



**INTEROPERABILITY SOLUTIONS FOR
EUROPEAN PUBLIC ADMINISTRATIONS
MONITORING AND EVALUATION
D03.05/D03.06 ACTION 2.4 PERCEIVED QUALITY AND
UTILITY MONITORING REPORT**

Framework Contract n° DI/07173

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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 Utility monitoring and evaluation activities.

The survey for measuring the Perceived Quality and Utility of Action 2.4 – sTESTA, was launched at the first semester of 2015. The objective of the survey was to evaluate the Perceived Quality and Utility of the sTESTA network service among its users. More specifically, the goal of the survey was to understand to what extent the service is user-friendly and to identify the benefits which users might gain from the service.

The survey was designed in the EUSurvey tool and distributed by e-mail to 209 respondents from:

- Member States
- Institutions
- European Agencies
- National administrations

The survey was launched on the 3rd of March 2015 and was active for 30 days until the 2nd of April 2015. A reminder was sent on the 17th of March 2015. In total, 42 sTESTA users responded to the survey, which accounts for 20% of the total amount of recipients.

The survey result analysis (see Table 1) shows the Action 2.4 – sTESTA, Perceived Quality and Utility scores. The **Perceived Quality score** is **3.98** (scale: 1...5) and the **Utility score** is **3.91** (scale: 1...5).

The detailed score calculation process is described in Section 4.2.3.

TABLE 1 – ACTION 2.4 SURVEY RESULTS

Evaluation criteria	Mean ¹	Mode ¹	StDev ¹	StErr ¹
Action 2.4 Perceived Quality	3.98	4	0.84	0.05
Action 2.4 Utility	3.91	4	0.91	0.07

Conclusion: Based on the survey data analysis, the sTESTA network service meets its main objectives and is a successful continuation of an existing action of the IDA and IDABC Programmes. The service is currently effectively used by European Institutions and agencies and Member States' public administrations. It offers support, management and assistance for a secured and highly available communication infrastructure between public administrations in Europe.

¹ see Glossary (Section 6.5)

However, there is a need for drawing special attention to the network service's cost management, speed aspects and low usage within public administrations based on the recommendations provided in Sections 4.2.1.1 and 4.2.1.2 and weaknesses presented in Section 4.3.

REVISION HISTORY

Date	Version	Description	Authors	Approved by
31-July-2015	1.00	For QA purpose, the accepted draft version is changed into the final version. No other changes are implemented.	CGI-Accenture	
06-May-2015	0.20	Report updated: Section 4.2.1.1. added	CGI-Accenture	
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1. INTRODUCTION

CGI-Accenture has been requested to deliver a Perceived Quality and Utility Monitoring and Evaluation Report as part of the execution of the ISA programme monitoring (Technical Annex for Specific Contract N° 52 under Framework contract N°DI/07173).

Based on the scope of the Specific Contract, the Perceived Quality is to be measured for 9 actions and the Utility is to be measured for 13 actions. This report covers the Perceived Quality and Utility measurements for Action 2.4 – Data communication network service – sTESTA.

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 methodology used for the Perceived Quality and Utility measurements;
- **Section 3** summarises the collected data;
- **Section 4** focuses on the survey result overview and data analysis;
- **Section 5** provides the survey conclusions and recommendations;
- **Section 6** appendix includes:
 - Statement mapping per dimensions;
 - Detailed list of respondents' organisations;
 - Personal Contact Information;
 - Raw data export;
 - Glossary.

2. SURVEY METHODOLOGY

A common methodology was developed by the previous ISA Monitoring and Evaluation contractor for all the surveys that enables comparison between the different survey results. This methodology was also applied to evaluate Action 2.4. This section explains how the Perceived Quality and Utility are measured and what dimensions are covered under each evaluation criterion. The last part of this section describes the architecture of the survey.

2.1. PERCEIVED QUALITY

'Perceived Quality' is defined as the **extent to which the outputs of an ISA action are meeting its direct beneficiaries' expectations.**²

Perceived Quality is measured using the eGovQual scale model³.

The assessment is based on the following dimensions:

- **Efficiency:** measures the degree to which the service is easy to use;
- **Trust (Privacy):** measures the degree to which the user believes the site is safe from intrusion and protects personal information;
- **Reliability:** measures the feasibility and speed of accessing, using, and receiving services of the site;
- **Support:** measures the ability to get assistance when needed.

2.2. UTILITY

'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**⁴.

Utility is measured using an adaptation of the VAST (Value **AS**essment **T**ool) methodology⁵, considering an additional dimension related to the Global and Intermediate objectives of the ISA programme.

The assessment is based on the following dimensions:

- **Value for the European Union:** Looks at the assessment of the external value of an information system or an IT project. External value of a project is considered to be any benefit which is delivered outside the Commission itself. This external aspect is divided into two parts: society (Social Value) and individuals (External Users' Value);
- **Value for the European Commission:** Encompasses criteria through which the internal value of an IT project can be assessed. All factors that can contribute to the improvement of the EC performance should be considered as delivering an internal value;

² DG BUDG (2004), "Evaluating EU activities, a practical guide for the Commission services"

³ eGovQual scale developed by Papadomichelaki and Mentzas (2012)

⁴ DG BUDG (2004), "Evaluating EU activities, a practical guide for the Commission services"

⁵ More information can be found on: <http://ec.europa.eu/dgs/informatics/vast/>

- **Value for cross-border and cross-sector interoperability:** Covers all aspects of how information system or IT project can support the efficient and effective cross-border and cross-sector interaction between the European Public Administrations.

The ISA Programme is mainly focusing on the value for the cross-border and cross-sector interoperability dimension. In this context, the value for EC is considered to have a lower weight than other dimensions. Consequently, less focus is put on this dimension.

2.3. SURVEY ARCHITECTURE

In order to measure the Perceived Quality and Utility a respondent is supposed to grade the statements based on his/her level of agreement. A 5-point Likert scale⁶ is used as a grading scale, ranging from 'Strongly Agree' to 'Strongly Disagree' with an additional 'No Opinion/Not Applicable' option.

For each presented statement the user is able to provide his/her opinion and suggestions for improvement in a free text field in case he/she rated the statement with 'Disagree' or 'Strongly Disagree'.

As the responses collected are depending on the users' profiles, the user is requested to answer skip logic questions with either 'Yes' or 'No' and afterwards more questions are presented if the respondent selected 'Yes'.

⁶ 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.

3. ACTION 2.4 SURVEY DATA SUMMARY

Table 2 gives an overview on the survey start date, end date, the amount of responses collected, the amount of responses excluded from the analysis, as well as the survey launching method.

TABLE 2 – ACTION 2.4 SURVEY DATA SUMMARY

Action 2.4 - sTESTA	
Start date:	03/03/2015
End date:	02/04/2015
Amount of responses:	42
Amount of responses excluded from the analysis:	1 ⁷
The survey launching method:	E-mail notification

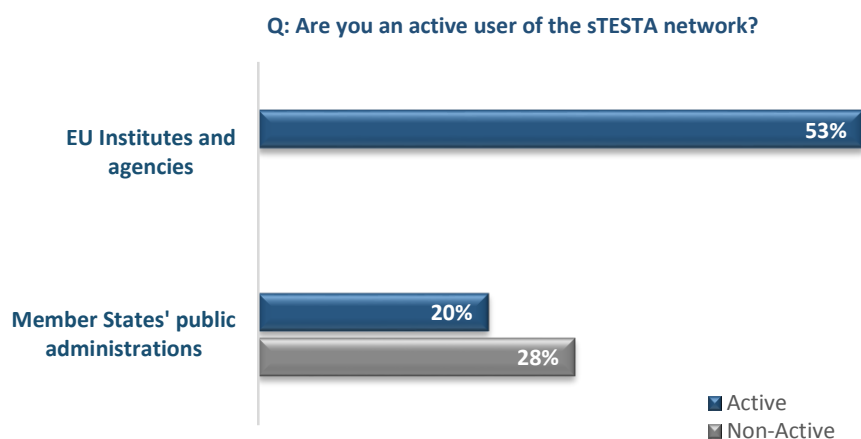
4. ACTION 2.4 SURVEY RESULTS AND ANALYSIS

This section aims to provide a detailed survey analysis and to represent the results depending on the sTESTA network service user type within the Action 2.4 Perceived Quality and Utility evaluation criteria.

4.1. ORGANIZATION LEVEL ANALYSIS

Figure 1 shows the classification of sTESTA users by the type of organisation they indicated that they belong to. All EU Institutes and agencies are active users of sTESTA network. The majority of non-active users are from Member States public administrations and, moreover, the non-active user proportion from this sector is larger than active user proportion.

FIGURE 1 – USERS' GROUPS ACCORDING TO ORGANISATION TYPE



⁷ One response was excluded from the analysis due to obvious unreliability of the provided answers. The list of the excluded response can be found in Section 6.4.

4.2. ACTION 2.4 SURVEY RESULT OVERVIEW

This section aims at providing an overview on the survey response range at the following levels:

- **Action 2.4 overall survey response overview** shows a complete survey response range collection covered by the Action 2.4 Perceived Quality and Utility survey;
- **Result overview according to the evaluation criteria** shows the survey response range per statement depending on the evaluation criteria (Perceived Quality and Utility);
- **Result analysis according to the evaluation criteria** provides a score calculation by evaluation criteria dimension and the overall evaluation criteria score.

ACTION 2.4 OVERALL SURVEY RESPONSE OVERVIEW

Figure 2 gives an overview of the overall survey results. The statements were graded based on the users who responded 'Yes' to the skip logic question (a question that directs a respondent to a series of questions based on their responses).

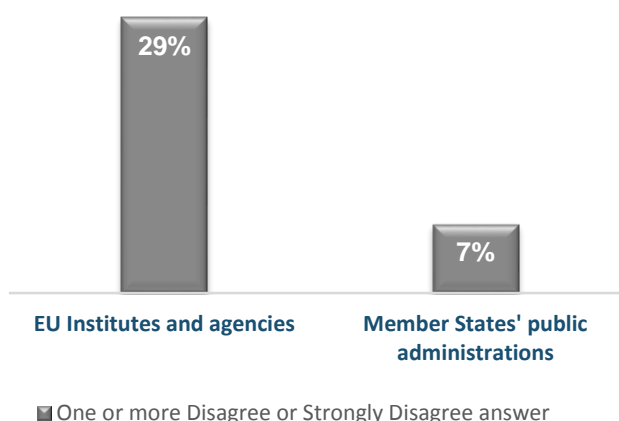
FIGURE 2 – OVERALL ACTION 2.4 SURVEY RESPONSE OVERVIEW



4.2.1.1. DISAGREE/STRONGLY DISAGREE STATEMENT ANALYSIS

Figure 3 shows a classification of sTESTA survey respondents according to their Disagree and Strongly Disagree answers and their belonging to organisation type. 29% respondents from the EU Institutes and agencies and 7% respondents from the Members States public administrations provided at least one Disagree or Strongly Disagree answer. The majority of Disagree and Strongly Disagree answers comes from the EU Institutes and agencies.

FIGURE 3 – DISAGREE AND STRONGLY DISAGREE ANSWERS ANALYSIS ACCORDING TO ORGANISATION TYPE



4.2.1.2. USER FEEDBACK ON FUNCTIONALITY

Table 3 gives a detailed overview of the feedback received for Action 2.4. It should be noted that this feedback was provided once the user chose a 'Disagree' or 'Strongly Disagree' option to evaluate the survey statement.

TABLE 3 – ACTION 2.4 USER FEEDBACK

Saving cost and time	Cost management/spread of costs is not clear and the policy on cost sharing has changed multiple times creating uncertainty and some kind of distrust on this matter.
	Overlay network solutions over commodity public Internet links should rather be considered for cost-effectiveness, maintainability and consolidation reasons
Security	According to the announced cost per agency, as regards the use of TESTA and as most of what is done over TESTA can be done over the Internet, as the Commission itself does not seem to trust TESTA itself (most EC sites accessible over TESTA are only accessible by HTTPS) the benefit of TESTA security is not proved.
Speed	Testa is secure but not fast - a 2Mbps TAP is 'narrow band' in 2015!
	Performance has been a serious issue (Bandwidth and throughput for exchanging large messages as well as download time for large files on FTP servers)
	sTESTA existing speed is not sufficient for today's requirements
Business needs	EMSA easily runs highly encrypted communication with hundreds of endpoints in many organizations - only 2 use sTESTA.
	There was no other choice to use sTESTA to be "linked" to the Commission network and applications and even some are not made available to the JTIs

Interoperability	<p>In 2015 I cannot see anymore the business case for a segregated network amongst institutions</p> <p>Network is just access to services, and there are not many services on STESTA that are not on public Internet as well.</p>
Information exchange	<p>Europol is not a standard user. 98 % of our lines are not fully managed sTesta, but just a carrier service.</p>
Service and operation centre	<p>Most of the time we do the pb analysis and find the solution or at least the root cause with our remote colleagues and give it to the SOC. The SOC seems to be more able to handle problems than to solve them.</p> <p>We had some incidents in which it was us who finally had to propose the solution to the problem</p>

4.2.1.3. USER RECOMMENDATIONS

Table 4 gives a detailed overview of the recommendations received for Action 2.4.

TABLE 4 – ACTION 2.4 USER RECOMMENDATIONS

Recommendations	Apply the KISS principle. The complexity of the network/design and processes seems to make impossible the understanding of problem from end to end by the SOC.
	The world has moved on rapidly in last 10 years and incoming / outgoing bandwidths of 50Mbps - 1000Mbps is needed for many agency processes. The low capacity TAPs and relatively high costs nullify many of the advantages of no key management Get bigger TAPs at reasonable cost
	Network is a commodity, hence focus more on a catalogue of added value services accessible through it, to give value to it.
	Clearly inefficient concept of multiple POCs at one location should be eliminated.
	Greater bandwidth.
	As a non-technical person, I am looking forward to having some overview of applications that use Testa network. Also for the purpose of better communication on the national level about the Testa added value. Thank you.
	Hopefully I will be able to give better response next time.
	Keep up the good level of SOC.
	YES, we have idea about possibility of usage of TESTA network throughout the European Union for Communication between 28 national PEPS (PAN-EUROPEAN PROXY SERVICES for identification - authentication, as in STORK, STORK2 projects). Cross-border Communications between 28 national PEPS via TESTA network would be more secure, efficient, reliable and more legally defined, because today this communications is planed via public internet.

4.2.2. Result Overview According to the Evaluation Criteria

In order to provide an unbiased overview on the survey results, this section presents a comparison of the received replies depending on the user type and evaluation criteria.

Before performing the calculations, the 5-point Likert scale range values need to be interpreted as numeric values, i.e.:

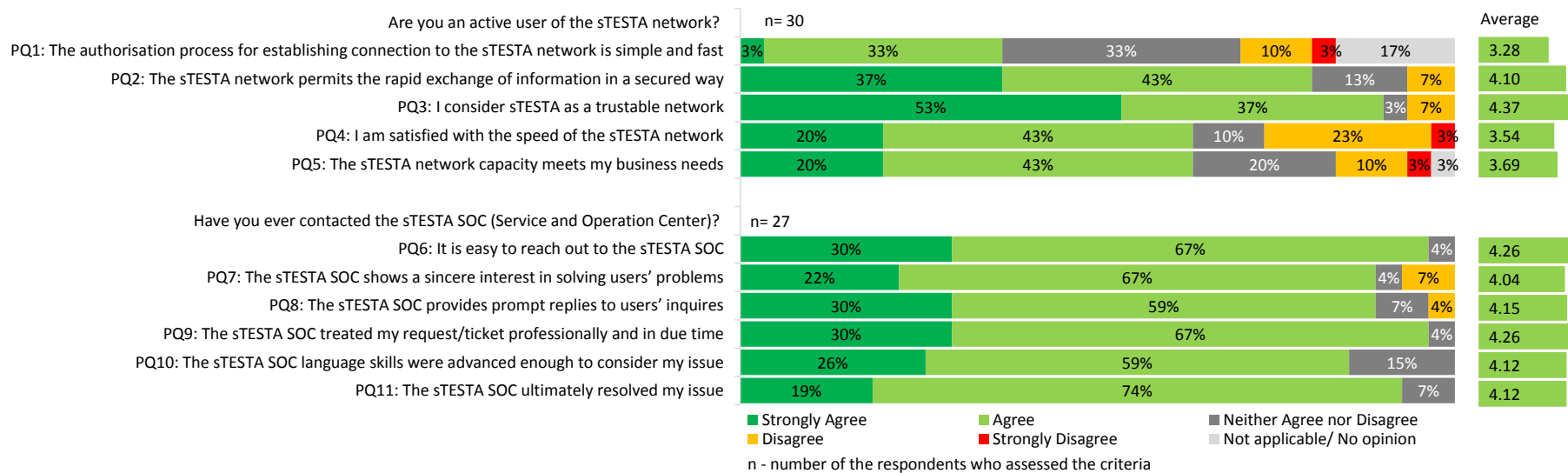
- 5 – Strongly Agree;
- 4 – Agree;
- 3 – Neither Agree nor Disagree;
- 2 – Disagree;
- 1 – Strongly Disagree;
- 0 – No opinion/ not applicable **was not considered for the calculation.**

4.2.2.1. PERCEIVED QUALITY OF THE ACTION 2.4 – ACTIVE USERS

This subsection gives an overview on the Perceived Quality results of Action 2.4 – Data communication network service – sTESTA, based on the active users’ opinion.

Figure 4 gives an overview on the Perceived Quality results provided by 30 active users. The statements were graded based on the users who responded ‘Yes’ to the skip logic question (a question that directs a respondent to a series of questions based on their responses).

FIGURE 4 – ACTION 2.4 PERCEIVED QUALITY STATEMENTS COMPARISON FOR ACTIVE USERS

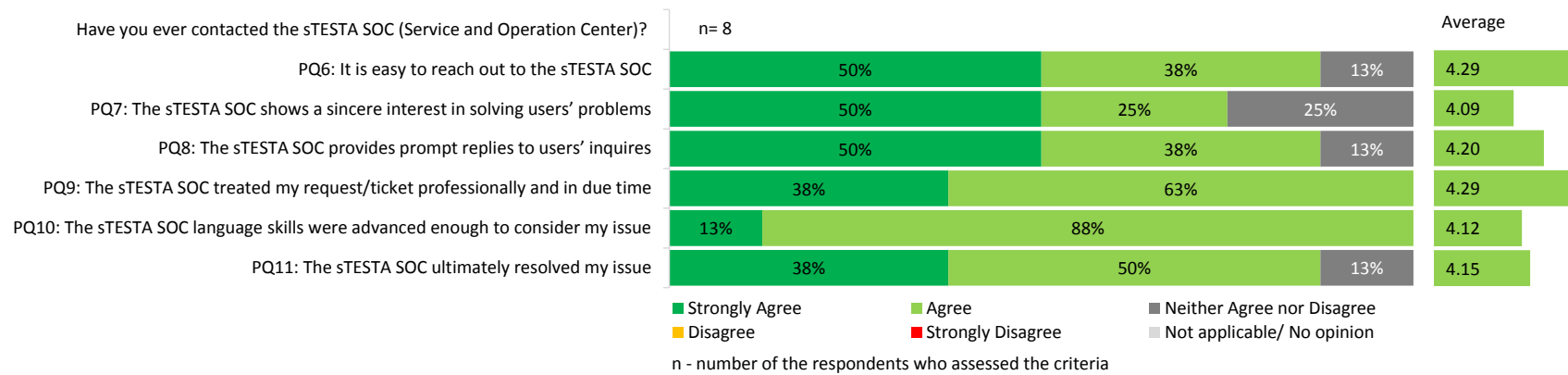


4.2.2.2. PERCEIVED QUALITY OF THE ACTION 2.4 – NON-ACTIVE USERS

This subsection gives an overview of the Perceived Quality results of Action 2.4 – Data communication network service – sTESTA, based on non-active users’ opinion.

Figure 5 gives an overview of the Perceived Quality results provided by non-active users who had contacted sTESTA SOC. The statements were graded based on the users who responded ‘Yes’ to the skip logic question (a question that directs a respondent to a series of questions based on their responses).

FIGURE 5 – ACTION 2.4 PERCEIVED QUALITY STATEMENTS COMPARISON FOR NON-ACTIVE USERS

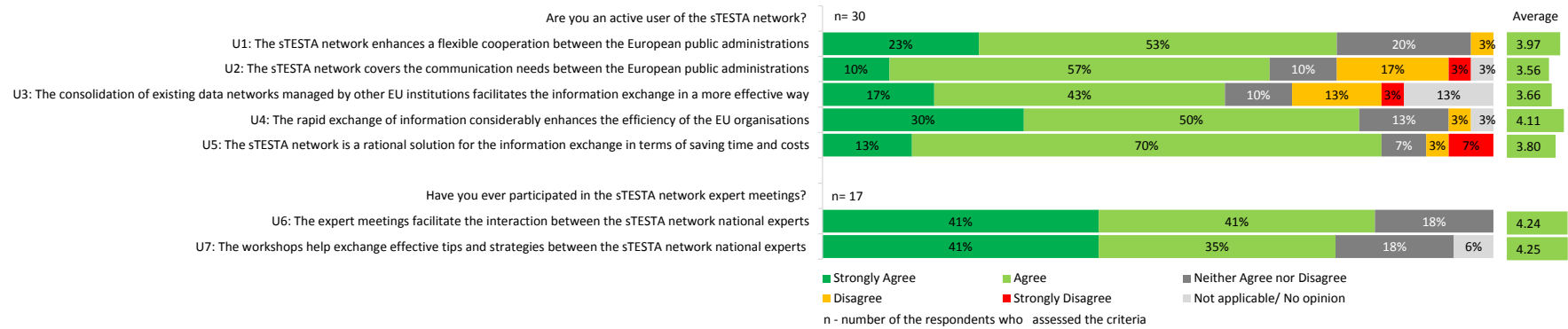


4.2.2.3. UTILITY OF THE ACTION 2.4 – ACTIVE USERS

This subsection gives an overview of the Utility results of Action 2.4 – Data communication network service – sTESTA, based on active users’ opinion.

Figure 6 gives an overview of the utility results provided by the active users. The statements were graded based on those users who responded ‘Yes’ to the skip logic question (a question that directs a respondent to a series of questions based on their responses).

FIGURE 6 – ACTION 2.4 UTILITY STATEMENTS COMPARISON FOR ACTIVE USERS

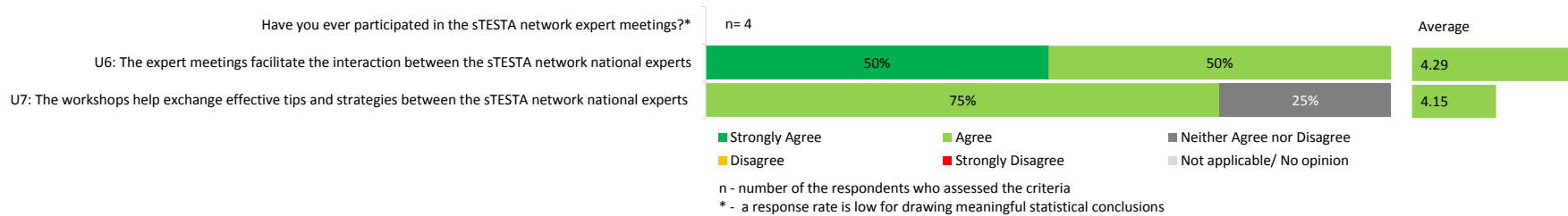


4.2.2.4. UTILITY OF THE ACTION 2.4 – NON-ACTIVE USERS

This subsection gives an overview of the Utility results of Action 2.4 – Data communication network service – sTESTA, based on non-active user’s opinion. The number of responses (10% of the total amount of respondents) for this question is not statistically valid to draw meaningful conclusions.

Figure 7 gives an overview of the Utility results provided by non-active users that have participated in the sTESTA network expert meetings. The statements were graded based on those users who responded ‘Yes’ to the skip logic question (a question that directs a respondent to a series of questions based on their responses).

FIGURE 7 – ACTION 2.4 UTILITY STATEMENTS COMPARISON FOR NON-ACTIVE USERS



4.2.3. Result Analysis According to the Evaluation Criteria

This section aims at presenting the method used for Perceived Quality and Utility score calculation. In order to obtain more accurate results, mean, mode, standard deviation and standard error values have been calculated.

Mean and mode are used in statistics and hereafter in this report for measuring the Perceived Quality and Utility evaluation criteria:

- The **mean**⁸ (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 values⁹ for each case and divide that sum by the total number of cases;
- **Mode** refers to the most frequent, repeated or common value⁹ in the quantitative or qualitative data. In some cases it is possible that there are several modes or none.

In order to measure the degree of dispersion of a probability distribution, i.e. how far the data points are from the average, the standard deviation and standard error values are applied:

- **Standard deviation**¹⁰ 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**¹⁰ 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.

Based on the survey methodology presented in Section 2, the statements related to the Perceived Quality were mapped to four dimensions and the statements related to the Utility were mapped to three dimensions. The detailed mapping of the statements is described in Section 6.1.

⁸ Dictionary of statistics & methodology: a nontechnical guide for the social sciences (page 226).

⁹ 5-point Likert scale range values are interpreted as numeric values like described in Section 4.2.2.

¹⁰ Dictionary of statistics & methodology: a nontechnical guide for the social sciences (page 375).

4.2.3.1. PERCEIVED QUALITY OF THE ACTION 2.4

Table 5 presents the detailed analysis of each Perceived Quality statement.

TABLE 5 – ACTION 2.4 PERCEIVED QUALITY SCORE DETAILS AT STATEMENT LEVEL

Statement	Mean	Mode	StDev	StErr	Dimension
PQ1: The authorisation process for establishing connection to the sTESTA network is simple and fast	3.28	3	0.90	0.17	Efficiency
PQ2: The sTESTA network permits the rapid exchange of information in a secured way	4.10	4	0.98	0.17	Security/Privacy (Trust)
PQ3: I consider sTESTA as a trustable network	4.37	5	0.86	0.16	Reliability
PQ4: I am satisfied with the speed of the sTESTA network	3.54	4	1.17	0.22	Reliability
PQ5: The sTESTA network capacity meets my business needs	3.69	4	1.04	0.19	Reliability
PQ6: It is easy to reach out to the sTESTA SOC	4.29	4	0.58	0.10	Support
PQ7: The sTESTA SOC shows a sincere interest in solving users' problems	4.09	4	0.79	0.14	Support
PQ8: The sTESTA SOC provides prompt replies to users' inquires	4.20	4	0.72	0.13	Support
PQ9: The sTESTA SOC treated my request/ticket professionally and in due time	4.29	4	0.52	0.09	Support
PQ10: The sTESTA SOC language skills were advanced enough to consider my issue	4.12	4	0.59	0.10	Support
PQ11: The sTESTA SOC ultimately resolved my issue	4.15	4	0.56	0.10	Support

Table 6 gives an overview on the analysis of each Perceived Quality dimension as well as a total score of the Perceived Quality evaluation criteria.

In order to make the total Perceived Quality score calculation more accurate, a weighted mean¹¹ was used. The dimension weight is defined based on the amount of statements within a specific dimension. All four perceived quality dimensions were considered as applicable for the Action 2.4.

Weighted average of the Perceived Quality is 3.98 in scale from 1 to 5, where 5 is the maximum (best) value.

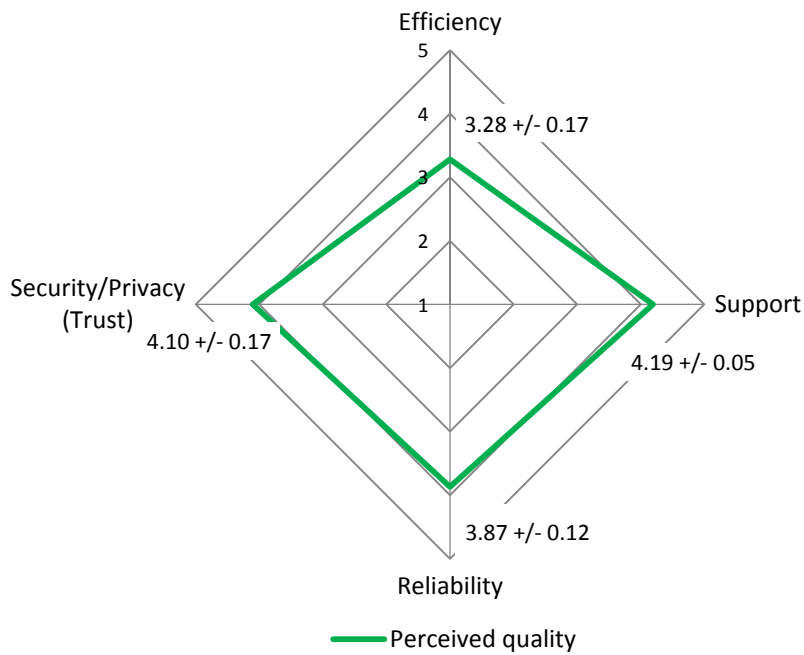
Standard deviation is equal to 0.84 indicating that the users' opinion was spread out evenly around the mean value.

TABLE 6 – ACTION 2.4 PERCEIVED QUALITY SCORE DETAILS

	Mean	Mode	StDev	StErr	Dimension	Weight
Per dimension	3.28	3	0.90	0.17	Efficiency	0.09
	4.19	4	0.63	0.05	Support	0.09
	3.89	4	1.08	0.12	Reliability	0.27
	4.10	4	0.89	0.17	Security/Privacy (Trust)	0.55
Perceived Quality	3.98¹¹	4	0.84	0.05		

Figure 8 gives a visual overview on the Perceived Quality coverage per four predefined dimensions.

FIGURE 8 – ACTION 2.4 PERCEIVED QUALITY AGGREGATION



¹¹ Weighted mean is a procedure for combining the means of two or more groups of different sizes; it takes the sizes of the groups into account when computing the overall or grand mean.

4.2.3.2. UTILITY OF THE ACTION 2.4

Table 7 presents the detailed analysis of each utility statement.

TABLE 7 – ACTION 2.4 UTILITY SCORE DETAILS ON STATEMENT LEVEL

Statement	Mean	Mode	StDev	StErr	Dimension
U1: The sTESTA network enhances a flexible cooperation between the European public administrations	3.97	4	0.77	0.14	Value for cross-border and cross-sector interoperability
					Value for EU
U2: The sTESTA network covers the communication needs between the European public administrations	3.56	4	1.03	0.19	Value for cross-border and cross-sector interoperability
					Value for EU
U3: The consolidation of existing data networks managed by other EU institutions facilitates the information exchange in a more effective way	3.66	4	1.1	0.2	Value for cross-border and cross-sector interoperability
					Value for EU
U4: The rapid exchange of information considerably enhances the efficiency of the EU organizations	4.11	4	0.78	0.15	Value for cross-border and cross-sector interoperability
					Value for EU
U5: The sTESTA network is a rational solution for the information exchange in terms of saving time and costs	3.80	4	0.97	0.18	Value for cross-border and cross-sector interoperability
					Value for EU
					Value for EC
U6: The expert meetings facilitate the interaction between the sTESTA network national experts	4.29	4	0.72	0.16	Value for cross-border and cross-sector interoperability
					Value for EU
U7: The workshops help exchange effective tips and strategies between the sTESTA network national experts	4.15	4	0.75	0.17	Value for cross-border and cross-sector interoperability
					Value for EU

Table 8 gives an overview on the analysis of each Utility dimension as well as a total score for the utility evaluation criteria.

In order to make the total Utility score calculation more accurate, a weighted mean¹¹ was used. The dimension weight is defined based on the amount of statements within specific dimension.

Weighted average of the Utility is 3.91 in scale from 1 to 5, where 5 is the maximum (best) value.

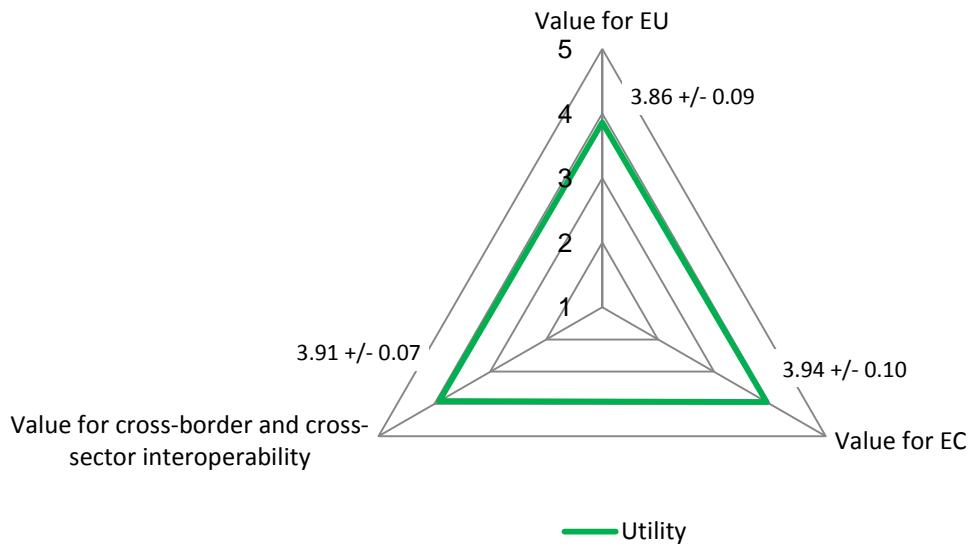
Standard deviation is equal to 0.91 indicating that the users' opinion was spread out evenly around the mean value.

TABLE 8 – ACTION 2.4 UTILITY SCORE DETAILS

	MEAN	MODE	StDev	StErr	Dimension	Weight
Per dimension	3.86	4	0.90	0.09	Value for EU	0.27
	3.94	4	0.94	0.10	Value for EC	0.27
	3.91	4	0.91	0.07	Value for cross-border and cross-sector interoperability	0.47
Utility	3.91¹¹	4	0.91	0.07		

Figure 9 gives a visual overview on the Utility coverage per the three predefined dimensions.

FIGURE 9 – ACTION 2.4 UTILITY AGGREGATION



4.3. STRENGTHS AND WEAKNESSES OF THE sTESTA NETWORK SERVICE

This section aims at providing an overview of the strong and weak aspects of the sTESTA network service revealed by the Action 2.4 Perceived Quality and Utility survey.

Prioritization of the statements were made based on the mean value of each statement.

Statements with nearby mean values were grouped into three different clusters to which the following colours have been applied:

- A **Green** colour applies to statements that refer to the strong aspects of the sTESTA network service;
- A **Grey** colour applies to statements that refer to the aspects that require attention. For those statements respondent opinion was spread proportionally between 'Agree' and 'Disagree';
- An **Orange** colour applies to statements that refer to the weak aspects of the sTESTA network service. Weaknesses of those aspects are confirmed by the feedbacks provided in Table 3 and Table 4.

4.3.1. Perceived Quality of the Action 2.4

Table 9 gives an overview of the aspects that are strong, require attention or are weak of the sTESTA network service in the context of Perceived Quality.

TABLE 9 – ACTION 2.4 PERCEIVED QUALITY STRENGTHS AND WEAKNESSES

Perceived Quality statement	Mean	Dimension
PQ3: I consider sTESTA as a trustable network	4.37	Reliability
PQ6: It is easy to reach out to the sTESTA SOC	4.29	Support
PQ9: The sTESTA SOC treated my request/ticket professionally and in due time	4.29	Support
PQ8: The sTESTA SOC provides prompt replies to users' inquires	4.20	Support
PQ11: The sTESTA SOC ultimately resolved my issue	4.15	Support
PQ10: The sTESTA SOC language skills were advanced enough to consider my issue	4.12	Support
PQ2: The sTESTA network permits the rapid exchange of information in a secured way	4.10	Security/Privacy (Trust)
PQ7: The sTESTA SOC shows a sincere interest in solving users' problems	4.09	Support
PQ5: The sTESTA network capacity meets my business needs	3.69	Reliability
PQ4: I am satisfied with the speed of the sTESTA network	3.54	Reliability
PQ1: The authorisation process for establishing connection to the sTESTA network is simple and fast	3.28	Efficiency

4.3.2. Utility of the Action 2.4

Table 10 an overview of the aspects that are strong, require attention or are weak of the sTESTA network service in the context of Utility.

TABLE 10 – ACTION 2.4 UTILITY STRENGTHS AND WEAKNESSES

Utility statement	Mean	Dimension
U6: The expert meetings facilitate the interaction between the sTESTA network national experts	4.29	Value for cross-border and cross-sector interoperability
		Value for EC
U7: The workshops help exchange effective tips and strategies between the sTESTA network national experts	4.15	Value for cross-border and cross-sector interoperability
		Value for EC
U4: The rapid exchange of information considerably enhances the efficiency of the EU organizations	4.11	Value for cross-border and cross-sector interoperability
		Value for EU
U1: The sTESTA network enhances a flexible cooperation between the European public administrations	3.97	Value for cross-border and cross-sector interoperability
		Value for EU
U5: The sTESTA network is a rational solution for the information exchange in terms of saving time and costs	3.80	Value for cross-border and cross-sector interoperability
		Value for EU
		Value for EC
U3: The consolidation of existing data networks managed by other EU institutions facilitates the information exchange in a more effective way	3.66	Value for cross-border and cross-sector interoperability
		Value for EC
U2: The sTESTA network covers the communication needs between the European public administrations	3.56	Value for cross-border and cross-sector interoperability
		Value for EU

5. CONCLUSIONS AND RECOMMENDATIONS

The objective of the survey was to evaluate the Perceived Quality and Utility of Action 2.4 – Data communication network service – sTESTA. The following conclusions have been drawn based on the analysis performed:

- Perceived Quality:
 - Overall, the sTESTA network service is trustable and secure and provides appropriate customer support;
 - The sTESTA network service speed does not correspond to the users' needs;
 - The authorization process simplicity and speed is the weakest aspect of the sTESTA network service.
- Utility:
 - The findings indicate that the sTESTA network expert meetings and workshops are effective and the stakeholders are satisfied with the interaction and information they gain from attending those;
 - The sTESTA network service successfully enhances the efficiency of the EU organisations;
 - The sTESTA network improves cooperation between the European public administrations, however, users indicated that it does not fully cover all communication needs;
 - The majority of respondents from public administrations are not currently actively using the network service which might be due to the poor awareness of the sTESTA capabilities.

Based on the conclusions drawn, CGI-ACN adduces the following recommendations:

- Perceived Quality:
 - The bandwidth of the sTESTA network should be improved in order to correspond to the users' needs. Also it must be point of consideration for the future network (TESTA NG) and for its improvements;
 - The authorization process of the sTESTA network should be improved to increase the ease of use. As an alternative, there could be a detailed instructive description of the authorization process provided. These materials should be easy accessible by potential users, for instance, via a link that is incorporated in the authorization window.
- Utility:
 - Most of the respondents from public administrations were non-active sTESTA network users therefore there might be a need for an awareness campaign for the interested parties within the public administration sector about the sTESTA network; this could be done by organising informative events.

6. APPENDIX

6.1. STATEMENT MAPPING TO DIMENSIONS

In order to measure the Perceived Quality and Utility of the Action 2.4 and calculate the average score of each dimension, all survey statements were mapped to the dimensions according to the evaluation criteria.

Table 11 shows the statements mapping according to four dimensions of the Action 2.4 Perceived Quality.

TABLE 11 – ACTION 2.4 PERCEIVED QUALITY STATEMENT MAPPING TO DIMENSION

Question	ID	Efficiency	Security/Privacy (Trust)	Reliability	Support	Count of areas covered by question
The authorisation process for establishing connection to the sTESTA network is simple and fast	PQ1	✓				1
The sTESTA network permits the rapid exchange of information in a secured way	PQ2		✓			1
I consider sTESTA as a trustable network	PQ3			✓		1
I am satisfied with the speed of the sTESTA network	PQ4			✓		1
The sTESTA network capacity meets my business needs	PQ5			✓		1
It is easy to reach out to the sTESTA SOC	PQ6				✓	1
The sTESTA SOC shows a sincere interest in solving users' problems	PQ7				✓	1
The sTESTA SOC provides prompt replies to users' inquiries	PQ8				✓	1
The sTESTA SOC treated my request/ticket professionally and in due time	PQ9				✓	1
The sTESTA SOC language skills were advanced enough to consider my issue	PQ10				✓	1
The sTESTA SOC resolved my issue in an acceptable timeframe	PQ11				✓	1
# of questions covering dimension		1	1	3	6	
% of questions covering dimension		6%	6%	17%	33%	

Table 12 shows the statement mapping according to three dimensions of the Action 2.4 Utility.

TABLE 12 – ACTION 2.4 UTILITY STATEMENT MAPPING TO DIMENSION

Question	ID	Value for EU	Value for EC	Value for cross-border and cross-sector interoperability	Count of areas covered by question
The sTESTA network enhances a flexible cooperation between the European public administrations	U1	✓		✓	2
The sTESTA network covers the communication needs between the European public administrations	U2	✓		✓	2
The consolidation of existing data networks managed by other EU institutions facilitates the information exchange in a more effective way	U3		✓	✓	2
The rapid exchange of information considerably enhances the efficiency of the EU organisations	U4	✓		✓	2
The sTESTA network is a rational solution for the information exchange in terms of saving time and costs	U5	✓	✓	✓	3
The expert meetings facilitate the interaction between the sTESTA network national experts	U6		✓	✓	2
The workshops help exchange effective tips and strategies between the sTESTA network national experts	U7		✓	✓	2
# of questions covering dimension		4	4	7	
% of questions covering dimension		22%	22%	39%	

6.2. DETAILED LIST OF RESPONDENTS' ORGANISATIONS

Table 13 shows the detailed list of answers that were provided by the respondents in order to identify the organisation they belong to.

TABLE 13 – ACTION 2.4 DETAILED LIST OF RESPONDENTS' ORGANISATIONS

Organisations	CDT
	Cedefop
	Centro de Gestão da Rede Informatica do Governo
	CPVO
	Danish National Police
	DG EMPL Unit G4
	Dutch Police
	ECB
	ECHA
	EIGE
	EMSA
	ETF
	EU-LISA
	EU-OSHA
	Eurofound
	European Asylum Support Office
	European Aviation Safety Agency
	European Banking Authority (EBA)
	European Court of Justice
	EUROPOL
	FCH JU
	Fedict
	Fusion for Energy
	Government ICT Centre
	Informatics service centre
	Information Society SA
	Liechtensteinische Landesverwaltung
	MINISTERIO DE HACIENDA Y ADMINISTRACIONES PÚBLICAS
	Ministry of public administration
	Ministry of the Interior
	Ministry of the Interior of the Czech Republic (responsible for national infrastructure)
	MSB – Swedish Civil Contingencies Agency
	National Commissioner of the Icelandic Police
	NISZ National Infocommunications Service Company Limited by Shares
	OHIM
	Public Administration
	Republic of Slovenia, Ministry of Public Administration, IT Services Directorate
	State Enterprise Infostruktura, administrator of National Network in Lithuania (in terms of sTESTA)
	Swedish Civil Contingencies Agency

6.3. PERSONAL CONTACT INFORMATION

One Action 2.4 Perceived Quality and Utility survey respondent included his personal contact information in the recommendations field. This information has been transmitted to DIGIT/ISA and is not provided in this document for the confidentiality reasons.

6.4. RAW DATA EXPORT

The attached file provides the survey result export, as well as data that was excluded from the survey analysis. One response was removed from the survey analysis due to indication that it was submitted by an external DIGIT tester.



Raw Data.xlsx

6.5. GLOSSARY

- The mean⁸ (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 values⁹ for each case and divide that sum by the total number of cases;
- Mode refers to the most frequent, repeated or common value⁹ in the quantitative or qualitative data. In some cases it is possible that there are several modes or none;
- Standard deviation¹⁰ 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 error¹⁰ 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 Quality' is defined as the extent to which the outputs of an ISA action are meeting its direct beneficiaries' expectations²;
- '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 programme⁴;
- 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;
- Weighted mean is a procedure for combining the means of two or more groups of different sizes; it takes the sizes of the groups into account when computing the overall or grand mean.