Deliverable 7.1:

DLT4EU Impact Assessment Framework

D7.1

31 March 2020

PROJECT ACRONYM	GRANT AGREEMENT #	PROJECT TITLE
DLT4EU	No. LC-01349961	DLT4EU

D7.1

DLT4EU Impact Assessment Framework

Revision: v1

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Revision History

REVISION	DATE	AUTHOR	ORG.	DESCRIPTION
v0.1	07.02.2020	Antoine Coudard	MET	First draft
v0.2	10.02.2020	Alice MacNeil	MET	Revision of content
v.03	14.02.2020	Alice MacNeil	MET	Revision of content
v.04	12.03.2020	Alice MacNeil	MET	Revision of content
v.05	17.03.2020	Robert M. Learney	DC	First internal review
v.06	22.03.2020	Pierre Baisle	DC	First internal review
v.07	23.03.2020	Giovanni Maccani	IFC	Second internal review
v.08	24.03.2020	Alice MacNeil	MET	Final draft
v.1	27.03.2020	Liz Corbin	MET	Final Review

STATEMENT OF ORIGINALITY

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

Summary

This document - D7.1 Impact Assessment Framework - introduces both the framework (the "DLT4EU Impact Compass") and methods through which an impact assessment of the DLT4EU programme will be carried out. Through this impact assessment, DLT4EU will assess whether participating teams, as well as the programme itself, have achieved the specific social, environmental, economic, and knowledge goals that have been set out in the programme.

The impact assessment will also provide feedback for future programmes, and for non-participating startups and stakeholders working in the field of DLT and public good.

The DLT4EU Impact Compass enables an assessment at two levels:

1. Programme-Level: An evaluation of the overall impact of the DLT4EU programme
2. Venture-Level: An evaluation of the impact of ventures within the programme

The impact assessment of the programme will be a collective process among the partners, and led by Metabolic as the Work Package Lead. The impact assessment of DLT4EU will be carried out in accordance with the Social Impact Assessment (SIA)[1] Framework and under the guidance of existing European Commission documents, including the EC's 'Better Regulation Toolbox'[2] and the 'Developing Effective ex ante Social Impact Assessment with a Focus on Methodology, Tools and Data Sources'.[3]

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[1] I. Nicaise, (2008), 'Social Impact Assessment: Synthesis Report', Peer Review in Social Protection and Social Inclusion.
[2] European Commission, (2017), 'Better Regulation Toolbox', European Commission.
[3] M. Brewer, (2011), 'Developing Effective ex ante Social Impact Assessment with a Focus on Methodology, Tools and Data Sources: Synthesis Report', Peer Review in Social Protection and Social Inclusion.

Index

1. Programme Introduction

The DLT4EU Programme will stimulate the piloting of cutting-edge Distributed Ledger Technologies (DLT)-based applications that address pressing social and environmental challenges currently faced in the EU and, ultimately, drive positive change for the common good. This programme has received funding from the European Commission under grant application No. LC-01349961.

The core objective of the programme is to connect the expertise and resources of leading DLT entrepreneurs and developers with the real-world, unmet opportunities and challenges of public and social sector beneficiaries including: governmental, public, third sector, and civil society organisations. DLT4EU will address the desire of the EU to build scalable, efficient, and high-impact ventures that support the development, expansion, and use of cutting-edge DLT applications for social and public good.

The consortium members are: Metabolic (NL), Digital Catapult (UK), and Ideas for Change (ES).

The consortium will trial a European-wide incubation scheme developed by the consortium partners called Virtual Field Labs (VFLs). The VFL concept is specifically designed to stimulate DLT experimentation, innovation, and uptake within the public and social sectors in close collaboration with real-world beneficiaries and the challenges they face.

The Virtual Field Labs of DLT4EU will be developed in response to two overarching high-impact sectors: Circular Economy and Digital Citizenship. A curated acceleration programme, co-designed and delivered by the partner consortium, will cross-cut each VFL in order to underpin the development of DLT applications with a taught programme that covers technical expertise, business model development, legal guidance, and impact assessment.

Results of the programme will take the form of proofs-of-concept: functional prototypes that can be used to demonstrate the purpose and potential of the DLT application. These proofs-of-concept will be evaluated using a robust impact assessment framework, with 3- 5 being awarded follow-on funding.

1.1 Purpose and Scope of the DLT4EU Impact Compass

The scope of the Impact Assessment work package is the development of two assessment frameworks for (i) the DLT4EU accelerator programme as a whole and (ii) the individual proofs-of-concept that are developed throughout the acceleration programme - specifically their risks, progress, and impact.

The DLT4EU Impact Compass will support strategic and proactive thinking during the codesign of the accelerator programme (WP1), the criteria stated as part of the open call for concepts and teams

(WP2), implementation and monitoring of the programme (WP3), the final assessment of the proof of concepts (WP4), and external dissemination and event activities (WP5, WP6).

2. Related Impact Assessment Literature

To ensure that the 'DLT4EU Impact Compass' is valuable to policymakers, the framework has been developed with guidance from the following European Commission approaches:

1. 'Social Impact Assessment' (2008)
2. 'Developing Effective Ex Ante Social Impact Assessment with a Focus on Methodology, Tools and Data Sources' Synthesis Report (2011)
3. The European Commission 'Better Regulation Toolbox' (2017)

While the above methods are normally applied to assessing policy interventions, they are a valuable learning opportunity for conducting a robust and transparent impact assessment of an innovation programme like DLT4EU. Overall, the DLT4EU Impact Compass aims to be transferable to other European-based innovation programmes that seek to accelerate digital innovation for public good. These three approaches are briefly described below and contextualised to the DLT4EU Impact Compass.

2.1 'Social Impact Assessment' (SIA)

The 'Social Impact Assessment' was originally developed as a method for assessing the social impact of new policies prior to their implementation.[4] 'Social Impact' was defined as:

'...the systematic ex-ante assessment of the likely social impacts of policy measures - possibly defined more narrowly as the impact on specific target groups or areas… The aim is to inform policymakers and the public opinion about the consequences, tradeoffs, synergies, side-effects of alternative policy options, so as to feed the policy debate'.[5]

A key aspect of this definition is the impact on 'social cohesion' - importantly, the focus is on social indicators, and not economic, fiscal, or environmental ones.[6] Further, according to the report, the requirements of a good-quality impact assessment include the following:

● an explicit problem definition;
● a comparison of different policy alternatives;
● evidence-based assessment methods (both qualitative and quantitative);

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[4] I. Nicaise, (2008), 'Social Impact Assessment: Synthesis Report', Peer Review in Social Protection and Social Inclusion, p.10.
[5] Ibid, p.16.
[6] Ibid, p.18.

- transparency of procedures.[7]

Additionally, the SIA lays out a clear method on how to develop a robust impact assessment in six stages:

1. Identify the problem needs to be defined and establish a baseline;
2. Policy objectives must be made explicit, following the SMART guide (specific, measurable, achievable, realistic, time-dependent);
3. Consider policy alternatives to support informed decision-making by policymakers
4. Measure impact through both qualitative and quantitative research;
5. Compare different options (both positive and negative impacts), contextualised in the broader policy framework;
6. And finally, select indicators that measure the impact of the policy mix.[8]

2.1.1 Application to the DLT4EU Programme

The SIA is a valuable guide for both the development of the DLT4EU Impact Compass, and also D6.4 DLT4EU Final Report which will be partially for the policy-maker and regulator audience. Specifically, the SIA will inform the following aspects of the DLT4EU Impact Compass:

1. The scope of the social impact category;
2. Selection of the Key Performance Indicators with SMART guidelines;
3. The method followed for developing the impact assessment, reinforcing the importance of consortium and stakeholder engagement, iterative design, as well as external expert review;
4. A final sense-checking the framework for the intended policy audience with an external expert review.

2.2 'Developing Effective Ex Ante Social Impact Assessment with a Focus on Methodology, Tools and Data Sources' Synthesis Report (2011)

The Peer Review in Social Protection and Social Inclusion Synthesis Report on 'Developing Effective Ex Ante Social Impact Assessment with a Focus on Methodology, Tools and Data Sources' builds on the 2008 SIA method (see Section 2.1). This report focuses specifically on the appropriate methodologies, tools, and data sources for ensuring effective and useful SIAs by EU Member States.

The key conclusion of the report highlights the need for SIAs to be integrated from the very beginning in the policy-making process, and a set of key questions need to be first asked by policy-makers. These range from identification questions on the type of intervention and outcomes,

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[7] I. Nicaise, (2008), 'Social Impact Assessment: Synthesis Report', Peer Review in Social Protection and Social Inclusion, p.17.
[8] Ibid, pp.20-22.

to setting the scope and performance criteria of the assessment.[9] Additionally, while the report argues that there is no universally accepted definition of 'social' impacts, a range of impact types is given, covering: employment, income, access to services, respect for fundamental rights, public health and safety.[10]

2.2.1 Application to the DLT4EU Programme

The Synthesis Report is a valuable build on the initial method presented in the SIA framework. Overall, 7 key relevant areas were identified to inform the development of the DLT4EU Impact Compass. These are::

1. The report recommends that SIAs need to be integrated into the policy-making process. For DLT4EU this means that the impact assessment needs to be a continuous process underpinning the running of the programme (WP 3);
2. SIA development requires both internal and external expertise input and review, as described in Section 3 on the Method for developing the DLT4EU Impact Compass;
3. The key questions asked by policy-makers to clarify the exact scope of the impact assessment are also applicable to the DLT4EU consortium. For example, the intervention to be examined is the DLT4EU programme-level and venture-level impacts, and the targeted outcomes are the objectives outlined below in Sections 4 (Programme-Level) and 5 (Venture-Level);
4. Importantly, the recommendation of transferability is important in ensuring that the DLT4EU Impact Compass can be used by future technology innovation programmes within the public good realm;
5. While the recommendation of Randomised Controlled Trials (RCTs) are not fully appropriate for DLT4EU, the design of the Virtual Field Labs (VFLs) ensures that feedback from lead beneficiaries (the 'Challenge Owners') is central to proof-of-concept development. Additional user group testing will also be carried out with secondary beneficiaries;
6. The DLT Impact Compass will also capture impact beyond simply social indicators, and take a holistic approach across Social, Environmental, Economic, and Knowledge areas (see Section 4.2)
7. And finally, the DLT4EU Impact Compass will capture data that is measurable and available, while ensuring the correct safeguards are in place for personal data collection and possible engagement with marginalised communities (i.e. VFLs focused on solutions for undocumented migrants).

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[9] M. Brewer, (2011),'Developing Effective ex ante Social Impact Assessment with a Focus on Methodology, Tools and Data Sources: Synthesis Report', Peer Review in Social Protection and Social Inclusion, p.19.
[10] Ibid, p.32.

2.3 European Commission 'Better Regulation Toolbox' (2017)

The European Commission's 'Better Regulation Toolbox' (2017) was developed to complement guideline SWD(2017) 350, and support policy-makers to implement 'better regulation' across the end-to-end policy cycle - from planning to implementation to evaluation.[11] The Toolbox was found to be a valuable source as it offers a wealth of guidance, tools, and best practices for ensuring 'better regulation', including how to carry out impact assessments. Importantly, the guide states that 'Defining the problem correctly is probably the single most important step in the preparation of a new initiative because if the problem (and its causes) is poorly understood then it will be difficult to design policies that will be effective on the ground.'[12]

2.3.1 Application to the DLT4EU Programme

The 'Better Regulation Toolbox' is a valuable source of guiding principles for designing an effective impact assessment framework - transparency, evidence-based, and robustness. In particular, the following tools have been drawn upon in the development of the DLT4EU Impact Compass:

- **Tool #4 Evidence-based Better Regulation:** Step one is to carry out 'evidence mapping' based (initially) on desk research and then stakeholder engagement to ensure strategies are in place for data gaps. This activity started as part of the grant application and has continued as part of this deliverable as well as the D1.2 DLT4EU Insights Report;
- **Tool #7 Drafting of roadmaps, evaluation roadmaps and inception impact assessments**: Following this tool's guidance, this deliverable sets out stakeholder engagement activities, objectives of the impact assessment, and the purpose and scope of the impact assessment;
- **Tool #12 Format of the Impact Assessment Report**: Recommendations from this tool will be used to help structure D7.2 Proof of Concepts Assessment Reports and D7.2 DLT4EU Final Programme Assessment. Additionally, the related deliverables will include necessary planning, stakeholder engagement and analytical methods;
- **Tool #15 Risk Assessment and Management:** As recommended, this deliverable includes a risk assessment and mitigation plan (see Section 8);
- **Tool #16 Setting Objectives (i.e. SMART):** And finally, the objectives and Key Performance Indicators for both the Programme and Venture-level assessments follow SMART guidelines.

3. Method for Developing the DLT4EU Impact Compass

From the guidance from related literature on impact assessments in Section 2, the iterative design process below was undertaken to develop the DLT4EU Impact Compass from the grant application (submitted under number CONNECT/2019/ARES (2019)2156457) to this deliverable:

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[11] European Commission, (2017), 'Better Regulation Toolbox', European Commission, p.6.
[12] Ibid, p.39.

Method for Developing the DLT4EU Impact Compass		
Step *(reiterative)*	**Description**	**Stakeholder(s) Engaged**
Identify Objectives	● Identification of DLT4EU Programme objectives through desk research and expert consultation	● DLT4EU Consortium
Identify Impact Areas	● Identification of impact areas at programme and venture-levels	● DLT4EU Consortium ● Joint Research Centre
Select Key Performance Indicators	● Selection of KPIs under each impact area following SMART guidelines	● DLT4EU Consortium ● Joint Research Centre
Peer Review	● Peer review for feedback on framework design, KPIs, data collection methods etc.	● External Ventures Expert ● External Accelerator Expert

4. Programme-Level Impact Assessment

4.1 Impact Areas

The Programme-Level Impact Assessment spans four core 'Impact Areas' - Social, Environmental, Knowledge, and Economic. These four categories enable a holistic overview of the different types of impact possible through the DLT4EU programme.

1. **Social** is about the inclusion of civil society and the increased access to public goods, public health, and basic services;
2. **Environmental** covers how DLTs developed through the programme affect energy and material use, contribute to the protection of biodiversity, the management of common natural resources such as freshwater and forests, and support the monitoring and reduction of greenhouse gases emissions;
3. **Economic** regards the extent to which the use of DLTs has created holistic value, met the defined needs of beneficiaries, and acquired validation and additional resources;
4. **Knowledge** focuses on enabling new capabilities needed for public and private sector organisations to learn from DLT pilots and the broader programme to adopt further strategies, policies, and innovation initiatives.

4.2 DLT4EU Objectives and Programme-Level Key Performance Indicators (KPIs)

The objectives and programme-level Key Performance Indicators (KPIs) were developed following the guidance outlined in Section 2 and through the iterative design process described in Section 3. Importantly, the process also drew on expertise from both the DLT4EU Consortium and external experts. This programme-level impact assessment will be used to track and assess the performance and impact of the programme and consortium as a whole.

Programme-Level Impact Assessment			
Objective *(no. from grant application)*	**KPI**	**Impact Area**	**Monitoring Method**
Rigorously understand the present and foreseeable challenges facing the social and public sectors in the EU (Obj. 1).	15-20 studies synthesised 15-20 experts consulted Per challenge: 2-3 experts aligned on the key challenge identified	Social, Knowledge	D1.2 DLT4EU Insights Report
To map the framework conditions for the successful utilisation of DLT by EU public and social sectors. (Obj. 2)	A minimum of 15-25 of experts consulted.	Knowledge, Social, Economic	D1.2 DLT4EU Insights Report
Build meaningful and sustainable relationships between DLT developers, beneficiaries within the social and public sectors, and social impact investors. These relationships must form the bases of DLT experimentation and development in ways that closely tether venture development and investment to real-world challenges and impact.	Per challenge: 2-3 per experts aligned on the key challenge identified 10-15 beneficiaries engaged 5-7 social impact investors engaged 8-10 projects co-initiated by developers and beneficiaries	Social, Economic, Knowledge	DLT4EU Stakeholder Registration Form Venture Acceleration Action Plan Accelerator Programme Feedback Survey

(Obj. 3)	3 projects supported by impact investment +500 attendees reached by events		
Leverage synergies between existing initiatives and projects across the fields of DLT, digital social innovation and social impact investment; coupling existing knowledge with innovative ideas and frameworks. (Obj. 4)	10 existing initiatives and networks connected to DLT4EU 50 external references made about DLT4EU	Knowledge	Stakeholder Database Web Analytics
Prototype new DLT applications and initiatives that are capable of addressing existing and foreseeable challenges in the social and public sectors, and validated by a robust impact assessment framework (Obj. 5).	5-10 proofs-of-concept prototypes made within the DLT4EU Virtual Field Labs	Knowledge	Venture Acceleration Action Plan PoC Final Report
Develop a robust impact assessment framework that can judge the potential impact of DLT applications before they are piloted. (Obj. 6)	5-10 experts consulted in framework development 5-10 expert peer-reviews of framework 5-10 concepts validated	Knowledge	Open Call Criteria Open Call Evaluation
Develop highly scalable, impactful and resilient DLT applications that address the most pressing public, social and environmental challenges across the EU.	5-10 pilots initiated with public or private actors. 3-5 services expanded in the public sector.	Economic, Social, Environmental	Accelerator Programme Feedback Survey

And to foster their adoption through piloting proof-of-concept experiments (Obj. 7).	40-70% of DLT4EU projects receive follow-on funding acquired.		
Support DLT applications that, given their social and public targets, do not fit easily within commercially driven schemes to scale up through mentorship, business development, and funding opportunities.(Obj. 8)	5-10 partnerships with public organisations. 3-5 non-profit and/or public applications developed.	Social, Economic	Stakeholder Database Venture Acceleration Action Plan
Foster a strong and vibrant DLT ecosystem for social and public good across the EU, and maximise its engagement, outcomes, and impacts beyond this ecosystem. (Obj. 9)	20-30 active organisations within the DLT4EU ecosystem. 1000 people subscribe to newsletter 10-15 media articles	Social, Knowledge	Stakeholder Database DLT4EU Stakeholder Registration Form Web Analytics
To increase the capacity of EU social and public sectors to take up DLT-based solutions and to equip intermediaries to support them. (Obj. 10)	30-50 actors reached within governments and NGOs. 50+ knowledge sharing activities across policymakers and public sector supporters.	Knowledge, Social	Stakeholder Database DLT4EU Stakeholder Registration Form
To develop an effective Virtual Field Lab model for those who wish to run similar incubation schemes. (Obj. 11)	1000 downloads and views of the DLT4EU Accelerator Report in which the VFL model is detailed. 5-10 VFLs occurring across the EU.	Knowledge	Web Analytics Venture Acceleration Action Plan

To drive positive social change through capacity building: providing a forum for knowledge exchange and strategic guidance between DLT experimentation, digital social innovation, and policy initiatives. (Obj. 12)	50+ knowledge sharing and outreach activities.	Knowledge	Registration forms Accelerator Programme Feedback Survey
N/A	Number of public actors engaged with the Accelerator and Insights report, as well as during the challenge identification and refinement process.	Knowledge	Stakeholder Database Accelerator Programme Feedback Survey
N/A	Number of stakeholders (e.g., mentors, venture team members, investors, experts) joining or dropping out of the programme prior to its completion ; Number of public organizations who follow-up.	Social	Stakeholder Database DLT4EU Stakeholder Registration Form Exit Interview (Challenge Owner, core mentors) Accelerator Programme Feedback Survey (Investors)
N/A	Number and types of SDGs addressed in the entire range of the challenges.	Social, Environmental	Open Call Criteria Open Call Evaluation
N/A	Number of engaged social policy government sectors and non-profit organizations.	Social	Stakeholder Database Accelerator Programme Feedback Survey Note: hours of engagement: during

			workshops, events, and expert interventions
N/A	Number of engaged environmental- policy government sectors and non-profit organizations.	Environmental	Stakeholder Database Accelerator Programme Feedback Survey Note: hours of engagement): during workshops, events, and expert interventions
N/A	Number of public open licenses, open or semi open patents, and/or business models published by venture teams.	Knowledge	Venture Acceleration Plan Note: Assess at the final PoC stage, Assess again in one-year-on from project. Repositories to check: GitHub, EUPL, etc
N/A	Skills development: Number and type of training provided to relevant stakeholders.	Knowledge	D1.1 DLT4EU Accelerator Report D6.1 Communications and Dissemination Plan
N/A	Number and type of regulatory barriers identified at the EU and/or national policy level.	Knowledge	D6.2 DLT4EU Insights Report (M03). Venture Acceleration Action Plan Exit Interviews (Core mentors)

			Open Call Evaluation Criteria PoC Evaluation
N/A	Maturation of business model based on TRL development.	Economic	PoC Evaluation Criteria Note: Collect initial / pre-existing business model at bootcamp #1, require submission of a final business model at PoC submission. Ask final evolution jury to evaluate the change via a question in the final evaluation criteria
N/A	Number of new opportunities found for problem-DLT solution fit	Economic, Knowledge	Exit interviews (Challenge Owners)

5. Venture-Level Impact Assessment

5.1 Impact Areas

The Venture-Level Impact Assessment also covers the same four impact areas that are addressed at the programme-level. The objectives and venture-level Key Performance Indicators (KPIs) were developed following the guidance outlined in Section 2 and the iterative design process in Section 3 - importantly the process drew on expertise from both the DLT4EU Consortium and external experts. This venture-level impact assessment will be used to track and assess the performance and impact of the Proofs of Concept (PoCs) developed through the accelerator.

5.2 Venture-Level Objectives and Key Performance Indicators (KPIs)

Venture-Level Impact Assessment			
Objective	**KPI**	**Impact Area**	**Monitoring**
The PoC provides a highly relevant solution fit to the challenge identified by the challenge owner.	High score in relevance factor on PoC Evaluation	Social	PoC Evaluation Criteria
The venture team engages with a highly diverse set of beneficiaries and end-users throughout app development.	Venture team have considered and engaged with the individual needs of a diverse range of end-users, including issues of gender, disability, language, background, and nationality.	Social	Venture Acceleration Action Plan
Venture teams expand their impact by connecting to SDGs.	Number of SDGs venture team cites as part of their impact targets	Social, Environmental	Venture Acceleration Action Plan
Venture team widely shares its innovation, innovation is readily scalable and replicable by others.	Quality and breadth of team's public open license / open or semi open patent / open business model; ease of future deployment and integration into/alongside existing infrastructure	Knowledge	Venture Acceleration Action Plan Note: Submitted at PoC Evaluation stage by venture team.
New knowledge is generated / advanced regarding the	The novelty and quality of technical solution is high - PoC scores highly on Novelty and Technical	Knowledge	PoC Evaluation Criteria

application of DLT for public sector contexts.	criteria within PoC evaluation		
Venture teams and their PoCs are transparent and accountable	PoCs are GDPR compliant Use and production of Open Source License / Software	Knowledge, Social	Venture Acceleration Action Plan PoC Evaluation Criteria
Venture team advances their technology through the program.	TRL advancement of the PoC (in all its varied components) during the programme	Economic, Knowledge	PoC Evaluation Exit Interview (Core mentors)
The DLT4EU program supports the growth of the venture team / business	New team members Investment New partnerships (i.e., for pilot, for R&D, for investment) Numbers of new deals/sales made during the programme Growth rate of user groups	Economic	Venture Acceleration Action Plan
Venture teams develop a highly scalable PoC.	Venture team identifies and validates a sufficient market size for PoC using the Total Addressable Market, Serviceable Addressable Market, and Serviceable	Economic	Venture Acceleration Action Plan

	Obtainable Market frameworks		
Venture teams develop a highly replicable PoC.	Breadth, quality and accessibility of documentation.	Economic, Knowledge	Venture Acceleration Action Plan PoC Evaluation Criteria Note: Submitted at PoC Evaluation stage by venture team.
Venture teams produce a PoC with high adoption potential	PoC scores highly on User Experience and Accessibility criteria within PoC evaluation	Economic	PoC Evaluation Criteria Note: Demo Day feedback

6. Monitoring Methods for Data Collection

The following monitoring methods to collect the necessary data will be deployed across the duration of the DLT4EU programme. The selection of the monitoring methods was based on guidance from the Peer Review in Social Protection and Social Inclusion Synthesis Report on 'Developing Effective Ex Ante Social Impact Assessment with a Focus on Methodology, Tools and Data Sources', which advises on the importance of being sensitive to data availability and data type. The methods were also developed according to the EU GDPR (see also D8.2 Data Management Plan). Additionally, the methods were aligned with the design of the Accelerator to ensure that data collection is timely and built into the running of the programme (see D1.1 DLT4EU Accelerator Report).

Programme and Venture-Level Monitoring Methods			
Method	**Purpose**	**Data Collected**	**GDPR Compliance**
Interviews as part of D1.2 DLT4EU Insights Report	This deliverable will provide an early-stage analysis of the policy, economic, social, technological, legal, ethical and environmental conditions, drivers and barriers to the uptake of DLT for public and	Qualitative insight on drivers and barriers to update of DLT for public good	Informed consent of interviewees for this report will be ensured in advance.

	social good. This will include an analysis of DLT market and technical risks, challenges and opportunities in the EU.		
Open Call Evaluation Criteria	This evaluation criteria will be developed in Work Package 2 and will be used by the Evaluation Committee to select the participating ventures in the DLT4EU programme.	*See Appendix 1*	Informed consent of applicants will be ensured in advance.
DLT4EU Stakeholder Registration Form	The overarching purpose of the registration form is to ensure appropriate diversity of stakeholders and the monitoring of specific target groups (e.g. public policy). The registration form is a list of fields that a given stakeholder (event attendees, mentors, investors, challenge owner, venture teams) will input data into and submit to the DLT4EU team.	Demographic data, professional background or expertise, and/or organisation type	All registration forms will ensure informed consent of every stakeholder in advance.
Accelerator Programme Feedback Survey	The main purpose of this monitoring tool is to assess the level of engagement of different stakeholder groups with the DLT4EU programme. The survey is a set of questions that a given stakeholder will complete after a specific activity (e.g. workshops), event, or at the end of the programme if they	Professional opinion and expertise	All feedback surveys will ensure informed consent of every stakeholder in advance.

	are not able to complete an Exit Interview.		
Venture Acceleration Action Plan	A standardised report that venture teams will complete at the end of every month during the accelerator. This report will be used to track their progress in developing a PoC.	Challenge alignment, strategy (i.e. market analysis), technical development, GDPR compliance, developments in their business (i.e. new hire), beneficiaries and network engaged, barriers they face (i.e. regulation), progress on open source licensing (i.e. documentation developed), and plan for the next month.	Informed consent will have been confirmed in advance of venture teams participating in the accelerator.
D4.1 PoC Evaluation Criteria	This set of evaluation criteria will be developed in WP4 and will be used by the Evaluation Committee to assess and select the winning projects at the Final Event (March 2021).	*See Appendix 5*	N / A
Exit Interview	The main purpose of this monitoring process is to assess the level of knowledge development stemming from the DLT4EU programme, from a	*See Appendix 6*	All exit interviews will ensure informed consent of every stakeholder in advance.

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	business, technical, and social perspective. An interview held with stakeholders at the end of the DLT4EU programme to discuss and receive specific feedback or expertise on the impacts of the DLT4EU programme. The exit interviews will be semi-structured , and tailored to the specific stakeholder group (e.g., challenge owner, mentors).		
Web Analytics	The purpose of this monitoring tool is to assess the level of engagement, knowledge dissemination level, and more broadly the reach of the DLT4EU with its wider ecosystem. The measurement, collection, analysis and reporting of online data stemming from the interaction of online users with the DLT4EU website, the use of online communication channels (e.g. emails) associated with the DLT4EU team, or the use of social media platforms (e.g. Twitter, Instagram, LinkedIn) in relation to the DLT4EU project.	Website visitors, Click Through Rate (CTR), views, re-posts, likes, community growth rate	Cookie consent and privacy policies.
Stakeholder Database	Throughout the DLT4EU programme, a database of all stakeholders (i.e. public sector, policy, challenge owners, mentors etc.) will be compiled in order to record the impact and	This database will include data on organisational type, contact, role, type of engagement, for example.	This database will comply with GDPR regulation by requiring an informed consent form to be signed for the data to be included in the database. Refer to D8.1 Data

	engagement KPIs of the programme and PoCs.	The Stakeholder Registration Form will be a key input of this data set	Management Plan for further information.

7. Research Timeline

The Gantt chart below details the timeline for data collection (by method), data processing / analysis, and data reporting as part of T7.4 DLT4EU Impact Assessment Framework.
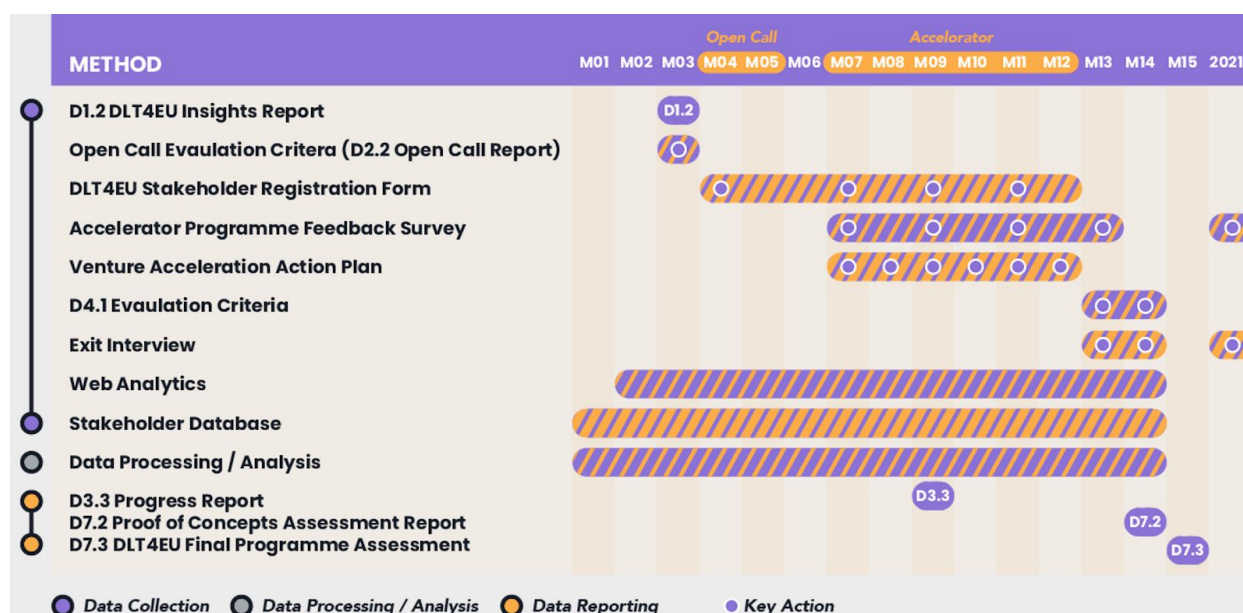
8. Limitations and Risks Mitigation

The DLT4EU Impact Compass is a key cornerstone of the DLT4EU Programme, and will enable recommendations to be made for future innovation programmes focused on public good from the assessment of the programme-level and venture-level impacts.To ensure the high-quality and efficacy of the Compass, the following limitations, risks, and mitigation activities have been identified.

Limitations are a result of conditions largely outside the DLT4EU consortium's scope. Limitations could affect the DLT4EU consortium's ability to assess the impact of the programme, as well as the efficacy of the proposed DLT4EU Impact Compass. These are limitations inherent to the structure

and duration of the programme. The table below outlines these limitations and gives mitigations of their potential impact.

Limitations and Mitigation	
Limitation	**Mitigation**
Number of challenges that can be tackled effectively	● Design of the Open Call
Number of venture teams involved	● Design of the Open Call
Maturity of the venture team's solution	● Evaluation Criteria for the Open Call
Natural limit to the size of network which can be effectively engaged	● D6.1. Communications and Dissemination Strategy
Data availability from challenge owners	● On-boarding process with Challenge Owners prior to Open Call
Data accessibility from challenge owners	● On-boarding process with Challenge Owners prior to Open Call
Data variety as a result of the number of venture teams able to participate	● Design of the DLT4EU Impact Compass

Risks, conversely, are within the scope and agency of the DLT4EU consortium, as they directly relate to the programme's activities. The table below sets out identified risks and mitigation approaches. Each risk has been classified with an impact level to understand the potential effect on the quality of the DLT4EU Impact Compass:

- **Low -** defined as negligible negative impact and high probability
- **Medium -** defined as minor negative impact and small probability

- **High -** defined as considerable negative impact and low probability

Risks and Mitigation			
Risk	**Cause**	**Impact Level**	**Mitigation**
Incorrect design of Impact Assessment Framework	- Failure to design robust framework	High	- Undertake iterative design process, following guidance from related literature and input and review from subject matter experts (internal and external)
Poor data quality from venture teams	- Lack of time	Medium	- Book in advance with venture teams submission of Venture Acceleration Action Plans
	- Lack of expertise	High	- Provide feedback window to help support venture teams - Ensure mentors and Programme Manager (Metabolic) review and support venture team submissions - Provide examples of answers in the template - Q&A on data collection during on-boarding to ensure high quality is understood from the beginning
Poor data quality from survey respondents	- Lack of time	Medium	- Set survey completion deadline in advance - Set a completion rate
	- Lack of expertise	High	- Target specific respondents depending on area of expertise

Appendix 1: Open Call Evaluation Criteria

The below table sets out the Evaluation Criteria included in the forthcoming D2.2 DLT4EU Open Call Report.

Evaluation Criteria		
Theme	**Criteria**	**Description**
DLT4EU Evaluation Criteria	Usability and inclusiveness	Whether the proposed project can engage users, irrespective of their gender, background, financial capabilities or digital skills. This will include an assessment of both the existing / proposed user interface and the underlying principles of the project.
	Technical feasibility	Technical maturity - are they ready to run? Have the applicants stated clearly enough their technical needs - what do they need to run, what don't they have, and is that easily accessible? What chain do they imagine to use? How will they gain access to it if need be? How easy is it to maintain the technology, what roadblocks do they foresee and how will they tackle them? Are the applicant's proposed solutions at least TRL4?
	Commercial feasibility	How compelling and realistic is the potential business model proposed? Have the applicants received prior investment and / or target of impact investment?
	Viability at scale	Potential cost-efficiency, potential scalability, security, and sustainability models. Is the resources vs deployment capacity ratio sensible? Can the technology / product be scaled up within reason without encountering critical barriers (regulation, costs, technical, geographical, etc)
	Relevance to challenge	Do the applicants understand the challenge being faced by the challenge owner? Do the applicants strongly demonstrate their relevance to the challenge against several or all of the following key aspects: market, technology, target user, geography, context, timing / state of maturity, value alignment / aims and vision?
	Team quality and capacity	Who's in the team? What are their different expertise areas? What is their availability / capacity during the time of the program? What is the gender breakdown? Do the applicants demonstrate a good enough expertise and complementarity in

		terms of backgrounds (technical, sales, stakeholders, previous experience working in the public and/or social sector)?
	EU Added value	Clear added value of the demonstrated proposed project / technology / product implementation for European citizens, in terms of novelty, effectiveness in comparison to existing centralised solutions, and other societal, economic or environmental aspects. (Please refer to the challenge definitions, which have been framed to help applicants answer this question).
	Novelty and innovation	How new is this project compared to existing ones? Have the applicants shown that they have done a competitor analysis? Are the applicants able to identify competing existing offers/solutions? Are they also able to demonstrate how their application/approach is unique / different? Can the applicants explain novelty beyond just technical, and tell us how innovative their approach/project is socially, environmentally, economically, legally, ethically? Rate of adoption - how novel is the applicants' solution user engagement process? Do they know / can they inform on their rate of adoption? Does the data provided by applicants comes from reliable sources and is verifiable.
	Open Source	Do the applicants show their commitment to release their solution developed for the project under an Open Source Licence? Can/have they included details about the type of license and any other additional conditions they want to bring up?

Appendix 2: DLT4EU Stakeholder Registration Form

DLT4EU Stakeholder Registration Form		
Audience(s)	**Frequency**	**Tool(s)**

1. Programme Mentors
2. Bootcamp Mentors
3. Ecosystem participants:
   a. Impact Investors / Venture Investors
   b. Public Policy & Regulators
   c. Public Sector (i.e. governmental, procurement)
   d. Third Sector (i.e. NGO, International Development, Philanthropic)
   e. DLT Field (i.e. consortia / coalitions, businesses, developer groups, incubators / accelerators, academics, DLT programmes)
   f. Citizen-led communities or networks
   g. Intermediaries (i.e. thought leadership field)
   h. Complementary sectors (i.e. in circular economy, digital citizenship fields)
   i. Journalists and content creators
	Activity-driven (i.e. on agreement to participate in bootcamp)	● Data Collection: TypeForm
		● Data Storage: Transcript on a Metabolic external drive

Informed consent will be obtained in advance from all participants of this survey, and inform them of the purpose of the research, data storage, and security protocols.

Template -

- Name, Role, Organisation
- Expertise / Subject Matter
- Objective of participation (i.e. learn about DLTs, invest in DLT solutions etc.)
- Level of participation (i.e. event, bootcamp, knowledge sharing activity)

Appendix 3: Accelerator Programme Feedback Survey

Accelerator Programme Feedback Survey		
Audience(s)	**Frequency**	**Tool(s)**
1. Challenge Owners 2. Programme Mentors 3. Bootcamp Mentors 4. External Participants in Accelerator activities (i.e. Subject Matter Expert)	Activity-driven	● Data Collection: TypeForm ● Data Storage: Transcript on a Metabolic external drive

Informed consent will be obtained in advance from all participants of this survey, and inform them of the purpose of the research, data storage, and security protocols.

Objectives

● Build meaningful and sustainable relationships between DLT developers, beneficiaries within the social and public sectors, and social impact investors. These relationships must form the bases of DLT experimentation and development in ways that closely tether venture development and investment to real-world challenges and impact (Obj.3).
● Develop highly scalable, impactful and resilient DLT applications that address the most pressing public, social and environmental challenges across the EU. And to foster their adoption through piloting proof-of-concept experiments (Obj. 7).
● To drive positive social change through capacity building: providing a forum for knowledge exchange and strategic guidance between DLT experimentation, digital social innovation, and policy initiatives (Obj. 12).

Template -

● Name, Role, Organisation
● Participation Type / Event / Activity (i.e. Amsterdam Bootcamp)
● Expertise / Subject Matter
● Survey will take 15 minutes to complete
● Scale is a scorecard from 0-5, (0 = Strongly Disagree, 5 = Strongly Agree) with open format available for further comments

Questions

1. This event / workshop / session / DLT4EU fulfilled my primary objective.

       a. Further comments

2. Through participating in this event / workshop / session / DLT4EU, I expanded my professional relationships / network.
       a. Further comments

3. The DLT4EU programme lead to a new opportunity for my organisation (i.e. joint venture project)?
       a. Further comments

4. Through DLT4EU, I have gained new knowledge I can apply to your role / organisation.
       a. Further comments

5. Through the DLT4EU programme, I have gained strategic guidance on DLT solutions.
       a. Further comments

Appendix 4: Venture Acceleration Action Plan

Venture Acceleration Action Plan		
Audience(s)	**Frequency**	**Tool(s)**
1. Venture Teams	Monthly	● Data Collection: Google Document ● Data Storage: Transcript on a Metabolic external drive

Template -

- Venture Team Name
- Date
- Version of Document
- Challenge Theme and Challenge Owner(s)

Theory of Change

- Description of challenge and the key problem they will solve
- Description of PoC idea / solution
- Alignment to SDGs

Business Model

- Market analysis (TAM, SAM, SOM)
- Lead beneficiaries
- Secondary beneficiaries
- Open License / Open Model
- GDPR / Data Management Plan

Progress Update:

- Key progress to date (past month)
- Highlight changes in challenge description
- Highlight changes in solution development
- Highlight changes in user groups

- Business activity update *(i.e. new team members, investment, new partnerships, numbers of new deals/sales made during the programme, growth rate of user groups)*
- Key barriers / challenges to developing the solution (i.e. regulatory / legal)
- Key needs / requests from Programme Manager / Consortium

Next month view:

- Upcoming key business activities
- Upcoming technical development activities
- Next month timeline, including
    - Milestones
    - Call(s) with Challenge Owner(s)
    - Call(s) with mentors etc
    - Other related meetings (i.e. user group)
    - Deliverables (i.e. user test)

Appendix 5: PoC Evaluation Criteria

The below Proof of Concept Evaluation Criteria are based on the Evaluation Criteria for the Open Call, but instead assess the progress on each criteria. The below is a working draft and will be formally submitted as D4.1 Evaluation Criteria as part of Work Package 4: Evaluation of the projects for the final award.

Evaluation Criteria		
Theme	**Criteria**	**Description**
DLT4EU Evaluation Criteria	Usability and inclusiveness	Whether the final project engages users, irrespective of their gender, background, financial capabilities or digital skills. This will include an assessment of both the user interface and the underlying principles of the project.
	Technical feasibility	Maturity of technical solution against starting TRL.
	Commercial feasibility	How compelling and realistic is the business model? Have the applicants received investment and / or target of impact investment?
	Viability at scale	Potential cost-efficiency, potential scalability, security, and sustainability models. Is the resources vs deployment capacity ratio sensible? Can the technology / product be scaled up within reason without encountering critical barriers (regulation, costs, technical, geographical, etc)
	Relevance to challenge	Did the applicants understand the challenge being faced by the challenge owner? Did the applicants strongly demonstrate their relevance to the challenge against several or all of the following key aspects: market, technology, target user, geography, context, timing / state of maturity, value alignment / aims and vision?
	Team quality and capacity	Progression of team over programme (i.e. new skill development etc.)
	EU Added value	Clear added value of the demonstrated proposed project / technology / product implementation for European citizens, in terms of novelty, effectiveness in comparison to existing centralised solutions, and other societal, economic or environmental aspects.

	Novelty and innovation	How new is this project compared to existing ones? Have the applicants shown that they have done a competitor analysis? Are the applicants able to identify competing existing offers/solutions? Are they also able to demonstrate how their application/approach is unique / different? Can the applicants explain novelty beyond just technical, and tell us how innovative their approach/project is socially, environmentally, economically, legally, ethically? Rate of adoption - how novel is the applicants' solution user engagement process? Do they know / can they inform on their rate of adoption? Does the data provided by applicants comes from reliable sources and is verifiable.
	Open Source	Do the applicants show their commitment to release their solution developed for the project under an Open Source Licence? Or have they successfully started or completed this process?

Appendix 6: Exit Interview

Exit Interview		
Audience(s)	**Frequency**	**Tool(s)**
1. Challenge Owners 2. Venture Teams 3. Core Mentors	After the programme has been completed	• Data Collection: In-person • Data Storage: Transcript on a Metabolic external drive

Informed consent will be obtained in advance from all participants of this survey, and inform them of the purpose of the research, data storage, and security protocols.

Template -

Challenge Owners

1. Overall, was it beneficial for your team / organisation to participate in DLT4EU?
2. In your view, did the venture team solve your key challenge with their solution?
3. Did you gain new knowledge / insights about DLTs and the potential of this type of technology?
4. Did you gain new business knowledge you can apply in your work?
5. Have any results been implemented in your organisation as a direct result of the VFL?
6. Are you likely to continue with the PoC development beyond this programme?
7. Do you have any feedback on the Virtual Field Lab structure?
8. Did you face any challenges while participating in DLT4EU?
9. Are there any improvement areas we can take forward?
10. Overall in your view, is the DLT4EU accelerator programme an effective model for solving societal issues and / or enabling innovation for social good?

Venture Teams

1. Overall, was it beneficial for your team / organisation to participate in DLT4EU?
2. Did you gain new knowledge / insights in DLTs and their potential?
3. Did you gain new business knowledge you can apply in your work?
4. Are you likely to continue with the PoC development beyond this programme?
5. Do you have any feedback on the Virtual Field Lab structure?
6. Did you face any challenges while participating in DLT4EU?

7. Are there any improvement areas we can take forward?
8. Overall in your view, is the DLT4EU accelerator programme an effective model for solving societal issues and / or enabling innovation for social good?

Core Mentors

1. Overall, was it beneficial for your team / organisation to participate in DLT4EU?
2. Did you gain new knowledge / insights in DLTs and their potential?
3. Did you gain new business knowledge you can apply in your work?
4. Are you likely to continue to mentor the venture team beyond this programme?
5. Do you have any feedback on the Virtual Field Lab structure?
6. Did you face any challenges while participating in DLT4EU?
7. Are there any improvement areas we can take forward?
8. Overall in your view, is the DLT4EU accelerator programme an effective model for solving societal issues and / or enabling innovation for social good?