INTEROPERABILITY SOLUTIONS FOR
EUROPEAN PUBLIC ADMINISTRATIONS
MONITORING AND EVALUATION

D03.04/D03.05 Perceived Quality and Perceived Utility Monitoring Report

ISA ACTION 2.13 Establishment of a European Union Location Framework (EULF)

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EXECUTIVE SUMMARY

The purpose of this section is to provide an overview of the key findings of the Perceived Quality and Perceived Utility of the documentation and the tools/services of **the ISA Action 2.13 – Establishment of a European Union Location Framework (EULF).** The objective of the survey is to measure the action's Perceived Quality, which is defined as the extent to which the outputs of an ISA action are meeting its direct beneficiaries' expectations[1], and Perceived Utility, which is defined as the extent to which the effects (impact) of an ISA action correspond with the needs, problems and issues to be addressed by the ISA programme[2] and the actions' specific objectives.

The evaluation of Action 2.13 was included in the combined survey with Action 1.17. It was agreed to launch a joint survey as both actions are complementary to each other and the majority of the target audience for both actions overlaps. The survey was designed in the EUSurvey tool and distributed by e-mail to 355 contacts. Over the duration of more than two months[3], 24 stakeholders have responded, from whom 14 respondents qualified for the evaluation of the Perceived Quality and Perceived Utility of the documentation and the tools/services of EULF based on their association with a particular stakeholder group (see section 5.2) and experience working with any of the EULF outputs.

Table 1 and Table 2 give an overview of the main results of the survey. The detailed score calculation process is described in section 5.4.4.

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TABLE 1 – ACTION 2.13 PERCEIVED QUALITY SURVEY MAIN RESULTS

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	Score	Explanation of the score scale
Usefulness Score	Not measured[4]	Average value on a scale from 1 (Not Useful at All) to 7 (Very Useful).
Value Score	4.24	Average value of all the statement means in the range from 1 (Disagree) to 5 (Agree).
User Satisfaction Score	82.14	User Satisfaction Score from 0 (none of the respondents are satisfied) to 100 (all respondents are satisfied with the work performed by the Action).
Net Promoter Score	29	Net Promoter Score from -100 (every customer is a Detractor) to 100 (every customer is a Promoter).
OVERALL PERCEIVED QUALITY SCORE	4.04	**The Overall Perceived Quality Score is the average value of the Usefulness Score (in Action 2.13 the Usefulness Score was not measured), the Value Score, the User Satisfaction Score, and the Net Promoter Score reduced to a five point scale in range from 1 – the lowest score to 5 – the highest score.**

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[1] DG BUDG (2004), "Evaluating EU activities, a practical guide for the Commission services"
[2] Papadomichelaki, X. and Mentzas, G. (2012), "e-GovQual: A multiple-item scale for assessing e-government service quality"
[3] The survey was launched on the 27th of February 2016 and was active until the 6th of May 2016.
[4] The usual, single question to assess the action's usefulness score was replaced by a series of questions specific to Action 2.13. These questions are included in the further data analysis in the other sections.

TABLE 2 – ACTION 2.13 PERCEIVED UTILITY SURVEY MAIN RESULTS

	Score	Explanation of the score scale
Usefulness Score	Not measured [4]	Average value on a scale from 1 (Not Useful at All) to 7 (Very Useful).
Value Score	4.20	Average value of all the statement means in the range from 1 (Disagree) to 5 (Agree).
User Satisfaction Score	83.48	User Satisfaction Score from 0 (none of the respondents are satisfied) to 100 (all respondents are satisfied with the work performed by the Action).
Net Promoter Score	21	Net Promoter Score from -100 (every customer is a Detractor) to 100 (every customer is a Promoter).
OVERALL PERCEIVED UTILITY SCORE	3.99	**The Overall Perceived Utility Score is the average value of the Usefulness Score (in Action 2.13 the Usefulness Score was not measured), the Value Score, the User Satisfaction Score, and the Net Promoter Score reduced to a five point scale in range from 1 – the lowest score to 5 – the highest score.**

It is important to take into account that only 24 respondents participated in this survey, from whom only 14 qualified for the Perceived Quality and Perceived Utility evaluation of the documentation and the tools/services of EULF. It means that the results of this action are more like indicators of the Perceived Quality and Perceived Utility. The survey results do not fully represent the opinions of all the users.

Main findings:

- The survey results demonstrate that the documentation and the tools/services of the **Action 2.13 – EULF comply with both the ISA programme and the action's specific objectives**.

- Respondents of the EULF survey are satisfied with the action's outputs – the documentation and the tools/services.

- Regarding the Perceived Quality, the results show that the tools/services dimensions (Performance, Usability (services/tools), and Support) are more conformable to the EULF than the documentation dimensions (Accuracy, Usability (documentation), Expandability and Completeness).

- According to the respondents, specific examples/implementations for the documentation and the tools/services of the EULF are needed.

- Maintenance of the documentation is essential.

Recommendations:

- The structure of the EULF tools/services could be more user-friendly.

- Additional work on the customisation of EULF should be done in order to adapt it to the individual users' needs.

REVISION HISTORY

Date	Version	Description	Authors	Approved by
20/06/2016	0.10	Initial version	CGI - Accenture	
24/06/2016	1.00	Final version	CGI - Accenture	
05/07/2016	2.00	Updated version	CGI - Accenture	
11/07/2016	3.00	Updated version	CGI – Accenture	
16/08/2016	4.00			Approved by HVA on 29/07/2016.

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1 INTRODUCTION

CGI-Accenture has been requested to deliver Perceived Quality and Perceived Utility Monitoring and Evaluation Reports as part of the execution of the ISA programme monitoring (Technical Annex for Specific Contract SC 193 under Framework contract n° DI/07173-00).

Based on the scope of the Specific Contract, the Perceived Quality is to be measured for 15 actions and the Perceived Utility is to be measured for 17 actions. This report covers the Perceived Quality and Perceived Utility measurement of the documentation and the tools/services of Action 2.13 – EULF.

This document is divided into the following sections:

- **Section 1:** provides an overview of the structure of the report;
- **Section 2:** provides an overview of the action and its objectives;
- **Section 3:** explains the methodology used to measure the Perceived Quality and Perceived Utility;
- **Section 4:** summarises the collected data;
- **Section 5:** focuses on the survey results and the data analysis:
    - The demographic profile of respondents;
    - Usage frequency of the action's outputs;
    - Usefulness Score;
    - Perceived Quality and Perceived Utility measurements;
    - Action strengths, weaknesses, opportunities and threats;
    - Statement based on action objectives;
    - Respondent recommendations, expectations and main benefits;
- **Section 6:** provides the survey conclusion and recommendations;
- **Section 7:** appendix includes:
    - Raw data export;
    - Glossary.

2 ACTION 2.13 – ESTABLISHMENT OF A EUROPEAN UNION LOCATION FRAMEWORK

The objective of this action is to develop and test the concept of a European Union Location Framework (EULF) - an EU-wide, cross-sector interoperability framework for the exchange and sharing of location data and services.

The EULF concept consists of a package of recommendations, guidance, methodologies, case studies, training, pilots and collaborative action required by Public Administrations (PAs) and stakeholder communities to facilitate the free flow of location data and ensure its effective use in eGovernment services. The EULF will set up an open and interoperable framework that public authorities should use for their procurement. It will complement and extend the implementation of the INSPIRE Directive to facilitate the introduction and use of the infrastructure in new thematic sectors.

The purpose of EULF is to help "location-enable" eGovernment, by providing a framework for assessment and action for exchange and sharing location information. This framework is relevant to all sectors and across borders, using INSPIRE in new situations and delivering location interoperability alongside the other ISA actions.

The outcome of the work so far is a strategic vision based on extensive consultation, an initial blueprint of concrete recommendations and guidance on topics such as procurement, the use of standards, and opportunities for the alignment of strategies and policies, and a series of pilot developments to apply and test the EULF blueprint in key sectors (transportation, marine and energy).

The EULF vision is based on the premise that "more effective e-services, savings in time and money, and increased growth and employment will result from adopting a coherent European framework of guidance and actions to foster interoperable cross-sector and cross-border sharing and use of location information".

The EULF activities focus on five priority areas, agreed upon with Member States: policy and strategy alignment, eGovernment integration, standardisation and interoperability, return on investment and effective governance and partnerships.

The EULF Action, together with Action 1.17 - ARE3NA (A Re-usable INSPIRE Reference Platform), forms the geospatial contribution to the ISA programme. EULF is the framework for adoption of best practice and ARE3NA contributes key technical components, with both supporting the implementation of INSPIRE. They are both led from the Joint Research Centre. The EULF and ARE3NA actions receive policy and technical advice from the ISA Working Group on Spatial Information and Services, which includes location and eGovernment representatives from Member States as well as input from the ISA programme.

As well as having important links with ISA, the EULF action also re-uses and contributes to the work of other European projects and initiatives such as the European Location Framework (ELF), GeoSmartCity, and UN-GGIM Europe.

The respondents of the survey were asked to provide their feedback on the following action outputs:

- **Documentation:** EULF Strategic Vision, Assessment of the Conditions for an EULF, EULF References, EULF Factsheets, EULF Guidelines for Public Procurement of Geospatial Technologies, EULF/ISA Integration Strategy and Plan, Blueprint Overview (draft), Architectures and Standards for SDIs and e-Government (draft), Benefits Approach (draft), **Transportation Pilot documents** - Linear Referencing Guidance, TN-ITS as a service in CEN-TC 278, Pilot Video), **Marine Pilot documents** - Analysis of requirements linking INSPIRE and MSFD, Mapping of MSFD spatial data requirements to INSPIRE, EMODNet and INSPIRE collaboration framework, Analysis of MS/EEA dataflows, **Energy Efficiency Feasibility Study and Pilot documents -** "Location data for buildings related energy efficiency policies" feasibility study, "Spatial data for modelling building stock energy needs" workshop papers, Report on "Buildings related datasets in the INSPIRE Geoportal";

- **Tools and Services: Transportation Pilot -** TN-ITS data exchange service, ELF webinars, **Marine Pilot -** Sandbox, processes and tools to collate, transform and harmonise data for MS/EE dataflows, INSPIRE training webinars and events.

Action's objectives:

- To improve the way location information is used in eGovernment services, giving efficiency and effectiveness benefits to public authorities and their constituencies.

Action's benefits:

- Increased awareness of location and interoperability;

- Increased policy coherence;

- Better processes and systems, effective links across the public sector;

- Access to guidelines and best practices, reusable approaches;

- Improved services, simplified interactions with government;

- Better government partnerships, easier introduction of new products, market access.

3 SURVEY METHODOLOGY

A common methodology was developed by the CGI-Accenture team for all the surveys included in the Perceived Quality and Perceived Utility Monitoring and Evaluation Reports. The common methodology enables a comparison between the different action results. The first section explains how the Perceived Quality is measured and which dimensions are covered. The second section explains how the Perceived Utility is measured and which dimensions are covered. The next section gives an overview of the main survey measurements. The last section describes the architecture of the survey.

3.1 PERCEIVED QUALITY

Perceived Quality is defined as the extent to which the outputs of an ISA action are meeting its direct beneficiaries' expectations[1].

Eight dimensions are used to measure the Perceived Quality criterion. These dimensions are derived from the main objectives of the ISA programme. Perceived Quality for information is measured using Framework for Assessing Documentation Adequacy[5] and it covers the following four dimensions:

- **Accuracy (A)**: the freedom from mistake or error; a synonym is "correctness"[5];

- **Completeness (C)**: the possession of all necessary parts, elements or steps[5];

- **Usability (U)**: the capability, convenience of using the document(s)[5];

- **Expandability (Ex)**: the ability to apply in broader/other context (for example to cross-sector, or from local to regional, national level)[5].

The survey statements for the dimensions listed above are developed according to the information presented in the framework specification[5] document.

Perceived Quality for tools and services is measured using an adaption of the eGovQual scale model[6] which covers the following four dimensions:

- **Usability (Us)**: the ease of using or user friendliness of the tool/service and the quality of information it provides[6];

- **Trust (Privacy) (T)**: the degree to which the user believes the tool/service is safe from intrusion and protects personal information[6];

- **Performance (P)**: the feasibility and speed of accessing, using, and receiving services of the tool/service[6];

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[5] Arthur J. D, Stevens K. T (1990), "Document Quality Indicators: A Framework for Assessing Documentation Adequacy"
[6] Papadomichelaki X., Mentzas G (2012), "e-GovQual. A multiple-item scale for assessing e-government service quality" http://imu.ntua.gr/sites/default/files/biblio/Papers/e-govqual-a-multiple-item-scale-for-assessing-e-government-service-quality.pdf

- **Support (S)**: the ability to get help when needed and the level of service received[6].

Due to the non-applicability of the Trust (Privacy) dimension, it was excluded from the evaluation of Action 2.13 –EULF upon the request of the Project Officer.

The survey statements for the dimensions listed above are directly adapted from the statements used in the eGovQual scale model.

3.2 PERCEIVED UTILITY

Perceived Utility is defined as the extent to which the effects (impact) of an ISA action correspond with the needs, problems and issues to be addressed by the ISA programme[7] and the actions' specific objectives.

Regarding the Perceived Utility measurement, several statements are derived from the objectives of the ISA programme. These statements are grouped into three dimensions which are defined as the criteria for measuring the Perceived Utility:

- **Potential Re-usability:** the degree to which the action's outcome(s) can be reused by PAs;

- **Sustainability:** to what extent the financial, technical and operational sustainability of solutions is ensured[8];

- **Collaboration:** the degree to which the action promotes/facilitates collaboration/cooperation between PAs[9].

The survey statements for the dimensions listed above were developed according to:

- The ISA programme's main objectives: "To support cooperation between European Public Administrations by facilitating the efficient and effective electronic cross-border and cross-sectorial interaction between such administrations, including bodies performing public functions on their behalf, enabling the delivery of electronic public services supporting the implementation of Community policies and activities" and actions' specific objectives.[10] The Perceived Utility statements were tailored to reflect these objectives and were based on the ESOMAR[11] (World Association of Opinion and Marketing Research Professionals) standards.

The developed Perceived Utility dimensions allows to perform a comparison between different actions and also will provide the opportunity to see if the ISA programme's objectives have been met (from the user point of view).

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[7] Papadomichelaki, X. and Mentzas, G. (2012), "e-GovQual: A multiple-item scale for assessing e-government service quality"
[8] European Commission (2013), Interim evaluation of the ISA programme, "Report from the Commission to the European Parliament and Council COM (2013) 5 final".
[9] CRN (2015), Collaboration http://research.crn.com/technology/knowledge_management/collaboration
[10] Decision No 922/2009/EC of the European Parliament and of the Council of 16 September 2009 on interoperability solutions for European Public Administrations (ISA) (2009)
[11] ESOMAR, edited by Hamersveld. M., Bont C. (2007), Market Research, Handbook, 5th Edition

3.3 SURVEY MEASUREMENTS

In the data analysis, the core types of measurements which are performed include the Value Score, the User Satisfaction Score, the Net Promoter Score and the Overall Score for Perceived Quality and Perceived Utility. The survey measurements are divided into two groups: action level measurement and Perceived Quality and Perceived Utility level measurements.

Action level measurements:

- The Usefulness Score indicates the respondents' evaluation of how useful the action is. The Usefulness Score is calculated taking into account the mean value from a single question.

- Action strengths, weaknesses, opportunities and threats: statements are located in quadrants based on the calculated mean values of the dimensions' conformity and dimensions' importance. The quadrants highlight the weak and strong aspects of the action, as well as threats and opportunities.

- Statements based on action objectives show the respondents' evaluation to what extent the action's objectives have been achieved.

Perceived Quality and Perceived Utility level measurements:

- The Value Score shows the action's compliance to the dimensions defined above (see sections 3.1 and 3.2). Two aspects are considered for each dimension. On one side, the importance of the dimension for the users is assessed. On the other side we measure if the action is compliant with the dimension. This section includes statement mapping to dimensions, dimensions conformity results, criterion score and aggregation.

- The User Satisfaction Score shows how satisfied the respondents are with the action. The User Satisfaction Score is assessed with reference to the results of the dimensions' importance and dimensions' conformity evaluation. The User Satisfaction Score is measured at the individual level for each of the survey respondents via the identification of the important dimensions for that particular respondent.

- The Net Promoter Score® (NPS) is a widely used management tool that helps evaluate the loyalty of a customer relationship. In order to evaluate the NPS, the question *"how likely the respondent would recommend the particular action's output to others"* is asked.

- The Overall Score is used to get a single score that describes the overall Perceived Quality and Perceived Utility of the action. In order to determine the Overall Score, the average value of the Usefulness Score, the Value Score, the User Satisfaction Score and the Net Promoter Score is calculated. To calculate the Overall Score, all measurements are reduced to a five point scale.

3.4 SURVEY ARCHITECTURE

The survey is divided into several sections which are outlined below:

- The demographic profile: for the purpose of identifying the respondents' demographic profile, respondents are asked to answer several questions. The demographic profile illustrates the diversity of the respondents who have participated in the survey.

- Usage of the action outputs: for the purpose of identifying the usage rate of the action outputs, the respondents are asked to answer several questions regarding the usage of every action output. These questions also work as filters, selecting the respondents who should evaluate the statements regarding the specific action output.

- The action's Usefulness: for the measurement of the action's usefulness, the respondents are asked to evaluate a single question using a 7-point Likert grading scale[12].

- The Perceived Quality and Perceived Utility Measurement: in order to measure the Perceived Quality and Perceived Utility, the respondents are asked to grade dimensions and statements based on their level of importance and agreement using a 5-point Likert grading scale[12]. Responses to these questions are used to determine the Value Score, action strengths, weaknesses, threats and opportunities, and the User Satisfaction Score.

- The Net Promoter Score: there is a single question that measures the Net Promoter Score. By answering this question, the respondents indicate their likelihood of recommending the action's outputs to colleagues or other PAs.

- Action strengths, weaknesses, opportunities and threats show the location of the action statements based on dimensions' conformity and importance results.

- Statements based on action objectives: in order to evaluate the extent to which these objectives conform to the action, the respondents are asked to grade statements based on their level of agreement using a 5-point Likert grading scale[12].

- The recommendations: the last section includes several open questions for recommendations, expectations and opinions regarding the action and the survey.

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[12] A Likert Scale is a widely used scaling method developed by Rensis Likert. Likert scale refers to the use of an ordinal 4- or 5-point rating scale with each point anchored or labeled.

4   SURVEY DATA SUMMARY

This section aims to provide detailed information about the data gathering fieldwork. Table 3 gives an overview of the survey start and end dates, the number of respondents the survey was proposed to, the amount of responses collected, as well as the survey launching method.

TABLE 3 – ACTION 2.13 SURVEY TECHNICAL INFORMATION ABOUT THE FIELDWORK

Start date:	27/02/2016
End date:	06/05/2016
The survey launch method:	E-mail notification
Reminders:	E-mail reminders sent out on 14/03/2016, 23/03/2016 and 15/04/2016
Target population:	355
Total number of respondents:	24
Number of suitable respondents for the survey:	14[13]

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[13] 24 stakeholders have responded, from whom 14 respondents qualified for the evaluation of the Perceived Quality and Perceived Utility of the documentation and the tools/services of EULF based on their association with a particular stakeholder group and experience working with any of the EULF outputs.

5 SURVEY RESULTS AND ANALYSIS

This section aims to provide the detailed survey analysis and to present the results.

5.1 DEMOGRAPHIC PROFILE OF RESPONDENTS

The respondents' demographic profiles tend to describe the action respondents from the demographic point of view and to illustrate the diversity of the respondents. Table 4 gives an overview of the demographic profile of the respondents. **It is important to take into account that only 24 respondents participated in this survey, from whom only 14 qualified for the Perceived Quality and Perceived Utility evaluation of the documentation and tools/services of EULF.**

TABLE 4 – ACTION 2.13 DEMOGRAPHIC PROFILE OF RESPONDENTS

RESPONDENT PROFILE		Amount	Col %
ALL RESPONDENTS		14	100.0
USER PROFILE*	Implementer	12	85.7
	Manager	5	35.7
	Policy maker	3	21.4
	Other (mentioned once: researcher; project manager, strategic planner)	2	14.3
ROLE*	Geographic information specialist	9	64.3
	ICT/e-government specialist	6	42.9
	Geographic information user	4	28.6
	Other (mentioned one time: SDI - e/Government analyst and coordinator; energy expert; ICT Development; Researcher giving support for regional administration; did not specify)	5	35.7
LOCATION	Austria	1	7.1
	Belgium	1	7.1
	Czech Republic	1	7.1
	Germany	1	7.1
	Italy	3	21.4
	Luxembourg	1	7.1
	Slovakia	1	7.1
	Spain	2	14.3
	Sweden	2	14.3
	United Kingdom	1	7.1
ORGANISATION	EU Public Administration at national level	8	57.1
	EU institutions	2	14.3
	Academic	2	14.3
	Private sector	1	7.1
	Public Administration of a non-EU country	1	7.1

Base: all respondents, n=14

*There were multiple choices possible for these questions. This explains why the percentage of responses can exceed 100%.

5.2 USAGE OF THE ACTION

The usage profile provides an overview of the usage rate of the action. Table 5 shows the respondent groups and the outputs used by the respondents. **It is important to take into account that only 14 respondents participated in this survey, thus the percentage value of one respondent is 7.14%.**

TABLE 5 – ACTION 2.13 USAGE OF EULF

USAGE PROFILE		Amount	Col %
ALL RESPONDENTS		14	100.0
GROUP*	ISA Working Group on Spatial Information and Services	5	35.7
	INSPIRE Maintenance and Implementation Group	4	28.6
	EULF Marine Pilot	2	14.3
	INSPIRE Registry/Re3gistry	2	14.3
	EULF Transportation Pilot	2	14.3
	DG Environment	1	7.1
	EULF Energy Pilot	1	7.1
	Other** (mentioned one time: KU Leuven; member of Joinup community; Join up, DRDSI, EU funded projects (smartopendata,SDI4APPs, gi-n2k))	7	50.0
OUTPUTS USED*	Documentation	13	92.9
	Tools/ Services	6	42.9

Base: all respondents, n=14
*There were multiple choices possible for these questions. This explains why the percentage of responses can exceed 100%.
**Four respondents did not specify.

5.3 USEFULNESS SCORE

The usual, single question to assess the action's usefulness score was replaced by a series of questions specific to Action 2.13. These questions are included in the further data analysis in the other sections.

5.4 PERCEIVED QUALITY AND PERCEIVED UTILITY MEASUREMENTS

This section aims to provide a detailed Perceived Quality and Perceived Utility measurement analysis and to present the results.

5.4.1 Value Score

This section includes the analysis and results of Perceived Quality and Perceived Utility Value Scores. It is structured into two main sections: the dimensions' importance and conformity via statements.

5.4.1.1 DIMENSIONS IMPORTANCE

Prior to the evaluation of the dimensions' conformity to the outputs of the action, it is essential to initially ascertain whether these dimensions are important to the respondents while working with the action. If a specific dimension is important to the respondents, then it is essential that its conformity assessment is positive. However, if a dimension is not important to the respondents, then it should not be considered as the action's weakness because of non-compliance with the outputs of the action.

Seven Perceived Quality dimensions (Accuracy, Completeness, Usability (documentation), Expandability, Usability (tools/services), Performance and Support) and three Perceived Utility dimensions (Collaboration, Sustainability and Potential Re-usability) are evaluated in the survey. This section describes the respondents' answers regarding the importance of the dimensions.

Each respondent is requested to provide his/her opinion using the 5-point Likert grading scale. For the dimensions' importance evaluation, a grading scale with values ranging from 'Important' to 'Not important' is used. An additional 'Hard to Say/Not Applicable' option is provided, however this choice is excluded from the score calculations. Before performing the survey data calculations, the 5-point Likert scale values are interpreted as numeric values:

- 5 – Important;
- 4 – Rather Important;
- 3 – Neither Important nor Unimportant;
- 2 – Rather not Important;
- 1 – Not Important;
- 0 – Hard to Say/Not Applicable *(is not considered for the calculation).*

In Figure 1 the bars in pink/red represent the positive one (answers 'Rather important' and 'Important'). In addition, a neutral opinion (the bars in white) and the answer 'Hard to say' (the bars in grey) are presented separately on the right. An explanatory legend with colour codes represents the available data. The average mean value for each of the dimensions is presented on the right side of the figure.

FIGURE 1 – ACTION 2.13 PERCEIVED QUALITY DIMENSIONS IMPORTANCE RESULTS

"How important to you are these factors when using EULF taking into consideration the project as a whole with all its outputs - documentation, tools and services?"
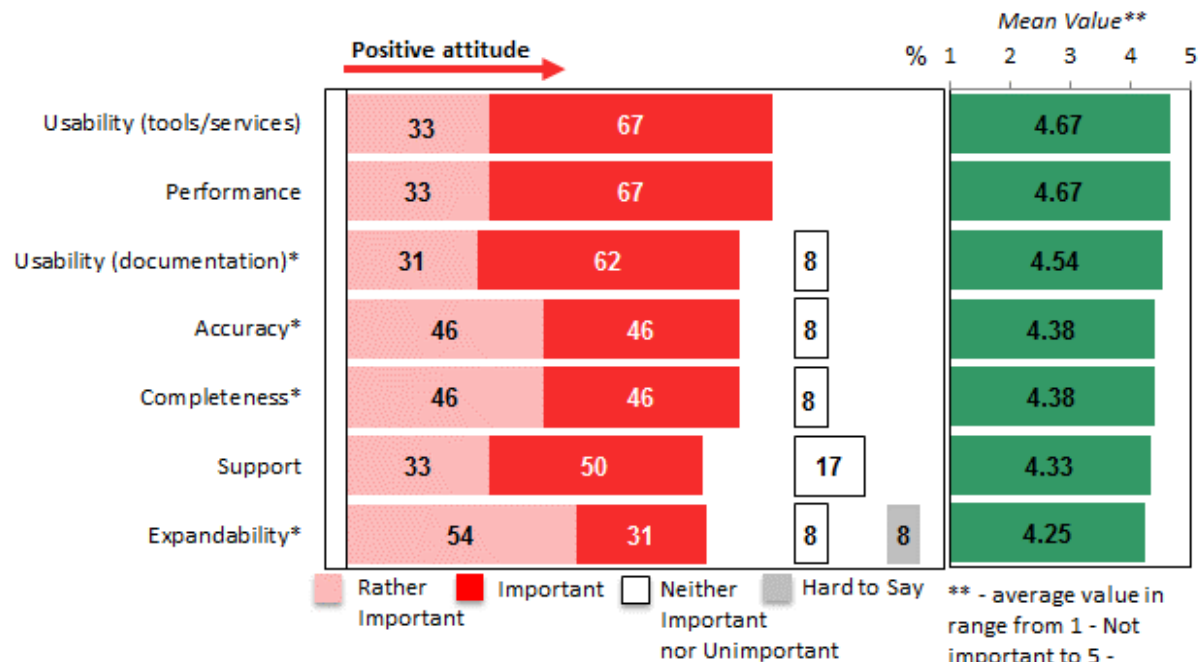
The survey results indicate that the most important Perceived Quality dimensions for Action 2.13 – EULF are the Usability (tools/services) with mean value 4.67, the Performance with mean value 4.67 and the Usability (documentation) with mean value 4.54. The Accuracy (mean value **4.38**), the Completeness (mean value **4.38**), the Support (mean value **4.33**) and the Expandability (mean value **4.25**) dimensions are evaluated slightly lower. All of the dimensions are evaluated with a mean value higher than 4, meaning that all of the dimensions are important to the respondents.

FIGURE 2 – ACTION 2.13 PERCEIVED UTILITY DIMENSIONS IMPORTANCE RESULTS

"How important to you are these factors when using EULF taking into consideration the project as a whole with all its outputs - documentation, tools and services?"
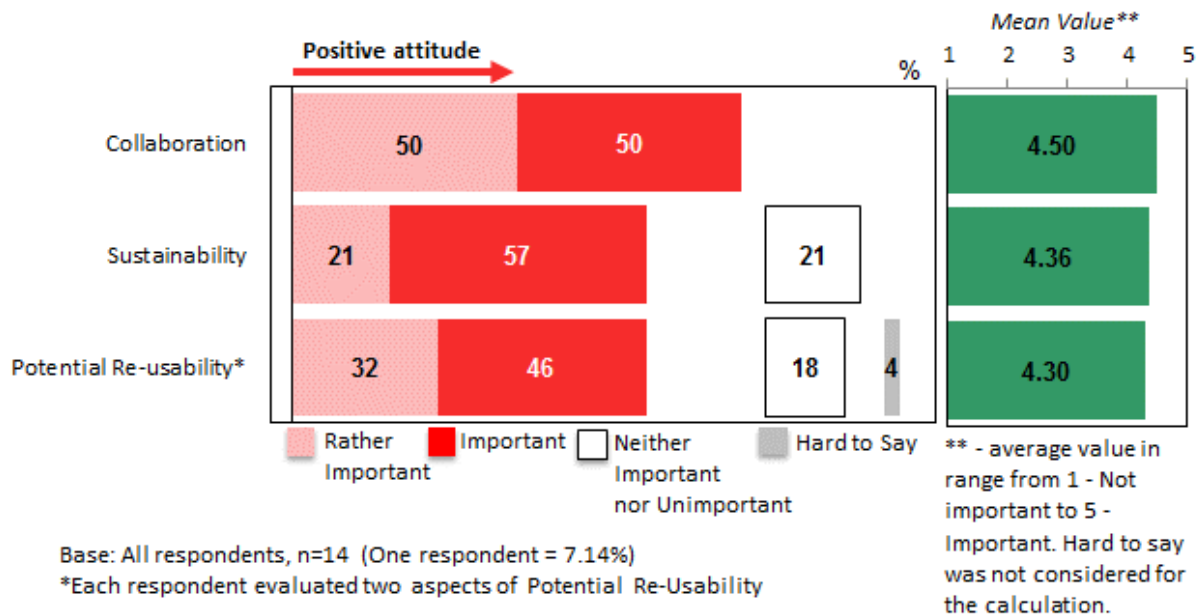

The survey results indicate that the most important Perceived Utility dimension for the documentation and the tools/services of EULF is Collaboration (mean value 4.50). Half of the respondents evaluated the Collaboration dimension as 'Important', while the other half have evaluated it as 'Rather Important'. The Sustainability (mean value **4.36**) and the Potential Re-usability (mean value **4.30**) dimensions are perceived as slightly less important. However, due to the low number of respondents who participated in the survey, the data should be reviewed with caution.

5.4.1.2 DIMENSIONS CONFORMITY

In order to measure the Perceived Quality dimensions' conformity to the action, a set of descriptive statements was developed for each dimension. By evaluating the statement conformity to the action, the extent to which the dimensions correspond to the ISA programme's objectives is measured.

This section provides an analysis of the statements. It starts with statement mapping to dimensions, which is followed by the analysis of the Perceived Quality and Perceived Utility dimension conformity statements. Finally, the last section provides an overview of the statement conformity scores, which are summarised in groups according to the dimensions.

5.4.1.2.1 STATEMENT MAPPING TO DIMENSIONS

In total, Action 2.13 has seventeen Perceived Quality and eight Perceived Utility statements regarding the dimensions' conformity. Table 6 gives an overview of the statements representing each dimension. The Accuracy, the Usability (documentation), the Support, the Collaboration and the Sustainability dimensions are represented by three statements each, while the Usability (tools/services), the Performance, the Completeness, the Expandability and the Potential Re-usability dimensions are represented by two statements each.

TABLE 6 – ACTION 2.13 STATEMENT MAPPING TO DIMENSIONS

	Perceived Quality Statements	Dimension
1	The documentation is accurate	Accuracy
2	The sources of documentation listed are verifiable	Accuracy
3	The documentation is free from grammar/style errors	Accuracy
4	The reference links work and are accessible	Completeness
5	The documentation is complete and does not require additions	Completeness
6	The documentation is appropriate/applicable to my business needs	Usability (documentation)
7	The guidelines are easy to understand	Usability (documentation)
8	The structure of the documentation is clear and the systematic design remains consistent	Usability (documentation)
9	The documentation is applicable to other sectors	Expandability
10	The documentation format is transferrable to other applications	Expandability
11	The structure of the provided service is clear and easy to follow	Usability (tools/services)
12	The service is well customized to individual users' needs	Usability (tools/services)
13	The service is available and accessible whenever it is needed	Performance
14	The service performs the service successfully upon the first request	Performance
15	The support team showed a sincere interest in solving users' problems	Support
16	The support team provided prompt replies to the users' inquiries	Support
17	The support team has a sufficient knowledge to answer users' questions	Support
	Perceived Utility Statements	**Dimension**
1	Overall, the action activities help save costs	Potential Re-usability
2	Overall, the action activities help save time	Potential Re-usability
3	You plan to use the documentation, tools and services in the future	Sustainability
4	The documentation, tools and services provide sustainable solutions that will also be relevant in future	Sustainability
5	Overall, the documentation, tools and services support effective reuse of tools/services/documentation	Sustainability
6	The documentation, tools and services help successfully cooperate with other public administrations/departments	Collaboration
7	Overall, the documentation, tools and services support effective electronic cross-border and cross-sector interaction	Collaboration

8	The documentation, tools and services support the implementation of European community policies and activities	Collaboration

5.4.1.2.2 DIMENSIONS CONFORMITY RESULTS

For the purpose of describing dimensions' conformity to the action, seventeen Perceived Quality and eight Perceived Utility statements are designed for this survey. The respondents are asked to evaluate the extent to which these statements conform to this particular action.

Each respondent is requested to provide his/her opinion using the 5-point Likert grading scale. For the dimensions' conformity evaluation, a grading scale with values ranging from 'Agree' to 'Disagree' is applied. An additional 'Hard to Say/Not Applicable' option is provided, however this score is excluded from the score calculations. Before performing the survey data calculations, the 5-point Likert scale values are interpreted as numeric values:

- 5 – Agree;
- 4 – Rather Agree;
- 3 – Neither Agree nor Disagree;
- 2 – Rather Disagree;
- 1 – Disagree;
- 0 – Hard to Say/Not Applicable *(is not considered for the calculation).*

In order to have an overview of the positive and negative attitude proportions, the bars in blue represent the negative attitude (answers 'Disagree' and 'Rather Disagree'), whereas the bars in pink/red represent the positive one (answers 'Agree' and 'Rather Agree'). In addition, a neutral opinion (the bars in white) and a 'Hard to Say' option (the bars in grey) are presented separately on the right. An explanatory legend with colour codes represents the available data. The average mean value for each of the dimensions is presented on the right side of the figure.

FIGURE 3 – ACTION 2.13 PERCEIVED QUALITY DIMENSIONS CONFORMITY RESULTS

Base: Respondents, who qualified for the evaluation of the documentation output, n=13 (One respondent = 7.69%)
*Base: Respondents, who qualified for the evaluation of the tools/services output, n=6 (One respondent = 16.67%)
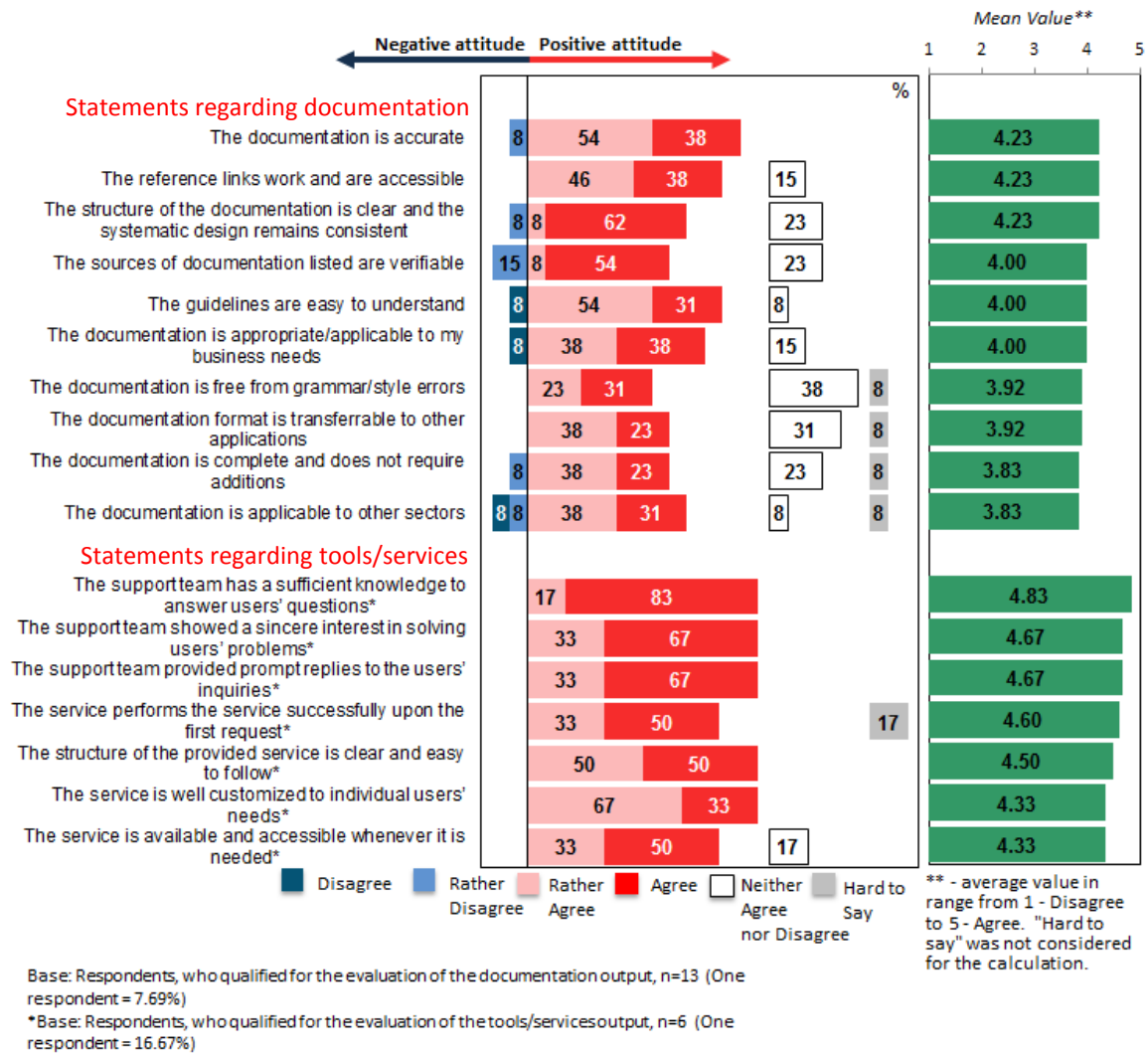
Figure 3 shows that all of the Perceived Quality statements regarding the documentation and the tools/services of EULF are evaluated with a mean value higher than the neutral value of 3, meaning that all the statements conform to the documentation and the tools/services of EULF. The most relevant statements regarding the evaluation of documentation are:

- 'The documentation is accurate' (mean value **4.23**);
- 'The reference links work and are accessible' (mean value **4.23**) and
- 'The structure of the documentation is clear and the systematic design remains consistent' (mean value **4.23**).

Regarding the evaluation of the tools/services statements, respondents evaluated most of the statements within the standard error, meaning that they are evaluated with a similar mean value.

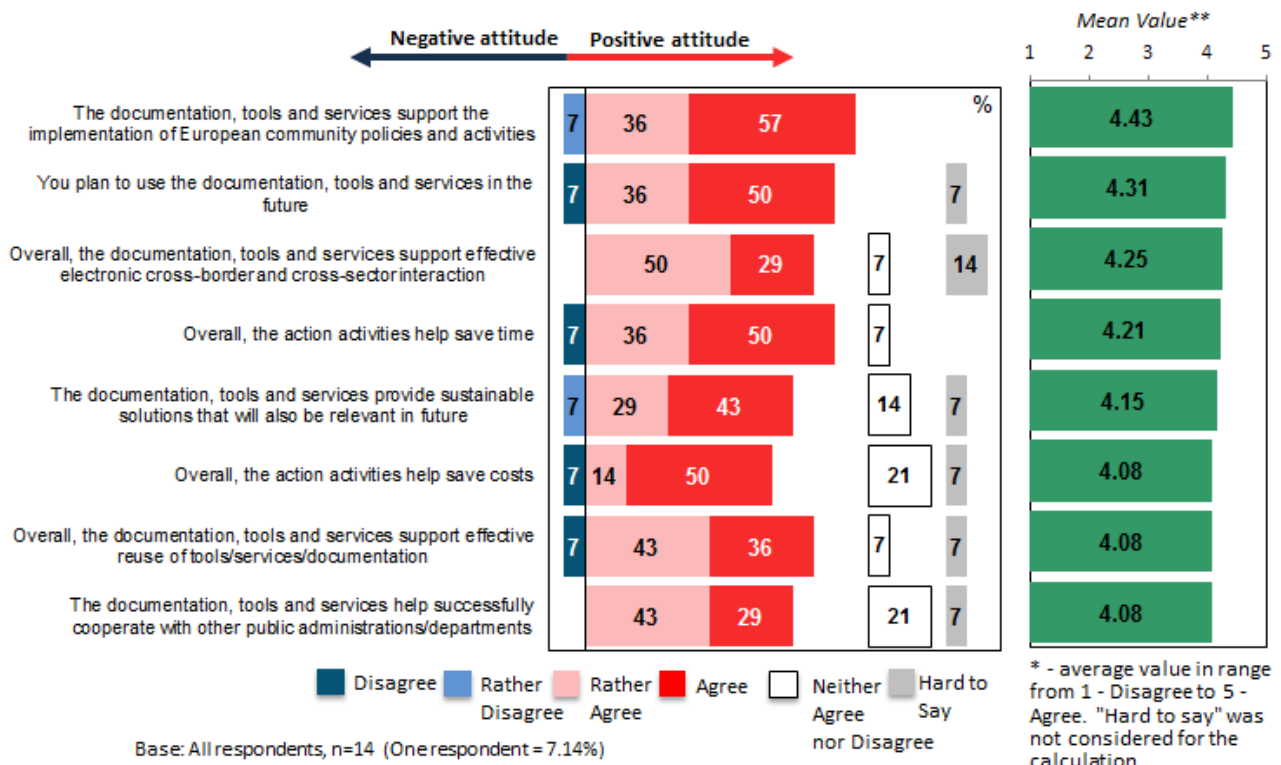**FIGURE 4 – ACTION 2.13 PERCEIVED UTILITY DIMENSIONS CONFORMITY RESULTS**

Figure 4 shows that all of the Perceived Utility statements regarding the documentation and the tools/services of EULF are evaluated with a mean value which is higher than the neutral value of 3, meaning that all of the statements conform to the documentation and the tools/services of EULF. The most relevant statements according to respondents are:

- 'The documentation, tools and services support the implementation of European community policies and activities' (mean value **4.43**);

- 'You plan to use the documentation, tools and services in the future' (mean value **4.31**);

- 'Overall, the documentation, tools and services support effective electronic cross-border and cross‑sector interaction' (mean value **4.25**) and

- 'Overall, the action activities help save time' (mean value **4.21**).

However, due to the high standard error, the mean values of Perceived Utility statements should be looked upon with caution.

Table 7 and Table 8 provide an overview of the statement conformity scores, which are summarised per dimension. To calculate these scores, the average values of all the relevant dimension statements are taken into account.

Table 7 and Table 8 also provide an overview of the additional statistical calculations[14] - mode, standard deviation and standard error. With reference to the theory used in business research methods,[15] it is concluded that for statistically meaningful calculations, the minimum respondent number should be equal to or greater than ten per statements, thus they are not calculated for the Perceived Quality statements regarding the dimensions which evaluated the tools/services.

TABLE 7 – ACTION 2.13 ADDITIONAL STATISTICAL CALCULATIONS FOR PERCEIVED QUALITY DIMENSIONS

	Dimension	MEAN	MODE	StDev	StErr
Per dimension	Usability (documentation)	4.08	5	1.09	0.17
	Accuracy	4.06	5	0.99	0.16
	Completeness	4.04	4	0.85	0.17
	Expandability	3.88	4	1.04	0.21
	Support	4.73	Not applicable for these dimensions		
	Performance	4.46			
	Usability (tools/services)	4.42			
Total Criterion Score		**4.24**	**5**	**0.99**	**0.18**

The survey results show that, regarding the documentation of the EULF, respondents evaluated all of the dimensions (Usability (documentation), Accuracy, Completeness and Expandability) as equally conformable, as they all are in the range of the standard error. Regarding the evaluation of the tools/services dimensions (similar as for the documentation dimensions), due to the low number of respondents who evaluated the tools/services of EULF and the high statistical error, the dimensions are equally conformable.

TABLE 8 – ACTION 2.13 ADDITIONAL STATISTICAL CALCULATIONS FOR PERCEIVED UTILITY DIMENSIONS

	Dimension	MEAN	MODE	StDev	StErr
Per dimension	Collaboration	4.26	4	0.76	0.13
	Sustainability	4.18	5	1.05	0.17
	Potential Re-Usability	4.15	5	1.17	0.23
Total Criterion Score		**4.20**	**5**	**0.99**	**0.18**

Table 8 indicates that respondents evaluated all of the Perceived Utility dimensions as equally conformable, as they all are in the range of the standard error.

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[14] Dictionary of statistics & methodology: a nontechnical guide for the social sciences (page 226).
[15] Cooper D. R., Schindler P. S. (2013), Business Research Methods, 12th Edition

5.4.1.2.3 PERCEIVED QUALITY AND PERCEIVED UTILITY CRITERION SCORE AGGREGATION

Figure 5 and Figure 6 provide a visual overview of the dimensions' conformity scores.

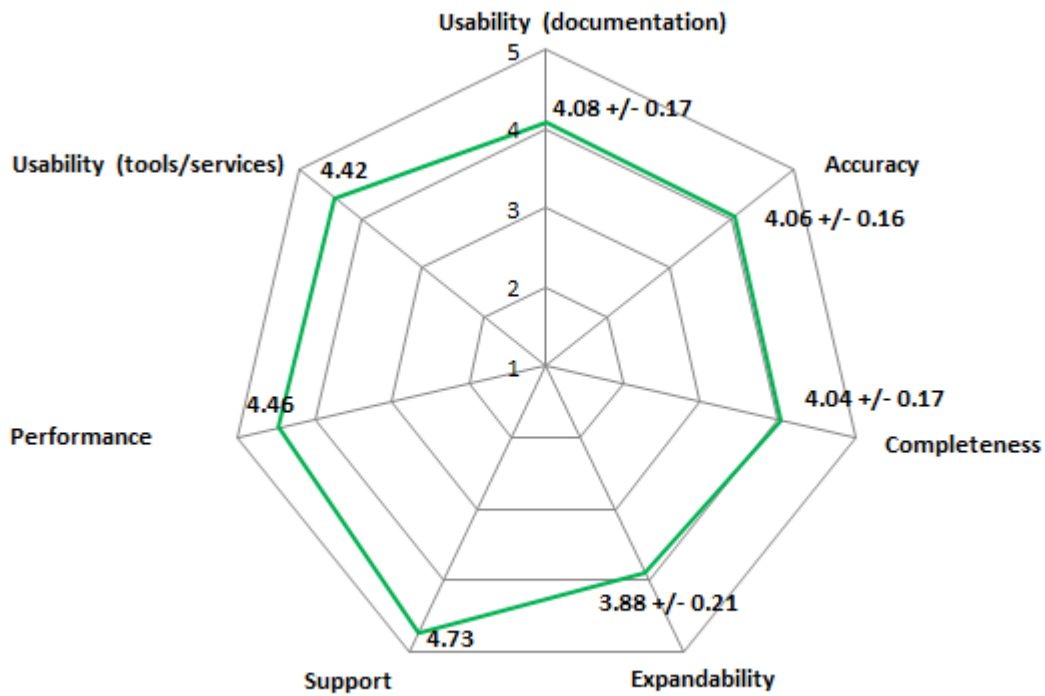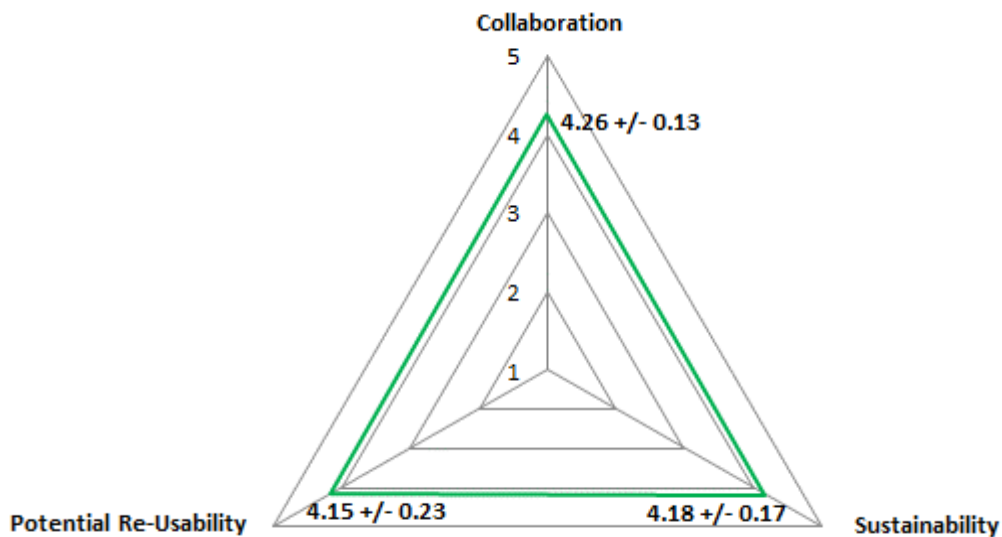**FIGURE 5 – ACTION 2.13 PERCEIVED QUALITY CRITERION SCORE AGGREGATION**

FIGURE 6 – ACTION 2.13 PERCEIVED UTILITY CRITERION SCORE AGGREGATION

5.4.2 User Satisfaction Score

The User Satisfaction Score shows how satisfied and happy the respondents are with the performance of a specific action. The User Satisfaction Score is expressed as a percentage from 0 to 100, where 0 signifies that there are no satisfied and happy respondents, whereas 100 signifies all respondents are satisfied and happy with the work performed by the action.

The User Satisfaction Score is assessed with reference to the results of the dimensions' importance and dimensions' conformity evaluation. The User Satisfaction Score is measured at the individual level for each of the survey respondents via identification of the important dimensions for that particular respondent.

To increase the accuracy of the calculation, a specific weight coefficient is applied to the dimensions. To those dimensions which were evaluated as "Important" a weight coefficient of 1 was applied, while a coefficient of 0.5 was applied to the dimensions which were evaluated as "Rather Important". A coefficient of 0 is applied to all the other dimensions. Finally, all the individual values are summed.

As the next step, an analysis of the statements which represent these identified dimensions is performed. If a respondent claimed that a particular statement fully corresponded to the specific dimension (value 5 – 'Agree'), then a coefficient of 100 (100% eligibility) is assigned. If evaluated with 4 – 'Rather Agree', a coefficient of 75 applies, if evaluated with 3 – 'Neither Agree nor Disagree', a coefficient of 50 applies, if evaluated with 2 – 'Rather Disagree', a coefficient of 25 applies, and in the case it was evaluated with 1 – 'Disagree', the coefficient is 0.

FIGURE 7 – ACTION 2.13 PERCEIVED QUALITY USER SATISFACTION SCORE

Figure 7 shows that the **Perceived Quality User Satisfaction Score is 82.14**. The result indicates a high level of respondent satisfaction with the documentation and the tools/services of EULF. However, this value is only indicative due to the low number of respondents who participated in the survey.

Base: for documentations statements, n=13

Base: for tools/services statements, n=6

Figure 8 shows that the **Perceived Utility User Satisfaction Score is 83.48**. The result indicates a high level of respondent satisfaction with the documentation and the tools/services of EULF. However, this value is only indicative due to the low number of respondents who participated in the survey.
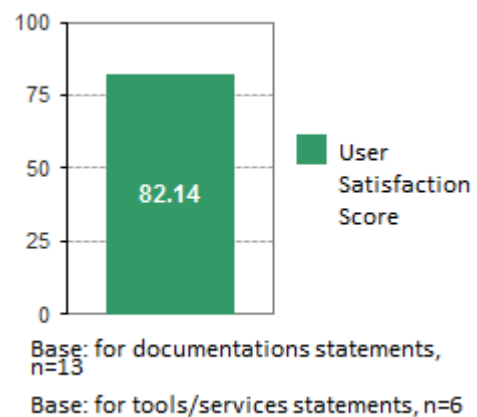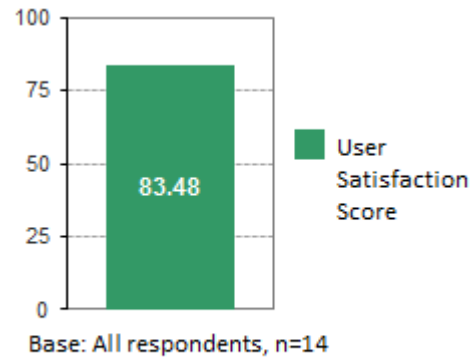

FIGURE 8 – ACTION 2.13 PERCEIVED UTILITY USER SATISFACTION SCORE

Base: All respondents, n=14

5.4.3 Net Promoter Score

The Net Promoter Score® (NPS) is a widely used management tool that helps evaluate the loyalty of a customer relationship[16]. This management tool has been adapted to suit the ISA programmes' Evaluation and Monitoring activities and measures the overall respondents'/stakeholders' experience and loyalty to a specific ISA action.

In order to evaluate the NPS, the question "how likely the respondent would recommend the particular action's output to others" is asked. The assessment is done on a scale from 0 to 10, where 0 represents the answer "Not likely at all" and 10 – "Extremely likely"[17]. After the data analysis, the respondents are classified as follows:

- **Promoters** (numeric values from 9 - 10) - loyal users who will keep using the action's final outcome and refer others, promoting the usage of the action's outputs;
- **Passives** (numeric values from 7 - 8) - satisfied but unenthusiastic users who will most probably not recommend the action's outputs to others;
- **Detractors** (numeric values from 0 - 6) - unhappy users who can damage the image and decrease the usage of the action's outputs.

The NPS final score calculation is done based on the following formula:

NPS = % of Promoters - % of Detractors[17]

The result can range from a low of -100 (every customer is a Detractor) to a high of +100 (every customer is a Promoter).

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[16] Official webpage of Net Promoter Score ® community http://www.netpromoter.com/home.
[17] Markey, R. and Reichheld, F. (2011), "The Ultimate Question 2.0: How Net Promoter Companies Thrive in a Customer-Driven World"

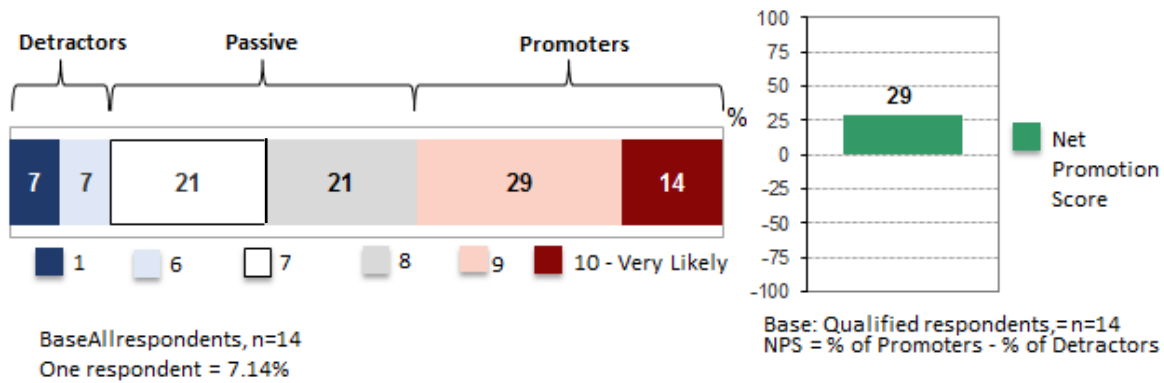**FIGURE 9 – ACTION 2.13 PERCEIVED QUALITY NET PROMOTER SCORE**

Figure 9 shows that 43% (six out of fourteen) of the respondents are Promoters of the documentation and the tools/services of EULF and would recommend it to colleagues or other PAs. A lower proportion of the respondents, 14% (two out of fourteen), are Detractors of the documentation and the tools/services of EULF and would not recommend it to colleagues or other PAs. The Net Promoter Score is 29, meaning that more respondents would recommend the documentation and the tools/services of EULF. As the difference between Promoters and Detractors is only four respondents, the NPS should be seen as an indicator that there are respondents who are loyal users of the EULF documentation and the tools/services, however at the same time there are unhappy users as well.

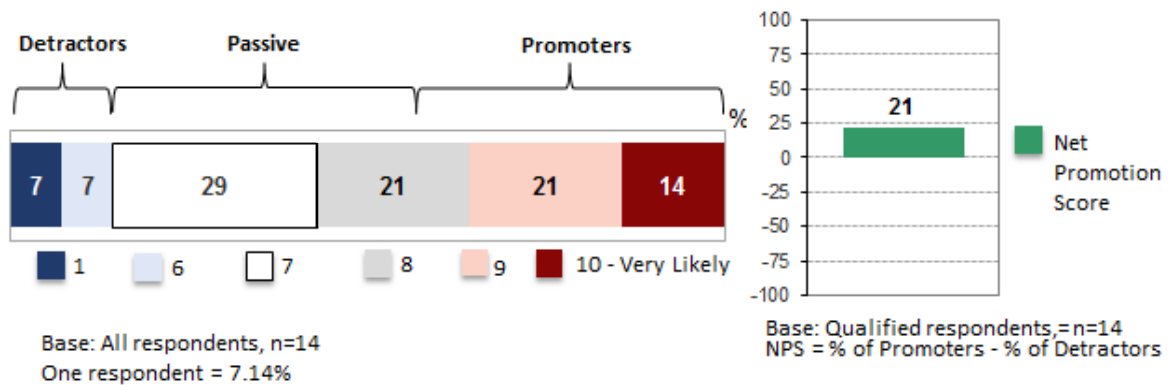**FIGURE 10 – ACTION 2.13 PERCEIVED UTILITY NET PROMOTER SCORE**

Figure 10 shows that 35% (five out of fourteen) of the respondents are Promoters of the documentation and the tools/services of EULF and would recommend it to colleagues or other PAs. A lower proportion of the respondents, 14% (two out of fourteen), are Detractors of the documentation and the tools/services of EULF and would not recommend it to colleagues or other PAs. The Net Promoter Score is 21, meaning that more respondents would recommend the documentation and the tools/services of EULF. As the difference between Promoters and Detractors is only three respondents, the NPS should be looked upon as an indicator that there

are respondents who are loyal users of the EULF documentation and the tools/services, however at the same time there are unhappy users as well.

5.4.4 Overall Score

Referring to the performed measurements described earlier, namely the Usefulness Score the Value Score, the Usefulness Score and the NPS, an Overall Perceived Quality Score and Overall Perceived Utility Score is calculated, however, as the Usefulness Score was not measured in this survey, thus it was not included in the calculation of the Overall Perceived Quality and Perceived Utility Score.

To calculate the Overall Perceived Quality and Overall Perceived Utility Score, all measurements are reduced to a five point scale (the statements used to calculate the Value Score are already expressed using a scale from 1 to 5, NPS - from -100 to +100, and the User Satisfaction Score - from 0 to 100). In order to determine the Overall Perceived Quality and Overall Perceived Utility Score, the average value of these four measurements is calculated. To reduce any linear scale to a different linear scale the following formula[18] is used:

$$Y = (B - A) * (x - a) / (b - a) + A$$

- Y = Value after reducing to a five point scale
- x = Value in the initial scale
- B = The highest value of the new scale (in this case it is 5, as we are reducing other scales to a five point scale)
- A = The lowest value of the new scale (in this case it is 1, as we are reducing other scales to a five point scale)
- b = The highest value of the original scale (for Net Promoter Score and User Satisfaction Score it is + 100)
- a = The lowest value of the original scale (for the Net Promoter Score it is 100, for the User Satisfaction Score it is 0)

Example of reducing Net Promoter Score to a five point scale:

*(5-1) * ((29) - (-100)) / (100 - (-100)) + 1 = 4 * 129/ 200 + 1 = 516 / 200 + 1 = 2.58 + 1 = 3.58*

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[18] *Transforming different Likert scales to a common scale*. IBM. Retrieved February 04. 2016., from http://www-01.ibm.com/support/docview.wss?uid=swg21482329

TABLE 9 – ACTION 2.13 OVERALL PERCEIVED QUALITY SCORE CALCULATION

NAME OF THE SCORE	ORIGINAL VALUE	VALUE AFTER REDUCING TO A FIVE POINT SCALE
Value Score	4.24	4.24
User Satisfaction Score	82.14	4.29
Net Promoter Score	29	3.58
OVERALL PERCEIVED QUALITY SCORE		4.04

The survey results show that on a 5-point scale the User Satisfaction Score (4.29) and the Value Score (4.24) have the highest values, which indicates significant dimensions' conformity to the documentation and the tools/services of EULF and high user satisfaction with the outputs of EULF. The Net Promoter Score **(3.58)** has the lowest value, yet it is above the average – 3. However, due to the low number of respondents who participated in this survey and the high standard error in cases when the response rate is relatively low, these values are only indicators of the real situation.

TABLE 10 – ACTION 2.13 OVERALL PERCEIVED UTILITY SCORE CALCULATION

NAME OF THE SCORE	ORIGINAL VALUE	VALUE AFTER REDUCING TO A FIVE POINT SCALE
Value Score	4.20	4.20
User Satisfaction Score	83.48	4.34
Net Promoter Score	21	3.42
OVERALL PERCEIVED UTILITY SCORE		3.99

The survey results show that on a 5-point scale the User Satisfaction Score (4.34) and the Value Score (4.20) has the highest score, which indicates significant dimensions' conformity to the documentation and the tools/services of EULF and high user satisfaction with the outputs of EULF. The Net Promoter Score **(3.42)** has the lowest value, yet it is above the average – 3. However, due to the low number of respondents who participated in this survey and the high standard error in cases when the response rate is relatively low, these values are only indicators of the real situation.

5.5 ACTION STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

When analysing the data results of the dimensions' conformity versus the dimensions' importance, the action's strengths, weaknesses, opportunities and threats can be identified.

Statements are located in quadrants, based on the dimensions' conformity statements and dimensions' importance calculated mean values. The quadrants highlight the weak and strong aspects of the action, as well as threats and opportunities.

In general, all the statements that are attributed to the action can be grouped into four categories:

- Strengths – Essential to respondents and relevant to the action (1st quadrant);
- Weaknesses – Essential to respondents but not relevant to the action (2nd quadrant);
- Threats – Not essential to respondents and not relevant to the action (3rd quadrant);
- Opportunities – Not essential to respondents but relevant to the action (4th quadrant).

Seven colours are used to identify Perceived Quality dimensions in Figure 11:

- Dark blue: Accuracy;
- Red: Completeness;
- Brown: Usability (documentation);
- Purple: Expandability;
- Green: Usability (tools/services);
- Light blue: Performance;
- Orange: Support.

Three colours are used to identify Perceived Utility dimensions in Figure 12:

- Dark blue: Potential Re-usability;
- Red: Sustainability;
- Brown: Collaboration.

As seen in Figure 11, all 17 Perceived Quality statements are evaluated as essential to respondents and relevant to the action - all of them are located in the 1st quadrant and are identified as strengths of the documentation and the tools/services of EULF.

The following four statements are the most important to respondents:

- *'The interface of the provided tools and services is clear and easy to follow'* (statement 11);
- *'The tools and services are well customized to individual users' needs'* (statement 12);
- *'The tools and services are available and accessible whenever it is needed'* (statement 13) and

- *'The tools and services perform the service successfully upon the first request'* (statement 14).

While the following four statements are the most relevant to EULF:

- *'The tools and services perform the service successfully upon the first request'* (statement 14);
- *'The support team showed a sincere interest in solving users' problems'* (statement 15);
- *'The support team provided prompt replies to the users' inquiries'* (statement 16) and
- *'The support team has a sufficient knowledge to answer users' questions'* (statement 17).

FIGURE 11 – ACTION 2.13 PERCEIVED QUALITY ACTION STRENGTHS, WEAKNESSES, OPPORTUNITES AND THREATS
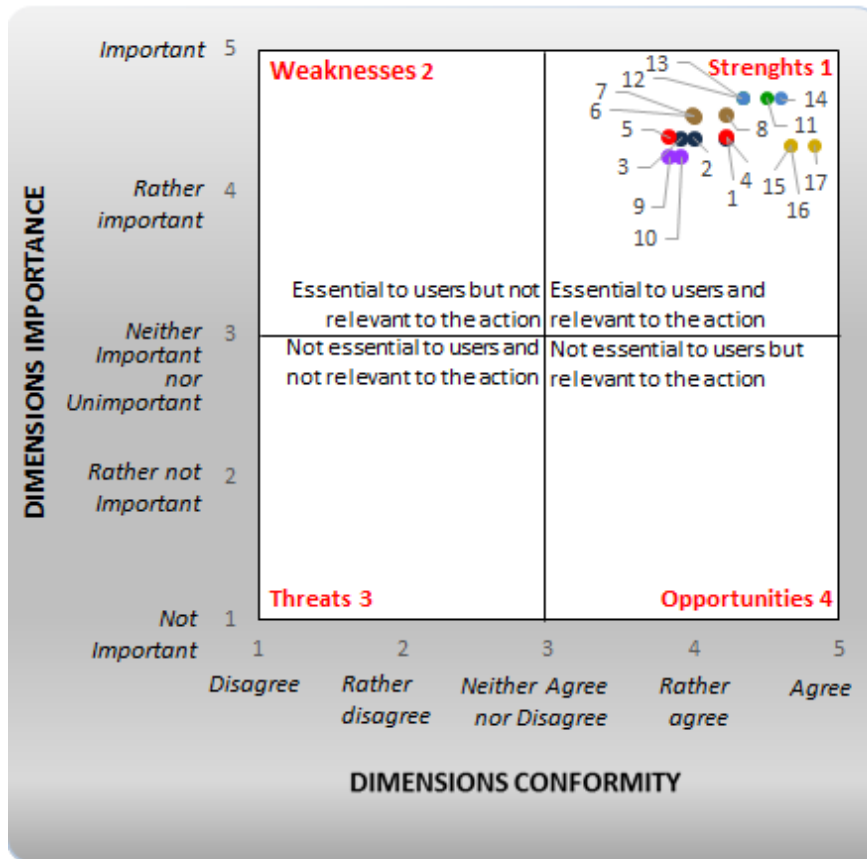
I. Accuracy:

1 - The documentation is accurate

2 - The sources of documentation listed are verifiable

3 - The documentation is free from grammar/style errors

II. Completeness:

4 - The reference links work and are accessible

5 - The documentation is complete and does not require additions

III. Usability (documentation):

6 - The documentation is appropriate/applicable to my business needs

7 - The guidelines are easy to understand

8 - The structure of the documentation is clear and the systematic design remains

IV. Expandability:

9 - The documentation is applicable to other sectors

10 - The documentation format is transferrable to other applications

V. Usability (tools/services):

11 - The interface of the provided tools and services is clear and easy to follow

12 - The tools and services are well customized to individual users' needs

VI. Performance:

13 - The tools and services are available and accessible whenever it is needed

14 - The tools and services perform the service successfully upon the first request

**VII. Support:**

15 - The support team showed a sincere interest in solving users' problems

16 - The support team provided prompt replies to the users' inquiries

17 - The support team has a sufficient knowledge to answer users' questions

As seen in Figure 12, all eight Perceived Utility statements are evaluated as essential to the respondents and relevant to the action - all of them are located in the 1st quadrant and are identified as strengths of the documentation and the tools/services of EULF.

Figure 12 shows that the Collaboration dimension statements are the most important statements to the respondents.

FIGURE 12 – ACTION 2.13 PERCEIVED UTILITY ACTION STRENGTHS, WEAKNESSES, OPPORTUNITES AND THREATS
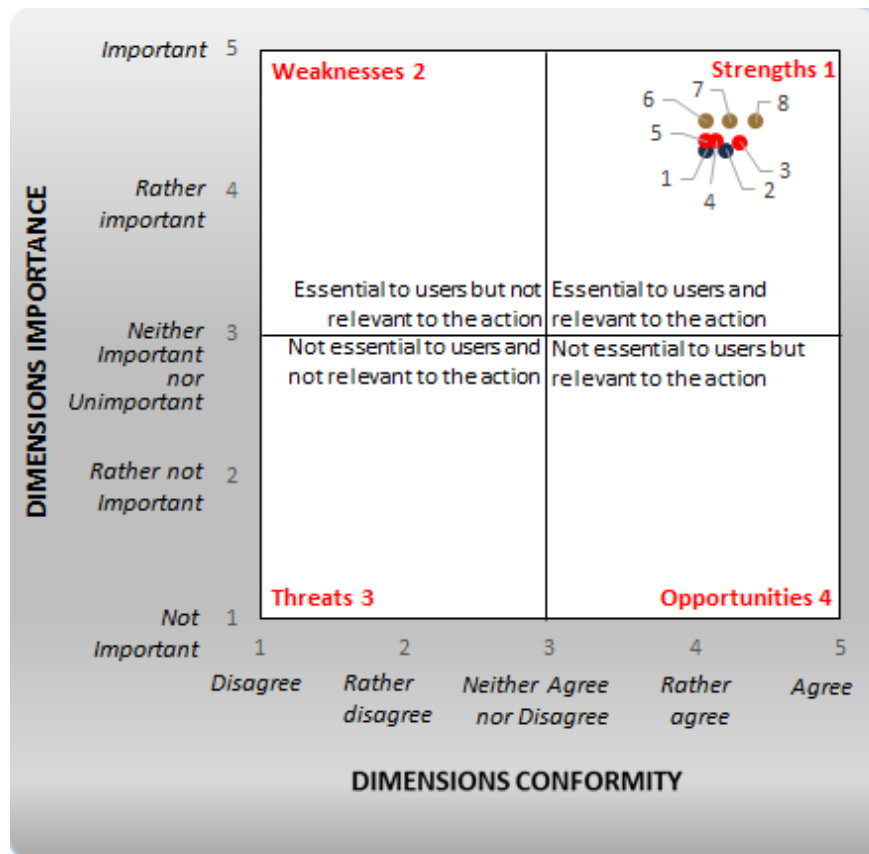
I. Potential Re-usability
1 - Overall, the action activities help save costs
2 - Overall, the action activities help save time

II. Sustainability:
3 - You plan to use the documentation, tools and services in the future
4 - The documentation, tools and services provide sustainable solutions that will also be relevant in future
5 - Overall, the documentation, tools and services support effective reuse of tools/services/documentation

III. Collaboration:
6 - The documentation, tools and services help successfully cooperate with other public administrations/departments
7 - Overall, the documentation, tools and services support effective electronic cross-border and cross-sector interaction
8 - The documentation, tools and services support the implementation of European community policies and activities
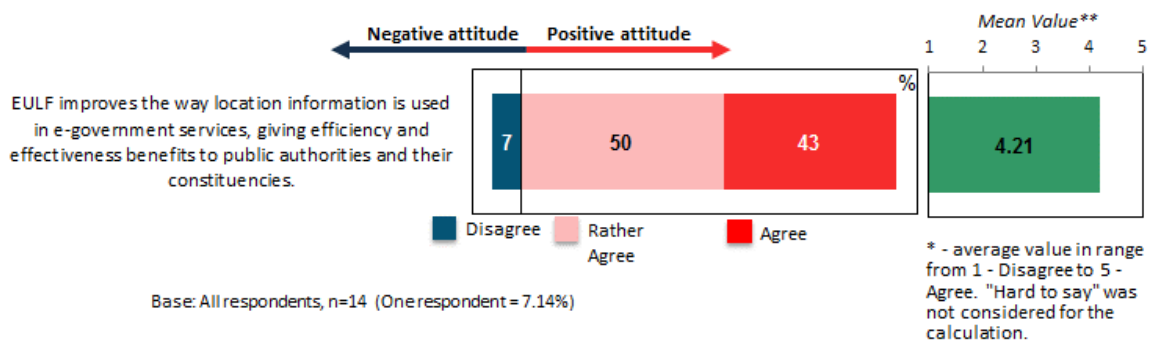
5.6 STATEMENT BASED ON ACTION OBJECTIVES

For the purpose of describing the action's objectives, a statement based on action objectives was designed for this survey. The respondents were asked to evaluate the extent to which this statement conforms to the particular action, namely, if the action's objectives have been achieved.

The respondent is asked to provide his/her opinion using the 5-point Likert grading scale. For the dimensions' conformity evaluation, a grading scale with values ranging from 'Agree' to 'Disagree' is applied. An additional 'Hard to Say/Not Applicable' option is provided, however this score is excluded from the score calculations. Before performing the survey data calculations, the 5-point Likert scale values are interpreted as numeric values:

- 5 – Agree;
- 4 – Rather Agree;
- 3 – Neither Agree nor Disagree;
- 2 – Rather Disagree;
- 1 – Disagree;
- 0 – Hard to Say/Not Applicable *(is not considered for the calculation).*

In order to have an overview of the positive and negative attitude proportions, the bar in blue represents the negative attitude (answers 'Disagree' and 'Rather Disagree'), whereas the bars in pink/red represent the positive ones (answers 'Agree' and 'Rather Agree'). An explanatory legend with colour codes represents the available data. The average mean value for each of the dimensions is presented on the right side of the figure.

FIGURE 13 – ACTION 2.13 STATEMENT BASED ON ACTION OBJECTIVES

The survey results demonstrate that the respondents evaluated the statement based on action objectives as relevant to the documentation and the tools/services of EULF. The mean value is 4.21, which is between values 4 – 'Rather Agree' and 5 – 'Agree'. However, due to the fact that only 14 respondents participated in this survey, the data should be reviewed with caution.

5.7 RESPONDENT RECOMMENDATIONS AND OPINIONS

This section provides an overview of the feedback received on the documentation and the tools/services of EULF. It should be noted that each response is given by a single survey respondent, which means that the number of different answers to each question is the same as the number of respondents who had an opinion or a recommendation to the specific question.

TABLE 11 – ACTION 2.13 EULF DOCUMENTATION RECOMMENDATIONS, EXPACTATIONS AND BENEFITS

"Do you have any recommendations to improve or extend the EULF documentation?"
Focus on the implementation
To improve a better Access and catalogue function for available documents
In addition to 'high level' guidelines and documents add more concrete examples/implementations. It is important that different components of the ISA infrastructure are better integrated into one flow: e.g. standards repository, legal repository, best practices of geospatial implementation repositories, etc.
It needs a greater dissemination and a stronger involvement of the Member States
All the documents could be collected /and accessible from one place and easier distinguished between Are3na and EULF. It was also not possible to discover the public access for following documentation: EULF Factsheets and EULF Guidelines for Public Procurement of Geospatial Technologies. Focus on the topics of reference implementations (MD, SDS, machine readable harmonized licenses), evaluation of SDI maturation and performance, FAQ (particularly for questions related to technical implementations and legal interpretations. Monitoring of use of EULF docs in INSPIRE implementation (surveys like this one, update of INSPIRE report template...)
"What are your expectations or plans in using the EULF documentation?"
To have a detailed, wide connected (many regional requirements) and correct implementation pilots for INSPIRE
Systematic mapping / documenting business processes
Useful for energy policies
There are plans to use/consider following EULF documents: EULF Strategic Vision, Assessment of the Conditions for an EULF, EULF References, EULF Factsheets, EULF Guidelines for Public Procurement of Geospatial Technologies, EULF/ISA Integration Strategy and Plan, Blueprint Overview (draft), Architectures and Standards for SDIs and e-Government (draft), Benefits Approach
"What are the main benefits or the most valuable things about the EULF documentation?"
A well-documented collection e.g. of pilots and their implementation
Procurement guidelines
The main link between the different partners in a project. To make sure achievements are reached and clear goals and timelines are tracked, monitored and documented the EULF has been crucial
Interoperability of energy efficiency policies
"To your mind, what benefits could the EULF documentation bring in five years?"
A useful collection of documents, as relevant to practical experience as possible and recommendations for potential update activities for INSPIRE or other EU ICT programs in a sense to integrate MS knowledge in a better way
Not the documentation in itself, but the way of working, i.e. business process and e-Gov services orientation will be key and change the way we work with geospatial data
Better organization of activities , also for the realization of the national infrastructure required by INSPIRE Directive
Interoperability of energy efficiency policies

TABLE 12 – ACTION 2.13 EULF TOOLS/SERVICES RECOMMENDATIONS, EXPACTATIONS AND BENEFITS

"Do you have any recommendations to improve or extend the EULF tools and services?"
Focus on support of implementation of INSPIRE priority reporting datasets (https://ies-svn.jrc.ec.europa.eu/attachments/download/1308/INSPIRE%20MIG-P%20%20Discussion%20DOC1.docx)
"What are your expectations or plans in using the EULF tools and services?"
Re-use the tools and services to speed up the INSPIRE implementation in Slovakia and improve the quality and accessibility of the SDI resources.
"What are the main benefits or the most valuable things about the EULF tools and services?"
Savings, support of understanding for certain legal requirements and technical recommendations.
"To your mind, what benefits could the EULF tools and services bring in five years?"
Similarly to documents, mainly in the area of improved level of compliance towards the legal requirements and technical recommendations, but mainly in the amount of available spatial data, services and their descriptions with metadata comparing to the situation of nowadays. Additionally focusing on data sharing harmonisation support, MSs and EC could easier monitor the utilization of the data sharing agreements.

TABLE 13 – ACTION 2.13 OTHER RECOMMENDATIONS REGARDING EULF

"Do you have any other recommendations regarding the ARE3NA to share with us?"
I'm able to understand the structure of ISA, incl. EULF, Are3na, ELF etc., but it's difficult to understand responsible areas and tasks and where are separators? The structure is to complex, my recommendation is to simplify.
Maintenance of the documentations is essential
Make formal recommendations for the MS (at government level), in order to create an effective national coordination for the dissemination of documents.
Keep going on! Stimulate the discussion about the joint project proposals between MSs aiming to fill up the gaps with INSPIRE implementation (e.g. via facilitated pitches in ISA WG SIS, MIG-T/P).

6 SURVEY CONCLUSION AND RECOMMENDATIONS

The objective of the survey was to evaluate the Perceived Quality and the Perceived Utility for the documentation and the tools/services of Action 2.13 – EULF. It is important to take into account that only 24 respondents participated in this survey, from whom only 14 qualified for the Perceived Quality and Perceived Utility evaluation. This means that the results of this action are more like indicators of the Perceived Quality and Perceived Utility and that they do not fully represent the opinions of all the users. The following conclusions have been drawn based on the analysis performed:

- o The documentation and the tools/services of the ISA Action 2.13 – EULF received a **positive Perceived Quality (4.04) and Perceived Utility (3.99) assessment.** The Value Score and the User Satisfaction Score have the highest evaluations. The Net Promoter Score has the lowest score, yet the data shows that the difference between those who would recommend the documentation and the tools/services of the EULF to colleagues or other PAs and those who would not is only a couple of respondents.

- o Regarding the Perceived Quality, the results show that the tools/services dimensions (Performance, Usability (services/tools), and Support) are more conformable to the EULF than the documentation dimensions (Accuracy, Usability (documentation), Expandability and Completeness).

- o According to the respondents, there is a need for more specific examples/implementations for the documentation and the tools/services of the EULF.

- o One respondent's expectations about the tools/services of the EULF are to re-use them to speed up the INSPIRE implementation and, while the main benefits of the tools/services of the EULF are Savings, to receive a support regarding certain legal requirements and technical recommendations.

Based on the conclusions drawn, CGI-Accenture advises the following recommendations:

- Additional work should be applied to make the EUFL more user-friendly.

- Additional work on the customisation of EULF should be done in order to adapt it to the individual users' needs.

7 APPENDIX

7.1 RAW DATA EXPORT

The attached file contains the survey result export.

Raw Data.xls

7.2 GLOSSARY

- A Likert Scale is a widely used scaling method developed by Rensis Likert. Likert scale refers to the use of an ordinal 4- or 5- point rating scale with each point anchored or labelled.

- The mean[14] (average) is the most popular measure of location or central tendency; has the desirable mathematical property of minimizing the variance. To get the mean, you add up the values for each case and divide that sum by the total number of cases;

- Mode[14] refers to the most frequent, repeated or common value in the quantitative or qualitative data. In some cases it is possible that there are several modes or none;

- The Net Promoter Score® (NPS) is a widely used management tool that helps evaluate the loyalty of a customer relationship. Customers are classified as Promoters, Passive and Detractors.

- 'Perceived Quality' is defined as the extent to which the outputs of an ISA action are meeting its direct beneficiaries' expectations;

- Standard deviation[14] shows the spread, variability or dispersion of scores in a distribution of scores. It is a measure of the average amount the scores in a distribution deviate from the mean. The more widely the scores are spread out, the larger the standard deviation;

- Standard error[14] is the standard deviation of the sampling distribution of a statistic. It is a measure of sampling error; it refers to error in estimates due to random fluctuations in samples. It goes down as the number of cases goes up. The smaller the standard error, the better the sample statistic is as an estimate of the population parameter – at least under most conditions;

- 'Perceived Utility' is defined as the extent to which the effects (impact) of an ISA action correspond with the needs, problems and issues to be addressed by the ISA programme;