



D7.3 Communities Engagement Strategy

Authors: Silvia Castellvi, Natalia Simon, Bert Utermark and Hosea Ofé

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TRUSTS Trusted Secure Data Sharing Space

D7.3 Communities Engagement Strategy

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Table of Contents

Document Summary Information	2
Revision history (including peer reviewing & quality control).....	3
Disclaimer.....	4
Copyright message.....	4
Table of Contents.....	5
List of Figures	8
List of Tables	9
Glossary of terms and abbreviations used	11
Executive Summary.....	13
1 Introduction	15
1.1 Mapping Projects' Outputs	16
1.2 Deliverable Overview and Report Structure	18
2 Stakeholder Identification and Analysis.....	19
2.1 Approach.....	19
2.2 TRUSTS Stakeholder Identification and Mapping	20
2.2.1 TRUSTS Platform Users: Customers	21
2.2.2 TRUSTS Platform Users: Technology and Infrastructure Operators and Providers	24
2.2.3 Associations, Organisations and Initiatives.....	24
2.2.4 Research & Academy	25
2.2.5 EC & Policy-makers	26
2.3 Stakeholder Prioritisation	27
2.4 TRUSTS Stakeholder Landscape	30
2.5 Detailing of TRUSTS Platform Users.....	30
2.5.1 A data market for users from across sectors	30
2.5.2 Users by Activity: Primary Users	34
2.5.3 Users by Activity: Trading Intermediaries.....	37
2.5.4 Users by Activity: Data Service Providers	39
2.5.5 Users by Activity: TRUSTS Operator and Infrastructure Providers	41
2.5.6 Users by Time of Adoption.....	43
2.5.7 Users by Technology Sophistication	44
2.6 Insights and Recommendations.....	45
3 TRUSTS' Stakeholder Engagement Strategy (SES)	47
3.1 Approach.....	47
3.2 Synergetic Stakeholder Engagement by the TRUSTS Stakeholder Advisory Board (SAB)	48



3.3	Stakeholder engagement requirements to support work package delivery	48
3.3.1	Requirements elicitation and specification (WP 2).....	49
3.3.2	TRUSTS Platform implementation (WP 3)	50
3.3.3	Privacy preserving technologies (WP 4).....	50
3.3.4	Demonstration of the TRUSTS Platform in 3 business-oriented Use Cases (WP 5).....	51
3.3.5	Developing a Legal & Ethical Framework for TRUSTS (WP 6)	51
3.3.6	Developing a TRUSTS Business Model, Exploitation & Innovation Impact Assurance (WP 7) 51	
3.3.7	Dissemination, Communication & Community Building (WP 8).....	52
3.3.8	Overview of target audience per work package	53
3.4	Stakeholder Engagement Strategy based on TRUSTS' core objectives	54
3.4.1	Project Objective 1 (O1): Setting up a fully operational European Data Marketplace.....	55
	SES O1-1: Project use case support	55
3.4.2	Project Objective 2 (O2): Creation of a platform federation that allows the integration and adoption of current and future platforms	56
	SES O2-1: Involving Open Data Cloud Communities for targeting Data Cloud Interoperability.....	57
	SES O2-2: Attraction of early adopters for the validation of technical and business requirements for the federation.....	57
	SES O2-3: Creation of the Data market Interoperability framework (standardisation).	57
3.4.3	Project Objective 3 (O3): Developing the go-to-market approach to make it sustainable beyond the project finalization.....	58
	SES O3-1: Scale Up of project use cases	58
	SES O3-2: Enrichment of the pilot projects: bringing new use cases to the platform.....	59
	SES O3-3: Scaling the platform by promoting it to early adopters	59
	SES O3-4: Enlisting of a TRUSTS platform operator	60
4	Stakeholder Engagement Plan	64
4.1	Approach.....	64
4.2	Tactical stakeholder engagement.....	64
4.2.1	Requirement's elicitation and specification.....	64
4.2.2	TRUSTS Platform implementation	65
4.2.3	Privacy preserving technologies and business Model Consideration.....	66
4.2.4	Demonstration of the TRUSTS Platform in 3 business-oriented Use Cases.....	67
4.2.5	Developing a Legal & Ethical Framework for TRUSTS.....	68
4.2.6	Exploitation & Innovation Impact Assurance.....	69
4.2.7	TRUSTS Platform Users:	70
4.2.8	Infrastructure Providers	72
4.2.9	Early adopters	73
4.2.10	Primary Users	74



5	Conclusions and Next Actions.....	76
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List of Figures

Figure 1: Trusts platform users	20
Figure 2: Roles and interactions of different stakeholders in a data marketplace. Source: IDSA	22
Figure 3: Stakeholder engagement types	29
Figure 4: Stakeholder engagement project phase	29
Figure 5: TRUSTS Stakeholder Landscape (non-exhaustive)	30
Figure 6: Users from across sectors, and their data-driven needs	31
Figure 7: TRUSTS value proposition canvas	34
Figure 8: TRUSTS Stakeholder Strategy Building Blocks	47
Figure 9: Excerpt of the table, depicting the project's need in terms of stakeholder engagement	49
Figure 10: Stakeholder Engagement Requirements to Support TRUSTS Core Objectives	55



List of Tables

Table 1: Adherence to TRUSTS GA Deliverable & Tasks Descriptions	16
Table 2: TRUSTS Stakeholder categories	21
Table 3: TRUSTS Stakeholder Categories prioritisation	28
Table 4: Users groups and sub-groups by grouping criteria	32
Table 5: Users by activity: Primary Users.....	34
Table 6: Primary users: retail bank	36
Table 7: Primary users: forestry agency.....	36
Table 8: Primary users: SMB welding plant	37
Table 9: Primary users: Pan-European academic research project	37
Table 10: Users by activity: trading intermediaries	37
Table 11: Intermediary: External SMB data broker or internal data broker	38
Table 12: Intermediary: Federated open cloud system.....	38
Table 13: Intermediary: Federated industry-focused Data Market.....	39
Table 14: Users by activity: Data service providers	39
Table 15: Data service provider: Federated Data Service - 3rd party data work bench.....	40
Table 16: Data service provider: Data-driven solution provider	40
Table 17: Users by Activity: TRUSTS Operator and Infrastructure Providers	41
Table 18: Infrastructure provider: IT infrastructure provider (Cloud computing & storage)	42
Table 19: Infrastructure provider: Operator as a commercial entity	42
Table 20: Infrastructure provider: Operator as PPP/provider of “public infrastructure”	43
Table 21: Users by time of adoption.....	43
Table 22: Users by technology sophistication	44
Table 23: TRUSTS Stakeholder Advisory Board Members	48
Table 24: TRUSTS target audience per work package	53
Table 25: Summary of Stakeholder Engagement Strategies	61
Table 26: Requirement’s elicitation and specification.....	64
Table 27: TRUSTS platform implementation activities	65
Table 28: Privacy preserving technologies and business model implementation activities	66
Table 29: Demonstration of the TRUSTS platform in 3 use cases implementation activities	68
Table 30: Demonstration of the TRUSTS platform in 3 use cases implementation activities	68
Table 31: Exploitation and innovation impact implementation activities.....	69
Table 32: TRUSTS platform primary users and service providers implementation activities.....	71
Table 33: TRUSTS platform infrastructure providers implementation activities.....	72
Table 34: TRUSTS platform early adopter implementation activities	73
Table 35: Project use cases partners implementation activities	74
Table 36: Pilot project partners implementation activities	74
Table 37: Primary users implementation activities	74
Table 38: Engagement plans scientific community	75



Table 39: Summary of stakeholder's categories mapping 76



Glossary of terms and abbreviations used

Abbreviation / Term	Description
AIOTA	Alliance for Internet of Things Innovation
AML	Anti-money laundering
B2B	Business to Business
B2C	Business to Consumer
B2G	Business to Government
BDVA/DAIRO	Big Data Value Association
CC	Competence Center
CLAIRE	Confederation of Laboratories for Artificial intelligence Research in Europe
CSP	Cloud Solution Providers
DaaP	Data-as-a-Product
DCF	Discounted Cash Flow
DG CONNECT	Directorate-General for Communications Networks, Content and Technolog
DIH	Digital Innovation Hub
DIH (Telekom DIH)	Telekom Data Intelligence Hub
DIN	German Institute for Standardisation
DMA	Data Market Austria
DPA	Data Protection Authority
EC	European Commision
ECSO	European Cyber Security Organization
EDPB	European Data Protection Board
EDPS	European Data Protection Supervisor
EFFRA	European Factories of the Future Research Association
EOSC	European Open Science Cloud
EUCLIDIA	European Cloud Industrial Alliance
EUI	European Union Institutions
FFG	Forschungsfoerderungsgesellschaft / Austrian Research Promotion Agency
FS	Financial Services
GDPR	General Data Protection Regulation



HPC	High Performance Computing
ISO	International Organization for Standardisation
NPV	Net Present Value
OpCo	Operating Company
P2B	Platform to Business
SAB	Stakeholder Advisory Board
SEP	Stakeholder Engagement Plan
SES	Stakeholder Engagement Strategy
SME	Small Medium Enterprise
T	Task, also: work task. Sub-unit of a Work Package within the TRUSTS project
UC	Use Case
W3C	World Wide Web Consortium
WP	Work Package. Top-level grouping of work tasks within the TRUSTS project



Executive Summary

This deliverable describes the Stakeholder Engagement Strategy (SES) that has been tailored for the TRUSTS project in order to foster the community around TRUSTS and its results, elaborated within work package 7 (Developing a TRUSTS Business Model, Exploitation & Innovation Impact Assurance), as task T7.2. This report contains the analysis of the TRUSTS stakeholder landscape that has been conducted as the basis for the strategy, as well as a concrete stakeholder engagement plan (SEP) derived from the strategy that proposes specific activities to engage stakeholders at relevant times.

Therefore, the deliverable is structured as follows:

Starting with the identification and mapping of the relevant stakeholders for TRUSTS (Chapter 2) several user groups, organisations or individuals have been identified and then divided into the following five main stakeholder categories, that are described in detail regarding their characteristics and their potential value for TRUSTS (Chapter 2.2):

- TRUSTS platform user: Customers
- TRUSTS platform users: Technology/Infrastructure Operators and Providers
- Associations, Organizations & Initiatives
- Research & Academy
- EC & Policy-makers

Based on this, a structured prioritization of the stakeholder categories has been conducted (Chapter 2.3), considering the estimated effort that is needed to engage them as well as the potential impact of their engagement on the project's result. The prioritization clearly presents the high potential of TRUSTS platform users, as well in the form of future customers as in the form of TRUSTS technology and infrastructure providers, in particular. Consequently, those two types of TRUSTS Platform Customers have been picked up in the subsequent Chapter 2.5. They have been first detailed as project relevant user persona and analysed with regard to their impact on the projects' results. In general, the analysis showed that commercialization efforts pursued in TRUSTS' task T7.5 need to consider the dynamics between different users and that the data market should stimulate both supply and demand. A co-creation strategy with (potential) data market users from both sides can increase the success rate and lower investment requirements regarding the engagement effort. Chapter 2.6 also provides two examples of co-creation approaches, one supply-sided approach and one demand-sided approach.

The next part of this deliverable (Chapter 3) utilizes the results of the analysis above, by transferring them into suitable strategies for the TRUSTS Stakeholder Engagement. The approach (Chapter 3.1) takes thereby into account three sources in order to balance the direction of the strategy:

- A synergetic stakeholder engagement approach, released by the Stakeholder Advisory Board (SAB)
- Stakeholder engagement requirements needed to support work package delivery
- Stakeholder engagement requirements needed to achieve project core objectives

The synergetic approach of the Stakeholder Advisory Board (Chapter 3.2) aims at involving external, independent experts in the field of data markets and data sharing in order to foster a vibrant community around TRUSTS. Here, specifically, the project partners' network has been leveraged in order to find suitable candidates from companies such as Bitfound, Capgemini, German Research Center for Artificial Intelligence, Verto Analytics and will be consulted for advice on relevant issues. The list of persons will



be enriched during the project. The second direction the strategy heads at is the support of the work package delivery (Chapter 3.3). Here, the necessities coming directly from the specific project tasks to engage impactful stakeholders have been analyzed, summarized and taken into account within the formulation of the strategies. A list of the target audience coming from the work packages directly can be found in Table 24: TRUSTS target audience per work package. Another important anchor to elaborate the TRUSTS stakeholder engagement strategy is the overall core objectives of the project. For each objective, one or more suitable strategies have been formulated considering the most relevant stakeholders from the analysis above (Chapter 3.4):

1. **Objective 1 (O1):** Setting-up a fully operational European Data Marketplace, with a focus on data security, data sovereignty, and enabled data service interoperability.
 - Project use case support
2. **Objective 2 (O2):** Creation of a platform federation that allows the integration and adoption of current and future platforms.
 - Involving Open Data Cloud Communities
 - Attraction of early
 - Creation of the Data market Interoperability framework
3. **Objective 3 (O3):** Developing the go-to-market approach to make it sustainable beyond the project finalization.
 - Scale Up of project use cases
 - Enrichment of the pilot projects
 - Scaling the platform by promoting it to early adopters
 - Enlisting of a TRUSTS platform operator

Finally, the above stressed stakeholder strategies considering the stakeholders identified before, have been transferred to tangible actions in the form of a stakeholder engagement plan (SEP) that can be carried out by the TRUSTS project tasks and partners and is complementary to the outreach activities carried out by the project's communication team (WP8) (Chapter 4). These actionable recommendations aim at establishing a vibrant and sustainable community around TRUSTS and even beyond its lifetime and need to be implemented and realized as a next step.



1 Introduction

TRUSTS aims to exploit the potential of the European data economy and develop solutions along with the given requirements, needs and bottlenecks in place. This high-level objective can be specified in the following three objectives for the stakeholder's engagement:

1. Set-up a fully operational European Data Marketplace, with a focus on data security, data sovereignty, and enabled data service interoperability.
2. Creation of a platform federation that allows the integration and adoption of current and future platforms.
3. Developing the go-to-market approach to make it sustainable beyond the project finalization.

It is crucial to develop a good stakeholders engagement strategy that guarantees to attract key partners to achieve these objectives. So, the stakeholder's perspective is of great significance in terms of TRUSTS's development and sustainability.

The primary outcome of this deliverable is the Stakeholders Engagement Strategy (SES) and the Stakeholder Engagement Plan (SEP) that is implemented in the project and will be regularly updated during the project's execution. To define stakeholder's engagement strategy, we have followed a five-stage methodology:

1) Stakeholder identification and mapping. This stage implies the identification of user groups and user personas. Sub-chapter 2.2 identify and categorize the stakeholders of TRUSTS and finally mapping the stakeholders per category to provide a first comprehensive approach to who engage with this strategy. It is identified the project partners, companies and multipliers that can support us to engage with stakeholders in a more efficient way.

2) Stakeholder prioritisation. Based on the stakeholder's categorization, the different stakeholders' categories are analyzed, and they are prioritized based on effort, impact, or the project phase. Sub-chapter 3.3 explains the stakeholder's prioritisation.

3) Stakeholder analysis. A stakeholder's analysis has been performed under the business perspective to define the different user groups. In chapter 3.4, User Groups, users are grouped in a meaningful classification based on common characteristics that facilitate discussion of their characteristics and targeted stakeholder engagement activities during the project. The platform users have been defined by activity: the primary users, trading intermediaries, data service providers and TRUSTS operator and infrastructure providers, the user by time of adoption and the users' technology sophistication.

4) Stakeholder engagement needs. In this stage, the project work package and use cases needs have been assessed regarding stakeholder engagement. The results of these activities are explained in Sub-chapter 4.3 Stakeholder engagement requirements to support work package delivery.

5) Stakeholder engagement strategies. The stakeholder engagement strategy is based on TRUSTS' core objectives. The Stakeholders Engagement Plan is part of the stakeholder's engagement strategy; this plan identifies how the consortium members will engage stakeholders from the different categories and subcategories in outreach activities, e.g. workshops, trainings, webinars, so stakeholders can strengthen one another and join understanding, and approach is created.



1.1 Mapping Projects' Outputs

The purpose of this section is to map TRUSTS Grand Agreement commitments, both within the formal Deliverable and Task description, against the project's respective outputs and work performed.

Table 1: Adherence to TRUSTS GA Deliverable & Tasks Descriptions

TRUSTS GA Tasks description		Respective Document Chapter(s) Justification
T7.2 'Developing and structuring the platform engagement.' [M1-M36]	This task aims to reach out to various stakeholders (data providers, data consumers), data ecosystems and public initiatives (related EU proposals, competence centres, professional associations and technology platforms) to ensure the development of a sustainable platform.	<i>Chapter 2 Stakeholders identification and analysis. Sub-chapter 2.2 stakeholders of TRUST Sub-chapter 2.4 User Groups.</i>
	Stakeholder Analysis Matrix will be developed, maintained and regularly updated during the project. Stakeholder analysis generally takes place in five phases.	<i>Chapter 2 Stakeholders identification and analysis. Sub-chapter 2.3 stakeholders' mapping and prioritisation.</i>
	Based on our partners' network, a mapping of the various stakeholders will be drawn, first step towards a community engagement strategy (D7.3).	<i>Chapter 3 TRUSTS' stakeholder engagement strategy Sub-chapter 3.4 Stakeholder Engagement Strategy based on TRUSTS' core objectives.</i>
	A particular task in the work plan (T2.2) focuses solely on the coordination of the efforts, streamlining methods used, and collecting insights from all the WP that engage in stakeholder analysis.	<i>Chapter 3 TRUSTS' stakeholder engagement strategy Sub-chapter 3.3 Stakeholder engagement requirements to support work package delivery.</i>
	This task will invest deeply in solid stakeholder management and community engagement strategy shared by all partners.	<i>Chapter 3 TRUSTS' stakeholder engagement strategy Sub-chapter 3.4 Stakeholder Engagement Strategy based on TRUSTS' objectives</i>
	This strategy should define our activities to attract new stakeholders and connect with other initiatives.	<i>Chapter 4 Stakeholder Engagement Plan.</i>
	It will be linked and prepared closely with Engagement and outreach activities in WP8 (T8.2).	<i>Chapter 4 Stakeholder Engagement Plan Sub-chapter 4.2 Tactical stakeholder engagement.</i>



Stakeholder Advisory Board (SAB),	The leaders of WP1 (Project management) and WP8 (Dissemination, Communication, and Community Building) will collaborate with and establish an external and independent Stakeholder Advisory Board (SAB).	<i>Chapter 3 TRUSTS' stakeholder engagement strategy Sub-chapter 3.2 Synergetic Stakeholder Engagement by the TRUSTS Stakeholder Advisory Board (SAB).</i>
T3.3 Data marketplaces interoperability solutions	The interoperability solution for TRUSTS will be designed in this task. This means the definition of interfaces to ensure interoperability with other industrial data marketplaces. In addition, interoperability solutions with the European Open Science Cloud (EOSC) will be evaluated and implemented where possible.	<i>Chapter 3 TRUSTS' stakeholder engagement strategy Sub-chapter 3.4 Stakeholder Engagement Strategy based on TRUSTS' core objectives Identify various data market platforms that can contribute to interoperability solutions.</i>
T8.1 Development of TRUSTS Dissemination and communication	The stakeholder engagement tools and strategy will be identified in close collaboration with the stakeholder analysis activities and the T8.1	<i>Chapter 2 Stakeholders identification and analysis. Sub-chapter 2.2 stakeholders of TRUSTS and Chapter 4 Stakeholder Engagement Plan.</i>
T7.1 Sustainable business models	<i>This task aims to select a viable, feasible and sustainable business model for the data marketplace platform developed in the project.</i>	<i>Chapter 2 Stakeholders identification and analysis. Sub-chapter 2.2 stakeholders of TRUST Sub-chapter 2.4 User Groups and Sub-chapter 3.4 Stakeholder Engagement Strategy.</i>
T7.4 Standardisation uptake and recommendations	<i>We will provide recommendations targeting major standardisation bodies, based on our research.</i>	<i>Chapter 2 Stakeholders identification and analysis. Sub-chapter 2.2 stakeholders of TRUSTS. Sub-chapter 3.4 Stakeholder Engagement Strategy.</i>
T7.5 Commercialization initiatives and action plan	TRUSTS Professional Partners Community will be created, to ensure sustainability and financial viability after the end of the project.	<i>Chapter 3 TRUSTS' stakeholder engagement strategy and Stakeholder Engagement Plan.</i>
TRUSTS Deliverable		
<p><i>D7.3 Communities engagement strategy</i></p> <p><i>This report describes our strategy to widen the community around the platform and how to attract new stakeholders during the project and beyond its life time. It includes the presentation of a set of KPIs supporting the stakeholders acquisition process.</i></p>		



1.2 Deliverable Overview and Report Structure

This section provides a description of the deliverable's structure, outlining the respective chapters and their content. It also includes a linkage to other project outputs (and reference to specific deliverables), and summarize their respective contribution to deliverable 7.3.

For a successful implementation of the project's goals, it is not only important to ensure precise technical performance. It is at least as important to release the TRUSTS platform and federation into an environment of stakeholders that receive it in eager anticipation. Only if the future users and operators accept the product can it continue to exist on the market after the end of the project. Therefore, it is important to involve, activate and create a desire among the relevant stakeholders in the development process. To create a suitable strategy for this endeavour, we have applied the following approach:

We started with a holistic analysis of TRUSTS's stakeholders by providing a more general overview of the landscape of the stakeholders (Chapter 2), stressing general characteristics as well as features and grouping them into suitable categories (Chapter 2.2) and provided indications for a prioritisation (Chapter 2.3). We then went deeper into the stakeholders' properties by defining and describing specific personas that we need to address with our stakeholder engagement strategy (Chapter 2.5). Here, we analyzed especially the challenges those personas face, their major pain points and what they would gain from the TRUSTS platform, which we summarized in recommendations in Chapter 2.6.

With these insights, we then started to craft a Stakeholder Engagement Strategy (SES) (Chapter 3) that is focusing mainly on the most relevant and robust stakeholders directly (as assessed in Chapter 2.4). The strategy thereby is derived from the direct needs of the project, based on requirements to support work the package delivery (Chapter 3.3) and the project's needs to achieve the overall goal and that are not mentioned in the tasks directly (Chapter 3.4). The strategy provides then indications, whom to involve in which phase of the project and why to achieve a specific goal.

In a next step we build on this strategy to prepare the Stakeholder Engagement Plan (SEP) (Chapter 4), where we turn from an advisory perspective on the stakeholder engagement to a more applicable view providing specific instructions on how to engage whom, at what point of time by which work package, task, or partner. This plan is meant to be carried out together with the project's communication work package (WP 8).

In summary, the content of each chapter is:

Chapter 1. Introduction to the activities developed and the stakeholder's engagement approach. This chapter provides an overview of the holistic analysis of TRUSTS's stakeholders realized in the T7.2.

Chapter 2. Stakeholder Identification and Analysis. This chapter provides a general overview of the landscape of stakeholders in TRUSTS project: identify the stakeholders per categories and then we realized the stakeholders' mapping and prioritisation. The User Groups and data market user personas provide the perspective of business platform users. This chapter finalizes with insights and recommendations.

Chapter 3. TRUSTS' Stakeholder Engagement Strategy (SES). To define the strategy, first we analysis the needs from the different project work packages (Sub-chapter 4.3 Stakeholder engagement requirements



to support work package delivery). Based on these needs and the TRUSTS core objectives, we define the strategic actions per objective, 8 in total, that we explain in sub-chapter 4.4. Stakeholder Engagement Strategy based on TRUSTS' core objectives. These strategic objectives are the basis for the implementation plan

Chapter 4. Stakeholder Engagement Plan (SEP). This chapter defines the interactions with stakeholders and proposes inputs for the different WP and Tasks to develop its activities with the support of stakeholders.

Chapter 5. Conclusions and Next Actions. This chapter provides the main findings and guidelines for implementing the stakeholder engagement plan.

2 Stakeholder Identification and Analysis

2.1 Approach

A comprehensive stakeholder engagement targets to utilize context-specific interactions with entities from relevant stakeholder groups to benefit the TRUSTS project and its sustained operations beyond the project. To this end, stakeholder identification and analysis is required.

Stakeholder identification and analysis in support for business modelling and commercialization efforts can be grouped into three phases...

1. Stakeholders' identification,
2. Stakeholder's mapping/grouping,
3. Framing of issues and interests, and utility

... and ultimately, should inform the following questions:

- Why do we engage this entity? What is the purpose or the expected outcome of the involvement and the benefit of the TRUSTS project?
- How do we want to engage the entity?
- What is the value proposition for the involved entity?

The identification of stakeholders casts a wide net, also touching on entities with non-commercial and indirect interactions with the market platform and its ecosystem. This will, for example, provide foresight into emerging regulations, longer-term guide initiatives such as participation in standardisation initiatives, or will allow tapping into concurrent initiatives and networks to solicit collaborative and competitive activities development.

For shorter-term commercial purposes, however, a narrower focus on the actual platform users is important to ascertain a match of platform value creation with their needs in such a way that value capture by the future platform operator can be achieved at sustainable growth and profit.



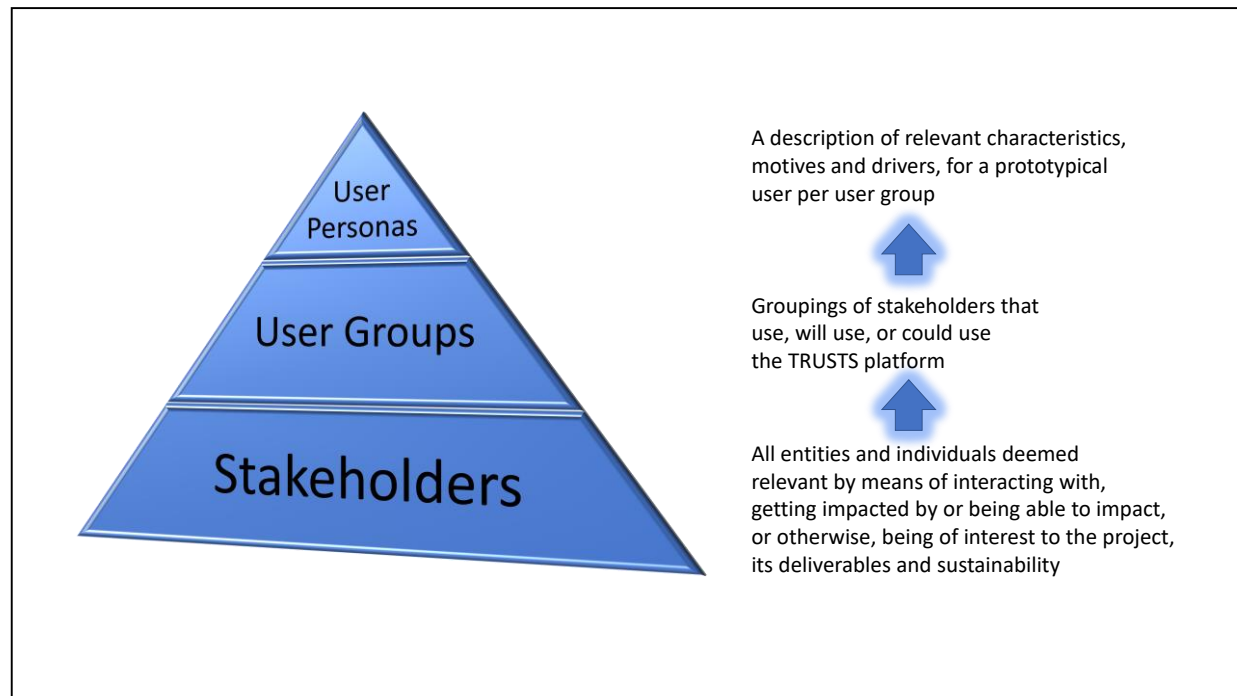


Figure 1: Trusts platform users

2.2 TRUSTS Stakeholder Identification and Mapping

As a starting point for developing an effective Stakeholder Engagement Strategy (SES) and Stakeholder Engagement Plan (SEP), relevant stakeholder groups needed to be identified and categorized first to get a comprehensive overview of whom TRUSTS should approach and with which intent. For this purpose, an investigation of the direct and indirect environment of the TRUSTS project was carried out with the aim to create an understanding of the stakeholder landscape. The results of the mapping were then divided into appropriate categories, which will be described in more detail in the latter part of this chapter (from Chapter 2.2.1) about general characteristics and their relevance for the TRUSTS stakeholder engagement activities.

For the analysis, work has been done by considering the inside of the project and moving then to the outside, listing the relevant stakeholders that were identified during the way. As a source for this, especially the IDSA internal database has been used, the participants-list of the webinars already carried out within the TRUSTS project and it has collaborated with task 2.1, the analysis of the EU and worldwide data market (list of data markets and relevant initiatives, etc.).

First, a listing of the already internally available stakeholders took place, which was: The project sponsor (European Commission), all partners of the project consortium and the use case partners (**In-project stakeholders**).

Outwardly moving, the following **targeted platform users** have been identified: The primary users (those who sell or buy data and/or datasets), Trading Intermediaries (those who facilitate selling and buying or access), data service providers (those who help to enrich) and infrastructure providers, necessary to operate the TRUSTS platform after the project duration.



As the last step for identifying relevant stakeholders, **the direct market environment** has been scanned, which led to the following list: Industry associations, standardisation bodies, Policy-makers, concurrent initiatives and projects, incubators and competitors.

The individual stakeholder groups identified were then divided into meaningful categories of stakeholders that need to be considered when it comes to effective stakeholder engagement and can be found in the following Table 2:

Table 2: TRUSTS Stakeholder categories

Stakeholder categories
1. TRUSTS Platform Users: Customers
2. TRUSTS Platform Users: Technology/Infrastructure Operators and Providers
3. Associations, Organisations & Initiatives
4. Research & Academy
5. EC & Policy-makers

The following sub-chapters will provide information on the categories of stakeholders, describing their general characteristics and their potential relevance for TRUSTS.

Since the TRUSTS platform users are the leading target group when it comes to the commercial uptake of the platform, a detailed analysis is provided in Chapter 2.5.

2.2.1 TRUSTS Platform Users: Customers

Users of TRUSTS are discussed in more detail in the subsequent section (Chapter 2.5). Therefore, only a general overview of the prototypical platform customers will be provided here.

The TRUSTS data market will act as an intermediary that connects market participants via the federated platform and simplifies their interactions. The data platform will link several users groups via the marketplace enabling efficient interactions through standardised interfaces and services. As mentioned above, the different data marketplace user-groups will be detailed in chapter 2.5, in addition to the primary users (data providers and data consumers), the trading intermediaries play an important role in a neutral data marketplace enabling the interactions between the supply side and the demand side and allowing the interoperability between data marketplaces.

Starting point for a discussion of data market customers can be the IDSA definition of generic roles and interaction in data spaces, as provided in **Fehler! Verweisquelle konnte nicht gefunden werden..**



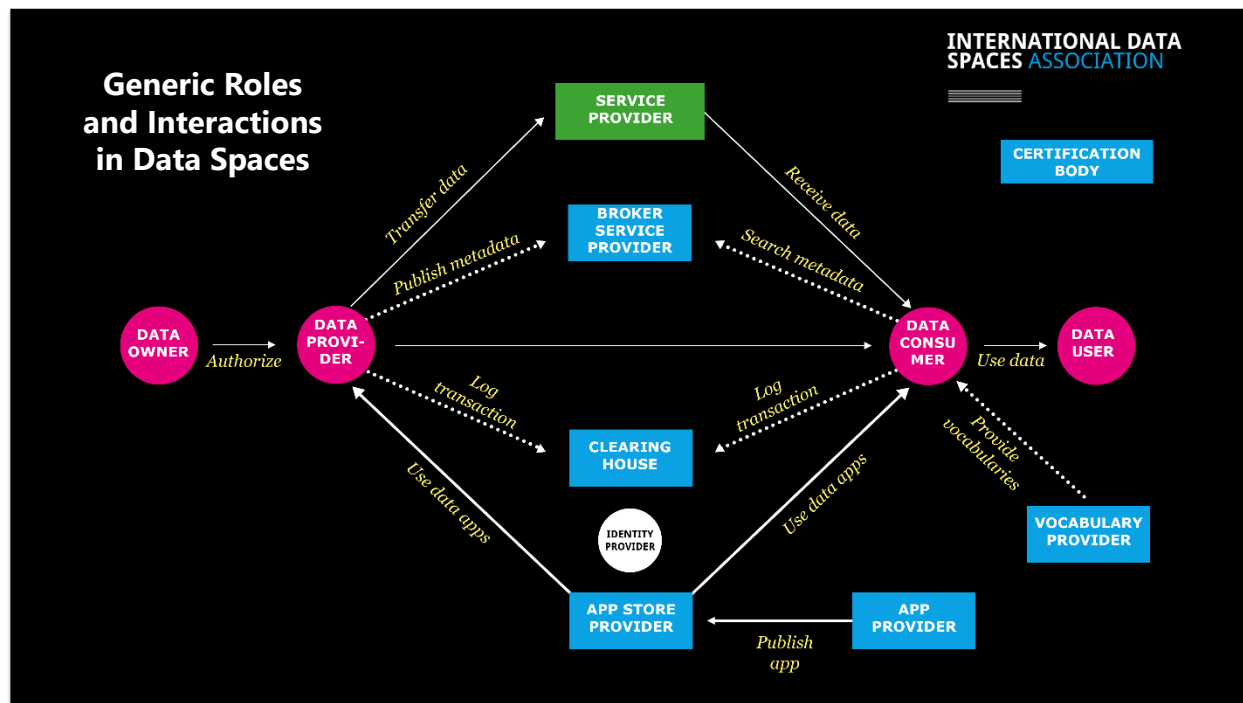


Figure 2: Roles and interactions of different stakeholders in a data marketplace. Source: IDSA

A data marketplace extends the architecture of data spaces by not only enabling data sharing but rather data trading, putting a focus on the commercial transactions between the four main Platform Customers groups:

- Data asset sellers (also: owners, providers, or holders)
- Data asset buyers (also: consumers, users)
- Data service providers
- Intermediaries

All four customer groups should provide requirements for the platform development and validate the platform implementation. With regard to the TRUSTS use case industries, especially financial and telecom industries, should therefore be addressed to validate the platform implementation and data marketplace in order to contribute to a market-oriented implementation of the TRUSTS platform.

Data asset sellers provide data assets (data sets or apps) for sale to the platform. Mostly, the data provider is identical with the data owner, but there are also exceptions like for instance, if the data is technically managed by a different entity than the Data Owner (as in the case of a company using an external IT service provider for data management, or if data management activities are handed over to a data trustee).

Data asset buyers are entities that leverage the platform to solve a specific use case or data related issue (e.g., find a dataset that could be used for a specific algorithm/service). They can be described as data consumers or data users, whereby the two roles are mostly identical since the Data Consumer is the entity receiving data from the Data Provider and the Data User is the legal entity that has the legal right to use the data. As an example, a case from the health sector can be used: a patient could use a web-based software system to manage his or her personal health data. The software system grants access to the data to a health coach, which will then be able to be received by a hospital. Here, the health coach would



represent the Data User, and the provider of the web-based software system would be the Data Consumer².

Data service providers provide services that run on the infrastructure of the service providers. These encompass, e.g., data analysis, visualisation, data service intermediation, data integration, data cleaning, or semantic enrichment.

Also, **intermediaries** are considered as potential customers that can contribute to the success of the project, and at the same time, they can be customers of TRUSTS platform interoperability services. For the TRUSTS platform, we identified three main intermediaries based on their role to enable the data sharing between data provider and data buyer:

- **The data broker**, enabling the connection between data providers and data users providing the technical infrastructure. This role is described in the TRUSTS deliverable D7.4 "IPR and Data Stewardship, M18 interim Report" in more detail.
- **Federated data marketplaces** allow the interoperability between data marketplaces; TRUSTS platform should act as a central hub providing interoperability solutions and standardisation recommendations for data markets federation.
- **Federated open data cloud systems**, providing cloud infrastructure, services and resources to the open science community.

Further, the ecosystems of the two initiatives already involved in the project, IDSA and DIO (the Austrian Data Intelligence Offensive with more than 150 member organisations arising from the DMA project), should be considered as potential first Trusts platform users beyond the partners participating in the project. Additional potential users of the TRUSTS federator may be already existing data marketplaces and their ecosystems, for instance, the Data Intelligence Hub (DIH) of Deutsche Telekom and the ADVANEO data marketplace. The Telekom DIH functions as a neutral intermediary between data provider and data consumers while considering aspects of data sovereignty through decentralised data storage. The ADVANEO data marketplace provides state-of-the-art technologies for data management, a platform for data monetisation (data marketplace) and high-performance solutions for multi-party computation and data analysis (Trusted data hub). Here, relevant potential TRUSTS users may be found.

Data platform customers will change during the execution of the project and beyond the project finalisation. First customers will be the project use case partners (eBOS, FORTHNET S.A. (NOVA), InbestMe, PIRAEUS BANK SA, FORTH, Alpha Bank and RELATIONAL RO) and data solution providers, federated data service providers, suppliers of complementary data products and services, end users and intermediaries such as data brokers, federated data marketplace and federated open cloud system.

Based on the project use cases, we have identified the following potential data platform customers:

- Financial and Telco companies. We can identify candidates between IDSA, DIO and GAIA-X communities, direct contacts from consortium partners and participants on TRUSTS open activities. These stakeholders are close to our partners and are easy to identify and involve in the project
- Service providers: we can approach IDSA, DIO and GAIA-X communities to help in identification and reach-out to stakeholder that can provide services to the TRUSTS platform.
- Other end users (not covered by TRUSTS use cases). We will approach the GAIA-X community and use cases to collaborate and find interested partners on the platform. Other

² See IDSA Reference Architecture Version 3.0: <https://internationaldataspaces.org/download/16630/>



communities that are close to our partners are [Catena-X](#), the automotive network or iSHARE in logistics.

SMEs and start-ups can take advantage of TRUSTS platform to develop new data-base services. We can approach these stakeholders through accelerators programs such as [DMS Accelerator](#) or EU-Start-ups.com, which reaches an audience of more than 300,000 start-up-interested and tech-savvy people from across Europe.

2.2.2 TRUSTS Platform Users: Technology and Infrastructure Operators and Providers

Technology and infrastructure providers are technical enablers, businesses specialised in applications and dedicated explicitly to enable data sharing through a technical solution (*hardware, software and networking*). Their revenues are predominantly obtained from setting up, using, and/or maintaining the technical implementation of the data marketplace or federation, not from the data exchanged. The data marketplace owner (or platform operator) provides the infrastructure to facilitate the data sharing and exchange in the marketplace, collects, hosts, and publishes the metadata from data providers. The data market owner operates the IT infrastructure but does not necessarily provide its own infrastructure and services; the company that operates the data marketplace can provide third party infrastructure and services to data market users. The platform operator and Infrastructure providers are explained in more detail in chapter 2.2.2.

Organisations with such a profile should be addressed in order to operate the TRUSTS data market and may be found within the IDSA and DIO networks, but also in the GAIA-X community. In addition to this, a new European Cloud Alliance composed of 23 European cloud providers has been identified as a potential stakeholder due to its network: The [European Cloud Industrial Alliance](#) (EUCLIDIA). Its founding members are software and hardware providers of a wide range of cloud services such as IaaS, PaaS, SaaS, edge or vRAN between other services.

Another relevant organisation could be [Digital Europe](#), whose members include more than 35.000 businesses across the entire ICT value chain and digital transformation industries.

2.2.3 Associations, Organisations and Initiatives

Associations, initiatives, and other relevant active organisations should be leveraged as door-openers to attract stakeholders from the market environment. For instance, industrial and trade associations, grouping many businesses from a specific industry to support and protect their interests, can increase political influence and keep creating a TRUSTS network.

On the other side, research associations (many industries are also part of research associations) promote strategies and new, innovative technologies in their domain. Furthermore, the research associations promote pre-competitive research and are influencing European Research Area and are therefore also of great interest for the TRUSTS stakeholder activities.

TRUSTS partners are members of research associations such as [BDVA-DAIRO](#), [ECSO](#), [EOSC](#), [FIWARE](#), [AIOTI](#), [EFFRA](#), [CLAIRE](#) or GAIA-X AISBL. In accordance with the effort, these associations should be approached and engaged with several activities such as workshops, webinars and articles in newsletters to engage in the end with potential platform customers. One of the first associations to engage in was the European Open Science Cloud (EOSC); the founding members are GÉANT, CESAER, CSIC and GARR. This association contributes to funding the establishment of EU-wide common, interoperable data spaces and will



continue to make data resulting from research projects available. EOSC facilitate discovery, sharing of, access to and reuse of data and services, so we can collaborate with them to define a platform interoperability interface. Another interesting organisation is [Digital Europe](#), whose members include more than 35.000 businesses across the full ICT value chain. It comprises 87 corporate members among the world's largest IT, telecom and consumer electronics companies in Europe.

Furthermore, Digital Europe has 38 national trade associations in 28 European countries. Despite Digital Europe is a huge organisation with thousands of companies, we don't have direct contact with them, so starting a bid could be time-consuming. We propose to approach them at the end of the project with a commercial value proposition well defined.

Several initiatives involve many stakeholders in sharing and selling data and data services in Business, Government, and Science. The most prominent initiatives under Europe that can shape the Data Economy are:

- International Data Spaces Association [B2B]
- Data Intelligence Offensive Network [B2B]
- Multiple national open data portals (e.g. data.gv.at)
- EU Open Data Portal [G2B, G2S]
- European Open Science Cloud (EOSC) [S2S, S2B]
- Access to private sector data for public interest purposes [B2G]
- Legislation on the re-use of public sector information [G2B]
- MyData [B2C]

Furthermore, Digital Innovation Hubs, which are one-stop-shops that help companies become more competitive using digital technologies, are interested in creating a TRUSTS network. A DIH is mainly based on technology infrastructure supporting SMEs and start-ups. DIHs and Competence Centers (CCs) provide access to the latest knowledge, expertise and technology to support their customers with piloting, testing and experimenting with digital innovations and can therefore function as an effective multiplier for TRUSTS. DIH and CCs will allow us to reach SMES and start-ups, since SMEs and start-ups are playing a key role in developing and growing disruptive new business models that fully take advantage of the data revolution. With the support of DIH and CCs, TRUSTS should offer services and activities for SMEs and start-ups that develop products and services based on data-driven innovation as an essential factor of production.

2.2.4 Research & Academy

TRUSTS stakeholders are also to be found in the field of research and academy. For instance, several research's projects in the field of data marketplaces are already existing, as for instance, KRAKEN (Atos), i3-MARKET(NUI), DataVaults (Fraunhofer Society), [DataPorts](#) (ITI), Musketeer (IBM), Safe-DEED (KNOW-CENTER GMBH), WITDOM (Atos) and other industrial data platforms, such as Market4.0 (Intrasoft). TRUSTS should collaborate with research projects, on the one hand, to scale up the projects' potential. On the other hand, TRUSTS could support projects that support DIH and Start-up such as EUHubs4Data (ITI), i4Trust (FIWARE), AI Regio (POLIMI), or REACH (CEA) to widen its range and reach DIHs as well as start-ups.

Also, a collaboration with the BDVA/DAIRO working groups could be beneficial for establishing the TRUSTS community. Those develop divers' activities around Data Sharing/Data Spaces and Interoperability to



propose creating a family of standards. The [StandICT project](#) monitors the global standardisation landscape and facilitates the participation of projects in standardisation activities.

Additionally, TRUSTS research in the field standards regarding interoperability makes standardisation bodies to a target group relevant for the TRUSTS community. The results of the TRUSTS standardisation efforts that are planned to be presented to standardisation bodies (such as ISO, W3C or DIN) in the form of recommendations can leave a lasting impression on them to widen the community around TRUSTS.

2.2.5 EC & Policy-makers

Policy-makers in the European Union (EU) takes place across four EU institutions: the European Commission, the European Parliament, the Council and the European Court of Justice. In this group, we include public bodies at the national and European level, such as regulators, policymakers and national contacts. The TRUSTS project is an initiative financed by the European Commission so that the EC will remain one of the most critical stakeholders of the project. It is crucial to define a high-level engagement with regular meetings and presentations at TRUSTS events to ensure good communication.

TRUSTS D6.2 'Legal and ethical requirements' provides insights into the privacy and data protection legal framework supporting the data sharing compliance with the EU rules. From the privacy and data protection legal framework, the relevant future regulations of data related to TRUSTS projects are:

- 'Free flow data' regulation
- Regulation of data as an economic asset
- Law applicable to online platforms, including the Platform to Business Regulation ('P2B Regulation')
- Economic regulation of financial law applies to data transactions.

We can identify three organisations that contribute to European Data protection, advise the European Commission, the European Parliament and the Council, monitor and assess technological developments and cooperate with national authorities (DPAs).

The European Data Protection Board ('EDPB') is an independent European body, contributing to the consistent data protection rules throughout the European Union. It promotes cooperation between the EU's data protection authorities. The EDPB was established by the General Data Protection Regulation (GDPR) and was based in Brussels. The European Data Protection Supervisor (EDPS) is an independent supervisory authority with several responsibilities within its mission: 1. Monitoring the processing of personal data by the EU institutions, bodies, offices and agencies (EUIs). 2. Advising on policies and legislation that affect privacy. And 3. Cooperating with similar authorities to ensure consistent data protection.

The EC has launched the [EU Observatory for the Online Platform Economy](#), which informs the policy work of the Commission by providing independent views on some of the key questions that have arisen in connection to the platform economy. For this purpose, the Commission appointed [15 high-profile experts](#) from Feb 2021 to Jan 2023.



2.3 Stakeholder Prioritisation

This chapter explains the descriptions and indications of the categories' prioritisation by using two approaches:

- Prioritisation by analysing the categories' effort to engage them and their potential impact.
- Prioritisation by project-time line.

During the prioritisation, additional details about the stakeholders and companies to engage are provided. Finally, we analyse the stakeholders to prioritise them according to resource efficiency, impact, and time. The TRUSTS stakeholder landscape will be part of the stakeholders mapping exercise.

Based on the stakeholder identification and mapping and exercise developed in the chapter before (Chapter 3.2), several groups of Stakeholders have been defined: TRUSTS platform users and customers, technology and infrastructure providers, associations/organisations and initiatives, research and academy and EC & Policy-makers. According to the individual characteristics of the stakeholder groups described above, the stakeholder's engagement plan should choose different levels of intensity and different approaches to engage them. It is of value to select specific approaches for each stakeholder group for ongoing consultation and collaboration because being strategic and clear about whom to engage with — and why — can help save both time and money.

A crucial element to establish a community around the TRUSTS project successfully is a sustainable and efficient strategy for the identification of relevant stakeholders, based on several factors, as for instance:

- Suitable **policies** to approach them
- The **effort** to reach a stakeholder or company and
- The **impact** that we can achieve with these stakeholders

Analysing these factors will lead to a prioritisation of the stakeholders as a preparation for the Stakeholder Engagement Plan (Chapter 4). The effort criteria will consider using the project resource (estimated in personal effort and cost) to engage with stakeholders. So, if companies or stakeholders are already members of the TRUSTS project, the effort needed is low (effort*); the same happens if a project partner has direct contact with the stakeholder that is interesting for the project. Some situations require low effort, for example, stakeholders that are already interested in the TRUSTS platform, research projects that want to collaborate with other projects such as TRUSTS, or the usage of TRUSTS dissemination channels and tools. On the other hand, it requires significant effort to interact with associations or companies that are not directly connected to TRUSTS yet, e.g. commercial companies that are not interested in participating in research projects.

The other criterion to prioritize the stakeholder's category is the impact that the engagement of these stakeholders will have on the project. The impact can be high if the company or stakeholder supports to achieve the project's objectives such as validation, implementation or supporting the platform interoperability. Also, the impact can be high if the stakeholder category supports the project's sustainability beyond the project finalisation. On the other hand, the impact is low if it is achieved in the long term, such as regulations or standardisation activities.

The stakeholder prioritisation is based on effort and impact.

1. **Trusts Platform Users: Customers.** It is a huge category having a high impact because in the end they are the customers of TRUSTS platform and will assure the project's sustainability beyond its finalisation. In addition, this group will validate the platform commercialisation and scalability. At the same time, this group is easy to access through TRUSTS members.



2. **Trusts Platform Users: Technology / Infrastructure operators and providers.** This stakeholder category has a major impact on the project as the platform operator should be found between them. The effort to approach and engage them is estimated as high due to their predominantly commercial nature.
3. **Associations/organisations and initiatives.** As associations and initiatives act as multipliers they allow access to many stakeholders, such as GAIA-X, with more than 250 members. They do not have a direct impact on the project unless they are standardisation bodies, but the impact is in general low.
4. **Research and Academy.** It is easy to engage with research projects and research organisations, but the impact of the collaboration is lower than if we interact with stakeholders that can support TRUSTS in the scale-up and commercialisation of the platform. In this case, a high impact can be achieved with a research data marketplace that supports the TRUSTS project to define the data marketplace interoperability.
5. **EU and Policy Makers.** The European Commission is a key stakeholder, easy to engage and has a high impact. The regulators and policy makers are accessible but not easy to engage, and the impact is achieved in the long term, so this category does not have a high priority.

Table 3 below summarizes the TRUSTS stakeholder prioritisation based on the effort and impact.

Table 3: TRUSTS Stakeholder Categories prioritisation

Stakeholders' categories	Effort	Impact
TRUSTS Platform Users: Customers	*	***
TRUSTS Platform Users: Technology and infrastructure providers	***	***
Associations/Organisations and initiatives	*	**
Research and Academy	*	**
EC & Policy-makers	**	*

Effort: * Little effort *** A lot of effort

Impact: *Little impact *** Big impact

The effort to engage with stakeholders depends on the accessibility we have to the companies or if some partner already has a good relationship. So, the approach that we propose to engage with stakeholders is a mix of several concrete activities (see the figure 3):

- Direct contact from the project' partners, we will access stakeholders throughout the project' partners networks such as IDSA community or DIO network.
- Multipliers are associations and research projects that allow us to reach many key players that are part of its community.
- Key trusts actions. In collaboration with WP8 we will define strategic actions to engage and retain stakeholders.



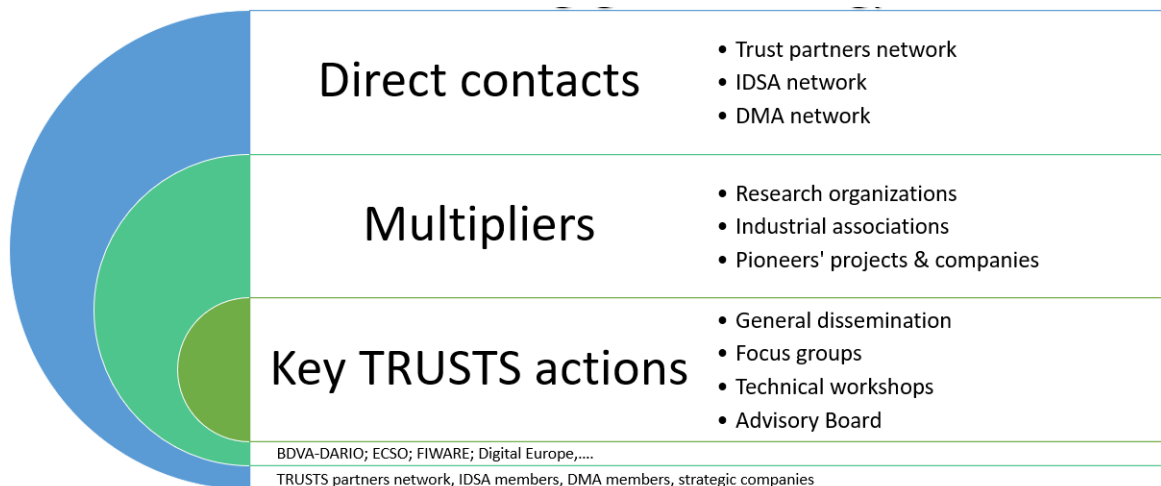


Figure 3: Stakeholder engagement types

The Stakeholder prioritisation is based on the project's timeline.

We can summarise the project's timeline in three phases related to project stakeholders' involvement:

- Phase 1. Industrial requirements and use case definition
We need to engage with **TRUST platform users** during all project execution because they are the main contributors to the platform requirements identification, the pilot use case definition and platform validation.
- Phase 2. Data marketplace interoperability solutions. Platform validation and scalability.
During the second half of the project, we will engage with **associations/organisations and initiatives** that allow us to engage with data marketplace and companies to support us on the platform interoperability and the platform scalability demonstration.
- Phase 3. Implementation plan and early adopters' engagement.
At the final phase of the project, we will need to engage with **technology and infrastructure** providers who will be early adopters of the platform.

Throughout the project duration, we will carry out activities to engage with **EC & Policy-makers** and **research and academy**, research project, organisations and standardisation bodies.

Figure 4 shows the engagement phase for each stakeholder category.

Stakeholders' categories	Phase 1 (M1-M18)	Phase 2 (M19-M30)	Phase 3 (M31-M36)
TRUSTS platform users: customers			
TRUSTS platform users: Technology and infrastructure providers			
Associations/Organizations and initiatives			
Research and Academy			
EC & Policy Makers			

Figure 4: Stakeholder engagement project phase



2.4 TRUSTS Stakeholder Landscape

Based on the stakeholder categorization (Chapter 2), an overview of the different categories has been created, depicting already identified relevant representatives of each category. The landscape (see Figure 5) will be maintained and updated regularly during the project in order to provide an overview on the different stakeholders.



Figure 5: TRUSTS Stakeholder Landscape (non-exhaustive)

2.5 Detailing of TRUSTS Platform Users

2.5.1 A data market for users from across sectors

Data (Rights) asset holders, service providers and data users belong predominantly to the 4 principal sectors Civil Society, Private Sector, Public Sector, and the Science & Research Community (see Figure 6).

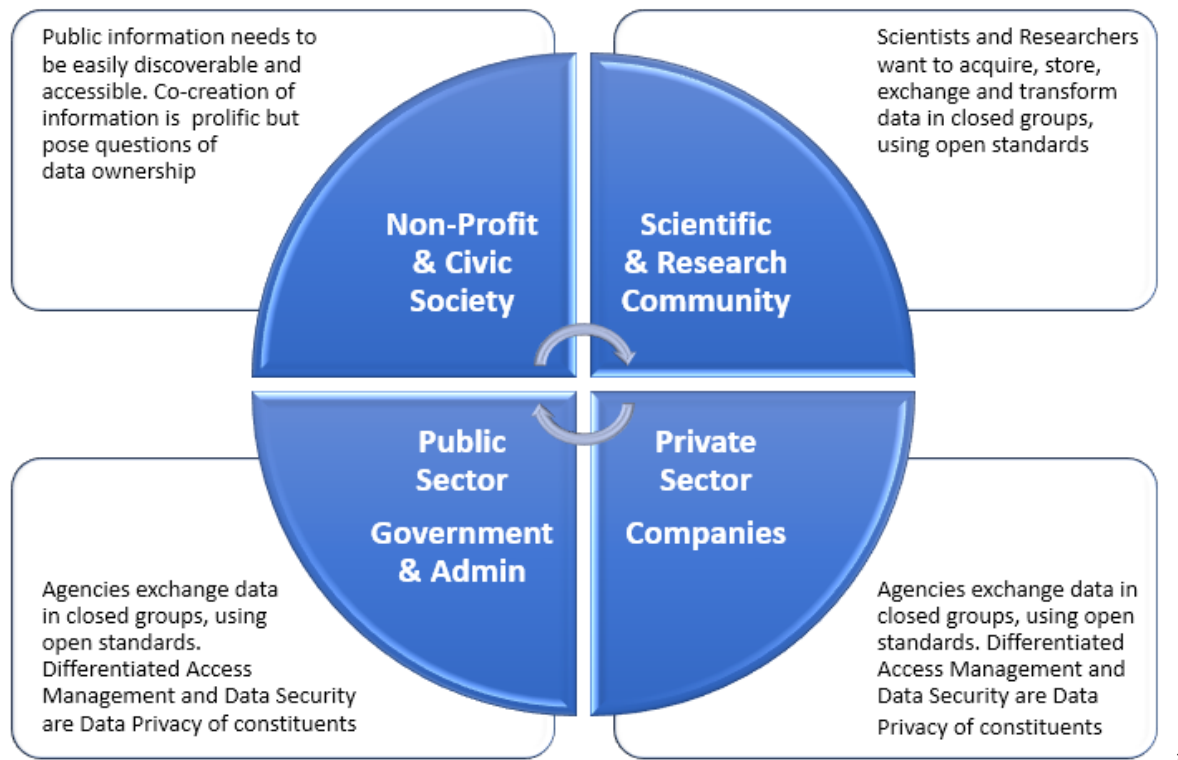
Data Owners and Data and Services Users increasingly face the need to create, share and extract value from data. Data Owners seek data publication and / or data monetization opportunities. Data Users seek data, data services and data solutions as input to their data-use-cases or data-driven problem solutions.

However, reality in most organisations weak Data Governance and Data Stewardship effect:



1. Incomplete visibility of internally data stocks & streams, as well as data & meta-data quality
2. Lacking awareness of potential for additional value creation internal and external data use cases utilizing internal data stocks & streams
3. Lacking capabilities to actively optimize value creation & extraction

Requirements towards Data Visibility, Data Security, and Data Sovereignty vary strongly by Sector and Use Case. TRUSTS needs to accommodate this landscape of heterogeneous requirements of data transactions inside or across Sectors when providing access to its managed ecosystem of data products, services, trading.



3

Figure 6: Users from across sectors, and their data-driven needs

Next to sector-specific use cases, application of data sharing and data trading technology is promoted to also create overarching societal and economic benefits:

- Support for data-driven research and innovation
- Better products and services
- Job creation
- Increased economic competitiveness
- Support for sustainability goals
- Protection of privacy

³ Users from across sectors, and their data-driven needs (illustrative)



Focus Group interviews of the preceding DMA project⁴, and findings from the TRUSTS World Café workshop(s) revealed general requirements for more of a comprehensive data market solution rather than for a trading platform:

- Simple, cost-efficient avenues to exchange or trade data
- Versatile and easily configurable technology, reducing own overhead
- Secure data environment
- Support in preparing and executing of data trading

Given the in-project use-case centric development of TRUSTS, focusing on data sovereignty, security and federation, whereas future users can be assumed to originate from all 4 sectors, TRUSTS will most likely predominantly attract users from the private sector. This is amplified by the architecture of TRUSTS, whereby a portal node will make data assets available for trade to all audiences but the full breadth of advanced functionalities can only be accessed via the corporate node requiring on-premise installation by users.

The aforementioned users shall be referred to as “Primary Users” of the data market: those entities trading their data assets on the platform. However, a multitude of additional user groups forms the enveloping data ecosystem of TRUSTS. The TRUSTS platform provides the venue for facilitated interactions and offering provision between the TRUSTS operator, primary users, 3rd parties.

For the subsequent section, users are grouped at meaningful granularity based on common characteristics that facilitate discussion of their characteristics and targeted stakeholder engagement activities during the project (see Table 4).

Table 4: Users groups and sub-groups by grouping criteria

Grouping Criteria	User Group	Sub-Group
Activity	Primary Users	Data asset sellers
		Data asset buyers
	Trading Intermediaries	Data brokers
		Federated open cloud systems
		Federated data markets
	Data Service Providers	Federated data service providers
		Data-driven solution providers
	Infrastructure Providers	TRUSTS operator
		Computing infrastructure providers
Time of adoption	Early adopters	Project use-case partners
		Pilot project partners
		Post-launch early adopters
	Followers and mainstream users	Followers and mainstream users
	High	Corporates

⁴ Data Market Austria (DMA) project, 2017-2019



Sophistication (Primary Users)	Medium	SMBs, Scientific Community, Public Sector
	Low	Casual Users, Civic Society

The subsequent sections provide a general description of the characteristics of each group. Additionally, (potential) current and future platform users are also described by a prototypical representative of each group, called a user persona. Based on each persona, a hypothesis on value creation requirements and value capture potential can be formed and tested as part of stakeholder engagement to be conducted in the subsequent phases of the project.

This use of personas links directly to the methodologies and tools used when defining targeted value propositions per customer/user segment in the business model development in T7.1 and the commercialization efforts pursued in T7.5, e.g. the Business Makeover Tool⁵ with the common Business Model Canvas at its core.

Next to the comprehensive Business Model Canvas, a user-centric approach will be utilized to design and validate commercially viable value propositions at the intersection of value creation and value capture strategies (see Figure 7). To this end, the Value Proposition Canvas describes prototypical users through simplified user personas, capturing their task at hand, i.e. user requirements, user challenges or fundamental use case, and associated user pain points and aspired user gains by deploying a new solution – in this case, the TRUSTS offering.

⁵ <https://businessmakeover.eu/>



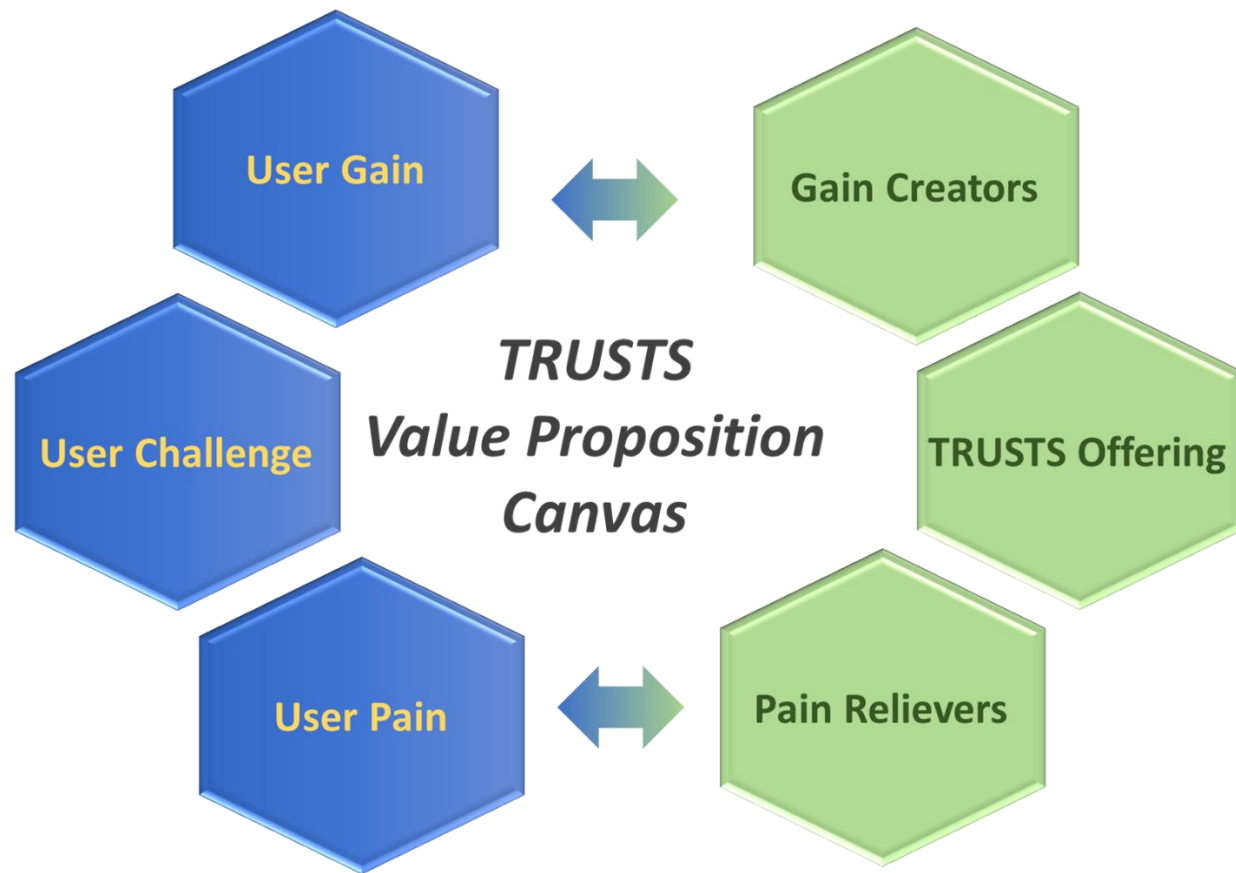


Figure 7: TRUSTS value proposition canvas

As a starting point for refinement and validation, for each of the identified user sub-groups, a draft simplified user persona is being described. These drafts are derived from the experience of the DMA project and act as starting point/input to the stakeholder engagement plan related to validation of hypothesis and refinement of Requirements Elicitation (T2.2), Business Modeling (T7.1) and Commercialization Planning (T7.5).

It should be noted that these User Persona drafts are akin to an initial set of hypotheses themselves, expressing underlying tacit assumptions on user requirements funnelled into the platform development. They will require further market research about potential platform users, use cases, and identification of tappable profit pools.

2.5.2 Users by Activity: Primary Users

Table 5: Users by activity: Primary Users

Grouping Criteria	User Group	Sub-Group
Activity	Primary Users	Data asset sellers
		Data asset buyers



The primary user group of the TRUSTS Platform comprises of **Data asset sellers and Data asset buyers** (see Table 5).

Data Asset Sellers are entities providing data asset supply as “Data-as-a-Product” through listed meta-data listed in the TRUSTS catalogue. For the purpose of this report, the terms data asset seller and data asset holder are used interchangeably.

Data asset suppliers are either commercial Data Vendors or Data Owners seeking monetarisation of their data, predominantly as secondary use. They seek support in creating additional value when preparing their set of raw data for selling. Data Suppliers sell “Data-as-a-Product” (DaaP) and thereby generate implied demand for data services to meet Data Buyers requirements.

Depending on specified data attribution and license specification,

1. Data is offered for trade-sale on the TRUSTS Trading Platform
2. Data is offered for trade-sale in federated infrastructure components, such as Data Circles
3. Data is licensed to independent data brokers or data solution providers for trade in Data Circles or the creation of bespoke data solutions

Data Suppliers will predominantly utilise the following TRUSTS process and services clusters enabling:

- Principle access to TRUSTS connectivity to the TRUSTS platform,
- Preparation of data / meta-data for listing on TRUSTS,
- Adequate visibility/promotion of their data for sale through the TRUSTS platform,
- Domain-specific consultation and sales facilitation through solution providers (data brokers using data circles),
- End-to-end execution of data sales transactions.

Data set holders may want to share their data for several reasons: to solve a business problem that they lack the skills to deal with in-house, to gain a competitive advantage by improving their data quality or products, or to explore novel applications and monetisation pathways for their data assets. They may not have the expertise to develop these solutions internally, or it may not be economically sensible for them to work on the data themselves. Secondary benefits include improved internal data governance, increased legal compliance and skill development. In contrast, providers of data services and applications typically seek out growth of their respective product lines and commercial platforms. Availing data assets can also provide foresight into emerging solutions adjacent to the current business model, thereby aiding competitiveness.

Data Asset Buyers are entities generating demand for “Data-as-a-Problem-Solution”: data, data services or data-related solutions deemed fit for addressing their (business) problems. Accordingly, they also generate direct demand for trade services, data services, and solution design. For the purpose of this report and ease of language, data asset users and entities generating demand for the aforementioned shall also be subsumed under the term “Data Buyer”.

Advanced, predictive TRUSTS search functionalities with the Recommender System help Data Asset Buyers to identify relevant data and data self-services from the data catalogue and guided directory search. Based on this,

- Data is purchased through the TRUSTS Portal node, accessing the TRUSTS data catalogue, or from (curated) sets of curated or enriched data offered by federated Data Circles or Specialized Data Shops
- Data is purchased utilising Data Broker Services



- (If required by the use case), purchased data is processed with data services, ranging from basic self-service tools to advanced data services availed by Data Circles or Specialized Data Shops
- Data is purchased as an integral part of tailor-made data solutions through contractual arrangements with data brokers or data solution providers.

Data Buyers will predominantly utilise the following TRUSTS process and services clusters enabling:

- Principle access to TRUSTS and connectivity to the TRUSTS platform,
- Guided data discovery for data purchase through the TRUSTS platform
- The utilisation of data services for data enrichment and analytics
- Knowledge-domain or solution-specific consultation and creation of / access to Data Circles offerings by Data Entrepreneurs (Trade Service, Data Services, Data Solutions)
- End-to-end execution of data trade-purchase transactions.

Data asset users (buyers) are organisations that use data that is shared by a data holder to develop new insights, products or services. Their main motivation in data acquisition is access to data which is not otherwise available in order to generate new insights, develop new or improve existing products or services, and grow their business / further their objectives. Secondary benefits of data sharing/buying for data asset users encompass the creation of new business relationships with data asset holders and the generation of market insights. The increasingly widespread experimentation with and deployment of machine learning and artificial intelligence also requires access to vast data sets. Lastly, data users can also be data sellers, affecting a reciprocal relationship. Organisations could, e.g. pool their data for mutual benefit, or the data user could supplement data shared with them with their own proprietary data to produce a solution. TRUSTS use cases around secure data sharing and distributed, privacy-preserving computing relate to this.

Table 6: Primary users: retail bank

Primary User #1	Persona: Retail Bank
User Challenge (Job)	<ul style="list-style-type: none"> • As part of regulatory compliance, wants to conduct AML surveillance • Requires transaction data from across FS institutions
User Pain (Complication)	<ul style="list-style-type: none"> • Personal data sharing is curtailed by pertinent regulation GDPR • Other FS institutions may not be willing to share their raw data for both privacy issues and competitive intelligence
User Gain (Solution)	<ul style="list-style-type: none"> • GDPR compliant mechanism of sharing and processing sensitive, private data without exposing the underlying raw data to a third party • Collaborative use of joint data space and AML data services lowers the cost

Table 7: Primary users: forestry agency

Primary User #2	Persona: Forestry Agency
User Challenge (Job)	<ul style="list-style-type: none"> • Wants to publish statistical data on a regular basis • Needs to comply arising regulation on open data access



User Pain (Complication)	<ul style="list-style-type: none"> • Data orchestration and provision of partial data sets/cuts • Additional administrative burden and incurred cost
User Gain (Solution)	<ul style="list-style-type: none"> • Ability to publish data (e.g. at cost) alongside that of other agencies/departments, thereby in concept enabling cross-fertilised usage of data, potentially for SMBs / new business models

Table 8: Primary users: SMB welding plant

Primary User #3	Persona: SMB Welding Plant
User Challenge (Job)	<ul style="list-style-type: none"> • Wants to optimise capacity/job batch planning based on models using “open book” supply chain data of suppliers and buyers
User Pain (Complication)	<ul style="list-style-type: none"> • Sharing data openly could be exploited by value chain participants utilising insights in capacity utilisation for competitive advantage
User Gain (Solution)	<ul style="list-style-type: none"> • Trustless data service with predictive/prescriptive analytics for each user, without exposure of input data from other users

Table 9: Primary users: Pan-European academic research project

Primary User #4	Persona: Pan-European Academic Research Project
User Challenge (Job)	<ul style="list-style-type: none"> • Wants to avail generated research data sets to the wider community, as required by obtained public funding, and laid down in the Data Management Plan
User Pain (Complication)	<ul style="list-style-type: none"> • Wants to retain visibility of which parties use the data • Needs to keep low and recuperate the cost of data publishing
User Gain (Solution)	<ul style="list-style-type: none"> • Wide visibility / eased accessibility of data sets through a network of federated focal data markets and/or open data cloud systems • Semi-automated contracting and fulfilment management

2.5.3 Users by Activity: Trading Intermediaries

Table 10: Users by activity: trading intermediaries

Grouping Criteria	User Group	Sub-Group
Activity	Trading Intermediaries	Data brokers
		Federated open cloud systems



		Federated data markets
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Data Brokers are independent traders & trade facilitators or trade agents of data suppliers and buyers. They act as a matchmaker for the supply of Data-as-a-Product and demand for Data-as-a-Problem-Solution. If necessary, they actively recruit TRUSTS relevant (latent) data suppliers and (latent) buyers. Additionally, they might engage in the harvesting of open data for sale. For “in shop sales”, sets of raw data and derived enriched data are often curated for increased thematic relevance, to attract traffic, inspire use cases and generate trades. When engaging in proprietary trading activities, data brokers act as Data Suppliers and / or Data Buyers.

Federated Open Cloud Systems such as the European Open Science Cloud (EOSC) and the industry specific data clouds laid out in the European Data Strategy form the backbone of the future European data economy. TRUSTS is actively establishing interoperability solutions targeted at the EOSC as proof of concept and seed for future interoperability across these data cloud systems, in alignment with GAIA-X philosophy and efforts to enable an interconnected “dataspace of dataspace”.

Federated Data Markets are data markets that utilise the TRUSTS interoperability solutions developed in T3.3 to connect with the TRUSTS platform. This is with a view of ultimately creating a Europe-wide federation of data markets which allows for access across a multitude of specialised data domains. As part of the project, TRUSTS will act as a central hub or portal to associated data markets, allowing for a line of sight to data assets traded in each platform. Additionally, the project is researching and developing in T7.4 recommendations for standardisation that will allow for a more profound federation and process integration in the future, enabling the TRUSTS operator to explore pass-through processing of commercial transactions linked to data asset trades.

Table 11: Intermediary: External SMB data broker or internal data broker

Intermediary #1	Persona: External SMB Data Broker or internal Data Broker
User Challenge (Job)	<ul style="list-style-type: none"> Wants to execute a dedicated search and data acquisition mandate Wants to curate data assets for scalable / repeat data solutions
User Pain (Complication)	<ul style="list-style-type: none"> Needs to access and search a multitude of sources for existing data assets Requires trustworthy infrastructure if opening up / recruiting new sources of data assets
User Gain (Solution)	<ul style="list-style-type: none"> Search with an intelligent recommender system across data sources and data intermediaries significantly reduce workload Data service workbench functionality linked to the hub of a data market federation as the central point of access enables curation, solution design and onward monetisation

Table 12: Intermediary: Federated open cloud system

Intermediary #2	Persona: Federated Open Cloud System
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User Challenge (Job)	<ul style="list-style-type: none"> • Provided as public infrastructure or in PPP, domain specific open data is to be gathered in a focal cloud system to enable widespread use and exploitation
User Pain (Complication)	<ul style="list-style-type: none"> • Visibility is typically limited to specific communities of interest, curtailing widespread use and exploitation of readily available open data in the European data economy
User Gain (Solution)	<ul style="list-style-type: none"> • Innovation often requires a crossing of domain boundaries, which is enabled through federation • Visibility is increased through “catalogue meta search / intelligent recommenders” spanning across open and commercial cloud systems

Table 13: Intermediary: Federated industry-focused Data Market

Intermediary #3	Persona: Federated industry-focused Data Market
User Challenge (Job)	<ul style="list-style-type: none"> • Establish, grow and protect client (data market user) base and relationships • Create time-stable contexts, e.g. within a defined data solution domain focus, to allow for valorisation of own/proprietary data assets and/or for increasing 3rd party data trade volume (as a proxy for fees) on the data market
User Pain (Complication)	<ul style="list-style-type: none"> • In the absence of a dominant market position, business development cost and cost of user acquisition can be prohibitive • Acquisition of data sets and/or harvesting and enrichment of open data can be a costly bet with the required upfront investment
User Gain (Solution)	<ul style="list-style-type: none"> • Soft-elements of federation governance enable co-creation of formalised or de facto industry standards, reducing onward investment risk • Federated data markets can remain focal whilst enabling access to other focal data markets • Cost of common, non-differentiating activities can be shared with members of the federation, e.g. open data harvesting and enrichment

2.5.4 Users by Activity: Data Service Providers

Table 14: Users by activity: Data service providers

Grouping Criteria	User Group	Sub-Group
Activity	Data Service Providers	Federated data service providers
		Data-driven solution providers

Federated Data Services Providers are 3rd party data service providers that create and monetise data services, such as enrichment, analytics, and visualization, which are connect as service modules via APIs



to the TRUSTS platform, and provisioned on the TRUSTS platform. Such advanced data services help to unlock or increase the use-case specific value of data for data suppliers (e.g. data and meta data quality assurance), data asset buyers (e.g. data enrichment and advanced analytics). These services could also be marketed to other external data owners wishing to procure data services and related data infrastructure and services to support their data use cases.

Data Solution Providers are offering consultative development and/or operations of comprehensive, highly customised data solutions related to data use cases linked to the TRUSTS infrastructure. In the future, they could even be seen as actively recruiting relevant data suppliers, data buyers and permissible 3rd-party data service providers. Solution delivery often requires the set-up of dedicated, private data spaces like federated *Data Circles*, for closed user groups. Data solution providers can incubate innovative data businesses, utilising their proprietary business problem solutions and TRUSTS infrastructure, data & services and TRUSTS operator business support services, as well as eased stakeholder access within the wider TRUSTS ecosystem.

Data Service Providers will predominantly utilise the following TRUSTS process and services clusters enabling:

- Principle access to TRUSTS and connectivity to the TRUSTS platform,
- Guided data discovery for data listed on the TRUSTS platform,
- Marketing of existing data shop offerings and visibility to / facilitated interactions with (latent) Data Suppliers / Buyers requiring or required for the creation of new data shop offerings,
- Design and delivery of offerings for trade services, data services and data solutions,
- Customisation of specialized data shops/data circles, and support in development and/or integration and/or access to modular services for data circle functionalities,
- End-to-end execution of data sales transactions.

To kickstart the creation of new domain-specific “Data Mall Sections”, to accelerate the proliferation of specialized data shops, and to showcase trade services, data services, and solutions, the TRUSTS operator may retain or act itself as data service or data solution provider.

Table 15: Data service provider: Federated Data Service - 3rd party data work bench

Data Provider #1	Service	Persona: Federated Data Service - 3rd party data work bench
User Challenge (Job)		<ul style="list-style-type: none"> • Provide data visualisation and analytics tools as stand-alone licensed product • Create a funnel for an ecosystem/adoption of a wider set of tools, e.g. Tableau as an entry point to Salesforce
User Pain (Complication)		<ul style="list-style-type: none"> • Accessibility/acquisition of new users • A psychological barrier to usage by not technically inclined functions
User Gain (Solution)		<ul style="list-style-type: none"> • An experimental environment with pay-per-use licensing, at the exact point of implementation of a data use case

Table 16: Data service provider: Data-driven solution provider

Data Provider #2	Service	Persona: Data-driven Solution Provider
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User Challenge (Job)	<ul style="list-style-type: none"> • Collaborative multi-party design and delivery of integrated data-driven solutions, combining tailored business consulting / innovation with data analytics
User Pain (Complication)	<ul style="list-style-type: none"> • Lacking share of mind in / visibility to potential clients • Limited ability to showcase the value of offered solutions, ideally in use case domains similar to that of a prospect client
User Gain (Solution)	<ul style="list-style-type: none"> • Ability to place fit-for-purpose recommendations on solution services alongside platform-generated recommendations on dataset, data services and data apps

2.5.5 Users by Activity: TRUSTS Operator and Infrastructure Providers

Table 17: Users by Activity: TRUSTS Operator and Infrastructure Providers

Grouping Criteria	User Group	Sub-Group
Activity	Infrastructure Providers	TRUSTS operator
		Computing infrastructure providers

TRUSTS Operator. When referring to “TRUSTS as a Business”, this refers to the role of the TRUSTS Operating Company (TRUSTS OpCo, TRUSTS operator) as a commercial entity that owns the technical TRUSTS platform and utilizes it to sell a multitude of TRUSTS-related (packaged) offerings. It is responsible for fostering data asset seller-buyer relationships around (business) use cases. The operator may consider as part of its start-up and business development efforts, to deploy TRUSTS data domain managers who are subject matter experts developing thematic or solution-specific platform data mall sections (TRUSTS data domains), which cluster the specialized data shops (*Data Circles*). In doing so, within their domain they “recruit” / acquire new TRUSTS users and provide support to TRUSTS users on the platform. They ascertain regularly publish updates about domain-specific developments, provide training & support, showcase data solutions, and organizes online workshops for interest groups.

The TRUSTS operator uses the TRUSTS data trading platform with its decentralized, open architecture as its commercial platform and creates differentiated value with a focus on its primary users and – data asset sellers and data asset buyers – through delivery along with the TRUSTS business processes. It thereby acts as infrastructure provider. Core infrastructure-related activities which a TRUSTS operator would need to define encompass, among others:

- Operations of IT Infrastructure (Core Services, corporate nodes, portal node)
- Development & maintenance of the TRUSTS platform
- Development, amendments & maintenance of functional modules
- Provision of IT-related services (connectors, integration, data integrity, ...)

Additionally, in the case of TRUSTS as a platform federator, the operator also maintains and develops standards in competition with other data markets and cloud systems.



IT Infrastructure & Service Providers. A TRUSTS operator may consider partnering in the future with IT Infrastructure & Service Providers that offer storage space or computing power (and related services), as well as IT development services. In as far as the TRUSTS operator does not run its own infrastructure, the operator could either provision 3rd party infrastructure to TRUSTS users or procures it for its own usage, e.g. to operate and develop the TRUSTS platform and modular services. Also, in as far as the TRUSTS operator does not provide proprietary IT development services to TRUSTS users, it may consider provisioning the same.

With infrastructure at its core, a TRUSTS operator also will have to conduct a range of “soft services” and activities that target the wider ecosystem, widening the focus to include Data Asset Trading Intermediaries and Federated Data Services. Core ecosystem-related and business development activities which a TRUSTS operator would need to define encompass, among others:

- Promotion of TRUSTS, forging of partnerships alliances, gauging of evolving demands
- Business Development / Marketing for TRUSTS
- Creation of data and solution domain specific vibrant communities and incubation sub-markets through activities of employed / or subcontracted domain managers
- User support for TRUSTS platform users
- Provision of business-related services
- Consultative & market development services

Table 18: Infrastructure provider: IT infrastructure provider (Cloud computing & storage)

Infrastructure Provider #1	Persona: IT Infrastructure Provider (Cloud computing & storage)
User Challenge (Job)	<ul style="list-style-type: none"> • Commercialization and expansion cloud computing & storage business
User Pain (Complication)	<ul style="list-style-type: none"> • Client acquisition and client lock-in (increased switching-cost) through value added services • Ability to compete stand-alone with comprehensive cloud offerings and ecosystems, such as provided by BigTech
User Gain (Solution)	<ul style="list-style-type: none"> • Access to an open-standards based ecosystem with complementing services and business models

Table 19: Infrastructure provider: Operator as a commercial entity

Infrastructure Provider #2	Persona: Operator as Commercial Entity
User Challenge (Job)	<ul style="list-style-type: none"> • Operate, maintain and continuously develop a data market / data market federator infrastructure, with the objective of sustainable profitability



User Pain (Complication)	<ul style="list-style-type: none"> Strategic choices as regards to positioning of the platform vs. evolving market demand and competitive environment
User Gain (Solution)	<ul style="list-style-type: none"> Utilization of a state-of-the-art DM infrastructure

Table 20: Infrastructure provider: Operator as PPP/provider of “public infrastructure”

Infrastructure Provider #3	Persona: Operator as PPP / Provider of “public infrastructure”
User Challenge (Job)	<ul style="list-style-type: none"> Operate, maintain and continuously develop a data market / data market federator infrastructure, with the objective of recuperating a set % of cost, in order to contribute to the wider EU data landscape and EU data strategy, to provide an early-stage infrastructure component in support of GAIA-X, to serve high priority stakeholder groups (based on economic impact or economically available data trading / data exchange infrastructure to these groups)
User Pain (Complication)	<ul style="list-style-type: none"> Lack of out-of-the-box comprehensive DM infrastructure Need for public funding / subsidies Continuous justification of cost / benefit in non-trivial causal chains (availed output -> intended outcome -> proclaimed impact)
User Gain (Solution)	<ul style="list-style-type: none"> Utilization of a state-of-the-art DM infrastructure, created with public funding

2.5.6 Users by Time of Adoption

Table 21: Users by time of adoption

Grouping Criteria	User Group	Sub-Group
Time of adoption	Early adopters	Project use-case partners
		Pilot project partners
		Post-launch early adopters
	Followers and mainstream users	Followers and mainstream users

Project use-case partners. TRUSTS was conceptualized to build on the experience of the Data Market Austria (DMA) and the International Data Space Association (IDSA). Accordingly, its 3 Use Cases jointly developed during the project with the TRUSTS use case partners in WP5, formed the nexus of the initial requirements elicitation in T2.2. This requirements elicitation was to build on and complement DMA and IDSA findings and provide the foundation of developing deep-dive solutions related to security and data sovereignty propagated by TRUSTS and reflected in its architecture. Use case partners are from the Telecommunications (Telco) and Financial Services (FS) industries, which require such solutions for exchange, trading and co-processing of personal and highly sensitive data.



Pilot project partners. From a business development perspective, it is envisioned that TRUSTS attracts a number of pilot project partners as early in-project platform adopters. In particular, 3 categories of pilot project partners are targeted:

1. Pairings of use-case-centred primary users. In the case of DMA, this was pursued from the data demand side, framing "Data-as-a-Problem-Solution" use cases for data-driven SMEs
2. Data Service Providers, to leverage use cases and provide an initial set of federated data services through the platform. The Telekom Data Intelligence Hub⁶ can be seen as an example for successfully provisioning 3rd party data services to its users.
3. Data-rich sources, such as EOSC, or other datamarket(s), to pilot the use of the technically implemented datamarket federation functionality

However, this is contingent on a multitude of partially exogenous factors, not least the timely inception of a TRUSTS operator as a reliable anchor and contracting partner, and possibly publicly co-funded financial support programs like that created by FFG during the DMA project.

Post-launch early adopters. Whereas pilot project partners are targeted for "recruitment" during the project, a future TRUSTS operator will need to place considerable effort on early-stage scaling to achieve a critical mass of users and use cases. Also, it can be expected that business and IT support processes, as well as platform functionalities will need to be refined and stabilized in collaboration of post-launch early adopters. Therefore, TRUSTS users from this group should be considered as a separate group requiring dedicated focus above and beyond the support that can be economically sustainably extended to **Followers and mainstream users** which will onboard to TRUSTS at a later, 'Business-As-Usual' (BAU) phase.

2.5.7 Users by Technology Sophistication

Table 22: Users by technology sophistication

Grouping Criteria	User Group	Sub-Group
Technology Sophistication (Primary Users)	High	Corporates
	Medium	SMBs, Scientific Community, Public Sector
	Low	Casual Users, Civic Society

TRUSTS is predominantly targeted at user of **High-to-Medium technology sophistication**, namely Corporates. The TRUSTS architecture features a portal node which will make data assets available for trade to all audiences, ie. also, to users of **Low-to-Medium technology sophistication** but the full breadth of advanced functionalities can only be accessed via the corporate node requiring on-premise installation by users.

The differentiated positioning and corresponding business model require monetization of TRUSTS value-added services from commercial, "heavy" users that associate their infrastructure with that of TRUSTS. Such use cases will be predominantly found with Corporates and data-driven SMBs. Other than e.g. "casual users" seeking self-service through a web portal, these entities have the organizational and

⁶ <https://dih.telekom.net/en/>



technological capacity to manage data integration and orchestration at the supply side, and data ingestion at the demand side of repeat data asset trades.

In turn, as part of the project's business modelling efforts in T7.1 and the commercialization planning in T7.5, it will need to be determined how to balance commercial "business sustainability" needs with TRUSTS mission to generate a contribution to and impact on the European data economy and society at large.

2.6 Insights and Recommendations

During the deep-dive into discussing platform user groups and corresponding draft user personas, it became apparent that a segregated analysis leads to a level abstraction that might affect a fallacy of assumed commercial demand for the data market and associated services. The commercialization efforts pursued in task T7.5 have to take into consideration the dynamics between different users. Users seek out use cases as they try to solve pertinent problems in their domain of activity. Hence, engaging with unrelated "sellers", "buyers" and "services" will result in failure when trying to kickstart the platform.

Data sharing technologies are increasingly becoming commoditized, affecting the difficulties of data markets to differentiate and scale. Rather than developing 1:1 relationships between every data asset holder (seller) and data asset user (buyer), the data market as an intermediary can help to scale data sharing and trading relationships. Thus, as part of its initial business development efforts, the data market should stimulate both supply and demand. For the former, it could bundle domain-specific data asset holders and service providers, or even harvest and enriched data, and make it accessible to data users. For the latter, a focus and support for specific solution domains clustering data users with similar data asset demand can be pursued. As both approaches require considerable investment, a co-creation strategy with (potential) data market users can increase the success rate and lower such investment requirements. Such an approach was already successfully pursued during the DMA project, whereby public funding was provided to data-driven start-ups and SMEs as part of a competitive call to support innovation, attract pilots to the platform, and promote the benefits of data sharing and trading.

An example of a supply-sided approach is the dedicated enlisting of organisations willing to formulate a challenge based on business problems, data to be explored for potential use also benefiting the organization, or rich data sets addressing a multitude of use cases and allowing for economies of scale in monetization. As these challenges arise from the business needs of the data holder, in a second step, data users - typically start-ups and SMEs - can respond to an open call with solution proposals using the availed data assets. Upfront agreement of scope, purpose and principal terms for the data trade and onwards usage with the data seller, as well as provision of sample data supports the formulation of proposals.

An example of a demand-sided approach can start with the definition of a sufficiently narrow solution domain (e.g. mobility & energy efficiency) based on identified target segments. This can also be inspired by the needs of and conducted collaboratively with an industry or research cluster or 3rd party hackathons. Again, data-driven start-ups and SMEs can respond to the challenge with solution proposals yet will need to specify the required data assets. Identifying and prioritizing scalable m:n relationships, the data market would then focus on enlisting data assets and/or facilitate negotiations between sellers and buyers.

Both approaches highlight the overarching necessity to engage with a wider array of stakeholders, reflecting more widely on the role of the data market vis-a-vis the dynamics of data asset seller-buyers relationship, a multitude of value propositions can be assumed, and it will remain to tasks T7.1 and T7.5



to define the right balance between those roles vis-a-vis associated costs and profit potential, as part of an integrated business model:

- **Provision of infrastructure** for data sharing and data trading as a foundational, increasingly commoditized layer. However, as a standalone value-proposition, this is a mere prerequisite and not sufficient for business sustainability as most data asset sellers and buyers have access to a multitude of platforms and technologies for 1:1 remunerated sharing.
- **Matchmaking and relationship facilitation** between sellers and buyers, depending on the type of data assets. This encompasses both technical support, e.g., through intelligent recommender systems for data assets, and processual support, whereby a data market operator will also require domain/business specific expertise and access to networks of entities with complementary needs.
- **Reduction of complexity** in initiating seller-buyer relationships through institutionalized processes and regulations, and due diligence checks to comply with legal requirements such as GDPR.
- **Scaling of seller-buyer relationships** through domain-specific clustering of users and data assets, technical solutions to data exchange and trading, and a common framework of rules and obligations applicable to the most common data trades (possibly even embedded in smart contracts). This way, the cost of trading arrangement preparation is reduced, enabling scaling beyond 1:1 relationships between every data asset seller and buyer.
- **Creation of trust** as an arbiter easing seller-buyer negotiations, ensuring mutually beneficial relationship and relationship longevity, enforcing transparent standards for platform access and conduct.
- **Solution domain support** to address a specified set of challenges or grow a specific market. This typically entails dedicated support sellers and buyers ranging from provision of templates, to consultative business development or even (co)-funding arrangements. Such focus can either arise from the positioning and business development strategy of an independent data market or from mandates linked to its ownership and funding structure, e.g. when tied to public body, association, or large commercial entity.
- **Best practice development and standardisation** is arising from the central role of data markets which allows them to continuously experiment to generate and scale good practices, to improve cost effectiveness and value creation. Linked to public sector initiatives, such as the Horizon 2020 / Horizon Europe programs, or in collaboration with industry associations, this can also be leveraged for driving standards development and advising policy.



3 TRUSTS' Stakeholder Engagement Strategy (SES)

3.1 Approach

The TRUSTS Stakeholder Engagement Strategy is meant to provide reasoned guidelines on which stakeholders TRUSTS should focus on at which stage of the project in order to enable the commercial uptake as well as strengthen the awareness and acceptance of the scientific community in the field of data sharing mechanisms. The strategy is based on three main building blocks (see Figure 8):

1. The Synergetic Stakeholder Engagement in the form of the **TRUSTS Stakeholder Advisory Board (SAB)**. Comprising of experts and multiplicators from the European data economy, it aims at anchoring TRUSTS in the wider European data sharing and exchange community;
2. The Stakeholder Engagement Requirements that **support the work package delivery** and depicting the project's directly formulated needs. The strategy will support the identification of suitable stakeholders and outreach focusing on this kind of needs.
3. The Stakeholder Engagement Requirements that **support TRUSTS core objectives**, which encompass
 - i. Setting up a fully operational EU Data Marketplace.
 - ii. Enable the data market federation with TRUSTS as its core.
 - iii. Ensuring business sustainability after the project's finalization.

Each of the building blocks will be first described in the following sub-chapters, outlining, why this approach is beneficial to the overall stakeholder strategy. Based on this, indications for relevant stakeholder groups to be engaged will be made as well as suitable, group-specific strategies formulated in preparation for the Stakeholder Engagement Plan (SEP) (chapter 4). The SEP will then take up the strategy and provide a more concrete picture on how TRUSTS will engage the stakeholders.

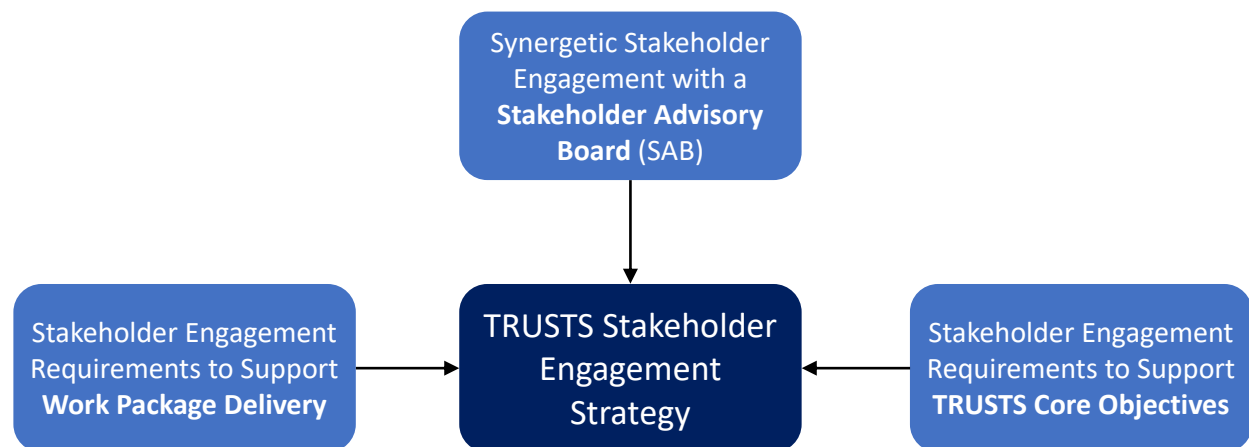


Figure 8: TRUSTS Stakeholder Strategy Building Blocks



3.2 Synergetic Stakeholder Engagement by the TRUSTS Stakeholder Advisory Board (SAB)

As one mechanism to anchor TRUSTS in the European Data Economy and therefore work towards a vibrant community around TRUSTS, the concept of a Stakeholder Advisory Board (SAB) has been chosen. The core of the SAB is a group of independent, external multipliers with a certain expertise in the field of data marketplaces and data sharing in general that will be gathered around the project in order to receive critical review and input, as well as to increase the relevance of the project outcome. This activity is meant to pave the way for the acceptance and up-take of the TRUSTS results after the project ends.

Those experts will be chosen based on nominations coming from the TRUSTS consortium. If no objections will be formulated by any of the partners in a certain time frame, the nominated person will be contacted by the TRUSTS' Executive Board and invited to participate in the SAB, which shall assist and facilitate the decisions made by the TRUSTS Project Management Board. In dedicated, regular SAB meetings organized by the TRUSTS consortium (WP1 and WP8), the experts will be able to provide their insights and perspective on current topics relevant for TRUSTS, e.g. by highlighting areas where the TRUSTS solution will add value. The SAB will be featured on the TRUSTS website to create additional visibility.

The following Table 23 shows the persons that have already confirmed their participation:

Table 23: TRUSTS Stakeholder Advisory Board Members

Name of TRUSTS SAB Member	Organisation
Naaman Tammuz	Bitfount
Esther Huyer	Capgemini
Nadia Scandelli	Cefriel
Olivier Auradou	Data Occitanie
Aiste Gerybaite	Department of Legal Studies at Università di Bologna
Georg Rehm	German Research Center for Artificial Intelligence
Katarzyna Kosior	Instytut Ekonomiki Rolnictwa i Gospodarki Żywnościowej
Alex Butean	Lucian Blaga University of Sibiu
Richard Rak	University of Vienna
Hannu Verkasalo	Verto Analytics

3.3 Stakeholder engagement requirements to support work package delivery

To get an integral understanding of the project's specific demand in terms of stakeholder engagement, we analyzed the needs coming directly from the project's tasks and goals. To do so, we structured the



relevant information with the help of a table that allowed us to identify the specific needs. This table shows clearly if there is a directly or indirectly mentioned need for stakeholder engagement for each task (see **Fehler! Verweisquelle konnte nicht gefunden werden.**) based on the information we received as well from the project proposal, as our own knowledge on the project. Additionally, we asked the work package and task leaders to add tacit information. Furthermore, we widened this table by adding the following six columns:

1. The value and benefit of the stakeholder engagement for TRUSTS
2. The stakeholder's benefit to get involved or be informed about the project
3. Definition of the target audience
4. A suitable engagement tool,
5. Key performance indicators for the engagement and
6. Proposed dates for concrete next actions.

By structuring the information in this way, specific next actions can be derived directly from the project itself, ensuring that the actions are suitable and relevant for the project. Also, it enhanced the task leaders to consider stakeholder involvement for their task by asking them directly on their plans on stakeholder engagement and therefore creating awareness for the possibility to engage externals. Further, by formulating the benefits for the stakeholder to be involved in the project, message towards the stakeholders could be crafted addressing these needs directly. The following sub-chapters will follow the structure of the project's work packages and will one by one explain the needs of the specific tasks to engage stakeholders.

Task	Interest (which is the interest of the WP to engage the stakeholder?)	Value proposition (message or asset that will be communicated to the stakeholder)	Target audience	Engagement tools	KPI	Specific date planned?
2.3	Creating acceptance and target industry needs, business validation process	Participation	The use case partners (industrial associates of the consortium partners).	scenario workshop and creation of test cases, questionnaires, surveys and focused group workshops directly.	number of test cases	
2.4	Have an IDS and DMA compliant RAM. Make sure that the proposed changes are incorporated efficiently with wide support from the industry	Usage of the IDS and DMA components.	IDSa and DMA	n.d.		

Figure 9: Excerpt of the table, depicting the project's need in terms of stakeholder engagement

3.3.1 Requirements elicitation and specification (WP 2)

For the work package that elaborates and provides requirements (WP2) for TRUSTS, the involvement of external individuals and companies is very high in order to gain relevant requirements directly from the market and use them as a sound fundament on which TRUSTS can be built. The task is analyzing the direct and indirect environment of data marketplaces, including for instance the analysis of a data marketplace's competitive environment as well as the academic landscape around this topic (T2.1 "Study on EU and Worldwide Data Marketplaces" publicly available), needs to involve voices of external **experts to validate first results and to get additional insights**. The value of the external experts participating in such an involvement consists of **getting impulses from the project** and **get in contact with other experts** in this field. The envisaged audience would exist of experts on the topic of data marketplaces, having a broader overview on technical, business, strategic and political aspects. Here, an overall understanding is important instead of detailed knowledge on a specific topic. The experts involved should also be persons,



that are familiar with the operation, usage, or research in the area of data markets and can be involved by formats like a “world café workshop” or “focus groups”.

The task for elicitation and analyzing functional requirements from TRUSTS specific industries (telecom, financial data) is relying utmost on interactions with TRUSTS stakeholders since the functional requirements collected here will be then implemented in the platform. Therefore, this task's (T2.2) value to collaborate with stakeholders is **to get functional requirements from potential customers** directly. On the other side, the value for the participating stakeholders is, that they will be able to use the future TRUSTS data market (federator), that **will serve their specific needs**. Here, the audience should be best from Financial Institutions, Telecom Operators, Corporate Data Providers/Users, Industrial Stakeholders & Industrial Associations, Regulatory stakeholders and Policy-makers. First attempts to contact them already happened via electronic surveys and questionnaires, whereas case studies and workshops are also welcome tools.

3.3.2 TRUSTS Platform implementation (WP 3)

Stakeholder engagement is also a crucial element when it comes to the **validation of the vertical use cases** (T2.3). Here, the value lies in the validation of current and also interim results directly by potential customers, which will **create acceptance on the market** already during the project. Involved stakeholders will feel like part of a development process and will therefore not only build a bond to the project but also are more inclined to use the result at the end. Further, since the stakeholders, in this case, are the project's industrial associates of the consortium partners (the use case partners), they will gain a **deeper knowledge on the whole project**, which can be experienced as satisfying. Preferred tools are here scenario workshops and the creation of test cases, as well as questionnaires, surveys and focus group workshops.

The technical work package (WP3) is rather in need of indirect interaction with external stakeholders, especially relying on the results coming from the above-mentioned environmental analysis (T2.1) and the functional requirements (T2.2). In addition, to get insights on relevant interoperability solutions for TRUSTS (T3.3), an interaction with stakeholders is needed directly. The benefit for TRUSTS would be to **gather state-of-the-art solutions**, whereas the stakeholders would get the chance to **promote their own solutions**. Therefore, the audience for these activities would encompass data platform providers and standardisation bodies. Questionnaires could be one solution to tackle this, but a workshop with focus groups would also be a rich solution to gather insights on current interoperability solutions.

TRUSTS also envisages solutions for user and corporate profiles brokerage (T3.6). The benefit of involving stakeholders by this would be to get recommendations for entities of the data markets, i.e., datasets and services. Here, the preferred stakeholder is the end users of the TRUSTS platform directly, especially the dataset or service providers. Their benefit to use this tool lies in the chance to find good matches for specific use cases (e.g., find a dataset that could be used for a specific algorithm/service). The tool to engage them would be the platform itself, where the recommendations will be offered to them. The expected date to involve them is at the end of 2021.

3.3.3 Privacy preserving technologies (WP 4)

TRUSTS encompasses also a work package dealing with privacy preserving technology (T4.1), which is dedicated to the investigation, design and improvement of cryptographically secure protocols that enable data analysis of privacy-sensitive data. Here, especially the use cases are the desired stakeholder group to enrich the results of this work package. The aim of engaging this kind of stakeholder is to **assess suitable**



approaches for cryptographically secure techniques and to **investigate a suitable design**, security and efficiency of the cryptographic primitives. In exchange, the stakeholders will benefit from the adoption of their techniques by TRUSTS. The same applies to the task, dealing with the investigation of techniques from the field of transfer learning (T4.2) and the one dealing with techniques from the field of federated learning (T4.4): the same stakeholder-type is targeted here with the use cases, benefiting from the **collection of suitable techniques** from the field of transfer and federated learning, where the stakeholder's benefit lies in the adoption of their techniques by TRUSTS. With regard to anonymization and de-anonymization (T4.3) TRUSTS would benefit from the involvement of relevant stakeholders **by gaining insights** on suitable, current techniques from the field, culminating in an anonymization and de-anonymization toolkit for TRUSTS. Most beneficiary would therefore be the involvement of privacy-sensitive data owners with the help of prototypes, demos and applications.

3.3.4 Demonstration of the TRUSTS Platform in 3 business-oriented Use Cases (WP 5)

Also, the work package responsible for demonstrating and validating the TRUSTS platform with regard to business aspects has a strong focus on involving the persons from the use cases since the demonstration itself is being done with the help of the pilot use cases. Here, mainly trials will be conducted (T5.1/2/3) together with stakeholders to **get reliable feedback** on the TRUSTS platform and to derive lessons learned from it. The stakeholders and TRUSTS benefit from gaining proven pilots which can be used in the future.

3.3.5 Developing a Legal & Ethical Framework for TRUSTS (WP 6)

TRUSTS deals also with legal and ethical principles that need to be considered by the project while implementing the platform federator. The project elaborates four different reports that are already or will be public available and deal with the four topics: Research Ethics, legal and ethical requirements, their assessment and suitable recommendations towards this direction. The engagement with stakeholders occurs in this work package less within the elaboration of the reports than by the presentation of the outcome. By serving this output TRUSTS can attract stakeholders especially from the field of Data market operators, the academic community and policy-makers. The benefit of this work package involving stakeholders in this way is to **draw attention** to the project's particularly well-developed legal and ethical considerations and therefore support the sustainable uptake of the project after its life-time. The stakeholders attracted by the reports will benefit from gaining insights on current developments of legal and ethical requirements for data markets.

3.3.6 Developing a TRUSTS Business Model, Exploitation & Innovation Impact Assurance (WP 7)

In order to offer a viable business model for the TRUSTS platform (T7.1) external stakeholders are needed to be consulted during the process. This will ensure the market fit of the business model and will provide insights for the stress-testing of it by running it through a variety of potential future scenarios. The external stakeholders will function as **experts to forecast such scenarios**. Those will be from different domains such as from the academic field and industry. Potential stakeholders from the industry would be large and medium-sized corporations, government organisations, and NGOs who need to trade in the secure and reliable data exchange market in Europe, data professionals would also constitute a key major



stakeholder group, who can share ideas on data analysis training services that could be consider for the business model. Furthermore, while TRUSTS is not directly involved in holding data given that it would be based on a decentralized architecture, potential data holders and the data users, would be relevant to provide insights gained through interactive sessions, especially focus groups, workshops and interviews in not only stress testing of the business model but also potential investment road map for TRUSTS. Overall, the purpose of such interactive sessions would be to **develop better insights and strength of TRUSTS business models**. Interviews would also be relevant to get specifics into different user groups such as demographics which can further be useful in refining pricing consideration and more refined target market analysis.

3.3.7 Dissemination, Communication & Community Building (WP 8)

Interaction with stakeholders is one of the core elements of the communication work package of TRUSTS. The communication plan that defines the interactions with stakeholder can be found in the public available deliverable D8.1 of the TRUSTS project. The target of this work package is mainly to establish and foster frequent communication with stakeholders and **create awareness** for both, the topic of secure and trustworthy data sharing and the TRUSTS project's activities. The stakeholders' benefits can be here summarized as the ability to stay informed about latest activities in this regard, but also to get trainings that allow SMEs and large Enterprises to apply the TRUSTS platform within their business processes. For the trainings the target group is especially the technical audiences, such as data analysts.

This analysis is providing a first understanding of where the direct need of the project to engage stakeholders is rooted and additionally provides us descriptions on **why** the project is interacting with them. It also indicates, why the stakeholders should interact with TRUSTS. These insights will not only be forwarded to the TRUSTS communication team in order to craft suitable messages in the process of attracting stakeholders, but also in the following chapter 4 that depicts the Stakeholder Engagement Plan.

The main benefit for the project can be summarized as the following:

- Validation, assessment and enrichment of results (technical and business)
- Collection of additional insights directly from the market (e.g. to create future scenarios)
- Gathering functional requirements from potential customers
- Gathering business requirements from potential customers
- Gathering insights on state-of-the-art solutions
- Creating acceptance on the market to pave the way for the commercial uptake
- Creating awareness for the project and the topic of secure and trustworthy data sharing

The analysis of the project's needs coming directly from the work packages and tasks revealed that experts on the topic of a data marketplaces, having a broader overview on technical, business, strategic and political aspects, are the required group of stakeholders. Depending on the benefit the project wants to gain from their engagement (see list above), these persons may come from different kinds of organisations, listed in the following. What they have in common is their deep knowledge and overview on the respective topic.



- Data market operators, regulatory organisations, standardisation bodies and research organisations may be approached when it comes to the validation, assessment and enrichment of technical aspects of the project.
- The validation, assessment and enrichment of business aspects may happen with the help of stakeholders from the area of data market operators, data providers, data consumers or any other kind of end-user as well as by consultancies.
- The target group for creating awareness and acceptance on the market is touching both above-mentioned groups of stakeholders, and should consider involving stakeholders from a political level (e.g. EU commission, relevant initiatives, etc.) in addition.

3.3.8 Overview of target audience per work package

During the assessment of the work packages' (WP) and tasks' needs, we identified the target audience for each WP, which is depicted in Table 24 below:

Table 24: TRUSTS target audience per work package

TRUSTS Work Packages	Identified Stakeholders of relevance
Requirements elicitation and specification (WP 2)	<ul style="list-style-type: none"> • Financial Institutions • Telecom Operators • Corporate Data Providers / Users • Industrial Stakeholders • Regulatory Stakeholders • Industrial Associations • IDSA & DMA ecosystem
TRUSTS Platform implementation (WP 3)	<ul style="list-style-type: none"> • Technology Offering Partners • Data Platforms • Standardisation Bodies • End Users • Dataset Providers • Service providers
Privacy preserving technologies (WP 4)	<ul style="list-style-type: none"> • Use Case Partner • Owners of Privacy-Sensitive Data
Demonstration of the TRUSTS Platform in 3 business-oriented Use Cases (WP 5)	<ul style="list-style-type: none"> • User Case Partner • Financial Institutions • Telecom operators • Corporate Data Providers • Internal Corporate Audit Departments • Fiduciaries • Tax Advisors • Automotive Dealers • Estate Agents • Research & Innovation
Developing a Legal & Ethical Framework for TRUSTS (WP 6)	<ul style="list-style-type: none"> • Data Market Operators • Academic Community



	<ul style="list-style-type: none"> • Policy-Makers
Developing a TRUSTS Business Model, Exploitation & Innovation Impact Assurance (WP 7)	<ul style="list-style-type: none"> • Data Providers • Experts in the field of Data Markets, Data Sharing, Data Sovereignty (etc.) • Data Platform Operators
Dissemination, Communication & Community Building (WP 8)	<ul style="list-style-type: none"> • General Public • Data Market Operators • Academic Community • Policy Makers • Technical Audience

The subsequent chapter will move away from the direct and explicit needs of the project to involve stakeholders and focus on the overarching goals of the project. It will analyze which stakeholders, in general, might be relevant for the project, independent of the direct needs of the individual work packages identified and analyzed in this chapter. The coming chapter will rather focus on an analysis of the indirect need for stakeholder engagement in order to achieve the goals that the project is targeting at.

3.4 Stakeholder Engagement Strategy based on TRUSTS' core objectives

This chapter is presenting the TRUSTS stakeholder engagement strategy based on the project's most important targets and the direct needs of the project mentioned in the chapter above. It considers the previously analyzed stakeholder groups (Chapter 2) and is identifying suitable strategic stakeholder engagement initiatives in order to ensure a sustainable, up-and-running TRUSTS platform. Further, the strategy will identify the most relevant stakeholders and outline in what form those could be engaged in what stage of the project, taking into consideration the project's limitation of resources. The strategy will not provide an engagement plan, this will be done in the following Chapter 4.

The chapter first explains the relevance of the main project objectives and links them to the respective strategic "Stakeholder Engagement Strategy" (SES) to achieve these objectives. These Stakeholder Engagement Strategies give indications on how the objectives can be achieved during the project's duration. In addition, specific stakeholder types are pointed out that should be considered and will be taken up again in the later chapter, the Engagement Plan.

Summarizing the TRUSTS main objectives until the end of the project, they are the following:

1. **Objective 1 (O1):** Setting up a fully operational European Data Marketplace, with a focus on data security, data sovereignty, and enabled data service interoperability.
2. **Objective 2 (O2):** Creation of a platform federation that allows the integration and adoption of current and future platforms.
3. **Objective 3 (O3):** Developing the go-to-market approach to make it sustainable beyond the project finalization.

To achieve these objectives, we have defined for each goal suitable stakeholder Engagement Strategies, in sum eight. For each strategy, we describe the purpose, the stakeholders that need to be involved and provide a high-level guide on how to engage them to develop the Stakeholder Engagement Plan (SEP). Figure 10 provides an overview of the different strategies and their relation towards the TRUSTS core objectives.



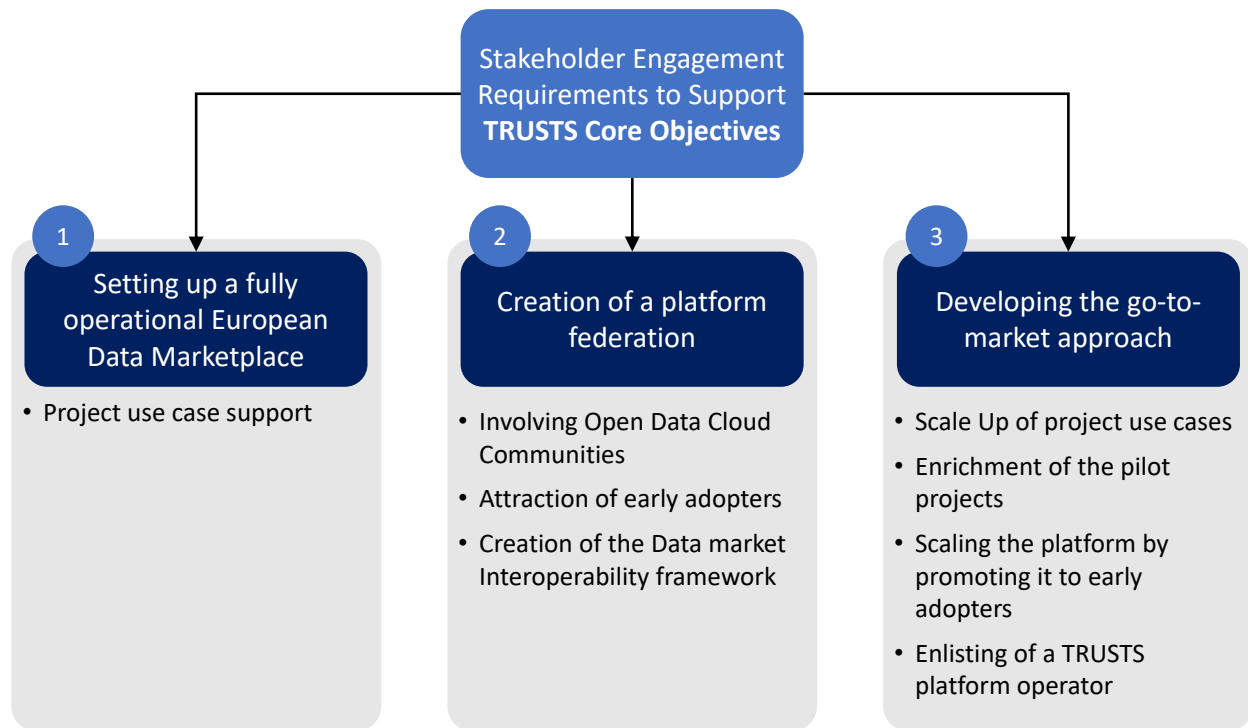


Figure 10: Stakeholder Engagement Requirements to Support TRUSTS Core Objectives

3.4.1 Project Objective 1 (O1): Setting up a fully operational European Data Marketplace

The very first objective of the project is to set up a fully operational and GDPR-compliant European Data Marketplace for both personal and non-personal related data; targeting individual and industrial use by leveraging existing data marketplaces (*International Data Spaces* and *Data Market Austria*) and enriching them with new functionalities and services to scale out. The potential of the TRUSTS Platform will be demonstrated and realized in 3 use cases targeting the industry sectors of corporate business data in the financial and operator industries while ensuring it is supported by a viable, compliant, and impactful governance, legal and business model.

The use cases can be summarized as follows:

- Anti-Money Laundering Compliance: Smart big-data sharing and analytics for Anti-Money Laundering (AML).
- Agile Marketing through data correlation: Agile marketing activities through correlation of anonymized banking and operators' data.
- Improve Customer Support Services by Data Acquisition: Data processing and visualization services for Big Financial Data

Accordingly, along the development of the platform and its interfaces, we need a strong involvement of the use case partners that participate in the pilots and who not only carry out the validation of the platform but also guarantee scalability and sustainability by being the first clients of the platform.

SES O1-1: Project use case support

A critical aspect of the platform's success is its **validation** and **testing** with the help of the three use cases. These activities are developed in WP5 of the project, where advanced field trials are conducted within the



following fields: Financial Institutions, Telecom Operators, Corporate Data Providers, Internal corporate audit departments, fiduciaries, tax advisors, automotive dealers, estate agents.

This strategy contains actions to engage all relevant partners mentioned above to support the development, testing and validation of the platform and its interfaces in order to ensure that the platform meets the current market needs as well as having all necessary technical functionalities. The strategy is aligned with T5.2 “Use case (UC) demonstration execution planned” and has two demonstration phases: the first phase of UC trials will be completed by December 21 (M24) and the second phase of the UC trials by August 2022 (M32). Here, it is of utmost importance that the partners involved in the trials are potential end-user types and that their feedback is targeting all facets of the platform, as for instance, the interface, the main functionalities, the added services and the user experience itself. Therefore, the stakeholder’s feedback on relevant topics should be gathered and implemented frequently, for example, by the help of joint workshops, focus group meetings, interviews, or questionnaires. Current trends in data marketplaces should be identified together with experts in this field to ensure innovativeness, for instance, in collaboration with T2.1 of the project (EU and worldwide trends in data marketplaces). This strategy should also focus on the interaction with the organisations elaborating the use cases themselves and the business model, with T7.5, in order to satisfy them with the result that they become loyal customers of the platform in the long term.

3.4.2 Project Objective 2 (O2): Creation of a platform federation that allows the integration and adoption of current and future platforms

The second objective of the project is the creation of a platform federation, providing a distributed architecture and technical interoperability solutions that will enable the sharing of data and datasets across different data marketplaces, which is to be considered as one of the unique selling propositions of the TRUSTS platform. To reach this goal, we have defined three different high-level stakeholder engagement strategies for involving stakeholders to co-design and co-develop interoperability solutions. Here, especially the collaboration with Task 3.3 (Data marketplaces interoperability solutions) and T7.4 (Standardisation uptake and recommendations) is of relevance in order to ensure interoperability with other industrial data marketplaces. The main activities to reach this goal are the attraction of early federation adopters, with a focus on:

- the validation of technical and business requirements for a federation,
- the collaborative design/development process, and
- a propagation and creation of common frameworks, concepts and standards.

Furthermore, interoperability solutions need to be evaluated with the European Open Science Cloud (EOSC) and implemented for this endeavour. We have identified three strategic Stakeholder Engagement strategies that should be considered during the creation of the TRUSTS federator:

- Involving Open Data Cloud Communities for targeting Data Cloud Interoperability.
- Attraction of early adopters for the validation of technical and business requirements for the federation.
- Creation of the Data market Interoperability framework (standardisation) as an engagement tool for stakeholders, enchanting them to create and spread common frameworks, new data concepts and interoperability standards requiring identification.



SES 02-1: Involving Open Data Cloud Communities for targeting Data Cloud Interoperability.

This strategy targets the involvement of Open Data Cloud Communities. Identifying and defining how to engage the operating custodians, associations and entities that are part of these communities is the basis for the development of a set of guidelines and best practices. T3.3 will collaborate with EOSC and the [European Data Portal](#) to define interoperability solutions that will be evaluated and implemented by DM that wants to be interconnected with TRUSTS.

SES 02-2: Attraction of early adopters for the validation of technical and business requirements for the federation.

This strategy will involve commercial data marketplaces and research marketplaces in order to establish long term business, technical and soft federation. It focuses on the attraction of the platform federator's early adopters already during the project duration in order to warm them up for the market entry of the platform. Therefore, relevant stakeholders need to be involved in the validation and collection of requirements for the federator, since this kind of collaborative design and development is key to sustainable customer retention.

Here we propose to engage two types of stakeholders:

- Commercial data markets; initially, we will start the collaboration with Telekom Intelligence Hub -an IDSA member- and we will support one more commercial data marketplace such as Advaneo -from IDSA's Ecosystem- or DAWEX.
- Research data marketplaces projects developed under the same financial programme; for instance, KRAKEN (Atos), i3-MARKET(NUI), DataVaults (Fraunhofer Society), [DataPorts](#) (ITI), Musketeer (IBM), Safe-DEED (KNOW-CENTER GMBH) and other industrial data platforms, such as Market4.0.

Task 3.3 will contribute to attract early adopters by the creation of the software prototypes connecting to DM APIs with TRUSTS platform and the creation of a "Register of data markets". This register will be a repository envisioned as a central register of DMs; to list existing DMs, provide background information on the concept of DMs, in general, and the specific characteristics of existing DMs, as well as to provide a manual for DMs, to initiate interoperation with TRUSTS.

Around the "Register of Data markets", a vibrant community for the Data Sharing projects will be created, including platforms and stakeholders that will contribute to define and populate this tool. This document will provide a guideline for T3.3 on how to create a DM community.

SES 02-3: Creation of the Data market Interoperability framework (standardisation).

For the development of a sustainable data market federator a data market interoperability framework is planned to be developed in this Stakeholder Engagement Strategy. In parallel with the "Register of Data Markets" activities (task 3.3), it is planned to organize or collaborate with two working groups for Data Market Interoperability, which are listed below:

- A data market Interoperability focus group (in collaboration with T3.3 & T7.4) (organization)
- Participation in interoperability working groups, such as BDVA-DAIRO TF10 & TF6.SG6



One of the outcomes of the working groups will include the elaboration, assessment and identification of required future development of a variety of concepts and standards.

We will cooperate with other networks and associations such as IDSA, DMA and BDVA to beckon stakeholders to participate in the interoperability focus group and associations. This type of collaboration will enrich and spread common frameworks, stimulate stakeholders to create new data concepts and to identify further interoperability standards.

IDSA Dataspaces Framework evolution will imply that TRUSTS stakeholders' community will contribute to driving a common standard for dataspace interoperability and contributing to enhancing the IDS Identity Management and developing an instance of an IDS compliant trusted connector.

TRUSTS project will contribute to the IDSA Dataspace standardisation goals through the standardisation working groups that IDSA and its associate members participate. Furthermore, TRUSTS stakeholders will contribute to the new version of the IDS Reference Architecture (IDS RAM4.0) with requirements and GAPS regarding data marketplace interoperability.

3.4.3 Project Objective 3 (O3): Developing the go-to-market approach to make it sustainable beyond the project finalization

The third objective of TRUSTS' that we want to focus on with our Stakeholder Engagement Strategy is to ensure that the project's outcome will become a viable and sustainable result, continuing to exist also beyond the project finalization. The involvement of the stakeholders is here meant to support the validation and refinement of commercially relevant demand for the platform and its data-services while they ensure early adopters' attraction and support to create "proof of concepts" related to scale and operations after the project finalization.

For this purpose, we defined four following Stakeholder Engagement Strategies (SES). One is focusing on the ability of the project's use cases to scale and valuation of the market approach. Another strategy is meant to carry additional pilots to the platform, with the aim to populate and making it appealing to potential users. Those will be targeted with the third strategy by attracting them already during the project. The fourth strategy concentrates on the project's need to address potential data market operators, which will be important to transfer the platform to a commercially viable product after the project finalization.

SES O3-1: Scale Up of project use cases

This SES concentrated on the platform validation and testing together with relevant stakeholders in the three use cases developed in WP5. It will use the test results and data to deliver impact analysis and assessment to systematically address the pilots' stakeholder perspectives for the three fields addressed in the project (Financial Institutions, Telecom Operators, Corporate Data Providers, etc.) to make sure that the use cases can scale and get commercialized.

Several mechanisms can be defined here to make sure that the platform use cases can scale and get close to the market: The first approach involves the seven use case partners directly involved in their creation. To further engage them makes them familiar with the platform, we propose a use case working group that allows the sharing of experience, supporting new service definitions and pilots' functionalities cross-



selling. Additionally, in collaboration with T7.5, we will define the partners' business model beyond project finalization and how to exploit the TRUST platform.

The second approach involves companies from the DMA, IDSA Ecosystems and data-driven Start-ups in the same sector. Some examples of stakeholder's engagement mechanisms for achieving the above-mentioned goal are Datathons, such as [EU-Datathon](#). The strategy foresees to team up with other projects and initiatives in order to reinforce the community building impact. In addition, we can collaborate with acceleration initiatives such as [DMS Accelerator](#), lead by Zabala; DMA start-ups support program or IDSA adoption team.

SES O3-2: Enrichment of the pilot projects: bringing new use cases to the platform

Attracting potential users as pilot candidates (i.e. meaningful combinations of sellers, buyers and services) as well as identifying how to scale, position and fine-tune TRUSTS is another mechanism to reach the goal of creating a sustainable TRUSTS outcome. The most powerful users that can provide the platform with new use cases may be the following:

- Financial Institutions,
- Telecom Operators,
- Corporate Data Providers/Users.

Along with the identification of commercial end users of the platform, based on the project use cases, it may be interesting to identify different business applications for organisations that treat personal and sensitive data and who want to share data anonymously; or those public authorities that want to share open data in a federated infrastructure or to define and create domain data circles. The goal of data circles is to build the exchange and trade of multiple data sources and services in a way sustainable value creation and individual business profit can be achieved.

We can identify ongoing initiatives in different fields, such as in logistic sector ([iShare](#), [SCSN](#) or DataPorts), in Mobility sector (IDSA Mobility Data Space or Mobility pilot in DMA) or Catena-X, in manufacturing.

We could reach more than 50 companies and entities which could be included in the platform at this point in the project. Furthermore, we can select from 3 to 5 additional pilots to implement before project finalization. It is important to set and define the mechanisms which have to be used, whether they use federations, associations or incubators to achieve these KPIs.

SES O3-3: Scaling the platform by promoting it to early adopters

One mechanism to ensure a sustainable data market federator is to promote the federation functionality as early as possible to early adopters already during the project. This will enable a smooth take-off of the platform since there are already first customers available that accelerate the visibility to others and will increase the willingness of further customers to follow. This SES, therefore, approaches already existing data markets, data market operators and existing data sharing initiatives in order to ask for suitable matches. Since the core of the TRUSTS federation is to enable data sharing across different platforms, first customers may be users of the just mentioned existing data sharing facilitators. Approaching them and presenting the benefits of the federation to those stakeholders, that are already using data sharing platforms is here the core of this Stakeholder Engagement Strategy. This will also be fostered by the trainings TRUSTS is planning to offer, especially to the technical audience, such as data analysts (developed in task 8.5 of TRUSTS).



Another focus will be set on the [GAIA-X](#) consortium since they will also benefit from concrete implementations. The GAIA-X initiative is developing a federated data infrastructure for Europe, with more than 270 organisations and members and more than 70 use cases identified in agricultural, energy, finance, geoinformation, health, industry 4.0/SME, Mobility Public Sector and Smart Living, more information is available on the [web](#). GAIA-X is working on several use cases in the financial sector, the Financial and Insurance data space (co-lead by Patrick Laurens-Fings), is looking for technology partners. This could be a starting point to engage with the GAIA-X initiative and proceed then with exploring the most interesting use cases and working groups, participate in webinars and other engagement activities. Also, the BDVA is in its function as a multiplier, a valuable stakeholder and needs to be involved. The International Data Space Association's network as well as its usage and enhancement of their standards within the TRUSTS federator qualifies them as a relevant stakeholder that needs to be approached, too. The Data Intelligence Offensive, as are the former Data Market Austria, should be interested in providing such services to their members and make these similarly important.

Start-ups developing innovative solutions will be early adopters of the TRUSTS platform to develop their services based on datasets available in the TRUSTS data marketplace. We see an opportunity to collaborate with [DMS Accelerator](#) because they could be a multiplier due to having access to a community that has a portfolio of 100 companies. We can establish a mutual beneficiary partnership to leverage TRUST services and resources to potential start-ups in fintech sector and other sectors.

SESO3-4: Enlisting of a TRUSTS platform operator

The hand-over of the TRUSTS platform and platform federator in the end of the project to a platform operator, a commercial entity that owns and facilitates the technical part of the platform, is of utmost importance for the continuation of the project's result. Consequently, potential TRUST Operating Companies (TrustOpCo) must be addressed and involved.

To raise the attractivity of the platform for an operator, all project partners need to define formats, arrange necessary IPR agreements, contracts and governance framework for the platform operations, developments and post-project maintenance.

Some project partners, IT service providers and start-ups can be candidates to become TRUSTS platform operators. The TRUSTS operator must reach the following requirements for its profile definition:

- IT Infrastructure provider
- Platform Development and Maintenance Service provider
- IT-related Services provider
- Business & Marketing service provider
- Community Management
- Consultancy Service provider
- The additional idea is that they could be early adopters

Along with the business perspective of the project and the development of a data marketplace, special interest is delivered at the dissemination of the TRUSTS platform to the target group technology/infrastructure providers. This target group encompasses the industrial technology providers and data service providers since they are already engaged in data sharing activities. First candidates need to be identified and brought together from the participants in the TRUSTS' workshops and focus groups. More candidates can come from the IDSA or DMA communities, members of research organisations such as BDVA-DAIRO or industrial associations such as Digital Europe.



However, we hope to particularly attract potential TRUSTS platform operators from the GAIA-X communities as GAIA-X supports the alignment of network and interconnection providers, Cloud Solution Providers (CSP), High Performance Computing (HPC) and specific clouds as well as edge systems. These are the type of IT providers that have the technology and business expertise to hold the function as an operator.

Additionally, we will collaborate with DMS Accelerator to foster dialogue and possibly find a start-up that can integrate the TRUSTS platform in their solution or develop the platform operation for their purpose.

The table below summarises the Stakeholder Engagement Strategies (SES) that has been exposed previously. Each objective pursued with the strategy shows why we need the stakeholders to achieve the project's goals. For each objective, we identify the stakeholder engagement strategies, it means HOW we propose to engage with the stakeholders and finally who we need to engage.

Table 25: Summary of Stakeholder Engagement Strategies

Project Objectives for M36	Supported by... (WHY)	Stakeholder Engagement Strategy (HOW)	Who to engage? (WHO)
O1. Setting up a fully operational European Data Marketplace	Support for development of the platform and its interfaces	1. Project Use Cases support: Development, Validation and Testing	All use case partners (7 partners) as part of ongoing internal project interactions (support T2.3 and pilots' validation and testing in WP5 to engage with partners during the project): 3 use cases and 2 phases. In collaboration with T7.5 define the partners business model beyond project finalization.
O2. Creating a platform federation as TRUSTS' unique selling proposition	Attraction of early federation adopters, with a focus on <ul style="list-style-type: none"> • Collaborative design / development. • Validation of technical and business requirements for federation. • Propagation and creation of common 	2. Data Cloud Interoperability 3. Data market Federation: Business alignment discussions for initiating longer term soft and technical federation. Create a "Registry of data markets" 4. Data market interoperability	Open Data Clouds (and their operating custodians / associations / entities): EOSC and European Data Portal (interoperability solution for TRUSTS). Commercial data markets: Telekom Data Intelligence Hub and push for 1 more commercial data market, o such as ADVANEO or DAWEX. Data markets developed in research projects, co-design data market interoperability



	frameworks, new data concepts and interoperability standards requirements identification.	framework (standard)	framework: KRAKEN, i3.MARKET, Musketeer, Safe-DEED or Market 4.0 among others. Create a DM interoperability focus group (in collaboration with T3.3 and T7.4) Collaborate with interoperability working groups such as BDVA-DAIRO TF10 & TF6.SG6
O3. Ensuring the sustainability of the TRUSTS' outcomes	<p>Validation / refinement of commercially relevant demand.</p> <p>Attraction and support of early adopters to create "proof of concept" / nexus to scale operations after the projects.</p> <p>Verification of the applicability in new sectors/domains.</p> <p>Demonstrate the scalability of the platform.</p> <p>Dedicated platform operator.</p>	<p>5. Project Use Cases scale up: ... to make sure use cases can scale / get commercialized</p> <p>6. Pilot projects: bring new use cases to the platform</p> <p>7. Scale the platform: promote the platform to early adopters</p> <p>8. Identifying / establishing an operator</p>	<p>All use case partners ... and companies / data-driven start-ups in the same sector.</p> <p>Datathons such as EU Datathon; acceleration mechanisms such as <u>DMS Accelerator</u> lead by Zabala, DMA start-ups support programme or IDSA adoption team.</p> <p>Potential users for attraction of pilot candidates (i.e. meaningful combinations of sellers / buyers / services) but also to identify how to scale and how to position / fine tune TRUSTS. 50 companies / entities, maybe industry or data domain specific. Select 3 to 5 pilots, we need to define mechanism. Maybe use federations / associations for this, or incubators?</p> <p>Federations / Associations: identify or solicit support for an operator. We will focus on GAIA-X consortium (because they need implementation), BDVA (wide reach / multiplier), IDSA (as it uses and enhances their standards), DIO (as they are exDMA and might be interested</p>



			<p>to provide such service to their members).</p> <p>All project partners ... formats to fix IPR arrangements, contracts and governance framework for platform operations, development and maintenance post project, so platform is interesting for an operator. Also, idea was that they could be early adopters.</p>
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4 Stakeholder Engagement Plan

The purpose of this section is to provide an overview of different activities that are complementary to the regular outreach activities undertaken by WP8. The purpose of the plan is to make engagement requirements transparent, enable channelling of resources and support, and to control an adequate quality and quantity of engagements.

4.1 Approach

WP8 “Dissemination, Communication & Community Building” is responsible for outreach activities of TRUSTS in close alignment with T7.2. The communication plan that defines the interactions with stakeholders can be found in the public available deliverable D8.1 of the TRUSTS project. The stakeholder's engagement plan is a proposal to provide input for the different WP and Tasks that will enrich and enable interaction across activities of different WPs and Tasks.

4.2 Tactical stakeholder engagement

Besides the regular outreach activities undertaken by WP8, Stakeholder engagement is also tactical in nature i.e., opportunity-driven towards targeted activities in the strategic plan. From a tactical perspective, the aim of the engagement plan goes beyond increasing TRUSTS' visibility and outreach, a series of marketing initiatives are necessary to accelerate TRUSTS' market expansion, its extents to operational efficiency of TRUSTS.

4.2.1 Requirement's elicitation and specification

As mentioned in section 4.3, WP2 plays a key role in the TRUSTS. To ensure interactions across the project, workshops and questionnaires are important interactive means to engage with different stakeholders. WP2 would need to engage in the following activities within the specific approximate time.

Table 26: Requirement's elicitation and specification

Activities	Rationale for activity	Targeted stakeholders	Required input	Time
Questionnaire	<ul style="list-style-type: none"> The aim of the questionnaire being to collect general requirements about the need for specific stakeholder segments 	<ul style="list-style-type: none"> Civic society SMEs Large firms 	<ul style="list-style-type: none"> The design of the questionnaire should be done in collaboration with WP2, WP4, WP4. The essence would be to get a broad understanding of technical and business requirements 	Q2-2021



External Workshop	<ul style="list-style-type: none"> – To organize a workshop in the form of world café with experts to discuss the requirements and their fit within the TRUSTS. 	<ul style="list-style-type: none"> – Experts on business and technical aspects that would inform requirement 	<ul style="list-style-type: none"> – WP7: All members should bring a minimum of 5 external stakeholders 	Q4-2021
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Below are further details related to the Plan

- **Workshop:** Organized to capture requirements for SMEs and large companies. Two workshops with each targeting SMEs and Large firms. The logic behind the workshops is to understand requirements distinct for each users' group and thus provide better insights into T7.1 and T7.5. The workshop should organize in the format of the world café, where SMEs in different sectors are placed according to their sectors. Then SMEs in different sectors go through the requirements of the other sectors.
- **Questionnaire:** One questionnaire should be designed to target the civic society, public, standardisation bodies and professional associations. Because the questionnaire aims to target a broad base of users, the network of different TRUSTS partners should be leveraged for the distribution of the questionnaire.
- **Focus group with Experts:** The essence of interviews would be to validate results from the questionnaire and to get additional insights. This can be done in the format of world café, where participants are split into different subject domains identified from the questionnaire and workshop with SMEs and Large firms.
- **Interviews with potential TRUSTS customers:** Given that (T2.1 “Study on EU and Worldwide Data Marketplaces” TRUSTS could leverage its existing use cases in the financial and telecom companies. Interviews with these companies provide not only requirements but also probable future scenarios where the requirements might need to change for current users.

4.2.2 TRUSTS Platform implementation

TRUSTS platform implementation needs to involve potential early adopters, civic society data asset sellers and data asset buyers. These groups of stakeholders are important to share their concerns and provide feedback on how aspects in implementation phases can be refined and better be accepted in the market. The use of business Model tools could also be a useful aspect to follow the usability of the platform and guide potential early adopters' data asset buyers and sellers on how they navigate the platform.

Table 27: TRUSTS platform implementation activities

Activities	Rationale for activity	Targeted stakeholders	Required input	Time
Expert workshop	<ul style="list-style-type: none"> – Validation of vertical use cases – Test acceptance of the platform 	<ul style="list-style-type: none"> – Use case partners 	<ul style="list-style-type: none"> – T2.3: All members should bring a minimum of 5 external stakeholders 	Q1-2022



Workshop 1	– The aim of the workshop would be to target SMEs, medium and large firms, and data service providers. The aim would be to get plausible insights into services that are feasible to these groups of corporate actors	– SMEs and large firms	– T3.3 and T3.6	Q4-2021
Workshop 2	– The second workshop should be focused on potential data assets and buyers. The aim would be to understand their concerns, for example related to aspects of privacy and usability	– Potential data asset buyers and Sellers	– WP6, T2.3, T7.1, T7.5 Partners	Q1-2022
Workshop 3	– The aim of the workshop aims to ensure business and technical alignment	– Internal workshop. Participants should be experts from the different WPs	– T7.1 and WP3, WP4	Q4-2021.

- **Workshops:** The essence of the workshops should be geared at validation of the vertical cases. The workshops should target early adopters, SMEs and use case partners. The workshop should be organized in collaboration between all WP7 partners and support WP5 and T2.3. The essence of the workshop would be to understand existing implementation challenges and feedback that potential early adopters could provide. Insights from the workshop should further be useful to refine business model stress testing.

4.2.3 Privacy preserving technologies and business Model Consideration

Another key aspect of TRUSTS that requires close interaction with other work packages is the legal and ethical considerations WP6. WP6 can particularly contribute to T7.1 and T7.5 in terms of different legal aspects and their implication for business model.

Table 28: Privacy preserving technologies and business model implementation activities

Activities	Rationale for activity	Targeted stakeholders	Required input	Time
Focus groups	– To engage with standardisation and privacy related stakeholders	Standardisation bodies	– WP6	Q4_2021
Internal Workshop	– To test stress the business model business options T7.1. Focus groups to engage in experts review of the business model to forecast future scenarios.	– Use Case Partner – Owners of Privacy-Sensitive Data	– T7.5 and T7.1 partners	Q3_2022



Joint Workshop	– The essence of the workshop is to develop an understanding of the implications legal consideration might have for the business model	– WP6 and WP7 partners	– WP6	Q2-2021
External Workshop	– To test business model tools. The workshop should be done in the form of world café using an interactive tool such as a mirror.	– Data Market Operators – Academic Community – Policymakers	– WP7: All members should bring a minimum of 5 external stakeholders	Q4_2022

- **Workshops with legal Experts:** There is a need for TRUSTS to engage with legal communities. The workshops with legal communities are critical in that in considering privacy preserving technologies, privacy as design should be embedded in the design, not as a fringe aspect of the design. This requires that at least one workshop should be organized by month 30 before full stress testing is done for the business model. Taken this into consideration, this means that WP6 and WP4 need to have a close interaction. This close interaction should also be strengthened by a workshop organized by T7.1, WP6 and WP4 to ensure alignment between these three elements (technological consideration, Business consideration and privacy consideration) that need to be reflected in any viable product for TRUSTS. The aim of the workshop should be Framed around the issue of “balancing data anonymization and creating a resilient business that is open for new possibilities.” The aim in this regard would also be able to gather Techniques for privacy preservation that goes to enrich T4.1.
- **Workshops** in the form of focused groups need to target SMEs Medium and large firms. The essence of the workshop would be further to narrow down into specific concerns of each group of stakeholders. For example, to help gain better insights into the concerns of SMEs. The involvement of SMEs is critical since this is the group that is flexible and can easily experiment with the technologies. At the same time, large firms are particularly cautious when it comes to experimenting with technologies given their existing infrastructure.
- **Questionnaire: Prior** to having the workshops, a questionnaire should be sent out by T4.4, T4.1 with joint efforts by WP6 and T7.1 to understand the privacy concerns of SMEs, medium and large companies. Insights from the questionnaire could also inform workshops with legal experts and more refined analysis of the stress testing of the business model. It could even go start further to categorize these concerns along sectorial boundaries and not just at the level of firm size. The reason being that sensitivity of privacy concerns might not be solely a related to size of the companies (small, medium, and large) but also a sector issue. For example, much privacy sensitive design of the technologies might be needed in the case of health care sensitive provider than a logistic distributor etc. These concerns are not fully reflected in the current thinking of TRUSTS, so gathering inputs about those concerns inform T4.1.

4.2.4 Demonstration of the TRUSTS Platform in 3 business-oriented Use Cases

Also, the work package responsible for demonstrating and validating the TRUSTS platform regarding business aspects has a strong focus on involving the persons from the use cases since the demonstration



itself is being done with the help of the pilot use cases. Here, trials will be conducted (T5.1/2/3) together with stakeholders to **get reliable feedback** on the TRUSTS platform and to derive lessons learned from it. The stakeholders and TRUSTS benefit from gaining proven pilots which can be used in the future.

Table 29: Demonstration of the TRUSTS platform in 3 use cases implementation activities

Activities	Rationale for activity	Targeted stakeholders	Required input	Time
Internal Workshop	<ul style="list-style-type: none"> To test stress the business model business options T7.1 Focus groups to engage in experts review of the business model to forecast future scenarios. 	<ul style="list-style-type: none"> Use case partners 	<ul style="list-style-type: none"> T7.5 and T7.1 partners 	Q4_2021
External Workshop	<ul style="list-style-type: none"> To test business model tools. The workshop should be done in the form of world café using an interactive tool such as mirror. 	<ul style="list-style-type: none"> Financial Institutions Telecom operators Corporate Data Providers 	<ul style="list-style-type: none"> WP7: All members should bring a minimum of 5 external stakeholders 	Q3_2022

- **Workshops:** The organisations of workshops with SMEs, medium and large enterprises. The essence of the workshop should aim at demonstrating use cases. These groups of stakeholders often want to the practicality of the developed solutions, to make any concrete commitment to the viability of the project. The involvement of these groups of stakeholders can further provide insights that can be used to set the basis of a minimum viable product. In this regard T5.1-T5.2.
- **Evaluation workshops:** The essence of the workshops should focus on Trials.

4.2.5 Developing a Legal & Ethical Framework for TRUSTS

The legal aspects are also a critical aspect of TRUSTS. TRUSTS deals also with legal and ethical principles that need to be considered by the project while implementing the platform federator. The project elaborates four different reports that are already or will be public available and deal with the four topics:

Workshops: The essence of the workshop would be to understand legal implications. A workshop with business exploitation (WP7) would be important. The essence of the workshop.

Table 30: Demonstration of the TRUSTS platform in 3 use cases implementation activities

Activities	Rationale for activity	Targeted stakeholders	Required input	Time
Focus groups	<ul style="list-style-type: none"> To engage with standardisation and privacy related stakeholders 	<ul style="list-style-type: none"> Standardisation bodies and association 	<ul style="list-style-type: none"> WP6 	Q1_2022



Joint Workshop	<ul style="list-style-type: none"> The essence of the workshop is to develop an understanding of the implications legal consideration might have for the business model 	<ul style="list-style-type: none"> Legal expert Business experts 	<ul style="list-style-type: none"> WP6, T7.1, T7.5 	Q2_2022
External Workshop	<ul style="list-style-type: none"> To test business model tools. The workshop should be done in the form of world café using an interactive tool such as mirror. 	<ul style="list-style-type: none"> SMEs, large firms Business model experts 	<ul style="list-style-type: none"> WP7 and WP6: All members should bring a minimum of 5 external stakeholders 	Q4_2021

4.2.6 Exploitation & Innovation Impact Assurance

To offer a viable business model for the TRUSTS platform (T7.1) external stakeholders (SMEs and large firms) need to be consulted during the process. For as identified in section This will ensure the market fit of the business model and will provide insights for the stress-testing of it by running it through a variety of potential future scenarios. The table below provides more details into the nature of the engagement activities to foster exploitation and innovation Impact Assurance.

Table 31: Exploitation and innovation impact implementation activities

Activities	Rationale for activity	Type of stakeholders needed	Required input	Time
Focus groups	<ul style="list-style-type: none"> To engage experts and review of the business model to forecast future scenarios. 	<ul style="list-style-type: none"> Experts on business Model 	<ul style="list-style-type: none"> WP7 	Q2_2022
Internal Workshop	<ul style="list-style-type: none"> To test stress the business model business options T7.1 Focus groups to engage in experts review of the business model to forecast future scenarios. 	<ul style="list-style-type: none"> Experts on business model 	<ul style="list-style-type: none"> T7.5 and T7.1 partners 	Q3_2022
Joint Workshop	<ul style="list-style-type: none"> The essence of the workshop is to develop an understanding of the implications legal consideration might have for the business model 	<ul style="list-style-type: none"> Legal professional Business professionals Technical experts 	<ul style="list-style-type: none"> WP6, T7.1, T7.5, WP4 In the absence of external legal experts, WP6 should leverage its expertise for the workshop 	Q4_2021



External Workshop	<ul style="list-style-type: none"> – To test business model Hypothesis. – The work should rely on 3 use cases and involve SMEs. These stakeholders would form potential pilots – The workshop should be done in the form of world café using an interactive tool such as mirror. 	– SMEs and Large firms	– T7.1 and T7.5: All members should bring a minimum of 5 external stakeholders	Q4_2021
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- **Workshop 1** (Focus Group): WP7.1 would need to organize focus groups to engage with external stakeholders who will function as experts to forecast such scenarios. Potential stakeholders for the workshops would include SMEs, large and medium-sized corporations, government organisations, and NGOs who need to trade in the secure and reliable data exchange market in Europe, data professionals would also constitute a key major stakeholder group, who can share ideas on data analysis training services that could be consider for the business model.
- **Joint workshop** between T7.1 and WP4 and WP6. The workshop between these work packages would be to understand how legal and technical aspects can inform the stress testing of the business model. For example, the current proposal of legislation such as the digital marketing act, data act, could be useful to inform how the business model could be refined. These workshops should be organized by early September 2021. The essence would be getting the insights that can enable the test stressing of a business model that is viable.
- **Workshop 2:** The second workshop should focus on the use of business model tools. It should use Mirror to enable the interactive aspect across groups. The essence of using the tools would be to visualize plausible business model possibilities. This workshop should be organized in collaboration between all partners in WP7.
 - The first part of the work should be an internal workshop where partners get acquainted with the tools.
 - The second part of the workshop would be to get stakeholders, particularly early adopters, project use case partners, SMEs, and large firms. The idea would be for all partners in WP7 to each bring a minimum of five external stakeholders who can participate in the workshop. The essence would be to understand the feasibility of the tools in enhancing the development of new business models.
- **Questionnaire:** A questionnaire would be needed to complement the focus groups and Interviews. The essence would be getting insights into more general aspects such as demographics and specific offers a potential data marketplace could address. Such as can further be useful in refining pricing consideration and more refined target market analysis in the later stages as TRUSTS platform goes operational.

4.2.7 TRUSTS Platform Users:

Primary Users: To engage with potential primary users (data asset sellers and data asset buyers), TRUSTS need to have showcased events with potential data asset sellers. This group of stakeholders are particularly relevant for TRUSTS but are reluctant to engage if a clear value proposition is not offered. Demonstration of use cases that show concrete mutual benefits is vital for engaging potential data asset sellers. Hackathons to reach a wider audience of primary users is also an important activity. Through hackathons, interested stakeholders and potential data assets would be invited. The goal would be to



highlight potential services that can be developed from the data that is being shared. Through these hackathons, developers would be given different challenges that relate to the needs of different data asset sellers. For example, to entice a data asset buyer in the automotive industry, challenges would address aspects of mobility (e.g., traffic congestion, ridesharing, optimizing traffic) using data. The challenge should also have an element of TRUSTS' value proposition which is security, trustworthiness of the meta-data. This is intended in ensuring privacy of data of different stakeholders, a key component of the challenge would be to evaluate how the different services address aspects of privacy.

Data service providers: (Federated data service providers and Data solution providers) are key constituents. These are companies and organisations that provide solutions or additional services along the data value chain. For example, services for data analysis, integration, cleaning the data service intermediary such as broker service providers or app providers. These groups of stakeholders might not be directly involved in the provision of data. However, their activities along the data value chain are important in providing insights into TRUSTS. For example, how to engage data asset sellers and data asset buyers. Because data service providers can have close contact with end users e.g., financial companies and telecom operators that develop data-sharing and data analysis for financial risk evaluation, TRUSTS can have a close partnership or partnership programs with these data service providers since their insights can bring provide opportunities to bring in potential customers and platform service consumers.

In this regard, monthly webinars organized by WP8 should aimed specifically at data service providers. The webinars should address aspect of mutual benefits data service providers could gain for example by recommending TRUSTS as across their customers or referrals which. The webinars organized by WP8, can equally be supported activities demonstrating use case undertaken by WP5. The essence of webinars and complementing with use cases would demonstrate a practical aspect into the discussion rather than just limiting at the level of webinars.

Table 32: TRUSTS platform primary users and service providers implementation activities

Activities	Rationale for activity	Targeted Stakeholders	Required input	Time
Webinar	<ul style="list-style-type: none"> To share knowledge on avenues where TRUSTS can partner in joined showcasing event and discussion of mutual benefits 	<ul style="list-style-type: none"> Data service providers 	WP8: Organization of webinar with data service providers	Q1_2022
Use case demonstration	<ul style="list-style-type: none"> To demonstrate potential mutual benefits for data services providers Gaining access to the network of data service providers, and recruitment of potential adopters of the TRUSTS 	<ul style="list-style-type: none"> TRUSTS use case partners Data service providers 	WP5: Organization of use case demonstration	Q3_2021

The data consumer or data user represents the demand side of the TRUSTS data market, the data buyers. Their benefit to use TRUSTS platform lies in the chance to find good matches for specific use cases (e.g., find a dataset that could be used for a specific algorithm/service), the data users or end users' communities will define the stakeholders that directly involved and using the TRUSTS platform. These could be split into the following:



- Financial and Telco companies, the increasing opportunities of data-based services innovation has made companies look for datasets that they can use to develop services. The first iteration for stakeholders' identification will come from the project's use case partners in Telecommunications (Telco) and Financial Industry that will be involved in the definition of the business model and platform sustainability.
- Service providers, the rapid development of AI allows the corporate service providers to develop data-base services for fraud detection and prevention, increase customer loyalty and provide advanced solutions for anonymization and visualization of data shared between companies. The first iteration for stakeholders' identification will be the ICT partners in the pilots.
- Other end users (not covered by TRUSTS use cases). In parallel with the identification of commercial end users of the platform based on the project use cases that may be interesting to identify different business applications for organisations that treat personal and sensitive data and wants to share data anonymized or public authorities that wants to share open data in a federated infrastructure or define and create domain data circles. The goal of data circles is to build the exchange and trade of multiple data sources and services in such a way that sustainable value creation and individual business profit can be achieved.

4.2.8 Infrastructure Providers

To engage with infrastructure providers, workshops and focus groups participation. The first source for business identification is members of the IDSA and DMA community and direct contacts from consortium partners. In addition, these companies participate and are members of research organisations and industrial associations such as BDVA-DAIRO, Digital Europe. Contact by T3.3 should be made with these associations and define a join collaboration programmed; these organisations act as multiplayers and can allow us to access several stakeholders. The benefit for TRUSTS would be to gather state-of-the-art solutions, whereas the stakeholders would get the chance to promote their own solutions. Therefore, the audience for these activities would encompass data platform providers and standardisation bodies. Questionnaires could be one solution to tackle this, but a workshop with focus groups would also be a rich solution to gather insights on current interoperability solutions.

Table 33: TRUSTS platform infrastructure providers implementation activities

Activities	Rationale for activity	Targeted Stakeholders	Required input	Time
Workshops to support collaboration	– To Joint collaborate and demonstrate mutual benefits. for TRUSTS this would be to gather state-of-the art solution. for infrastructure providers they would have the chance to promote their own solution	– Infrastructure provider – IDS – DMA	WP7, WP4	Q3_2022
Questionnaires, surveys	– The aim of the questionnaire is to gather insights from infrastructure providers. This questionnaire would be supported by insights from workshops.	– Infrastructure provider	WP3	Q1_2022



Focus group participation	<ul style="list-style-type: none"> Focus groups organized in collaboration of T3.3 intended to understand relevant interoperability solutions for TRUSTS 	<ul style="list-style-type: none"> Data service providers Infrastructure provider 	WP3(T3.3)	Q4_2022
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4.2.9 Early adopters

Early adopters (Project use-case partners, Pilot project partners, post-launch early adopters) are a critical aspect in the sustainability of TRUSTS. TRUSTS as a platform brings together distinct groups of actors. This means network effects are a key aspect. Network effects describe how the value of a platform is dependent on the number of users attracted to the platform. For example, the more data asset sellers are participants on a platform, the more value the platform would become for prospective data asset buyers, since they are exposed to more data assets available on the platform. Accordingly, TRUSTS is vulnerable to the chicken-and-egg problem where a distinct group of users' groups are often in wait- and-see gain for others to join the platform. This problem can be critical for early adopters, especially when the value proposition for TRUSTS might be uncertain. WP5 focusing on demonstrating and validating the TRUSTS platform regarding business could play an essential role in this regard to showcase the benefits of the platform and pilot use cases. Through this demonstration Here, trials will be conducted (T5.1/2/3) together with stakeholders to get reliable feedback on the TRUSTS platform. The stakeholders and TRUSTS benefit from gaining proven pilots which can be used in the future.

Table 34: TRUSTS platform early adopter implementation activities

Activities	Rationale for activity	Targeted stakeholders	Required input	Time
Focus groups	<ul style="list-style-type: none"> Focus groups to engage in experts review of the business model to forecast future scenarios. 	<ul style="list-style-type: none"> Project use-case partners 	T7.1, T7.5, T2.1	Q3_2022
workshop	<ul style="list-style-type: none"> Workshops to test stress the business model business options T7.1 Focus groups to engage in experts review of the business model to forecast future scenarios. 	<ul style="list-style-type: none"> Pilot project partners, post-launch early adopters 	T7.1, T7.5, T2.1	Q4_2022

Project use-case partners: TRUSTS can take a variety of approaches to recruit early users. First, they can participate in various fundraising events within the EU. One way to do this is to use the European Fundraising Association (EFA) and its members to find out about the schedule of significant fundraising conferences in the EU countries during the next few months. Stakeholder engagement is also a crucial element when it comes to the validation of the vertical use cases (T2.3). Here, the value lies in the validation of current and interim results directly by potential customers, which will create acceptance on the market already during the project. Involved stakeholders will feel as part of a development process and will therefore not only build a bond to the project, but also are more inclined to use the result at the end. Further, since the stakeholders, in this case, are the project's industrial associates of the consortium partners (the use case partners), they will gain a deeper knowledge of the whole project, what can be



described as satisfying. Preferred tools are here scenario workshops and the creation of test cases, as well as questionnaires, surveys and focus group workshops.

Table 35: Project use cases partners implementation activities

Activities	Rationale for activity	Targeted stakeholders	Required input	Time
Scenario workshops	<ul style="list-style-type: none"> – To review the business model to forecast future scenarios. – Workshops to test stress the business model business options T7.1 	<ul style="list-style-type: none"> – Project use case partners 	WP7, WP5	Q3_2021,
Focus group workshops	<ul style="list-style-type: none"> – Focus groups to engage in experts review of the business model to forecast future scenarios. 	<ul style="list-style-type: none"> – Project use-case partners, – Pilot project partners, post-launch early adopters 	WP7, WP4, WP5	Q2_2022

Table 36: Pilot project partners implementation activities

Activities	Rationale for activity	Targeted stakeholders	Required input	Time
Focus groups	<ul style="list-style-type: none"> – Focus groups to engage in experts review of the business model to forecast future scenarios. 	SMEs and large firms	Organized by T7.1 and T7.5	Q1-2022
workshop	<ul style="list-style-type: none"> – Workshops to test stress the business model business options T7.1 – Focus groups to engage in experts review of the business model to forecast future scenarios. 	Data asset buyers and sellers	WP7 All partners bring a minimum of 5 stakeholders	Q4-2021

4.2.10 Primary Users

SMEs: SMEs play a key role in developing and growing disruptive new business models. A key aspect of TRUSTS would be to gain strategic insights into SMEs, to understand their perspective as regards data-driven business models that help sharpen the testing of business models. In addition, TRUSTS can also take the initiative to participate in several start-up-investor meetings that are widely known in Europe. TRUSTS can also proactively seek out top capitalists for funding. Angel investors often expect to make considerable profits in a brief period due to the substantial risk of losing their principal, which is difficult for TRUSTS to do. Therefore, TRUSTS can only raise funds from venture capitalists. Potential SMEs from the industry would be vital in testing stressing the business model in T7.1. The input provided by these groups of users would be important to refine the business model.

Table 37: Primary users implementation activities



Activities	Rationale for activity	Targeted Stakeholders	Required input	Time
– Focus groups	– To engage in experts, review of the business model to forecast future scenarios.	– SMEs,	Participant of WP4, WP7 and WP2	Q4_2021,
– Workshop	– Workshops to test stress the business model business options T7.1 – Focus groups to engage in experts review of the business model to forecast future scenarios.	– SMEs – Project use case partners	WP7, WP5	Q1_2022

Scientific Community: TRUSTS should be engaged in activities such as conferences. TRUSTS could act as co-sponsors of a conference to engage with the scientific community. This should include the developing proposals or calls for papers where a short paper abstract of papers is written. A paper development workshop could equally be organized. The aim of the paper development workshop would be to engage in interdisciplinary research activities that could enable cross to fertilize of research output.

Table 38: Engagement plans scientific community

Engagement plans Scientific Community				
Activities	Rationale for activity	Targeted options	Required input	Time
Conference	– To share knowledge on the educational activities of TRUSTS. This could be a conference that TRUSTS co-sponsor.	– Calls for papers targeting	WP8 Should provide the inputs and all researchers within the WPs should provide additional inputs.	Q4-2021
Paper development workshop	– The paper workshop should be organized between the different work packages to explore areas for collaboration	– Paper development workshop	All	Q4_2021



5 Conclusions and Next Actions

TRUSTS project is researching and developing a platform based on the experience of two prominent national projects: Industrial Data Space and Data Market Austria. This platform will allow TRUSTS to integrate and adopt more easily other future platforms. At the same time, trust will be fostered by developing and bringing closer to production privacy-aware analytics methods (multi-party computation).

TRUSTS will ensure **trust** in the concept of data markets; the TRUSTS platform will act independently and as a platform federator, while investigating the legal and ethical aspects that apply to the entire data valorization chain from data providers to consumers. This overall project objective is detailed in three goals related to stakeholders' engagement:

- Entirely operational European Data Marketplace set up, focusing on data security, data sovereignty, and enabled data service interoperability.
- A platform federation creation, this platform will allow the integration and adoption of current and future platforms.
- The go-to-market approach development will ensure to make it sustainable beyond the project finalization.

For a successful implementation of the project's goals, the stakeholder's engagement plays a crucial role in assuring the platform's acceptance and creating a community of early adopters. But it is essential to involve, activate, and create a stakeholder's community that participates actively during the project's life. To this end, the purpose of this deliverable is to define a comprehensive stakeholder engagement strategy (SES) and a detailed stakeholders engagement plan (SEP) with entities from relevant stakeholder groups to benefit the TRUSTS project and its sustained operations beyond the project.

To define stakeholder's engagement strategy (SES), we have followed a five stages methodology. The first step was the stakeholder's identification and mapping, then the stakeholder's prioritisation based on effort, impact, or the project phase to engage with stakeholders more efficiently. The third stage is the stakeholder's analysis under the business perspective to define the different user groups. The fourth stage is the stakeholder's engagement needs. It has assessed the project work package and use cases needs regarding stakeholder engagement and, finally, the Stakeholder Engagement Strategy (SES) based on TRUSTS' core objectives that are the base for the Stakeholders Engagement Plan (SEP).

The stakeholder's identification and analysis developed in chapter 2 has concluded on the identification, mapping and prioritisation of the TRUSTS stakeholders' categories indicated in the table below:

Table 39: Summary of stakeholder's categories mapping

Stakeholder's Categories	Stakeholder's mapping
1. TRUSTS platform users: Customers	IDSA and DIO; eBOS, FORTHNET S.A. (NOVA), InbestMe, PIRAEUS BANK SA, FORTH, Alpha Bank and RELATIONAL RO Telekom DIH, ADVANEO; GAIA-X, Catena-X, iShare
2. TRUSTS platform users: Technology/Infrastructure Operators and Providers	GAIA-X, IDSA, DIO, EUCLIDIA, Digital Europe
3. Associations, Organisations & Initiatives	BDVA/DAIRO, ECSO, EOSC, FIWARE, AIOTI, EFFRA, CLAIRE, GAIA-X, IDSA, DIO, EU Open Data Portal, Digital Europe,



4. Research & Academy	KRAKEN (Atos), i3-MARKET(NUI), DataVaults (Fraunhofer Society), DataPorts (ITI), Musketeer (IBM), Safe-DEED (KNOW-CENTER GMBH), WITDOM (Atos); Market4.0 (Intrasoft), StandardICT, ISO, W3C, DIN
5. EC & Policy Makers	EC; DG CONNECT; EDPB, EDPS

The stakeholder's categorisation is based on the target platform users and future customers and the direct market environment scanning. Another important aspect analysed in this chapter is how stakeholders can support project sustainability beyond project finalization. During the project realisation, we will attract users from the private sector, referred to as "Primary Users" of the data market that will trade with their data assets on the platform.

The stakeholder analysis goes beyond project development and demonstration and look in depth on the market needs and sustainable business models. This analysis provides us with some insight into how to approach supply-side and demand-side, for example, presenting challenges that data-driven start-ups and SMEs can respond to the challenge with solution proposals. This approach demonstrates the role of the data market to stimulate the dynamics of data assets seller-buyers relationship as part of an integrated business model defined in T7.1 and T7.5. Such an approach, that has been already considered in the stakeholder's strategy, was already successfully pursued during the DMA project, whereby public funding was provided to data-driven start-ups and SMEs as part of a competitive call to support innovation, attract pilots to the platform, and promote the benefits of data sharing and trading.

To achieve the three goals related to stakeholders' engagement, eight stakeholder engagement strategies has been defined. For each strategy, we describe the purpose, the stakeholders that need to be involved, and provide a high-level guide on how to engage them to develop the Stakeholder Engagement Plan (SEP).

The Stakeholder Engagement Strategies (SES) are:

- SES O1-1: Project use case support
- SES O2-1: Involving Open Data Cloud Communities for targeting Data Cloud Interoperability.
- SES O2-2: Attraction of early adopters for the validation of technical and business requirements for the federation.
- SES O2-3: Creation of the Data market Interoperability framework (standardisation).
- SES O3-1: Scale Up of project use cases
- SES O3-2: Enrichment of the pilot projects: bringing new use cases to the platform
- SES O3-3: Scaling the platform by promoting it to early adopters
- SESO3-4: Enlisting of a TRUSTS platform operator

The stakeholder engagement provides an overview of activities that should be leveraged by TRUSTS to ensure interaction across work packages and Tasks. The plan is complementary to the regular outreach activities undertaken by WP8. However, the stakeholder engagement plan specifies activities that can be concretely undertaken to operationalize TRUSTS's strategy. The activities are opportunity-driven implying that the timing of the activities may be adjusted as new opportunities arise requiring targeted activities. The timeframes in the plan are approximation given that alignment and coordination between the different WPs and Tasks would be needed to fully settle on specific dates when the activities are undertaken. The next step would be focusing on operationalizing the activities for the next half of the project. For example, stress testing of the business models, in collaborations with different WPs through workshops with experts.

