D8.6 Concept for training and capacity building programme

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TRUSTS Trusted Secure Data Sharing Space

D8.6 Concept for training and capacity building programme

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Table of Contents

List of Figures

List of Tables

Glossary of terms and abbreviations used

Abbreviation / Term	Description
TRUSTS	Trusted Secure Data Sharing Space
SME	Smaller and Middle-Sized Enterprise
SAB	Stakeholder Advisory Board

1 Executive Summary

TRUSTS will offer training programs to allow SMEs and large Enterprises to apply the TRUSTS Data Market platform within their business model.
Particular attention will be paid to training technical audiences, such as data analysts, to continuously create awareness among a broad target audience about the project concept.
We should continuously understand the project's concepts and benefits for different target groups through activities and outcomes. The goal is to spread the technical results and generate knowledge with scientific and research communities of interest to promote and align the work with the external environment and existing communities of interest. Another target is to create expectations towards the project outcomes to prepare its exploitation in T8.1. Finally, e-learning materials will be available to support the training program further and significantly increase its reach, especially towards the general public.

To further solidify its impact on innovation in the EU, TRUSTS will opt to offer its Data Market platform and the accompanying training and materials, free of charge for one year, to start-up companies within the EU to support their growth.

The concept for the TRUSTS training program that is in place fosters data (science) related skills for capacity building in Europe's data economy. The central idea of the TRUSTS training program is to place the related abilities to future consumers by using the platform in Europe's data economy. Therefore, an assessment of the most relevant tools for the TRUSTS platform, such as webinars, podcasts, meetups, and more other similar tools, will be performed initially.
As part of the "inspiration" phase, we assess tools and methods on the market regarding training courses and capacity-building programs, as well as an inventory of evidence regarding their effectiveness. Mainly, a particular focus on initiatives carried out in the world of Data Marketplaces is necessary; it is the practice that will allow the consortium to identify currently available best practices and collect knowledge and more information about their implementation. Accordingly, the consortium partners are consulted about their understanding of existing relevant information and capacity-building programs, approaches, and effectiveness.
The result of this Deliverable (D8.6), "Concept for training and capacity building program," will be a summary of training and capacity building plans, if known, their effectiveness. Existing materials will also be evaluated to be included in the capacity building plan.
The aforementioned capacity-building program tries to broaden the playing field of Data Market owners by introducing powerful arguments for the target audiences. In addition to the overview of promising capacity-building programs, the task is also looking at the functioning of an organization as a whole entity, identifying negative examples to our scope parameters.
Our method has to anticipate some specific drivers and barriers within an organization to see what behavior, person, and level should receive training and participate in a webinar or workshop.

1.1 Concept and Methodology

In the "inspiration" phase, an analysis study looking for needs will determine the target groups' needs, motivations, objectives, emotions, and more. Analysis of previous and existing courses is also performed to select the appropriate content for the right audience. Organizational, cultural, and technical data are gathered from companies, and, in a further course, they will be analyzed. The "inspiration" phase will help you understand people, their hopes and desires, and get smart on your challenge. In the "ideation" phase, we will make sense of everything we heard, generate ideas, identify opportunities, test and refine our solutions. The proposed format for the capacity-building program includes developing training material and a new design of the project's tools. Finally, with the "implementation" phase, there is the chance to bring the solution to life by implementing the capacity building program, implementing ad-hoc courses, and delivering the selected list/portfolio of webinars, podcasts, meetups to the right target audiences and people's roles.

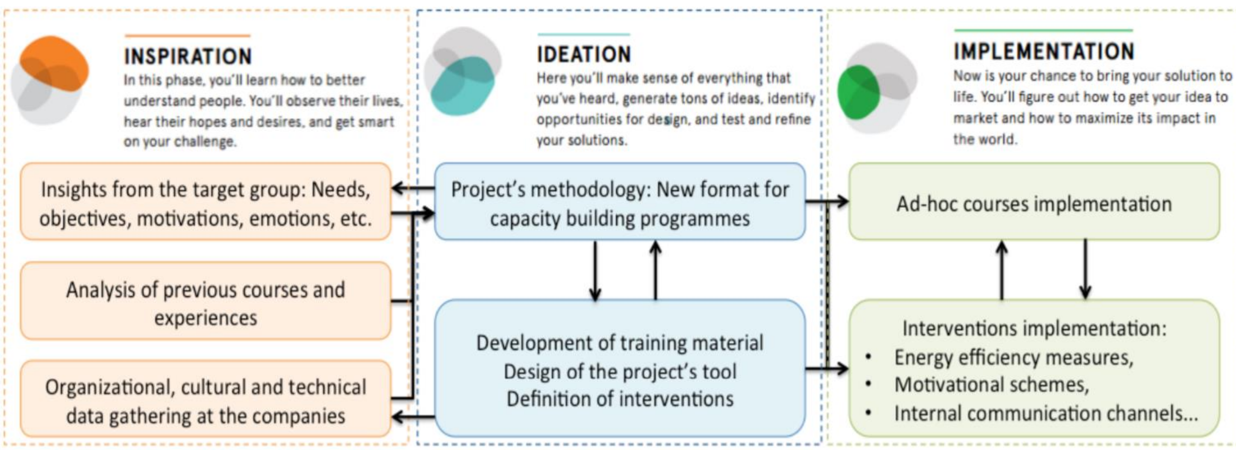

Figure1. Overview of the Human Centered Design approach in TRUSTS

Comparisons are made with target groups to identify gaps between what is provided, what is needed, and effective. In addition, technical, cultural, and organizational information is scrutinized by a consortium of projects collected from their respective companies. Finally, the needs and opportunities are assessed to define the criteria for the project's material implementation. The project will develop new formats of capacity-building programs by combining lessons learned from previous industry programs.

The result of this approach is, therefore, a standard methodology for the development of special courses. Training material and a toolkit include all the information related to the capacity building program, a list of training lessons, webinars, a podcast, and more others to choose from them.

In addition, this Deliverable should ensure the TRUSTS project will not reinvent the wheel but build upon already existing knowledge and programs.

WP2, WP7, and WP8 are giving an essential input to this task since they analyze the needs of stakeholders and are in contact with TRUSTS stakeholders to understand requirements, trends, focus subject areas, and more. All the current existing information channels already will be used by the target groups will be collected and mentioned. It is an excellent practice since they can provide opportunities to incorporate project outcomes and ensure that they will add to what already exists rather than repeating it.

In addition, since stakeholders interested in the project's performance are involved from the very beginning of the project, the entire project allows iterative evaluation of stakeholders' needs and expectations of the methodology.

The outcome of this process has the form of a list of candidate training materials per target group, which are documented in this Deliverable.

The focus of the stakeholder analysis and participation plan is stakeholder dialogue. It is an essential document for the future progress of the project because it explains how to simultaneously make the stakeholder participation process manageable and effective. Attracting and participating in relevant stakeholders is necessary for the success of activities based on collecting stakeholder information and activities that authorize stakeholders to use the TRUSTS data market. Therefore, as part of the Capacity Building and Stakeholder Analysis and Engagement Plan, many relevant stakeholders will be identified.

These stakeholders have been ranked according to their relative importance to ensure effective communication of the project objectives. Therefore, the main steps in developing a well-structured stakeholder engagement process include identifying stakeholders, determining stakeholder priority, and expanding engagement plans for stakeholder groups. In addition, the training method was used to educate participants to switch from a client's perspective in their aspect.

The Behavior Change Wheel (BCW) provides a structured approach for designing or updating behavior modification interventions and strategies. The purpose of it is to promote a systematic and comprehensive analysis of available options using behavioral change theory and available evidence. It also facilitates behavioral science and ensures that some of the interventions or strategies act synergistically—activities in the BCW process for designing intervention strategies related to writing and learning skills appropriate for participants.

The BCW will be implemented to specify the needed behavior and accompanied intervention and achieve the general objectives of this task which are the following:

- To develop methods and the necessary tools (including coordination and facilitation) for an essential need identification of "Data Marketplace" skills and an assessment of institutional readiness in using Data Markets
- Build a competency framework for the TRUSTS Data Market and Data Market Federator
- Identify and analyze the existing training supply for data analysts, data scientists, and the technical community.
- To review of experiences and lessons learned from different organizational structures and Data Markets
- Guide the development of a training program that addresses the gaps and mismatches identified in the document

- Moreover, the final objective to coordinate training plans based on the scope, the specific target group, or any other relevant stakeholders.

The sustainability analysis for training course/material is depicted below:

- Training Program Development
- train the trainer
- marketing
- course delivery
- update of the Training Program based on Feedback by the trainers.

Needed information will be collected from the partners. The consortium consists of a mix of relevant experts and organizations. Gathering all appropriate capacity-building programs and all relevant information sources that could help create the training started by asking the other consortium partners about their knowledge of existing currently relevant recorded information. The result of this process will be an overview of capacity-building and training programs, that way, and we will know its effectiveness and the structure of a TRUSTS-specific, tailor-made capacity building program.

Stakeholder Advisory Board (SAB) members and pilot companies will be consulted to provide information about their relevant capacity-building programs, but also their needs on this topic and the gaps that, in their view, exist when it comes to capacity-building programs.

2 Introduction

This deliverable aims to provide a method for capacity building and training within Europe's Data Economy, so people can acquire data-related skills. Time after time, the idea of capacity building is associated with the concept of advancing or increasing skills and competencies at an individual level, for example, staff training.
We must observe capacity building from a systemic perspective, and it should involve different clusters. Additionally, we should mention that there are many points of view, such as the ones from individuals, organizations, institutions, and society in general.
The impact and the contribution of every capacity-building strategy differs from country to country, as well as from person to person and institution to institution. This is due to the pre-existing historic, legal, economic, and social backgrounds. Furthermore, it is why capacity assessment is a top priority when developing any capacity-building program. Like Federico Fellini (Tutta l'arte è autobiografica; la perla è l'autobiografia dell'ostrica. Federico Fellini, su Atlantic, 1965 - All art is autobiographical; the pearl is the oyster's autobiography. Federico Fellini, on Atlantic 1965)[1]

Checklist for Training

- Before anything else, what needs to be ensured is that the foundation of communications and organizational design are in place before rolling out any training.
- Consideration of the 70-20-10 model of adult learning, which recommends a 70% focus on on-the-job training, 20% coaching, and only 10% should be an in-class experience.
- One more aspect that should be taken under consideration is the reinforcement in the training experience. For instance, it's often best to initially train managers to support their employees in implementing any change.
- Learning design works best when employees have the opportunity to "work out" their learning through shorter training sessions.

Overall our goal is to increase the capacity of organizations to think in new ways and realize the value of their contributions towards shaping and flourishing a new sustainable economy.

2.1 Purpose and Target Group of the Deliverable

Purpose of this section is to map the TRUSTS Grant Agreement commitments, both within the formal Deliverable and Task description, against the project’s respective outputs and work performed.

The objective of this document and deliverable is to provide a basic roadmap for capacity development beyond the duration of the project. In particular, we elaborate the assets developed in the project and the lessons learned, as well as the service options that can be used for capacity development in the future. We discussed the challenges, opportunities, and possible solutions that can improve capacity-building services in the context of TRUSTS project service delivery. This deliverable's training and capacity-building roadmap comes from direct interaction with stakeholders during hackathons and events, through online channels such as webinars and Slack channels, feedback forms, and extracted network statistics.

[1] https://www.oxfordreference.com/view/10.1093/acref/9780191826719.001.0001/q-oro-ed4-00004305

2.2 Deliverable Overview and Report Structure

The Training and Capacity-Building Roadmap presented in this deliverable is drawn from direct interactions with stakeholders during meetings, presentations, events over online channels, such as webinars and on the slack channel, and from feedback forms and extracted web statistics.

The rest of this article is organized as follows:

- Section 3 presents the TRUSTS Capacity building assets that the TRUSTS Consortium Members can leverage for training purposes.
- Section 4 presents the on-demand service options available on the capacity-building supplier side.
- Section 5 provides the General Recommendations and conclusions.

3 TRUSTS Capacity building Asset

Several reusable capacity-building assets were generated throughout the development of the Linked Open Statistical Data (LOSD) Pipeline. These assets will support the continued use and adoption of Pipeline in the future.

TRUSTS will create a European data market based on secure & trustworthy data exchanges with a focus on the telecom and banking/fintech sectors, building upon the reference architecture model for data spaces of the IDSA[2] and the knowledge gained in the project "Data Market Austria"[3]. **[1]**

During the development of the TRUSTS data market, several reusable capacity-building assets were produced. These assets will support the continued use and adoption of TRUSTS pipeline in the future.

Webinars:

TRUSTS Webinars can be found in TRUSTS YouTube Channel [4], where a variety of webinars are hosted, some of them but not limited are Business Aspects of Data Markets, Legal aspects of data sharing platforms.

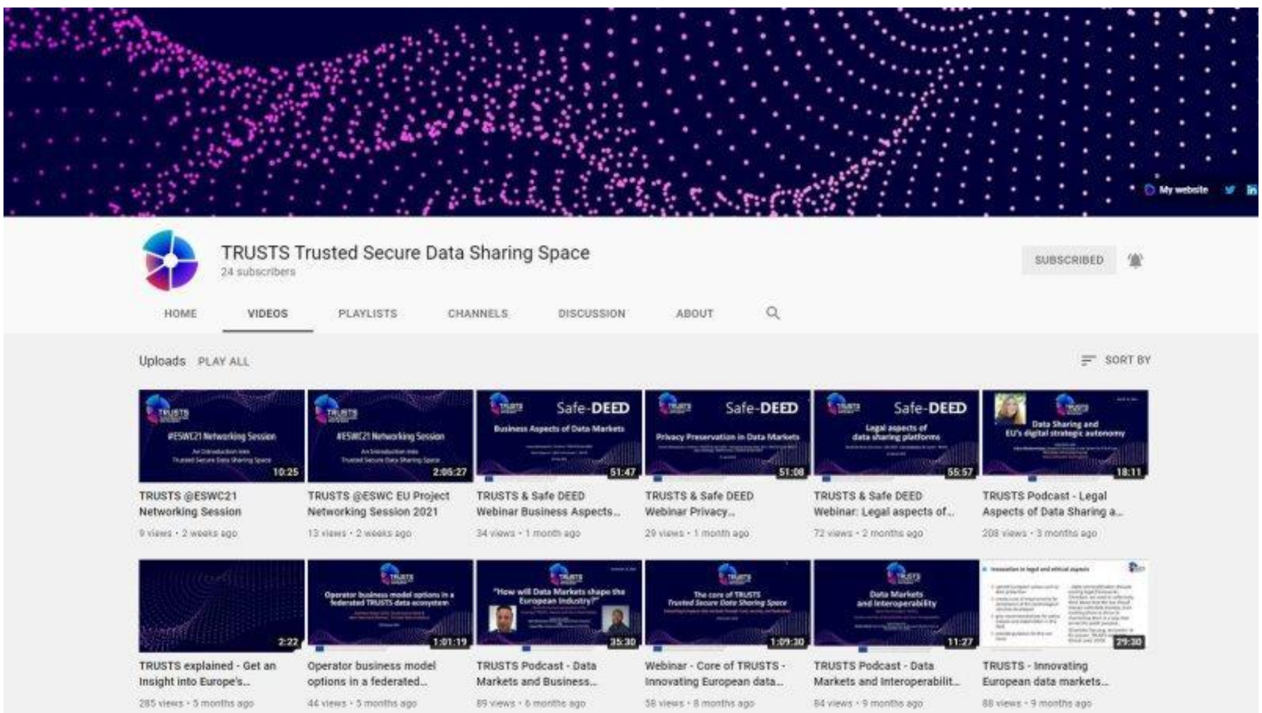

Figure 2: TRUSTS Youtube Channel

[2] internationaldataspaces.org, last accessed June 30, 2021
[3] www.datamarket.at, last accessed June 30, 2021
[4] TRUSTS YouTube channel, last accessed July 5, 2021

Site:

Trusts Website[5], is one of the main communication tools and content keeps getting updated during the project's lifetime.

Figure 3: TRUSTS Website

[5] TRUSTS Website, last accessed July 5, 2021

Knowledge Base[6]:

https://www.knowledgeportalcenter.com/default.aspx?articleID=12004

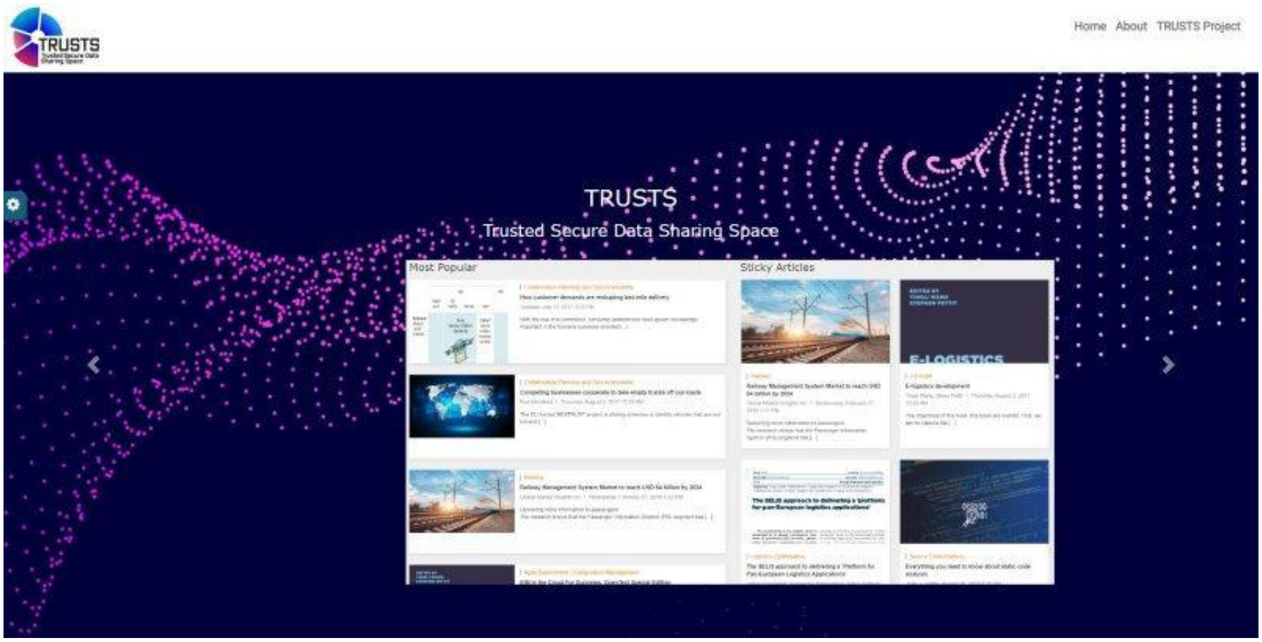

Figure 4: TRUSTS Knowledge

Deliverable 1:

D8.1 Dissemination and Communication Strategy, Design Guide, Materials, Communication Channels[7]

Deliverable 2:

D8.2 Website update, materials[8]

Other deliverables:

Further to the already mentioned deliverables the Dissemination, Communication and Community Building Deliverables[9] will be used.

[6] https://www.knowledgeportalcenter.com/default.aspx?articleID=12004, last accessed July 5, 2021
[7] D8.1 Dissemination and Communication Strategy, Design Guide, Materials, Communication Channels, last accessed July 7, 2021
[8] Website Update, materials, last accessed July 7, 2021
[9] Dissemination, Communication and Community Building Deliverables, last accessed July 7, 2021

3.1 Capacity Building Platform

We intend to leverage the established e-learning platform framework, Moodle[10], for the TRUST capacity building platform. This is to provide maximum ease of use and support for future enhancements. The framework allows for flexible assembly of coursework and learning materials, including interactive and multimedia components, efficient authentication and access control management.

We will promote Moodle to deploy learning content within six dedicated courses - three introductory courses and three hands-on courses. The courses will be composed of text (explanatory content and instructions), images (screenshots of tools) and videos (for demos and tutorials). Some of the courses will include extra quizzes to boost user engagement.

Information on the platform has been published and disseminated prior to hackathons and webinars to ensure that stakeholders have sufficient knowledge and skills to effectively participate in planned activities.

The platform will be running throughout the duration of the project and can be maintained beyond the project if required. A dockerized version will be developed, getting benefit of the platform's ease of use.

3.2 Learning Materials

→ Knowledge Base[11]: https://www.knowledgeportalcenter.com/default.aspx?articleID=12004

Part of the objectives of the TRUSTS project revolves around supporting learning processes about data, trust, and safety among European stakeholders and citizens.

TRUSTS intends to involve stakeholder groups using new and innovative tools to raise the interactivity among TRUSTS and online users.

For this, we plan to use innovative microlearning tools provided by Social Microlearning[12] (https://trusts.soml.it/#/stream) to generate user flows from Twitter, LinkedIn and the TRUSTS Website to the project's contents. Social Microlearning cards ideally support them in the learning-process about the content resulting from research and innovation efforts of TRUSTS in a modern and easily accessible manner.

The project's consortium and stakeholders will prepare microlearning cards over the lifetime of the project and will spread the individual cards on Twitter and LinkedIn. Members of the Consortium will contribute their specific knowledge and will also actively spread the content. Additionally, since Social Microlearning is community based, also users will add cards to the platform. English will be the common language for the microlearning cards to be coherent with the communication on Twitter and LinkedIn.

[10] moodle.org, last accessed June 30, 2021

[11] https://www.knowledgeportalcenter.com/default.aspx?articleID=12004, last accessed July 5, 2021

[12] https://trusts.soml.it/#/stream, last accessed July 5, 2021

The usage of the microlearning platform does not involve running costs for the project, only the initial setup was financed by the budget from DIO (WP8 Lead). One of TRUSTS' consortium members, the Research Studio Austria FG, provides the infrastructure and DIO took the lead in the process of planning and implementing the tool.

With the help of a diversity of card designs, users can experience a highly interactive tool.

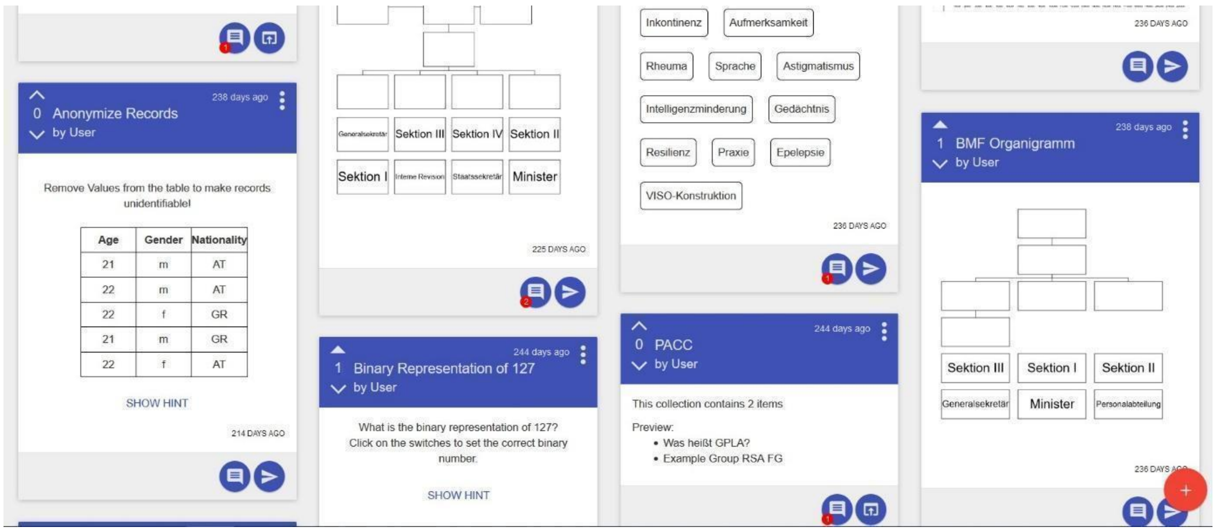

Figure 5: Social Microlearning

3.3 Capacity Building Services - Roadmap

Our main recommendation would be to make sure that the capacity building services are well aligned to the specific stakeholder needs, but also that they can be easily adapted to changing needs. In particular, the provider of the services must ensure maximum flexibility as the needs may shift during the service delivery as stakeholders learn about the topic (such as TRUSTS) and new questions, challenges and needs emerge. Therefore, the materials and services offered must be extensible and portable.

The best example is the TRUSTS mapping exercises, which proved to be a difficult task, yet one of the most critical elements of capacity building.

The analytic mapping exercise and thematic assessment will serve as a reference point for initiating discussions towards thematically-focused collaboration with transnational initiatives. Furthermore, the mapping exercises will establish an information base where stakeholders can contact international expert networks, projects and organizational bodies collecting comparable data.

Moreover, it offers an overview of potential partners and mechanisms for cooperation within the scope of the specific R&I priorities that are under consideration. Users required significant support from experts on those exercises and presented important value to the stakeholders. The mapping tools appeared to be difficult to use and the learning processes provided still required some human intervention. Therefore, future capacity building services should identify the critical elements as soon as possible and ensure very strong support for those issues. That support could be automated with the help of a variety of tools, such as “Interactive Tooltips” and “Chatbot”.

The initial extra resources spent on providing the training automation included in the tools themselves will definitely pay off when more stakeholders and more users are to be trained.

In terms of the mode of communication such as face-to-face interactions, e-mail, Slack channel and webinars, in-person interactions are always favored. However, due to limited resources, the best trade-off in communication is probably a well-supported Slack Channel and interactive webinars. This is mainly due to the synchronous nature of communication. Users require assistance live, as they explore the specific topic or while using the tool. The e-mail communication and ‘passive learning materials’ such as a PDF can work well as additional support but should not be in the core of the capacity building delivery. That is reflected in particular in the feedback received from experts, that the need for more interactivity is very high, which is understandable considering the fast-changing needs and requirements that emerge as stakeholders explore the topic.

3.4 TRUSTS Webinars

The webinar plan will be designed according to the above outlined categories (business considerations, use cases & pilots, legal considerations, technical considerations). Until M18, the consortium has provided one webinar per category and will perform the same amount in the rest of the project life cycle (until M36).

The approach will be chosen following the schema: first inform, then train. Training will be free of charge and will be announced on the project’s website. In addition, consulting services may be offered to small and middle-sized enterprises and other companies; depending on the tasks needs, the related partner must provide consulting.

Previous webinars:

Webinars in TRUSTS Project

Title	Webinar in YouTube
Operator business model options in a federated TRUSTS data ecosystem	(49) Operator business model options in a federated TRUSTS data ecosystem - YouTube
Legal aspects of data sharing platforms	(49) TRUSTS & Safe DEED Webinar: Legal aspects of data sharing platforms - YouTube
TRUSTS & Safe DEED Webinar Business Aspects of Data Markets	(49) TRUSTS & Safe DEED Webinar Business Aspects of Data Markets - YouTube
TRUSTS & Safe DEED Webinar Privacy Preservation	(49) TRUSTS & Safe DEED Webinar Privacy Preservation - YouTube

Future Webinars will be in the same categories, but with a hands-on focus in order to train the participants.

TRUSTS will provide summaries of research results, reports from conferences, interviews with key figures of the relevant industries, and success stories in the form of webinars and podcasts.

In contrast to podcasts, webinars can be used to collect broad feedback. Different technical solutions are feasible such as filming a speech and allowing viewers to comment in a blog, or an interactive video meeting or a series of presentations from different locations where viewers can comment in audio or in a chat form. Interested people can attend the webinars live or watch the recordings on the website.

The podcasts will be provided via a podcast platform and on the website. Via the tool Podigee, podcasts are published on Spotify and Google Podcast, which are widely used tools and are available on the web for multiple mobile operating systems. Participants per webinar and YouTube views per video will be collected and reported in the annual and final dissemination report. **[3]**

3.4.1 TRUSTS Meetups

We have the opportunity to exchange thoughts and ideas through regular meetups. The meetups are dedicated to more general topics and provide a room much more open, than for example webinars for discussions, brainstorming's etc. Meetups can be organized in different forms and follow different methods e.g., the World Café method[13], so that the participants can get together in smaller groups, discuss and get their questions answered. TRUSTS already had its first World Cafe meetup where 25 participants discussed for the following subjects:

- "Data sharing vs data trading" (moderated by: Ioannis Markopoulos, FNET)
- "Business models for datamarkets" (moderated by: Hosea Ofe, TUD)
- "Technical aspects of datamarkets" (moderated by: Martin Kaltenböck, SWC)
- "Environmental & social aspects of datamarkets" (moderated by: Stefan Gindl, RSA)

An example for a meetup would be: https://www.trusts-data.eu/event/data-world-cafe-meetup/

The attendance of TRUSTS consortium members at meetups, which should serve as a knowledge extension for further training organized by TRUSTS, will be collected in a reporting sheet.

3.4.2 Slack Channel

The Slack channel will provide an excellent means of communication for the members of the project. Usage will be infrequent in the early stages of the project. However, as the project progresses and more personnel will begin interacting with the TRUST Marketplace, the slack channel will become an important place for the consortium to interact with, answer questions and help the interested stakeholders with the use of the platform.

[13] http://www.theworldcafe.com/key-concepts-resources/world-cafe-method/, last accessed July 5, 2021

4 Capacity Building Lessons Learned

A general lesson from past events and meetups is the importance of a goal-oriented setting. If an interactive discussion starts, it must be made sure that a clear frame exists, including the best fitting setting as well as a clear outline of goals and outcomes. While webinars with a lecture character can reach many participants and make it easy to join, the possibility to speak up and ask questions directly is not always manageable there. For this aspect, workshops and meetups are initiated by the project's consortium.

Content related we learned that the legal aspects of data sharing are a topic of special interest within the community. There is a lack of clarity and a need for information when it comes to the Data Governance Act, conditions of sharing data and standardization. In addition, tools and software within the data related areas are of great interest – hands-on workshops will be a good way to fulfil that need of information and show how the TRUSTS platform and its functionalities can support businesses.

4.1 Capacity Building Approach

Our capacity-building approach includes several different techniques. In particular, we have relied on the Capacity Building Platform as a primary source and focal point for users to find necessary instructions and related documents. The second key element is direct user interaction via email, Slack channels, and face-to-face meetings, where experts guide users on their journey with the TRUSTS pipeline.

The TRUSTS Capacity Building Platform aims to assist the pilots and assist in major issues that will be reported in using the platform.

Therefore, the most challenges identified with that part of capacity building can also span from the most significant interest & popularity of that material. Users pointed out that more explicit materials or more assistance (including automated assistance) could be provided so that the user does not need to look for expert support to work with the TRUST's tools. That could be achieved by:

1. More detailed materials - more distinct steps in the materials, more help videos, and more explicit, step-by-step tutorials or supporting technologies such as chatbots or 'Interactive Tooltips' implemented in the tools that could ensure the highest level of automated assistance in learning new tools - discussed in the further part of this section
2. More interactive approach - more Moodle interactive features could also be applied to the courses. The standard practices and portable PDF versions showed the insufficient and more engaging training mode would be desired. In particular, interactive elements could be implemented to ensure a more active & rewarding process of user engagement. Therefore, users could be evaluated, and their learning process could be validated as they explore the learning materials provided.

4.2 Capacity building program format

Towards defining the technical, functional, operational and business aspects of TRUSTS, the consortium has defined multidisciplinary communication with stakeholders. To name but a few within:

- T2.1 performed a “world café” session with SMEs, organizations and industry to identify the needs and constraints for data trade.
- T2.2 conducted interviews and questionnaires to define the functional, non-functional and stakeholders needs.
- T7.1 performed pitches with business students of TUD to identify model analysis especially focusing on the proposed taxonomy and use cases.
- WP8 performed, among others, a series of podcasts, webinars and workshops liaising with potential users of the data marketplace.
- The SAB which will accommodate discussions for the TRUSTS positioning in the market.

All the aforementioned interactions did not only serve the purpose of defining the functional and business aspects that will guide the environment implementation but also building the capacity of the users in order to ensure its sustainability.

To this end, a well-structured capacity building framework is formed to address specific cohort needs with respect to increasing their data marketplace learning curve. This structure is illustrated in figure 2.

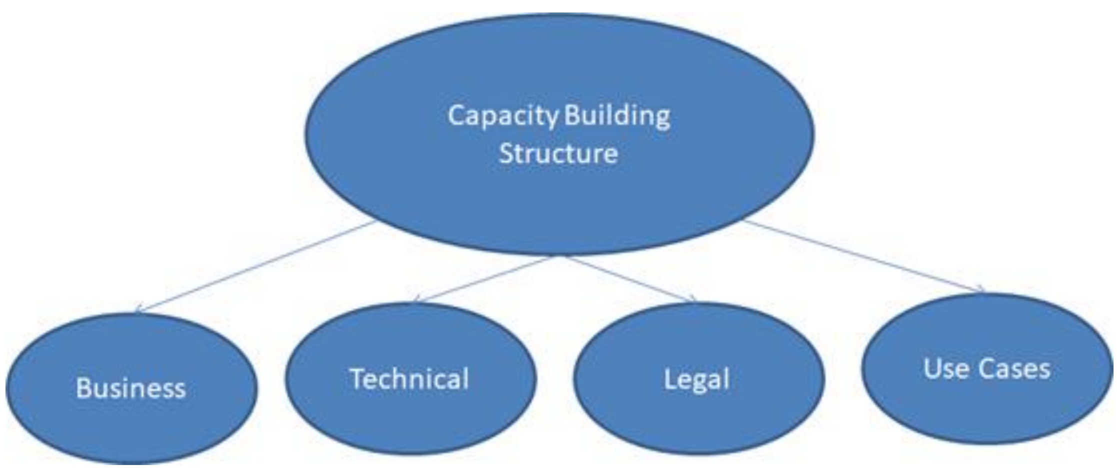

Figure 6: Capacity Building Structure

Each of the categories will contain respective information targeting respective audience needs:

Business: Information about business models, federation, ecosystem development, remuneration models, IPR sovereignty, etc.

Technical: Federation nodes deployment, security, etc.

Legal: Legal and regulatory framework in digital economy, GDPR, digital market act, digital services act, etc.

Use cases and pilots: Selective use cases revealing the benefits of the TRUSTS data marketplaces in business processes e.g. de-anonymization risk analysis, agile marketing, etc.

Further to the aforementioned content the interviews are analysed to identify capacity building needs. Respective indicative needs derived from the interviews included in the D2.2 deliverables are:

- Data analysis services
- Recommendation and profiling
- TRUSTS metadata structure
- Respective standards
- Remuneration models
- Etc.

4.3 Tool Tours

Another possible enhancement to the learning experience could be the 'tour tool,' which will guide the user through an application using step-by-step tool navigation to familiarize themselves with the flow of learning. Work without having to interact with support staff. Figure 7 is an example solution. (Source: https://www.appcues.com/blog/tooltips[14]).

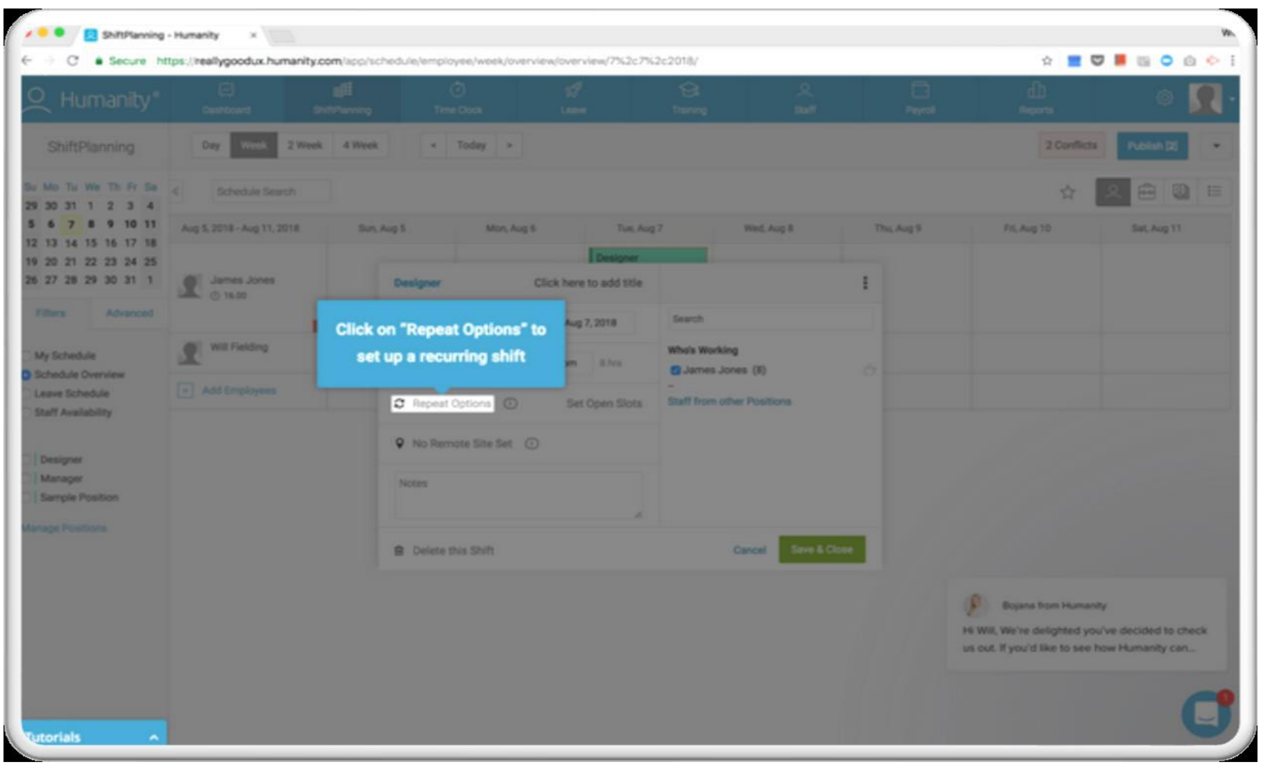

Figure 7: Tool Tours

[14] https://www.appcues.com/blog/tooltips , last accessed July 5, 2021

The Interactive Tool Tours ensures step-by-step learning as users engage with the tool. In addition, the approach alleviates the often faced disconnect between the tool and the learning material.

Instead of "jumping" between the tool and the manual or readme file, users are guided through the tool and learn a more efficient workflow.

However, this approach requires the direct implementation of the learning materials and recommendations directly into the tool rather than different learning resources.

That imposes significant extra development effort on the tool developers to design a particular 'Happy tour path' or several of those to ensure all the use scenarios are covered. However, the solution offers one of the best and universal learning experiences.

4.3.1 Virtual Assistant

Drawing on the conclusions and user feedback received, in particular reflected in the need for expert support, a major recommendation is the need for more explanatory capabilities. For example, we will use emerging conversational technologies such as Chatbots and Virtual Assistants to help participants to reach the materials they are looking for. These chatbots will simulate experts and could serve as agents supplying relevant materials to the user. They could also directly answer queries and in more advanced versions, process the natural language queries by the users and give them explicit answers.

That would require the application of more advanced, AI-driven solutions and training sets for conversations; based on a Chatbot that RELATIONAL will build. That bot will answer specific questions, REL will provide a set of questions and answers (Q&A). In contrast, further enrichment (questions and answers that we will include in Chatbot Database) will be asked from all partitioners of the consortium based on their experience and involvement with the project.

4.3.2 Tutor-Web

A novel approach to education and training that will provide e-learning and on-site education using the Tutor-web[15]. The "tutor-web" is a tool made for research which includes an on-line drilling system. Tutor-web has been used as a general tool for exercises; the training and capacity-building tools developed in the projects are distributed as e-learning courses on Tutor-web. In addition, these materials include updates to pre-existing tutor web courses adapted for "TRUSTS" and new teaching materials for the target audience of "TRUSTS."

4.4 Interaction with Stakeholders

Effective stakeholder interaction is essential for an Innovation Action like TRUSTS to anchor the partly abstract technological innovations on a long-term basis in the European data community. This requires multi-layered interaction capabilities. Therefore, the TRUSTS consortium combines the business level (WP7), which is responsible for the stakeholder analysis, stakeholder database and stakeholder engagement strategy, with the project management (WP1), which accompanies the Stakeholder Advisory

[15] https://tutor-web.net/ , last accessed July 5, 2021

Board, and with the project communication (WP8), which keeps stakeholders informed about the project via different channels (website, social media, newsletter, etc.).

In WP7, a desk research has been carried out, information from different resources, such as the IDSA internal database, the participants-list of the webinars and, collaborating with task 2.1, the analysis of the EU and worldwide data markets (list of data markets and relevant initiatives, etc.) have been collected.

The categorization of the stakeholders is as follows:

Stakeholder Categories
1. TRUSTS platform users: Customers
2. TRUSTS platform users: Technology/Infrastructure Operators and Providers
3. Associations, Organizations & Initiatives
4. Research & Academy
5. EC & Policy Makers

Project task T7.2 defines in deliverable D7.3 "Communities Engagement Strategy" the stakeholder engagement strategy and implementation plan targeting stakeholders across categories, in line with the project's requirements. This activity complements and interlocks with the project's communication, knowledge dissemination and training pursued in work package WP8.

The TRUSTS platform provides the venue for facilitated interactions and offering provision between the TRUSTS Operator, Primary Users, 3rd parties. Thus, a particular focus is given for stakeholder engagement with the platform users, as per below table:

Stakeholder Engagement Table

Grouping Criteria	**User Group**	**Sub-Group**
Activity	Primary Users	Data asset sellers
		Data asset buyers
	Trading Intermediaries	Data brokers

		Federated open cloud systems
		Federated datamarkets
	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
Sophistication (Primary Users)	High	Corporates
	Medium	SMBs, Scientific Community, Public Sector
	Low	Casual Users, Civic Society

4.5 Training activities

With the help of our partners from TUD, Governance One and FNET, the TRUSTS team undertook activities in order to help with the contribution of our plan to spread knowledge about the TRUSTS platform and EU's data marketplaces through our dissemination efforts. We have the opportunity to announce that two case studies were organized using the TRUSTS project as a case study. Those particular cases were presented to university students at TUD studying for their Master's degree by our associates from the TRUSTS group.

Case Study 1:
Towards a pathway for commercial success of Meta-platform for Data trading in the EU

The students, which participated in the Management of Technology (MOT) Integration Moment Course, were assigned the first case study. With the coordinating help of Hosea Ofe (role: teacher), the case study was presented to the students by Ioannis Markopoulos (representing TRUSTS as the client) and with the assistance of the Course Manager of MOT. We should note that this course is an integration course, students are expected to use knowledge from previous courses from the MOT program. An expected learning outcome is that students can apply concepts from different course modules throughout their studies, and those should be reflected and applied to the case study as it is critical. For this situation, it is worth focusing on that understudies go about as an innovation for the board consultancy firm. The task of the consultancy firm is to provide insights for all four aspects (organizational, financial, commercial and safety, security, risk and privacy) that are relevant for the TRUSTS project. Based on these four aspects, each consultancy firm has subgroups. Each subgroup focuses on those four aspects. Subgroups within each firm collaborate to ensure a coherent report. In contrast, as firms, they compete with another firm working on the same case. In total, they were three firms working on the TRUSTS case.

Outcomes of the case study assignment work is availed to the TRUSTS project and will be funneled as input into work of task T7.5.

Case Study 2:
An EU-wide Platform for Data Trading

The second case study was undertaken by the Students in the Digital platform Design Course. The case was coordinated by Hosea Ofe(course teacher/supervisor), Bert Utermark from Governance One (as the client), and support from the Course Manager at TUD. In the case work, students form groups of their own. Then they work as a group to provide a comprehensive report. The group decides on the specific structure of the reports. As part of the learning outcomes, students are expected to develop an analytical framework. The analysis consists of key dimensions of governance, architecture, and business models used to analyze TRUSTS and provide recommendations.

Outcomes of the case study assignment work is availed to the TRUSTS project and will be funneled as input into work of task T7.1.

We also have the possibility to partner with different universities and provide presentations to interested parties such as students in the economic and statistical sector as well as in the sector of data security. Also, workshops could be an alternative to be more of a hands-on experience, in order to pass our message more clearly. A more long-term approach to expand the knowledge of data sharing, would be one that has as a target for any students or members that are part of any workshops to make a web service on our TRUSTS network. All that would place us in a really good position as far as capacity building is concerned.

This format will be the basis for the final ad-hoc design of the courses in task 8.4 for training in pilot companies described to complete for trainers to develop the methodology for ad-hoc courses. This format will be used to define the methodology for every training module (co-creation sessions, interactive workshops, specific training and network training). This format will define how it will be necessary to collect data efficiency status, main barriers and driver's management, cultural context and insights on data management culture in whole company and create interventions to create mindset in the 3 pilot companies and to develop plan, program and objectives for every training module

This capacity building program will be defined according to the communication, dissemination and training material developed in tasks 8.1, 8.2 and in task 8.4 and on other hand, it will be necessary to take into account needs and context detected in data assessment, cultural scan and interviews at the pilot companies (WP5).

For every pilot company, there will be a different capacity building program which will include different learning resources, topics, methods learning, learning activities since every trainer will help to select material training to develop an ad-hoc course in task 8.4. This format will be filled with necessary information about the company to develop a capacity building program for every pilot company.

4.5.1 Press release

A press release is traditionally a formal statement sent to members of the media to inform, create an official statement, or to make an announcement geared towards the development of public practice. A press release is a written announcement or statement that reports specific but brief information about an event, circumstance, product launch, or other development. It is usually tied to a business or organization and made available to the media through various means.

Issuing a press release does not mean the media will automatically run with it. Always TRUSTS press releases must consider:

- Does it interest their readers?
- Does it benefit the TRUSTS community in some way?
- Are there other outlets that might pick up our press release (social, tweets, etc.)
- Is it published at the correct timing?

The primary purpose of TRUSTS press releases will promote the platform and the related services significantly and specific, and to do so clearly.

Further, a press release is a document that follows a strict format and serves our dissemination and exploitation purposes.

The channels for TRUSTS press releases will be the online TRUSTS channels, Twitter[16], LinkedIn[17] while hard copy publishing such as newspapers, specialized magazines, will be discussed later.

All the consortium members should contribute to that attempt.

[16] https://twitter.com/trustsdata , last accessed July 5, 2021

[17] https://www.linkedin.com/company/trusts-trusted-secure-data-sharing-space/ , last accessed July 5, 2021

5 General Recommendations

Our main recommendation would be to make sure that the capacity-building services are well aligned to the specific stakeholder needs and that they can be easily adapted to changing conditions. In particular, the provider of the services must ensure maximum flexibility as the needs may shift during the service delivery as stakeholders learn about the topic (such as TRUSTS) and new questions, challenges, and deficiencies emerge. Therefore, the materials and services offered must be extensible and portable.

The best example is the TRUST mapping exercises, which proved to be a difficult task, yet one of the most critical elements of capacity building. Users required significant support from experts on those exercises and presented important value to the stakeholders. The mapping tools appeared to be difficult to use and the learning processes provided still required some human intervention. Therefore, future capacity-building services should identify the critical elements as soon as possible and ensure very strong support for those issues. That support could be automated as in the examples given on Interactive Tooltips and Chatbot. The initial extra resources spent on providing the training automation included in the tools themselves will definitely pay off when more stakeholders and more users are to be trained.

In terms of modes of communication such as face-to-face interactions, e-mail, Slack channel, and webinars, in-person interactions are always favored. However, due to limited resources, the best trade-off in communication is probably a well-supported Slack Channel and interactive webinars.

This is mainly due to the synchronous nature of communication. Users require assistance to live as they explore the specific topic or use the tool. The e-mail communication and 'passive learning materials' such as PDF can work well as additional support but should not be at the core of the capacity-building delivery.

That is reflected in particular in the feedback received on the strong need for more interactivity with experts, which is understandable considering the fast-changing needs and requirements that emerge as stakeholders explore the topic.

6 Conclusions and Next Actions

In this document, we presented the lessons learned from our experience in delivering the TRUST capacity-building services to project stakeholders. We have identified the strong points of delivery and areas where there is space for improvement. We have also presented some further recommendations on possible service delivery in the future.

In particular, we have elaborated upon the challenges in enabling the TRUST's stakeholders (especially statisticians and other individuals working with data) to use the TRUST's Publishing Pipeline effectively.

These relate mainly to the need for better alignment and merging of the training content and training approach with the tools and more step-by-step flow to minimize the need for expert interventions. The best candidate solution in that sense seems the 'Interactive Tooltips' or 'Tool Tours' integrated and supplied with the tools to users. Also, automation in terms of FAQ is desired. Additionally, more intense face-to-face interactivity would be encouraged in place of the development of "passive learning materials" and tutorials. The scope of the in-person interactions will be, of course, limited by the funds available, and digital training should always be considered an option. In that case, interactive synchronous communication such as Slack Channel or Live-Webinars with strong interactivity support are encouraged.