

D8.7 Accomplished training and capacity building programme

Authors: Manos Paschalakis [REL]

Feb 2023

TRUSTS Trusted Secure Data Sharing Space

D8.7 Accomplished training and capacity building programme

Document Summary Information

Grant Agreement No	871481	Acronym	TRUSTS
Full Title	TRUSTS Trusted Secure Data Sharing Space		
Start Date	01/01/2020	Duration	36 months
Project URL	https://trusts-data.eu/		
Deliverable	D8.7 Accomplished training and capacity building programme		
Work Package	WP8		
Contractual due date	31.12.2022	Actual submission date	10.02.2023
Nature	Report	Dissemination Level	
Lead Beneficiary	Relational FS		
Responsible Author	Manos Paschalakis [REL]		
Contributions from	Christos Roupas [REL], Aggeliki Chaimalia [REL], Andreas Afentakis [REL]		

Revision history (including peer reviewing & quality control)

Version	Issue Date	% Complete ¹	Changes	Contributor(s)
0.1	14.11.2022	30%	Initial TOC	Manos Paschalakis [REL]
0.2	28.12.2022	40%	Content	Manos Paschalakis [REL]
0.3	07.01.2023	50%	Major content improvement	Manos Paschalakis [REL]
0.4	26.01.2023	90%	Major content improvement	Christos Roupas [REL]
	27.01.2023	95%	1 st Review	Michael Bosh [RSA]
	30.01.2023	95%	2 nd Review	Nina Popanton [DIO]
0.5	09.02.2023	99%	Suggestion Implementations	Christos Roupas [REL] Manos Paschalakis [REL]
0.6	09.02.2023	100%	Content Added & Submission	Christos Roupas [REL]

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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
CCB	Community Capacity Building
SiS	Since in Society
RRI	Research and Innovation
KT	Knowledge Transfer

1 Executive Summary

In the TRUSTS project, we understand that community capacity building (CCB) is an important model for enabling confident, organised, and influential staff members in a step-by-step methodology for the implementation of the final TRUSTS methodology once the project ends, which is based on guidelines and previous experiences from EU programmes on creating a secure and trustworthy European Data market behavior and emphasizes the role of the Human-Centered Design approach as a key pillar of this method:

Industrial use by interconnecting different user groups and providing generic functionalities for innovative applications and services like SME's, Financial Institutions and data related organizations , who are able to demonstrate value creation from the research they generate as well as the importance of the Data Analytics and Market industry. Several assets were created throughout the development of the TRUSTS Data Market project that provides necessary training information for those who want to adopt the TRUSTS Data Market platform.

TRUSTS put emphasis on capacity building and training throughout the project, on an internal basis to providing initial training to the TRUSTS Knowledge Fellows tasked to use the methodology within the project, but also externally to stakeholders wanting to learn more about the key principles, concepts and approaches to Knowledge Transfer. Throughout the TRUSTS project, sixty individuals have been trained in the TRUSTS Knowledge Transfer Methodology at REL's-hosted capacity building courses:

- Two internal training courses were conducted over the course of the project, with 27 individuals actively engaged in the TRUSTS Knowledge Transfer process on a day-to-day basis, 14 of whom have held roles as Knowledge Fellows and the others in supporting roles as Competence Node leads or team members. As well as formal training, support on the methodology was provided to the Competence Nodes, Knowledge Fellows and teams via regular, remote teleconferences using a group and individual format. Regular engagement with the Knowledge Fellows allowed courses to be adapted to strengthen skills in key areas, particularly analysis and impact measurement.
- One open, external training course was also held towards the end of the TRUSTS project, once the methodology had been validated by the efforts and activities of the project partners. Following every training activity, feedback from participants was sought and observations were made to learn from every event and improve the content and approach for the next training activity. The details of the event, the key lessons learned and the improvements that were made are contained within this deliverable.

2 The Training Material

Guidelines, tools, and resources were developed to support targeted members of research institutes, such as the communication, business development and extension staff, in applying key important concepts to their daily work. These concepts include but were not limited to: Science in Society (SiS); Responsible Research and Innovation (RRI); Knowledge Transfer (KT) – including guidance on how to populate the Knowledge Transfer Platform; Outreach and Stakeholder Engagement.

This Capacity Building Strategy aims to diffuse the knowledge on the existence of open-source energy-related data and its potential use for analyses by the end-users: research and academic institutions, the industry sector, energy utilities, energy managers, planners in the energy field, energy consultants, public administration officers operating in the energy sector and decisionmakers, as well as social innovation experts and data providers. From the perspective of dissemination activities, the overall aims of the

Capacity Building Strategy:

- To inform and raise awareness about the work in TRUSTS, the innovation of the product and technologies used by disseminating the approaches and results of the project among relevant stakeholders at the EU, national and regional levels. This occurred by dividing in two training modules:
 - Co-creation and introductory session involvement of the highest-level positions in the company is crucial for achieving a behavioral and cultural change towards the promotion of Digital Single Market efficiency.
 - Introductory workshops participation of general employees is important to engage the majority of the stakeholders in the company in changing towards the adoption of data-driven innovation and digital transformation to keep up with international competition and global supply chains efficient behavior.
- To disseminate widely and effectively TRUSTS's outputs through various channels to translate technical language and research findings into appropriate messages for different audiences.
- To engage, influence and educate relevant stakeholders to positively affect technology uptake, research, and legislative framework development.
- To organise stakeholder workshops, a conference session, training events and sessions, and a final event, as well as participation in other events and conferences, presentation in the framework of university-level courses, and a newsletter article.
- To make stakeholders understand the aim of the project and appreciate its significance for their organization and clients. This goal was achieved by interacting with decision-makers and corporate board members.

2.1 Webinars

Webinars were created to further explain the possibilities and usability of the TRUSTS platform.

- **The Core of TRUSTS**

What is the TRUSTS project all about? Watch this webinar to get to know the project and its central aspects as well as the link to the European Data Strategy. The webinar can be found here: <https://youtu.be/vPzQZXhm7uM>

- **Business model options in the TRUSTS data ecosystem**

The consortium members Andreas Huber (CEO, Governance One) and Bert Utermark (Partner, Trusted Data Analytics) discussed business model considerations of the emerging TRUSTS data market and delved into the topics of data markets taxonomy, value creation and USPs en route to business sustainability. The webinar can be found here: <https://youtu.be/8PW5s9PH6j0>

- **TRUSTS & Safe-DEED: Sharing data legally.**

What does the lack of legal clarity on data processing and the Data Governance Act have in common? Lidia Dutkiewicz (TRUSTS) and Alessandro Bruni (Safe-DEED) from KU Leuven discussed the legal aspects of data sharing platforms and answered frequently asked questions. The webinar can be found here: <https://youtu.be/8qoMS7UejM0>

- **TRUSTS & Safe-DEED: Privacy & Data Sharing**

When it comes to data sharing, privacy and the preservation of privacy are the most future-relevant topics. Ioannis Markopoulos, (Forthnet, TRUSTS & Safe-DEED) and Alexandros Bampoulidis (RSA FG, TRUSTS & Safe-DEED) talked about privacy risks, and GDPR roles and demonstrated these risks. Lukas Helminger (KNOW Center GmbH, TRUSTS & Safe-DEED) shared insights and practical aspects from an end-user perspective. The webinar can be found here: <https://youtu.be/8qoMS7UejM0>

- **TRUSTS & Safe DEED Webinar Business Aspects of Data Markets**

The third session of a collaborative webinar series by the EU Horizon 2020 projects TRUSTS (trusts-data.eu) and Safe-DEED (safe-deed.eu) was all about Business Aspects of and in Data Markets. Since a few years the global business structure transforms into an intangible one, which means that tangible assets gradually lose their importance and are replaced by software, R&D, etc. Ioannis Markopoulos (Forthnet) and Gianna Avgousti (EBOS Technologies) address the importance of this development and give insight in business transformation and fruitful potentials in the webinar. The webinar can be found here: <https://youtu.be/9MW7uWKv8n8>

2.2 Podcasts

Several podcasts have been created by TRUSTS partners answering questions about what the TRUSTS project is and how you can get involved through the TRUSTS platform.

- Get an insight into TRUSTS: What is the project all about? What are the motivations, objectives, goals but also risks? Are there already existing data markets? How can data markets be connected? How could such a connection be implemented technically? We can find the answers to these questions here: <https://trusts.podigee.io/1-data-markets-and-interoperability>
- The business perspectives of TRUSTS and the chances and risks of data markets: How will data markets shape the European industry? What are the business perspectives of the TRUSTS project? What are the benefits and risks? We can find the answers to these questions here: <https://trusts.podigee.io/2-how-will-data-markets-shape-the-european-industry>
- Where are the major voids and controversies concerning the legal situation when it comes to data sharing? How will TRUSTS help the EU policymakers tackle the legal framework regarding data transactions? Yuliya Miadzvetskaya from the KU Leuven tells you more about the legal aspects of TRUSTS and the challenges in data sharing here: <https://trusts.podigee.io/3-data-sharing-and-eus-digital-strategic-autonomy>
- Business models and data governance aspects are essential to platform commercialization beyond the development phase. The interview partner of this episode – Antragama Ewa Abbas – and his colleagues from TU Delft are responsible for developing and evaluating sustainable business models for TRUSTS. In this podcast, he talks about what we do – and do not – know about data market research. This podcast can be found here: <https://trusts.podigee.io/4-what-we-do-and-do-not-know-about-data-market-research>
- Which criteria are relevant for developing a platform like TRUSTS data market federation, how the process looks like and gives an insight to what features the platform will provide? <https://trusts.podigee.io/5-episode-5-trusts-platform-getting-into-shape>
- Within this episode Natalia, who is currently project and innovations manager for the International Data Spaces Association (IDSA) – talks with Nina about what the IDSA is supporting TRUSTS with, about the IDS reference architecture and why it is guiding for TRUSTS, Data Sovereignty and Standards: <https://trusts.podigee.io/6-episode-idsa-in-trusts>
- Silvia Castellví, project manager of the TRUSTS project in the International Data Spaces Association (IDSA) talks with Nina Popanton about standardization activities, the latest workshop on Data Spaces & Semantic Interoperability, trustworthy collaboration, and the community. <https://trusts.podigee.io/7-neue-episode>

2.3 Meetups

The meetups during the development period of the TRUSTS project provided both sides with feedback and a great deal of information that gave the project a huge boost. “Data sharing vs data trading” (moderated by: Ioannis Markopoulos, FNET)

- “Business models for data markets” (moderated by: Hosea Ofe, TUD)
- “Technical aspects of data markets” (moderated by: Martin Kaltenböck, SWC)
- “Environmental & social aspects of data markets” (moderated by: Stefan Gindl, RSA)

Besides the meetups TRUSTS also organized two public events, a mid-term in March 2022 where partners of the TRUSTS Consortium examined relevant aspects of business, legal and ethical perspectives as well as privacy issues when it comes to data markets and data sharing and a conclusive one in November 2022 that took place at the European Big Data Value Forum (EBDVF) 2022 an event titled “Future of Europe’s Innovations: Federated Data Sharing Environments – TRUSTS” where partners of the Consortium gave insights into federated data sharing environments and terms, along with technical shallow dive into interoperability and its importance, talked about legal frameworks for such federated environments and about how TRUSTS applied the legal and ethical rules and technical interoperability into the TRUSTS UCs.

2.4 Internal Capacity Building

Preparation for Internal Capacity Building In advance of the 1st TRUSTS Internal Capacity Training, REL developed guidelines outlining the TRUSTS Knowledge Transfer Methodology. The significant resource was spent on finding the most suitable and efficient method to:

- Identify and collect relevant quality Knowledge Outputs.
- Record the status of collected Knowledge Outputs using a Knowledge Output tracker.
- Analyse and prioritise Knowledge Outputs for transfer.
- Identify an Eventual Impact.
- Visualise a Knowledge Output Pathway.
- Profile a Target User.
- Structure a Knowledge Transfer Plan.
- Determine impact indicators.
- Report on activities in the form of a case study

In this session, key definitions (Annex 1), the core theory and step-by-step processes were outlined. Tips and hints were also provided. Attendees were then divided into four groups to complete the associated templates:

- Mapping a Knowledge Output landscape and designing a Knowledge Output Pathway.
- Profiling a Target User.
- Designing a Knowledge Transfer Plan with impact indicators.

Learned from Internal Training Activity:

Better guidance on the required content and the level of quality when collecting Knowledge Outputs was provided.

- The templates used for every step of the TRUSTS Knowledge Transfer Methodology were simplified.
- Group-based activity with Knowledge Outputs relevant to the participants became the most successful and preferred method for the practical exercises.
- A video was produced to highlight the key principles and context for applying the TRUSTS Knowledge Transfer Methodology, which has been a popular tool in the training sessions.

Challenge: An introduction to the TRUSTS methodology was found overwhelming by those who joined the project later; particularly as there are many abbreviations and steps that project partners who have been with the project longer have become familiar with over time.

2.5 External Capacity Building

In Relational's premises in order to ensure consistency with other project workstreams, an External Capacity Building Program took place. In particular the tasks 8.1 and 8.2 will use the same approach towards the design of the products and services. In the External Capacity Building Program, the Product-service Systems methodology requires new sets of skills and fundamental changes underpinned by a more sophisticated relationship between producer and customer (Xing and Ness, 2016). A transition from a product-oriented business model to a service-oriented business model often requires enterprises to identify what particular value can be offered to customers, how such value can be created and delivered through product-service bundles, how to develop and manage such bundles, how to interact with customers and other partners (if any) in value creation and value delivery (Barquet et al., 2013). Consequently, the implementation of the principles for PSS needs to be linked with business model design to translate the product, service, management characteristics of PSS into particular business model attributes so that it is feasible for companies to perform business model changes (Xing and Ness, 2016). To analyse and interpret the adoption of PSS through the lens of business model, we will apply the Business Model Canvas. The participants and stakeholders of a data marketplace were essentially divided into 3 groups, each with their roles, functions, responsibilities, interests, and corresponding benefits: [Figure 1].

Producer's perspective  <i>data owners</i> <i>data stewards</i> <i>data engineers</i>	<ul style="list-style-type: none"> ✓ Control over the data production processes (data quality & availability) ✓ Data preparation and certification for data sharing and consumption by others 	<ul style="list-style-type: none"> ✓ Knowledge about which owned data is being used by who and for what purpose ✓ Full audit to support normative and regulatory compliance
Oversight perspective  <i>C-level</i> <i>Data Office</i> <i>Audit</i> <i>Legal</i> <i>Compliance</i>	<ul style="list-style-type: none"> ✓ ROI maximization for data initiatives ✓ Productivity and efficiency boosting ✓ Processes and tasks automation for costs reduction and operational risk mitigation 	<ul style="list-style-type: none"> ✓ Unified and homogeneous vision of the company's data usage and consumption ✓ Normative and regulatory compliance ✓ Possibility to value and monetize data
Consumer's perspective  <i>data analysts</i> <i>data engineers</i> <i>data scientists</i>	<ul style="list-style-type: none"> ✓ Gain deeper knowledge about available data along with its context and meaning ✓ Better decisions driven by the access to better-quality and well-managed data 	<ul style="list-style-type: none"> ✓ Agility in data consumption and exploitation leading to self-service ✓ Control over the data production processes (data quality & availability)

Figure 1: Data Marketplace Groups

3 Press Releases

News of the project was disseminated regularly, making use of a range of publications and services. Press releases were issued to appropriate media outlets (trade press, journals, web portals) to ensure that industry, civil society organisations, policy-making authorities, and the wider community are aware of the project, its objectives and, later in the project, its outcomes. The strategy is intended to ensure that there is publicity and media coverage at local, regional, and European levels. TRUSTS partners have several existing channels and networks for disseminating news which will ensure broad awareness of the project across the spectrum of relevant European stakeholders:

- Training News newsletter (almost 5,000 subscribers)
- Social media channels (Twitter, Facebook, etc.)
- LinkedIn groups
- Technology platforms
- Relevant projects, networks, and initiatives

4 The Platform

4.1 Custom Tool by RELATIONAL

Relational created a [Web Tool](#) that holds all the necessary data in one place and can be enriched with more information by TRUSTS partners. REL'S web tool is the place to go for those who want to come on board or need a reminder and find a handful of information gathered at the same place. The content is accessible through one of the users provided to the TRUSTS panel consortium. A user login [Figure 3] is required to prevent malicious users from attempting to add content that does not belong or to access material that is intended only for the TRUSTS partner/user platform.

The Web Tool acts as an e-learning platform as an effective way of developing user skills and competencies, especially regarding the specifics of the operational implementation of various TRUSTS strategies. The e-training platform will be based on the following best practices in the field of design of e-training courses. [Figure 2]

- (1) Learner-centred content: E-learning curricula will be relevant and specific to learners' needs, roles and responsibilities.
- (2) Personalization: given the variety of audiences targeted by TRUSTS solutions, it is necessary to provide a customizable e-training program to reflect learners' interests and needs.
- (3) Granularity: e-learning content will be segmented to facilitate assimilation of new knowledge and to allow flexible scheduling of time for learning.
- (4) Engaging content: Instructional methods and techniques will be used creatively to develop an engaging and motivating learning experience.

(5) Interactivity: e-courses will provide frequent learner interaction in order to sustain attention and promote learning

In order to allow for learner-centred content, personalization and the granularity of the e-courseware, the e-training courseware will follow the “Core and Spoke Leadership Development Model”. In this approach, the designer creates one fundamental training approach, referred to as the “core” and other materials, interactivities, resources, and assessments (referred as to “spokes”), are delivered as supporting materials that surround and complement the primary approach (Bersin, 2017). In the framework of TRUSTS, this approach will allow to the one hand assure a common knowledge basis (e.g. collaborative logistics, TRUSTS approach and solutions) and on the other hand to customize the e-training program according to:

- the learner’s profile: the type of the organization (e.g. SME, large organization), the role of the learner in the organization or the logistics community (e.g. **financial and operator industries**)
- the type of TRUSTS solution implemented: the main differentiation key for establishing the customized e-training program will be the TRUSTS Use Cases.

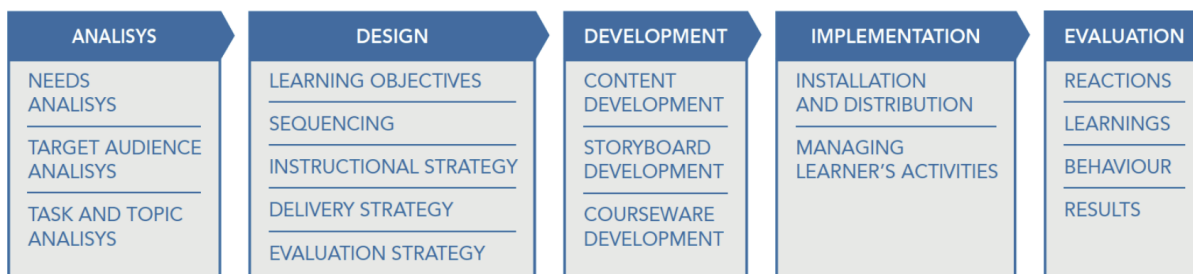


Figure 2: The ADDIE model for e-learning development; source: (Ghirardini et al., 2011)



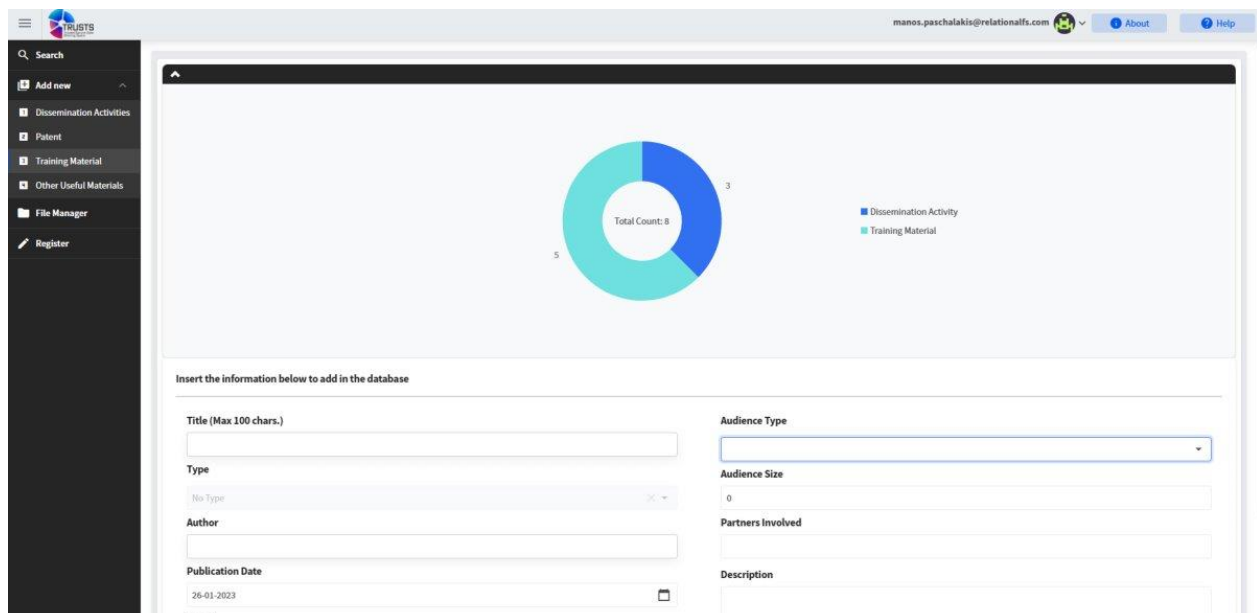
Figure 3: Web Tools login page

The search [Figure 5] functionality provides instant results with the material that one needs to proceed further, the data is organized into the following categories:

- Dissemination activities
- Patents
- Training materials
- Other useful materials

The content [Figure 4] is also organized based on the Audience Type, meaning to whom the content is addressed to, like:

- Scientific Community
- Industry
- Civil Society
- General Public
- Policy Makers
- Media
- Investors



The screenshot displays the 'Adding Content Page' interface. At the top, a donut chart visualizes the current database content: 3 items are 'Dissemination Activity' (blue) and 5 items are 'Training Material' (teal), totaling 8 items. Below the chart, a form titled 'Insert the information below to add in the database' is provided. The form includes fields for 'Title (Max 100 chars.)', 'Type' (with a dropdown menu currently showing 'No Type'), 'Author', 'Publication Date' (pre-filled with '26-01-2023'), 'Audience Type' (a dropdown menu), 'Audience Size' (pre-filled with '0'), 'Partners Involved', and 'Description'. A sidebar on the left contains navigation links: Search, Add new, Dissemination Activities, Patent, Training Material, Other Useful Materials, File Manager, and Register. The top right of the page shows a user profile for 'manos.paschalakis@relationaifs.com' and links for 'About' and 'Help'.

Figure 4: Adding Content Page

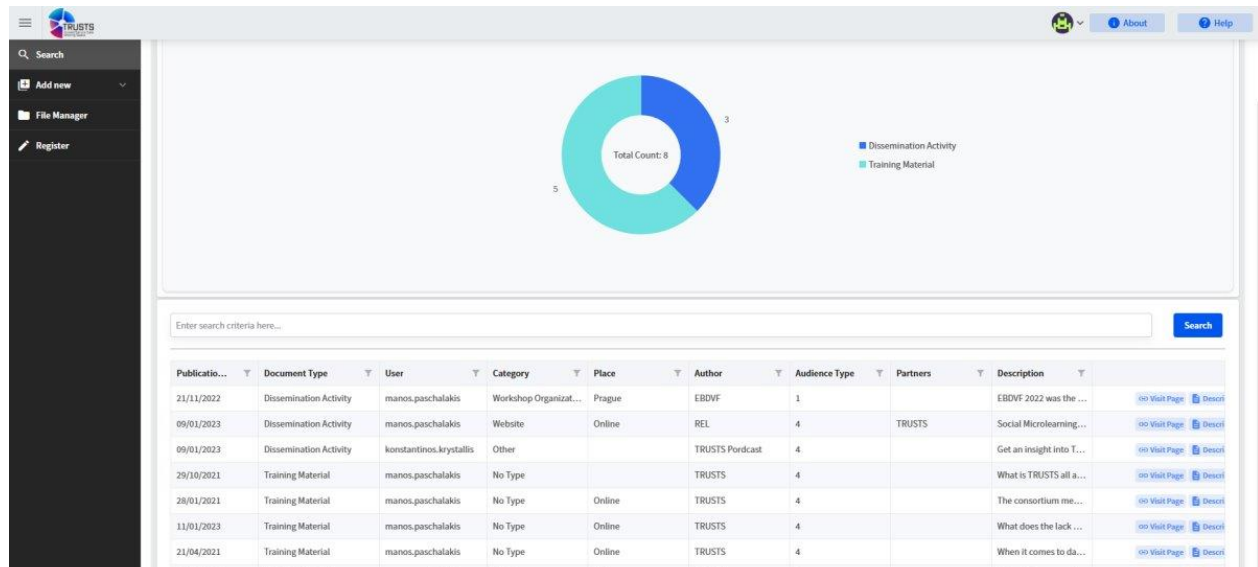


Figure 5: Search Results Page

5 Supporting Channels

5.1 Slack Channel

The Slack Channel (<https://trusts-dev.slack.com/archives/C010HA9TQG4>) [Figure 6] is used to discuss on a more technical level, it is the place where partners can communicate and find answers to technical questions or find out about possible issues with the implementation of their NODE.

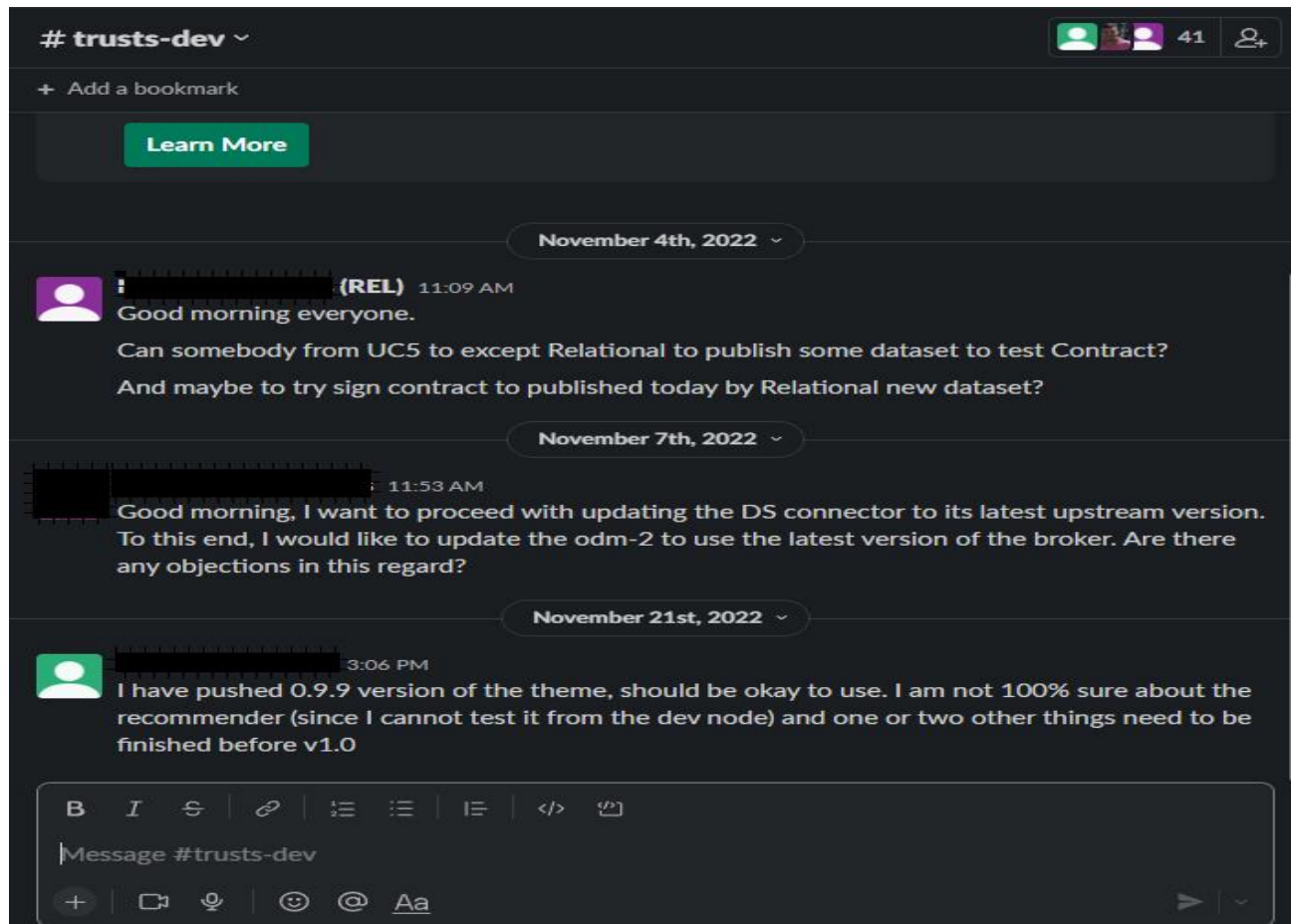


Figure 6: Slack Channel

6 Conclusion

This deliverable provides a necessary format to define and categorize material training. It also contains a framework and a capacity building program format as baseline to develop the methodology for effective design of capacity building program relevant to the three use cases targeting the industry sectors of corporate business data in the financial and operator industries, tailored to particular companies. These created formats will be the basis for the final ad-hoc design of the courses in task 8.5 for training in pilot companies. These formats define how it will be necessary to develop objectives, program, and plan according to the target group

7 References

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