



BLOCK START

D2.6: BlockStart DLT Assessment Tool – 3rd version

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List of Abbreviations and Acronyms	
DLT	Distributed Ledger Technology
Q	Question
M	Million
SME	Small and Medium-sized Enterprise

1. Introduction

BlockStart project has created and published a DLT Assessment Tool, which aims to evaluate SMEs/ startups capacity and potential to start using the technology. The first version of the DLT Assessment Tool was made available in BlockStart's website (www.blockstart.eu/dlt/) in M4 of the project (December 2019) and has been updated according to the insights from internal and external discussions with the consortium partners and experts that participated in the programme.

This deliverable overviews the main insights from the previous version of the tool, the changes made to the updated version as well as the traction and responses collected from the introduction of the updated tool in M10 until this point (M20, roughly 10 months). Since the last iteration in M10, no significant changes have been made to the content and questions of the tool. This allows us to collect a larger amount of significant responses and statistical data, outlined in detail below.

The DLT Assessment Tool has been published using [Typeform](#)'s platform, due to its convenient functionality and user-friendliness. The platform allows building custom logic on the questions flow based on the answers. It also provides useful statistics on the drop-off rate and allows the questionnaire to be embedded into the BlockStart's website.

2. Initial insights of DLT Assessment Tool

The first version of the DLT Assessment Tool has been active since M4 (December 2019) until M10 (June 2020).

This was the testing version aimed at validating the methodology that would help prepare for the wider usage. In order to gather feedback from a number of different stakeholders, the tool was disseminated through:

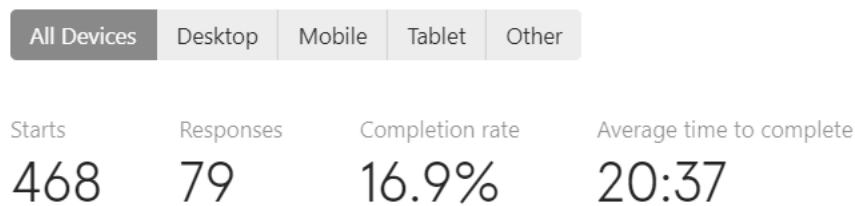
- BlockStart's [webpage](#)
- BlockStart's [events](#)
- Partner networks (social media accounts, other projects that consortium partners are implementing)
- At local and international blockchain events (Blockchain relaunch Lithuania, Coimbra Sustainability Summit, Block.IS cluster mission)
- Directly to startups, SMEs and blockchain experts (through expert interviews, SMEs surveys and directing open call applicants)

During approximately 6 months, the tool gathered 79 responses from industry newcomers and experts that were evaluating their potential blockchain adoption.

In total, the tool has been started to be filled in 468 times, with an average of 20 minutes required for completion.

Picture 1. DLT Assessment Tool Typeform statistics

Big picture



2.1 Initial results regarding blockchain potential

The first version of the DLT Assessment Tool produced a wide range of insights that could help to determine the overall willingness to adopt blockchain and DLT for SMEs. The tool has provided a positive answer (that the organisation has high potential to adopt blockchain) for 58% of respondents. These organisations have been provided with exemplary applications that could be taken as a starting point to imagine where DLT and blockchain could stand in for them. Other insights and statistics that can be derived from the answers are as follows:

- 96.1% of respondents are SMEs
 - 36.5% are startups
 - 31.1% are micro enterprises
 - 24.3% are small enterprises
 - 6.8% are medium-sized enterprises
- There is a variety of different sectors representatives
 - 24.7% of respondents come from the ICT sector
 - 15.1% from fintech
 - 12.3% from agriculture
 - 11% from other services
 - Others less than 7%
 - Construction and mining and quarrying are the only sectors with no responses
- 82.2% of respondents have high innovativeness and are open to new ideas and their implementation
- 84.9% of respondents have experience in implementing innovations in IT business processes
- 67.1% have internal IT departments with the capacity to develop innovations, 13.7% do not have a IT department
- 80.9% of respondents have a high or very high familiarity with blockchain and DLT technologies
- 76.7% state that there are many participants with common technological advancements in their respective markets
- 78.6% state that market participants contribute together to the creation of horizontal or vertical flows of information that is used by all market participants but no one is the sole owner of it
- 59.1% express that these market participants know and trust each other
- 61.6% state that they and their business partners need to rely on a trusted third party
- 93.3% think that the trusted third party could be replaced by an information system

- 87.7% are managing contractual relationships under which performance of work, provision of services or other actions that influence the contractual obligations can be digitally recorded and verified
- 93.2% of respondents state that their business processes or relations with business partners and customers can be automated based on 'if this then that' logic
- 87.7% say that they work with digital assets or need to track the creation and movement of those assets
- 84.9% replied that the issuance of digital certificates for physical assets (tokenization) would help their businesses
- 97.3% state that they need to collect, store and analyse data and information and at least one of the following applies:
 - They need to know by whom, when and where various information records are created;
 - They need to collect, analyze and store information received from various devices;
 - They need to maintain immutable and secure stored logs of transactions, movement of goods, maintenance or other actions.
- 76.7% responded that their businesses are part of the supply chain and at least one of the following applies:
 - They need to be confident in the origin of goods that they receive from manufacturers or suppliers;
 - Their customers need to be confident in the origin of goods they buy or be able to confirm the conditions of production, storage or transportation of your goods;
 - Their business suffers from a complicated and intricate supply chain: for example, from frequent delays, downtime, loss of goods, lack of ability to check the location and condition of the goods transported, etc.
- 91.8% state that their business depends on internal and external transactions and at least one of the following is a suitable characteristic:
 - Their business requires high-performance, trusted, traceable and rapid transactions;
 - Their transactions should be transparent to the wide range of users (clients, regulators, etc.);
 - They use internal accounting units for settlements within the company.
- 83.6% think that partial disclosure of the information they store may increase customer confidence in their company

2.2 Insights into user experience and usability

- 55% of the respondents start filling out the DLT assessment after opening it. The statistic is reasonable, as it is usual to have 30-70% of bounce rate in the websites (DLT Assessment Tool is embedded into the BlockStart's website. In result, it could be counted that the tool has been started around 257 times (55% of 468).
- The drop-off rates in Typeform platform are provided as a percentage and provides the rate of exits on the particular question.
- According to Typeform's functionality, it is required that the respondent would press 'Next' and 'Submit' buttons in order that these would be counted as full response. Those that leave at any step of the questionnaire are counted into general statistics on the drop-off rate, however their filled out information is not kept neither by the platform nor by BlockStart.

- The questions that have the highest drop-off rate are the ones that provide the negative answer in terms of blockchain adoption and innovation assessment, with 47% and 33% drop-off rates respectively. Users are directed to the assessment at the very end when the assessment is almost complete.

Overall, all other questions had more than 90% fill in rate, which means that filling in the questionnaire did not cause any major headaches for the responders. The amount of questions and typology seems to be reasonable and relevant, no major issues were raised by any stakeholders of DLT and blockchain world. Based on the feedback and insights received on the first iteration of the DLT Assessment Tool, it has been updated and the updates are highlighted in the sections below.

3. DLT Assessment Tool methodology

For the first iteration of the DLT Assessment Tool, [Typeform](#)'s platform was used, as it provides the required functionality and logic jumps needed to conduct a decent assessment tool. After exploring other potential solutions (WordPress plugins had less functionality and custom programming option requires unreasonably high resources allocation) it was decided to keep using the same platform as it is user-friendly, convenient, and works well with "if then" logic questions.

3.1 Changes compared to the initial version

Discussions with external experts and internally between consortium partners have been held to find out if and what improvements are needed to the DLT Assessment Tool. External experts suggested that the tool is working well and provides relevant answers, however for some, the language may seem too technical.

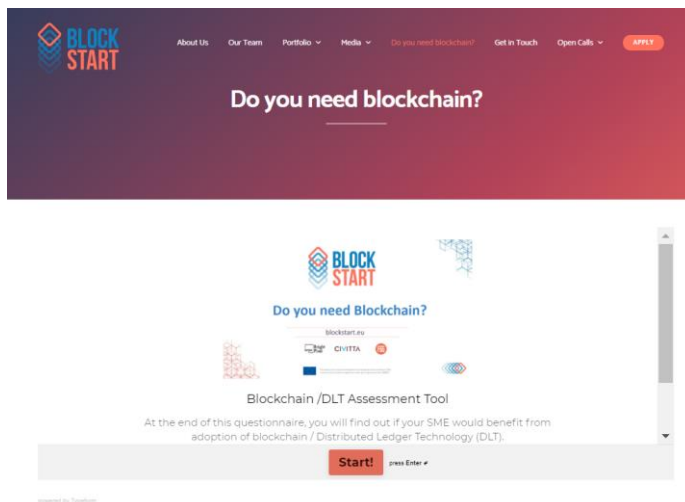
Based on this feedback, the following changes have been introduced:

- The 'DLT Assessment Tool' has been rebranded to 'Do you need Blockchain?'. The approach was decided internally based on the fact that the majority of the people are aware of the terminology blockchain, while only industry experts are more aware of Distributed Ledger Technology term; also the new title (in the form of a question) communicates the purpose of the tool in a very clear and user friendly manner
- The most technically intensive questions have been rephrased in simpler terms to make it more understandable for not so technical users. For example:
 - *'Could the issuance of digital certificates for physical assets (tokenization) help your business?'* was replaced with *'Could it help your business to issue digital certificates for physical assets?'*
 - *'Do these participants (competitors, suppliers, business partners, regulators, etc.) contribute together to the creation of horizontal or vertical flows of information that is used by all market participants but no one is the sole owner of it?'* was replaced with *'Do these participants (competitors, suppliers, business partners, regulators, etc.) generate information that is used by all market participants but no one is the sole owner of it?'*
- Previously non-SME companies and organisations were prompted that the tool is not for them and directed to the final window, while the new tool allows industry associations, non-profits and other types of organisations to fill out the form with a disclaimer that answers may be less accurate as they were designed for SMEs. The team reviewed the questions and the logic

and the conclusion was reached that the logic would still work for other types of companies. Such an approach is expected to increase the scope and reach of the tool, which will result in a larger database of industry data. At the same time, the team will be able to gather more feedback about the use of the tool with other types of legal entities and in case of successful performance, ensure a much wider application and dissemination

- A question if the respondent wants to be contacted by the BlockStart team has been added
- A question on how users found out about the tool has been added to allow us to better evaluate our marketing efforts

Picture 2. Updated 'Do you need Blockchain' tool version in BlockStart's website



3.2 Type of the company

'Do you need Blockchain?' tool, first of all, aims to find out if a company is SME/startup, as the main goal is to determine the potential of DLT and blockchain for SMEs/startups. It is achieved by asking the companies to confirm if they meet SME conditions as to EC official description (less than 250 employees, turnover of less than €50M and balance sheet less than €43M). Also, participants are asked to provide information about their company type, to double-check if the respondent represents SME/startup. (Q3 & Q4)

Picture 3. Questions on company type

4 → **What type of company do you represent? ***

- A Micro enterprise
- B Small enterprise
- C Medium-size enterprise
- D Large enterprise
- E Startup
- F State-owned enterprise
- G Association or non-profit
- H Other

50% completed Powered by Typeform

Change from the first version: If a company is determined to be not an SME, i.e. industry association, innovation agency, etc., they are suggested that the tool was created reflecting SMEs needs but they can continue the questionnaire. By this, it is expected that results may not be particularly accurate, however, it provides BlockStart partners better overview of the situation throughout the entire industry.

Picture 4. Information on tool's applicability for SMEs

5→ 'Do you need blockchain?' tool is created to meet SMEs needs.

The BlockStart program is targeted at SMEs. Nevertheless, if you are interested in blockchain/ DLT solutions for your company or organisation, you can continue the survey or contact us for advice and consultation, through hello@blockstart.eu.

Please keep in mind that answers are targeted at SMEs and can be not so accurate for your organisation

67% completed

Powered by Typeform

3.3 Innovation readiness assessment

After determining the type of company, the questionnaire measures the innovation capacity of the particular organisation to find out if it is ready to implement new solutions into their processes. During the research, it was found that DLT / blockchain implementation requires an understanding of the principles of technology and extensive knowledge to use the best features that it brings, therefore questions on the know-how and experience follow.

Picture 5. Innovation assessment in the 'Do you need Blockchain?' tool

7→ **Do you have experience in implementing innovative solutions? ***

25% completed

Powered by Typeform

Innovation readiness is determined by gathering information on the level of innovation in the company, experience in implementing the innovations, the capacity of the IT department and know-how about the DLT / blockchain technology. According to this information at the end of the assessment, respondents receive feedback on the level of innovation readiness (high or low). By this,

it is expected that the respondents will evaluate their availability for DLT / blockchain implementation rationally and if they have low innovation readiness, will take steps to become more innovative (Q7, Q8, Q9, Q10).

3.4 DLT / blockchain potential assessment

Furthermore, during the initial DLT / blockchain research it was identified that these are the main solutions that motivate SMEs/startups to adopt blockchain:

- Abundance of Intermediaries (Q11, Q12, Q13, Q14, Q15, Q16)
- Management of Digital Assets (Q18, Q19)
- Data Management and Storage (Q20)
- Supply-chain Complexity (Q21)
- Transactions Management (Q22, Q23)

In the 'Do you need Blockchain?' tool we aim to identify if the company faces any of the challenges and could potentially solve them with the technology.

Picture 6. Blockchain / DLT potential assessment in the 'Do you need Blockchain?' tool

13 → **Do you and your business partners need to rely on a trusted third party (government organisation, guarantor, etc.)? ***

Yes

No

46% completed

Powered by Typeform ^ v

Such challenges as potential intermediaries automation, trust between stakeholders, need for digital assets and other questions are named and allows to create a short overview of the situation in the industry that organisation is participating in.

At the end of the assessment, SMEs / startups receive feedback, based on their answers, if DLT / blockchain could have a high impact on the company's processes. The high impact result is provided if the company provides positive answers to any of the identified challenges that could be overcome by implementing DLT / blockchain solutions and low impact if the technology would not solve any challenges.

3.5 Other collected data

In the DLT Assessment Tool we collect this additional data:

- To begin the DLT Assessment potential, every respondent has to accept Blockstart's privacy policy (*mandatory*)
- Respondents are asked to provide information on where did they find out about the tool (*optional*)
- Respondents are asked to provide the industry of their operations, which will be used for future research (*mandatory*)

- At the end of the assessment, respondents are asked if they want BlockStart to get in touch with them for further cooperation in the scope of the BlockStart programme (*optional*)
- At the end of the assessment, respondents are asked to provide their professional email address, if they want to receive updates on further development of the project (*optional*)
- At the end of the assessment, respondents are asked to provide the name of the company they represent (*optional*)

Picture 7. Privacy policy page in the 'Do you need Blockchain?' tool

1→ **Before you start, please read our privacy policy ([click here](#)).**

By clicking on "Start" you confirm that you have read and agree with our privacy policy.

*

The image shows a screenshot of a form with two buttons. The first button is labeled 'A Start' and has a checkmark icon to its right. The second button is labeled 'B Leave'.

46% completed

Powered by Typeform

This particular data allows to receive insights on the different industry fields and to identify the fillers for future communication on project activities. The data collected on the 'Do you need Blockchain?' tool is managed under the GDPR requirements and users have a possibility not to provide any personal data.

4. Results and traction of the second version of the DLT Assessment Tool

The second version of the DLT Assessment Tool has been active since M10 (June 2020) until now.

As detailed above, this is the updated version improved based on the feedback and insights received on the first iteration of the tool. In order to gather results and feedback from a number of different stakeholders, the tool was disseminated through various channels, including:

- BlockStart's [webpage](#), including a recent [blog post](#) intended to guide the respondents of the tool;
- BlockStart's [events](#)
- Partner networks (social media accounts, other projects that consortium partners are implementing)
- Various [intermediaries](#) to which we presented the DLT Assessment Tool and which used it and disseminated information about the tool (Antiopea, Blockchers, ICT Cluster of Central Serbia, GovTech Lab Lithuania, Estonian Association of SMEs, Startup Lithuania and others)
- At local and international blockchain events ([European Blockchain Convention](#), [Blockchers working breakfast with the European Parliament](#), [R3 Start-up Series webinar](#), [EU-Startups Summit](#), etc.)

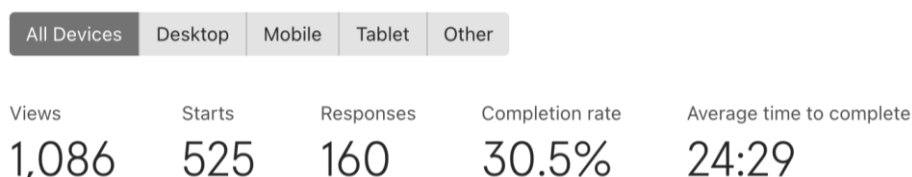
- Directly to intermediaries, startups, SMEs and blockchain experts (through direct contact, video calls, expert interviews, SMEs surveys and directing open call applicants)

During approximately 10 months, the tool gathered 160 responses from SMEs, startups, intermediaries, experts and other players that were evaluating their potential blockchain adoption.

In total, the tool has been started to be filled in 525 times, with completion taking an average of 24 minutes. Compared to the initial version of the tool, the completion rate has almost doubled from 16.9% to 30.5%.

Picture 8. 'Do you need Blockchain?' tool updated version Typeform statistics

Big picture



4.1 Results of the updated tool regarding blockchain potential

The second, updated version of the DLT Assessment Tool produced a wide range of insights that help to determine the overall willingness to adopt blockchain and DLT for SMEs. The tool has provided a positive answer (that the organisation has high potential to adopt blockchain) for 56% of respondents. These organisations have been provided with exemplary applications that could be taken as a starting point to imagine where DLT and blockchain could stand in for them. Other insights and statistics that can be derived from the answers are as follows:

- 96.7% of respondents are SMEs
 - 42.30% are startups
 - 27.5% are micro enterprises
 - 18.8% are small enterprises
 - 8.1% are medium-sized enterprises
- There is a variety of different sectors representatives
 - 27.2% of respondents come from the ICT sector
 - 13.3% from fintech and insurtech
 - 12.7% from other services
 - 12% from wholesale and retail
 - 8.2% from agriculture
 - Others less than 6%
 - Non-profit and charity is the only sector with no responses
- 75.3% of respondents have high innovativeness and are open to new ideas and their implementation
- 73.4% of respondents have experience in implementing innovations in IT business processes
- 55.7% have internal IT departments with the capacity to develop innovations, 13.7% do not have a IT department
- 55.1% of respondents have a high understanding of how blockchain and DLT technologies work and have concepts on how to use blockchain in their operations
- 71.5% state that there are many participants with common technological advancements in their respective markets

- 73.5% state that these participants generate information that is used by all market participants but no one is the sole owner of it
- 53% express that these market participants know and trust each other
- 62% state that they and their business partners need to rely on a trusted third party
- 84.7% think that the trusted third party could be replaced by an information system
- 82.3% are managing contractual relationships under which performance of work, provision of services or other actions that influence the contractual obligations can be digitally recorded and verified
- 89.9% of respondents state that their business processes or relations with business partners or customers can be automated based on 'if this then that' logic
- 79.7% say that they work with digital assets or need to track the creation and movement of those assets
- 77.8% replied that the issuance of digital certificates for physical assets would help their businesses
- 92.4% state that they need to collect, store and analyse data and information and at least one of the following applies:
 - They need to know by whom, when and where various information records are created;
 - They need to collect, analyze and store information received from various devices;
 - They need to maintain immutable and secure stored logs of transactions, movement of goods, maintenance or other actions.
- 75.3% responded that their businesses are part of the supply chain and at least one of the following applies:
 - They need to be confident in the origin of goods that they receive from manufacturers or suppliers;
 - Their customers need to be confident in the origin of goods they buy or be able to confirm the conditions of production, storage or transportation of your goods;
 - Their business suffers from a complicated and intricate supply chain: for example, from frequent delays, downtime, loss of goods, lack of ability to check the location and condition of the goods transported, etc.
- 85.4% state that their business depends on internal and external transactions and at least one of the following is a suitable characteristic:
 - Their business requires high-performance, trusted, traceable and rapid transactions;
 - Their transactions should be transparent to the wide range of users (clients, regulators, etc.);
 - They use internal accounting units for settlements within the company.
- 85.4% think that partial disclosure of the information they store may increase customer confidence in their company

4.2 Insights into user experience and usability of the updated tool

- 48% of the respondents start filling out the DLT assessment after opening it. The statistic is reasonable, as it is usual to have 30-70% of bounce rate in the websites (DLT Assessment Tool is embedded into the BlockStart's website). There have been 1086 views of the tool and it has been started 525 times (48%).

- The drop-off rates in Typeform platform are provided as a percentage and provide the rate of exits on the particular question.
- According to Typeform’s functionality, it is required that the respondent would press ‘Next’ and ‘Submit’ buttons in order that these would be counted as a full response. Those that leave at any step of the questionnaire are counted into general statistics on the drop-off rate, however their filled out information is not kept neither by the platform nor by BlockStart.
- The questions that have the highest drop-off rate are:
 - The first one, which asks to read agree to the privacy policy (11%)
 - At the very end of the assessment, the conclusion that: based on the answers, we believe that blockchain/ DLT will not have a significant impact on the market in which you operate [...]. Nevertheless, we have conducted a preliminary assessment of the challenges for your company that can be overcome with the help of blockchain/ DLT, as well as certain aspects of your company that can be improved through the use of blockchain/ DLT. The tool gives specific areas where blockchain/ DLT implementation could be beneficial. Being one of the very last questions/answers, it has a bounce rate of 10%.
 - Do you wish us to get in touch with you for further cooperation in the scope of BlockStart program? (16%)
 - Professional email: (14%)

Overall, all other questions had more than 90% fill in rate, which means that filling in the questionnaire did not cause any major headaches for the responders. The amount of questions and typology seems to be reasonable and relevant, no major issues were raised by any stakeholders of DLT and blockchain world and the intermediaries we made live demonstrations of the tool to.

5. DLT Assessment Tool Questions and Possible Answers

‘Do you need Blockchain?’ tool questions and possible answers that assess the company’s DLT / blockchain technology potential are provided in *Table 1* below.

Table 1: ‘Do you need Blockchain?’ tool Questions

No.	Question	Answers’ choices	Logic
1.	Before you start, please read our privacy policy (click here).	1. Start 2. Leave	If ‘Start’, then to question 2; If ‘Leave’, then to the ‘Thank you’ screen (last question).
2.	How did you find out about this blockchain readiness tool?	1. BlockStart website 2. BlockStart social media 3. European Commission's online library 4. Block.IS 5. B-HUB for Europe 6. SMEs association 7. Other	All answers lead to question 3.

<p>3.</p>	<p>Does your company meet each of the following conditions?</p> <ol style="list-style-type: none"> 1. The number of employees in your company is less than 250; 2. The annual turnover of your company does not exceed €50M; 3. The annual balance sheet total of your company does not exceed €43M. 	<ol style="list-style-type: none"> 1. Yes 2. No 	<p>If 'Yes', then question 4; If 'No', then question 5.</p>
<p>4.</p>	<p>What type of company do you represent?</p>	<ol style="list-style-type: none"> 1. Micro enterprise 2. Small enterprise 3. Medium-size enterprise 4. Large enterprise 5. Startup 6. State-owned enterprise 7. Industry association or non-profit 	<p>If 'Micro', 'Small', 'Medium' enterprise or 'Startup', then to question 6. If any of the rest, then question 5.</p>
<p>5.</p>	<p>(only if determined to be non-SME) 'Do you need blockchain?' tool is created to meet SMEs needs. Disclaimer! 'Do you need blockchain?' tool has been designed with SMEs in mind. We have not specifically tested it out with other types of entities but the logic is still relevant. Some statements might not be accurate for your organization.</p> <p>To consult us, drop us a line at hello@blockstart.eu</p>	<ol style="list-style-type: none"> 1. Continue 	<p>All answers lead to question 6;</p>
<p>6.</p>	<p>Choose the industry that matches your activities the best:</p>	<ol style="list-style-type: none"> 1. Agriculture 2. Construction 3. Education 4. Financial and Insurance activities 5. Healthcare and Medicine 6. Information and Communication 7. Manufacturing 	<p>All answers lead to question 7.</p>

		<ul style="list-style-type: none"> 8. Media, Arts, Entertainment, Recreation 9. Mining and Quarrying 10. Non-profit and Charity 11. Other services 12. Real estate activities 13. Transportation 14. Utilities and Energy supply 15. Wholesale and Retail 	
7.	What is the level of innovativeness in your company:	<ul style="list-style-type: none"> 1. High. You are open to new ideas and often implement them in. You embrace innovations and see it as a continuous process 2. Medium. You are willing to implement new ideas and are open to innovation 3. Low. You have no policies regarding innovation. You see innovations as a one-time event and accept it reluctantly 	All answers lead to question 8.
8.	Do you have experience in implementing innovative solutions?	<ul style="list-style-type: none"> 1. Yes. These innovations were related to IT business processes improvement 2. Yes. But these innovations were NOT related to IT business processes improvement 3. No. You have not introduced significant innovations 	All answers lead to question 9.
9.	Do you have an IT department?	<ul style="list-style-type: none"> 1. Yes. IT department has capacity to develop and implement new systems and/or provide integration of own systems with external software 2. Yes. You have an IT department but it is handling specific systems and applications and is 	All answers lead to question 10.

		<p>not capable of new software development</p> <p>3. Yes. But IT department only provides maintenance and support</p> <p>4. No</p>	
10.	How do you classify your level of familiarity with DLT/ blockchain?	<p>1. Very high. You have already implemented DLT/ blockchain solutions in your operations</p> <p>2. High. You understand how DLT/ blockchain works and have concepts on how to use blockchain in your operations</p> <p>3. Medium. You heard about DLT/ blockchain, but never used and do not have ideas about how to use it in your company</p> <p>4. Low. You do not know how DLT/ blockchain could be used</p>	All answers lead to question 11.
11.	Are there many participants (competitors, suppliers, business partners, regulators, etc.) with common technological advancement interests in your market?	<p>1. Yes</p> <p>2. No</p>	<p>If 'Yes', then to question 12;</p> <p>If 'No', then to question 14.</p>
12.	Do these participants (competitors, suppliers, business partners, regulators, etc.) generate information that is used by all market participants but no one is the sole owner of it?	<p>1. Yes</p> <p>2. No</p>	<p>If 'Yes', then to question 13;</p> <p>If 'No', then to question 14.</p>
13.	Do the participants (competitors, suppliers, business partners, regulators, etc.) know and trust each other?	<p>1. Yes</p> <p>2. No</p>	All answers lead to question 14.
14.	Do you and your business partners need to rely on a trusted third party	<p>1. Yes</p> <p>2. No</p>	<p>If 'Yes', then to question 15;</p> <p>If 'No', then to question 16.</p>

	(government organisation, guarantor, etc.)?		
15.	Could a trusted third party be replaced by an information system?	1. Yes 2. No	All answers lead to question 16.
16.	Are you managing contractual relationships under which performance of work, provision of services or other actions that influence the contractual obligations can be digitally recorded and verified?	1. Yes 2. No	All answers lead to question 17.
17.	Could your business processes or relations with business partners or customers be automated based on "if this then that" logic?	1. Yes 2. No	All answers lead to question 18.
18.	Do you work with digital assets or need to track the creation and movement of digital assets?	1. Yes 2. No	All answers lead to question 19.
19.	<i>Could it help your business to issue digital certificates for physical assets?</i>	1. Yes 2. No	All answers lead to question 20.
20.	Do you need to collect, store and analyze data and information and at least one of the following characteristics is suitable for your business?	1. Yes 2. No	All answers lead to question 21.
21.	Is your business part of the supply chain and at least one of the following characteristics is suitable for your business?	1. Yes 2. No	All answers lead to question 22.
22.	Does your business depend on internal and external transactions and at least one of the following characteristics is suitable for your business?	1. Yes 2. No	All answers lead to question 23.
23.	Does partial disclosure of the information you store may increase customer confidence in your company?	1. Yes 2. No	All answers lead to innovation readiness assessment.

Following the collection of answers to these questions, the consortium partners have developed a logic tree based on ‘if this then that’ logic and by the end of questionnaire, the respondents are instantly provided with the answers listed in the next section.

6. DLT Assessment Tool Results provided for respondents

Answers on the questions for the respondents are presented in Table 2.

Table 2: ‘Do you need Blockchain?’ tool provided Solutions

Short answer	In depth answer
Innovation readiness answers	
Your company has a high level of readiness for innovation.	<p>You have already implemented DLT/ blockchain solutions and have a clear idea of the principles of DLT/ blockchain. You also have a strong IT department that can participate in the development of the solution, customize the integration of the solution with your IT systems and maintain the solution after the launch. Thus, the introduction of new DLT/ blockchain solutions is not an insurmountable challenge for your company.</p> <p>We recommend you contact us for the further development of this area. At the end of the questionnaire, you will find a field to share your email, in case you wish us to get in touch with you for further cooperation.</p>
	<p>You have already implemented DLT/ blockchain solutions and have a clear idea of the principles of DLT/ blockchain. But you do not have a strong IT department that could participate in the development of the solution, customize the integration of the solution with your IT systems and maintain the solution after the launch. The introduction of new DLT/ blockchain solutions is not an insurmountable challenge for your company, but we recommend you consider the possibility of creating your own IT department or the possibility of attracting a company that will help you integrate and maintain the solution after launch.</p> <p>We also recommend you contact us for the further development of this area. At the end of the questionnaire, you will find a field to share your email, in case you wish us to get in touch with you for further cooperation.</p>
	<p>You have an idea about the principles of DLT/ blockchain and, perhaps, considered several solutions for your company. You also have a strong IT department that can participate in the development of the solution, customize the integration of the solution with your IT systems and maintain the solution after the launch. Thus, the development and implementation of DLT/ blockchain solutions for your company is a difficult but feasible task.</p> <p>We recommend you contact us for the further development of this area. At the end of the questionnaire, you will find a field to share your email, in case you wish us to get in touch with you for further cooperation.</p>
	<p>You have an idea about the principles of DLT/ blockchain and, perhaps, considered several solutions for your company. But you do not have a strong IT department that could participate in the development of the solution, customize the integration of the solution with your IT systems and maintain the solution after the launch. The development and implementation of DLT/ blockchain</p>

	<p>solutions for your company is a difficult but feasible task, but we recommend you consider the possibility of creating your own IT department or the possibility of attracting a company that will help you integrate and maintain the solution after launch.</p> <p>We recommend you contact us for the further development of this area. At the end of the questionnaire, you will find a field to share your email, in case you wish us to get in touch with you for further cooperation.</p>
<p>Your company has a low level of readiness for innovation.</p>	<p>You have an idea of how DLT/ blockchain works, but you are not ready to innovate. Thus, the implementation of DLT/ blockchain solutions can be a daunting task for your company. Before proceeding with its development and implementation, we recommend you carry out work to develop and improve the company's innovation strategy and strengthen your IT department. Next, we will show you DLT/ blockchain solutions that may suit your company.</p> <p>We recommend you contact us for advice on what needs to be done in order to implement these solutions in the company's activities. At the end of the questionnaire, you will find a field to share your email, in case you wish us to get in touch with you for further cooperation.</p>
	<p>You do not have a broad understanding of the principles of DLT/ blockchain. Thus, the implementation of DLT/ blockchain solutions can be a daunting task for your company. Before proceeding with its development and implementation, we recommend you to know more about the blockchain technology and principles of DLT. Next, we will show you DLT/ blockchain solutions that may suit your company.</p> <p>We recommend you contact us for advice on what needs to be done in order to implement these solutions in your company's activities. At the end of the questionnaire, you will find a field to share your email, in case you wish us to get in touch with you for further cooperation.</p>
	<p>You do not have a broad understanding of the principles of DLT/ blockchain. Thus, the implementation of DLT/ blockchain solutions can be a daunting task for your company. Before proceeding with its development and implementation, we recommend you carry out work to develop and improve the company's innovation strategy and strengthen your IT department. Also, we recommend you to know more about the blockchain technology and principles of DLT. Next, we will show you DLT/ blockchain solutions that may suit your company.</p> <p>We recommend you contact us for advice on what needs to be done in order to implement these solutions in the company's activities. At the end of the questionnaire, you will find a field to share your email, in case you wish us to get in touch with you for further cooperation.</p>
<p>DLT/ blockchain potential assessment answers</p>	
<p>Your company has a high potential for implementing</p>	<p>Based on your answers, we believe that your company has a high potential for implementing and using DLT/ blockchain. In the market in which you operate, there are many participants united by common interests. At the same time, the lack of trust between the participants makes DLT/ blockchain a solution that can ensure interaction on a transparent and at the same time "trustless trust" basis. Also, DLT/ blockchain can help you get</p>

<p>and using DLT / blockchain</p>	<p>rid of the trusted third party by providing trust between you and your partners without intermediaries.</p> <p>In addition, we have conducted a preliminary assessment of the challenges for your company that can be overcome with the help of DLT/ blockchain, as well as certain aspects of your company that can be improved through the use of DLT/ blockchain.</p>
	<p>Based on your answers, we believe that your company has a high potential for implementing and using DLT/ blockchain. In the market in which you operate, there are many participants united by common interests. At the same time, the lack of trust between the participants makes DLT/ blockchain a solution that can ensure interaction on a transparent and at the same time "trustless trust" basis.</p> <p>In addition, we have conducted a preliminary assessment of the challenges for your company that can be overcome with the help of DLT/ blockchain, as well as certain aspects of your company that can be improved through the use of DLT/ blockchain.</p>
	<p>Based on your answers, we believe that your company has a high potential for implementing and using DLT/ blockchain. DLT/ blockchain can help you get rid of the trusted third party by providing trust between you and your partners without intermediaries.</p> <p>In addition, we have conducted a preliminary assessment of the challenges for your company that can be overcome with the help of DLT/ blockchain, as well as certain aspects of your company that can be improved through the use of DLT/ blockchain.</p>
<p>Your company has a low potential for implementing and using DLT / blockchain</p>	<p>Based on your answers, we believe that DLT/ blockchain will not have a significant impact on the market in which you operate, due to the lack of a network effect, the absence of common goals of market participants, or a high degree of trust between key players.</p> <p>Nevertheless, we have conducted a preliminary assessment of the challenges for your company that can be overcome with the help of DLT/ blockchain, as well as certain aspects of your company that can be improved through the use of DLT/ blockchain.</p>

7. Conclusion

The first iteration of DLT Assessment Tool brought a high number of valuable insights and allowed for further improvement and upgrade of the methodology, which evolved into the user-friendly ‘Do you need Blockchain?’ evaluation tool. Based on the insights, comments and suggestions, the second iteration was prepared and implemented by updating the tool. BlockStart has addressed larger audiences while promoting the tool, and it helped several SMEs, startups and other intermediaries to evaluate their potential for blockchain-based solutions and a large number of responses has been gathered. Besides collecting a significant amount of DLT and blockchain industry data, BlockStart has also helped the SMEs and startups to more efficiently find the best technological solution for them.

As all the applicants to the BlockStart [SME adopters open calls](#) need to fill in the Assessment Tool (it is one of its evaluation criteria), the tool was instrumental in the corresponding open call 1 (December 2019 - July 2020) and open call 2 (July 2020 - March 2021). It will be of equal importance for open call 3 for SME adopters (March - November 2021). The tool is public and can be accessed on BlockStart project's [website](#). It is continuously being shared with the community through the project's and partners' public dissemination channels.