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Safe-DEED

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D8.4 Report on the Professional Partners Community

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Executive summary

The present document, D8.4 the “Report on the Professional Partners Community”, reports on the activities and outcomes of the project conducted on T8.3, “Building the Professional Partners Community”, a task within WP8 “Dissemination, Communication, Exploitation, Sustainability, and Market Validation” of the Horizon 2020 project “Safe-DEED (grant number 825225). The goal of this task was to “ensure impact and take-up through the effective dissemination and communication of project results”¹, supported by a Professional Partners Community (PPC). The PPC was established and maintained during the project runtime. The dissemination activities carried out as part of WP8, such as webinars, serve to inform and educate interested PPC members and other stakeholders about the potential of Safe-DEED technologies and demos, raising awareness of issues and solutions related to but not limited to the dealing with personal and and data trading. As such, the PPC is an essential tool for increasing the visibility of Safe-DEED results in the community of practice and forms the foundation for the sustainability of Safe-DEED assets beyond the project’s lifetime.

This document summarises the efforts taken to establish the PPC, as well as the activities carried out with PPC members throughout the project and the outcomes. The PPC acquisition strategy consisted of a variety of activities, e.g. using social media to spread knowledge about the PPC or leveraging the business networks of Safe-DEED partners. New members were manually verified to ensure alignment of their mission with the project’s objectives.

The PPC was envisioned as a lively platform, fostering knowledge exchange and ideation. To pursue this goal, multiple activities were offered to the members. These activities included educational webinars and the inclusion of tutorials into an online learning platform, the massive open online course platform edx.org. Through this outreach strategy, PPC members benefitted from the material compiled throughout the project.

¹ Safe-DEED objective 7, p. 7 of the grant agreement.

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1 Introduction

A data-driven economy requires technologies to protect data privacy. Safe-DEED tackles this requirement by researching and developing prototypes of privacy-enhancing technologies. A multi-disciplinary consortium covering areas such as data science, business innovation, and the legal area develops the project's innovations.

This report focuses on the establishment and maintenance of a professional community interested in the project's innovations. This community benefits from the project innovations at an early stage. The Professional Partners Community (PPC) is a community of organisations, associations, and initiatives which share a common interest in privacy-preserving technologies. Potential PPC members are attracted and acquired in multiple ways. Registered members enjoy the benefits coming with a PPC membership. These benefits include access to information and educational material, the personal exchange with experts and professionals from the project, use case discussions for their own ideas or problems, as well as an increased visibility through the outreach channels of the Safe-DEED project.

We explored different strategies to acquire new members for the PPC. We collected and aggregated ideas for the acquisition in a structured workshop, which was held on May 13, 2020. We describe the acquisition strategy in Section 2. In this section, we also describe the promotional material used to explain the PPC and its benefits, which was sent out to potential members (see Subsection 2.2). The outcome of the PPC was a community of members from different areas and activities carried out with our members. Section 3 describes the outcomes in detail.

2 PPC Acquisition Strategy

In the following, we will describe the acquisition strategy we followed to establish the PPC. This encompasses (i) the description of benefits organisations get from becoming a PPC member, (ii) the activities we pursued for actual acquisition, as well as (iii) the registration procedure with a manual verification process.

In order to define the appropriate acquisition strategy, we organised an online workshop where we discussed our options interactively and brainstormed ideas. We condensed the final strategy from these discussions by using Mentimeter², which allowed us to create interactive presentations and polls in an online platform. Mentimeter helped us to record the opinions of the workshop participants from within the Safe-DEED consortium and further provided graphs for a statistical analysis. The workshop covered eight aspects relevant for building the PPC:

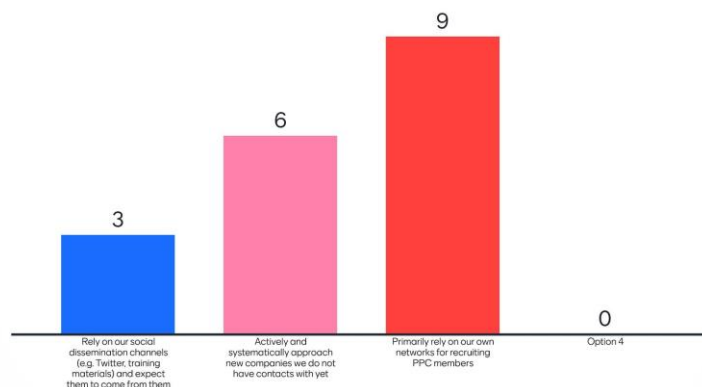
- The target group
- Raising awareness
- Conversion
- Onboarding
- Validation
- Retention
- Feedback

For each of these aspects, we created a dedicated question on Mentimeter to present it to the participants. The answers were both in structured format, i.e. checklists, where participants could tick one or more items, but also in open format. Figure 1, Figure 2, and Figure 3 exemplarily show the results of questions related to “Raising awareness”, “Conversion”, and “Onboarding”. The open format helped to answer questions about the ideal target group or methods to convert interested organisations.

² <https://www.mentimeter.com/>, last accessed August 23, 2021.

Raising awareness: Which strategy would you suggest to use to get sufficient numbers of organisations interested in becoming members of the PPC

Mentimeter

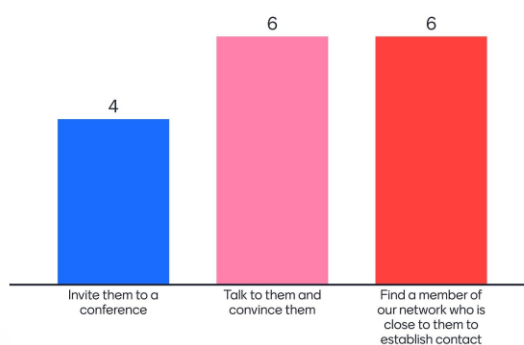


12

Figure 1: Mentimeter results for the question on how to raise awareness.

Conversion: How do we convert interested organizations into active members of our community?

Mentimeter



9

Figure 2: Mentimeter results on how to convert interested organizations into actual PPC members.

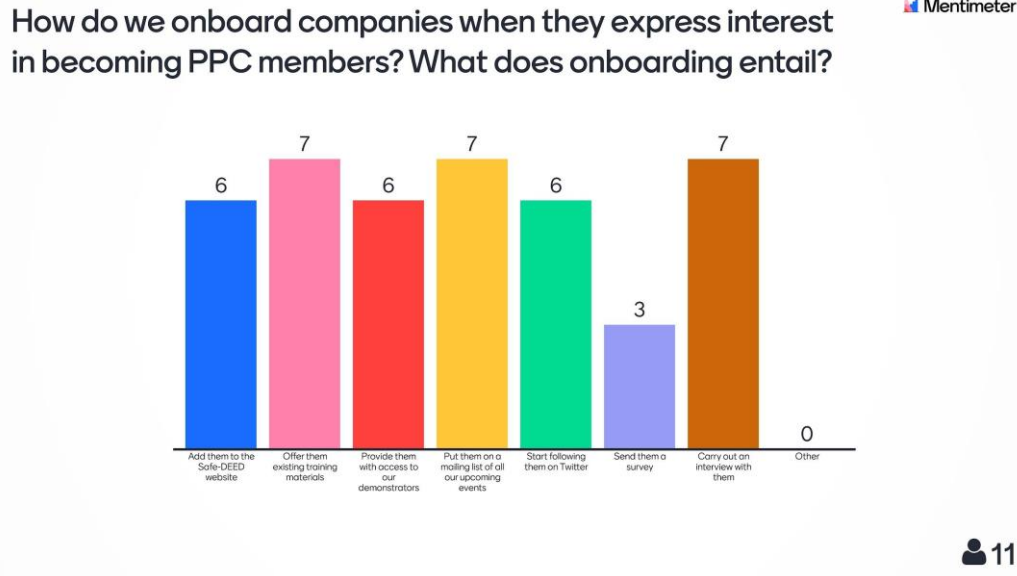


Figure 3: Mentimeter results for the onboarding strategy.

The results obtained using Mentimeter helped us to shape the PPC member acquisition strategy. Ultimately, we created a strategy combining different activities to acquire new members. We leveraged the networks of Safe-DEED partners, but also used our training activities, i.e. the webinars, to further advertise the PPC and encourage attendants to join the PPC.

In the following, we describe our acquisition activities, the PPC benefits we advertised to potential members, as well as the registration for new members.

2.1 Acquisition Activities

- Personal acquisition:** this strategy involved getting in contact personally with organizations potentially interested in Safe-DEED technologies and the PPC. These organisations were often already aware of some of the project partners. While this acquisition strategy is time-consuming and does not scale very well, it proved to be the most useful in bringing new PPC members. The reason for this is that already existing trust can be leveraged when the involved parties communicate directly. Furthermore, we found it easier to exchange convincing arguments for joining the community in a one-to-one manner than using other, less personal ways.
- Webinars:** we held a series of three webinars, where we presented selected technologies researched in Safe-DEED. The webinars were held by Safe-DEED members responsible for the respective tasks, who were also highly experienced in this field. At the end of each webinar, the speakers presented the PPC and the advantages of becoming a member. We had positive experiences with this approach and gained multiple new members through the webinars. The exact details and content of the webinars are explained in Subsection 3.3.1.
- Mass emails:** we launched a campaign asking Safe-DEED project partners to disseminate an introductory email within their networks. The idea behind this was to leverage existing networks and build upon already established connections. We provided an introductory email, which was supposed to be distributed to potential new members with little changes to the text, e.g. just changing the recipient's name or other minor details. However, this strategy did not directly yield new members. While the response rate was low, possibly because of the nature of mass emails and the missing human element and personal addressing of recipients, we don't know to what extent this was responsible for raising awareness of Safe-DEED and laid ground for the more direct approaches listed above.

- **Calls in social media:** similar to the sending of mass email, our calls on social media did not have a significant direct effect in recruiting PPC members. A potential reason could be that posts in social media are not sufficiently personal to convert interested leads. However, it is possible that this contributed indirectly by raising awareness of the project.

2.2 Benefits of Becoming a Member of the PPC

To motivate new members to join, we established PPC member benefits as

- educational/informative benefits**, i.e. consultations with Safe-DEED expert and use case discussion,
- marketing incentives**, i.e. by increasing an organization's visibility by putting their logo on the Safe-DEED member website combined with an introduction of the newly registered member on the Safe-DEED social media channels, and
- networking opportunities**, i.e. access to other companies interested in privacy-enhancing technologies.

The benefits were communicated to potential new members verbally and via email, and are also summarized in the PPC flyer sent out to them (see Figure 4).

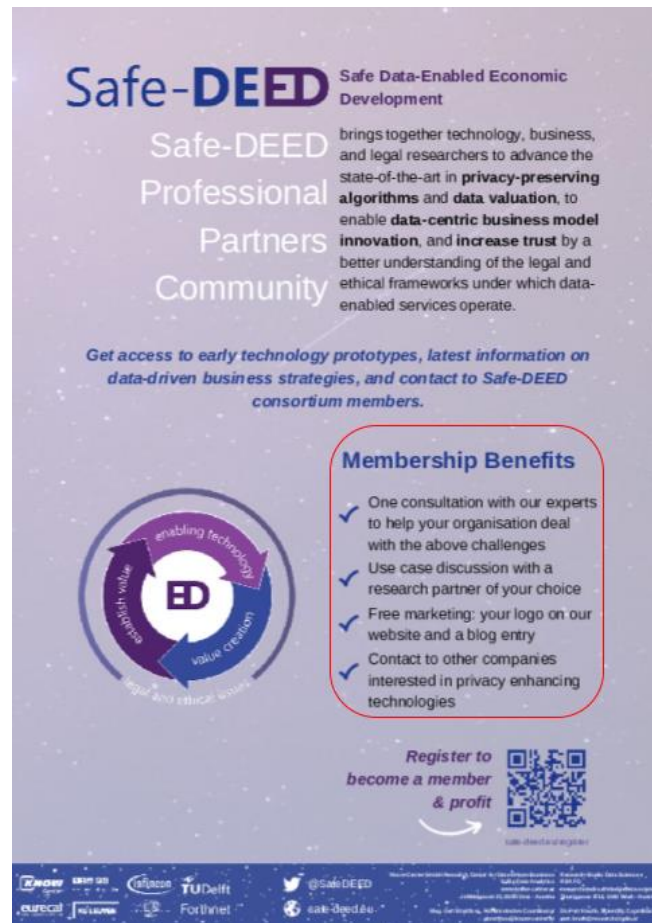
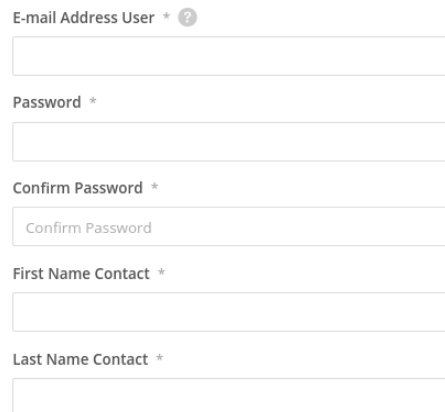


Figure 4: The flyer created to advertise the PPC.

2.3 Registration

New members of the PPC can register on the respective subpage of the Safe-DEED website³. The registration form requires the specification of contact data for a person in the company as well as the company's official registration information. Personal information includes email address, a password, as well as first name and last name of the person registering (see Figure 5).

REGISTER

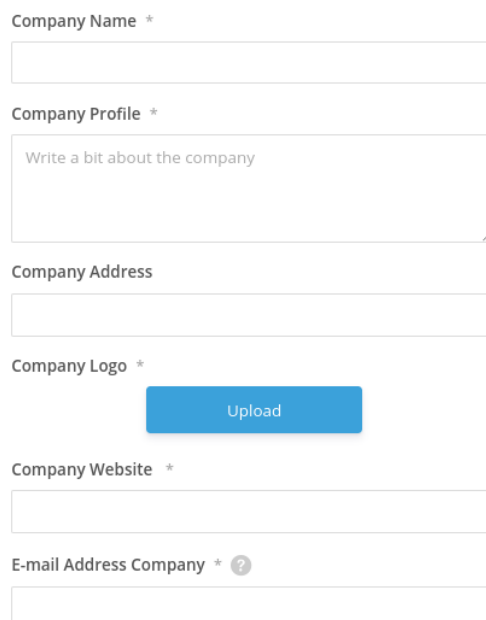


The registration form for personal data includes the following fields:

- E-mail Address User * ?
- Password *
- Confirm Password *
- First Name Contact *
- Last Name Contact *

Figure 5: The registration of personal data for new PPC members.

Company information is relevant for the PPC page to give potentially new, interested members an overview of the networking possibilities coming with a membership in the PPC. Therefore, the registration form contains a section dedicated to collecting this information. It includes the company name, a profile, the company's address and its logo, as well the website and official email address (see Figure 6).



The registration form for company specific information includes the following fields:

- Company Name *
- Company Profile *
Write a bit about the company
- Company Address
- Company Logo *
Upload
- Company Website *
- E-mail Address Company * ?

Figure 6: Registration of company specific information and reCAPTCHA.

³ <https://safe-deed.eu/register/>, last accessed August 19, 2021.

It is important to establish means to avoid getting spammed by automated registration scripts. For this purpose, a reCAPTCHA⁴ widget helps reject the automated and unwanted registration of bots (see Figure 7).


[Show privacy policy](#)
☐ Please confirm that you agree to our privacy policy
☐ I'm not a robot 
[Join the community!](#)

Figure 7: The reCAPTCHA at the end of the PPC registration form.

The successful registration triggers a manual verification process, where the company details are double-checked and the company information is included into the official Safe-DEED presence. The manual check involves a verification of the validity of the input data, i.e. a correctness check about the company details. Inclusion into the official Safe-DEED presence involves the integration of the company details on the Safe-DEED community page, the dispatching of a welcome email to the newly registered members, as well as a publication in Safe-DEED's social media channels. Figure 8 gives a representation of the steps involved in the registration of a new member.

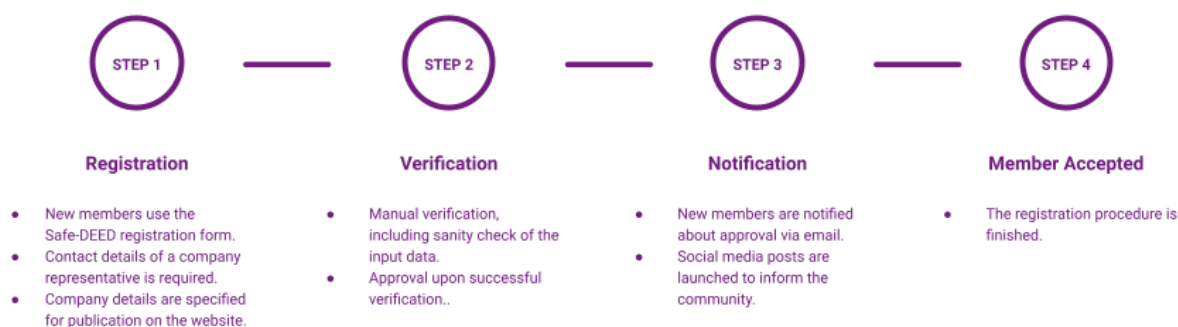


Figure 8: The steps involved in registering a new PPC member.

The publication of new PPC members on Safe-DEED's social media channels is highly important, since this strongly increases the visibility of the PPC, raises awareness about Safe-DEED's activities, and helps to establish a lively and robust network. Furthermore, it works as an incentive to acquire new members, because of the free advertisement that comes with a registration for the PPC. Safe-DEED published a post on LinkedIn⁵ and Twitter⁶ for each new member and also followed their online presence (see Figure 9). Following companies often nudges them to also follow Safe-DEED, which increases the credibility of the project.

⁴ <https://www.google.com/recaptcha/about/>, last accessed August 19, 2021.

⁵ Example of new member posts on LinkedIn: https://www.linkedin.com/posts/safe-deed_data-personalda-h2020-activity-6821035599949029376-X1Od, last accessed August 19, 2021.

⁶ Example of new member posts on Twitter: <https://twitter.com/SafeDEED/status/1415271089253535753>, last accessed August 19, 2021.

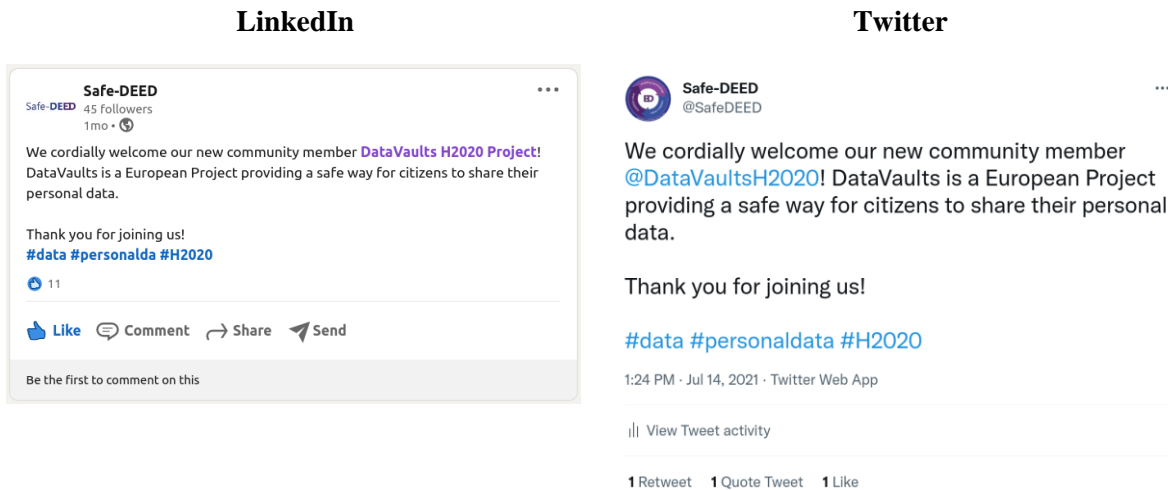


Figure 9: Social media posts informing about new members.


Once the registration is completed and the new members have been approved successfully, they can access the membership area using the login screen. The login screen is on the same page as the registration form and also includes a check to reject bots (see Figure 10).

LOGIN

Login ?

Password *

☐ I'm not a robot


[Privacy](#) - [Terms](#)

Login

[Forgot your password?](#)

Figure 10: The login mask for the PPC area.

The login page takes members to an administrative area to manage credentials and company data. The administrative area consists of several subpages: “Edit profile”, “My Account”, “Logout”, and “Cancel” (the latter just cancelling the current activity), accessible via the cog icon (see Figure 11⁷). The subpages allow members to alter their information.

⁷ Research Studios Austria Forschungsgesellschaft is a partner in Safe-DEED and not counted as a PPC member. The account was registered for testing and informative purposes.



Figure 11: The Safe-DEED administration page for registered PPC members.

Members can edit their profile information in the profile page. This includes changing their company's URL and physical address as well as updating company name and description (see Figure 12).

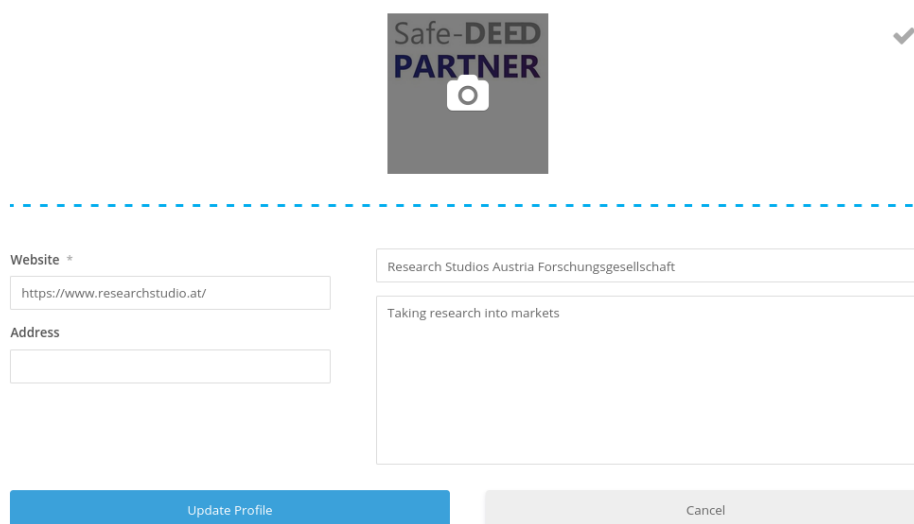
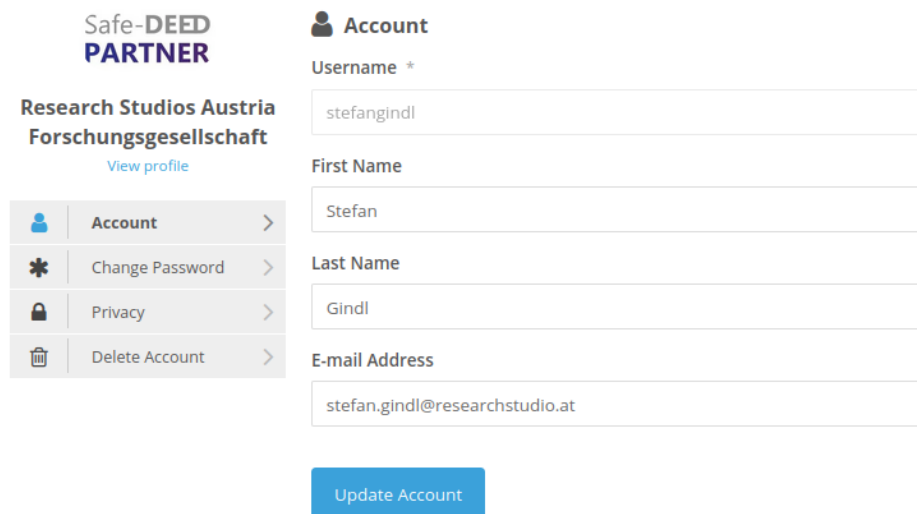


Figure 12: The profile page of PPC members (RSA is a project partner and counted as a PPC member).

The administrative area features an account page, which allows management of details such as the account information (personal information of the company representative), the password, and privacy settings (see Figure 13).

Account



Safe-DEED PARTNER

Research Studios Austria
Forschungsgesellschaft
[View profile](#)

- Account >
- Change Password >
- Privacy >
- Delete Account >

Account

Username *
stefangindl

First Name
Stefan

Last Name
Gindl

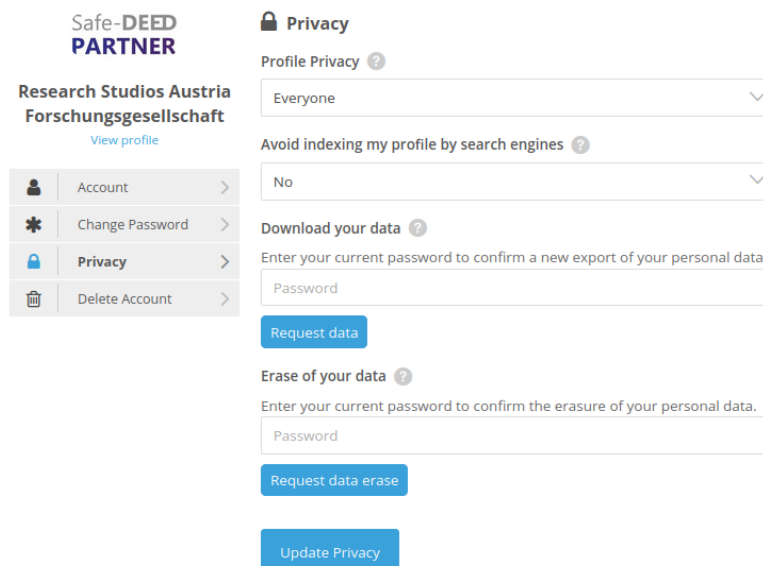
E-mail Address
stefan.gindl@researchstudio.at

Update Account

Figure 13: The account management page.

The privacy subpage contains functionality for a fine-grained specification of privacy settings (see Figure 14). The setting “Profile Privacy” allows members to specify whether their profile should be public or not, i.e. if it is visible to everyone or to just themselves. The settings have a field for search engine indexing, i.e. whether or not search engines are allowed to crawl and display the information of the member. Members can also download the data Safe-DEED stores about them through the registration process using the button “Request data”, and they can completely erase their data using “Request data erase”. Both features ensure compliance with GDPR - it fully informs members about the data stored about them and complies with the GDPR “Right to be forgotten”.

Account



Safe-DEED PARTNER

Research Studios Austria
Forschungsgesellschaft
[View profile](#)

- Account >
- Change Password >
- Privacy >
- Delete Account >

Privacy

Profile Privacy ?
Everyone

Avoid indexing my profile by search engines ?
No

Download your data ?
Enter your current password to confirm a new export of your personal data.
Password
Request data

Erase of your data ?
Enter your current password to confirm the erasure of your personal data.
Password
Request data erase

Update Privacy

Figure 14: Privacy settings within the account management page.

The Safe-DEED website is based on Wordpress. The members of the PPC are managed using the management facilities built into Wordpress. This facility allows users to manage memberships, i.e. approve or reject them, and to edit member details.

3 PPC Outcomes

In the following, we present the outcomes of the efforts taken within T8.3. We describe the composition and size of the PPC, activities carried out with PPC members, and educational material.

3.1 Members

The members of the PPC come from a wide variety of organizational types and domains. It consists of H2020 projects, such as TRUSTS or DataVaults, companies, e.g. Tributech Solutions GmbH or Danube Tech GmbH, educational institutions, such as the University of Applied Sciences Upper Austria, or startups such as Artificial Researcher or Mydex. Their domains are manifold as well. For example, Tributech Solutions GmbH “creates facts from data”, Phenaris GmbH works in the area of drug design using digital technologies, and Artificial Researcher GmbH is a startup working in the area of information extraction.

All partners of WP8 actively participated in the acquisition of PPC members. They leveraged their own networks, sent out invitation emails, broadcasted the information on their social media channels, and, most importantly, also convinced potential new members in bilateral meetings. This combined effort helped to reach the objective defined in the Safe-DEED grant agreement, i.e. a size of the PPC of 30 members. Table 1 lists all PPC members.

Table 1: Complete overview of the PPC members (the description was provided by the members during registration or taken from their respective website).

	Name	Description	URL
1.	Data Intelligence Offensive (DIO)	The mission of the Data Intelligence Offensive is to help its members with their transition to a digital economy, the implementation of new technologies, the optimisation of their processes, as well as with the safe and trustworthy management of their data.	https://dataintelligence.at
2.	ID Ward	ID Ward is a personal data wallet that aggregates consumer data from various sites and apps, and puts it in the hands of the user before companies can access it. With ID Ward, companies can personalise their products, services and content using richer consumer profiles more ethically and transparently.	https://id-ward.com
3.	Tributech Solutions GmbH	Tributech is a technology provider with the mission to create facts from data by offering an innovative technology that enables companies to selectively share data across companies or systems. The integrated blockchain technology ensures that the shared data can be audited cross-company and thus serves as a trustable foundation.	https://www.tributech.io/
4.	Foundation for Research and Technology Hellas, Institute of Computer Science	Information and Communication Technologies (ICTs) permeate the fabric of everyday activities bringing disruptive innovation for the improvement of quality of life in all its manifestations. Our mission is to contribute with high quality research and novel technologies to the realization of a knowledge society that will effectively address modern grand challenges and be acceptable by all citizens. (No description was provided during registration. This description uses the own words of the company taken from their website)	https://www.ics.forth.gr/
5.	Trusted Data Analytics (TDA)	TDA Trusted Data Analytics GesmbH & Co KG is a Vienna-based independent advisor for credible data services and data infrastructure operations. TDA facilitates local, sectoral and cross-sectoral networking, and advises organizations in the public and private sectors, which carry and use data. (No description was provided during registration. This description uses the own words of the company taken from their website)	https://www.tda.one/
6.	FRAISS IT GmbH	Supports companies in conceptualization and implementation of IT projects. (No description was provided during registration. This description was written by the deliverable authors based on the	https://www.fraiss.com

		information given on the organization's website)	
7.	Amsterdam Economic Board	Working on the smart, green and healthy future of the Amsterdam Metropolis. (No description was provided during registration. This description uses the own words of the company taken from their website)	https://amsterdameconomicboard.com
8.	Danube Tech GmbH	DANUBE TECH is a company working on technologies in the field of digital identity and personal data, including personal agents, semantic graphs, and decentralized identity.	https://danubetech.com/
9.	Phenaris GmbH	At Phenaris we constantly challenge the status quo in computational drug design and in silico toxicology. Using cutting edge technologies we provide data, models, and decision support in all aspects of in silico toxicology. We are currently working on multiple solutions to provide data integration, model development, and decision support.	https://www.phenaris.com/
10.	Kalny Future Business GmbH	We want to shape the future of Austrian and European enterprises in economical and social aspects by handling strategic and technological topics with passion and appropriate knowledge. (No description was provided during registration. This description uses the own words of the company taken from their website)	https://www.kalny-future-business.com/
11.	TechMeetsLegal	Our goal is to connect lawyers/law firms to scientists/technicians & entrepreneurs in order to support them in technical-legal questions.	https://techmeetslegal.at/
12.	University of Applied Science Upper Austria - Logistikum Steyr	The LOGISTIKUM in Steyr as part of the University of Applied Sciences Upper Austria bundles all research activities in the discipline of logistics. Well-founded, problem-oriented basic research is therefore linked to industrial research. At the Logistikum 35 researchers and 15 professors are working in the areas of logistics management, supply chain management and mobility/transport logistics. Each area contains a variety of thematic fields, which are researched in the form of national and also numerous international projects.	https://www.logistikum.at
13.	Innovalor	InnoValor is the company behind ReadID, trusted identity verification. InnoValor delivers an independent sustainable contribution to realising value from digital innovation. We do so through advising services and the development of innovative software solutions, based on our background in research. This way you will create value from digital innovation. (No description was provided during registration. This description uses the own words of the company taken from their website)	https://innovalor.nl/
14.	SpotOn Statistics GmbH	SpotOn Statistics offers companies innovative solutions for strategic planning - we are replacing the data sources and methods of the last century. We provide you with the right information on your questions and create predictive models for strategic decisions.	https://spoton-stats.com/
15.	Net7 Srl	We are an Italian SME based in Pisa, Italy. We define ourself a Creativetech Company, which combines skills in UX and Service Design with a deep experience in Software Development and System Integration. We have a history of over 20 years of developing projects with open source and web technologies. We are actively involved in Research, with several EU and National funded initiatives.	https://www.netseven.it/en/
16.	Network Development Hub GmbH	We help technology start-ups and scale-ups with commercialising and growing their businesses, with focus on commercial capabilities, market communication, and international business development. Through our extensive network, further strengthened by our affiliated advisors, we are able to open doors, connect dots, and create new business opportunities for our clients.	https://networkdevelopmenthub.com/
17.	Next European Industry	NEXTIN has the mission to boost the economic development of its members and to advocate the IT SMEs needs as a whole in the policy making process. Today's fast evolving technologies reinforce the importance of such a reality, as facilitator to build bridges and create synergies between the different industries, research centers and	http://www.next-in.eu/

		policy makers.	
18.	Medea S.r.l	MEDEA is an Italian SME born in 1997 as spin-off of the Scuola Superiore Sant'Anna di Pisa. Has been working for more than 20 years for the promotion of innovation in the socio-healthcare in daily practice. H2020 EU societal challenge n.1: Health, demographic change and wellbeing Innovation Management for AHA service adoption and scaling up. Impact Assessment to generate evidence of the added value of innovative services. Exploitation and impact assurance strategy definition	http://www.medeaproject.eu/
19.	Catch.direct	Catch.direct is a company dedicated to the development and implementation, as well as running of a secure communication backbone system for industrial b2b trading and matching platforms.	www.catch.direct
20.	Volvo Cars	Volvo Cars is a company on a mission to bring traditional car manufacturing into connected, sustainable and smart future. Since 1927, we have been a brand known for our commitment to safety, creating innovative cars that make life less complicated for our consumers.	www.volvocars.com
21.	Bitfount	Bitfount is a powerful, flexible data collaboration platform built around federated learning and other advanced privacy-preserving techniques. Discover and evaluate third-party datasets, run data consortia, license and train advanced AI models, and more.	www.bitfount.com
22.	Artificial Researcher	Artificial Researcher is an information technology company and a start-up in the text mining industry. We provide industry and academia with unified platforms that increases the productivity.	artificialresearcher.com
23.	aix solution	aixsolution e.V. is a management consultancy that develops innovative and customized solutions for its clients.	www.aixsolution.rwth-aachen.de
24.	Trusted Secure Data Sharing Space (TRUSTS)	The Horizon 2020 project TRUSTS – Trusted Secure Data Sharing Space aims to develop a data sharing platform for secure, trustworthy, and GDPR-compliant data exchanges. Based on the experience of two large national data market projects, TRUSTS will allow the integration and adoption of future platforms in different jurisdictions.	www.trusts-data.eu
25.	DataVaults	A European Project providing a safe way for citizens to share their personal data.	www.datavaults.eu
26.	Mydex	Mydex CIC helps individuals and service providers improve their handling of personal data. Our personal data stores equip individuals with tools to collect, store, use and share their data to manage their lives better. They also help bona fide service providers reduce data processing costs, improve service and innovate. As a Community Interest Company we are legally committed to pursuing our mission of empowering individuals with their data. We are currently helping individuals and service providers use personal data to better manage chronic health conditions, access debt advice, improve independent assisted living and assure identities. We are working with governments, local councils and communities to improve access to and increase the value delivered from public services.	mydex.org
27.	DLTEO	A one stop shop for Earth Observation data trading and processing, currently incubated by ESA BIC Austria	dlteo.com
28.	EUHubs4Data	The European federation of Data Driven Innovation Hubs is a project which aims to consolidate as the European reference for data driven innovation and experimentation, fostering collaboration between data driven initiatives in Europe, federating solutions in a global common catalogue of data services, and sharing data in a cross-border and cross-sector basis. With the objective of serving as reference to the establishment of the Common European Data Spaces, the federation is initially composed of 12 DIHs, covering 10 countries and 12 different regions, and plans	euhubs4data.eu

		to increase the geographical coverage by incorporating other relevant initiatives in the upcoming months.	
29.	ZAMG	ZAMG, founded in 1851, is Austria's state meteorological and geophysical service. The quality of the products and services offered is state-of-the-art, and is achieved through findings from research and development programs in conjunction with continuous further development of the methods. The ZAMG has been recognized for many years as the representative of Austria in the relevant international organizations in its specialist areas.	www.zamg.ac.at
30.	Digital Excellence	We are an ecosystem of internal and external digitalisation consultants and IT implementers. Together, we have years of experience in developing digitisation initiatives. Our perceptions and practical experiences in our consulting projects have inspired us to develop the Digital Excellence Navigator Our consulting and management methodology based on the Digital Excellence Navigator makes digitisation as the 4th cultural technique tangible. With the Digital Excellence Navigator, complex technologies and possibilities of digitalisation become accessible and usable for your entrepreneurial success. It creates a consistent framework in the development of digitisation strategies and in the active design of digitisation processes in your company through the consistency and interaction of analogue tools and digital services.	digitalexcellence.at

We list all members of the PPC on the Safe-DEED website⁸, on the one hand to inform potential new members about existing members as an incentive and to increase the reputation of Safe-DEED, on the other hand to fulfill our promise to members to help them increase their visibility. Figure 15 shows a snippet of the member page.

Our Members

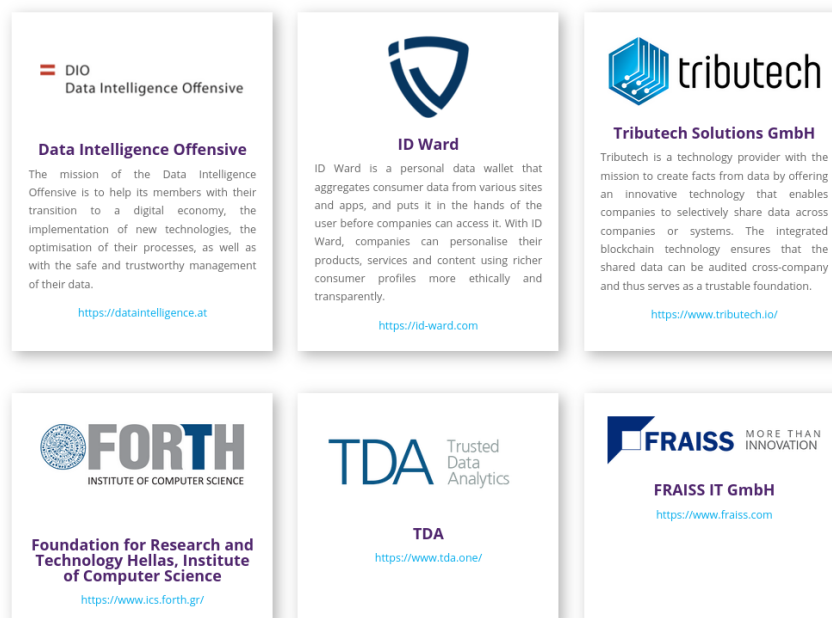


Figure 15: The overview of members on the Safe-DEED PPC page.

⁸ <https://safe-deed.eu/our-members/>, last accessed August 31, 2021

3.2 PPC Activities

Activities with PPC members were a highly relevant goal throughout the project. This covers “official” events such as webinars (see Subsection 3.3.1), but also activities such as personal consultations or bilateral meetings. Notable examples for these activities include:

- **TRUSTS:** the MPC component developed in Safe-DEED has been integrated in TRUSTS. DVC and PSI are both discussed to also get integrated in TRUSTS
- **Data Intelligence Offensive:** Safe-DEED and the Data Intelligence Offensive organized and hosted a series of webinars. The webinars presented the core topics of Safe-DEED and TRUSTS.
- **Tributech Solutions GmbH:** has a strong interest in Safe-DEED’s Data Valuation Component. Bilateral talks were held with project partners to inform about ongoing research efforts and potentials for collaboration.
- **The University of Applied Sciences Upper Austria:** aims to build upon Safe-DEED Know-How to develop a universal data model for collaborative logistics. They draw upon the knowledge provided in planned expert workshops and interviews.
- **Innovalor:** uses the Data Service Cards developed within Safe-DEED. They are integrated in the platform www.businessmakeover.eu. In February 2021, Safe-DEED organized a webinar “Data Service Cards Introduction” in conjunction with Innovalor.
- **DataVaults:** A presentation of the Safe-DEED demos to DataVaults in a bilateral call. DataVaults is highly interested in integrating Safe-DEED developments in their ongoing project.
- **MyDex:** received an introduction to Safe-DEED developments in a bilateral call. They expressed strong interest in our activities.
- **EUHubs4Data:** also received an introduction to Safe-DEED developments. A joint event where the Safe-DEED Business Model Tools are applied by EUHubs4Data experiments is planned as an interactive online session. Furthermore, EUHubs4Data plans to integrate Safe-DEED as a part of their federated catalog⁹.
- **Digital Excellence:** Based on the Safe-DEED Data-Service Cards (see Section 3.3.3), new consulting processes and methods are being developed together with Digital Excellence to provide even better support to companies on their path to digital transformation.

3.2.1 Member Stratification

The stratification strategy developed within T8.3 served to classify PPC members with respect to their activity within the PPC. We differentiate four levels of activity:

- **Associated:** all companies that have registered as members of the PPC. There are 30 associated members, which goes in line with the target set in the Safe-DEED objectives.
- **Active:** these are members who are both registered and also joined a Safe-DEED related event.
- **Converted:** these are registered members which also delivered significant contributions to Safe-DEED. Examples are the Data Intelligence Offensive, who organized a series of webinars about Safe-DEED technologies in conjunction with the H2020 project TRUSTS, or Innovalor, who actively uses the Data Service Cards developed within Safe-DEED.

The stratification strategy is displayed in a pyramid style in Figure 16. In the context of our acquisition we informed a much larger group of organizations. This was done via the network of Safe-DEED partner, the Safe-DEED activities such as the webinars, as well as our web presence. For example, the Safe-DEED website had 805 sessions and 1.015 page views, and visitors remained on average for 39 seconds on the website in the last 30 days before the time of updating this deliverable (August 31, 2021).

⁹ <https://euhubs4data.eu/#>, last accessed August 24, 2021.

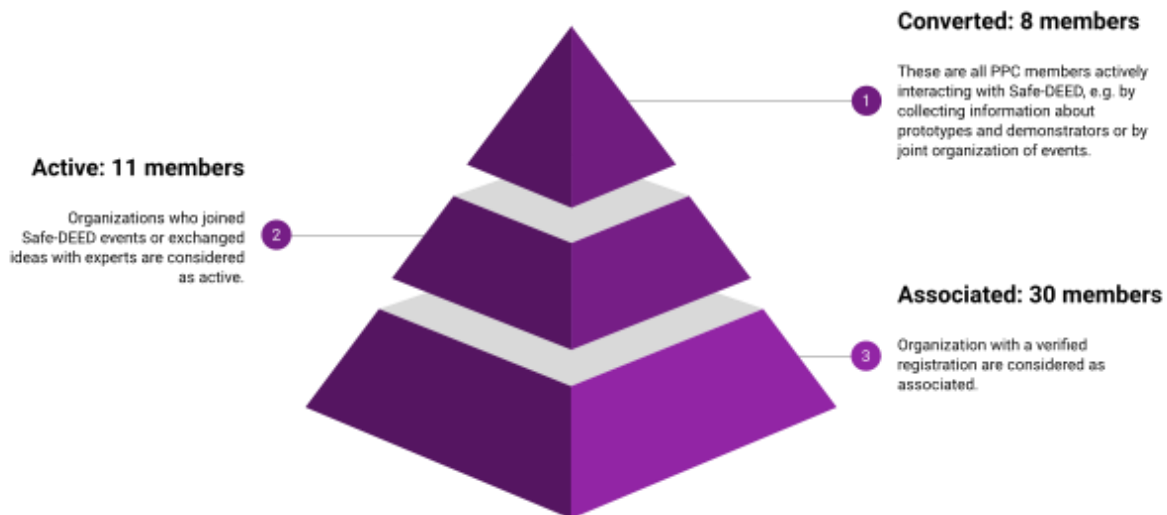


Figure 16: The member stratification categorizes members according to their activity.

The group of converted members consists of the seven organizations and initiatives, i.e. the companies Innovalor, Tributech, Digital Excellence, and MyDex, the educational organization University of Applied Sciences of Upper Austria, the H2020 projects TRUSTS and DataVaults¹⁰, as well as the association Data Intelligence Offensive. At the time of the writing of this proposal, at least two more members are promising candidates to become converted members, as they have shown significant interest in the topics and technologies of Safe-DEED. These are the H2020 project EUHubs4Data¹¹ and the Barcelona City Council¹². Active members include the group of converted members extended by the companies Forth, TechMeetsLegal, and the Network Development Hub.

3.3 Training Material and Courses

3.3.1 Webinars

Safe-DEED organized, in conjunction with its sister project TRUSTS¹³, a series of webinars about selected research topics. The purpose of these seminars was two-fold: on the one hand, they served as educational and informative material for organizations interested in the Safe-DEED technologies. On the other hand, they also served as a promotional strategy to attract more members to the PPC.

Each webinar was held collaboratively by two researchers from Safe-DEED and TRUSTS. Participants of the webinars get insights from the experts involved in the project's research and learn about the current state, challenges, and potential next steps. Furthermore, they can interact with the experts in Q&A sessions at the end of the webinar and ask questions or acquire further information. The webinars were meant to be lively discussion platforms for exchange with project experts and interested organizations. Thus, they are aligned with the PPC member benefits, specifically the interaction with Safe-DEED experts.

Safe-DEED organized a series of three webinars, covering the topics “Legal aspects of data sharing platforms”, “Privacy preservation in data markets”, and “Business aspects of data markets”. The topics were selected to give a broad coverage of the most prominent Safe-DEED topics.

¹⁰ <https://www.datavaults.eu/>, last accessed August 20, 2021.

¹¹ <https://euhubs4data.eu/>, last accessed August 20, 2021.

¹² <https://www.barcelona.cat/en/>, last accessed August 20, 2021.

¹³ <https://www.trusts-data.eu/>, last accessed August 20, 2021.

The webinars including Q&A sessions were moderated by the Data Intelligence Offensive¹⁴, a consortium member of TRUSTS and PPC member of Safe-DEED. Each webinar was recorded and uploaded to Youtube to allow future viewers to benefit from the contents (see Figure 17). The webinars were advertised on LinkedIn and Twitter to increase visibility.

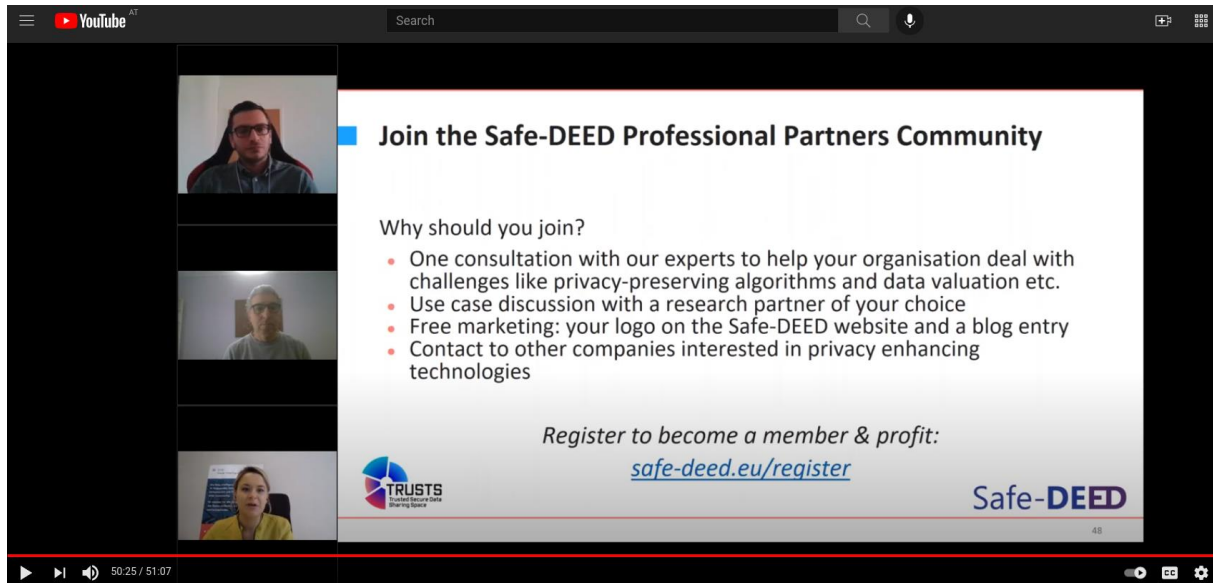


Figure 17: Promotion of the PPC at the end of Webinar “Privacy Preservation in Data Markets”¹⁵.

Table 2 gives an overview of the webinars and their details.

Table 2: Details of the Safe-DEED & TRUSTS webinar series.

Safe-DEED Webinars			
	Title	Speaker	Date
1	Legal aspects of data sharing platforms	Ioannis Markopoulos (FNET=NOVA) Alexandros Bampoulidis (RSA)	March 31, 2021, 11:00-12:00
	Link: https://www.youtube.com/watch?v=8qoMS7UejM0		
2	Privacy preservation in data markets	Ioannis Markopoulos (FNET=NOVA) Alexandros Bampoulidis (RSA)	April 21, 2021, 11:00-12:00
	Link: https://www.youtube.com/watch?v=phrNyQG8IW0&t=1s		
3	Business aspects of data markets	Ioannis Markopoulos (FNET=NOVA) Gianna Avgousti (EBOS)	May 10, 2021, 11:00-12:00
	Link: https://www.youtube.com/watch?v=9MW7uWKv8n8		

¹⁴ <https://www.dataintelligence.at/>, last access August 20, 2021.

¹⁵ <https://www.youtube.com/watch?v=phrNyQG8IW0&t=1s>, last accessed August 20, 2021.

3.3.2 Massive online learning on the edX Platform

The educational material produced in Safe-DEED also became part of edX¹⁶, a massive open online course by Harvard and MIT¹⁷. On this platform, individuals can attend a variety of university-level online courses and acquire certificates. The platform features a broad variety of highly diverse topics, such as architecture, art and culture to biology, chemistry, computer sciences, and many more. In their 2021 report, edX summarizes the following impressive usage statistics for 2020:

- **Registered learners:** 35 million
- **Enrollments:** 110 million
- **Learner per day:** 85.000
- **Number of instructors:** 15.000

Given these numbers, edX is a logical choice to help spread the knowledge generated in Safe-DEED and provide it as educational material. The material was included in two courses, each course is further subdivided into blocks covering different aspects of the course topic. Both courses were launched on August 30, 2021. The first course is about “The Value of Business Models”. The Safe-DEED material is in the third block of it, and includes a tutorial for the material to create data-driven business models (see Subsection 3.3.3) and a tutorial about Multi-Party Computation. On the launch day it had 26.000 enrollments. Figure 18 shows a screenshot of the tutorial on the creation of data-driven business models, The second course is about “Business Model Implementation”, and had 17.000 enrollments on the day of launch.

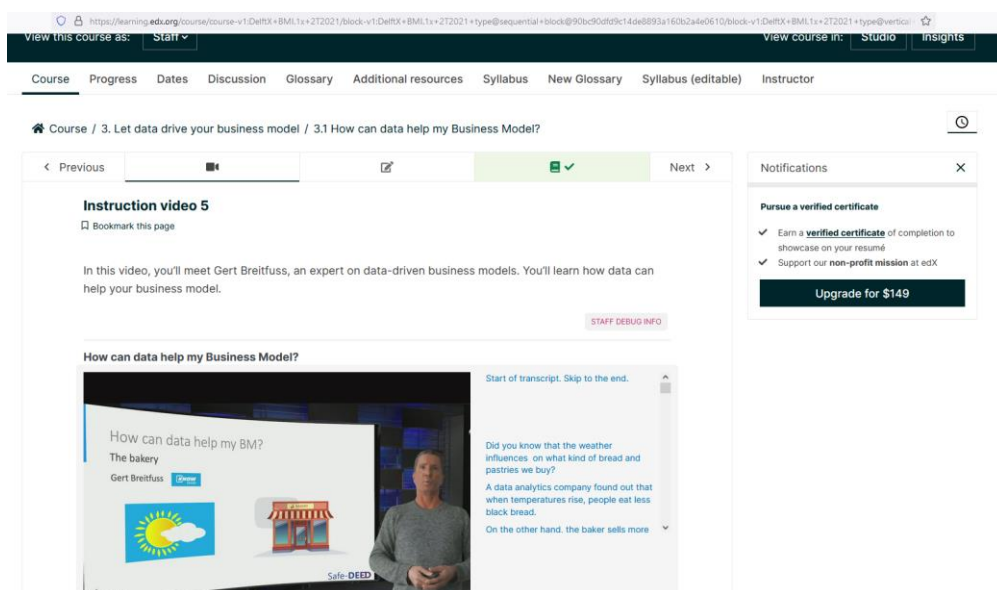


Figure 18: Instruction video on data-driven business models, featured in the course “The Value of Business Models”.

Figure 19 is another screenshot of a tutorial explaining the relevance of anonymization and deanonymization for the creation of data-driven business models.

¹⁶ <https://www.edx.org/>, last accessed August 30, 2021.

¹⁷ <https://www.edx.org/about-us>, last accessed August 30, 2021.

< Previous

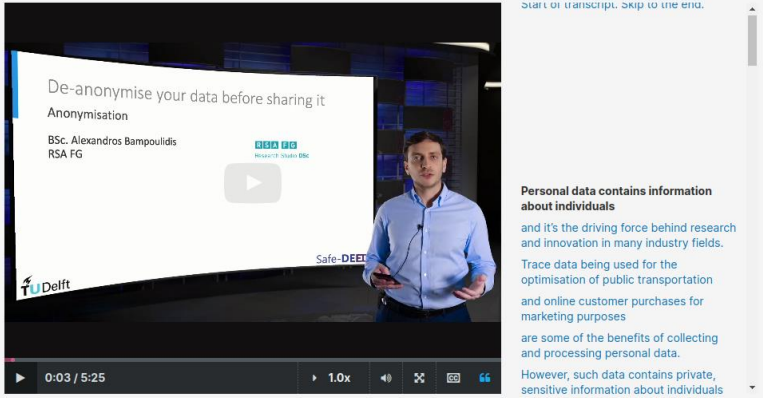
Next >

Instruction video 8: De-anonymization

Bookmark this page

As a business processing data you are responsible for the privacy of the people and organisations your data is about. An important feature of being able to process personal data is to be able to anonymize and de-anonymize data. In the video below an explanation of that is given. It provides a set of questions you need to be able to answer before selling your data, to ensure you do not violate any privacy rules by processing personal data.

Instruction video 8



start or transcript, skip to the end.

Personal data contains information about individuals
and it's the driving force behind research and innovation in many industry fields.
Trace data being used for the optimisation of public transportation and online customer purchases for marketing purposes are some of the benefits of collecting and processing personal data.
However, such data contains private, sensitive information about individuals

Video Subtitles Other

Subtitles (captions) in other languages than provided can be viewed at [YouTube](#). Select your language in the CC-button of YouTube.

© 1 2 3 4 Some Rights Reserved

Figure 19: Tutorial about anonymization/deanonymization, featured in the course “Business Model Implementation”.

3.3.3 Data-driven Business Model Tools

The data-driven business model tools are a suite of three tools to innovate data-driven business models. They were developed by the project partners KNOW and TUD and are publicly available on the Safe-DEED website¹⁸ and on Innovalor’s business model innovation platform¹⁹. The tool suite includes the “Data Map”, “Data Service Cards”, and the “Data-driven Business Canvas”, which are explained in more detail in the following sections. The suite targets companies aiming to step into the data-driven economy and help to brainstorm ideas and resources.

Safe-DEED Data Map

The data map helps companies understand ownership issues of their data. It divides ownership in:

- **Self-owned data**, i.e. data a company has created itself
- **Collaboratively created data**, i.e. by a company as well as a 2nd party
- **3rd party data providers**, freely available data e.g. from open government websites.
- **Externally owned data**, i.e. a 2nd party owns the data but might be willing to share in exchange of money.

Figure 20 shows the Data Map in Safe-DEED, the four categories are visible. The map can be completed like a canvas and helps to brainstorm ideas in a structured way.

¹⁸ <https://safe-deed.eu/data-driven-business-model-tools/>, last accessed August 24, 2021

¹⁹ <https://businessmakeover.eu/>, last accessed August 24, 2021

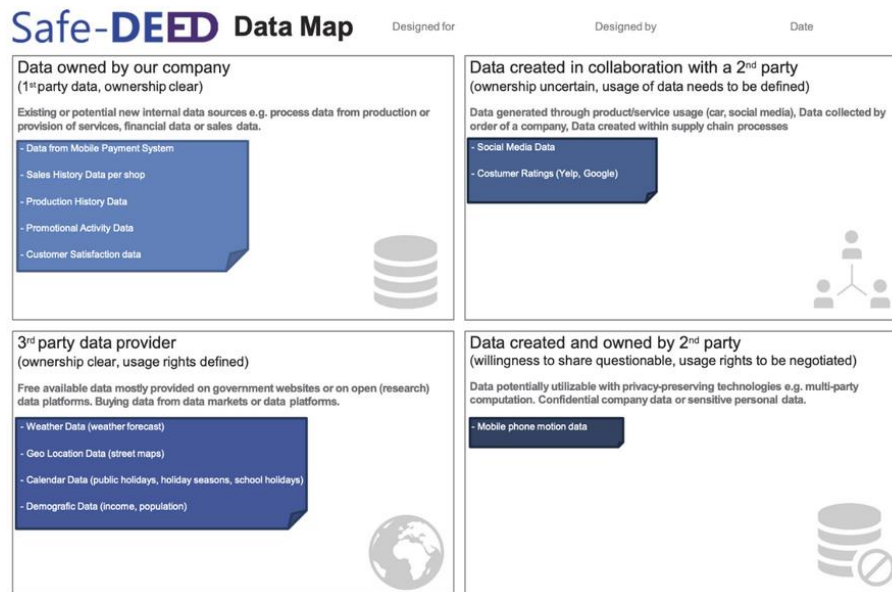


Figure 20: The example of a completed Data Map.

Safe-DEED Data Service Cards

The Data Service Cards are a tool to foster innovation for data-driven business ideas²⁰. They consist of 50 cards, where each card contains an explanation and use case of a data-driven concept. The cards are applicable when developing a new service or to further enhance an already existing service. The concepts represented by the cards cover these 5 categories:

- **Data sources**, e.g. weather data, geographic data, or product-generated data.
- **Data analytics**, e.g. reinforcement learning, classification, or regression analysis.
- **Data services**, e.g. automated actions, decision support, or application programming interfaces.
- **Benefits**, e.g. information and knowledge gain, proactivity, or image gain.
- **Revenue models**, e.g. data sale, data service sale, or subscription

The five topics are covered step by step. The team working on the data-driven idea is expected to ultimately select the three best-fitting cards from each topic and brainstorm about their content. Subsequently, the team discusses the new service and checks for misunderstandings or incompleteness. The result of this process is a report covering the identified concept as well as examples related to the organization's applications (see Figure 21). The team ideally consists of people from multiple disciplines and should have a size of 4 - 6 people.

²⁰ Breitfuss, Gert; Fruhwirth, Michael; Wolf-Brenner, Christof; Riedl, Angelika; de Reuver, Mark; Ginthoer, Robert; and Pimas, Oliver, "Data Service Cards - A supporting tool for Data-Driven Business" (2020). BLED 2020 Proceedings.

Example Netflix



Netflix, one of the 50 largest media companies in the world, was unknown a few years ago. The company generates its profits through paid streaming subscriptions and the production of its own films and series. Due to its strong focus on data, the company can adapt to economic conditions and customer behaviour. Below you will find an application of the Data Service cards on Netflix.

Data Sources Cards - Usage Behaviour:

Netflix gathers data to see user trends to understand engagement at a deep level
Other Identified Data Sources Cards: User generated Data and Geographic Data

Data Analytics Cards - Recommender System:

As part of the on-boarding process, Netflix asks new users to rate their interest in movie genres and rate any movies they've already seen
Other Identified Data Analytics Cards: Association Analysis and Classification

Data Service Cards - API:

Adapting services to different operating systems and technical specifications is possible due to API.
Other Identified Data Services Cards: Decision Support and Web-Element & Software Function

Benefit Cards - Information & Knowledge Gain:

Data analysis provides Netflix with much information which can be objectified for marketing, own productions and fitting user needs.
Other Identified Benefit Cards: Customer Trust & Satisfaction and Flexibilisation & Dynamisation

Revenue Model Cards - Subscription:

subscription-based business model, creating revenue through three simple plans: basic, standard, and premium, giving access to stream series, movies, and shows.
Other Identified Revenues Models Cards: Indirect Benefit

Safe-DEED

Figure 21: Example of the Data Service Cards applied to the company Netflix.

The cards themselves consist of a cover page, an explanatory text, and an example of a use case (see Figure 22). The topics of the cards mirror the areas of the Data-driven Business Canvas, which is explained in the following, and can be considered as an extension to the canvas.



Figure 22: The Data Service Card for “Usage Behaviour”.

Safe-DEED Data-driven Business Canvas

The Data-driven Business Canvas is the third tool in the suite of business model tools. It also helps organizations to innovate data-driven business models by providing different perspectives on the business idea at hand. The canvas guides the innovating team throughout the process. It encourages the team to specify a name for the innovation and define the target group, i.e. future customers and users who will benefit from the innovation. Furthermore, it contains fields for “data sources”, “analytics”, “data product”, “customer benefit”, and “financial implications”. The latter is further subdivided into the revenue streams expected from the innovation and the cost factors. The five fields are closely related to the topics of the Data Service Cards, which can be considered as an extension of the Business Canvas. Figure 23 shows an example of a completed canvas.

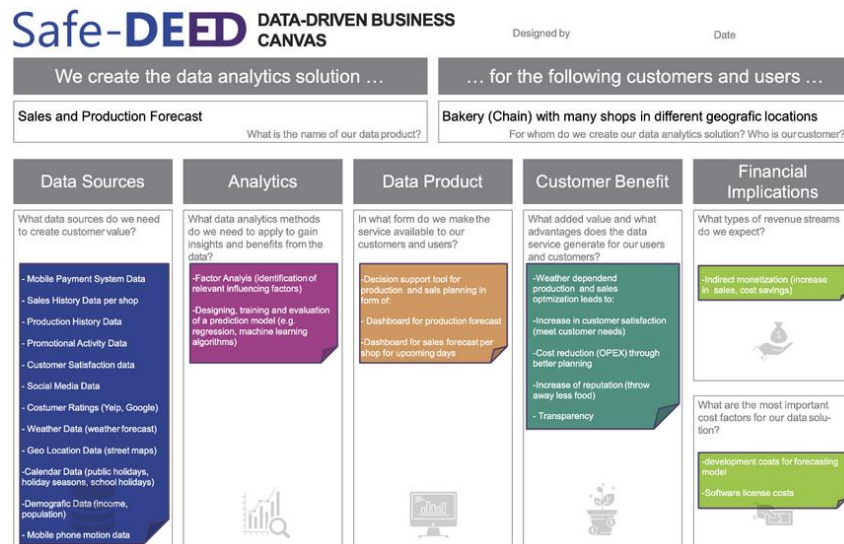


Figure 23: The example of a completed Data-driven Business Canvas.

3.3.4 FAQ on Multi-party Computation

Safe-DEED provides information material on legal aspects of multi-party computation on its website²¹. This information material is organized as an FAQ with eight questions, and answers the most important questions related to the topic (see Figure 24). The creation and details of this legal FAQ are described in more detail in D3.4 “Ethical and Normative Valuation in Data Markets”.

- Q1. In an MPC context, what happen if the data provider shares incorrect data, and I make a wrong decision: who is to blame? +
- Q2. When running an MPC protocol decentrally by both the data provider and user, who is liable if things go wrong? +
- Q3. How can I know that the protocol that is running is indeed a trustworthy MPC one? +
- Q4. As a data subject, how can I know that the MPC protocol is indeed not sharing my raw data? +
- Q5. What if a data user runs the MPC algorithm so many times that he can 'guess' my input data from it? (i.e., differential privacy). Are there any assurances against this? +
- Q6. Is this MPC method safe to use from a legal perspective? +
- Q7. If MPC method is safe from the legal perspective, will there be a certification process of the MPC implementation in order for the users to know which implementation complies most? +
- Q8. Can personal and encrypted data be evaluated? +

Figure 24: Overview of the questions addressed in the FAQ.

The answers are collapsed and can be unfolded if required. Figure 25 shows the detailed answer of the first question. The answer is further subdivided into sections.

²¹ <https://safe-deed.eu/legal-faq-mpc/>, last accessed August 31, 2021.

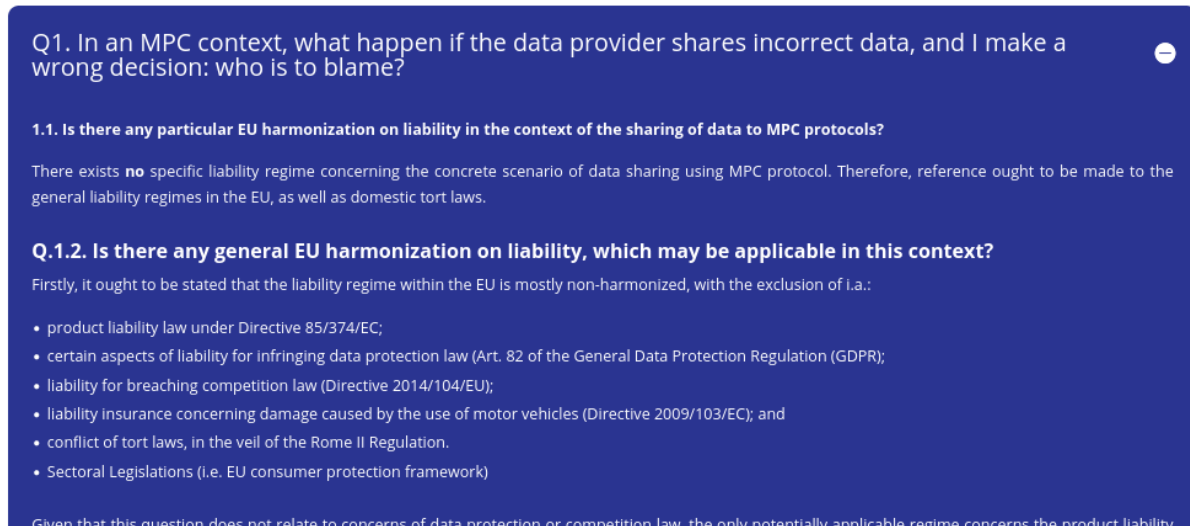


Figure 25: Interesting questions can be folded out.

3.3.5 KNOW Center Summer Academy

Another notable educational event used in Safe-DEED relevant for the PPC is the KNOW Center Summer Academy. It is a series of webinars held in summer 2020 and covers a wide variety of areas from Big Data and Artificial Intelligence. Besides topics such as Federated Machine Learning or Quantum Machine Learning, it also covered Privacy-Preserving Analytics, a topic highly relevant for Safe-DEED.

4 Conclusion

This deliverable summarizes all activities related to the establishment of a Professional Partners Community for Safe-DEED. Acquisition activities were accomplished by all project partners. It explains the definition of an acquisition strategy, the benefits of becoming a PPC member, the registration procedure for the PPC, and activities carried out with PPC members. The PPC is supposed to increase Safe-DEED's visibility and to closely connect it to stakeholders interested in PPC technologies. A lively community benefits both Safe-DEED as well as the PPC members through the possibility of knowledge exchange and sharing as well as the getting access to cutting-edge technology. Furthermore, organizations get direct access to researchers and experts participating in the project and can directly learn from them.

At the time of writing this deliverable the PPC had 30 members, which was the objective as defined in the project proposal. The members had different levels of activity and engagement within the PPC. Therefore, we created a stratification scheme to categorize different levels of activity and get a better overview of the activity.

Acquisition activities are still going on and will ideally result in a larger PPC by the end of the project.