarity of results	
	# Participants
Very clear	7
Moderately clear	3
Slightly clear	0
Not at all clear	0

TABLE 21 - MAGGIOLI. CLARITY OF RESULTS

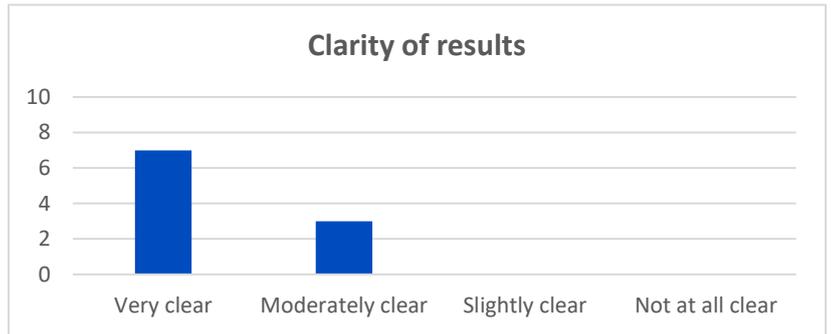


FIGURE 20 - MAGGIOLI. CLARITY OF RESULTS.

***UMUX Questionnaire – Scenario evaluation***

Meeting my requirements	
	# Participants
Strongly Agree	1
Agree	3
Agree somewhat	4
Neutral	2
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 22 - MAGGIOLI. MEETING MY REQUIREMENTS

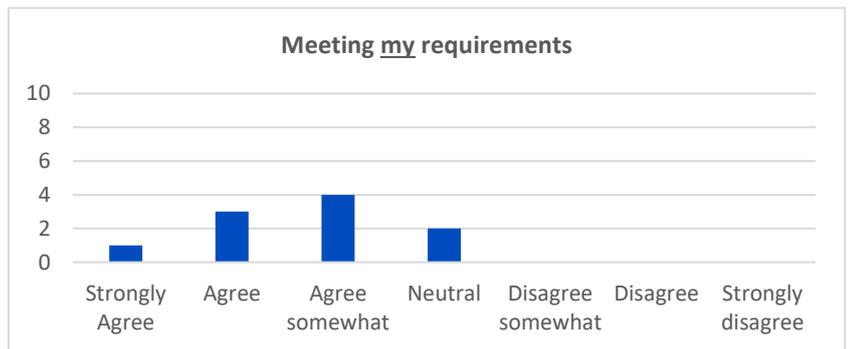


FIGURE 21 - MAGGIOLI. MEETING MY REQUIREMENTS.

Frustrating experience	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	7
Strongly disagree	3

TABLE 23 - MAGGIOLI. FRUSTATING EXPERIENCE



FIGURE 22 - MAGGIOLI. FRUSTATING EXPERIENCE.

Ease of use	
	# Participants
Strongly Agree	4
Agree	4
Agree somewhat	2
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 24 - MAGGIOLI. EASE OF USE

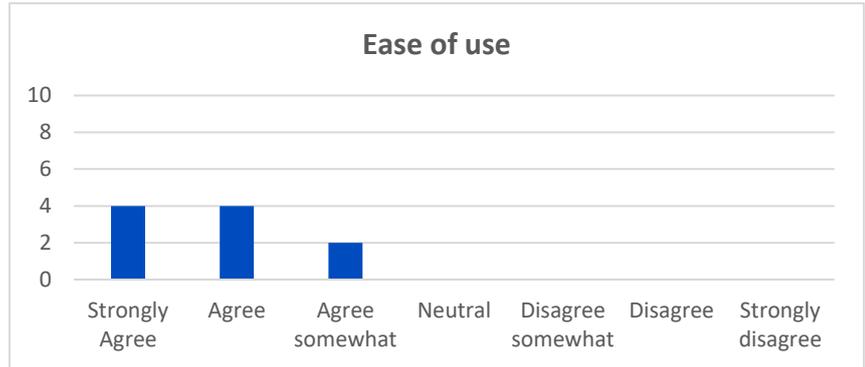


FIGURE 23 - MAGGIOLI. EASE OF USE.

Too much time correcting things	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	8
Strongly disagree	2

TABLE 25 - MAGGIOLI. TOO MUCH TIME CORRECTING THINGS

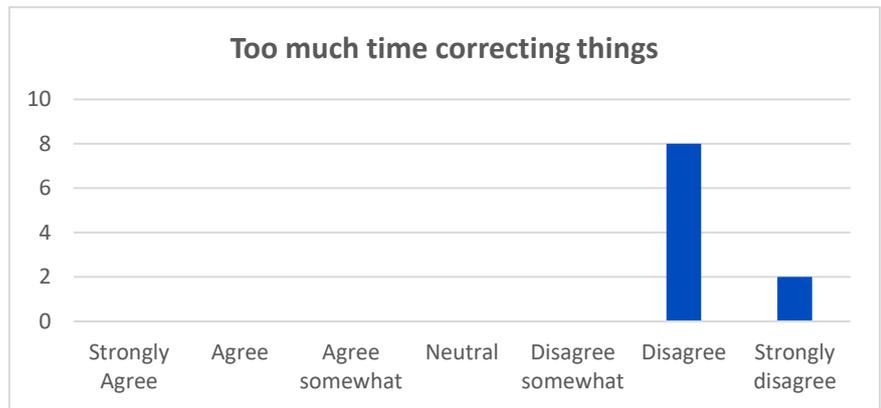


FIGURE 24 - MAGGIOLI. TOO MUCH TIME CORRECTING THINGS.

Useful daily operations	
	# Participants
Strongly Agree	3
Agree	7
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 26 - MAGGIOLI. USEFUL DAILY OPERATIONS

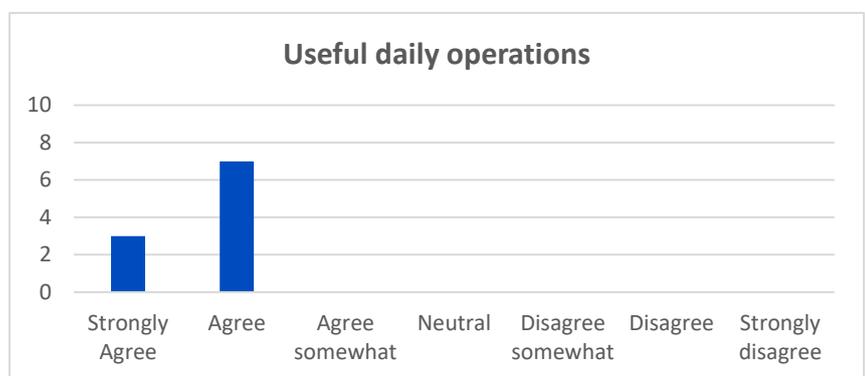


FIGURE 25 - MAGGIOLI. USEFUL DAILY OPERATIONS.

Decreasing of Workload	
	# Participants
Strongly Agree	7
Agree	2
Agree somewhat	1
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 27 - MAGGIOLI. DECREASING OF WORKLOAD

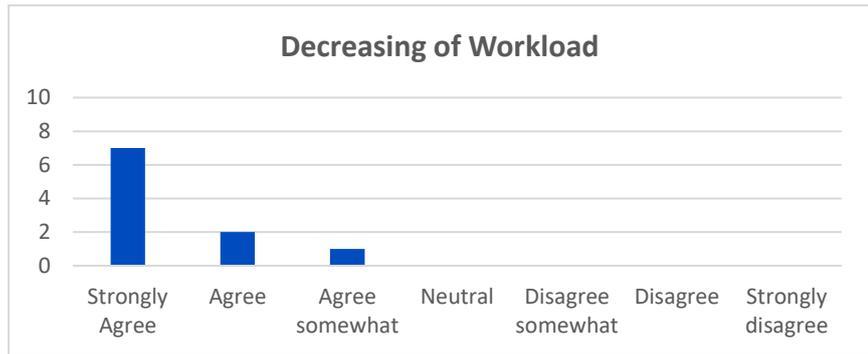


FIGURE 26 - MAGGIOLI. DECREASING OF WORKLOAD.

Improvement of abilities	
	# Participants
Strongly Agree	8
Agree	1
Agree somewhat	1
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 28 - MAGGIOLI. IMPROVEMENT OF ABILITIES

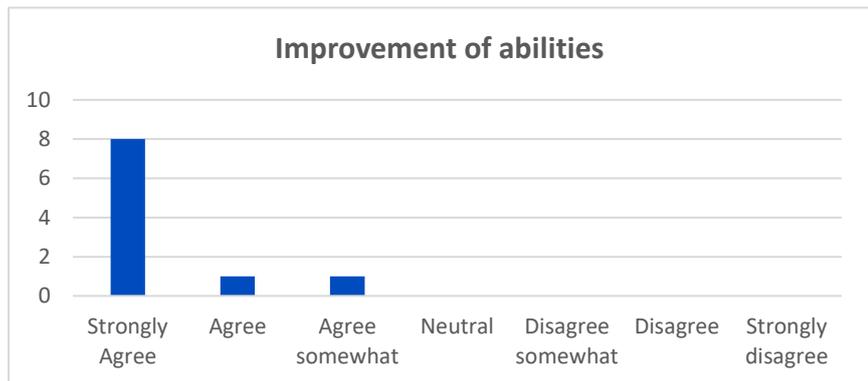


FIGURE 27 - MAGGIOLI. IMPROVEMENT OF ABILITIES

Improvement of new ways to do job	
	# Participants
Strongly Agree	9
Agree	1
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 29 - MAGGIOLI. IMPROVEMENT OF NEW WAYS TO DO JOB

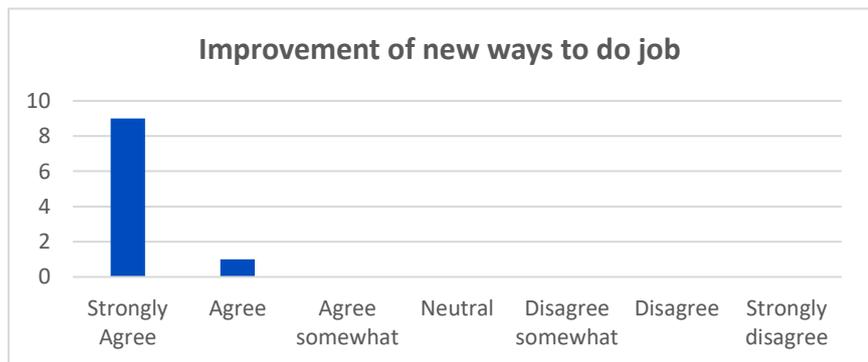


FIGURE 28 - MAGGIOLI. IMPROVEMENT OF NEW WAYS TO DO JOB.

Better overview of the Workflow	
	# Participants
Strongly Agree	8
Agree	2
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 30 - MAGGIOLI. BETTER OVERVIEW OF THE WORKFLOW

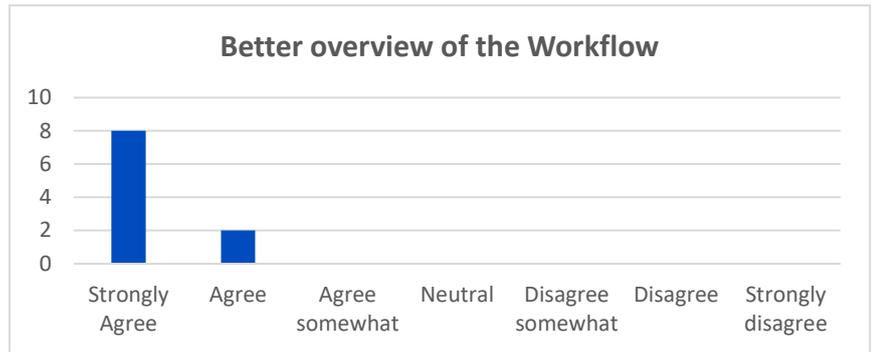


FIGURE 29 - MAGGIOLI. BETTER OVERVIEW OF THE WORKFLOW.

Improvement of situational awareness	
	# Participants
Strongly Agree	3
Agree	5
Agree somewhat	2
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 31 - MAGGIOLI. IMPROVEMENT OF SITUATIONAL AWARENESS

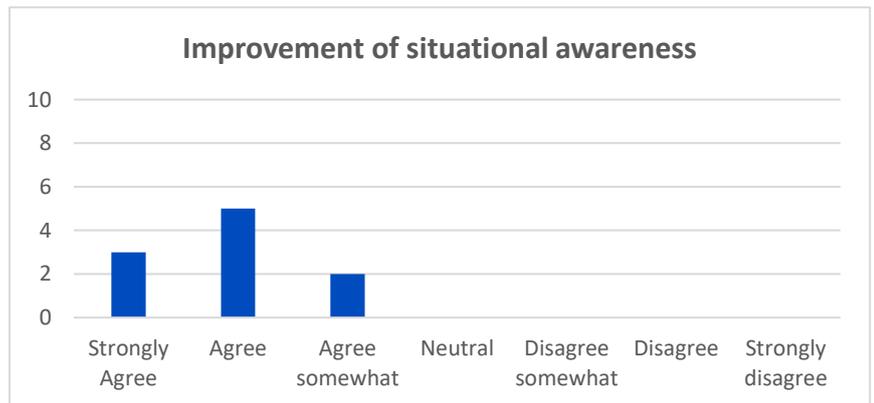


FIGURE 30 - MAGGIOLI. IMPROVEMENT OF SITUATIONAL AWARENESS

Useful for daily work	
	# Participants
Strongly Agree	8
Agree	2
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 32 - MAGGIOLI. USEFUL FOR DAILY WORK

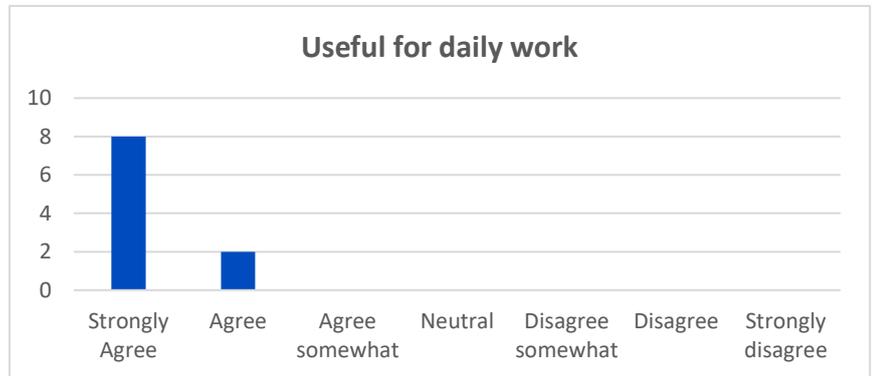
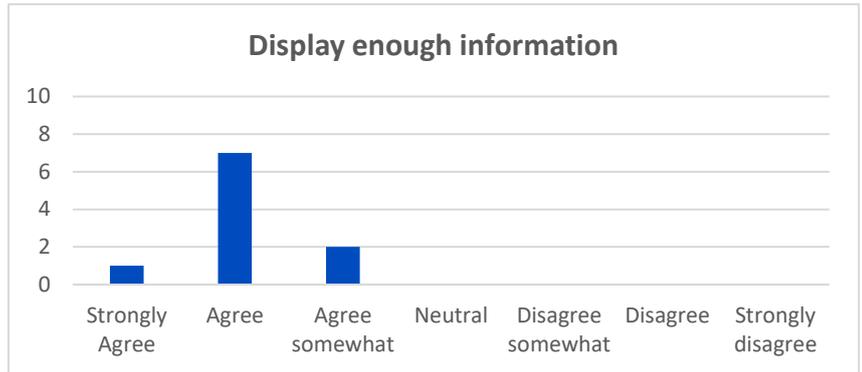


FIGURE 31 - MAGGIOLI. USEFUL FOR DAILY WORK.

**UMUX Questionnaire - Ease of use**

Display enough information	
	# Participants
Strongly Agree	1
Agree	7
Agree somewhat	2
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

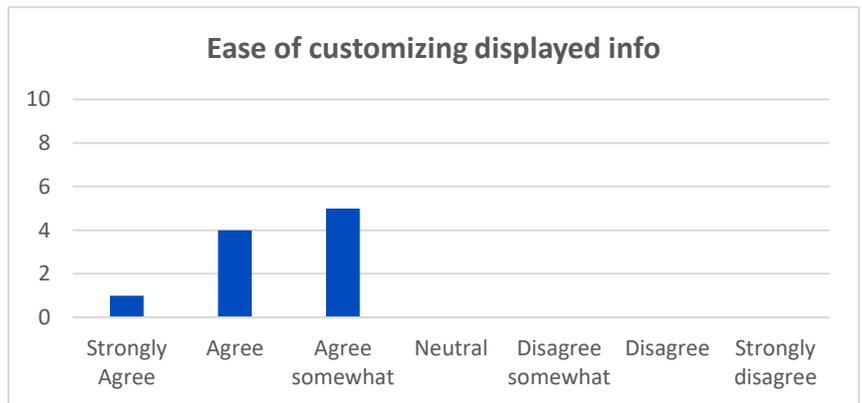
**TABLE 33 - MAGGIOLI. DISPLAY ENOUGH INFORMATION**



**FIGURE 32 - MAGGIOLI. USEFUL FOR DAILY WORK.**

Ease of customizing displayed info	
	# Participants
Strongly Agree	1
Agree	4
Agree somewhat	5
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

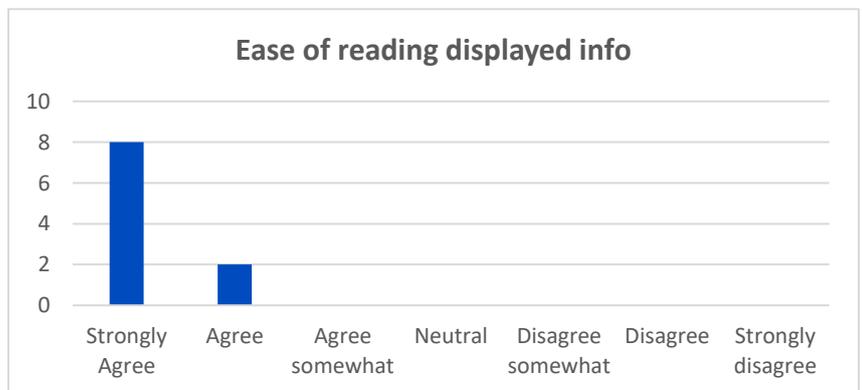
**TABLE 34 - MAGGIOLI. EASE OF CUSTOMIZING DISPLAYED INFO**



**FIGURE 33 - MAGGIOLI. EASE OF CUSTOMIZING DISPLAYED INFO.**

Ease of reading displayed info	
	# Participants
Strongly Agree	8
Agree	2
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

**TABLE 35 - MAGGIOLI. EASE OF READING DISPLAYED INFO**



**FIGURE 34 - MAGGIOLI. EASE OF READING DISPLAYED INFO**

Clearness of messages	
	# Participants
Strongly Agree	7
Agree	3
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 36 - MAGGIOLI. CLEARNESS OF MESSAGES

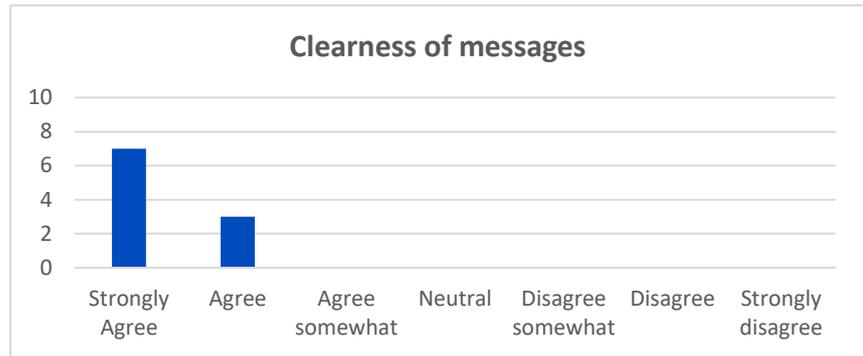


FIGURE 35 - MAGGIOLI. CLEARNESS OF MESSAGES.

Ease of finding information	
	# Participants
Strongly Agree	0
Agree	7
Agree somewhat	2
Neutral	1
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 37 - MAGGIOLI. EASE OF FINDING INFORMATION

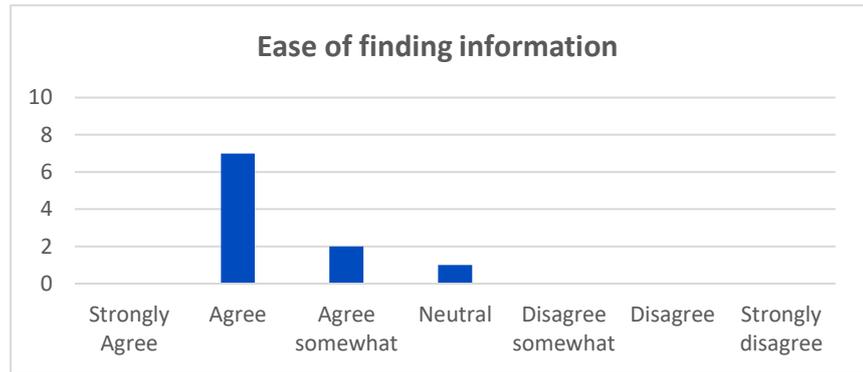


FIGURE 36 - MAGGIOLI. EASE OF FINDING INFORMATION

Training effort	
	# Participants
Strongly Agree	1
Agree	3
Agree somewhat	3
Neutral	2
Disagree somewhat	0
Disagree	0
Strongly disagree	0
NS/NC	1

TABLE 38 - MAGGIOLI. TRAINING EFFORT

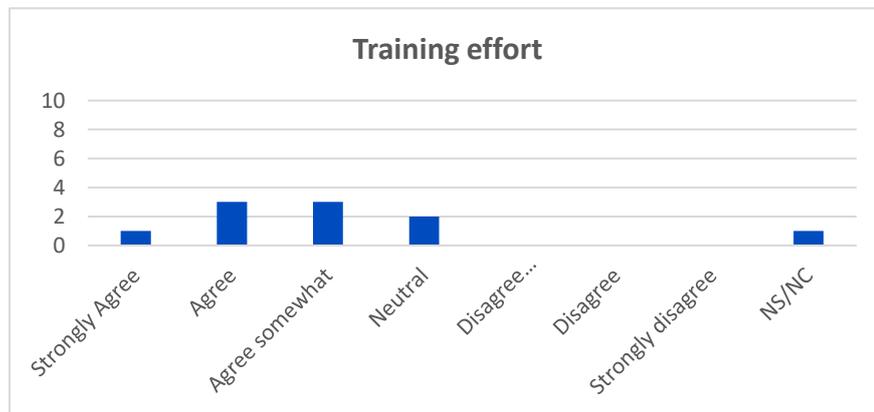


FIGURE 37 - MAGGIOLI. TRAINING EFFORT

## 6.2 Use Case 2. Intelligent policies for the development of agrifood industry (Aragon)

### *Preliminary questions*

Participation per gender	
	# Participants
Male	12
Female	8
Total	20

TABLE 39 - ARAGON. PARTICIPATION PER GENDER

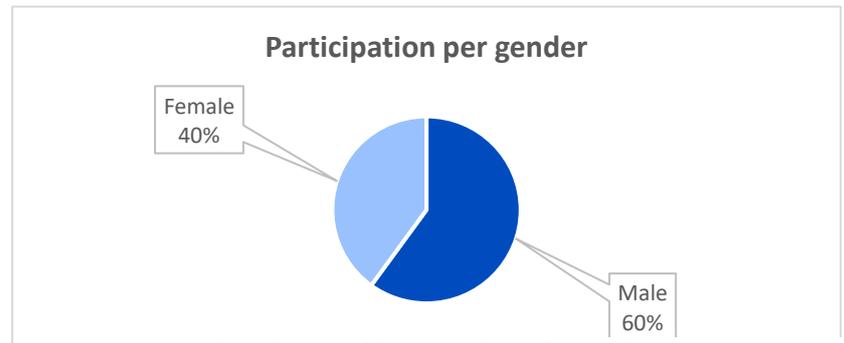


FIGURE 38 - ARAGON. PARTICIPATION PER GENDER.

Years of experience	
	# Participants
<= 1 year	2
2 -5 years	7
6 -10 years	5
> 10 years	6

TABLE 40 - ARAGON. YEARS OF EXPERIENCE



FIGURE 39 - ARAGON. YEARS OF EXPERIENCE.

Role in organization	
Role	# Participants
Policy Makers	5
Data Analyst	3
Domain Expert	10
Consultant	0
Other	2

TABLE 41 - ARAGÓN. ROLE IN ORGANIZATION

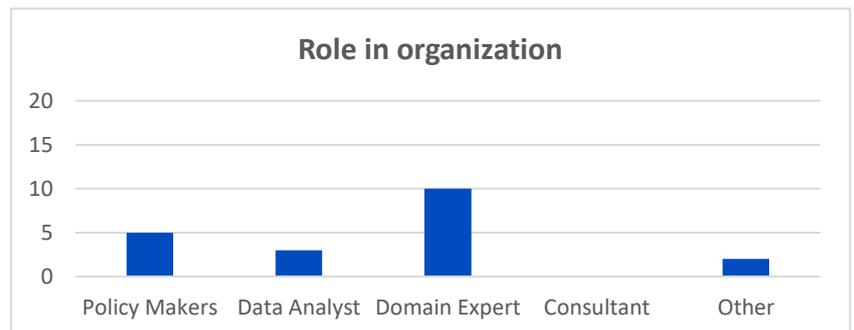


FIGURE 40 - ARAGON. ROLE IN ORGANIZATION.

Resolving questions	
	#Participants
Peers	10
Team Members	4
Professional group	0
Digital Platform	0
Look in Internet	6
Other	0

TABLE 42 - ARAGÓN. RESOLVING QUESTIONS

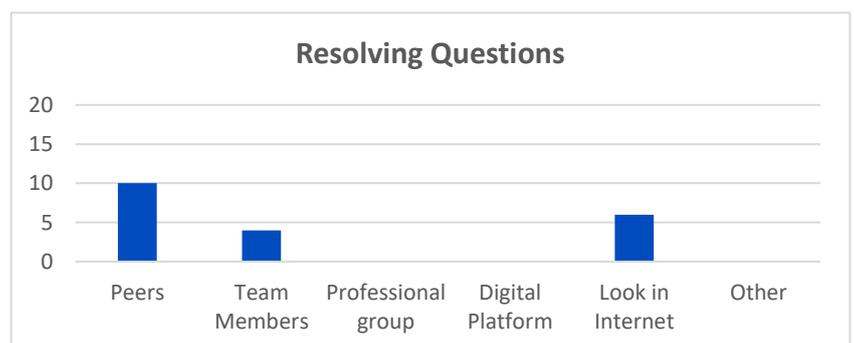


FIGURE 41 - ARAGON. RESOLVING QUESTIONS.

Experience with Digital Platforms	
	# Participants
Not at all	0
Relatively few	2
More or les	9
Quite a lot	10
Very much	0

TABLE 43 - ARAGON. EXPERIENCE WITH DIGITAL PLATFORMS

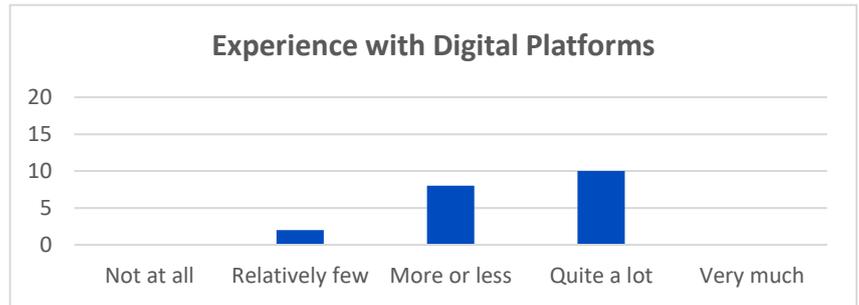


FIGURE 42 - ARAGON. EXPERIENCE WITH DIGITAL PLATFORMS.

### Requirement evaluation

What are the most common problems policy makers face in their daily operation?

- Lack of data, coexistence among data.
- Data are very distributed, and it is difficult to find correlations.
- Difficult access to data.

What is the information that lack policy makers in handling evidence-based policies?

- Data is not always available in a standardise format.
- Centralization and communication.

Opinion about creating an online platform to support policy makers

- It improves the way to access information and share it.
- It makes it easier to work with data.

### PolicyCLOUD Platform evaluation

Ease of use	
	# Participants
Very easy	0
Moderately easy	13
Slightly easy	5
Not at all easy	2

TABLE 44 - ARAGON. EASE OF USE

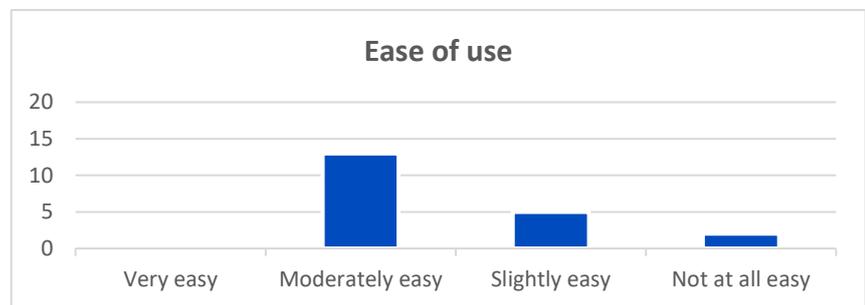


FIGURE 43 - ARAGON. EASE OF USE.

User-friendliness	
	# Participants
Very user-friendly	0
Moderately user-friendly	10
Slightly user-friendly	8
Not at all user-friendly	2

TABLE 45 - ARAGON. USER-FRIENDLINESS

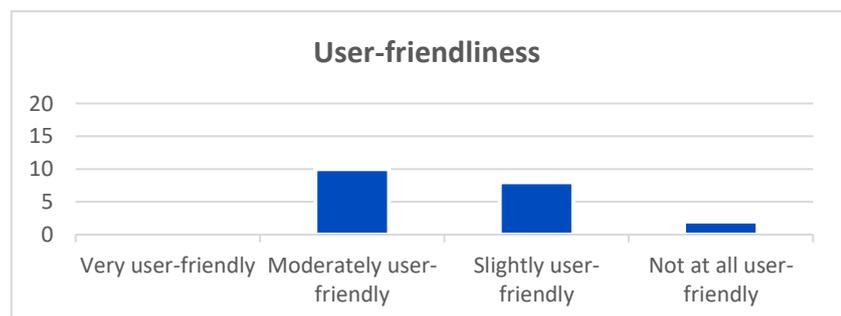


FIGURE 44 - ARAGON. USER-FRIENDLINESS.

Successful performing tasks	
	# Participants
Very successful	1
Moderately successful	2
Slightly successful	7
Not at all successful	6
Too early to say	4

TABLE 46 - ARAGON. SUCCESSFUL PERFORMING TASKS

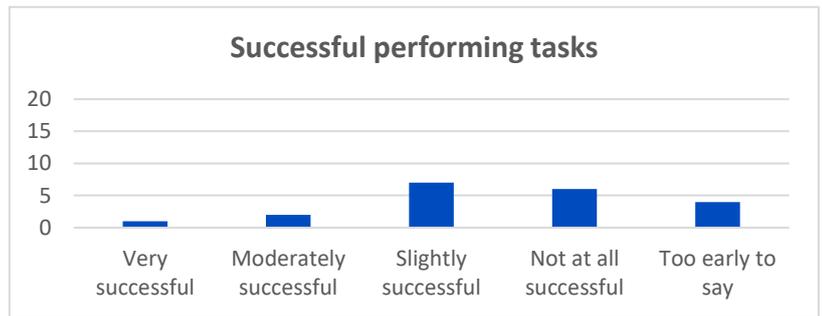


FIGURE 46 - ARAGON. SUCCESSFUL PERFORMING TASKS.

Performance	
	# Participants
Very satisfied	1
Moderately satisfied	12
Slightly satisfied	7
Not at all satisfied	0

TABLE 47 - ARAGON. PERFORMANCE

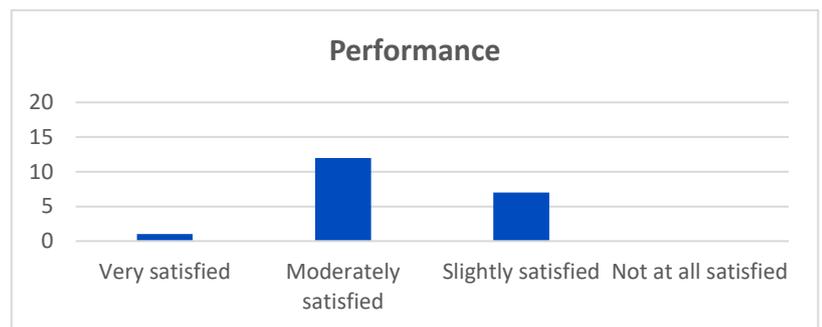


FIGURE 45 - ARAGON. PERFORMANCE.

Recommendation	
	# Participants
Very likely	5
Moderately likely	4
Slightly likely	0
Not at all likely	0

TABLE 48 - ARAGON. RECOMMENDATION



FIGURE 47 - ARAGON. RECOMMENDATION.

### Improvements for PolicyCLOUD platform

- It would be important to have the ability to interact in an easier way with the platform customizing graphs.
- Adding more explanation to the graphs.
- It needs to be more user-friendly.

***Policy evaluation***

Ease of Policy creation	
	# Participants
Very easy	1
Moderately easy	3
Slightly easy	11
Not at all easy	2
Other	3

TABLE 49 - ARAGON. EASE OF POLICIES CREATION

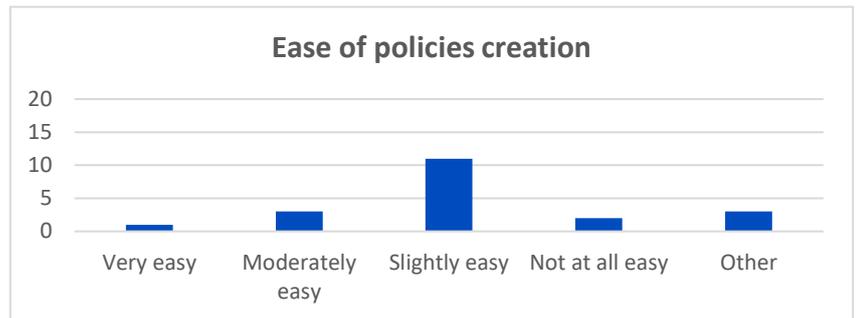


FIGURE 48 - ARAGON. EASE OF POLICIES CREATION.

Ease of KPIs Definition	
	# Participants
Very easy	0
Moderately easy	7
Slightly easy	8
Not at all easy	5
NA	0

TABLE 50 - ARAGON. EASE OF KPIS DEFINITION

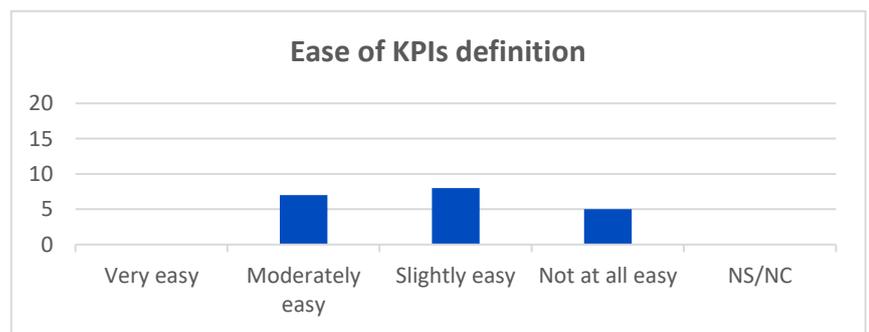


FIGURE 49 - ARAGON. EASE OF KPIS DEFINITION.

Ease of KPIs evaluation	
	# Participants
Very easy	2
Moderately easy	7
Slightly easy	8
Not at all easy	3

TABLE 51 - ARAGON. EASE OF KPIS EVALUATION

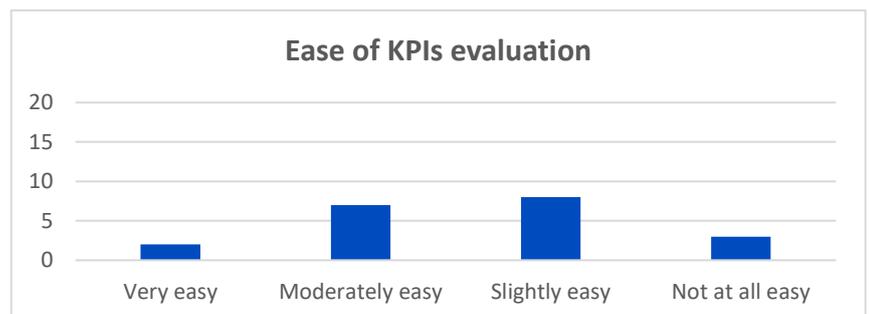


FIGURE 50 - ARAGON. EASE OF KPIS EVALUATION.

Clarity of results	
	# Participants
Very clear	1
Moderately clear	9
Slightly clear	9
Not at all clear	1

TABLE 52 - ARAGON. CLARITY OF RESULTS

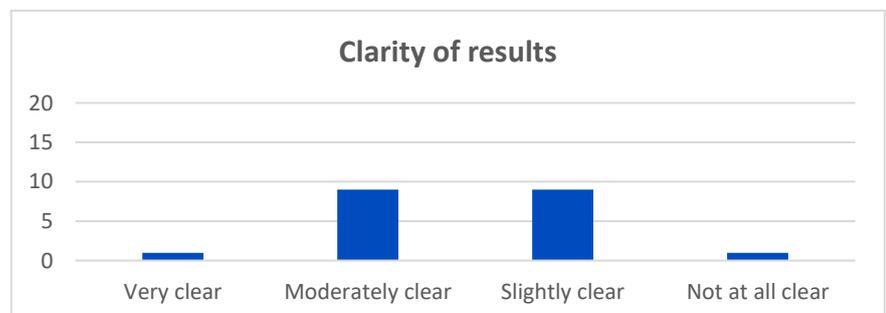


FIGURE 51 - ARAGON. CLARITY OF RESULTS.

**Suggestions**

- Improving interaction with the graphical tool in order to build KPIs and study results

**UMUX Questionnaire - Scenario evaluation**

Meeting my requirements	
	# Participants
Strongly Agree	1
Agree	2
Agree somewhat	3
Neutral	12
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 53 - ARAGON. MEETING MY REQUIREMENTS

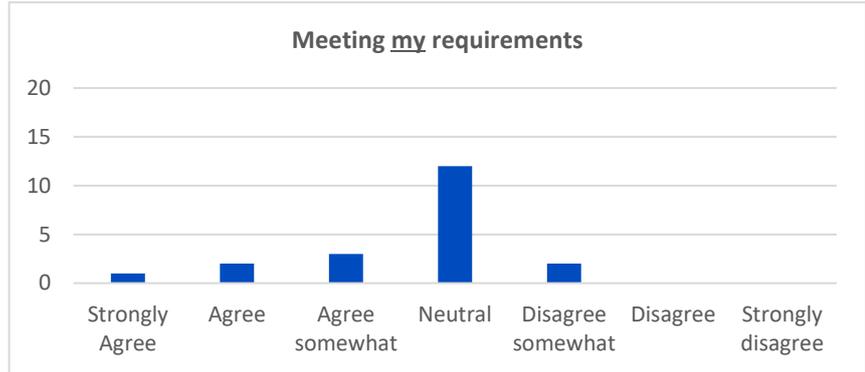


FIGURE 52 - ARAGON. MEETING MY REQUIREMENTS.

Frustrating experience	
	# Participants
Strongly Agree	0
Agree	3
Agree somewhat	2
Neutral	10
Disagree somewhat	3
Disagree	2
Strongly disagree	0

TABLE 54 - ARAGON. FRUSTRATING EXPERIENCE

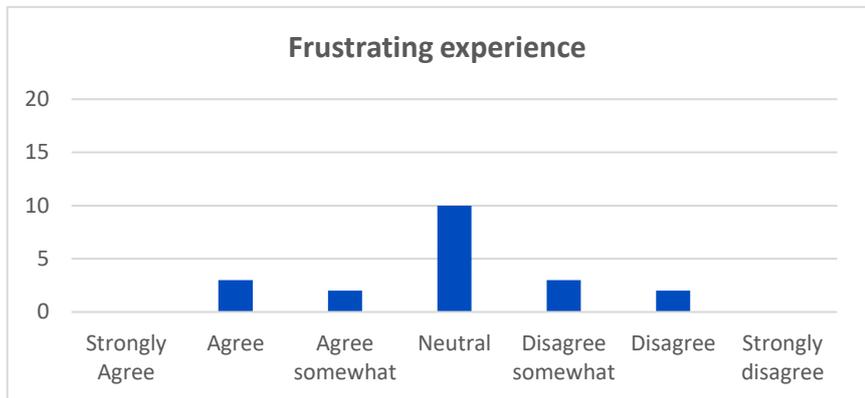


FIGURE 53 - ARAGON. FRUSTRATING EXPERIENCE.

Ease of use	
	# Participants
Strongly Agree	1
Agree	2
Agree somewhat	5
Neutral	8
Disagree somewhat	3
Disagree	1
Strongly disagree	0

TABLE 55 - ARAGON. EASE OF USE

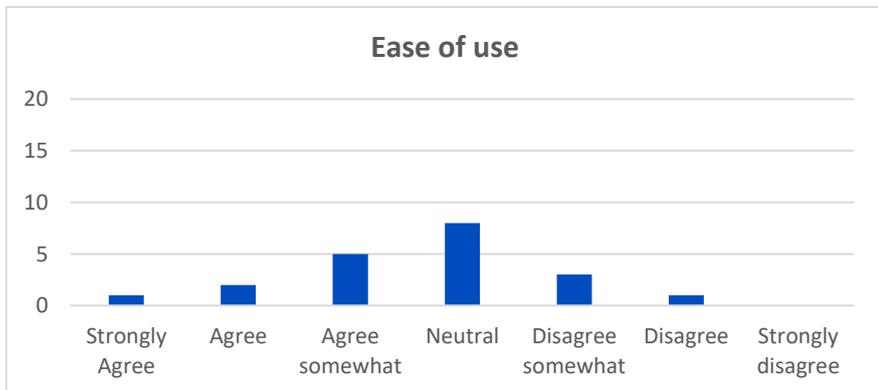


FIGURE 54 - ARAGON. EASE OF USE.

Too much time correcting things	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	3
Neutral	17
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 56 - ARAGON. TOO MUCH TIME CORRECTING THINGS

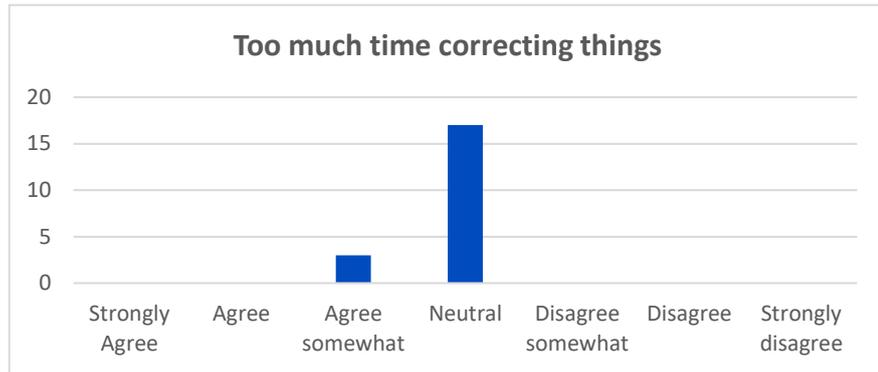


FIGURE 55 - ARAGON. TOO MUCH TIME CORRECTING THING.

Useful daily operations	
	# Participants
Strongly Agree	1
Agree	4
Agree somewhat	7
Neutral	6
Disagree somewhat	1
Disagree	1
Strongly disagree	0

TABLE 57 - ARAGON. USEFUL DAILY OPERATIONS

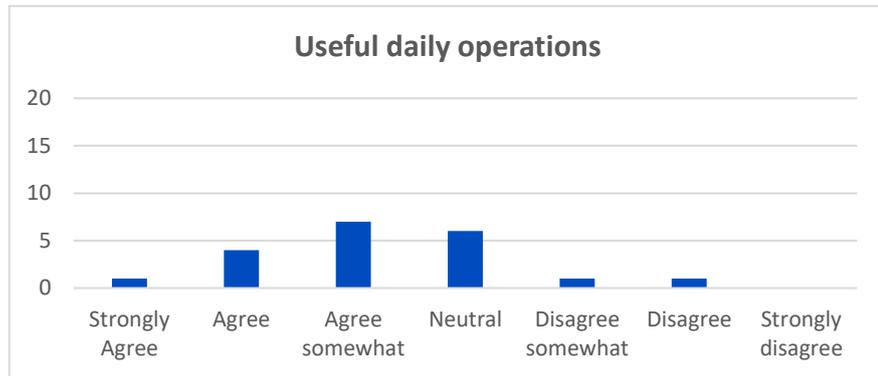


FIGURE 56 - ARAGON. USEFUL DAILY OPERATIONS.

Decreasing of Workload	
	# Participants
Strongly Agree	0
Agree	2
Agree somewhat	2
Neutral	12
Disagree somewhat	3
Disagree	1
Strongly disagree	0

TABLE 58 - ARAGON. DECREASING OF WORKLOAD

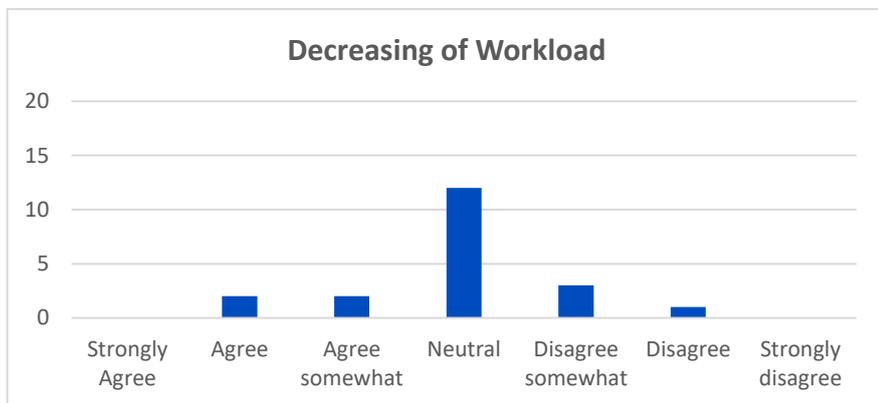


FIGURE 57 - ARAGON. DECREASING OF WORKLOAD.

Improvement of abilities	
	# Participants
Strongly Agree	0
Agree	2
Agree somewhat	3
Neutral	10
Disagree somewhat	2
Disagree	2
Strongly disagree	1

TABLE 59 - ARAGON. IMPROVEMENT OF ABILITIES

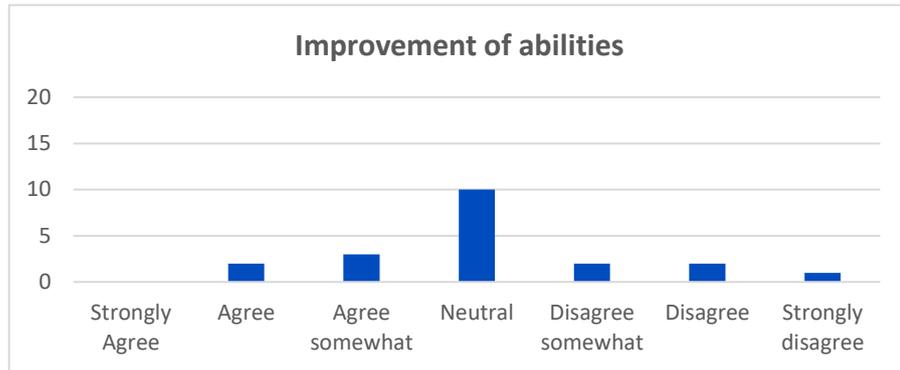


FIGURE 58 - ARAGON. IMPROVEMENT OF ABILITIES.

Improvement of new ways to do job	
	# Participants
Strongly Agree	1
Agree	1
Agree somewhat	3
Neutral	13
Disagree somewhat	1
Disagree	1
Strongly disagree	0

TABLE 60 - ARAGON. IMPROVEMENT OF NEW WAYS TO DO JOB

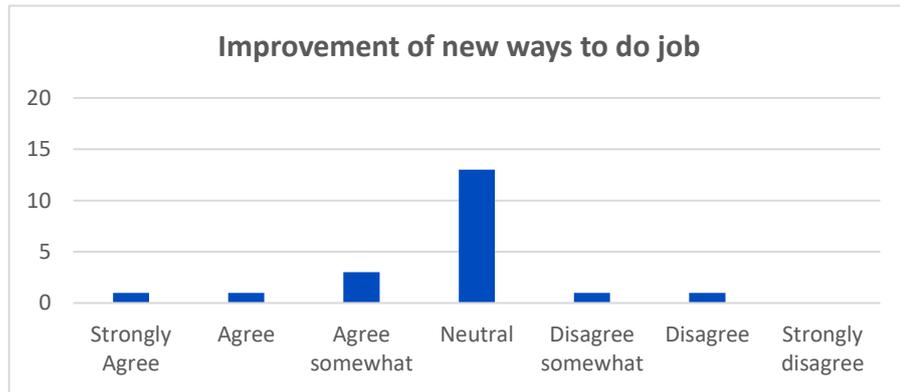


FIGURE 59 - ARAGON. IMPROVEMENT OF NEW WAYS TO DO JOB.

Better overview of the Workflow	
	# Participants
Strongly Agree	0
Agree	2
Agree somewhat	5
Neutral	11
Disagree somewhat	1
Disagree	1
Strongly disagree	0

TABLE 61 - ARAGON. BETTER OVERVIEW OF THE WORKFLOW

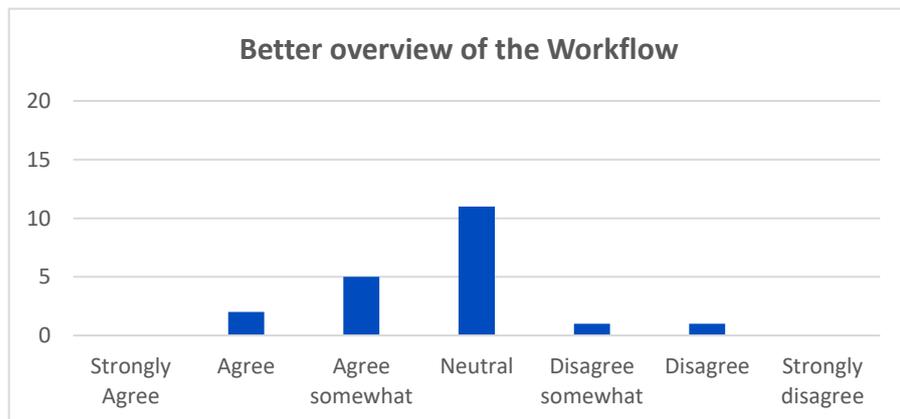


FIGURE 60 - ARAGON. BETTER OVERVIEW OF THE WORKFLOW.

Improvement of situational awareness	
	# Participants
Strongly Agree	1
Agree	1
Agree somewhat	4
Neutral	12
Disagree somewhat	1
Disagree	1
Strongly disagree	0

TABLE 62 - ARAGON. IMPROVEMENT OF SITUATIONAL AWARENES

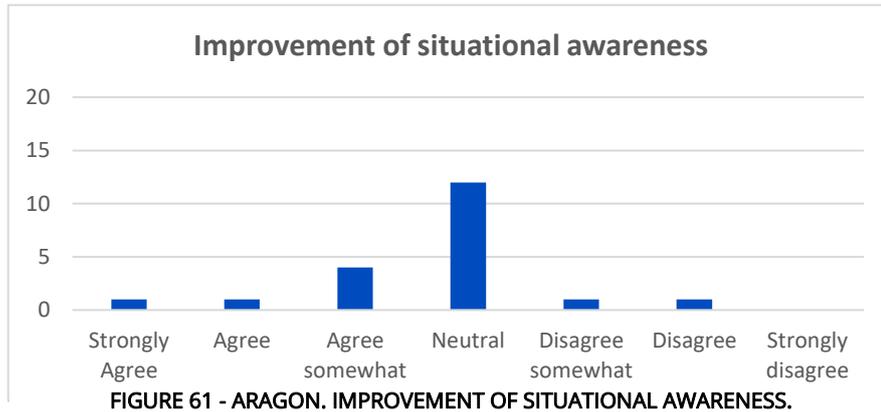


FIGURE 61 - ARAGON. IMPROVEMENT OF SITUATIONAL AWARENESS.

Useful for daily work	
	# Participants
Strongly Agree	2
Agree	1
Agree somewhat	4
Neutral	10
Disagree somewhat	2
Disagree	1
Strongly disagree	0

TABLE 63 - ARAGON. USEFUL FOR DAILY WORK

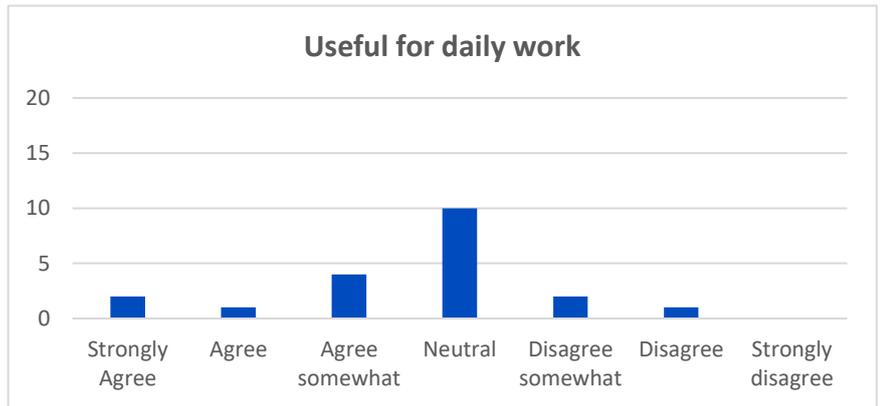


FIGURE 62 - ARAGON. USEFUL FOR DAILY WORK.

***UMUX Questionnaire – Ease of use***

Display enough information	
	# Participants
Strongly Agree	2
Agree	6
Agree somewhat	7
Neutral	6
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 64 - ARAGON. DISPLAY ENOUGH INFORMATION

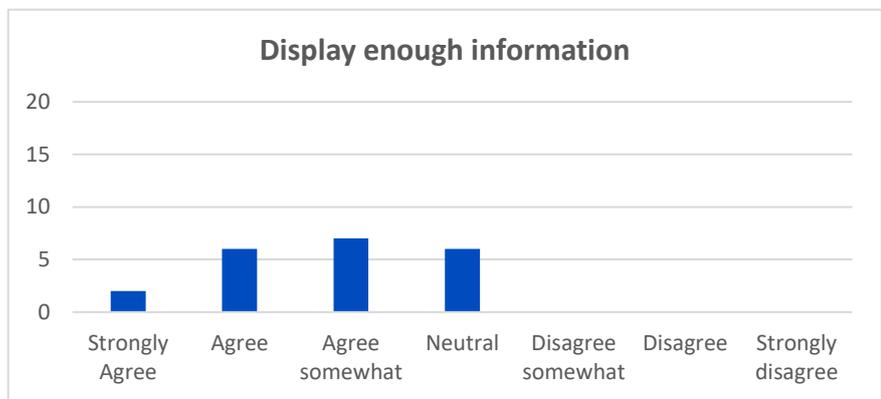


FIGURE 63 - ARAGON. DISPLAY ENOUGH INFORMATION.

Ease of customizing displayed info	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	4
Neutral	11
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 65 - ARAGON. EASE OF CUSTOMIZING DISPLAYED INFO

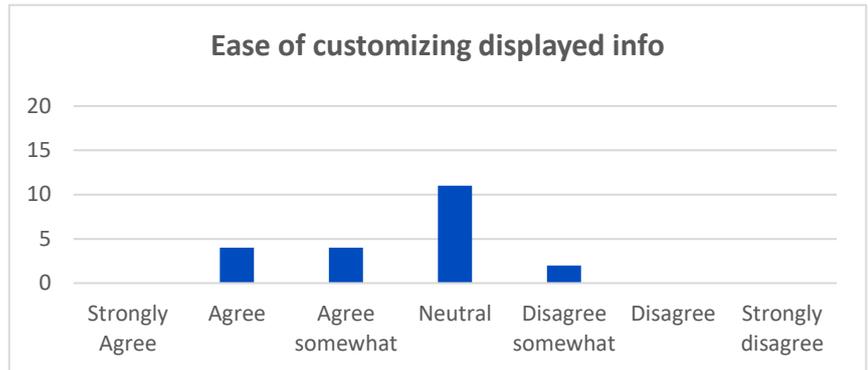


FIGURE 64 - ARAGON. EASE OF CUSTOMIZING DISPLAYED INFO.

Ease of reading displayed info	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	6
Neutral	9
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 66 - ARAGON. EASE OF READING DISPLAYED INFO

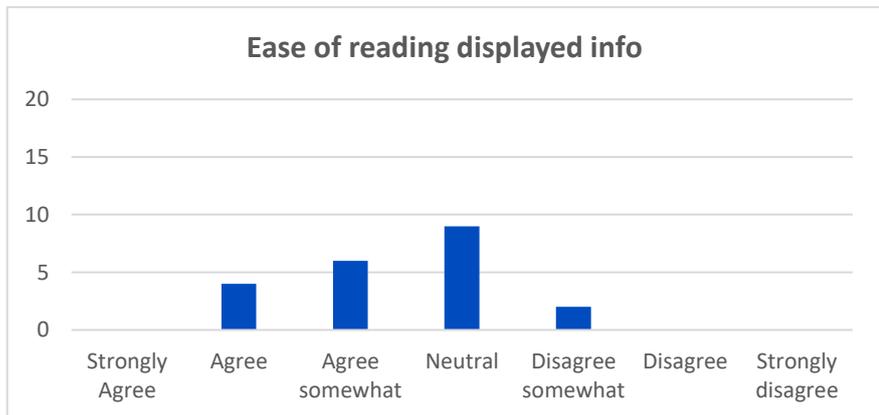


FIGURE 65 - ARAGON. EASE OF READING DISPLAYED INFO.

Clearness of messages	
	# Participants
Strongly Agree	0
Agree	6
Agree somewhat	4
Neutral	11
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 67 - ARAGON. CLEARNESS OF MESSAGES

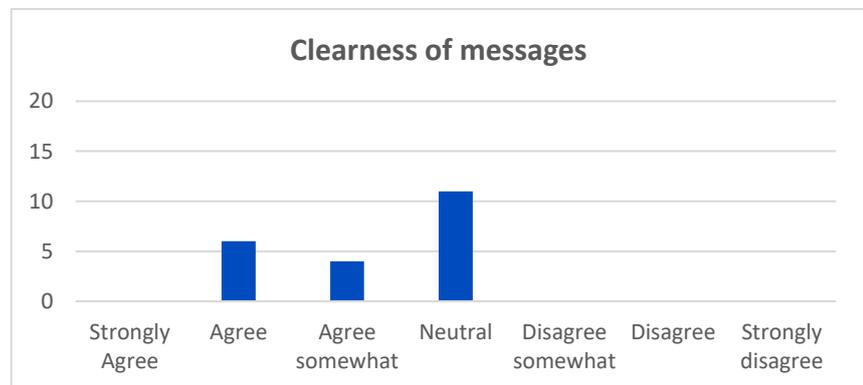


FIGURE 66 - ARAGON. CLEARNESS OF MESSAGES.

Ease of finding information	
	# Participants
Strongly Agree	2
Agree	9
Agree somewhat	6
Neutral	4
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 68 - ARAGON. EASE OF FINDING INFORMATION

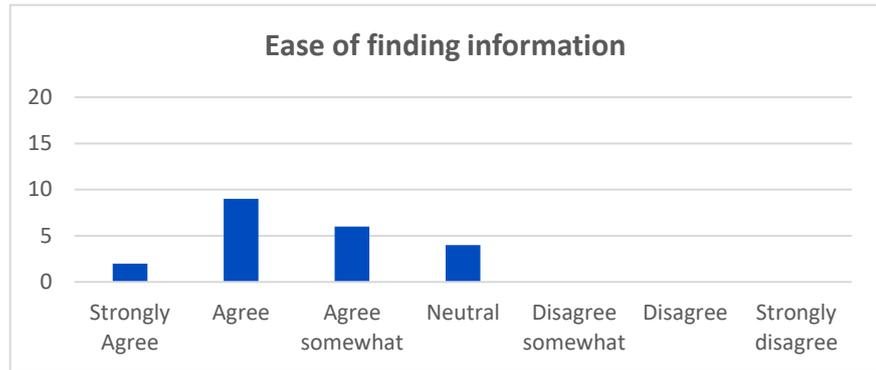


FIGURE 67 - ARAGON. EASE OF FINDING INFORMATION.

Training effort	
	# Participants
Strongly Agree	0
Agree	3
Agree somewhat	2
Neutral	5
Disagree somewhat	2
Disagree	8
Strongly disagree	0
NA	0

TABLE 69 - ARAGON. TRAINING EFFORT



FIGURE 68 - ARAGON. TRAINING EFFORT.

### How to improve the tool

- Improving interaction: Allow policy makers choose their graphs.
- More explanation about what is shown on screen
- People needs to study the tool, work with them, and study all the scenarios in order to have an opinion.
- End-users want to have the ability to interact with a live demo in order to be in a position to provide a more extensive opinion about it.

## 6.3 Use Case 3. Facilitating urban policy making and monitoring through crowdsourcing data (Sofia)

### *Preliminary questions*

Participation per gender	
	# Participants
Male	4
Female	17
Total	21

TABLE 70 - SOFIA. PARTICIPATION PER GENDER

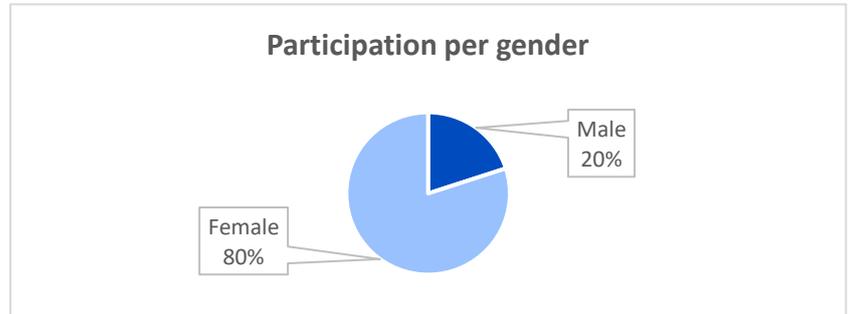


FIGURE 69 - SOFIA. PARTICIPATION PER GENDER.

Years of experience	
	# Participants
<= 1 year	4
2 -5 years	4
6 -10 years	7
> 10 years	6

TABLE 71 - SOFIA. YEARS OF EXPERIENCE



FIGURE 70 - SOFIA. YEARS OF EXPERIENCE.

Role in organization	
Role	# Participants
Policy Makers	4
Data Analyst	7
Domain Expert	4
Consultant	2
Other	4

TABLE 72 - SOFIA. ROLE IN ORGANIZATION

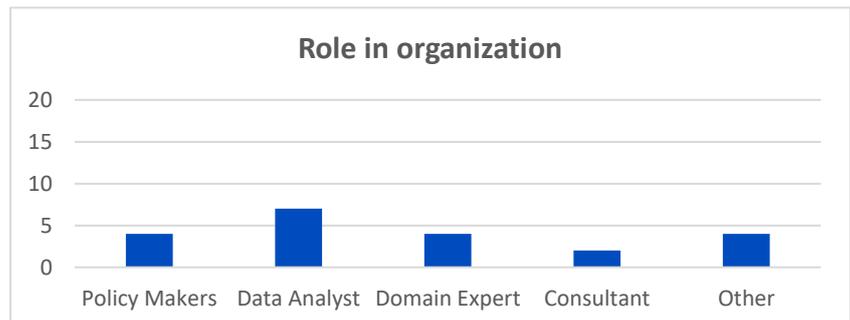


FIGURE 71 - SOFIA. ROLE IN ORGANIZATION.

Resolving questions	
	#Participants
Peers	6
Team Members	6
Professional group	3
Digital Platform	1
Look in Internet	5
Other	0

TABLE 73 - SOFIA. RESOLVING QUESTIONS

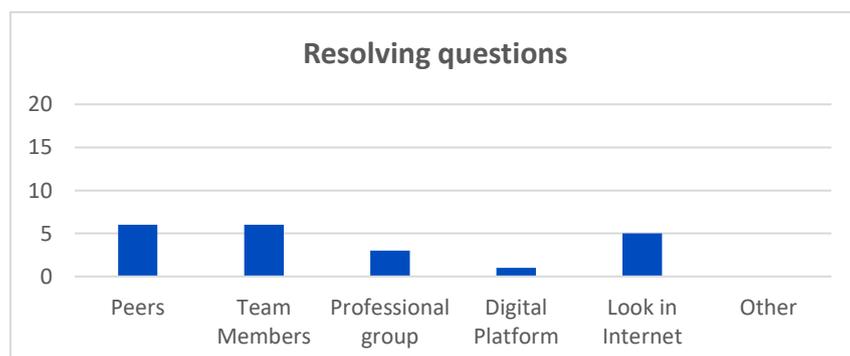


FIGURE 72 - SOFIA. RESOLVING QUESTIONS.

Experience with Digital Platforms	
	# Participants
Not at all	2
Relatively few	2
More or les	7
Quite a lot	4
Very much	6

TABLE 74 - SOFIA. EXPERIENCE WITH DIGITAL PLATFORMS

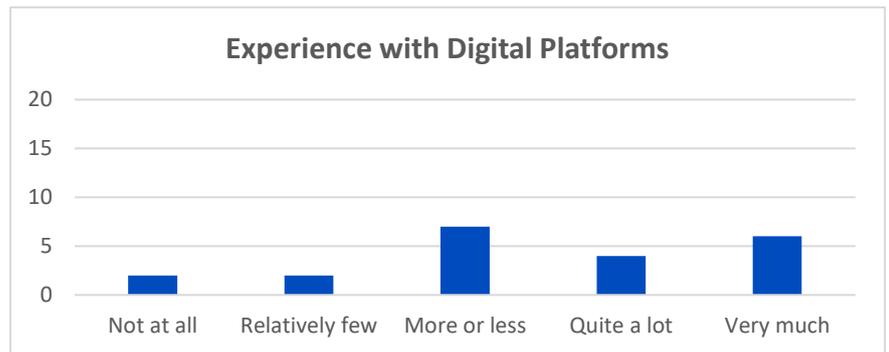


FIGURE 73 - SOFIA. EXPERIENCE WITH DIGITAL PLATFORMS.

### Requirement evaluation

#### What are the most common problems policy makers face in their daily operation?

- Lack of sufficient, up-to-date, systematic data in a machine-readable format is a key challenge preventing policy maker from implementing more data-driven policies.
- Data is mainly fragmented, inaccessible or difficult to access.
- Difficult to rely on to make high quality analysis.
- Lack of good coordination between the different stakeholders together with the lack of tools for involving them at the relevant stages of the policy making cycle.
- Lack of automated tools to support data-based decision making and the presence of so-called “data silos”, reinforced by technological problems.
- Lack of quality data on the basis of which to perform analysis and make adequate decisions.

#### What is the information that lack policy makers in handling evidence-based policies?

- The ability to visualise this data in order to have a better comprehension. Presenting information and data in an easily digestible form is something that policy makers would definitely benefit from.
- Data should be easily readable and provided on a platform that is easily accessible and visualised in order to draw conclusions and make different breakdowns and analysis, recognize trends.
- Information about the level of importance of a given area for the public (priorities).
- They are lacking up-to-date data. Policies are based on data by default on order to be more efficient, policy makers should have the necessary information through the whole cycle of policy making.
- Lack of tools that integrate data from different sources. Data are not digitised.
- No information about the context in which the data is being collected. Too much rely on separate, isolated datasets that are not enriched with data from additional sources.

#### Opinion about creating an online platform to support policy makers

- Visualising data according to the data chosen by policy maker, using filters and visualisations depending on the needs of the specific policy.
- Providing the opportunity to synthesise the data, to compare them, separate different samples in a readable and visual format.

- Providing a sufficient amount of objective information for the formation and prioritisation of policies.
- Providing accurate and up-to-date information.
- Visualisation of information as a clear story behind the numbers.
- A properly designed platform with enough resources and functionalities.
- Using machine learning and artificial intelligence.
- Aggregation of data from different data sources.
- Semantic analysis.

***PolicyCLOUD Platform evaluation***

Ease of use	
	# Participants
Very easy	6
Moderately easy	13
Slightly easy	2
Not at all easy	0

TABLE 75 - SOFIA. EASE OF USE

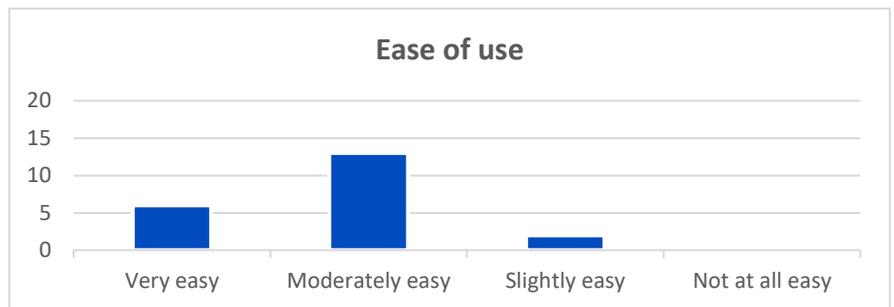


FIGURE 74 - SOFIA. EASE OF USE.

User-friendliness	
	# Participants
Very user-friendly	6
Moderately user-friendly	15
Slightly user-friendly	0
Not at all user-friendly	0

TABLE 76 - SOFIA. USER-FRIENDLINESS

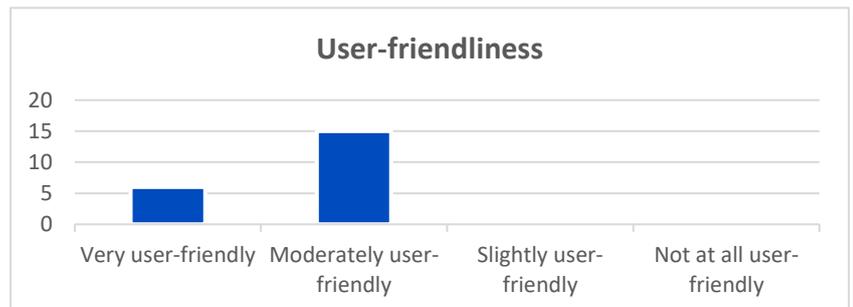


FIGURE 75 - SOFIA. USER-FRIENDLINESS.

Successful performing tasks	
	# Participants
Very successful	2
Moderately successful	13
Slightly successful	2
Not at all successful	0
Too early to say	4

TABLE 77 - SOFIA. SUCCESSFUL PERFORMING TASKS



FIGURE 76 - SOFIA. SUCCESSFUL PERFORMING TASKS.

Performance	
	# Participants
Very satisfied	6
Moderately satisfied	15
Slightly satisfied	0
Not at all satisfied	0

TABLE 78 - SOFIA. PERFORMANCE

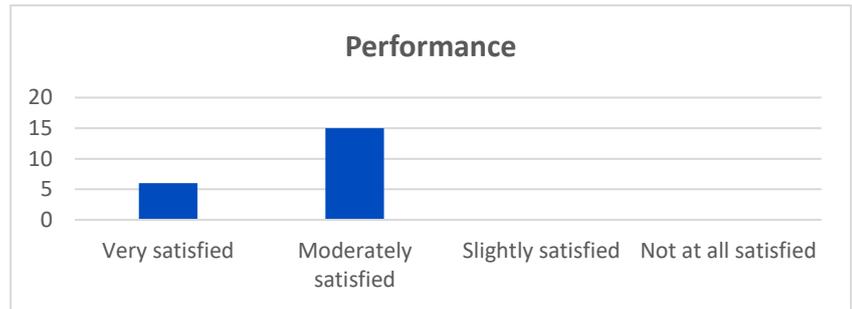


FIGURE 77 – SOFIA. PERFORMANCE.

Recommendation	
	# Participants
Very likely	13
Moderately likely	8
Slightly likely	0
Not at all likely	0

TABLE 79 - SOFIA. RECOMMENDATION



FIGURE 78 – SOFIA. RECOMMENDATION.

### Improvements for PolicyCLOUD platform

- Some participants said that is difficult to provide suggestions at this stage.
- The platform looks great, especially since it is still under development. Upgrading with additional data and capabilities for various visualisations and filters would be very valuable.
- It would be good to increase the size of the space for visualisation of the graphs, in order for the individual series and the inscribed values to be more visible and easier to understand.
- Some of the visualisations are not entirely clear. They do not show the data on a good scale and the bars are not clearly visible or the numbers are not readable.
- At this stage, it's not entirely clear whether the graphs will only show different types of visualisations, or opportunities for different data breakdowns.
- Move away from pure statistics to introduce more analysis and as a result to offer priorities.
- Better user experience, which should come with the completion of all functionalities.
- Providing more interactivity in terms of user interaction with the platform interface. Improve the bar chart visualizations.

### *Policy evaluation*

Ease of policies creation	
	# Participants
Very easy	2
Moderately easy	13
Slightly easy	4
Not at all easy	0
Other	2

TABLE 80 - SOFIA. EASE OF POLICIES CREATION

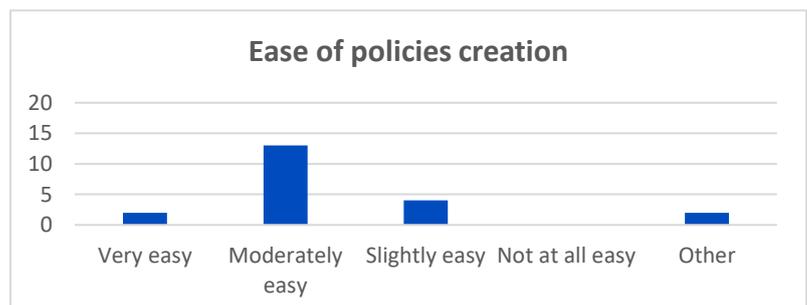


FIGURE 79 - SOFIA. EASE OF POLICIES CREATION.

Ease of KPIs creation	
	# Participants
Very easy	0
Moderately easy	14
Slightly easy	7
Not at all easy	0
NS/NC	0

TABLE 81 - SOFIA. EASE OF KPIS CREATION

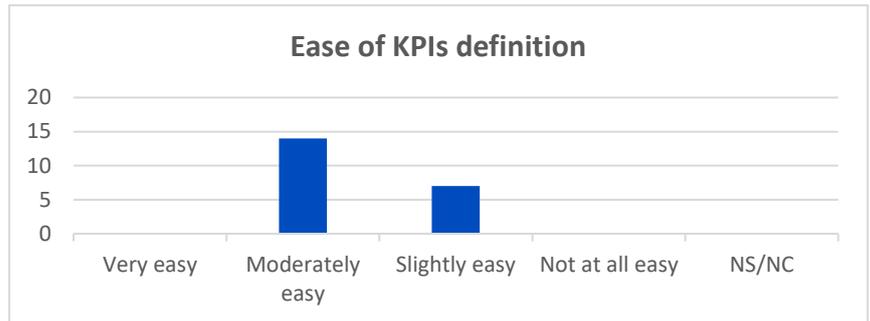


FIGURE 80 - SOFIA. EASE OF KPIS DEFINITION.

Ease of KPIs evaluation	
	# Participants
Very easy	2
Moderately easy	15
Slightly easy	4
Not at all easy	0

TABLE 82 - SOFIA. EASE OF KPIS EVALUATION

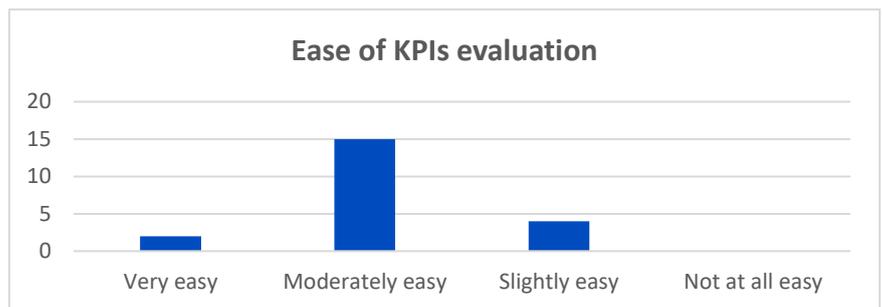


FIGURE 81 - SOFIA. EASE OF KPIS EVALUATION.

Clarity of results	
	# Participants
Very clear	4
Moderately clear	15
Slightly clear	2
Not at all clear	0

TABLE 83 - SOFIA. CLARITY OF RESULTS

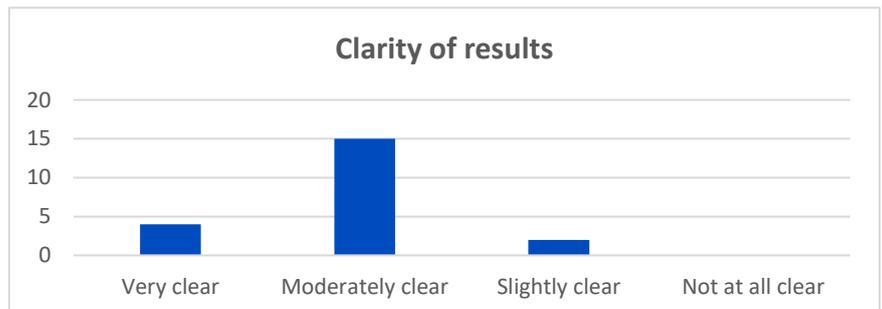


FIGURE 82 - SOFIA. CLARITY OF RESULTS.

## Suggestions

- The visualisations currently give a snapshot by types and location of problems over time. It doesn't seem a result of policy analysis. The result of policy analysis should be new graphs in which the values of a given type of problem are presented and compared before and after the action is taken by the administration. Declining values after action (undertaken policies) illustrate the effectiveness of policies taken.
- Visible quantitative data are well illustrated by time, types, and location, but trends on an annual or other basis may need to be shown. The data from the call centre may provide information about the concrete status of each signal, which is providing insights on the work of the responsible (competent for the problem) units of Sofia Municipality. It would be useful if the instrument proposes policies that lead to the fastest, most lasting or most socially significant result.

**UMUX Questionnaire - Scenario evaluation**

Meeting my requirements	
	# Participants
Strongly Agree	1
Agree	2
Agree somewhat	11
Neutral	7
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 84 - SOFIA. MEETING MY REQUIREMENTS

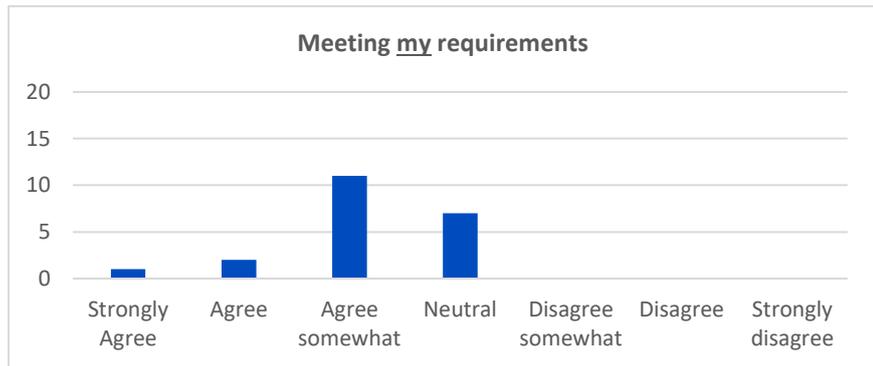


FIGURE 83 - SOFIA. MEETING MY REQUIREMENTS.

Frustrating experience	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	4
Disagree somewhat	2
Disagree	13
Strongly disagree	12

TABLE 85 - SOFIA. FRUSTRATING EXPERIENCE

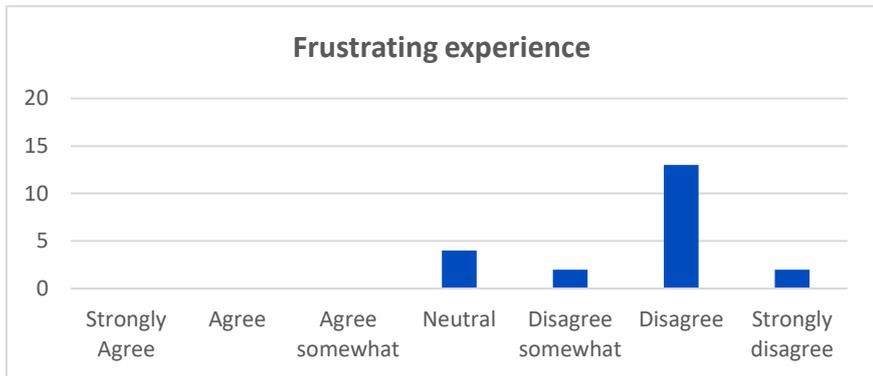


FIGURE 84 - SOFIA. FRUSTRATING EXPERIENCE.

Ease of use	
	# Participants
Strongly Agree	4
Agree	11
Agree somewhat	2
Neutral	4
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 86 - SOFIA. EASE OF USE

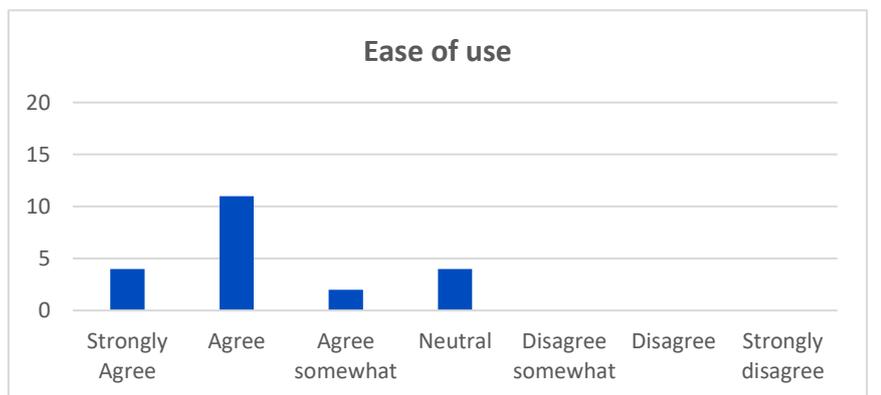
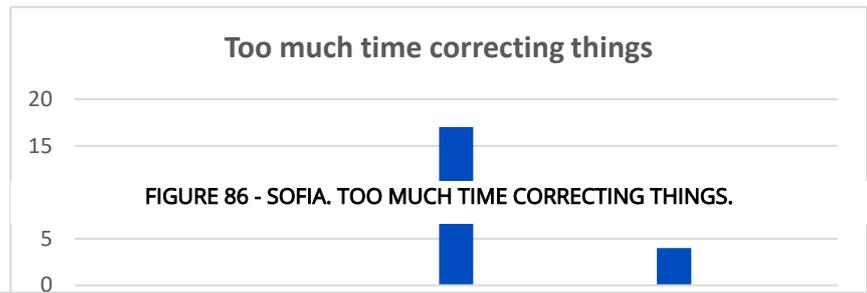


FIGURE 85 - SOFIA. EASE OF USE.

Too much time correcting things	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0

Neutral	17
Disagree somewhat	0
Disagree	4
Strongly disagree	0

TABLE 87 - SOFIA. TOO MUCH TIME CORRECTING THINGS



Useful daily operations	
	# Participants
Strongly Agree	2
Agree	9
Agree somewhat	4
Neutral	6
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 88 - SOFIA. USEFUL DAILY OPERATIONS

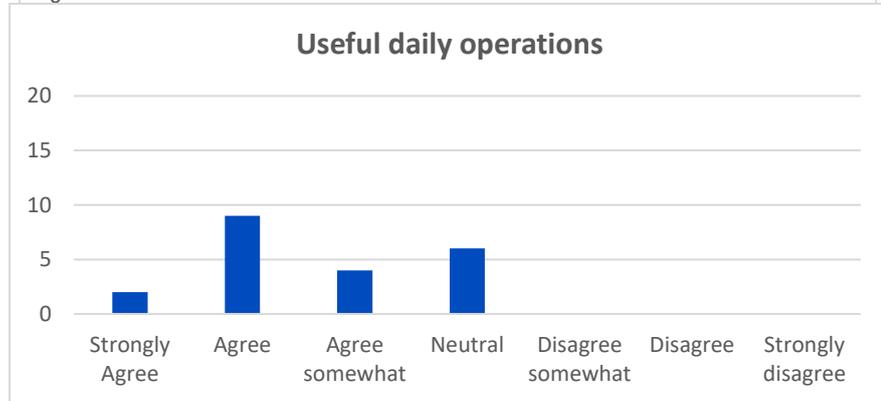


FIGURE 87 - SOFIA. USEFUL DAILY OPERATIONS.

Decreasing of Workload	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	6
Neutral	11
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 89 - SOFIA. DECREASING OF WORKLOAD

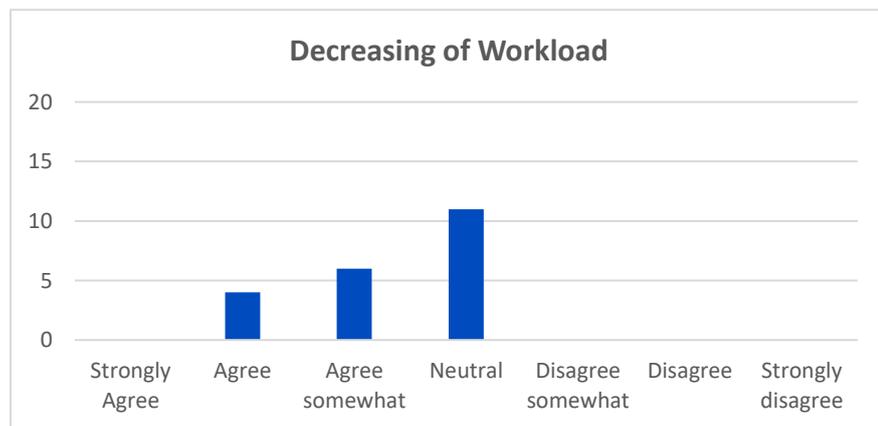


FIGURE 88 - SOFIA. DECREASING OF WORKLOAD.

Improvement of abilities	
	# Participants
Strongly Agree	0
Agree	6
Agree somewhat	6
Neutral	9
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 90 - SOFIA. IMPROVEMENT OF ABILITIES

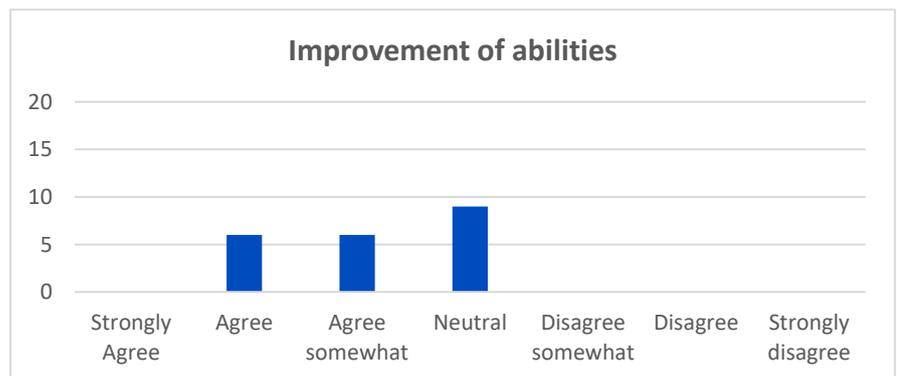


FIGURE 89 - SOFIA. IMPROVEMENT OF ABILITIES.

Improvement of new ways to do job	
	# Participants
Strongly Agree	2
Agree	4
Agree somewhat	4
Neutral	11
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 91 - SOFIA. IMPROVEMENT OF NEW WAYS TO DO JOB

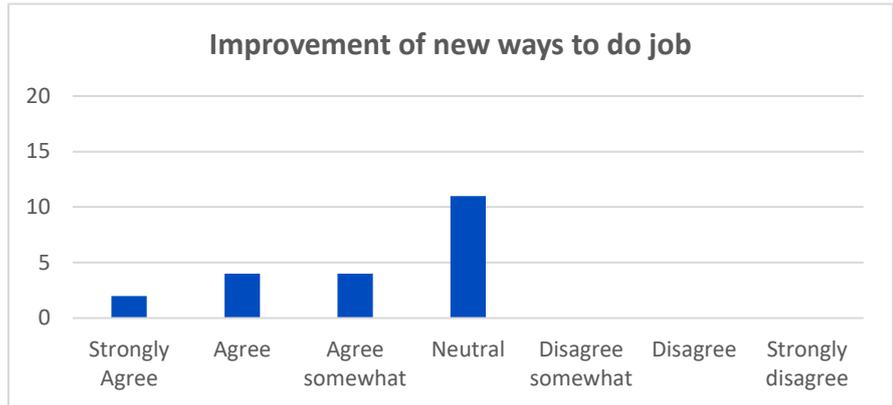


FIGURE 90 - SOFIA. IMPROVEMENT OF NEW WAYS TO DO JOB.

Better overview of the Workflow	
	# Participants
Strongly Agree	1
Agree	3
Agree somewhat	4
Neutral	13
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 92 - SOFIA. BETTER OVERVIEW OF THE WORKFLOW

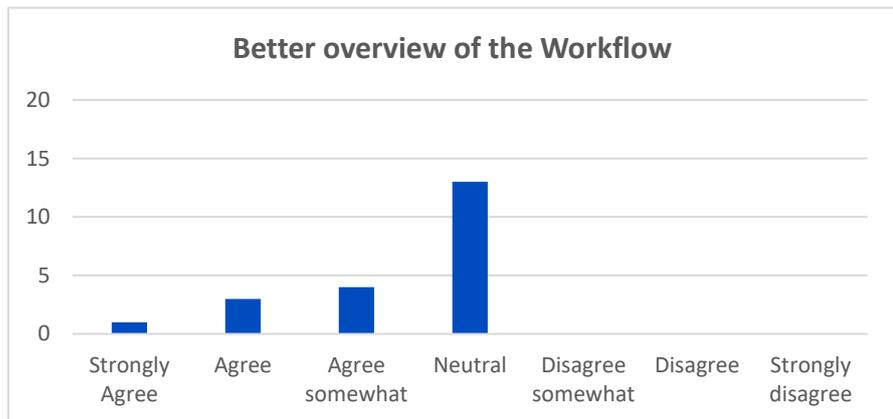


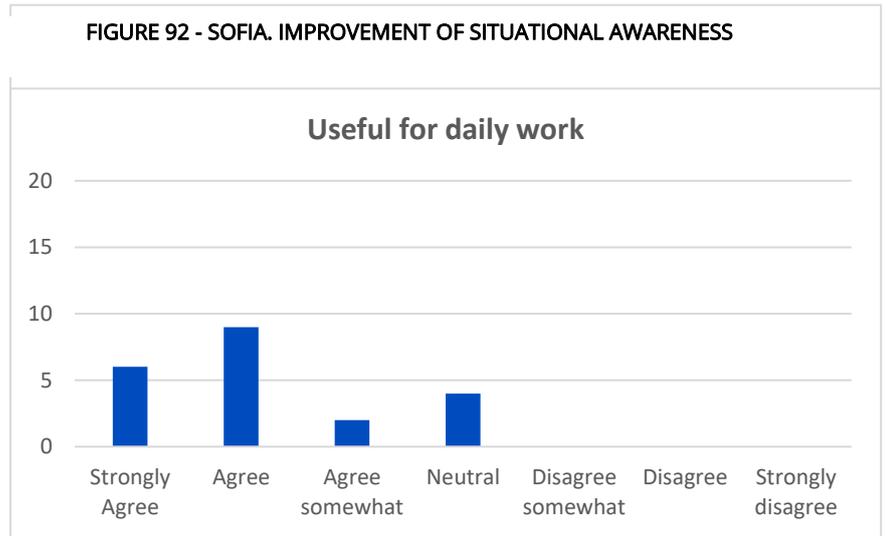
FIGURE 91 - SOFIA. BETTER OVERVIEW OF THE WORKFLOW.

Improvement of situational awareness	
	# Participants
Strongly Agree	2
Agree	13
Agree somewhat	4
Neutral	1
Disagree somewhat	0
Disagree	0
Strongly disagree	0

**TABLE 93 - SOFIA. IMPROVEMENT OF SITUATIONAL AWARENESS**

Useful for daily work	
	# Participants
Strongly Agree	6
Agree	9
Agree somewhat	2
Neutral	4
Disagree somewhat	0
Disagree	0
Strongly disagree	0

**TABLE 94 - SOFIA. USEFUL FOR DAILY WORK**

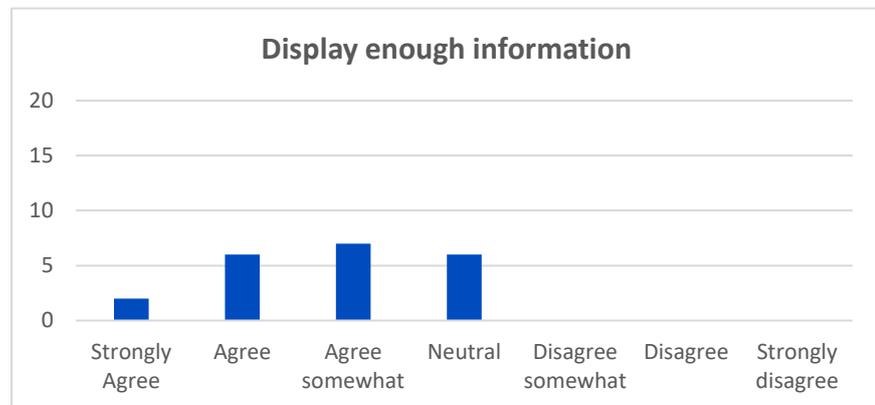


**FIGURE 93 - SOFIA. USEFUL FOR DAILY WORK**

***UMUX Questionnaire - Ease of use***

Display enough information	
	# Participants
Strongly Agree	2
Agree	6
Agree somewhat	7
Neutral	6
Disagree somewhat	0
Disagree	0
Strongly disagree	0

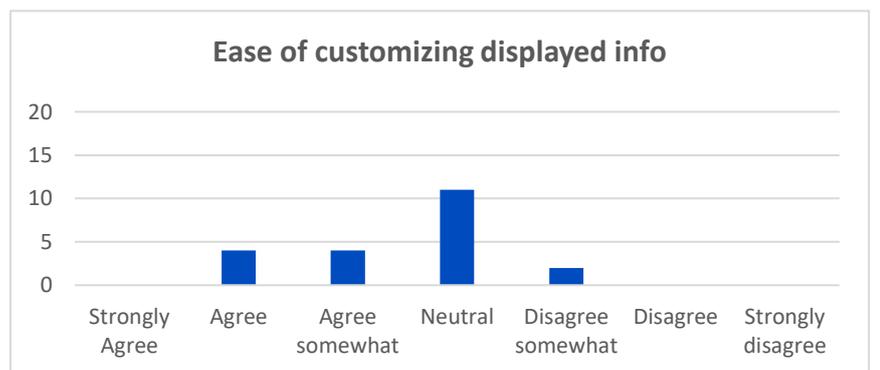
**TABLE 95 - SOFIA. DISPLAY ENOUGH INFORMATION**



**FIGURE 94 - SOFIA. DISPLAY ENOUGH INFORMATION.**

Ease of customizing displayed info	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	4
Neutral	11
Disagree somewhat	2
Disagree	0
Strongly disagree	0

**TABLE 96 - SOFIA. EASE OF CUSTOMIZING DISPLAYED INFO**



**FIGURE 95 - SOFIA. EASE OF CUSTOMIZING DISPLAYED INFO.**

Ease of reading displayed info	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	6
Neutral	9
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 97 - SOFIA. EASE OF READING DISPLAYED INFO

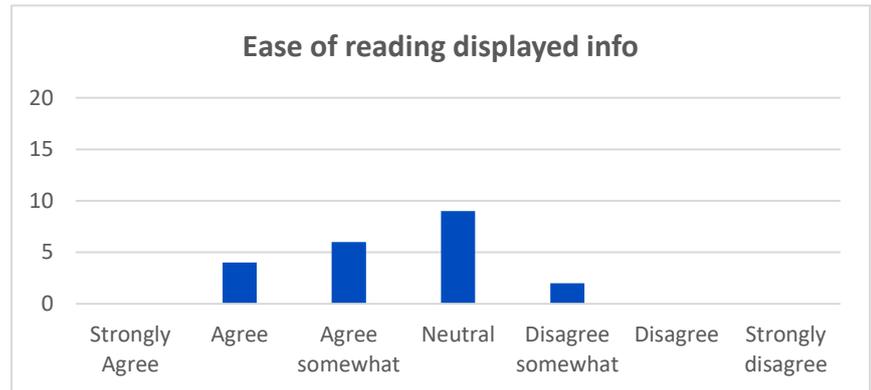


FIGURE 96 - SOFIA. EASE OF READING DISPLAYED INFO.

Clearness of messages	
	# Participants
Strongly Agree	0
Agree	6
Agree somewhat	4
Neutral	11
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 98 - SOFIA. CLEARNESS OF MESSAGES

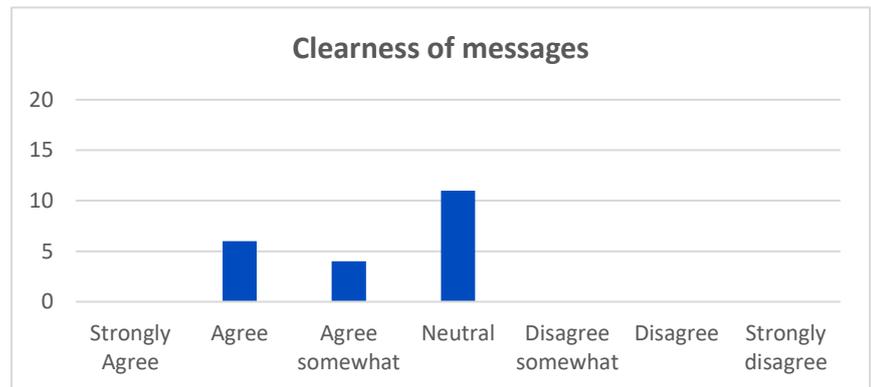


FIGURE 97 - SOFIA. CLEARNESS OF MESSAGES.

Ease of finding information	
	# Participants
Strongly Agree	2
Agree	9
Agree somewhat	6
Neutral	4
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 99 - SOFIA. EASE OF FINDING INFORMATION

Participation per gender	
	# Participants
Male	2
Female	3
Total	5

Training effort	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	21
Disagree somewhat	0
Disagree	0
Strongly disagree	0
NS/NC	0

TABLE 100 - SOFIA. TRAINING EFFORT

**How to improve the tool**

- They need to receive a clear idea of all the available functionalities in order to propose something.
- The general opinion is positive.
- People are interested in the data processing and analysis capabilities and how they will be used for the optimisation of policies and the creation of new ones.
- It would be useful that the platform will be available in Bulgarian.

## 6.4 Use Case 4. Predictive analysis towards unemployment risks identification and policy making (London)

Preliminary questions

FIGURE 98 - SOFIA. EASE OF FINDING INFORMATION.



FIGURE 99 - SOFIA. TRAINING EFFORT.

Participation per gender



FIGURE 100 - LONDON. PARTICIPATION PER GENDER.

TABLE 101 - LONDON. PARTICIPATION PER GENDER

Years of experience	
	# Participants
<= 1 year	0
2 -5 years	3
6 -10 years	1
> 10 years	1

TABLE 102 - LONDON. YEARS OF EXPERIENCE



FIGURE 101 - LONDON. YEARS OF EXPERIENCE.

Role in organization	
Role	# Participants
Policy Makers	1
Data Analyst	2
Domain Expert	0
Consultant	0
Other	2

TABLE 103 - LONDON. ROLE IN ORGANIZATION

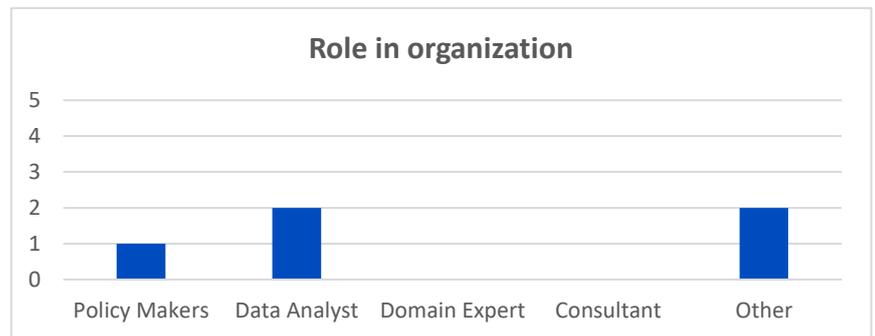


FIGURE 102 - LONDON. ROLE IN ORGANIZATION.

Resolving questions	
	#Participants
Peers	4
Team Members	5
Professional group	0
Digital Platform	1
Look in Internet	5
Other	0

TABLE 104 - LONDON. RESOLVING QUESTIONS

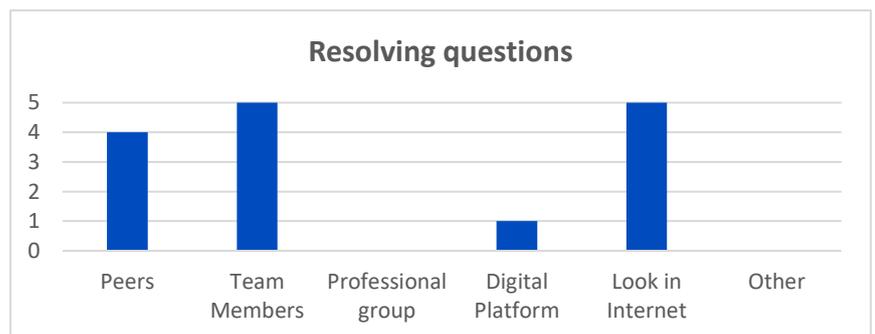


FIGURE 103 - LONDON. RESOLVING QUESTIONS.

Experience with Digital Platforms	
	# Participants
Not at all	1
Relatively few	0
More or les	1
Quite a lot	3
Very much	0

TABLE 105 - LONDON. EXPERIENCE WITH DIGITAL PLATFORMS

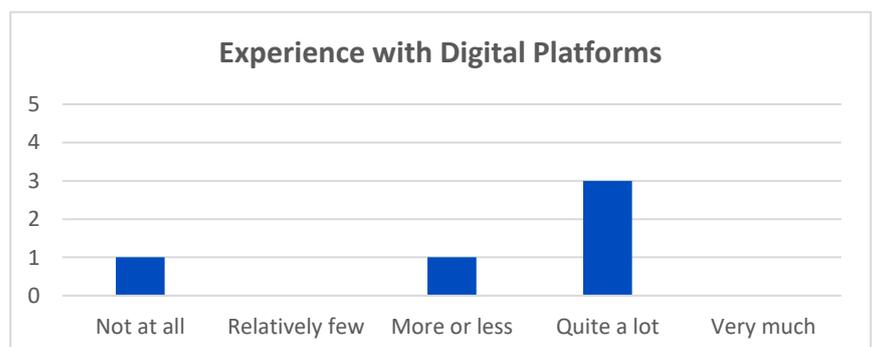


FIGURE 104 - LONDON. EXPERIENCE WITH DIGITAL PLATFORMS.

### ***Requirement evaluation***

### **What are the most common problems policy makers face in their daily operation?**

- Lack of data or not being able to find relevant data of good quality.
- Impacting policy is difficult, not only because of the challenges translating research into policy-speak but also because of challenges inherent in the policymaking process itself.
- Lack of emphasis on prevention. There is ample evidence to show the scarring effects of life events such as adverse childhood experiences, persistent low income, family break-down or mental ill health. Policy interventions can feel like ‘whack-a-mole’, where a problem addressed in one area pops up elsewhere in a in a different guise at a later date.
- Having the relevant information presented in a way that makes them aware of the possible consequences of their decisions, and the future trajectory of the outcomes based on their decisions.
- Economic changes, legislation and decision making.
- Making it real - something that residents can see adds value, rather than just some nicely written theory.
- Lack of credibility with from line services.
- Pressure to turn things around very quickly – this should be a planned task, but often becomes reactive.

### **What is the information that lack policy makers in handling evidence-based policies?**

- Incomplete, biased, or incorrect datasets can lead to poor decision making, and even if these are taken care of data can often be visualised poorly so that those reading it doesn’t understand it fully.
- Telling the story behind the data.
- Resident insight.
- Front line services insight.
- Qualitative as well as quantitative info.

### **Opinion about creating an online platform to support policy makers**

- It would be great to enable those without data analysis skills to do basic data visualizations.
- Evidenced based decision-making capabilities.
- Shared open data visualised in a way that is consistent and user friendly would allow policy makers to have a deeper understanding of the impact of their decisions.
- The online platform would support policy makers monitor trends through the usage of visual analytics which will aid in decision making.
- Allow others to post comments.
- Allow some kind of surveys.
- Some equalities breakdowns of data.
- More comparison between teams and services.

***PolicyCLOUD Platform evaluation***

Ease of use	
	# Participants
Very easy	0
Moderately easy	1
Slightly easy	4
Not at all easy	0

TABLE 106 - LONDON. EASE OF USE

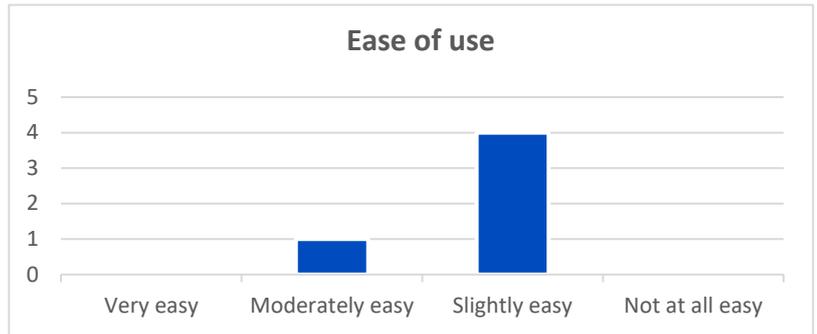


FIGURE 105 - LONDON. EASE OF USE.

User-friendliness	
	# Participants
Very user-friendly	0
Moderately user-friendly	1
Slightly user-friendly	3
Not at all user-friendly	1

TABLE 107 - LONDON. USER-FRIENDLINESS

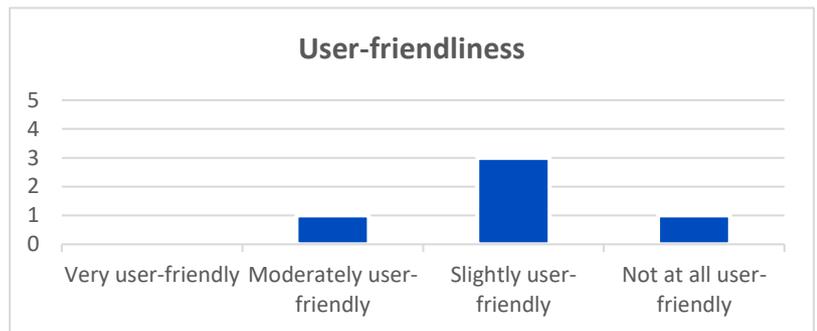


FIGURE 106. LONDON. USER-FRIENDLINESS.

Successful performing tasks	
	# Participants
Very successful	0
Moderately successful	1
Slightly successful	1
Not at all successful	0
Too early to say	3

TABLE 108 - LONDON. SUCCESSFUL PERFORMING TASKS

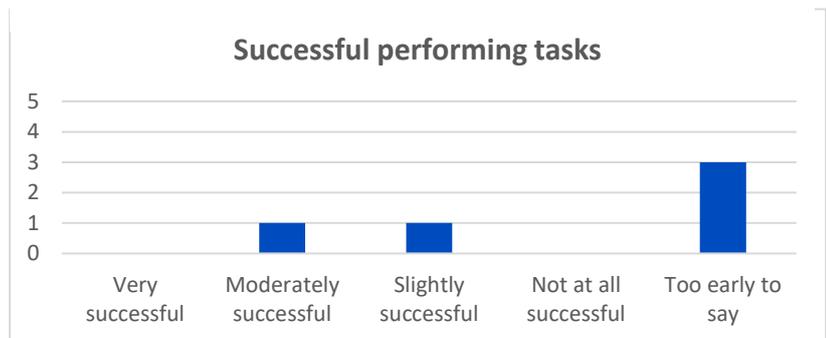


FIGURE 107 - LONDON. SUCCESSFUL PERFORMING TASKS.

Performance	
	# Participants
Very satisfied	0
Moderately satisfied	1
Slightly satisfied	2
Not at all satisfied	0
NS/NC	2

TABLE 109 - LONDON. PERFORMANCE

Recommendation	
	# Participants
Very likely	
Moderately likely	
Slightly likely	3
Not at all likely	
NS/NC	2

TABLE 110 - LONDON. RECOMMENDATION

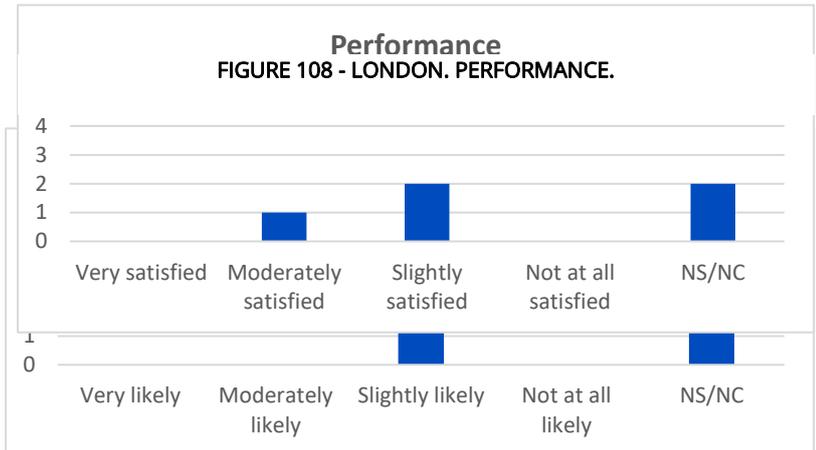


FIGURE 109 - LONDON. RECOMMENDATION.

### Improvements for PolicyCLOUD platform

- The user interface needs to be friendlier.
- More mapping options for data visualisation.
- An interactive presentation through a demo version would have been better.
- Better labelling of the visualisations would make them easier to understand. It took quite a bit of investigation to understand what they were displaying and someone with less experience with using data visualisation platforms would struggle even more.
- Ensuring the sites connection is secured by an SSL certificate.
- More local comparison.
- Difficult to say.

### Policy evaluation

Ease of policies creation	
	# Participants
Very easy	0
Moderately easy	0
Slightly easy	2
Not at all easy	0
Other	3

TABLE 111 - LONDON. EASE OF POLICIES CREATION

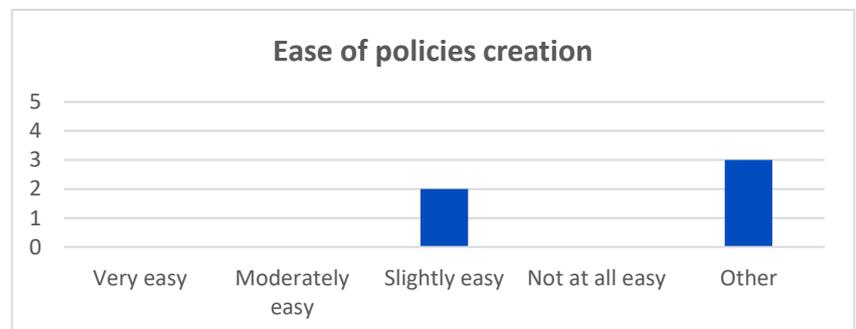


FIGURE 110 - LONDON. EASE OF POLICIES CREATION.

Ease of KPIs definition	
	# Participants
Very easy	0
Moderately easy	1
Slightly easy	2
Not at all easy	0

NA	2
----	---

TABLE 112 - LONDON. EASE OF KPIS DEFINITION

Ease of KPIS evaluation	
	# Participants
Very easy	
Moderately easy	2
Slightly easy	1
Not at all easy	
NA	3

TABLE 113 - LONDON. EASE OF KPIS EVALUATION

Clarity of results	
	# Participants
Very clear	1
Moderately clear	1
Slightly clear	2
Not at all clear	0

TABLE 114 - LONDON. CLARITY OF RESULTS



FIGURE 111 - LONDON. EASE OF KPIS DEFINITION.

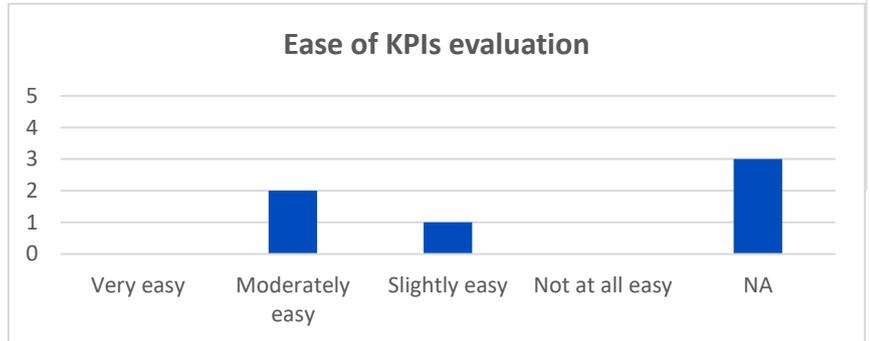


FIGURE 112 - LONDON. EASE OF KPIS EVALUATION.

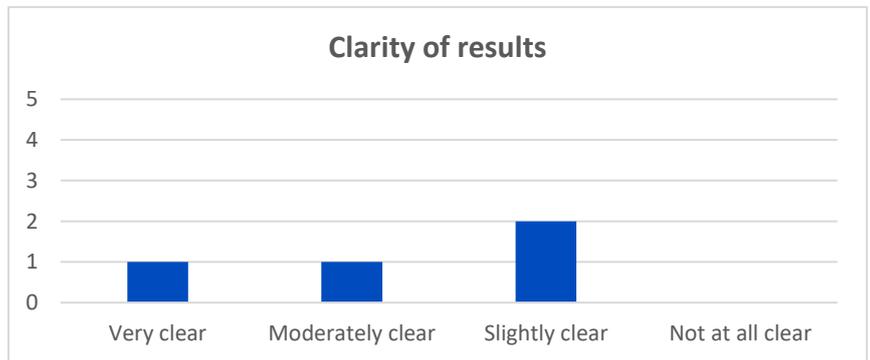


FIGURE 113 - LONDON. CLARITY OF RESULTS.

***UMUX Questionnaire - Scenario evaluation***

Meeting <u>my</u> requirements	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	4
Disagree somewhat	1
Disagree	0
Strongly disagree	0

TABLE 115 - LONDON. MEETING MY REQUIREMENTS

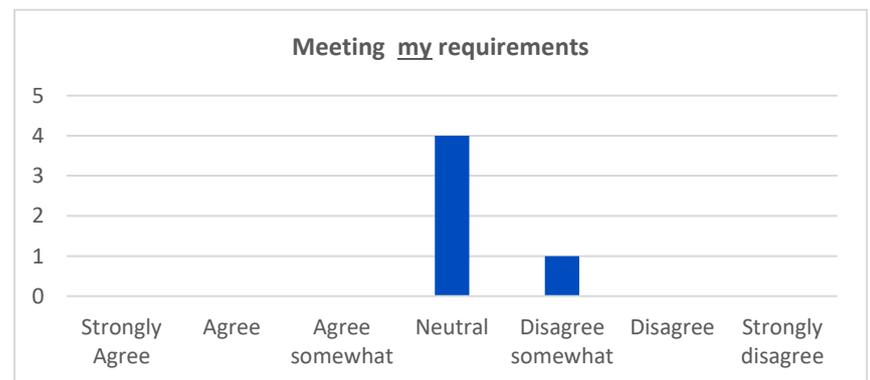


FIGURE 114 - LONDON. MEETING MY REQUIREMENTS.

Frustrating experience	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	1
Neutral	2
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 116 - LONDON. FRUSTRATING EXPERIENCE

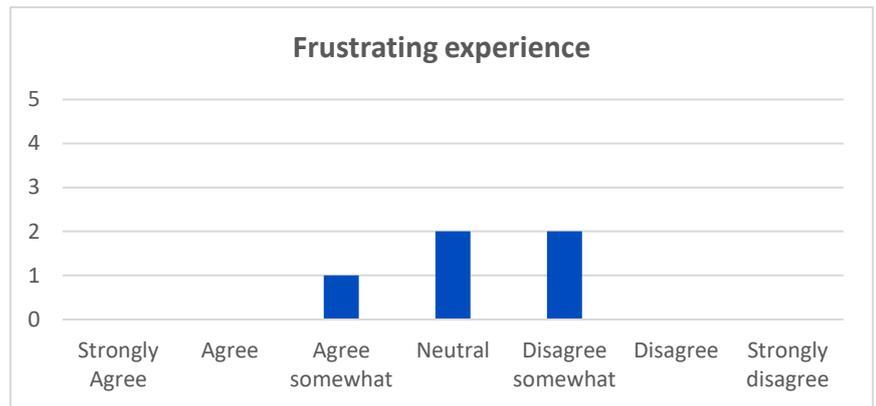


FIGURE 115 - LONDON. FRUSTRATING EXPERIENCE.

Ease of use	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	1
Neutral	2
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 117 - LONDON. EASE OF USE

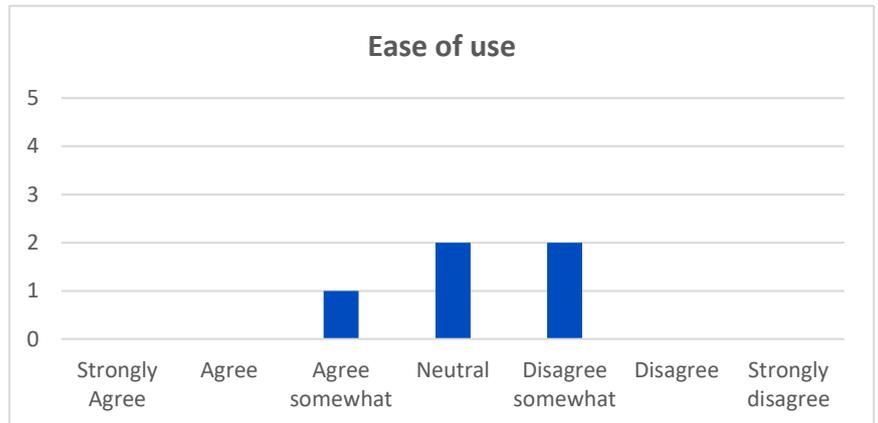


FIGURE 116 - LONDON. EASE OF USE.

Too much time correcting things	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	4
Disagree somewhat	0
Disagree	1
Strongly disagree	0

TABLE 118 - LONDON. TOO MUCH TIME CORRECTING THINGS

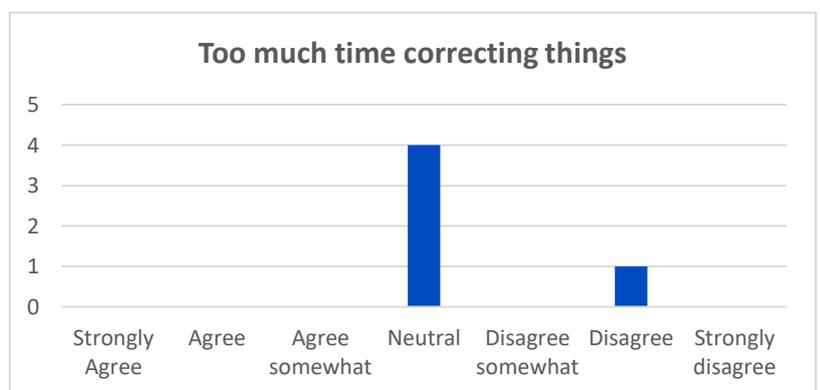


FIGURE 117 - LONDON. TOO MUCH TIME CORRECTING THINGS.

Useful daily operations	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	1
Neutral	4
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 119 - LONDON. USEFUL DAILY OPERATIONS

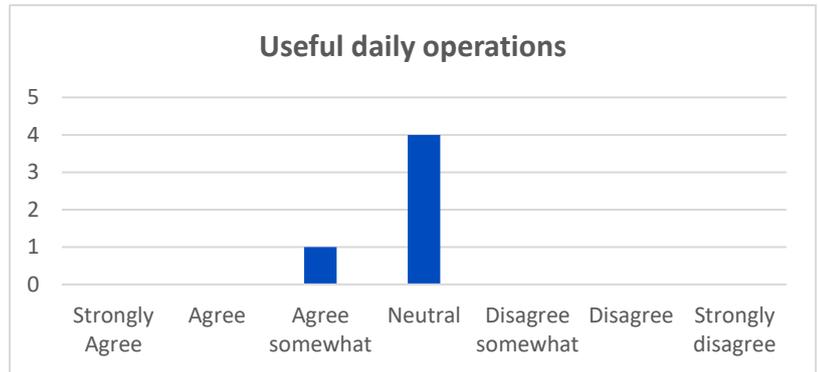


FIGURE 118 - LONDON. USEFUL DAILY OPERATIONS.

Decreasing of Workload	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	5
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 120 - LONDON. DECREASING OF WORKLOAD

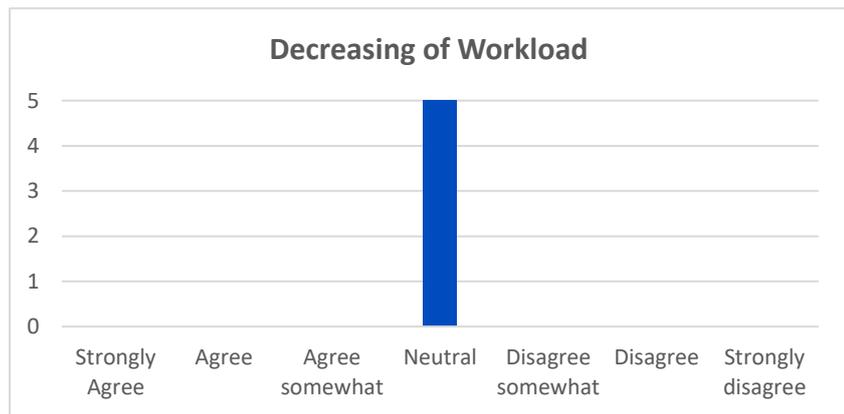


FIGURE 119 - LONDON. DECREASING OF WORKLOAD.

Improvement of abilities	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	2
Neutral	3
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 121 - LONDON. IMPROVEMENT OF ABILITIES

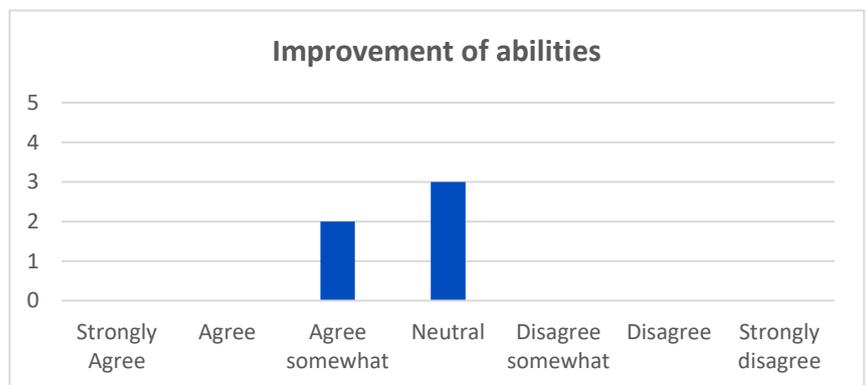


FIGURE 120 - LONDON. IMPROVEMENT OF ABILITIES.

Improvement of new ways to do job	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	2
Neutral	3
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 122 - LONDON. IMPROVEMENT OF NEW WAYS TO DO JOB

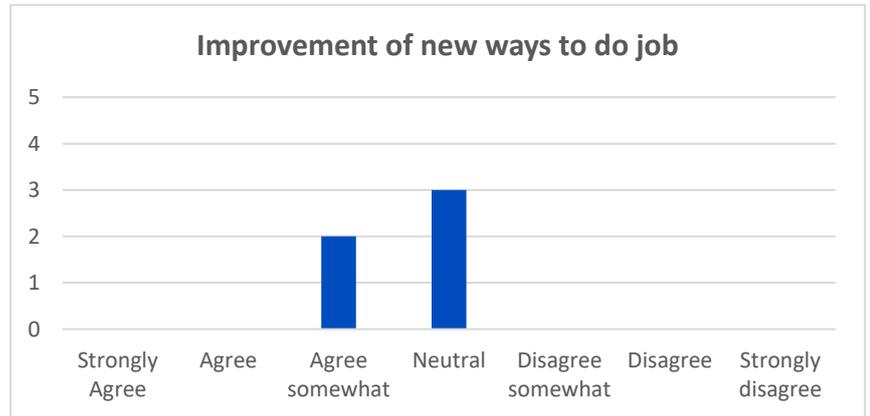


FIGURE 121 - LONDON. IMPROVEMENT OF NEW WAYS TO DO JOB.

Better overview of the Workflow	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	1
Neutral	3
Disagree somewhat	1
Disagree	0
Strongly disagree	0

TABLE 123 - LONDON. BETTER OVERVIEW OF THE WORKFLOW

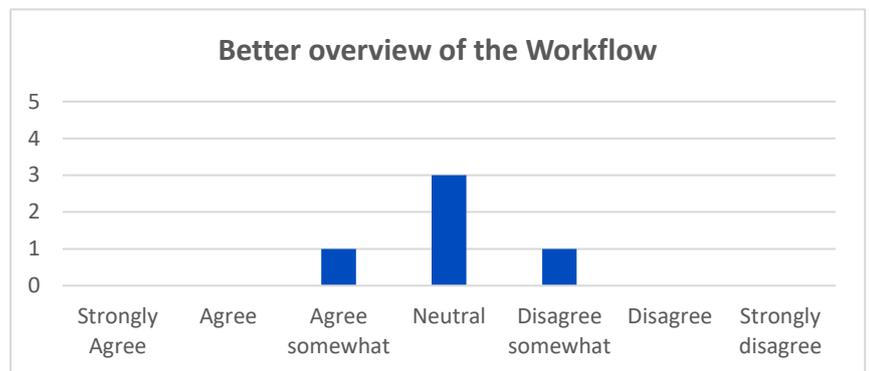


FIGURE 122 - LONDON. BETTER OVERVIEW OF THE WORKFLOW.

Improvement of situational awareness	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	5
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 124 - LONDON. IMPROVEMENT OF SITUATIONAL AWARENESS

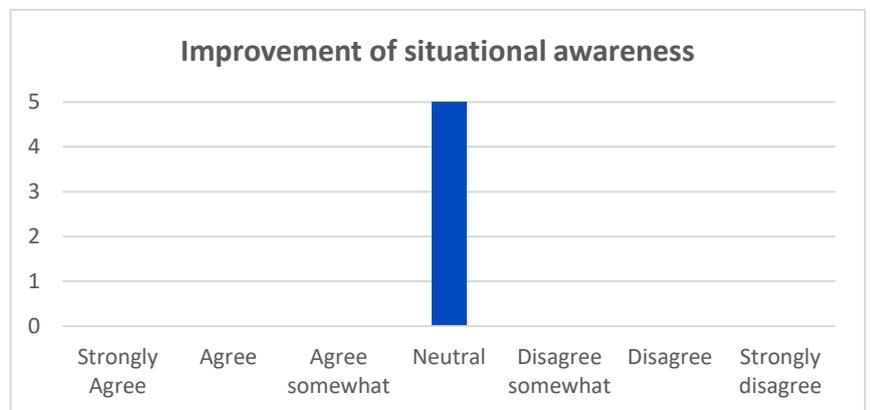


FIGURE 123 - LONDON. IMPROVEMENT OF SITUATIONAL AWARENESS.

Useful for daily work	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	5
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 125 - LONDON. USEFUL FOR DAILY WORK

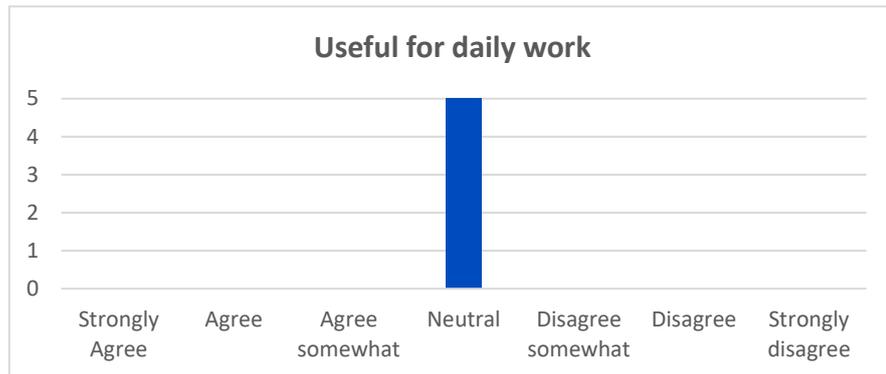


FIGURE 124 - LONDON. USEFUL FOR DAILY WORK.

**UMUX Questionnaire - Ease of use**

Display enough information	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	1
Neutral	3
Disagree somewhat	1
Disagree	0
Strongly disagree	0

TABLE 126 - LONDON. DISPLAY ENOUGH INFORMATION

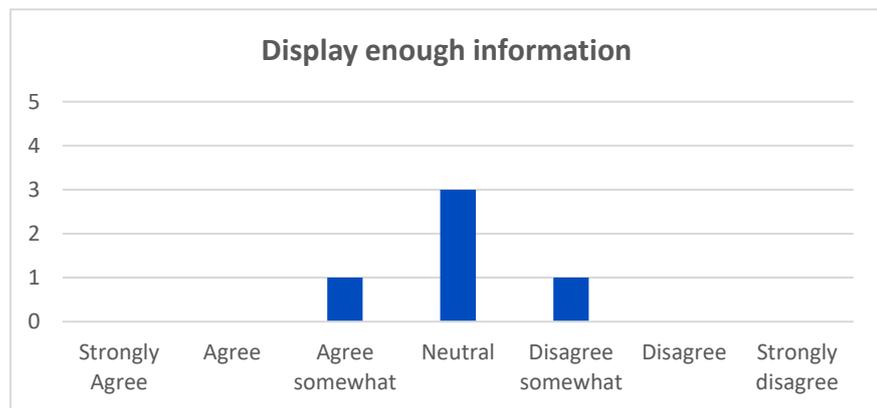


FIGURE 125 - LONDON. DISPLAY ENOUGH INFORMATION.

Ease of customizing displayed info	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	2
Neutral	3
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 127 - LONDON. EASE OF CUSTOMIZING DISPLAYED INFO

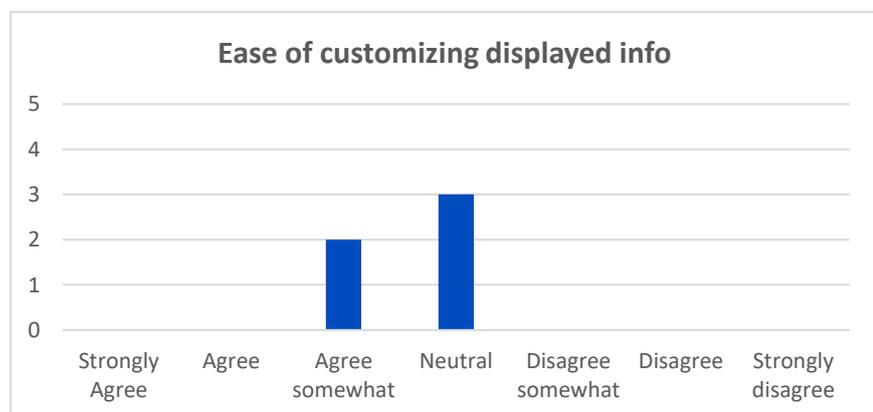


FIGURE 126 - LONDON. EASE OF CUSTOMIZING DISPLAYED INFO.

Ease of reading displayed info	
	# Participants
Strongly Agree	0
Agree	1
Agree somewhat	1
Neutral	3
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 128 - LONDON. EASE OF READING DISPLAYED INFO

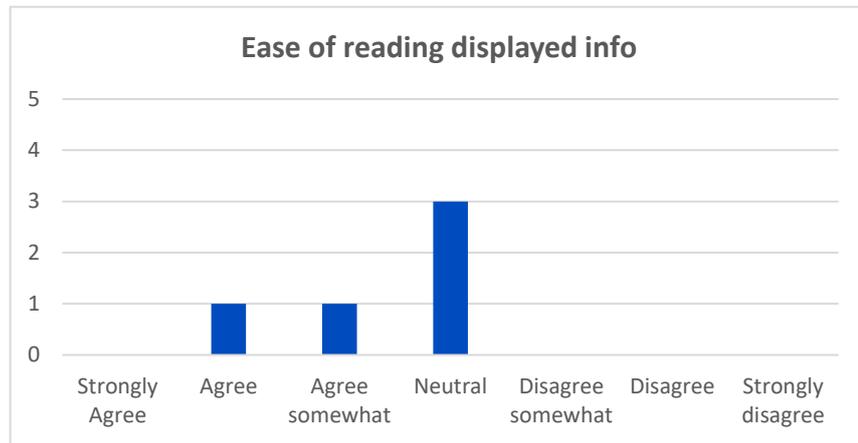


FIGURE 127 - LONDON. EASE OF READING DISPLAYED INFO.

Clearness of messages	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	1
Neutral	2
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 129 - LONDON. CLEARNESS OF MESSAGES

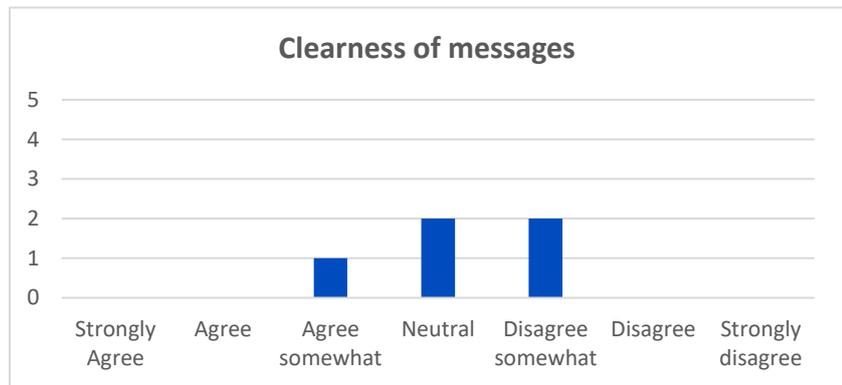


FIGURE 128 - LONDON. CLEARNESS OF MESSAGES.

Ease of finding information	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	1
Neutral	2
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 130 - LONDON. EASE OF FINDING INFORMATION

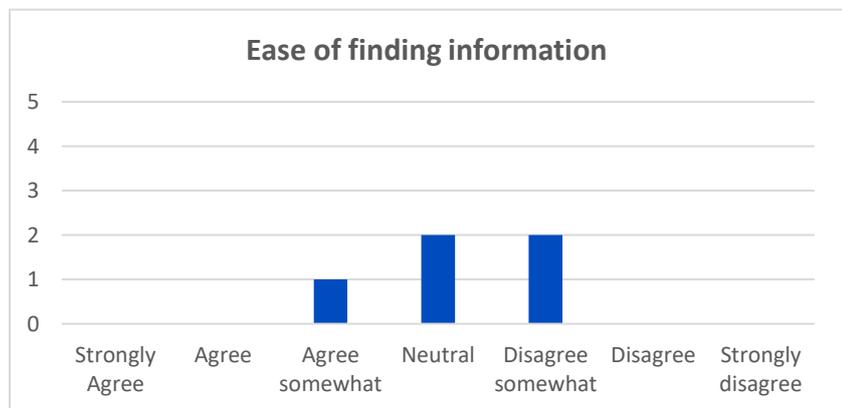


FIGURE 129 - LONDON. EASE OF FINDING INFORMATION.

Training effort	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	1
Neutral	2
Disagree somewhat	2
Disagree	0
Strongly disagree	0
NS/NC	0

TABLE 131 - LONDON. TRAINING EFFORT



FIGURE 130 - LONDON. TRAINING EFFORT.

### How to improve the tool

- Better labelling of tables, more appropriate visualisations, and a more user-friendly set of tools to help the user to understand what they can do with the visualisations and the data they are seeing.
- Incorporating more tooltips/explanation for first time users will improve the overall user experience.

## 6.5 Summary

### Preliminary questions

Participation per gender	
	# Participants
Male	27
Female	28
Total	55

TABLE 132 - PARTICIPATION PER GENDER

Years of experience	
	# Participants
<= 1 year	6
2 -5 years	16
6 -10 years	17
> 10 years	17

TABLE 133 - YEARS OF EXPERIENCE

Role in organization	
Role	# Participants
Policy Makers	16
Data Analyst	12
Domain Expert	18
Consultant	2
Other	8

TABLE 134 - ROLE IN ORGANIZATION

Resolving questions	
	#Participants
Peers	28
Team Members	17
Professional group	3
Digital Platform	2
Look in Internet	16
Other	

TABLE 135 - RESOLVING QUESTIONS

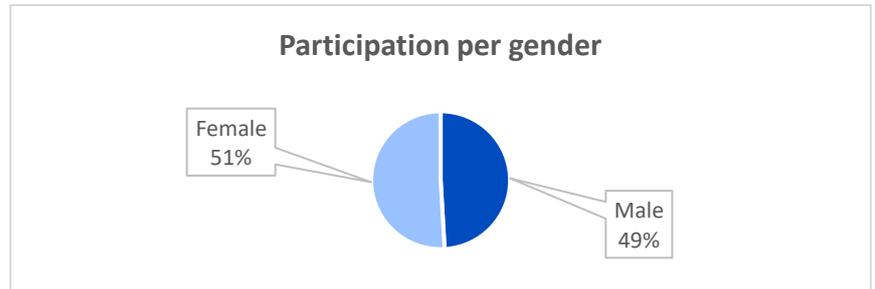


FIGURE 131 - PARTICIPATION PER GENDER.

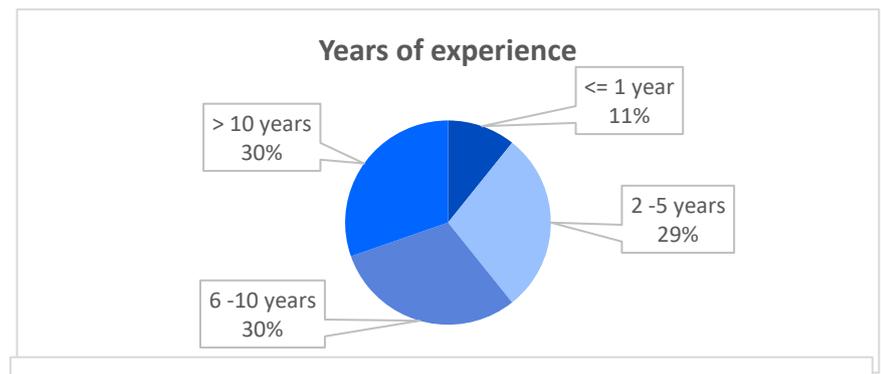


FIGURE 132 - YEARS OF EXPERIENCE.

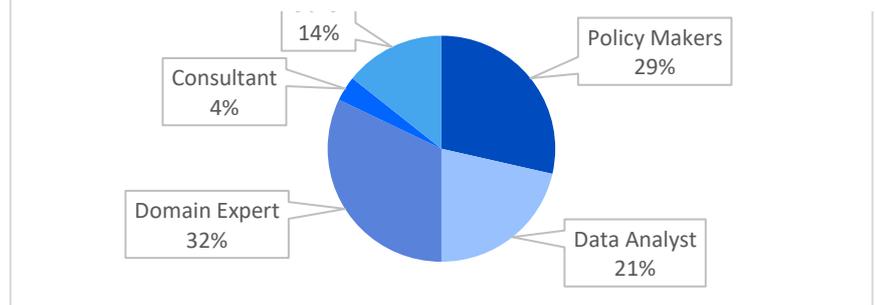


FIGURE 133 - ROLE IN ORGANIZATION.

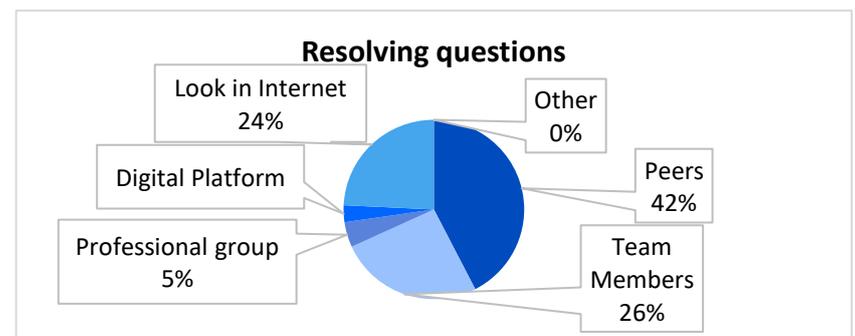
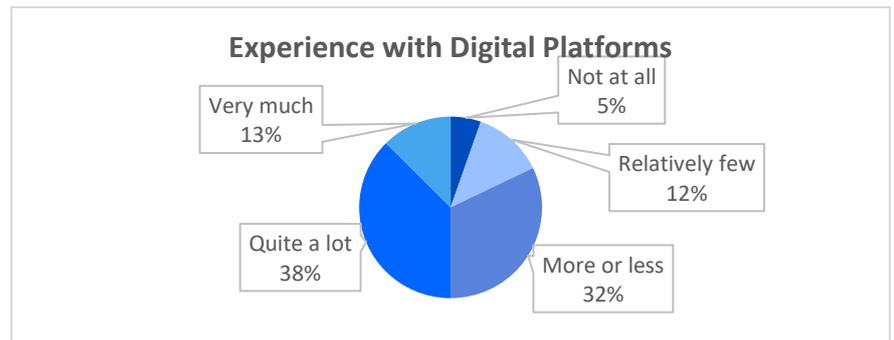


FIGURE 134 - RESOLVING QUESTIONS.

Experience with Digital Platforms	
	# Participants
Not at all	3
Relatively few	7
More or les	18
Quite a lot	21
Very much	7

**TABLE 136 - EXPERIENCE WITH DIGITAL PLATFORMS**



**FIGURE 135 - EXPERIENCE WITH DIGITAL PLATFORMS.**

**Requirement evaluation**

**What are the most common problems policy makers face in their daily operation?**

Most participants agree that the main problems they face are lack of data, inaccurate data and lack of standards. This is a major barrier to implementing new policies in any field. In addition, data is decentralised and fragmented and very difficult to access. All this makes the quality of data very low and unreliable.

There is also a significant lack of coordination on the part of the main stakeholders and entities involved in the generation of these policies. On the other hand, there is also a lack of emphasis on prevention; measures are taken once the problems have already arisen.

All this policy making should be more transparent for the target public/citizens concerned.

**What is the information that lack policy makers in handling evidence-based policies?**

Data are not always available in standard formats, nor are they centralised. It would be interesting to provide a single point of access to the data shared among all the entities that make use of it.

Having the data represented graphically would help to better understand the information, analyse and process it and draw conclusions.

The context in which the data is being collected should also be available to assist in decision making. It is important to tell the story behind the data.

Data quality used to be very low, so it is difficult to make a proper analysis.

Policy maker would like to have tools that provide them trend analysis in order to allow them creating better policies.

**Opinion about creating an online platform to support policy makers**

The creation of an online platform to support policy making would be beneficial and should contain the following features:

- Advanced data analysis and visualisation techniques.
- Integration of data from different data sources together with the possibility of sharing data between different stakeholders.
- Use of filters according to the specific needs of a policy.
- Ability to synthesise data, compare data, stratify data.
- Being able to extract the story behind the data.
- Use of Machine Learning techniques, artificial intelligence, and semantic analysis.
- Evidenced based decision-making capabilities
- Use of visual analytics to aid decision making.

**PolicyCLOUD Platform evaluation**

Ease of use	
	# Participants
Very easy	10
Moderately easy	33
Slightly easy	11
Not at all easy	2

TABLE 137 - EASE OF USE

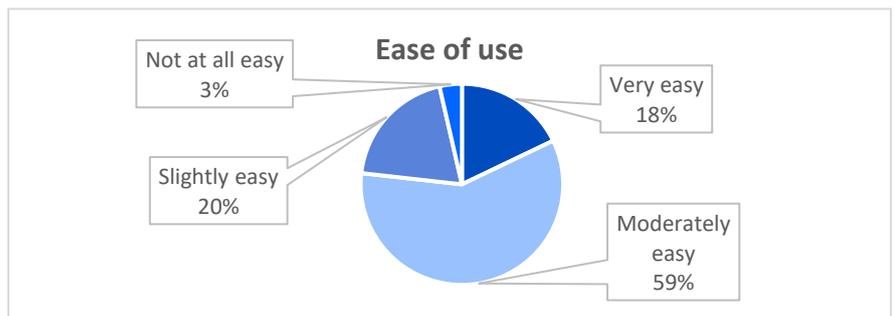


FIGURE 136 – EASE OF USE.

User-friendliness	
	# Participants
Very user-friendly	9
Moderately user-friendly	33
Slightly user-friendly	11
Not at all user-friendly	3

TABLE 138 - USER-FRIENDLINESS

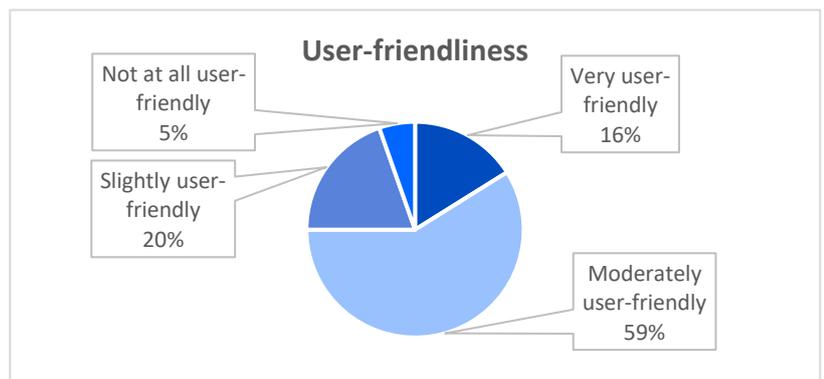


FIGURE 137 – USER-FRIENDLINESS.

Successful performing tasks	
	# Participants
Very successful	5
Moderately successful	24
Slightly successful	10
Not at all successful	6
Too early to say	11

TABLE 139 - SUCCESSFUL PERFORMING TASKS



FIGURE 138 – SUCCESSFUL PERFORMING TASKS.

Performance	
	# Participants
Very satisfied	10
Moderately satisfied	35
Slightly satisfied	9
Not at all satisfied	0
NA	2

TABLE 140 - PERFORMANCE

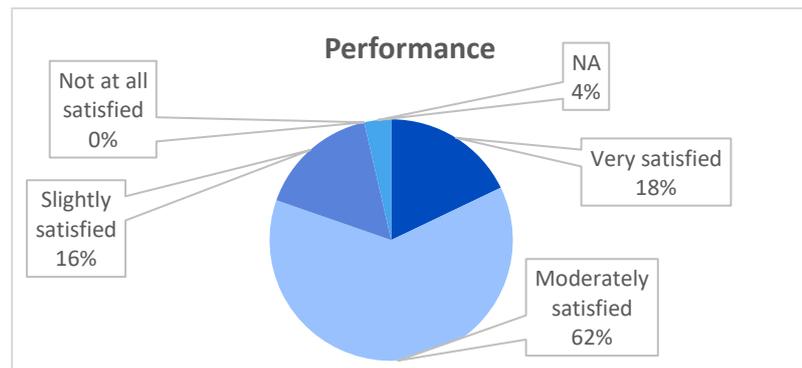


FIGURE 139 - PERFORMANCE.

Recommendation	
	# Participants
Very likely	18
Moderately likely	20
Slightly likely	13
Not at all likely	2
NA	2

TABLE 141 - RECOMMENDATION

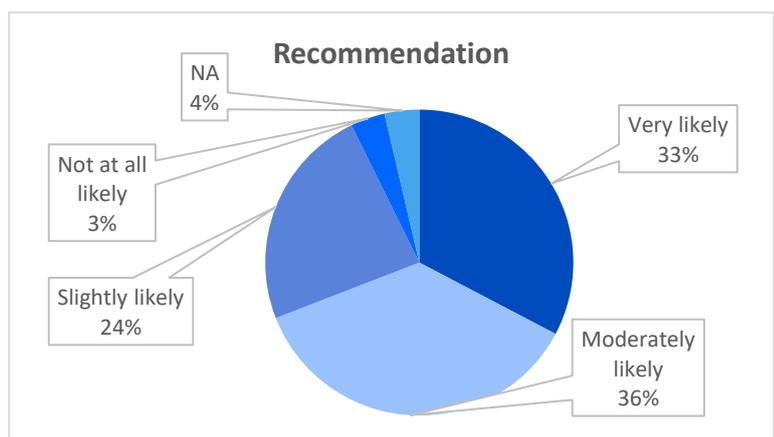


FIGURE 140 - RECOMMENDATION.

### Improvements for PolicyCLOUD platform

Many of the participants indicate that at this point it is very difficult for them to indicate how the platform could be improved, they indicate that if they could work with a demo version it would be easier.

That said, several actions for improvement are proposed by inquired people:

- Exporting results.
- Being able to have more than one graph or type of graph per scenario to be able to compare information
- Customisable graphs
- Better user experience, more user-friendly
- More space for the visualisation of the graphs
- Better labelling
- Data explicability

***Policy evaluation***

Easy to create Policies	
	# Participants
Very easy	5
Moderately easy	22
Slightly easy	19
Not at all easy	2
Other	8

TABLE 142 - EASE OF POLICIES CREATION

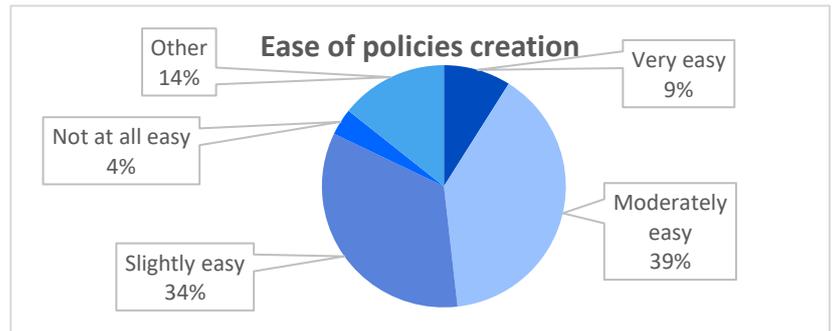


FIGURE 141 - EASE OF POLICIES CREATION.

Ease of KPIs definition	
	# Participants
Very easy	3
Moderately easy	16
Slightly easy	19
Not at all easy	5
NS/NC	3

TABLE 143 - EASE OF KPIS DEFINITION

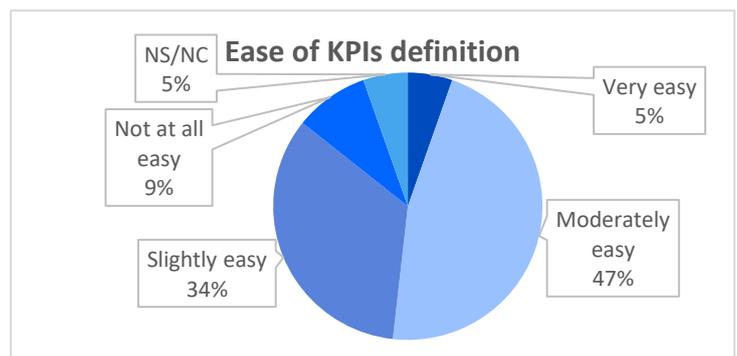


FIGURE 142 - EASE OF KPIS DEFINITION.

Ease of KPIs evaluation	
	# Participants
Very easy	8
Moderately easy	27
Slightly easy	16
Not at all easy	3
NS/NC	3

TABLE 144 - EASE OF KPIS EVALUATION

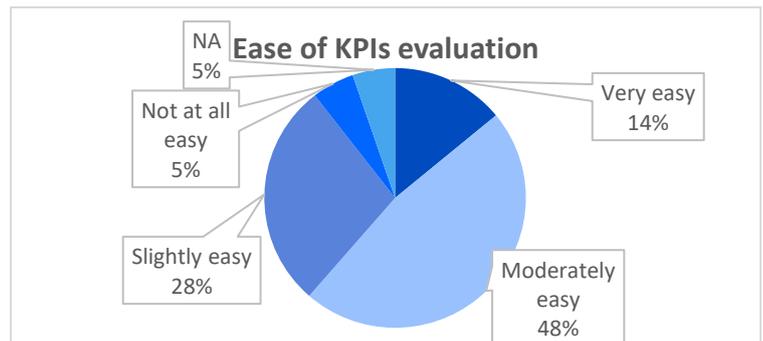


FIGURE 143 - EASE OF KPIS EVALUATION.

Clarity of results	
	# Participants
Very clear	13
Moderately clear	28
Slightly clear	13
Not at all clear	1

TABLE 145 - CLARITY OF RESULTS

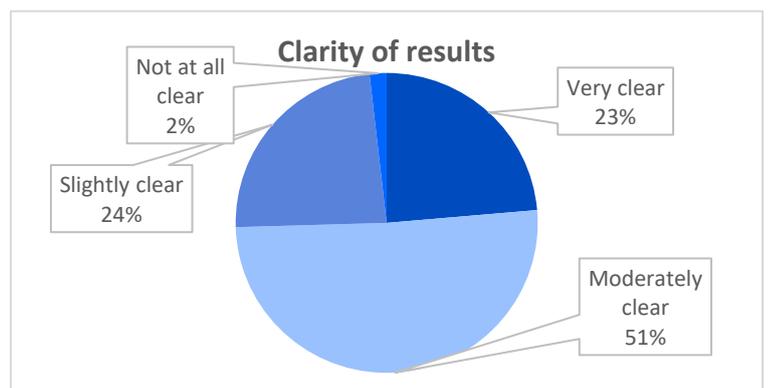


FIGURE 144 - CLARITY OF RESULTS.

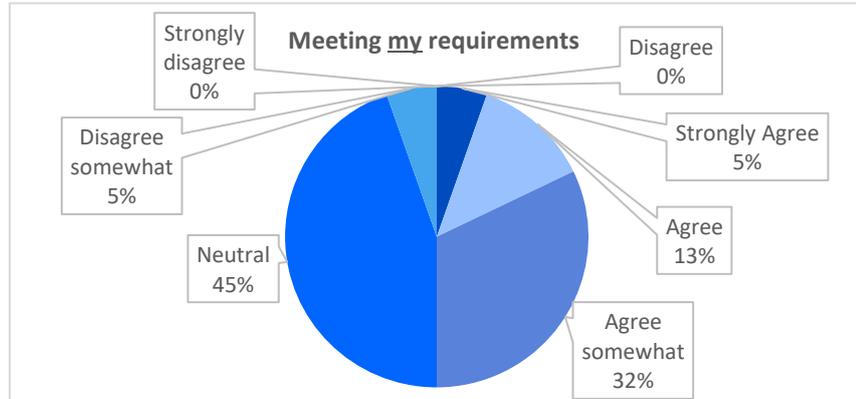
**Suggestions**

- Improving interaction with the graphical tool in order to build KPIs and study results.
- The result of policy analysis should be in the form of new graphs in which the values of a given type of problem are presented and compared before and after the action is taken by the administration.

***UMUX Questionnaire – Scenario evaluation***

Meeting my requirements	
	# Participants
Strongly Agree	3
Agree	7
Agree somewhat	18
Neutral	25
Disagree somewhat	3
Disagree	0
Strongly disagree	0

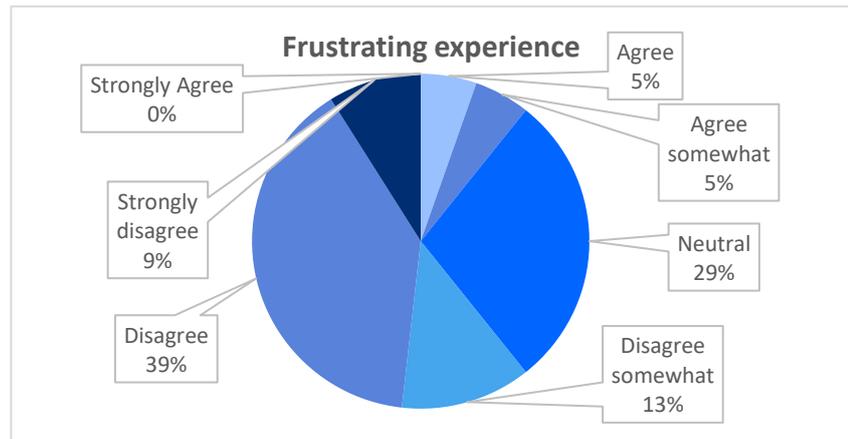
**TABLE 146 - MEETING MY REQUIREMENTS**



**FIGURE 145 - MEETING MY REQUIREMENTS.**

Frustrating experience	
	# Participants
Strongly Agree	0
Agree	3
Agree somewhat	3
Neutral	16
Disagree somewhat	7
Disagree	22
Strongly disagree	5

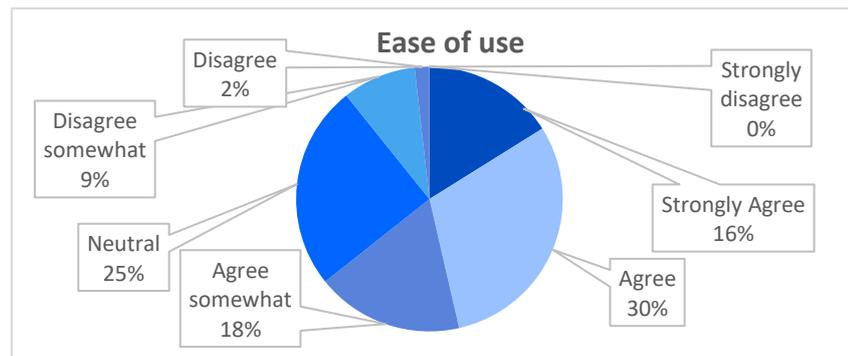
**TABLE 147 - FRUSTRATING EXPERIENCE**



**FIGURE 146 - FRUSTRATING EXPERIENCE.**

Ease of use	
	# Participants
Strongly Agree	9
Agree	17
Agree somewhat	10
Neutral	14
Disagree somewhat	5
Disagree	1
Strongly disagree	0

**TABLE 148 - EASE OF USE**



**FIGURE 147 - EASE OF USE.**

Too much time correcting things	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	3
Neutral	38
Disagree somewhat	0
Disagree	13
Strongly disagree	2

TABLE 149 - TOO MUCH TIME CORRECTING THINGS

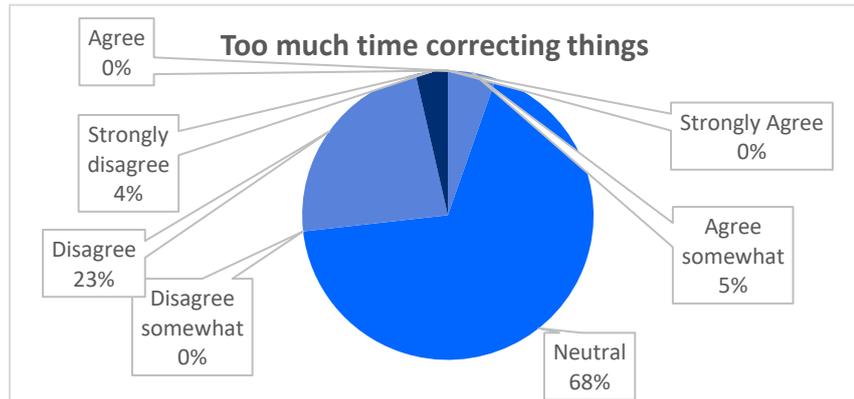


FIGURE 148 - TOO MUCH TIME CORRECTING THINGS.

Useful daily operations	
	# Participants
Strongly Agree	6
Agree	20
Agree somewhat	12
Neutral	16
Disagree somewhat	1
Disagree	1
Strongly disagree	0

TABLE 150 - USEFUL DAILY OPERATIONS

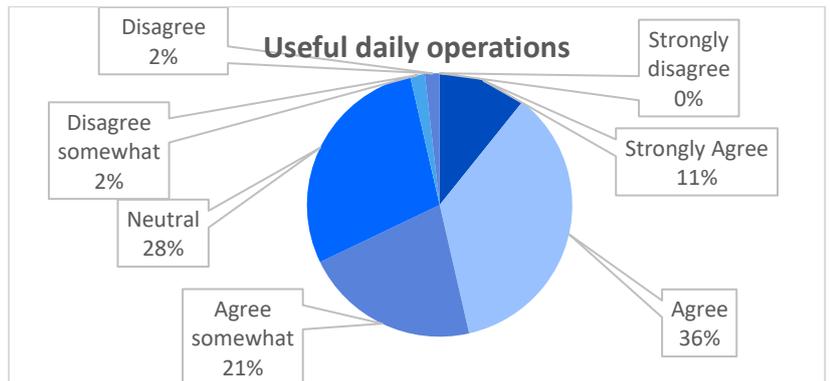


FIGURE 149 - USEFUL DAILY OPERATIONS.

Decreasing of workload	
	# Participants
Strongly Agree	7
Agree	8
Agree somewhat	9
Neutral	28
Disagree somewhat	3
Disagree	1
Strongly disagree	0

TABLE 151 - DECREASING OF WORKLOAD

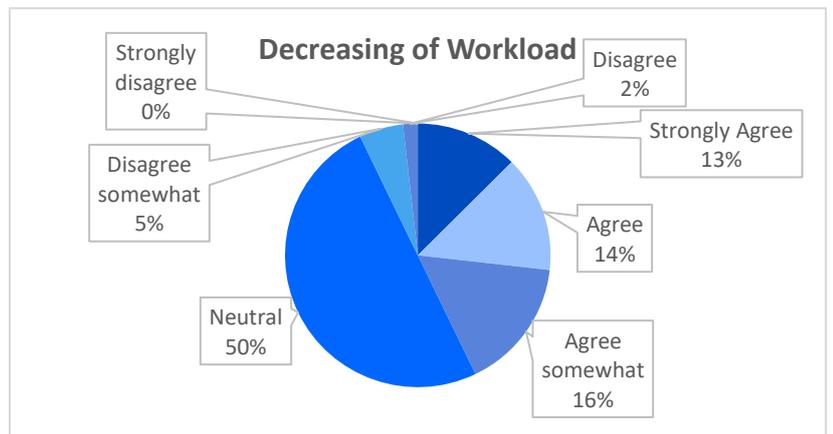


FIGURE 150 - DECREASING OF WORKLOAD.

Improvement of abilities	
	# Participants
Strongly Agree	8
Agree	9
Agree somewhat	12
Neutral	22
Disagree somewhat	2
Disagree	2
Strongly disagree	1

TABLE 152 - IMPROVEMENT OF ABILITIES

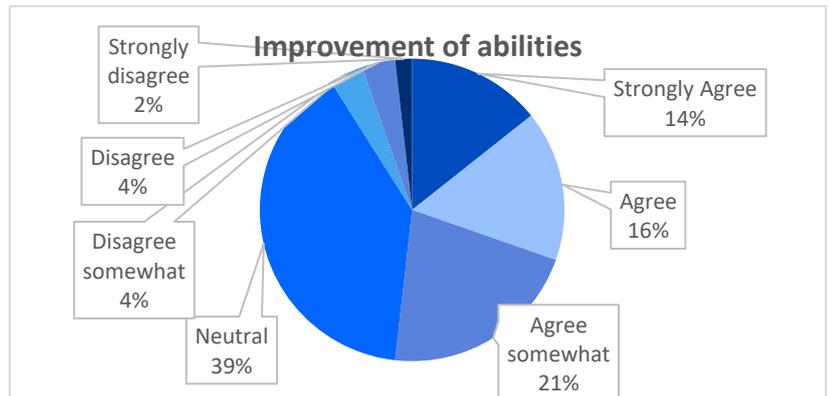


FIGURE 151 - IMPROVEMENT OF ABILITIES.

Improvement of new ways to do job	
	# Participants
Strongly Agree	12
Agree	6
Agree somewhat	9
Neutral	27
Disagree somewhat	1
Disagree	1
Strongly disagree	0

TABLE 153 - IMPROVEMENT OF NEW WAYS TO DO JOB

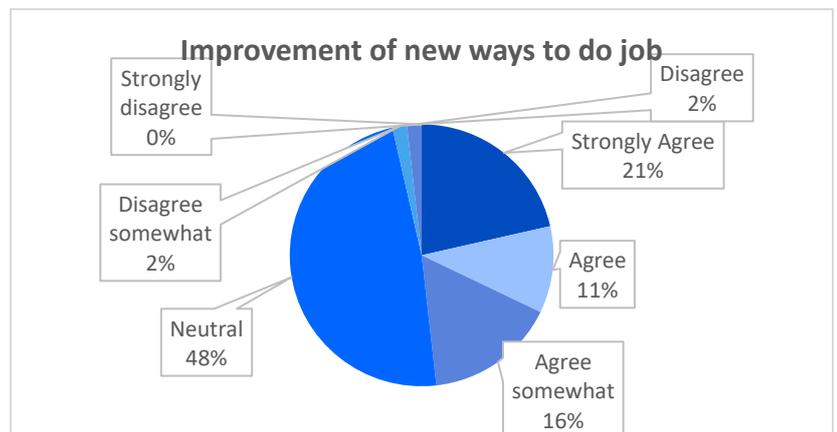


FIGURE 152 - IMPROVEMENT OF NEW WAYS TO DO JOB.

Better overview of the workflow	
	# Participants
Strongly Agree	9
Agree	7
Agree somewhat	10
Neutral	27
Disagree somewhat	2
Disagree	1
Strongly disagree	0

TABLE 154 - BETTER OVERVIEW OF THE WORKFLOW

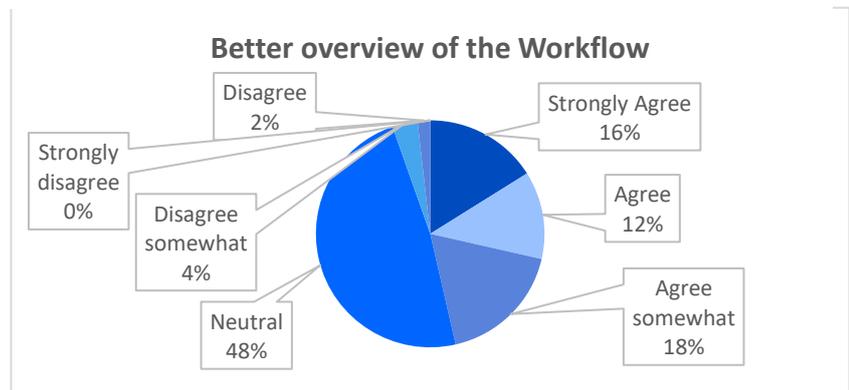


FIGURE 153 - BETTER OVERVIEW OF THE WORKFLOW.

Improvement of situational awareness	
	# Participants
Strongly Agree	6
Agree	19
Agree somewhat	10
Neutral	18
Disagree somewhat	1
Disagree	1
Strongly disagree	0

TABLE 155 - IMPROVEMENT OF SITUATIONAL AWARENESS

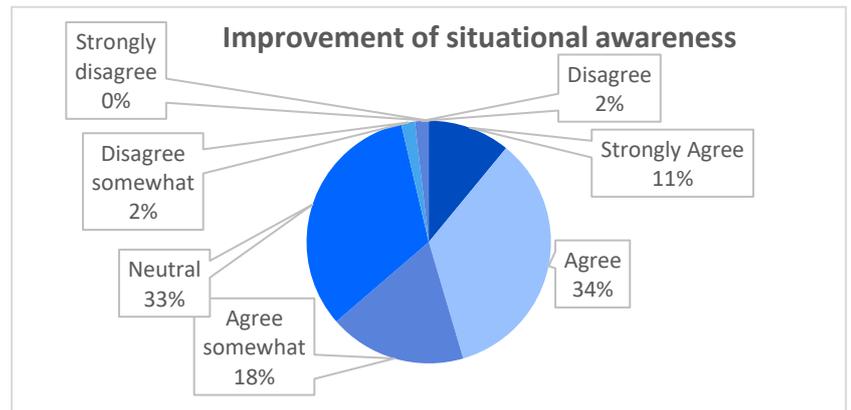


FIGURE 154 - IMPROVEMENT OF SITUATIONAL AWARENESS.

Useful for daily work	
	# Participants
Strongly Agree	16
Agree	12
Agree somewhat	6
Neutral	19
Disagree somewhat	2
Disagree	1
Strongly disagree	0

TABLE 156 - USEFUL FOR DAILY WORK

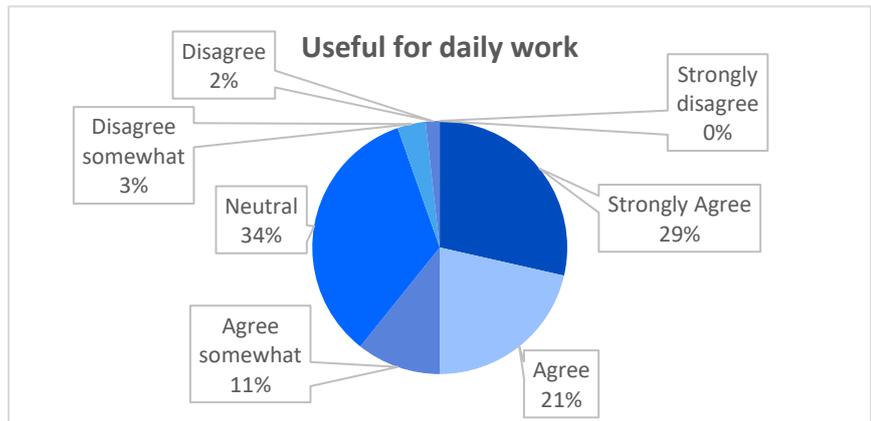


FIGURE 155 - USEFUL FOR DAILY WORK.

**UMUX Questionnaire - Ease of use**

Display enough information	
	# Participants
Strongly Agree	5
Agree	19
Agree somewhat	17
Neutral	15
Disagree somewhat	1
Disagree	0
Strongly disagree	0

TABLE 157 - DISPLAY ENOUGH INFORMATION

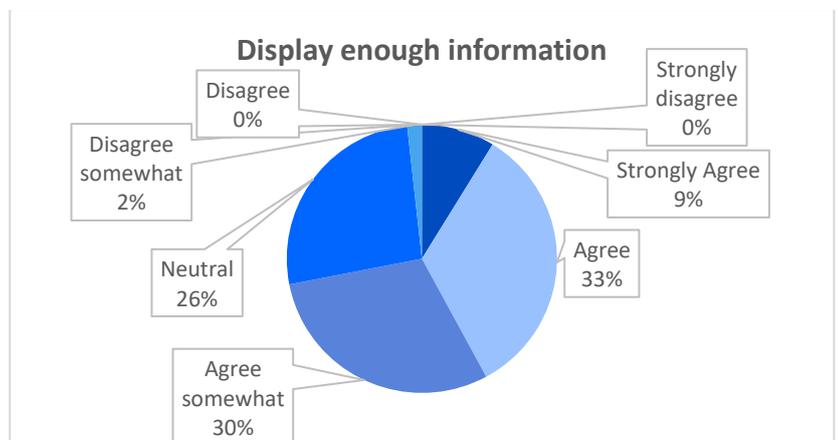


FIGURE 156 - DISPLAY ENOUGH INFORMATION.

Ease of customizing displayed info	
	# Participants
Strongly Agree	1
Agree	12
Agree somewhat	15
Neutral	25
Disagree somewhat	4
Disagree	0
Strongly disagree	0

TABLE 158 - EASE OF CUSTOMIZING DISPLAYED INFO

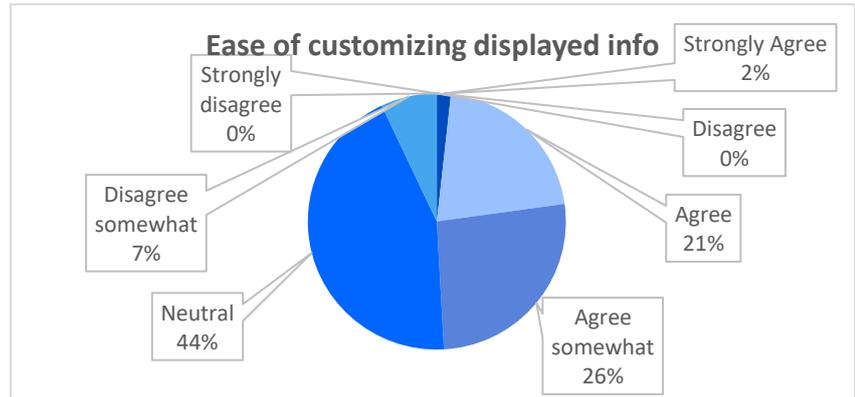


FIGURE 157 - EASE OF CUSTOMIZING DISPLAYED INFO.

Ease of reading displayed info	
	# Participants
Strongly Agree	8
Agree	11
Agree somewhat	13
Neutral	21
Disagree somewhat	4
Disagree	0
Strongly disagree	0

TABLE 159 - EASE OF READING DISPLAYED INFO

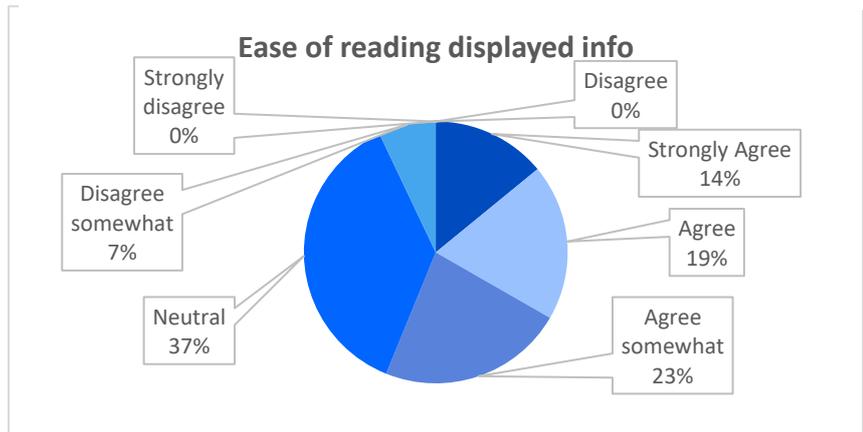


FIGURE 158 - EASE OF READING DISPLAYED INFO.

Clearness of messages	
	# Participants
Strongly Agree	7
Agree	15
Agree somewhat	9
Neutral	24
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 160 - CLEARNESS OF MESSAGES

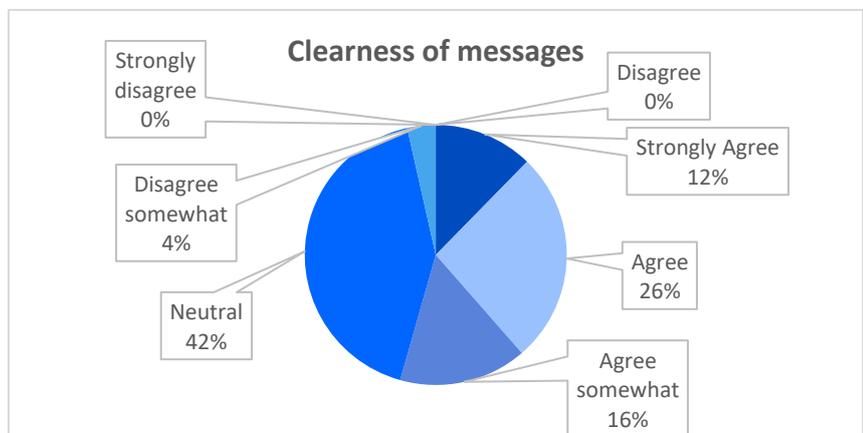


FIGURE 159 - CLEARNESS OF MESSAGES.

Ease of finding information	
	# Participants
Strongly Agree	4
Agree	25
Agree somewhat	15
Neutral	11
Disagree somewhat	2
Disagree	0
Strongly disagree	0

TABLE 161 - EASE OF FINDING INFORMATION

Training effort	
	# Participants
Strongly Agree	1
Agree	6
Agree somewhat	6
Neutral	30
Disagree somewhat	4
Disagree	8
Strongly disagree	0
NA	1

TABLE 162 - TRAINING EFFORT

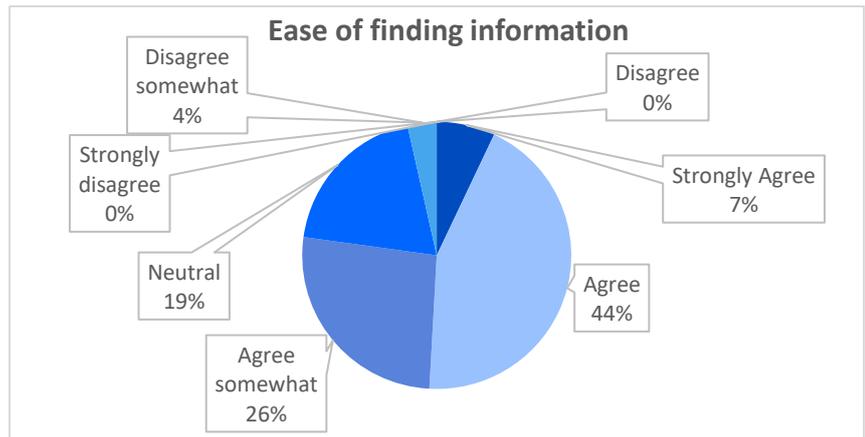


FIGURE 160 - EASE OF FINDING INFORMATION.

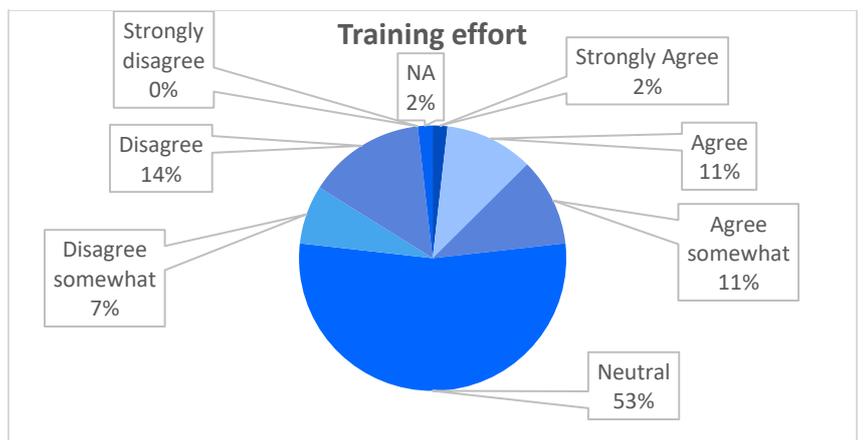


FIGURE 161 - TRAINING EFFORT.

### How to improve the tool

There are not many suggestions on how to improve the tool, this is because many of the participants expressed the need to see the platform more evolved and expressed the need to interact with it in order to draw their own conclusions.

Some of the proposals are:

- Translate the platform into the local language.
- Include more explanations and help for those using the tool for the first time.
- Allow more interaction with the end-user, so that they are able to build their own graphs.
- Better labelling of tables
- More user-friendly

## 7 Evaluation process (3<sup>rd</sup> year)

### 7.1 Introduction

Evaluation process has been reviewed during the 3<sup>rd</sup> year of the project and different questions have been added in the feedback questionnaire. The evaluation process has also been developed during the co-creation meeting held during the second part of the year 2022 for the different use cases. The information received from the different co-creation meetings at that time, has been described in deliverable 6.13 [13].

### 7.2 Structure of co-creation workshops

Quality Validation interventions are sessions aimed at presenting new improvements and scenarios in PDT toolkit to the policy makers so they will be able to determine whether the approach and progress/evolution is adequate for allowing policy choices to become more evidence-based and analytical. In essence, these evaluations are intended to determine whether the PolicyCLOUD toolkit is a valuable tool or not.

Methods uses in those sessions are:

- **Mockup validations**
- **PDT Toolkit Demos**
- **Survey**

During 2022, different tools have been implemented in order to facilitate the development of improved policies. The workshops follow the general structure below:

Slot	Description	Length
#1	<b>Welcoming</b>	5 min
#2	<b>Results of previous PolicyCLOUD co-creation workshop</b>	20 min
#3	<b>Presentation of the improvements made in the different scenarios</b>	60 min
#4	<b>Progress of the project</b> <ul style="list-style-type: none"> <li>• Challenges and difficulties</li> </ul>	30 min
#5	<b>Follow-up questionnaire</b> <ul style="list-style-type: none"> <li>• Feedback and recommendations</li> <li>• Evaluation (technical, business...)</li> </ul>	90 min
#6	<b>Wrap up and meeting closure</b> <ul style="list-style-type: none"> <li>• Summary and next steps</li> </ul>	5 min

TABLE 163 - GENERAL AGENDA CO-CREATION WORKSHOPS

## 7.3 Feedback questionnaire

The questionnaire used during the third year is similar to the Feedback questionnaire presented in section 5.3. These modifications are listed below:

Regarding the *policy evaluation* this question have been added:

Platform evaluation	
20.	What are the main difficulties encountered with the Policy Development Toolkit? Which tools could help in this process?

TABLE 164 - FEEDBACK QUESTIONNAIRE. POLICY EVALUATION.

Additionally, a chapter of final conclusions has been added to know what ideas emerge for the future projects.

ESCENARIO Final conclusions	
21.	What suggestions/recommendation for future projects?
22.	Does this project meet your expectations and what else would you expect from the tool?

TABLE 165 - FEEDBACK QUESTIONNAIRE. FINAL CONCLUSIONS.

## 8 Use case's results 3<sup>rd</sup> year

### 8.1 Overview

In this chapter the evaluation results of the different uses cases are presented. It is important to remark that London ended their participation of the project at the end of March of 2022, so no activity was carried out along the 3<sup>rd</sup> year of the project.

For the **use case 1 "Participatory policies against radicalization" (Maggioli)**, the third co-creation and evaluation workshop was held on 15<sup>th</sup> September 2022. Only one scenario was presented in this occasion, scenario A, radicalization incidents in the same way that in previous co-creation workshops.

The 4th co-creation and evaluation workshop was held on 25<sup>th</sup> November 2022 where the last implemented scenarios were presented.

Scenario B: Radicalized groups and individuals was modified and finally was implemented using Politika tool

Scenario C. Trend analysis on social media (synthetic data)

Scenario D: (Near)real-time assessment of online propaganda

For the **use case 2 "Intelligent policies for the development of agrifood industry" (Aragon)**, the third workshop was held on 17th June 2022 in Zaragoza. During the event, it was evaluated scenario A (Price evolution). First, Politika tool was explained and how this tool was linked to PDT tool. A first version over PDT tool of price evolution was presented.

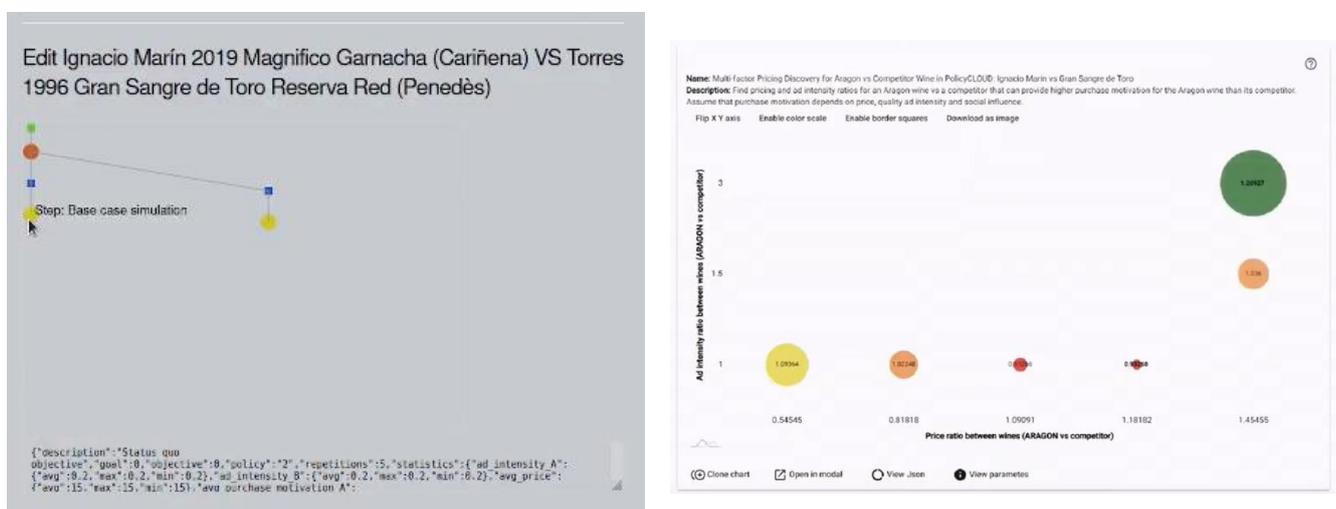


FIGURE 162 - ARAGON DEMO. POLITIKA GRAPH.

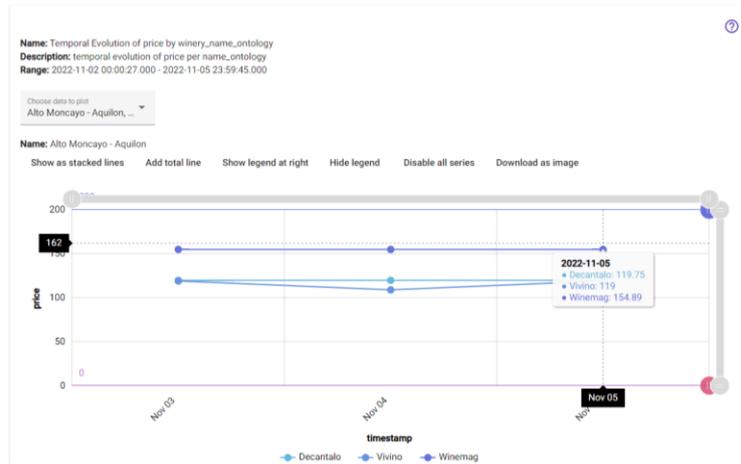


FIGURE 163 - ARAGON DEMO. PRICE EVOLUTION.

The 4th workshop was held on 25<sup>th</sup> November 2022 in Zaragoza. This time, 1 more scenario was presented “Trend Analysis”.



FIGURE 164 - ARAGON DEMO. TREND ANALYSIS.

For the use case 3 “Facilitating urban policy making and monitoring through crowdsourcing data analysis” (Sofia) the workshop was held 26th October 2022.

During the event, scenario B (Predictive Analysis) was evaluated based on the demos available.

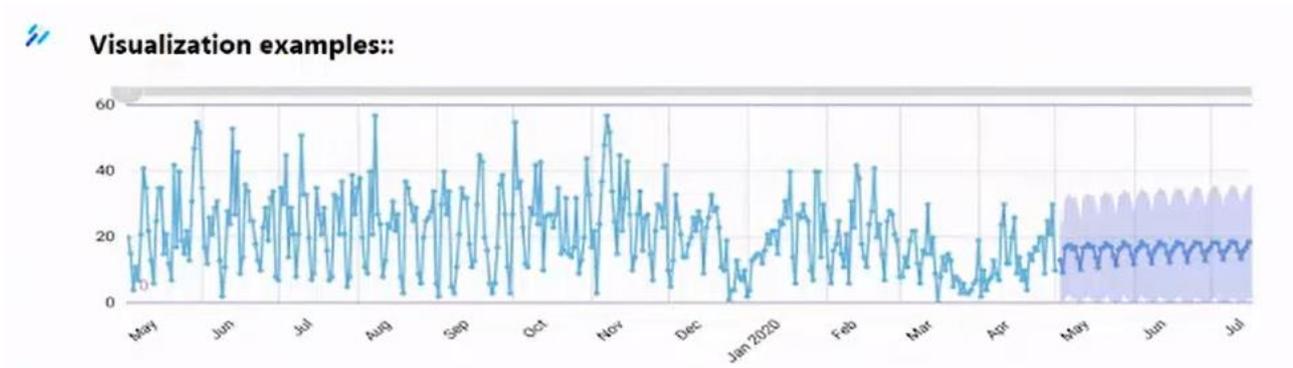


FIGURE 165 - SOFIA DEMO. PREDICTIVE ANALYSIS.

## 8.2 Use Case 1. Participatory against radicalization

### 8.2.1 3<sup>rd</sup> workshop

This workshop was held on September 2022, the 15<sup>th</sup>. 3 different authorities of the Region of Lombardia were present during the co-creation workshop. Here, their conclusions are presented.

#### *Preliminary questions*

Participation per gender	
	# Participants
Male	3
Female	0
Total	3

TABLE 166 – MAGGIOLI. PARTICIPATION PER GENDER



FIGURE 166 - MAGGIOLI. PARTICIPATION PER GENDER

Years of experience	
	# Participants
<= 1 year	0
2 -5 years	2
6 -10 years	0
> 10 years	1

TABLE 167 - MAGGIOLI. YEARS OF EXPERIENCE



FIGURE 167 - MAGGIOLI. YEARS OF EXPERIENCE.

Role in organization	
Role	# Participants
Policy Makers	1
Data Analyst	1
Domain Expert	0
Consultant	0
Other	2

TABLE 168 - MAGGIOLI. ROLE IN ORGANIZATION

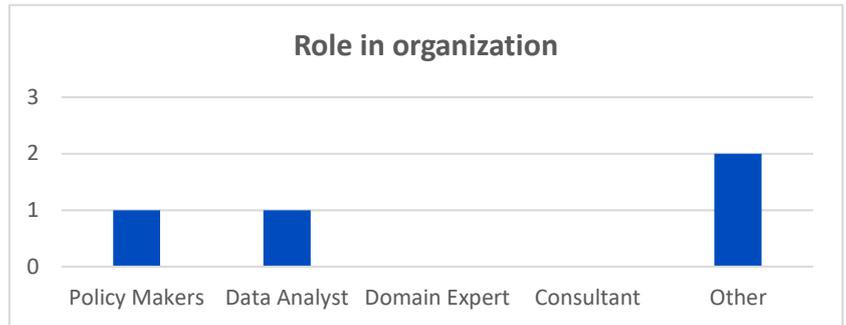


FIGURE 168 - MAGGIOLI. ROLE IN ORGANIZATION.

Resolving questions	
	#Participants
Peers	0
Team Members	1
Professional group	2
Digital Platform	0
Look in Internet	0
Other	

TABLE 169 - MAGGIOLI. RESOLVING QUESTIONS

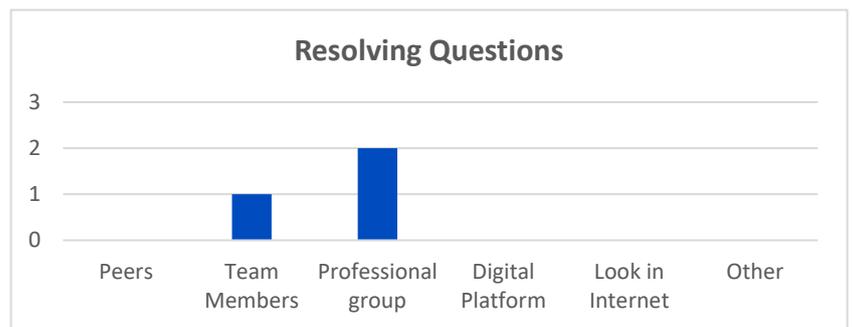


FIGURE 169 - MAGGIOLI. RESOLVING QUESTIONS.

Experience with Digital Platforms	
	# Participants
Not at all	0
Relatively few	0
More or les	0
Quite a lot	1
Very much	2

TABLE 170 - MAGGIOLI. EXPERIENCE WITH DIGITAL PLATFORMS

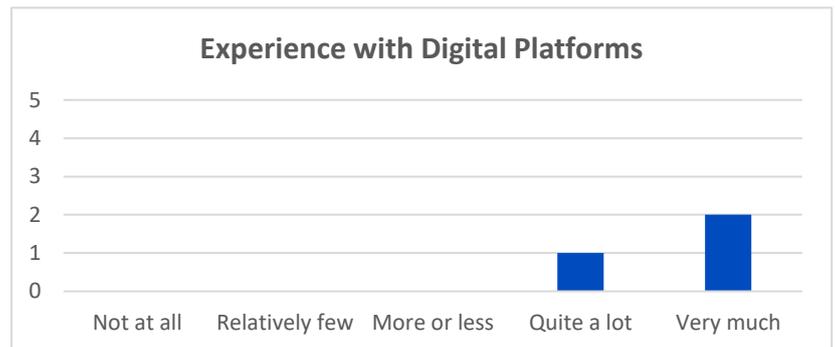


FIGURE 170 - MAGGIOLI. EXPERIENCE WITH DIGITAL PLATFORMS.

### Requirement evaluation

What are the most common problems policy makers face in their daily operation?

Main problems that policy makers face daily are:

- Measuring the effects of adopted policies
- Re-orientation of policies
- Approaching to problems and the technology

What is the information that lack policy makers in handling evidence-based policies?

- Detailed background information
- Lack of resources (economic and human) to be able to undertake these paths
- Statistical information and geolocation

### Opinion about creating an online platform to support policy makers

- Real-time measurement of the effects of adopted policies.
- Real-time verification of policy indicators
- It would help process management
- Providing up-to-date and analysed data from different perspectives

### *PolicyCLOUD Platform Evaluation*

Ease of use	
	# Participants
Very easy	0
Moderately easy	1
Slightly easy	2
Not at all easy	0

TABLE 171 - MAGGIOLI. EASE OF USE

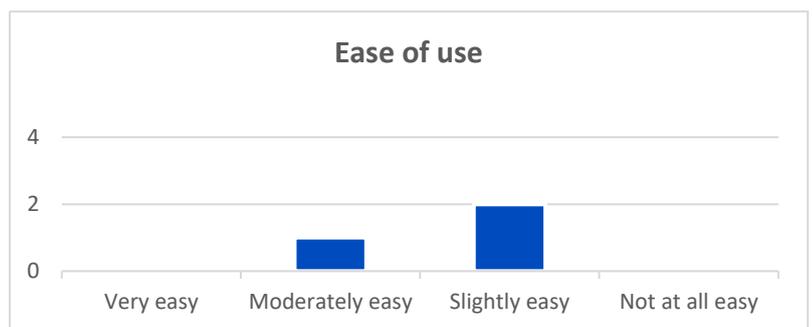


FIGURE 171 - MAGGIOLI. EASE OF USE.

User-friendliness	
	# Participants
Very user-friendly	0
Moderately user-friendly	1
Slightly user-friendly	2
Not at all user-friendly	0

TABLE 172 - MAGGIOLI. USER-FRIENDLINESS

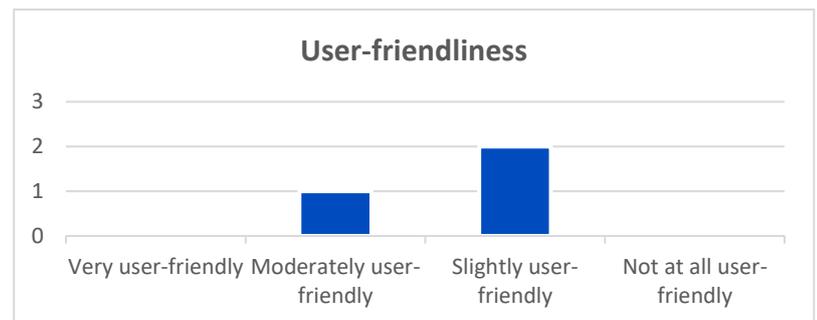


FIGURE 172. MAGGIOLI. USER-FRIENDLINESS.

Successful performing tasks	
	# Participants
Very successful	0
Moderately successful	3
Slightly successful	0
Not at all successful	0
Too early to say	0

TABLE 173 - MAGGIOLI. SUCCESSFUL PERFORMING TASKS



FIGURE 173 - MAGGIOLI. SUCCESSFUL PERFORMING TASKS.

Performance	
	# Participants
Very satisfied	0
Moderately satisfied	3
Slightly satisfied	0
Not at all satisfied	0
NS/NC	0

TABLE 174 - MAGGIOLI. PERFORMANCE

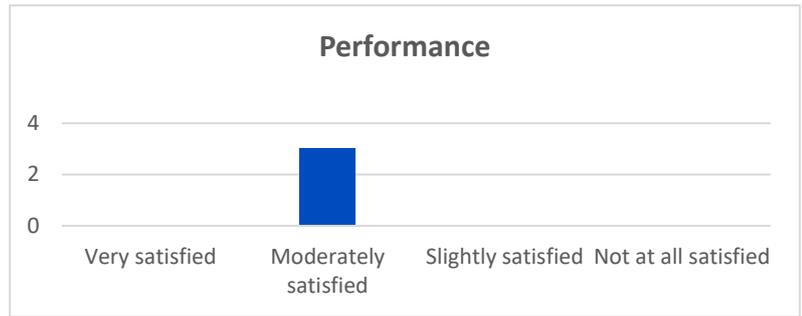


FIGURE 174 - MAGGIOLI. PERFORMANCE.

Recommendation	
	# Participants
Very likely	0
Moderately likely	2
Slightly likely	1
Not at all likely	0
NS/NC	0

TABLE 175 - MAGGIOLI. RECOMMENDATION

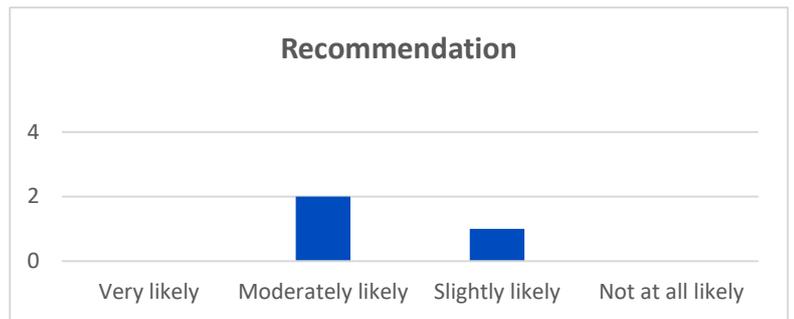


FIGURE 175 - MAGGIOLI. RECOMMENDATION.

### Improvements for PolicyCLOUD platform

Policy makers suggest the following ideas to improve the platform:

- A user interface simpler, improving and simplifying it for example, implementing automated helpdesk.
- Involving users in the definition and developing process.

### Policy evaluation

Ease of Policies Creation	
	# Participants
Very easy	0
Moderately easy	1
Slightly easy	2
Not at all easy	0

TABLE 176 - MAGGIOLI. EASE OF POLICIES CREATION

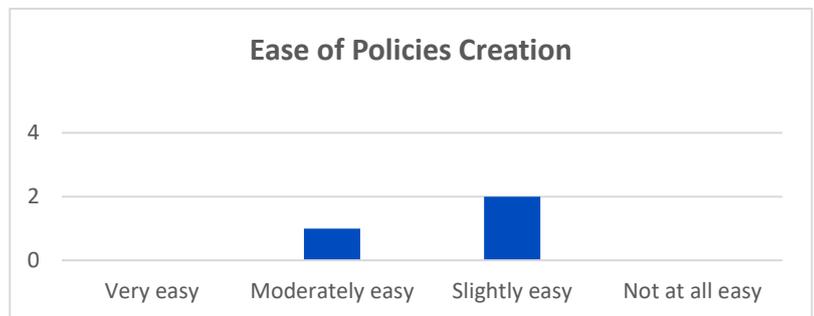


FIGURE 176 - MAGGIOLI. EASE OF POLICIES CREATION

Ease of KPIs Definition	
	# Participants
Very easy	0
Moderately easy	1
Slightly easy	2
Not at all easy	0
NA	0

TABLE 177 - MAGGIOLI. EASE OF KPIS DEFINITION.

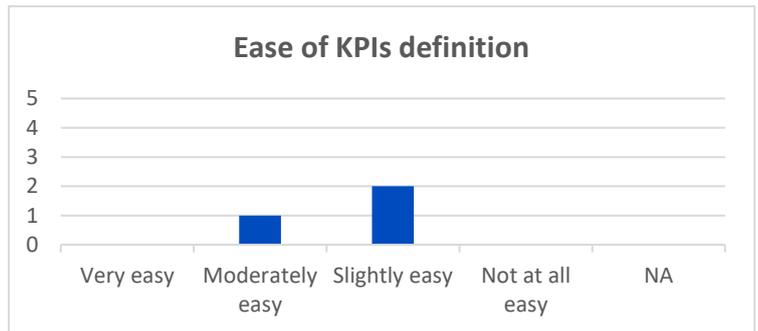


FIGURE 177 - MAGGIOLI. EASE OF KPIS DEFINITION.

Ease of KPIs evaluation	
	# Participants
Very easy	0
Moderately easy	2
Slightly easy	1
Not at all easy	0

TABLE 178 - MAGGIOLI. EASE OF KPIS EVALUATION

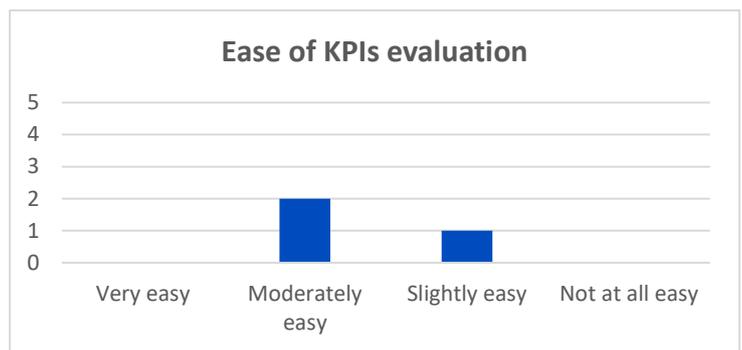


FIGURE 178 - MAGGIOLI. EASE OF KPIS EVALUATION.

Clarity of results	
	# Participants
Very clear	0
Moderately clear	2
Slightly clear	1
Not at all clear	0

TABLE 179 - MAGGIOLI. CLARITY OF RESULTS

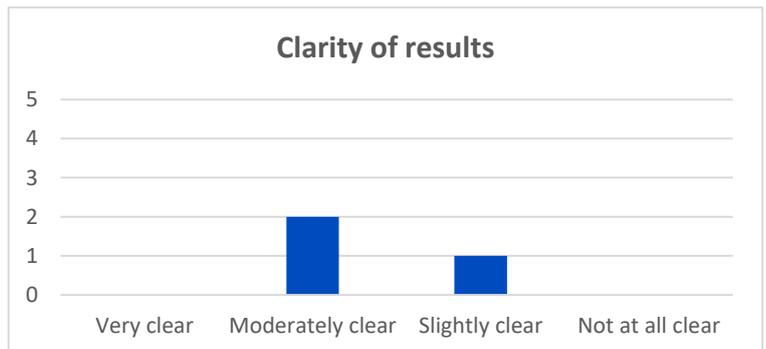


FIGURE 179 - MAGGIOLI. CLARITY OF RESULTS.

### Difficulties to define a Policy using the platform

- It is difficult to understand the user interfaces, it's unintelligible.
- Policy makers find Difficult to understand the general system
- The lack of up-to-date and certified data.

### General conclusions

Impressions of the tool have a strong dependency on participant's background. Analysis of social media results interesting for almost all attendees, although only mock-ups were presented.

Representatives from the IT of Security department did notice the valuable help this kind of instruments could give to larger efforts in the contrast of political and religious radicalization. On the other hand,

Police chiefs from Local Police Stations would underline the difficulties of having a technical staff member dedicated to this tool, but nevertheless recognized the importance that this kind of tool could have in their work of contrasting “minor” types of radicalizations as the “No Vax” movement that often leads to violence in their areas.

### 8.2.2 4<sup>th</sup> workshop

Only one questionnaire was filled during the 4<sup>th</sup> workshop of Magglioli use case. Then, a summary of the questionnaire is made as follow.

The questionnaire was made by a male who main roles is responsible in their organization with more than 10 years of experience in their job. He also has a great experience using digital platforms and he uses talk with expert and other colleagues to resolve their problems.

#### **Requirement evaluation**

**What are the most common problems policy makers face in their daily operation?**

- Difficulties to find information quickly for the definition of new policies.
- Administrative constraints
- GDPR constraints

**What is the information that lack policy makers in handling evidence-based policies?**

- Detailed information on projects resulting from administrative measures.

**Opinion about creating an online platform to support policy makers**

- Definition at the beginning which data are useful for the analysis of the outcomes and prepare the appropriate modalities for their retrieval.

#### **PolicyCLOUD Platform Evaluation**

In a general way, he mentions that the platform is easy to use and to find information as well as it is user-friendly. For these reasons, he will recommend the use of the platform to the public administration.

#### **Policy evaluation**

Although the use of the platform seems easy to use, he also mentioned that the creation of KPIs is not easy but, once the KPI is defined, it is simple to understand them.

**Difficulties to define a Policy using the platform**

- Supporting data recovery
- Artificial Intelligence algorithms will help to improve those processes.

***General conclusions***

The participants were very impressed by the scenarios presented. Regarding Scenario B, they appreciated the fact that the Politika tool in this domain has been validated by two sociology professors and wanted to know the possibilities of expanding its functionalities to other domains. Scenario C and D were presented, and the attendees were really interested by the easy-to-understand visualizations. Unfortunately, the use of synthetic data gave few results for these scenarios, but the participants appreciated the tool and asked for updates when it will be fully integrated with Twitter data. The social media tools will be an asset of interest for them when fully functional, in the radicalization domain or others.

## 8.3 Use Case 2. Intelligent policies for the development of agrifood industry (Aragon)

### 8.3.1 3<sup>rd</sup> workshop

The workshop was held on June 2022, the 17<sup>th</sup>. There was an attendance of 35 participants which were divided into 4 groups in order to evaluate the tool and answer the questionnaire.

***Preliminary questions***

0	
	# Participants
Male	20
Female	15
Total	35

TABLE 180 - ARAGON. PARTICIPATION PER GENDER

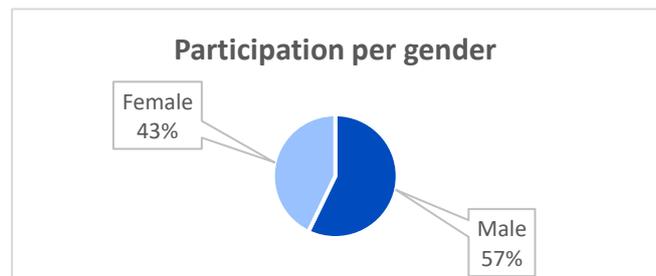


FIGURE 180 – ARAGON. PARTICIPATION PER GENDER.

Years of experience	
	# Participants
<= 1 year	0
2 -5 years	0
6 -10 years	4
> 10 years	0

TABLE 181 - ARAGON. YEARS OF EXPERIENCE



FIGURE 181 - ARAGON. YEARS OF EXPERIENCE.

Role in organization	
Role	# Participants
Policy Makers	1
Data Analyst	1
Domain Expert	0
Consultant	2
Other	0

TABLE 182 - ARAGÓN. ROLE IN ORGANIZATION



FIGURE 182 - ARAGON. ROLE IN ORGANIZATION.

Resolving questions	
	#Participants
Peers	0
Team Members	0
Professional group	4
Digital Platform	0
Look in Internet	0
Other	0

TABLE 183 - ARAGÓN. RESOLVING QUESTIONS

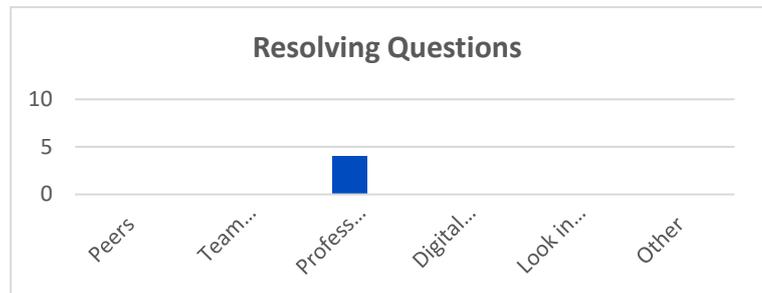


FIGURE 183 - ARAGON. RESOLVING QUESTIONS.

Experience with Digital Platforms	
	# Participants
Not at all	0
Relatively few	0
More or les	0
Quite a lot	0
Very much	4

TABLE 184 - ARAGON. EXPERIENCE WITH DIGITAL PLATFORMS

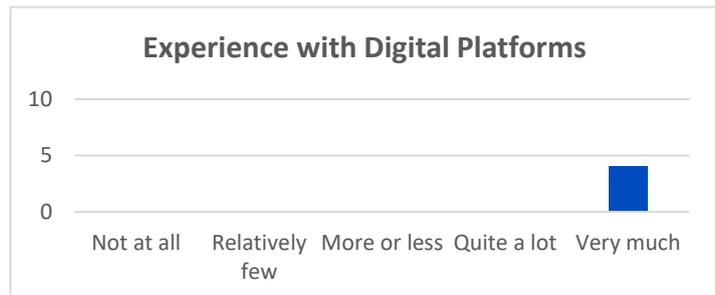


FIGURE 184 - ARAGON. EXPERIENCE WITH DIGITAL PLATFORMS.

### Requirement evaluation

What are the most common problems policy makers face in their daily operation?

- Many times, the problems come from access to quality and well-organized data. Also, and especially some sectors, among which is the primary sector, there is greater reluctance to work with new applications.
- The lack of up-to-date and quality information. Deficient flows on information between the citizen or sectors involved and the Policy Maker and the public administration.
- The administrative obstacles that prevent working at the same speed as society, The rigidity of the budget
- Lack of direct communication with the citizens
- Staff specialized in new tech trends

- Administrative obstacles
- Lack of collaboration of the actors involved

**What is the information that lack policy makers in handling evidence-based policies?**

- On some occasions, the design of the tool is far from the needs of the end user, because due to lack of technical skills of deficiencies in the design.
- Another problem is the lack of usability and interesting design so that the tool is attractive to the end user, it is very important to influence the design of the applications, because it is key to their success
- On many occasions, poor maintenance of the tools.
- The lack of direct communication with the end user, obsolete information channels and sometimes distorted reality
- Slowness of administrative legislation in terms of deadlines
- Lack of citizen interest
- Updated information
- Increase information sources
- Adapt data and information capture to new technologies.

**Opinion about creating an online platform to support policy makers**

- Public administrations are heading towards the use of these platforms for any future management, it is already a work tool for policy makers and every day it becomes more important in the day to day of public administration
- Improving the quality of the information and the relationship with the users is key that the information is updated and that the communication with the users (citizens, companies, etc.) be fluid and clear
- Improving communication, greater interaction with end users.
- Avoid a lot of paper, which slows down the work of the administration
- Adaptation to the current situation of society

***PolicyCLOUD Platform evaluation***

Ease of use	
	# Participants
Very easy	0
Moderately easy	2
Slightly easy	2
Not at all easy	0

TABLE 185 - ARAGON. EASE OF USE

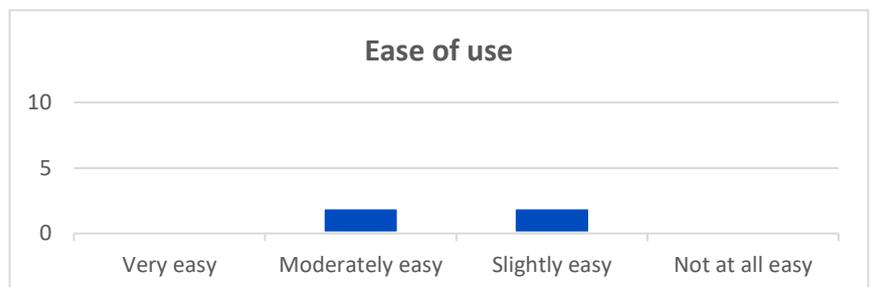


FIGURE 185 - ARAGON. EASE OF USE.

User-friendliness	
	# Participants
Very user-friendly	0
Moderately user-friendly	1
Slightly user-friendly	3
Not at all user-friendly	0

TABLE 186 - ARAGON. USER-FRIENDLINESS

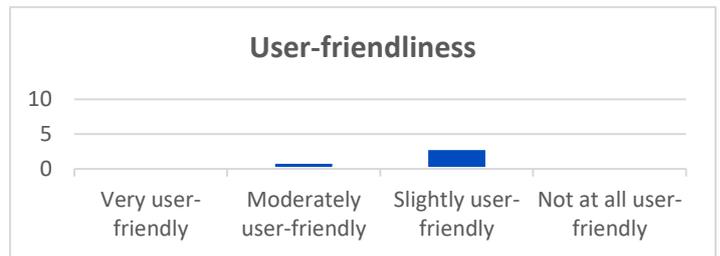


FIGURE 186 - ARAGON. USER-FRIENDLINESS.

Successful performing tasks	
	# Participants
Very successful	0
Moderately successful	4
Slightly successful	0
Not at all successful	0
Too early to say	0

TABLE 187 - ARAGON. SUCCESSFUL PERFORMING TASKS



FIGURE 187 - ARAGON. SUCCESSFUL PERFORMING TASKS.

Performance	
	# Participants
Very satisfied	0
Moderately satisfied	4
Slightly satisfied	0
Not at all satisfied	0

TABLE 188 - ARAGON. PERFORMANCE



Recommendation	
	# Participants
Very likely	0
Moderately likely	3
Slightly likely	1
Not at all likely	0

TABLE 189 - ARAGON. RECOMMENDATION

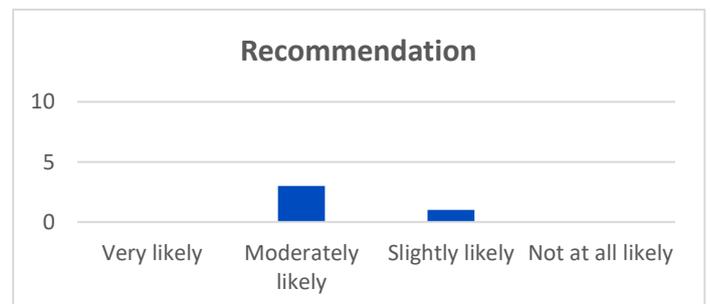


FIGURE 189 - ARAGON. RECOMMENDATION.

- Improving the design and the facility to include new data and information sources, the design should be improved for a friendlier first impact to the end user.
- Expanding the sources of information and data available for analysis.
- Entering data according to the needs of different users.
- Obtain a summary of the data analysed and the conclusions found in more concrete ways
- Improving the access to the tool.
- Completing it with more information, for example parameters used for the analysis
- Integrating it with other tools which are available in Aragon Government.

***Policy evaluation***

Ease of Policy creation	
	# Participants
Very easy	0
Moderately easy	3
Slightly easy	1
Not at all easy	0
Other	0

TABLE 190 - ARAGON. EASE OF POLICIES CREATION

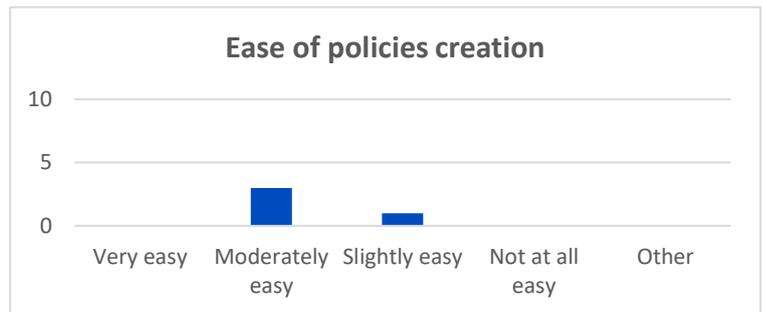


FIGURE 190 - ARAGON. EASE OF POLICIES CREATION.

Ease of KPIs definition	
	# Participants
Very easy	0
Moderately easy	4
Slightly easy	0
Not at all easy	0
NA	0

TABLE 191 -

ARAGON. EASE OF KPIS DEFINITION

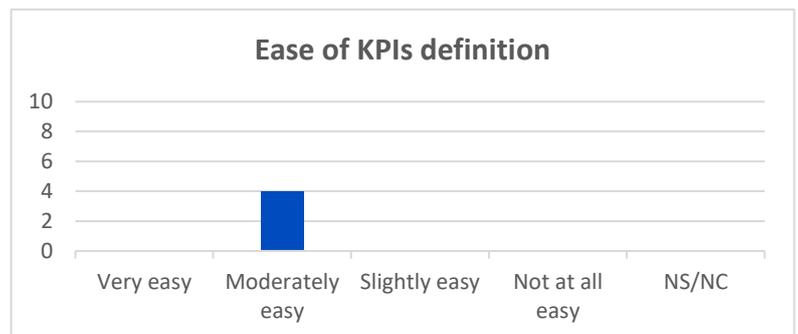


FIGURE 191 - ARAGON. EASE OF KPIS DEFINITION.

Ease of KPIs evaluation	
	# Participants
Very easy	0
Moderately easy	2
Slightly easy	2
Not at all easy	0

TABLE 192 - ARAGON. EASE OF KPIS EVALUATION

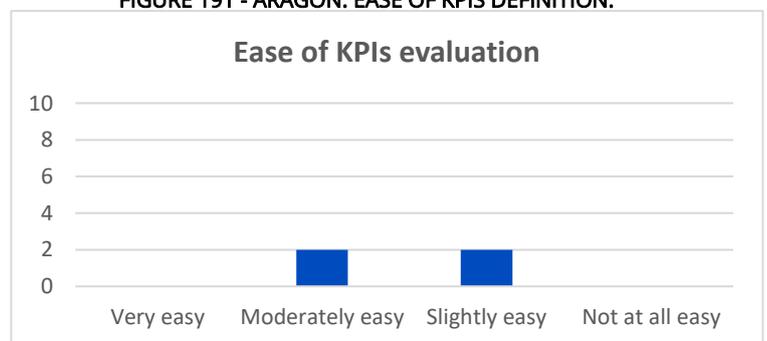


FIGURE 192 - ARAGON. EASE OF KPIS EVALUATION.

Clarity of results	
	# Participants
Very clear	0
Moderately clear	2
Slightly clear	2
Not at all clear	0

TABLE 193 - ARAGON. CLARITY OF RESULTS

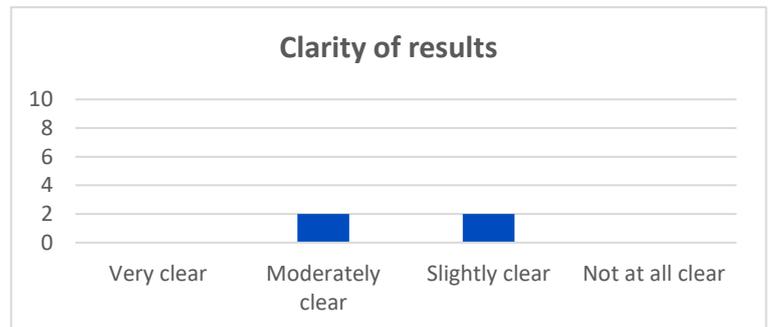


FIGURE 193 - ARAGON. CLARITY OF RESULTS.

### Difficulties to define a Policy using the platform

- More immediate feedback from the end user, in some cases, for example in this use case, something that would give us an immediate response on the use of the tool by wineries, distributors, etc. would be interesting for the development of policies on a faster and more efficient way.
- Final relationship and feedback with the actors involved in the development of any of the models to be developed. For this, it is very important that the usability of the tool be as simple as possible.
- A clear and direct report of the conclusions found when applying the different parameters analysed would help, perhaps it is more a task of the user than of the platform, since it is the user who will apply the solutions together with the policy makers in the future. In this way, the positive or negative feedback of the tool will be known.
- Perhaps a report of the analysed information would be needed, parameters that have been taken into account and the user's interactions, although it is easy to do it, we are aware of it.
- It would be very interesting to know the degree of information analysed

### Difficulties found in the Policy Development Toolkit. Tools which could help

- Access to the platform is not very easy, and it would be good to know more clearly the parameters analysed for the price scenario, as well as to see critical action points.
- More information available for a better analysis of the sector, it seems a bit static and with not too many sources or information available.
- It would be very interesting to have more sources of data for analysis, it is a tool with great potential but perhaps only analysing more sources at the same time would give a more realistic picture of the situation. It would also give us very valuable information for the development of new policies.
- Making access to both the platform and the information more friendly would be very interesting
- Possibility to add data sources constantly and easily
- Design improvement

### Comments or Suggestions

- Access to the tool is not very easy, which is understandable since it is still a demo, although the interface has been improved since the previous workshop
- Thank you for counting on us for such interesting initiatives that are showing us ways to develop new tools for public administrations that are more in line with current times

### 8.3.2 4<sup>th</sup> workshop

The workshop was held on November 2022, the 25<sup>th</sup>. Participants were divided into 4 groups in order to evaluate the tool and answer the questionnaire.

#### Preliminary questions

Participation	
	# Participants
Male	18
Female	20
Total	38

TABLE 194 - ARAGON. PARTICIPATION PER GENDER

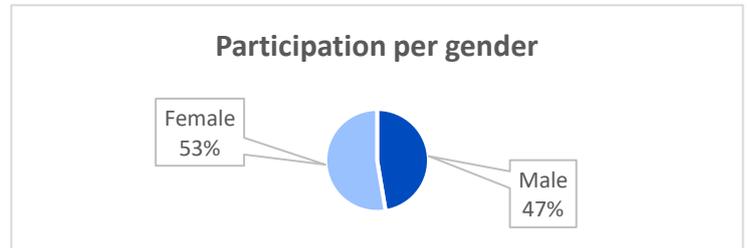


FIGURE 194 – ARAGON. PARTICIPATION PER GENDER.

Years of experience	
	# Participants
<= 1 year	0
2 -5 years	0
6 -10 years	4
> 10 years	0

TABLE 195 - ARAGON. YEARS OF EXPERIENCE



FIGURE 195 - ARAGON. YEARS OF EXPERIENCE.

Role in organization	
Role	# Participants
Policy Makers	1
Data Analyst	1
Domain Expert	0
Consultant	2
Other	0

TABLE 196 - ARAGÓN. ROLE IN ORGANIZATION



FIGURE 196 - ARAGON. ROLE IN ORGANIZATION.

Resolving questions	
	#Participants
Peers	0
Team Members	0
Professional group	4
Digital Platform	0
Look in Internet	0
Other	0

TABLE 197 - ARAGÓN. RESOLVING QUESTIONS

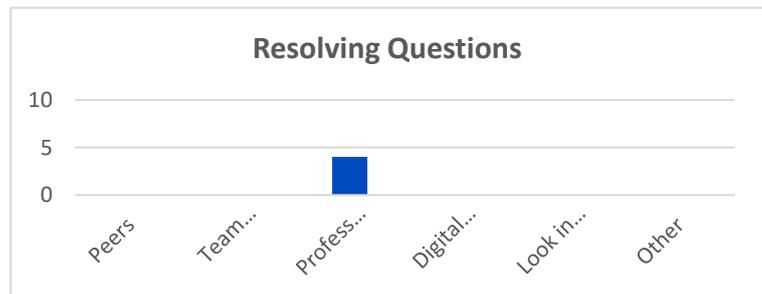


FIGURE 197 - ARAGON. RESOLVING QUESTIONS.

Experience with Digital Platforms	
	# Participants
Not at all	0
Relatively few	0
More or les	0
Quite a lot	0
Very much	4

TABLE 198 - ARAGON. EXPERIENCE WITH DIGITAL PLATFORMS

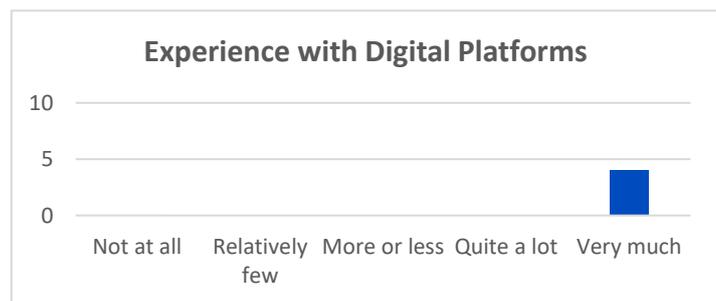


FIGURE 198 - ARAGON. EXPERIENCE WITH DIGITAL PLATFORMS.

### Requirement evaluation

#### What are the most common problems policy makers face in their daily operation?

- Problems emerge when data don't have enough quality and they are not well-organized data so the access to them is difficult, especially in primary sector, where there is a great reluctance to new technologies.
- Non-updated information. Non-efficient workflows between public groups and end users.
- Sometimes rigid rules in administration avoid working at the same speed as technologies.
- Non-communication with end-users.
- There aren't enough specialized profiles in new technologies and trends.
- Non-collaboration between different actors involved.

#### What is the information that lack policy makers in handling evidence-based policies?

- Tools are not usually adjusted to the needs of the end user. Sometimes, this is due to the lack of technical skills.
- Tools should have an attractive design to attract end users.
- Poor and adaptation and maintenance of tools.
- Communication channels are obsoleted.
- More updated information.
- Lack of data sources.
- Training in new technologies and new trends.

### Opinion about creating an online platform to support policy makers

- Aragon Government is encouraging the use of these platforms in order to help daily tasks of policy makers, so these tools are become more important.
- These tools improve the clearness and quality of information and relationships between public administration and end users. If there are specific workflows, communications will be better.
- Improving communication and interaction with end-users, especially the primary sector.
- Saving papers and reducing time of activities to be done.

### *PolicyCLOUD Platform evaluation*

Ease of use	
	# Participants
Very easy	0
Moderately easy	3
Slightly easy	1
Not at all easy	0

TABLE 199 - ARAGON. EASE OF USE

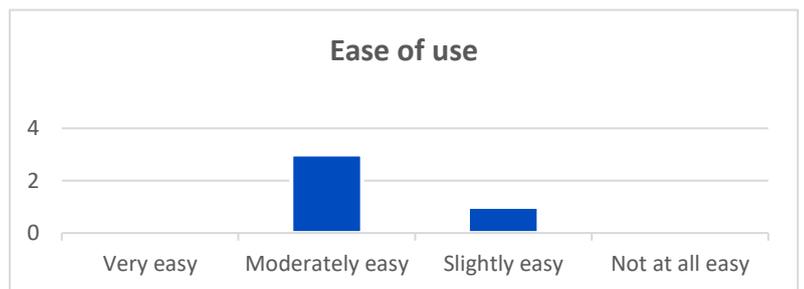


FIGURE 199 - ARAGON. EASE OF USE.

User-friendliness	
	# Participants
Very user-friendly	0
Moderately user-friendly	3
Slightly user-friendly	1
Not at all user-friendly	0

TABLE 200 - ARAGON. USER-FRIENDLINESS

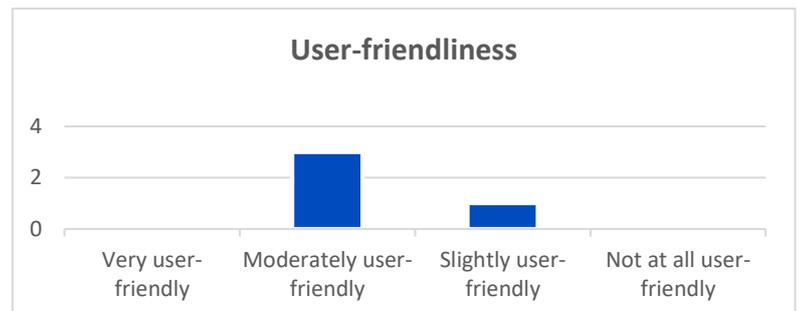


FIGURE 200 - ARAGON. USER-FRIENDLINESS.

Successful performing tasks	
	# Participants
Very successful	0
Moderately successful	4
Slightly successful	0
Not at all successful	0
Too early to say	0

TABLE 201 - ARAGON. SUCCESSFUL PERFORMING TASKS



FIGURE 201 - ARAGON. SUCCESSFUL PERFORMING TASKS.

Performance	
	# Participants
Very satisfied	0
Moderately satisfied	4
Slightly satisfied	0
Not at all satisfied	0

TABLE 202 - ARAGON. PERFORMANCE



Recommendation	
	# Participants
Very likely	0
Moderately likely	4
Slightly likely	0
Not at all likely	0

TABLE 203 - ARAGON. RECOMMENDATION



FIGURE 203 - ARAGON. RECOMMENDATION.

### Improvements for PolicyCLOUD platform

- Although is a prototype, there are a great number of possibilities increasing the number of data sources and refining the information displayed.
- Improving visualization and sampling of data obtained by applying the introduced parameters.
- A simpler form of data visualization to be able to work with them.
- Interaction with the platform should be more user friendly. The use of the platform seems difficult.

***Policy evaluation***

Ease of Policy creation	
	# Participants
Very easy	0
Moderately easy	3
Slightly easy	1
Not at all easy	0
Other	0

TABLE 204 - ARAGON. EASE OF POLICIES CREATION

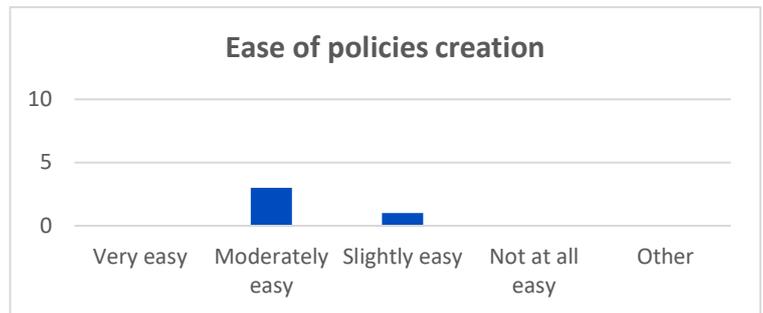


FIGURE 204 - ARAGON. EASE OF POLICIES CREATION.

Ease of KPIs Definition	
	# Participants
Very easy	0
Moderately easy	4
Slightly easy	0
Not at all easy	0
NA	0

TABLE 205 - ARAGON. EASE OF KPIS DEFINITION

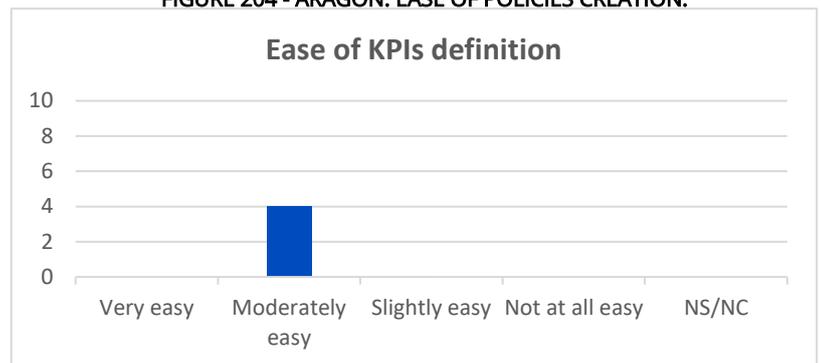


FIGURE 205 - ARAGON. EASE OF KPIS DEFINITION.

Ease of KPIs evaluation	
	# Participants
Very easy	0
Moderately easy	3
Slightly easy	1
Not at all easy	0

TABLE 206 - ARAGON. EASE OF KPIS EVALUATION

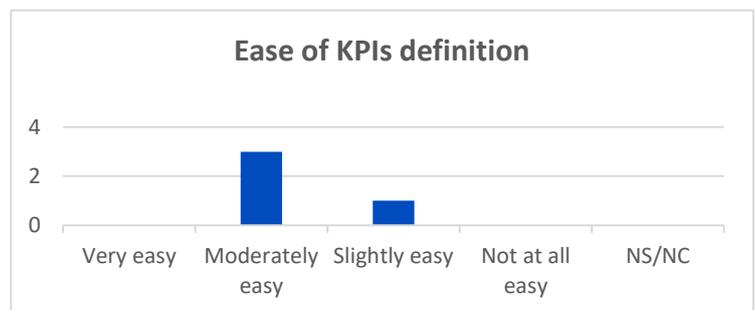


FIGURE 206 - ARAGON. EASE OF KPIS EVALUATION.

Clarity of results	
	# Participants
Very clear	0
Moderately clear	4
Slightly clear	0
Not at all clear	0

TABLE 207 - ARAGON. CLARITY OF RESULTS

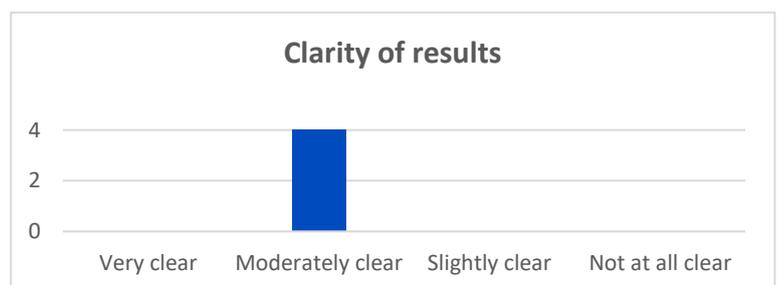


FIGURE 207 - ARAGON. CLARITY OF RESULTS.

**Comments or Suggestions**

- It would be interesting to continue developing the tools an even test the technology used in the project in other sectors.
- This tool could be useful in other scenarios beyond the wine use case.

- Visualization could be improved.
- Specific training for the users of the tool.

***UMUX Questionnaire – Scenario evaluation***

Meeting my requirements	
	# Participants
Strongly Agree	0
Agree	3
Agree somewhat	1
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 208 - ARAGON. MEETING MY REQUIREMENTS

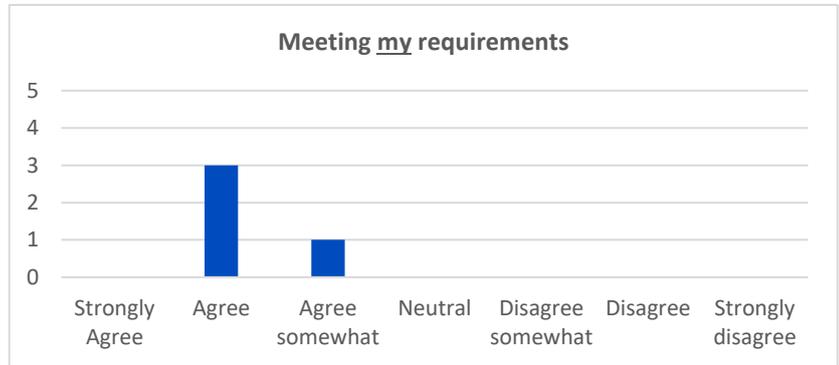


FIGURE 208 - ARAGON. MEETING MY REQUIREMENTS.

Frustrating experience	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	0
Neutral	1
Disagree somewhat	2
Disagree	1
Strongly disagree	0

TABLE 209 - ARAGON. FRUSTRATING EXPERIENCE

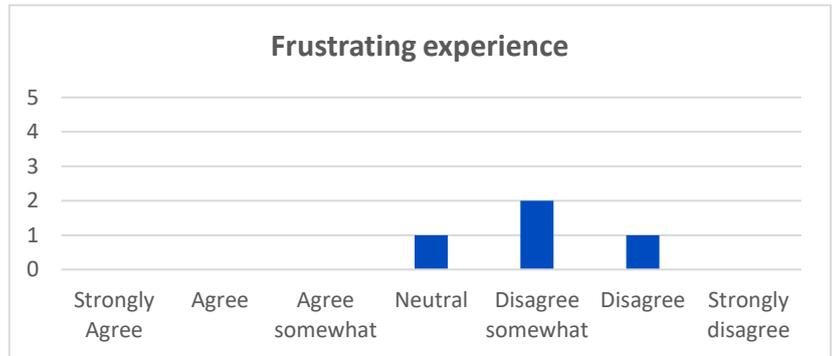


FIGURE 209 - ARAGON. FRUSTRATING EXPERIENCE.

Ease of use	
	# Participants
Strongly Agree	0
Agree	3
Agree somewhat	0
Neutral	1
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 210 - ARAGON. EASE OF USE

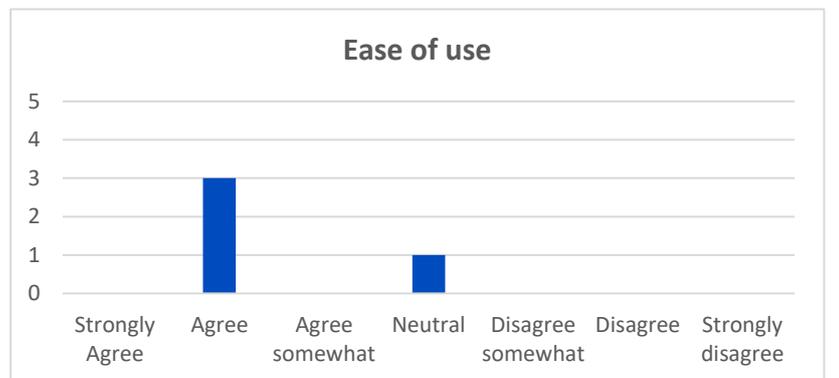
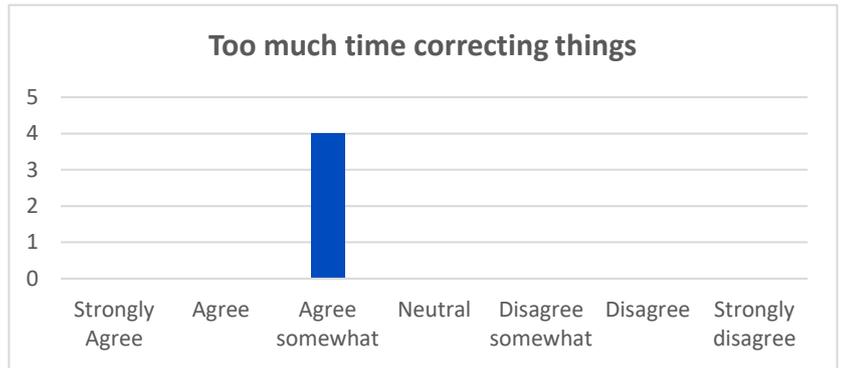


FIGURE 210 - ARAGON. EASE OF USE.

Too much time correcting things

	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	4
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 211 - ARAGON. TOO MUCH TIME CORRECTING THINGS



Useful daily operations	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 212 - ARAGON. USEFUL DAILY OPERATIONS

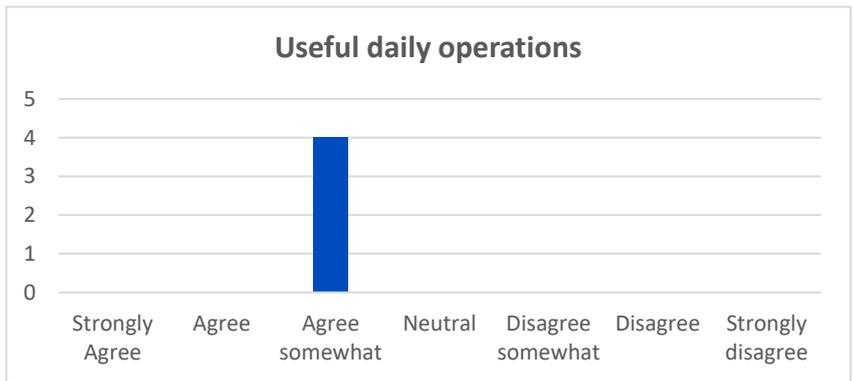


FIGURE 212 - ARAGON. USEFUL DAILY OPERATIONS.

Decreasing of workload	
	# Participants
Strongly Agree	0
Agree	3
Agree somewhat	1
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 213 - ARAGON. DECREASING OF WORKLOAD

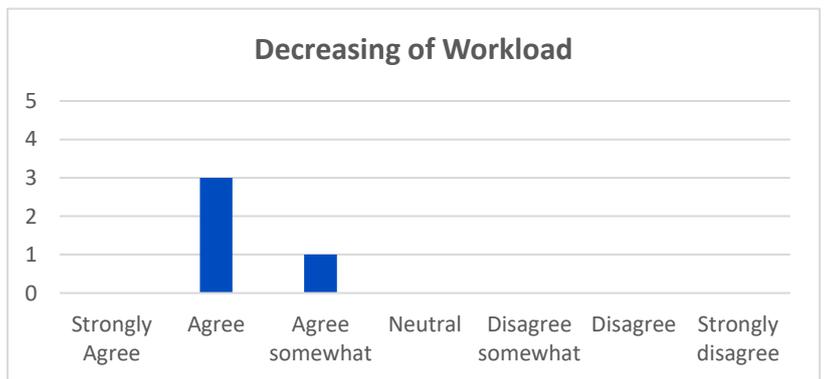


FIGURE 213 - ARAGON. DECREASING OF WORKLOAD.

Improvement of abilities	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 214 - ARAGON. IMPROVEMENT OF ABILITIES

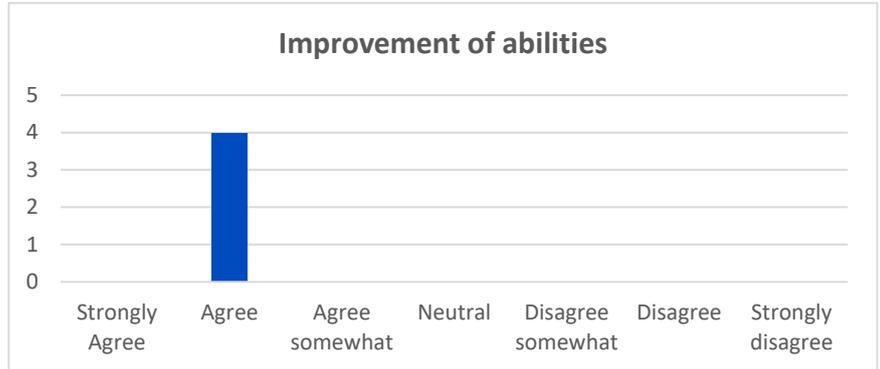


FIGURE 214 - ARAGON. IMPROVEMENT OF ABILITIES.

Improvement of new ways to do job	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 215 - ARAGON. IMPROVEMENT OF NEW WAYS TO DO JOB

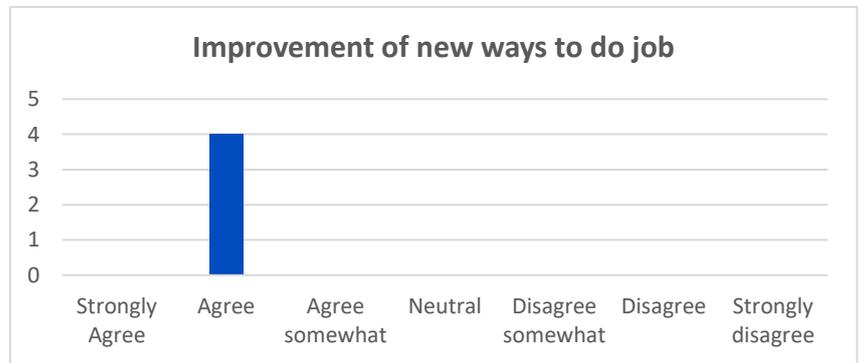


FIGURE 215 - ARAGON. IMPROVEMENT OF NEW WAYS TO DO JOB.

Better overview of the workflow	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 216 - ARAGON. BETTER OVERVIEW OF THE WORKFLOW

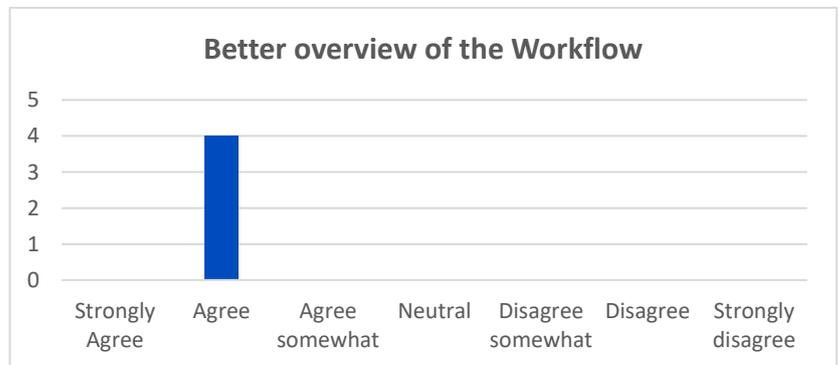


FIGURE 216 - ARAGON. BETTER OVERVIEW OF THE WORKFLOW.

Improvement of situational awareness	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 217 - ARAGON. IMPROVEMENT OF SITUATIONAL AWARENES

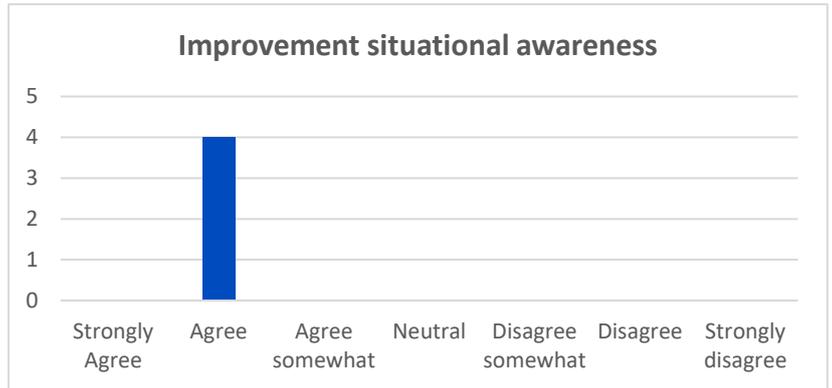


FIGURE 217 - ARAGON. IMPROVEMENT OF SITUATIONAL AWARENESS.

Useful for daily work	
	# Participants
Strongly Agree	0
Agree	3
Agree somewhat	1
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 218 - ARAGON. USEFUL FOR DAILY WORK

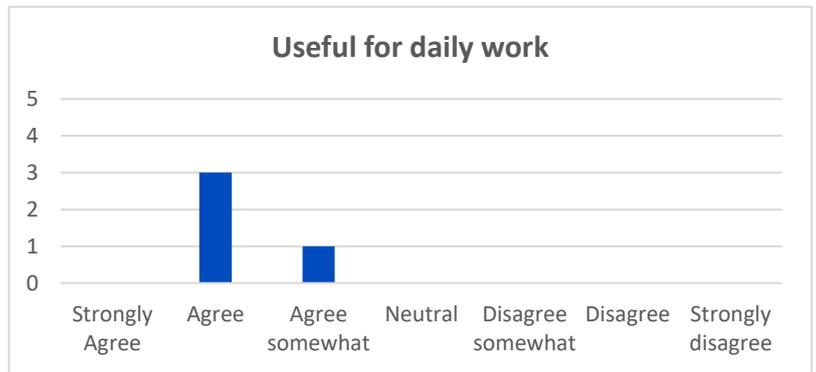


FIGURE 218 - ARAGON. USEFUL FOR DAILY WORK.

**UMUX Questionnaire - Ease of use**

Display enough information	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	4
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 219 - ARAGON. DISPLAY ENOUGH INFORMATION

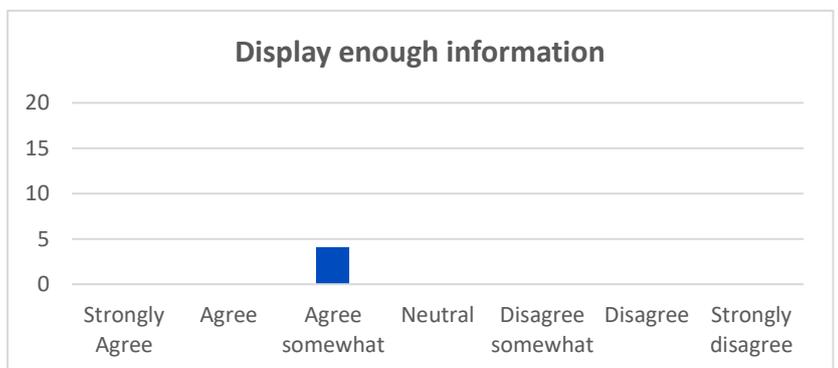


FIGURE 219 - ARAGON. DISPLAY ENOUGH INFORMATION.

Ease of customizing displayed info	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	4
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 220 - ARAGON. EASE OF CUSTOMIZING DISPLAYED INFO

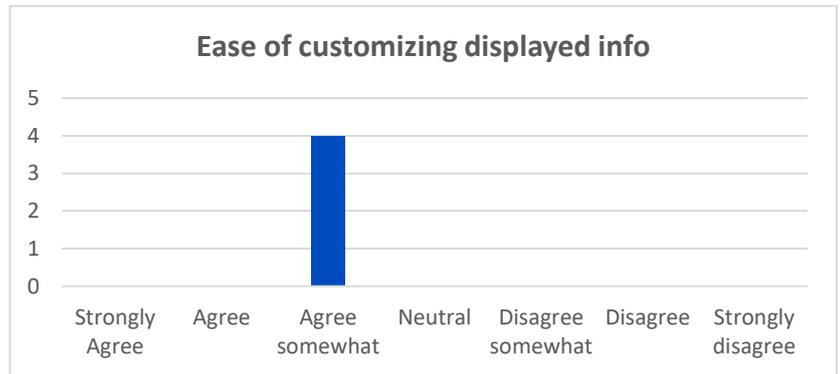


FIGURE 220 - ARAGON. EASE OF CUSTOMIZING DISPLAYED INFO.

Ease of reading displayed info	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	4
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 221 - ARAGON. EASE OF READING DISPLAYED INFO

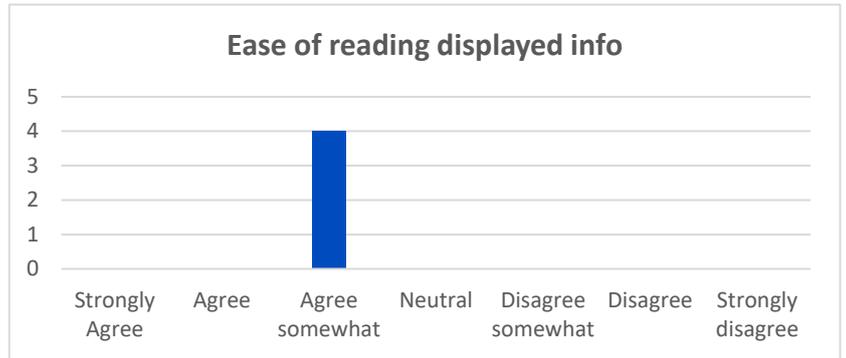


FIGURE 221 - ARAGON. EASE OF READING DISPLAYED INFO.

Clearness of messages	
	# Participants
Strongly Agree	0
Agree	0
Agree somewhat	4
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 222 - ARAGON. CLEARNESS OF MESSAGES



FIGURE 222 - ARAGON. CLEARNESS OF MESSAGES.

Ease of finding information	
	# Participants
Strongly Agree	0
Agree	3
Agree somewhat	1
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0

TABLE 223 - ARAGON. EASE OF FINDING INFORMATION

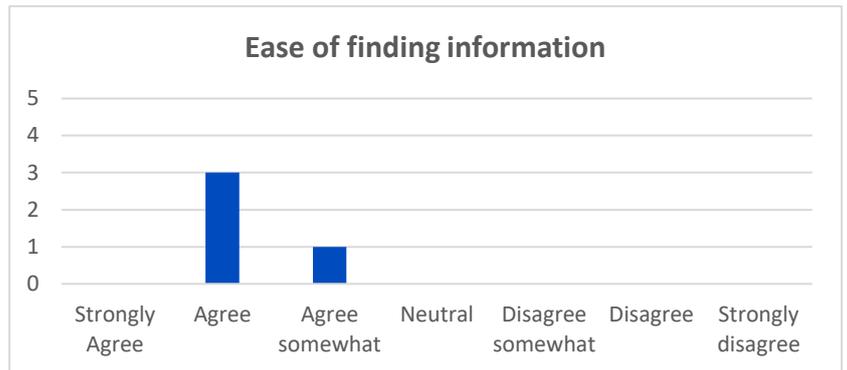


FIGURE 223 - ARAGON. EASE OF FINDING INFORMATION.

Training effort	
	# Participants
Strongly Agree	0
Agree	4
Agree somewhat	0
Neutral	0
Disagree somewhat	0
Disagree	0
Strongly disagree	0
NA	0

TABLE 224 - ARAGON. TRAINING EFFORT

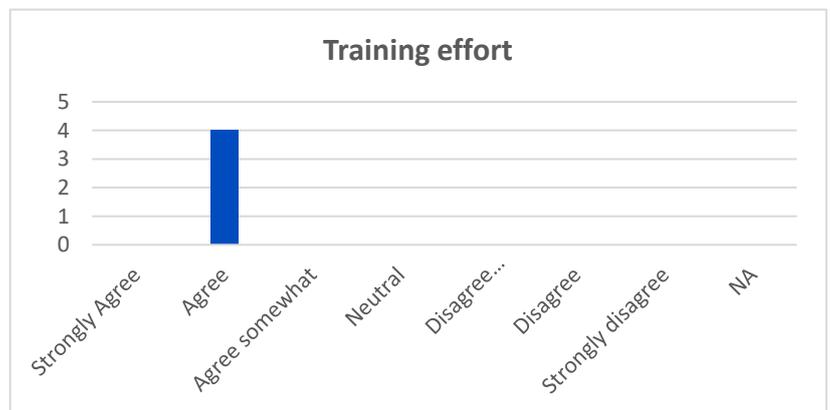


FIGURE 224 - ARAGON. TRAINING EFFORT.

### How to improve the tool

- Increasing the number of data sources can be useful for the end user.
- Interesting prototype. If the capacity to include more information to display and the number of data sources can be increased, it will be a very useful tool.
- It would be interesting to have more detailed information.

## 8.4 Use Case 3. Facilitating urban policy making and monitoring through crowdsourcing data (Sofia)

### *Preliminary questions*

Participation per gender	
	# Participants
Male	10
Female	6
Total	16

TABLE 225 - SOFIA. PARTICIPATION PER GENDER

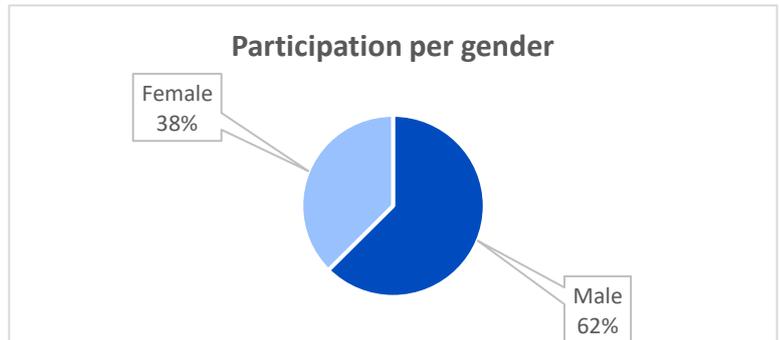


FIGURE 225 - SOFIA. PARTICIPATION PER GENDER.

Years of experience	
	# Participants
<= 1 year	1
2 -5 years	2
6 -10 years	4
> 10 years	9

TABLE 226 - SOFIA. YEARS OF EXPERIENCE

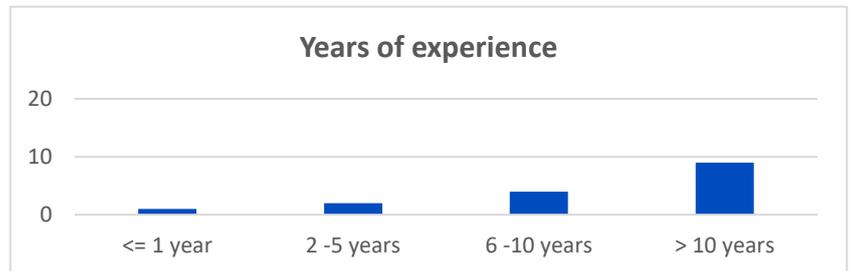


FIGURE 226 - SOFIA. YEARS OF EXPERIENCE.

Role in organization	
Role	# Participants
Policy Makers	6
Data Analyst	7
Domain Expert	0
Consultant	2
Other	1

TABLE 227 - SOFIA. ROLE IN ORGANIZATION

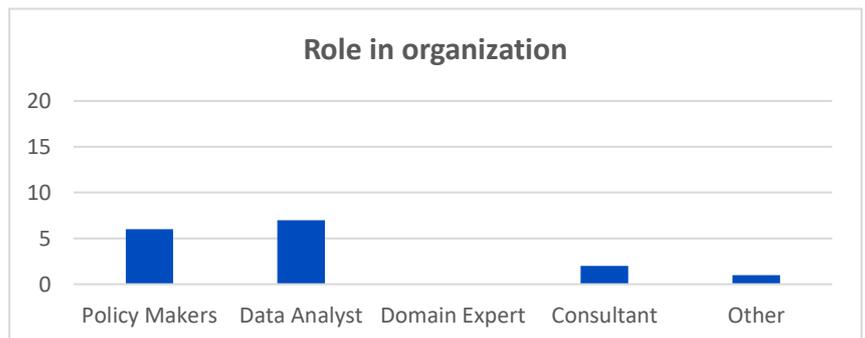


FIGURE 227 - SOFIA. ROLE IN ORGANIZATION.

Resolving questions	
	#Participants
Peers	7
Team Members	5
Professional group	2
Digital Platform	2
Look in Internet	0
Other	0

TABLE 228 - SOFIA. RESOLVING QUESTIONS

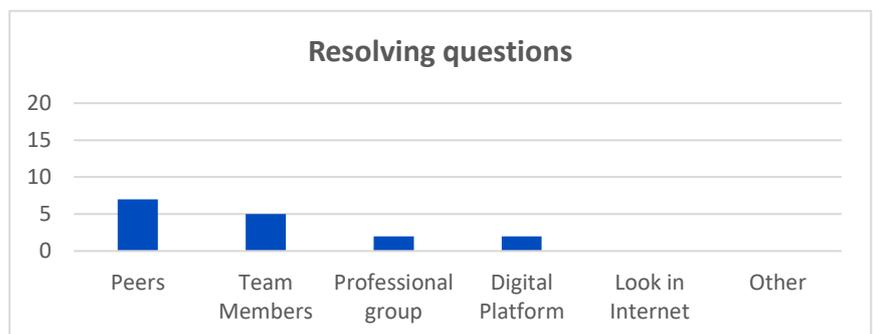


FIGURE 228 - SOFIA. RESOLVING QUESTIONS.

Experience with Digital Platforms	
	# Participants
Not at all	0
Relatively few	0
More or les	5
Quite a lot	5
Very much	6

TABLE 229 - SOFIA. EXPERIENCE WITH DIGITAL PLATFORMS

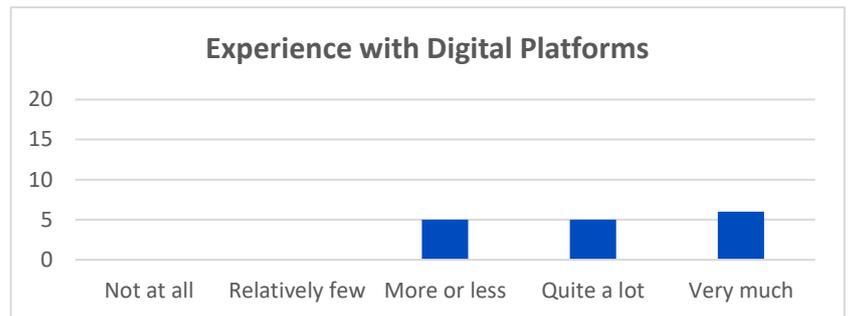


FIGURE 229 - SOFIA. EXPERIENCE WITH DIGITAL PLATFORMS.

### Requirement evaluation

#### What are the most common problems policy makers face in their daily operation?

- Lack of reliable analysis on the basis of which to make management decisions.
- The formulation of a precise policy to be applied when solving a correct or common problem.
- The lack of good communication in other institutions and bureaucratic obstacles.
- The lack of data for creating policies, or rather restrictions on access to such.
- Access and availability of up-to-date databases.
- Lack of up-to-date databases. Another problem is the lack of correlation of data from different sources.
- Lack of information or too much data that cannot be processed
- Popularization among the public.
- The lack of sufficient publicity and internal institutional visibility. Archaic models of administrative correlation in policy making.
- Data quality and data processing
- Lack of possibility to analyse data from different sources
- The quality of the data. It lacks the ability to summarize and combine data from different sources.
- There is a lack of platform or a simple place in a cloud space where up-to date data can be collected from different information sources and analysed
- To obtain up-to date data.

#### What is the information that lack policy makers in handling evidence-based policies?

- Lack of up-to-date information
- Information on the possibilities and existing tools available to create, implement and monitor the sustainability of policies
- Feedback from real users
- Data sheets, actual data or rather access to such data.
- Self-updating data to make policies
- Lack of places where there is a set of data obtained from different sources and based on a comparison of their indicators, analyses can be made
- The overall picture is mostly missing.

- Objective information
- Data collection
- “Evidence” is not always the object of an independent influx of transparently obtained data (digital tools, sensors, etc) as much as subjective analyses provided by a human factor
- Current, self-updating information.
- Ability to compare data obtained from different information sources.

### Opinion about creating an online platform to support policy makers

- Using artificial intelligence to propose new solutions.
- It could help in many directions from ways of formulating specific policies, tools for analysing different policies, tools for predicting results from the application of different policies.
- Be interactive and provide opportunities to connect to a variety of evidence-based information sources.
- Data processing and analysis through the platform would help to save time and make good management decisions based on ready-made analysis and policies.
- Visualization of data
- The platform would enable users to create new data structures themselves, load up-to-date data and be able to obtain correlational analysis between different databases.
- They will have quick access to large volumes of data and will be able to better see the big picture.
- More information sources, powerful data analysis tools.
- It would facilitate and speed up the process.
- It would unify access to information, implement accountability at higher levels, clear process traceability, and easy communication with executive units.
- The possibility with the platform to combine and analyse data from different sources. To form views and analyses also on territorial basis, different from an administrative region – for example, for a specific neighbourhood, for a specific street, boulevard, key road arteries in the city of Sofia.
- The ability to analyse and combine data from different sources.
- Through up-to-date data and analysis tools
- Through a rich set of tools
- Combining data from different sources.

### *PolicyCLOUD Platform evaluation*

Ease of use	
	# Participants
Very easy	4
Moderately easy	9
Slightly easy	3
Not at all easy	0

TABLE 230 - SOFIA. EASE OF USE

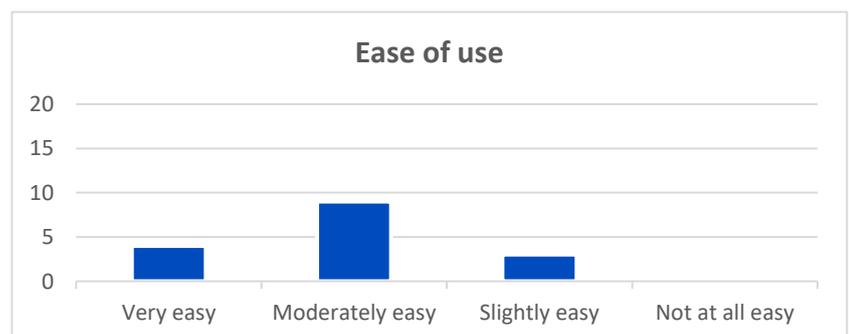


FIGURE 230 - SOFIA. EASE OF USE.

User-friendliness	
	# Participants
Very user-friendly	5
Moderately user-friendly	8
Slightly user-friendly	3
Not at all user-friendly	0

TABLE 231 - SOFIA. USER-FRIENDLINESS

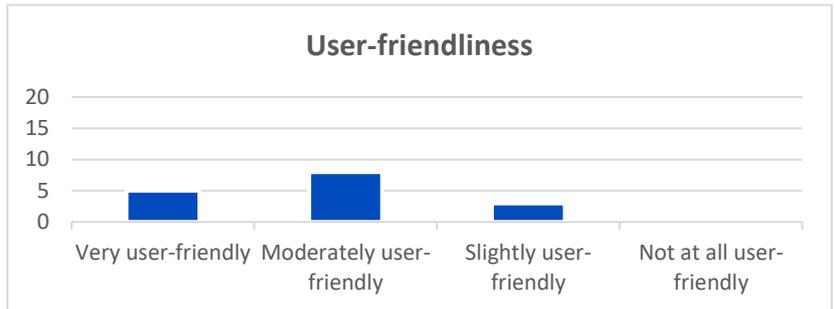


FIGURE 231 - SOFIA. USER-FRIENDLINESS.

Successful performing tasks	
	# Participants
Very successful	4
Moderately successful	9
Slightly successful	3
Not at all successful	0
Too early to say	0

TABLE 232 - SOFIA. SUCCESSFUL PERFORMING TASKS



FIGURE 232 - SOFIA. SUCCESSFUL PERFORMING TASKS.

Performance	
	# Participants
Very satisfied	5
Moderately satisfied	11
Slightly satisfied	0
Not at all satisfied	0

TABLE 233 - SOFIA. PERFORMANCE



FIGURE 233 - SOFIA. PERFORMANCE.

Recommendation	
	# Participants
Very likely	7
Moderately likely	6
Slightly likely	3
Not at all likely	0

TABLE 234 - SOFIA. RECOMMENDATION

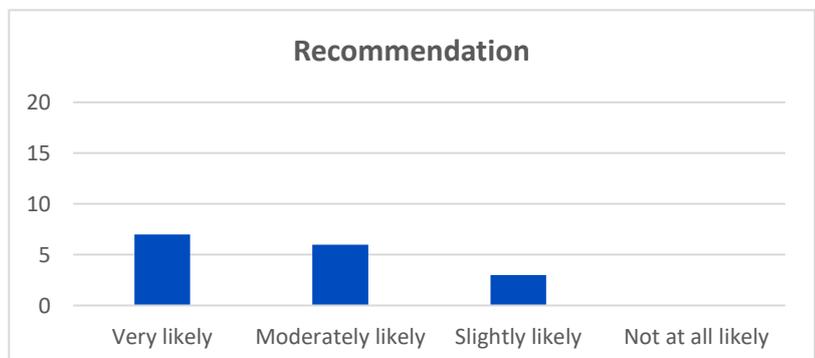


FIGURE 234 - SOFIA. RECOMMENDATION.

- Up-to-date connection to data sources and their automatic transfer to the platform
- Further improvement of the user interface.
- To expand the functionalities of the platform, enabling the analysis of different types of data (structured or not).
- Filtering the database according to geolocation
- Presentation of the platform to individual structures to convince them of the utility of the tool and the convenient way of working with it.
- User interface to be easier for users to use. Users of the platform, policy makers, can successfully use the platform themselves, from uploading data to creating and using analysis.
- Ability for users to submit data to be analysed.
- More communication and constant presence of interface designers in the work team. Mobile application, internal chat for constant polling of users.
- To provide the ability to load databases that are not from the contact centre. This will make it possible to combine data from different sources.
- To have a greater possibility to load different types of data
- By connecting it to specific platforms where different data (from the urban environment) are collected. Thus, the platform itself will update the data it has.
- Active dialogue with the user of this product.

***Policy evaluation***

Ease of policies creation	
	# Participants
Very easy	9
Moderately easy	4
Slightly easy	3
Not at all easy	0
Other	0

TABLE 235 - SOFIA. EASE OF POLICIES CREATION

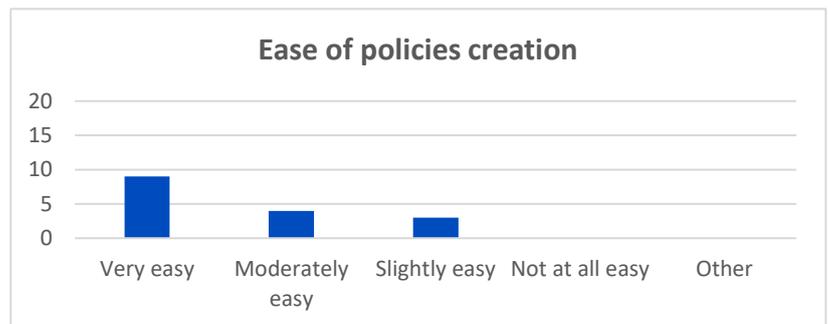


FIGURE 235. SOFIA. EASE OF POLICIES CREATION.

Ease of KPIs definition	
	# Participants
Very easy	9
Moderately easy	4
Slightly easy	3
Not at all easy	0
NS/NC	0

TABLE 236 - SOFIA. EASE OF KPIS CREATION

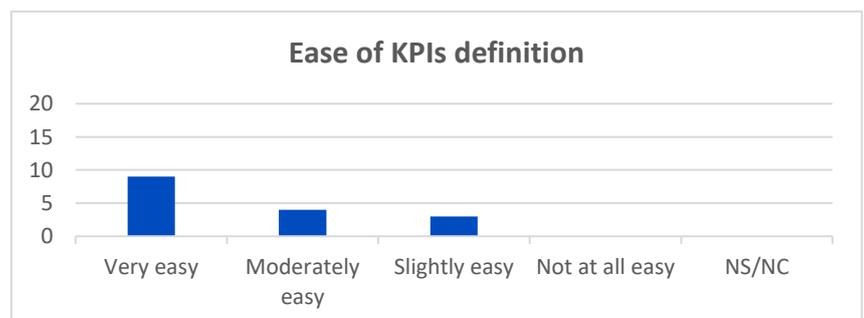


FIGURE 236 - SOFIA. EASE OF KPIS DEFINITION.

Ease of KPIs evaluation	
	# Participants
Very easy	9
Moderately easy	2
Slightly easy	5
Not at all easy	0

TABLE 237 - SOFIA. EASE OF KPIS EVALUATION

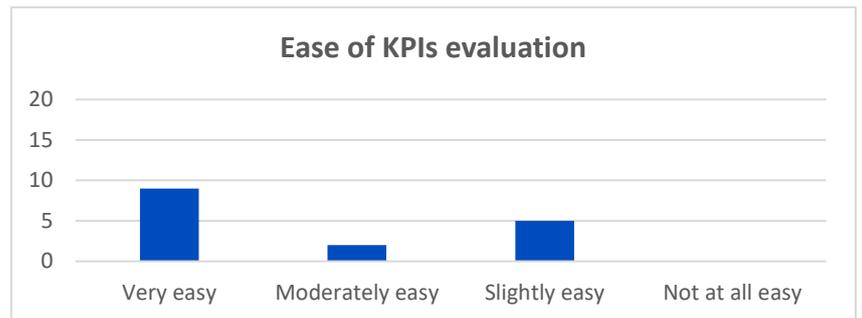


FIGURE 237 - SOFIA. EASE OF KPIS EVALUATION.

Clarity of results	
	# Participants
Very clear	9
Moderately clear	5
Slightly clear	2
Not at all clear	0

TABLE 238 - SOFIA. CLARITY OF RESULTS

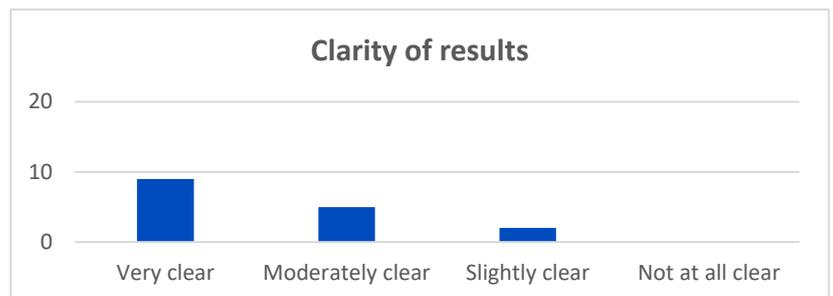


FIGURE 238 - SOFIA. CLARITY OF RESULTS.

### Difficulties in the process of the Policy Model creation

- Defining parameters
- I don't see any great difficulty.
- I experienced no difficulties.
- Many steps requiring a good knowledge of the system are needed to create a policy model
- Lacks flexibility and adaptability
- Implementation of data
- I can't judge
- I don't see any

### Difficulties in PDT

- I don't have enough experience using the platform to judge
- There is an opportunity to compare different databases

### Suggestions

- Stakeholders raised a question about the data upload capabilities – who will have the commitment to process the data so that it is structured in a way that is accessible for use on the platform?
- Will there be a team that will carry out these activities or will the users follow steps described in a manual to prepare the data for use of the platform?

- It is not clear how the platform will be used after the end of the project. This is worrisome for stakeholder because, according to them, this uncertainty threatens the future functioning of the cloud infrastructure, which will need maintenance in the long term
- There was a question about how to make suggestions for optimizing the platform after it has started to be actively used. As people gain more experience working with the tools, they will have more ideas and suggestions for optimizing it. How will they be able to do it? By using an internal chat or sending an email to technical support with a suggestion? How will there be feedback for users?
- We had a question about whether there would be a limit to the size and type of data that individual users would be able to upload. Will there be a monthly or yearly upload limit?
- The participants made a proposal to connect the platform with other platforms that collect data from the urban environment in order to be able to work with always up-to-date data without requiring the intervention of technical support, but whether such an integration would affect the amount, which will be designated for payment?

## 9 Final Event Conclusions

On Thursday, December 1st, a meeting was held to discuss the results of the PolicyCloud tool. The meeting was attended by representatives from Aragon, Maggioli, and Sofia (and ATOS as project Coordinator).

During the first half of the meeting, the results of the different co-creation sessions from Aragon, Maggioli and Sofia were presented. Each of use cases owners presented a brief description of their use cases and the results that were obtained during the meetings was provided. The second half of the meeting was dedicated to interview and discuss with uses cases owners about policy makers conclusions who were interested in the PolicyCloud tool. The current status of the tool and the potential impact was discussed. Feedback and opinions from the policy makers about the tool and its potential future use in the policy decision-making process were also solicited to the participants. Overall, the feedback was positive and there was interest in continuing to develop and refine the PolicyCloud tool.

Ex-post
Longitudinal impact assessment
Evaluation of the impact on productivity and innovation in the process of policy implementation
Interview (qual) Survey (quant)
Policy Makers & Stakeholders

FIGURE 239 - EVALUATION PHASES, FINAL EVENT EX-POST PHASE

The objective of the co-creation workshops was to evaluate the impact of the PolicyCloud tool on productivity and innovation in the policy implementation process. As part of the methodology presented in previous deliverables, a longitudinal impact assessment approach has been used. Specifically, an assessment ex-post has been conducted, meaning that the effects of the tool have been analysed after they had been implemented. In order to conduct the assessment, data have been gathered from various sources, including surveys and interviews with policy makers who were using the PolicyCloud tool (the data obtained are in section 8).

## 9.1 Use Case 1. Participatory against radicalization conclusions

After evaluating the PolicyCLOUD tool using several scenarios, the following general opinions have been obtained:

- In the "Radicalization incidents" scenario, participants found the tool quite effective, and they appreciated its simplicity. The heatmap was considered useful for policy makers and the tool was found to be well-integrated with various data sources. Policy makers reported using the tool and testing it in real-world situations.
- In the "Radicalized groups and individuals" scenario (which was not completed), participants had positive opinions of the "Politika" tool. However, they noted that the tool was still a prototype and had usability issues. The tool was also considered to be more suitable for technical users, as it had many parameters that needed to be entered in order to use it effectively.
- In the "Trend analysis" scenario, participants noted that the tool was still a prototype and required more data to be integrated in order to improve its effectiveness. They also noted that the tool was not dynamic and had limited usability, but they believed that it could be useful for policy makers in a higher TRL.
- In the "Near-real-time assessment of online propaganda" scenario, participants opinion was similar than in the previous scenario. More data are needed to be integrate to improve the effectiveness of the tool. The tool is quite static so its usability is also very limited, but when it has a higher TRL, they really believe that it could be useful for policy makers.

In terms of innovation, participants believed that the PolicyCLOUD tool has the potential to be innovative in the public administration, particularly in scenarios that involve the analysis of social media. However, they noted that the first scenario (Radicalization incidents) was perhaps the least innovative of the evaluated ones.

In terms of productivity, participants believed that the PolicyCLOUD tool has the potential to improve productivity, but only if it reaches a higher TRL. The current TRL of the tool is estimated to be 5 based on the use cases that have been evaluated.

Overall, participants expressed interest in using the tool in the future, particularly in the region of Lombardia for the analysis of social media. However, they emphasized that the tool would need to reach a higher TRL it to be effective in other use cases beyond the domain of terrorism.

The KPI Analysis was done from D6.13 [13] and now, their degree of achievement is presented:

- KPI1: Reduction of time to develop a new policy to counter radicalization targeting vulnerable groups (e.g. children, youth, migrant). **Probably, with higher TRL**
- KPI2: Increase in community engagement and multi-agent cooperation in policy development, **No, one point to improve in the future**
- KPI3: Reduce time to make prediction of possible risk of radicalization, **Yes**

- KPI4: Number of data sources integrated and linked in the PDT, **Yes with twitter**
- KPI5: Number of open datasets about radicalization integrated in the PDT, **Yes**
- KPI6: Increased number of algorithms / analytics tools used by the policy maker, **Yes**
- KPI7: New tools for visualisation of radicalization efforts integrated and used by the policy maker, **Yes**
- KPI8: Increased number of analytics tools (algorithms) used by the policy maker, **Yes**
- KPI9: Number of identified occurrences of radicalization incidents in a given area, **Yes**
- KPI10: Number of identified active groups/individuals in a given area, **No, due to Privacy restrictions**
- KPI11: Number of new terms / keywords identified from the policy maker, **Not, really**
- KPI12: Number of negative opinions on social networks from the different groups / individuals, **Not, really**

## 9.2 Use Case 2. Intelligent policies for the development of agrifood industry (Aragon) conclusions

After evaluating the PolicyCLOUD tool using several scenarios, the following general opinions have been obtained:

- In the "Politika" scenario, some participants found the tool difficult to understand, especially for those who are not technically inclined. Additionally, the tool was perceived as a scientific tool rather than a business tool. The parameters of the tool were also difficult to understand and manage for non-technical users.
- In the "Price Evolution" scenario, participants found the tool to be useful, but suggested that more data and crawlers would be necessary to improve its effectiveness. The visualization was also considered useful, as it allowed for the integration of a variety of data sources into a single view.
- In the "Trend Analysis" scenario, participants suggested that more data sources would be necessary to improve the tool's effectiveness. They also found the visualization to be useful for policy decision-making.
- In the "Opinion Analysis" scenario, participants also suggested that the effectiveness of the tool should be improve using more data sources. The visualization was also considered useful for policy decision-making.

In terms of innovation, participants noted that the tool has the potential to be an innovative and useful tool, but would need to reach a more advanced technology readiness level (TRL) in order to achieve this. In terms of productivity, participants believed that the tool has the potential to improve productivity, but

again, this would require it to reach a higher TRL. The current TRL of the tool is estimated to be between 5 and 6 based on the use cases that have been evaluated.

Overall, participants expressed interest in using the tool in the future, particularly for scenarios such as "Price Evolution" and "Trend Analysis," but only if the tool reaches a higher TRL.

The KPI Analysis was done from D6.13 [13] and now, their degree of achievement is presented:

- KPI 1 Improve the impact of investment in agri-food promotion (wine sector), **Yes**
- KPI 2 Coordinate actions of the different competent administrations, **Yes**
- KPI 3 Improve the flexibility of the data structure, **Yes**
- KPI 4 Provide real -time calculation capacity, **to be validated with the use of the tool by final users with more time**
- KPI 5: Unification and/or interoperability of data sources, **Yes, Twitter plus crawlers Politika...**
- KPI 6 Increase process speed, **Yes, twitter, and data crawling**
- KPI 7: Increase speed of information access, **Yes, we reduce the time**
- KPI 8 Total number occurrences, **No**
- KPI 9 relative Total n° occurrences %, **No**
- KPI 10 Opinion (-1 (negative) to 1 (positive)) | impact. **Yes**
- KPI 11 increment of the impact in the last month, **Yes, when increase the data available**
- KPI 12 Increment price in the last month, **Yes, when increase the data available**

### 9.3 Use Case 3. Facilitating urban policy making and monitoring through crowdsourcing data (Sofia) conclusions

After evaluating the PolicyCLOUD tool using several scenarios, the following general opinions have been obtained:

- In the "Visualization A" scenario, participants noted that the tool was able to ingest 5 datasets, but one dataset was left in "violation order dataset". The main concern of participants was the difficulty in inserting data into the tool. They reported that the tool was not usable at its current TRL, as policy makers were unable to insert data into it. Participants suggested that future

versions of the tool should include a way to easily insert data, and emphasized the need for clear documentation on how to use the tool.

- In the "Trend and forecasting analysis" scenario, participants noted that the tool was adapted from a similar tool used in London. They found the tool to be useful for specific analysis and the identification of potential future events, but emphasized the need for fresh data in order to make accurate predictions. Participants also noted that the tool was at a low TRL and would require further development in order to be more useful for policy makers.
- In the "Cross Analysis" scenario (which was not completed), participants did not have any specific comments.

In terms of innovation, participants believed that the PolicyCLOUD tool provided an advantage over existing solutions in the visualization of data.

In terms of productivity, participants believed that the PolicyCLOUD tool has the potential to improve productivity, but suggested that it would need to be tested further in order to accurately evaluate its impact. The current TRL of the tool is estimated to be between 5 and 6 based on the use cases that have been evaluated.

Overall, participants expressed interest in using the tool in the future and hoped to share the results of the project

The KPI Analysis was done from D6.13 [13] and here, their degree of achievement is presented:

- KPI1: Increased efficiency: Reduction of time to develop a policy, **Yes, new tool not available**
- KPI2: Increase in stakeholders' engagement in policy development, Difficult to measure now
- KPI3: Policy recommendations implemented in the annual city plan, **Not yet, how we are going to use the tool, in the future. It is required time to validate the tool. Fresh data is the key for the tool, today not resolved.**
- KPI4: Number of data sources integrated and linked to the PDT, Yes

## 9.4 General conclusions of the PolicyCLOUD tools

In general, the feedback received from the evaluation of the PolicyCLOUD tool has been positive. Participants appreciated the tool's potential for innovation, particularly in the analysis of social media data. However, they also noted that the tool is still a prototype and requires further development in order to be more useful for policy makers. In particular, participants suggested that the tool should be more user-friendly, with clear documentation and a way for policy makers to easily insert data. In terms of productivity, participants believed that the tool has the potential to improve productivity, but they suggested that it needs to be tested further in order to accurately evaluate its impact. The current TRL of the tool is estimated to be between 5 and 6, depending on the use case. Policy makers expressed interest in using the tool in the future, but they emphasized that it would need to reach a higher TRL in order to be effective in other domains beyond the current ones.

## 9.5 Best practices and Lessons learned

Based on these conclusions, there are several best practices and lessons learned from PolicyCLOUD project:

- **Focus on user-friendliness:** To be more useful for policy makers, the tool should be easy to use and have clear documentation. This will help ensure that it is adopted and used effectively.
- **Test and evaluate the tool's impact on productivity:** Participants believed that the tool has the potential to improve productivity, but it is important to test it further to accurately evaluate its impact. This will help determine the tool's value and usefulness to policy makers.
- **Consider the tool's Technology Readiness Level (TRL):** The current TRL of the tool is estimated to be between 5 and 6, which means it is in the early stages of development and may not be ready for widespread use. Policy makers may be interested in using the tool in the future, but it may need to reach a higher TRL to be effective in other domains beyond the current ones.
- **Focus on innovation:** Participants appreciated the tool's potential for innovation, particularly in the analysis of social media data. It may be useful to continue exploring new and innovative ways in which the tool can be used to support policy makers.
- **Seek feedback and input from users:** The feedback received from the evaluation of the tool was positive, but also included suggestions for improvement. It is important to continue seeking feedback from users and incorporating their suggestions in order to make the tool as useful and effective as possible.

The PolicyCLOUD tool has a good concept and it is useful for participants, but in order to be more widely adopted and effective, it is important to focus on commercialization and increasing its Technology Readiness Level (TRL).

This lesson learned suggests that while the tool has demonstrated potential and has been well-received by participants, it may still be in the early stages of development and may not yet be ready for widespread use. By focusing on commercialization and increasing the tool's TRL, it can become more mature and ready for wider adoption, which will increase its usefulness and effectiveness for policy makers. It may be useful to consider strategies for bringing the tool to market and further developing it in order to reach a higher TRL and increase its impact and value.

## 10 Conclusions

Determining the impact of the project and its contribution to the evidence-based policy implementation process is a challenging task. This document details the evaluation process, in particular the outcomes of the evaluation of the PolicyCLOUD technologies and the benefits they provide. It presents the evaluation results of different scenarios, for each one of the use cases, carried out by policy makers.

Overall, the results showed that the PolicyCLOUD tool had a positive impact on productivity and innovation in the policy implementation process. Policy makers reported that the tool helped them to save time and make better-informed decisions, which led to improved efficiency and effectiveness in the policy implementation process. Additionally, the tool also facilitated collaboration and knowledge sharing among policy makers, which helped to foster a culture of innovation within the organization.

The workshop participants had varying impressions of the different scenarios, with some expressing strong interest in its potential for helping with the contrast of political and religious radicalization, while others noted the difficulties of having a dedicated technical staff member for the tool. However, all attendees agreed that the tool could be valuable in their work and were interested in updates on its integration with Twitter data and potential uses in other domains. Some participants also suggested improvements such as easier access, more information and data sources, and better design. In addition, they suggested testing the technology in other sectors and continuing to develop the tools. Overall, the attendees were impressed by the scenarios presented and they appreciated the validation of the tool by sociology professors. The feedback received regarding the PolicyCLOUD tool has been generally positive. Participants acknowledged the potential for innovation in its ability to analyse social media data, but also pointed out that it is still in a prototype stage and requires further development. Suggestions for improvement included making the tool more user-friendly and providing clear documentation and a means for policy makers to easily input data. In terms of productivity, participants believed that the tool has the potential to improve efficiency, but they emphasized the need for further testing to accurately evaluate its impact. The current TRL of the tool is estimated to be between 5 and 6, depending on the specific use case. Policy makers expressed interest in utilizing the tool in the future, but they remarked that it would need to reach a higher TRL in order to be effective in other domains beyond the current ones.

Based on our findings, we conclude that the PolicyCLOUD tool is an effective tool for improving productivity and fostering innovation in the policy implementation process. We recommend that policy makers continue to use the tool and explore ways to further improve its effectiveness and efficiency. While the feedback we have received has been generally positive, we recognize that there is still work to be done in order to turn our platform into a production-ready tool that is suitable for use by policy makers. We are committed to continuously improving our platform and to making it as effective and useful as possible in order to successfully commercialize the PolicyCLOUD system in a future.

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