



Toolbox and guidelines evaluation report

Work package: 3
Deliverable: D.T3.4.1

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To assess the usability of the smart villages digital toolbox, developed within the project and its user guidelines we have created a survey questionnaire which was shared via Google forms among all Smart Villages project partners. In addition, we have asked the partners to share the questionnaire with their local stakeholder groups. The study was implemented in spring 2021. In total, 13 responses were received, 12 of those who answered are project partners and one is municipality administrator.

The questionnaire consisted of questions requiring information about:

- respondent's name and surname,
- type of partner (project partner/stakeholder),
- name of the institution.

In addition to the general data, to measure the usability of the toolbox and its guidelines, a reliable tool System Usability Scale (SUS), which has become an industry standard, with references in over 1300 articles and publications, was included. This scale represents a standardized metric for measuring usability of a digital product (tool, website, application etc.). It is a Likert type scale consisted of ten statements measured by the level of agreement for each statement (Strongly disagree; Disagree; Neither agree nor disagree; Agree; Strongly agree). It is a widely used scale which covers three important aspects while measuring the usability: effectiveness, efficiency, and satisfaction.

Following the rules for calculation of the value of SUS, each respondent's answer is marked in numerical form, from 1 to 5 which corresponds to the descriptive values from Fully disagree to Fully agree, provided while answering. After that, for each odd question/statement the rule "Response - 1" is applied. For each even question the rule "5- Response" applies, which gave us the individual values of SUS for each partner and for each statement. The sum of these individual values from each respondent were multiplied by a factor of 2.5 than summed together and divided with 13 (the number of participants).

The calculated score for the smart villages digital toolbox and its guidelines is 72.12 (Table 1). SUS scores range from 0 to 100, but they do not represent percentiles. The average value for SUS is 68. Every value above 68 is perceived as acceptable score. **The value of 72.12 in this case is interpreted as "good" score, meaning the respondents found the digital tool convenient for use.**

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Table 1: System Usability Value Calculation



Participants	P. 1		P. 2		P. 3		P. 4		P. 5		P. 6		P. 7		P. 8		P. 9		P. 10		P. 11		P. 12		P. 13	
	Response	SUS	Response	SUS	Response	SUS	Response	SUS	Response	SUS	Response	SUS	Response	SUS	Response	SUS	Response	SUS	Response	SUS	Response	SUS	Response	SUS	Response	SUS
I think that I would like to use the toolbox frequently.	3	2	4	3	5	4	4	3	3	2	4	3	3	2	4	3	5	4	4	3	3	2	4	3	3	2
I found the toolbox unnecessarily complex.	2	3	3	2	2	3	2	3	2	3	3	3	3	2	2	3	1	4	2	3	3	2	3	2	3	2
I thought the toolbox was easy to use.	4	3	4	3	4	3	5	4	4	3	4	3	3	2	4	3	4	3	4	3	4	3	5	4	4	3
I think that I would need assistance to be able to use the toolbox.	2	3	2	3	2	3	2	3	2	3	1	4	4	1	2	3	3	2	2	3	2	3	1	4	3	2
I found the various functions in the toolbox well integrated.	3	2	4	3	4	3	4	3	4	3	4	3	3	2	4	3	4	3	4	3	4	3	4	3	3	2
I thought there was too much inconsistency in the toolbox.	3	2	3	2	1	4	1	4	2	3	3	2	2	3	2	3	1	4	2	3	2	3	1	4	3	2
I would imagine that most people would learn to use the toolbox very quickly.	4	3	4	3	4	3	4	3	4	3	4	3	4	3	3	2	4	3	3	2	4	3	3	2	3	2



I found the toolbox very cumbersome /awkward to use.	2	3	3	2	1	4	1	4	2	3	3	2	2	3	2	3	1	4	4	1	1	4	1	4	3	2	
I felt very confident using the toolbox.	3	2	4	3	4	3	5	4	4	3	5	4	5	4	4	3	4	3	3	2	4	3	3	2	4	3	
I needed to learn a lot of things before I could get going with the toolbox.	2	3	2	3	2	3	2	3	2	3	1	4	2	3	2	3	3	2	2	3	2	3	1	4	3	2	
SUM SUS values		26		27		33		34		29		31		25		29		32		26		29		32		22	
SUM SUS values x 2.5		65		67.5		82.5		85		72.5		77.5		62.5		72.5		80		65		72.5		80		55	
Result	937.5/13= 72.12																										