



**INTEROPERABILITY SOLUTIONS FOR
EUROPEAN PUBLIC ADMINISTRATIONS
MONITORING AND EVALUATION
D03.05/D03.06 ACTION 1.10 PERCEIVED QUALITY AND
UTILITY MONITORING REPORT**

Framework Contract n° DI/07173

31st July 2015

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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 Action 1.10 Internal Market Information System (IMI) survey was launched during the first semester of 2015. The objective of the survey was to understand to what extent IMI is easy to use, to evaluate new functionality (since the last survey), to identify areas for improvement and to see if more training or support is needed. It was agreed to reuse the survey for the purposes of measuring the Perceived Quality and Utility.

The survey was designed in the EUSurvey tool and distributed by e-mail to all registered IMI users, in total approximately 14 000 recipients.

The survey was launched on the 26th of March 2015 and was active until the 8th of May 2015. In total, 2 332 people responded to the survey, which accounts for 16% of the total amount of recipients.

The survey result analysis (see Table 1) shows the Action 1.10 Perceived Quality and Utility scores. The **Perceived Quality score** is **3.91** (scale: 1...5) and the **Utility score** is **3.62** (scale: 1...5).

The detailed score calculation process is described in Section 4.1.3.

TABLE 1 – ACTION 1.10 SURVEY RESULTS

Evaluation criteria	Mean ¹	Mode ¹	StDev ¹	StErr ¹
Action 1.10 Perceived Quality	3.91	4	1.13	0.02
Action 1.10 Utility	3.62	4	1.25	0.02

Conclusion: Based on the results received, IMI is a reliable and secure cooperation platform. Moreover, it saves users' time and costs and it is easy to use. Based on the survey data analysis, the results and effects of IMI successfully correspond with the needs, problems and issues that are to be addressed by the ISA programme.

However, there is need to investigate further the points with the lowest ratings i.e., the search for a competent authority and possible improvements to the predefined questions and answers.

¹ See Glossary (Section 6.2)

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	
09-June-2015	0.20	Initial version updated	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 1.10 – Internal Market Information System (IMI).

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;
 - 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 the Action 1.10. 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 platform is easy to use;
- **Trust (Privacy):** measures the degree to which the user believes the platform is safe from intrusion and protects personal information;
- **Reliability:** measures the feasibility and speed of accessing, using, and receiving services of the platform;
- **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, this particular survey did not focus on this dimension and there are no utility statements that cover 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. However, for this particular survey 'Neither Agree nor Disagree' option is omitted.

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 1.10 SURVEY DATA SUMMARY

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

TABLE 2 – ACTION 1.10 SURVEY DATA SUMMARY

Action 1.10 – Internal Market Information System (IMI)	
Start date:	26/03/2015
End date:	08/05/2015
Sample Size:	~14 000
Amount of responses:	2 332
The survey launching method:	E-mail notification

4. SURVEY RESULTS AND ANALYSIS

This section aims to provide a detailed survey analysis and to present the results depending on the division of the Internal Market Information System (IMI) within the Action 1.10 Perceived Quality and Utility evaluation criteria.

4.1. SURVEY RESULT OVERVIEW

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

- **Survey response overview** shows a complete survey response range collection covered by the Action 1.10 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.

4.1.1. Survey Response Overview

This section presents an overview of the survey responses. It includes a graph presenting an overall view of all survey statements and their average scores and an overview of the results to questions that were not suitable to be graded using a 5-point Likert scale.

Figure 1 gives an overview of the 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). Out of 2332 survey respondents, 1876 respondents have logged into IMI at least once and 1154 respondents are responsible for managing authority data and/or users in IMI. Out of 1104 respondents who have sent or received information through IMI, 635 respondents use IMI for information request and 228 for notifications.

FIGURE 1 – OVERALL ACTION 1.10 SURVEY RESPONSE OVERVIEW

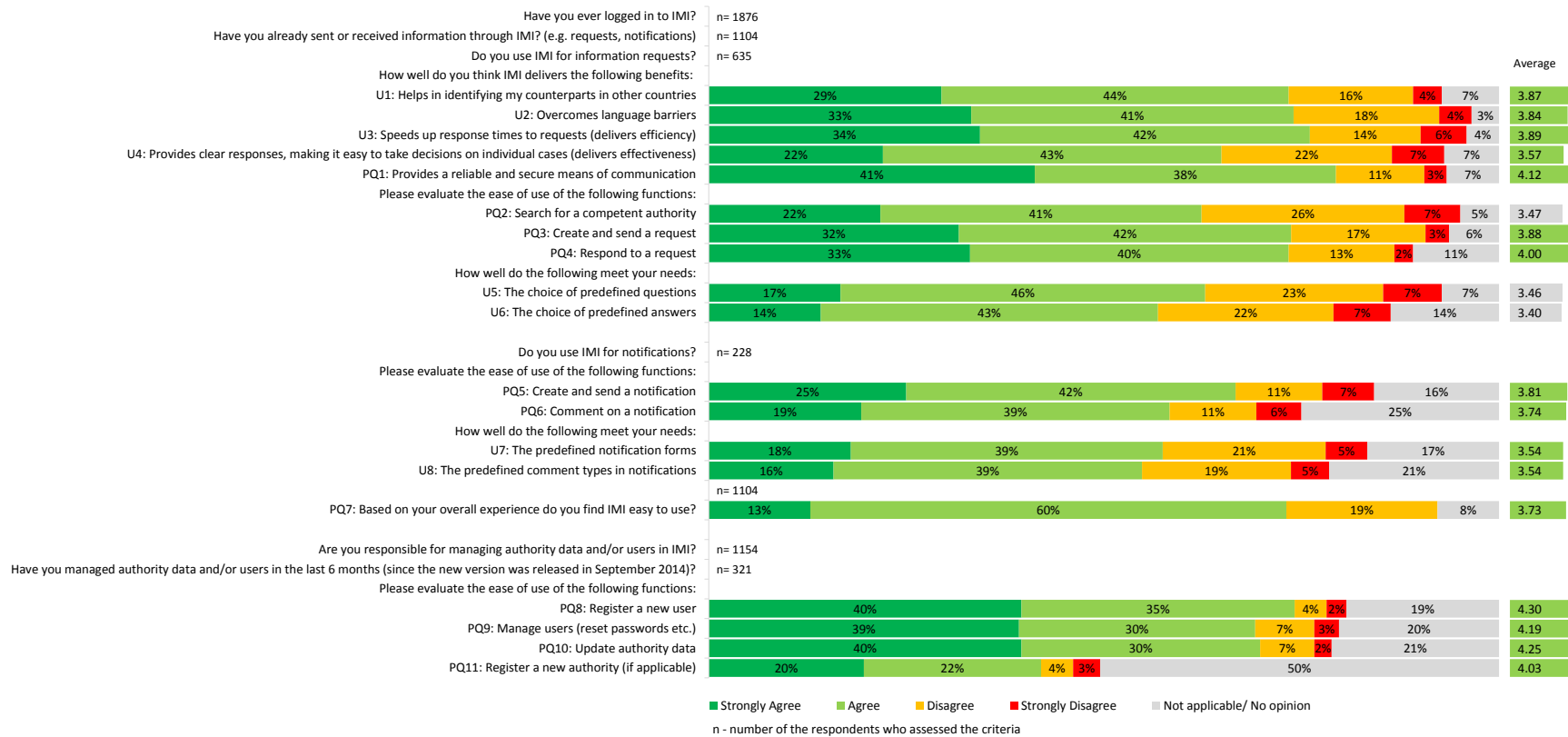


Figure 2 presents for how many respondents the IMI platform works with their default browser and for how many the IMI platform is available and accessible whenever it is needed.

Out of 1021 respondents only 10 indicated that IMI does not work with their default browser.

The majority of the respondents indicated that they have no problems connecting to IMI platform, and the system is available and accessible whenever they need it.

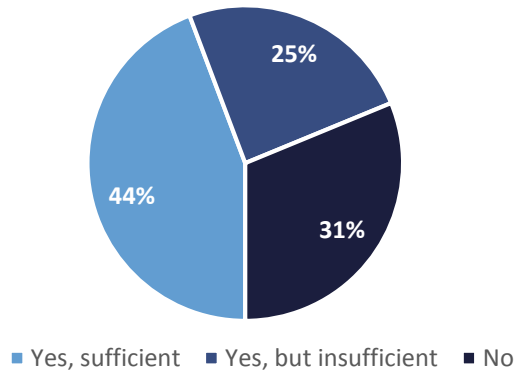
FIGURE 2 – IMI BROWSER ACCESSIBILITY AND GENERAL AVAILABILITY



Figure 3 shows classification of reciprocity status for training or information on how to use IMI.

In total 1559 (69%) survey respondents have received training or information on how to use IMI. 1032 (44%) respondents confirmed that they received a sufficient support materials and information on how to use IMI, 527 (25%) indicated that they received insufficient support materials⁷.

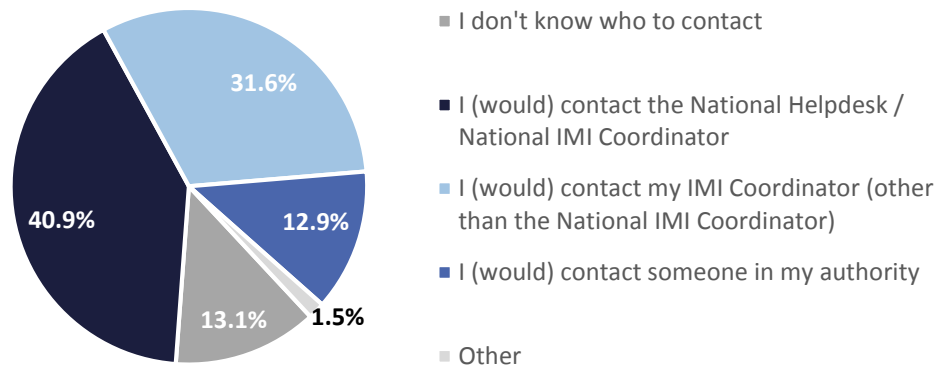
FIGURE 3 - RECIPIENCY STATUS FOR SUPPORT MATERIALS AND INFORMATION



⁷ Respondents could choose more than one answer. For this question 2530 answers were received in total.

Figure 4 shows a classification of answers regarding to whom the respondents would turn to if they needed help with IMI. 1034 (41%) respondents would contact the National Helpdesk or National IMI Coordinator, 800 (32%) respondents would contact their IMI Coordinator rather than than National IMI Coordinator and 326 (13%) respondents would contact someone in their authority. 332 (13%) respondents do not know who to contact in case they need help with IMI.

FIGURE 4 – CLASSIFICATION OF ANSWERS REGARDING WHO TO CONTACT WHEN IMI HELP IS NEEDED



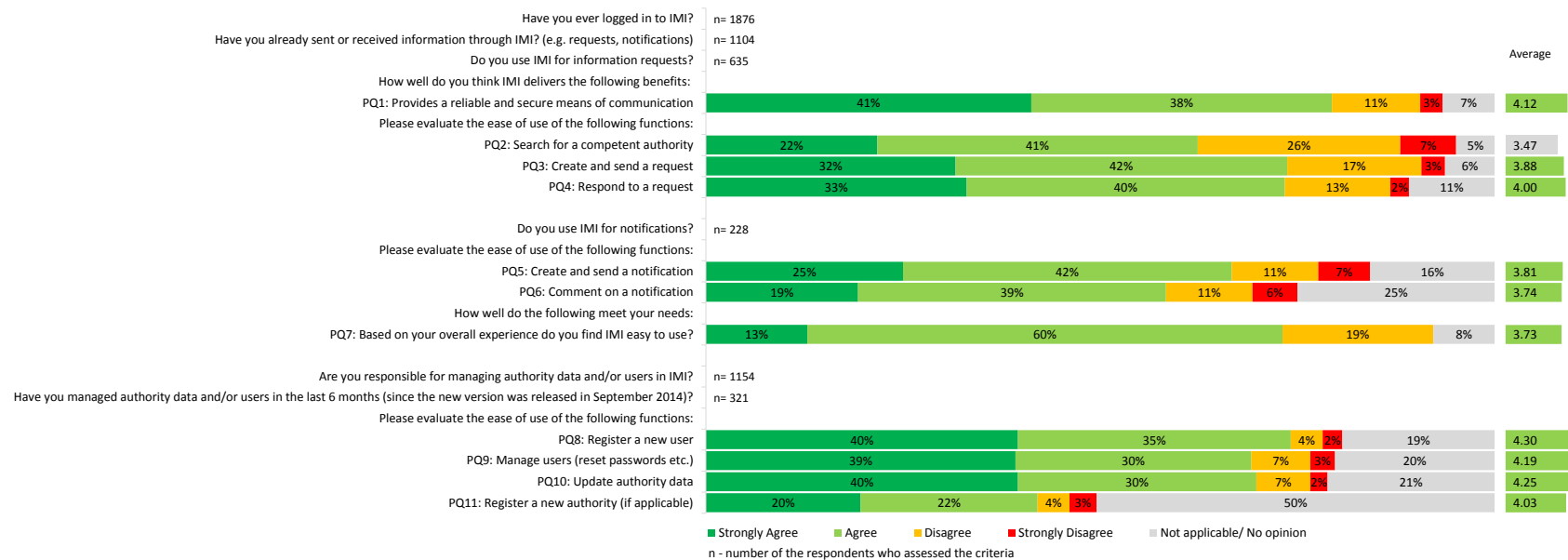
4.1.2. Result Overview According to the Evaluation Criteria

This section presents a graphical overview of the survey results according to the two evaluation criteria – Perceived Quality and Utility.

4.1.2.1. PERCEIVED QUALITY

Figure 5 gives an overview on the Perceived Quality results of Action 1.10 – Internal Market Information System (IMI). 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).

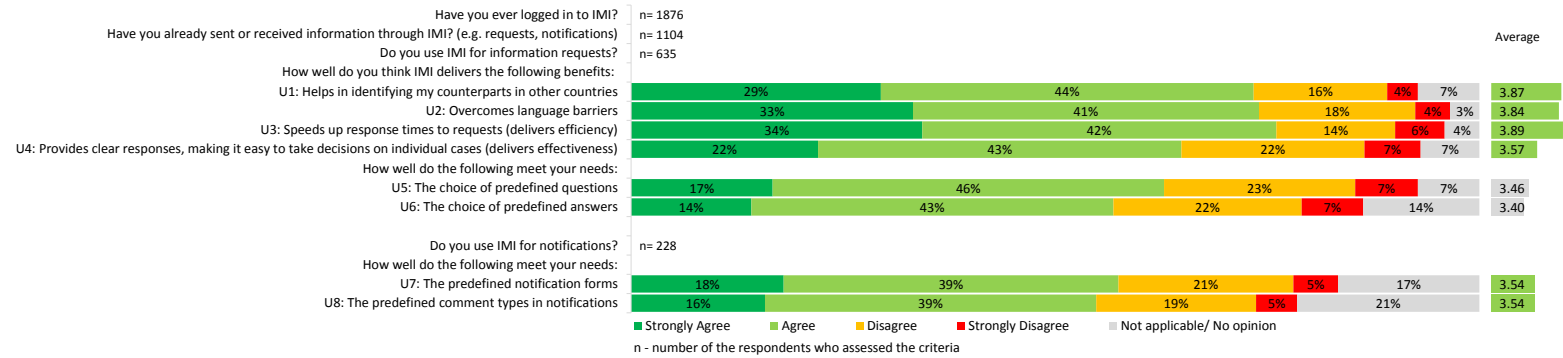
FIGURE 5 – ACTION 1.10 PERCEIVED QUALITY STATEMENT COMPARISON



4.1.2.2. UTILITY

Figure 6 gives an overview of the utility results. 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 1.10 UTILITY STATEMENT COMPARISON



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

- 5 – Strongly Agree (+2⁸);
- 4 – Agree (+1);
- 3 – Neither Agree nor Disagree option for this particular survey was omitted, therefore **was not considered for the calculation.**
- 2 – Disagree (-1);
- 1 – Strongly Disagree (-2);
- 0 – No opinion/not applicable **was not considered for the calculation** (I don't know).

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

- The **mean**⁹ (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 values¹⁰ for each case and divide that sum by the total number of cases;
- **Mode** refers to the most frequent, repeated or common value¹⁰ 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**¹¹ 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**¹¹ 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.

⁸ The values presented between braces are the one extracted from the raw data report.

⁹ Dictionary of statistics & methodology: a nontechnical guide for the social sciences (page 226).

¹⁰ 5-point Likert scale range values are interpreted as numeric values like described in Section 4.1.3. 0

¹¹ Dictionary of statistics & methodology: a nontechnical guide for the social sciences (page 375).

Based on the survey methodology presented in Section 2, the statements related to the Perceived Quality were mapped to three 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.

This section presents a comparison of the received replies depending on the evaluation criteria.

4.1.3.1. PERCEIVED QUALITY

Table 3 presents the detailed analysis of each Perceived Quality statement.

TABLE 3 - ACTION 1.10 PERCEIVED QUALITY SCORE DETAILS ON STATEMENT LEVEL

Statement	Mean	Mode	StDev	StErr	Dimension
PQ1: How well do you think IMI delivers the following benefits: Provides a reliable and secure means of communication	4.12	5	1.09	0.05	Security/Privacy (Trust)
PQ2: Please evaluate the ease of use of the following functions: Search for a competent authority	3.47	4	1.31	0.06	Efficiency
PQ3: Please evaluate the ease of use of the following functions: Create and send a request	3.88	4	1.16	0.05	Efficiency
PQ4: Please evaluate the ease of use of the following functions: Respond to a request	4.00	4	1.11	0.05	Efficiency
PQ5: Please evaluate the ease of use of the following functions: Create and send a notification	3.81	4	1.23	0.09	Efficiency
PQ6: Please evaluate the ease of use of the following functions: Comment on a notification	3.74	4	1.22	0.10	Efficiency
PQ7: Based on your overall experience do you find IMI easy to use?	3.73	4	0.95	0.03	Efficiency
PQ8: Please evaluate the ease of use of the following functions: Register a new user	4.30	5	0.95	0.06	Efficiency
PQ9: Please evaluate the ease of use of the following functions: Manage users (reset passwords etc.)	4.19	5	1.10	0.07	Efficiency
PQ10: Please evaluate the ease of use of the following functions: Update authority data	4.24	5	1.03	0.07	Efficiency
PQ11: Please evaluate the ease of use of the following functions: Register a new authority (if applicable)	4.03	4	1.17	0.10	Efficiency

Table 4 gives an overview on the analysis of each Perceived Quality dimension, as well as the total score of the Perceived Quality evaluation criteria.

In order to make the total Perceived Quality score calculation more accurate, a weighted mean¹³ was used. The dimension weight is defined based on the amount of statements within a specific dimension. Three from four perceived quality dimensions – Efficiency, Reliability, Security/Privacy – were considered as applicable for the Action 1.10.

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

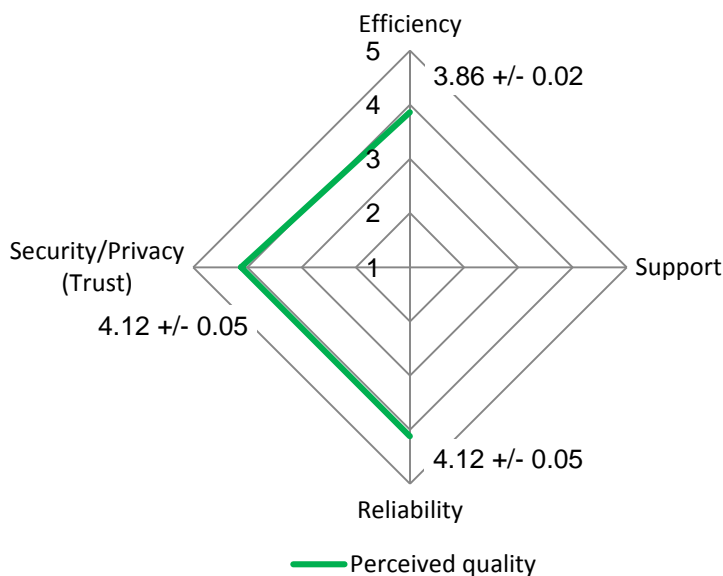
Standard deviation is equal to 1.13 indicating that the users’ opinion was spread out over a wide range of values.

TABLE 4 – ACTION 1.10 PERCEIVED QUALITY SCORE DETAILS

	Mean	Mode	StDev	StErr	Dimension	Weight
Per dimension	3.86	4	1.13	0.02	Efficiency	0.83
					Support ¹²	
	4.12	5	1.09	0.05	Reliability	0.08
	4.12	5	1.09	0.05	Security/Privacy (Trust)	0.08
Perceived Quality	3.91¹³	4	1.13	0.02		

Figure 7 gives a visual overview on the Perceived Quality coverage per four predefined dimensions.

FIGURE 7 – ACTION 1.10 PERCEIVED QUALITY AGGREGATION



¹² Questions of Support dimension were not measurable on 5 point scale and can be found in Section 4.1.1

¹³ 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.

4.1.3.2. UTILITY

Table 5 presents the detailed analysis of each utility statement.

TABLE 5 – ACTION 1.10 UTILITY SCORE DETAILS ON STATEMENT LEVEL

Statement	Mean	Mode	StDev	StErr	Dimension
U1: How well do you think IMI delivers the following benefits?: Helps in identifying my counterparts in other countries	3.87	4	1.16	0.05	Value for EU
					Value for cross-border and cross-sector interoperability
U2: How well do you think IMI delivers the following benefits?: Overcomes language barriers	3.84	4	1.22	0.05	Value for EU
					Value for cross-border and cross-sector interoperability
U3: How well do you think IMI delivers the following benefits?: Speeds up response times to requests (delivers efficiency)	3.89	4	1.22	0.05	Value for EU
					Value for cross-border and cross-sector interoperability
U4: How well do you think IMI delivers the following benefits?: Provides clear responses, making it easy to take decisions on individual cases (delivers effectiveness)	3.57	4	1.28	0.06	Value for EU
					Value for cross-border and cross-sector interoperability
U5: How well do the following meet your needs?: The choice of predefined questions	3.46	4	1.26	0.06	Value for EU
					Value for cross-border and cross-sector interoperability
U6: How well do the following meet your needs?: The choice of predefined answers	3.40	4	1.27	0.06	Value for EU
					Value for cross-border and cross-sector interoperability
U7: How well do the following meet your needs?: The predefined notification form	3.54	4	1.25	0.10	Value for EU
					Value for EC
					Value for cross-border and cross-sector interoperability
U8: How well do the following meet your needs?: The predefined comment types in notifications	3.54	4	1.23	0.10	Value for EU
					Value for EC
					Value for cross-border and cross-sector interoperability

Table 6 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 mean¹³ was used. The dimension weight is defined based on the amount of statements within specific dimension.

Weighted average of the Perceived Quality is 3.65 in scale from 1 to 5, where 5 is the maximum (best) value.

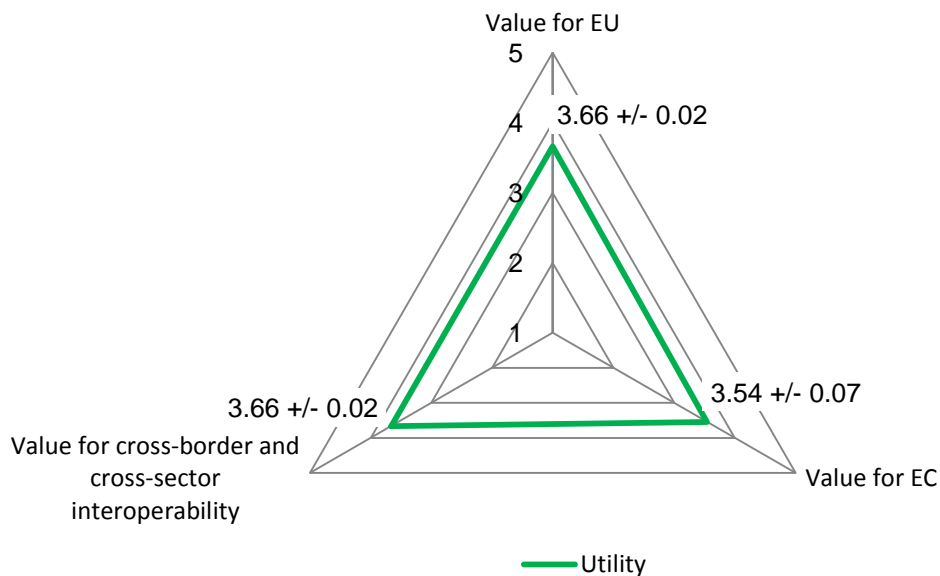
Standard deviation is equal to 1.25 indicating that the users’ opinion was spread out over a wide range of values.

TABLE 6 – ACTION 1.10 UTILITY SCORE DETAILS

Per dimension	MEAN	MODE	StDev	StErr	Dimension	Weight
	3.66	4	1.25	0.02	Value for EU	0.44
	3.54	4	1.24	0.07	Value for EC	0.11
	3.66	4	1.25	0.02	Value for cross-border and cross-sector interoperability	0.44
Utility	3.65¹³	4	1.25	0.02		

Figure 8 gives a visual overview on the Utility coverage per two predefined dimensions.

FIGURE 8 – ACTION 1.10 UTILITY AGGREGATION



4.2. STRENGTHS AND WEAKNESSES OF THE INTERNAL MARKET INFORMATION SYSTEM

This section provides an overview of the different aspects of the IMI sorted in decreasing order of perceived quality and utility scores.

Prioritization of the statements was 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 highly rated and appreciated statements;
- A **Grey** colour applies to statements that refer to the aspects that may require attention;
- An **Orange** colour applies to statements that should be further investigated.

4.2.1. Perceived Quality

Table 7 presents an overview of the aspects that are strong, may require attention or are weak of IMI in the context of Perceived Quality. Clusters were grouped based on the range of the Perceived Quality mean score only.

TABLE 7 – ACTION 1.10 IMI PERCEIVED QUALITY STRENGTHS AND WEAKNESSES

Perceived Quality Statement	Mean	Dimension
PQ8: Please evaluate the ease of use of the following functions: Register a new user	4.30	Efficiency
PQ10: Please evaluate the ease of use of the following functions: Update authority data	4.25	Efficiency
PQ9: Please evaluate the ease of use of the following functions: Manage users (reset passwords etc.)	4.19	Efficiency
PQ1: How well do you think IMI delivers the following benefits?: Provides a reliable and secure means of communication	4.12	Security/Privacy (Trust)
		Reliability
PQ11: Please evaluate the ease of use of the following functions: Register a new authority (if applicable)	4.03	Efficiency
PQ4: Please evaluate the ease of use of the following functions: Respond to a request	4.00	Efficiency
PQ3: Please evaluate the ease of use of the following functions: Create and send a request	3.88	Efficiency
PQ5: Please evaluate the ease of use of the following functions: Create and send a notification	3.81	Efficiency
PQ6: Please evaluate the ease of use of the following functions: Comment on a notification	3.74	Efficiency
PQ7: Based on your overall experience do you find IMI easy to use?	3.73	Efficiency
PQ2: Please evaluate the ease of use of the following functions: Search for a competent authority	3.47	Efficiency

4.2.2. Utility

Table 8 presents an overview of the aspects that are strong, require attention or are weak of the Internal Market Information System (IMI) in the context of Utility. Clusters were grouped based on the range of the Utility mean score only.

TABLE 8 – ACTION 1.10 IMI UTILITY STRENGTHS AND WEAKNESSES

Utility Statement	Mean	Dimension
U3: How well do you think IMI delivers the following benefits?: Speeds up response times to requests (delivers efficiency)	3.89	Value for EU
		Value for cross-border and cross-sector interoperability
U1: How well do you think IMI delivers the following benefits?: Helps in identifying my counterparts in other countries	3.87	Value for EU
		Value for cross-border and cross-sector interoperability
U2: How well do you think IMI delivers the following benefits?: Overcomes language barriers	3.84	Value for EU
		Value for cross-border and cross-sector interoperability
U4: How well do you think IMI delivers the following benefits?: Provides clear responses, making it easy to take decisions on individual cases (delivers effectiveness)	3.57	Value for EU
		Value for cross-border and cross-sector interoperability
U7: How well do the following meet your needs?: The predefined notification forms	3.54	Value for EU
		Value for EC
		Value for cross-border and cross-sector interoperability
U8: How well do the following meet your needs?: The predefined comment types in notifications	3.54	Value for EU
		Value for EC
		Value for cross-border and cross-sector interoperability
U5: How well do the following meet your needs?: The choice of predefined questions	3.46	Value for EU
		Value for cross-border and cross-sector interoperability
U6: How well do the following meet your needs?: The choice of predefined answers	3.40	Value for EU
		Value for cross-border and cross-sector interoperability

5. CONCLUSIONS AND RECOMMENDATIONS

The objective of the survey was to evaluate the Perceived Quality and Utility of Action 1.10 – Internal Market Information System (IMI). The following conclusions have been drawn based on the analysis performed:

- Perceived Quality:
 - The majority of the respondents agree that IMI is easy to use and in particular the newly improved authority data and user management;
 - The results show that IMI is a reliable and secure system in terms of communication;
 - The findings present that the searching for a competent authority received the lowest rating.
- Utility:
 - The results show that IMI is perceived as beneficial in terms of saving time, e.g. IMI speeds up the request response time;
 - The results show that IMI contributes to the cross-border and cross-sector interoperability by helping identify users' counterparts in other countries and overcome language barriers;
 - The findings present that the weakest aspect of IMI is that the predefined questions and answers do not always respond to the users' needs

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

- Perceived Quality:
 - The searching function for competent authority should be improved in order to correspond to the users' expectations. As an alternative, there could be a detailed instructive description and case studies of common obstacles provided via a link that is incorporated in the searching window for immediate and easy access.
- Utility:
 - It is recommended to add an email address nearby the predefined question and answer sector. This email should be especially dedicated to submitting the custom predefined questions and answers. Moreover, based on the received suggestions, it is recommended to organize web interface poll with a couple of the most frequent suggestions. This way it would be possible to find out the most necessary questions and answers that correspond to the users' needs and are not yet pre-set.

6. APPENDIX

6.1. STATEMENT MAPPING TO DIMENSIONS

In order to measure the Perceived Quality and Utility of the Action 1.10 and calculate the average score of each dimension, all survey statements were mapped to the dimensions according to the evaluation criteria.

Table 9 shows the statements mapping according to three dimensions of the Action 1.10 Perceived Quality.

TABLE 9 – ACTION 1.10 PERCEIVED QUALITY STATEMENT MAPPING TO DIMENSION

Question	ID	Efficiency	Security/Privacy (Trust)	Reliability	Support	Count of areas covered by question
How well do you think IMI delivers the following benefits?: Provides a reliable and secure means of communication	PQ1		✓	✓		2
Please evaluate the ease of use of the following functions: Search for a competent authority	PQ2	✓				1
Please evaluate the ease of use of the following functions: Create and send a request	PQ3	✓				1
Please evaluate the ease of use of the following functions: Respond to a request	PQ4	✓				1
Please evaluate the ease of use of the following functions: Create and send a notification	PQ5	✓				1
Please evaluate the ease of use of the following functions: Comment on a notification	PQ6	✓				1
Based on your overall experience do you find IMI easy to use?	PQ7	✓				1
Please evaluate the ease of use of the following functions: Register a new user	PQ8	✓				1
Please evaluate the ease of use of the following functions: Manage users (reset passwords etc.)	PQ9	✓				1
Please evaluate the ease of use of the following functions: Update authority data	PQ10	✓				1
Please evaluate the ease of use of the following functions: Register a new authority (if applicable)	PQ11	✓				1
# of questions covering dimension		10	1	1	0	
% of questions covering dimension		91%	9%	9%	0%	

Table 10 shows the statement mapping according to three dimensions of the Action 1.10 Utility.

TABLE 10 – ACTION 1.10 UTILITY STATEMENT MAPPING

Question	ID	Value for EU	Value for EC	Value for cross-border and cross-sector interoperability	Count of areas covered by question
U1: How well do you think IMI delivers the following benefits?: Helps in identifying my counterparts in other countries	U1	✓		✓	2
U2: How well do you think IMI delivers the following benefits?: Overcomes language barriers	U2	✓		✓	2
U3: How well do you think IMI delivers the following benefits?: Speeds up response times to requests (delivers efficiency)	U3	✓		✓	2
U4: How well do you think IMI delivers the following benefits?: Provides clear responses, making it easy to take decisions on individual cases (delivers effectiveness)	U4	✓		✓	2
U5: How well do the following meet your needs?: The choice of predefined questions	U5	✓		✓	2
U6: How well do the following meet your needs?: The choice of predefined answers	U6	✓		✓	2
U7: How well do the following meet your needs?: The predefined notification forms	U7	✓	✓	✓	3
U8: How well do the following meet your needs?: The predefined comment types in notifications	U8	✓	✓	✓	3
# of questions covering dimension		8	2	8	
% of questions covering dimension		100%	25%	100%	

6.2. GLOSSARY

- The mean⁹ (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 values¹⁰ for each case and divide that sum by the total number of cases;
- Mode refers to the most frequent, repeated or common value¹⁰ in the quantitative or qualitative data. In some cases it is possible that there are several modes or none;
- Standard deviation¹¹ 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 error¹¹ 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’ expectations;
- ‘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.