

D2.2 Online inventory of existing initiatives

Final version



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About DS4Skills

The Data Space for Skills (DS4Skills) is a 13-months project aiming to prepare the ground for the development of an open and trusted European Data Space for Skills that supports sharing and accessing skills data.

DS4Skills aims to identify relevant data sources for the skills data space based on stakeholders' needs and propose conceptual approaches for the future deployment of the European Data Space for Skills.

Project consortium

The DS4Skills consortium brings together 10 full partners and 4 associated partners with solid experience in data ecosystem and community building, a wide network of stakeholders from diverse backgrounds, including researchers, training providers, companies, and associations representing industry and data ecosystems.

Partners

[DIGITALEUROPE](#) | [TNO](#) | [Mydata Global](#) | [Chamber of commerce and Industry of Slovenia – CCIS](#) | [The Adecco Group](#) | [Headai](#) | [Universitaet Koblenz-Landau](#) | [Vastuu Group](#) | [Visions](#) | [BDVA](#) | [European EdTech Alliance](#) | [Prometheus-X](#) | [Fraunhofer ISST](#) | [Swedish Jobtech](#)

Advisory Board

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Deliverable D2.2: “Online inventory of existing initiatives”.

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List of acronyms and abbreviations

This table provides a list of abbreviations and acronyms that are used in this report. It is not meant to provide an exhaustive list of all the terms related to the subject of this report.

Term	Definition
DEP	Digital Europe Programme
D	Deliverable
DS4Skills	Data Space for Skills
DSSC	Data Space Support Centre
EC	European Commission
EdTech	Education Technology
EDUXS	Initiative and website (eduxs.eu) to map and present standards used for interoperability in higher education.
IDSA	International Data Spaces Association
KPI	Key Performance Indicator
UI	User Interface.
UX	User Experience.

Executive Summary

Introduction

The online inventory is a web-based platform to search, manage and present a description of a set of existing initiatives (platforms, services, apps, emerging data spaces) in the skills data domain, particularly those related to data sharing. The analysis of initiatives is based on DS4Skills' Deliverable 2.1: Categorisation and assessment methodology.

The present deliverable documents the results of task 2.2 and task 2.3 and details the process of designing, developing and maintaining the online inventory.

Objectives

The objective is to present to the future European Skills Data Space main stakeholders and other actors interested in the skills data space, a series of relevant initiatives, and a precise and detailed description of them.

The online inventory platform also offers to these stakeholders the opportunity to showcase the data sets produced and maintained by their projects; to find other related initiatives to connect and collaborate with; and for the DS4skills consortium it opens ways to start thinking of use cases and business opportunities based on skills data sources.

It will also allow the wider community of organisations interested in skills data spaces to discover existing initiatives and be inspired to build their own and collaborate.

Methodological approach

The process of gathering relevant information related to skills data initiatives has included the following research methods:

- An online survey disseminated around main stakeholders and contacts of the consortium members, as well as in social networks, the DS4Skills advisory board and other actors.
- A desk research process for the revision of secondary sources (project websites, skills data initiatives, EC and Member States skills related initiatives, etc).
- A process of analysis of gathered data according to the categorisation and assessment indicators of Deliverable 2.1, followed by a synthesis process of the data gathered according to an agreed template that will be published online.
- The last process consisted of an expert validation and refinement of the final data carried out by selected partners and members of the DS4Skills advisory board.

- When creating the inventory, the research team benchmarked the initiative EDUXS considered as an example of good practice. The concept of the online repository is based on good information architecture, usability, completeness and scalability.

Results

The results are in fact two different kind of outcomes from the research carried out for the elaboration of the DS4Skills online inventory:

- The current report summarising the process and main aspects considered in the design and development of the repository of existing skills data spaces related initiatives.
- A website linked to the DS4Skills project website with the final selection of initiatives and functionalities to search and discover the initiatives: The DS4Skills online inventory. <https://inventory.skillsdataspace.eu/>

Conclusions

The online inventory is an important tool for general communication purposes, targeted dissemination and sustainability of the projects results after the project finalisation. For the main stakeholders of the DS4Skills project, it is also a way to showcase their initiatives.

Parallel and similar inventory activities are executed in other data spaces projects funded under the DEP. These projects have not, at the time of release of this document, yet discussed and coordinated efforts to align.

As a follow up activity just after the publication of the online inventory is to spread it amongst the stakeholder's community and to offer them the overview and enable them to add relevant initiatives. This means the inventory will be maintained over time - and the categorisation and assessment methodology (D.2.1) will be used over the course of the project.

The online inventory will be updated on a continuous basis during the project lifetime and beyond. Moreover, it has been transferred to the our DSSC relation manager (David Regeczi, TNO) to consider the methodological approach for the DSSC Radar and other data spaces inventories in other areas.

The online inventory sets the groundwork and connections to move towards the implementation phase coming after DS4Skills, where a pilot project will be co-funded by the Digital Europe Programme (DEP) to implement a European skills data space following the DS4Skills blueprint.

Background and context

In order to identify relevant data sources for the skills data space as well as relevant needs of the stakeholders, a broader understanding of existing initiatives and solutions implemented by stakeholders is needed. Work Package 2 (WP2) on “Preparing an inventory of existing platforms” is designed to have a solid basis for the inventory and a categorisation of existing initiatives collecting, storing and sharing data relevant for education and skills (public and private), considering also the various needs of stakeholders.

This deliverable is related to task 2.3, to design and develop an online inventory of the initiatives collected and assessed under task 2.2 through the methodology defined in Deliverable 2.1 on “Categorisation and assessment methodology”.

The following table lists the project Key Performance Indicators (KPIs) that are relevant for and fulfilled by the present report.

KPI Name	Description	Result
Connection to existing activities and infrastructures	Many partners are directly involved in existing activities and infrastructures.	The market scan and online inventory specifically aims at connecting the existing initiatives. DS4Skills partners and members of the Advisory Board have been involved in categorising and assessing the wide number of initiatives initially identified.
Number of data sources analysed	DS4Skills will analyse a number of data sources during the market scan phase. Target: Approximately 50 data sources.	The online inventory has analysed an enormous number of initiatives (more than 200). The Inventory consists of around 100 initiatives in March 2023.

Figure 1: Table with relevant KPIs for D2.2

Research methods and tools

The content of the online inventory is gathered via a market scan, that consisted of an online survey and a structured desk research.

The online survey

An online survey was developed to collect as much initiatives as possible for the online inventory. Via the survey, the project team gathered the following information:

- What is name of the existing initiative/platform?

- What do you (already) know about this initiative/platform?
Focus on the type of data and the use case.
- Where can more information about this initiative/platform be found?
 - Website
 - Contact person name + e-mail address
 - Other
- Is there anyone you can recommend us to get in touch with relating to this inventory?
 - Contact person name
 - E-mail

The survey was made publicly available and spread across the DS4Skills consortium to share in the networks that the partners are active in. The DS4Skills website and social media were used to broadly communicate about the survey and to help out meeting the KPIs and diversity constraints set by the project, for example finding initiatives for each EU country: [Have your say: Help us mapping existing initiatives in Skills and Education data - DS4Skills \(skillsdataspace.eu\)](https://skillsdataspace.eu).



Figure 2 : Visual representation of missing countries as used during the market scan

Desk research

More details for all initiatives were added via desk research performed by the WP2 partners on the information that was publicly available for the initiatives.

For each initiative, information about the following parameters were gathered:

- General description
- Business model
- Use cases
- Main operation / Service
- Ownership / Governance

- Organisations involved
- Maturity level
- Country of origin
- Geographical scope

For a high-quality delivery of D2.2 and precise assessment of the initiatives, more parameters were gathered for each initiative, to assess the relevance of the initiative for the design of the blueprint for the data space for skills. For more information about the parameters and the assessments, see D2.1 – Categorization and assessment methodology.

The results of the survey and desk research can be found in Appendix A, including the in / out of scope assessment of the initiatives and the full assessment of the initiatives considered in scope.

Description of design methodology

Benchmark of other websites

In order to carry out this project and to propose the best functionalities, the consortium has searched for sites and projects that list initiatives related to skills data spaces in Europe and beyond.

From the listed projects, the project team selected those that were the most relevant according to the following criteria:

- Functionality
- UI (User Interface)
- UX (User Experience)

In the following section, the project team chose two websites in particular to analyse and use as inspiration for the inventory:

- IDSA's radar: <https://internationaldataspaces.org/adopt/data-space-radar/>
- The Mapping EDU Environment project from EDUXS: <https://eduxs.eu/feedback/>

Through the analysis of these websites, the project team assessed that EDUXS is the better source of inspiration as it presents a detailed assessment of initiatives where the IDSA radar only presents a high-level overview. Indeed, the online inventory of DS4Skills presents detailed assessment of initiatives.

Conception and design

To design the inventory, the project team decided which pages were necessary, the elements to include and the desired functionalities:

- Creation of a landing page with an introduction to DS4Skills and a section with a button to add a project.
- Creation of a “discover” page that lists all the initiatives where you can filter according to several criteria.
- Creation of a “relationships” page that allows a search with a block to enter by use case (like EDUXS).
- Creation of a functionality to allow the community to add and suggest modifications on initiatives.
- Creation of a page that presents each selected initiative in detail.
- Creation of an article describing the assessment methodology of the initiatives.
- Footer with disclaimer and logo of the European Union in the footer.
- Add a link to the DS4Skills website.

These elements allowed us to define the information architecture and navigation of the site:

- Each of the above functionalities have their own page.
- These pages are easily accessible from the home page with clear buttons presenting the name of the functionality and a short description.
- The button to access the page to add a project is present in the header of the online inventory.
- The button to suggest modifications on an existing initiative, is present of the page describing said initiative.
- A link to the article presenting the methodology is present on each page.

Then, to create the pages, DS4Skills partners have used the design of the brand identity guide of DS4Skills for the colours, the font, the forms and the visuals developed in WP5 under T5.1.

In application, the project team used the "work sans" font for the writing. Regarding the shapes for the elements, i.e. the containers and the buttons, the consortium was inspired by the cube of the logo and chose square shapes. For the colours, the consortium used the main ones of the gradient of the logo: purple, green and white. In order to choose which colours will be those of the text or the background the project team used the colours from the logo and its variations. Finally, the visuals and the images are the same as those of the DS4Skills website, either images with a colour filter or a cropped image with the logo cube in the background.

Home page of the platform, enabling the user to discover the list of initiatives, the relationships between them and add a project.

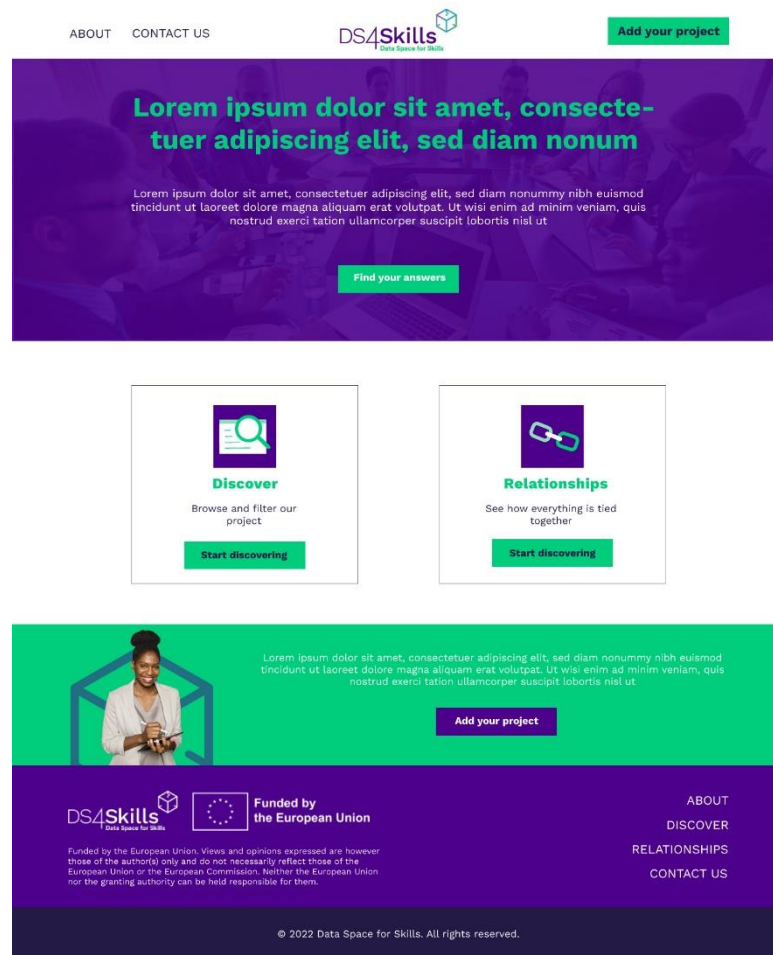


Figure 3: Home page V1

Relationships page of the platform, enabling the user to filter initiatives and see the relationships between them.

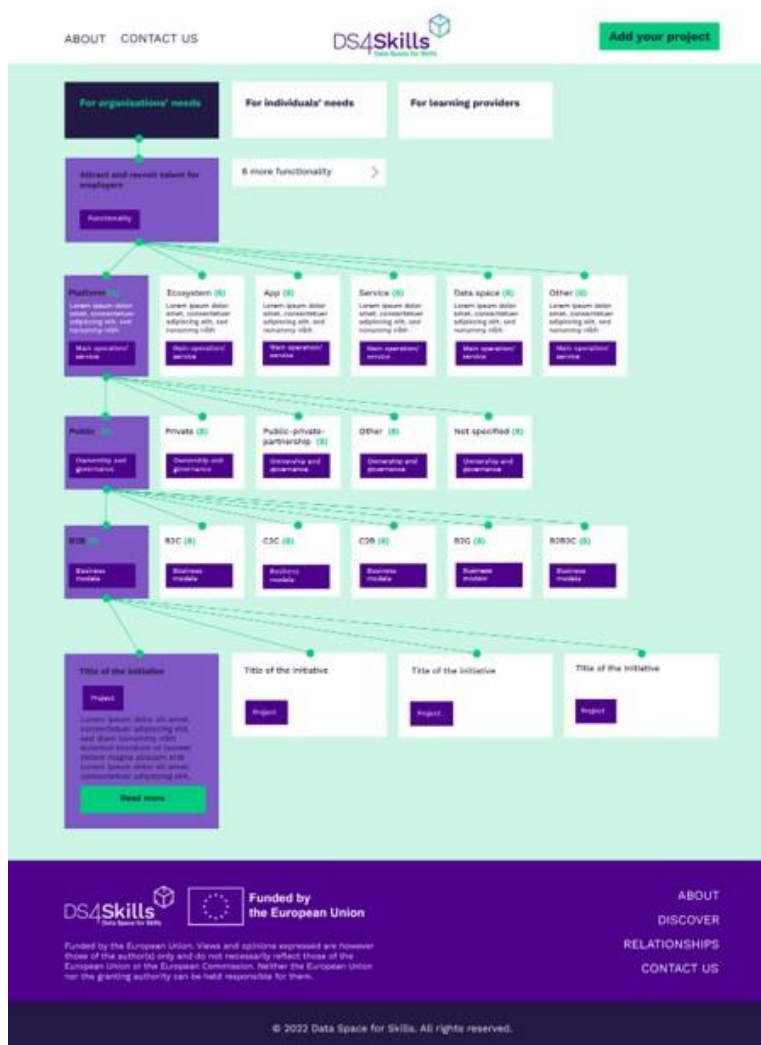


Figure 4: Relationships page V1

Discover page of the platform, enabling the user to discover initiatives based on a criterion using a clickable filter panel.



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Category

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Main operation/ service	Platform (1)	Knowledge (1)	Service (1)	Data space (1)	Other (1)
Ownership and governance	Public (1)	Private (1)	Public-private partnership (1)	Other (1)	Not specified (1)
Business models	B2B (1)	B2C (1)	C2C (1)	C2B (1)	B2B2C (1)
Functionality	For organisations' needs (1)	For learning providers (1)	For individuals' needs (1)		
Type of data	Skills & Competence data (1)	Qualifications & Education data (1)	Additional capabilities (1)	Transactional skills (1)	Occupational data (1)
Type of skills	Skills (1)	Knowledge (1)	Green skills (1)	Digital skills (1)	
Maturity	Basic principles observed (1)	Technology concepts formulated (1)	Experimental proof of concept (1)	Technology validated in lab (1)	Technology validated in relevant environment (1)
	System model or prototype demonstration in operational environment (1)	System complete and qualified (1)	Actual system proven in operational environment (1)		
Geographic scope	Regional (1)	National (1)	European (1)	International (1)	Global (1)
	Other (1)				

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Figure 5: Discover page V1

Project page of the platform, enabling the user to have more information about an initiative and to access its website.

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Lorem ipsum dolor sit amet, consectetur adipiscing elit

[View website](#)

For	Organisations' needs
Functionality	Attract and recruit talent for employers
Main operation/ service	Platform
Ownership and governance	Public
Business models	B2B
Organisations involved	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod
Maturity level	Basic principles observed
Description	Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat Lorem ipsum dolor sit amet, consectetur adipiscing elit, Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in hendrerit in




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Figure 6: Project page VI

Testing

In order to make sure that the site matches the project, the project team organized a meeting to show the models of the site and to have the opinion of the members of the consortium. At the end of this exchange, the consortium made the following changes:

- Add an analysis page and access to it from the home page.
- Change the UX of the Discover page.
- Add explanations to some terms in the relationships page.
- Add items to the page describing a specific project and change of the order of items.

Below are reported the pages with the updates that have been suggested by the consortium members during the meeting.

On the home page, the development team have added access of the page analysis.

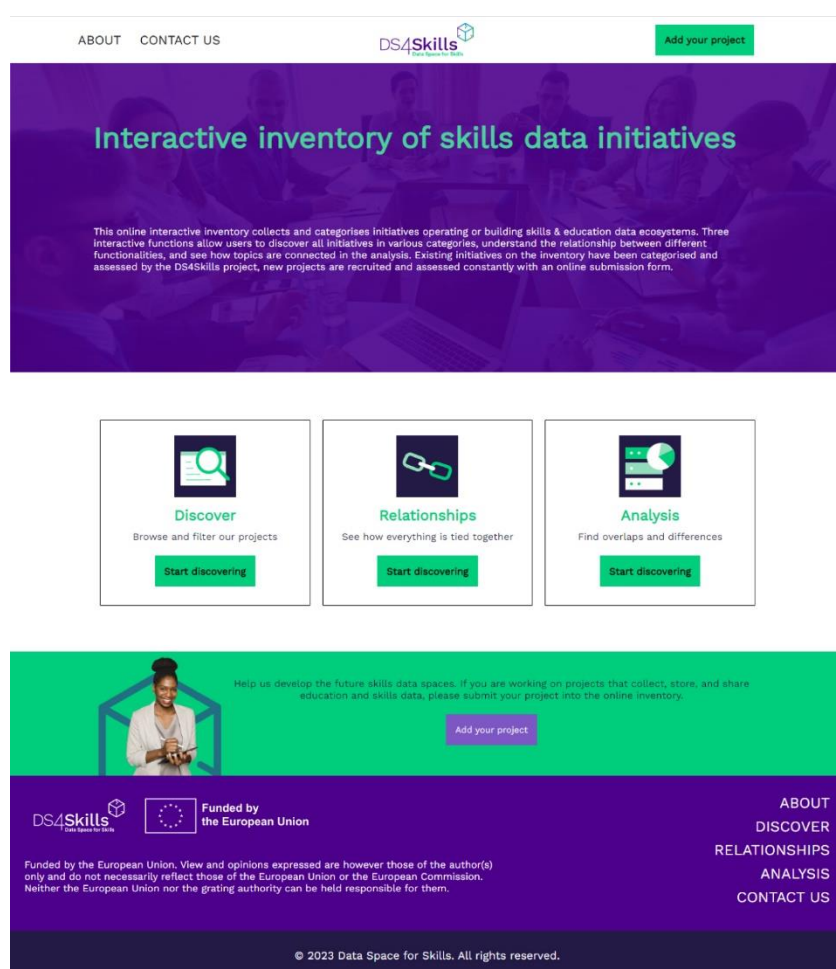


Figure 7: Home page V2

On the discover page, the development team reorganized the elements and changed how the filters work.

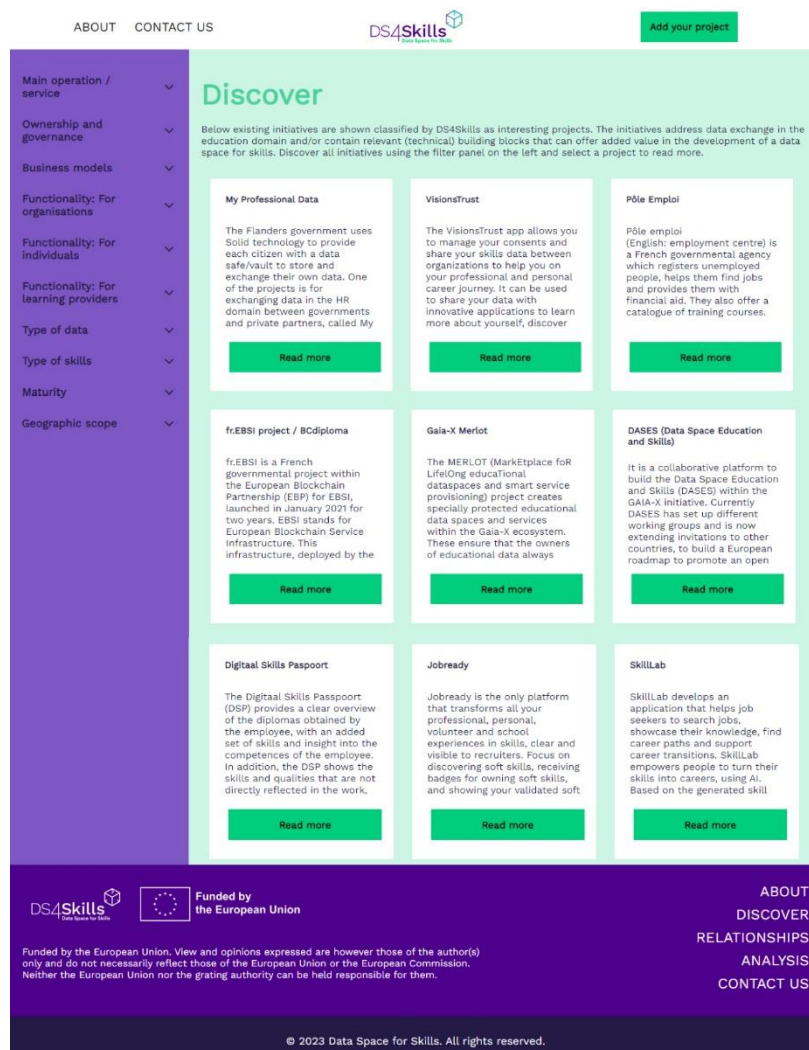


Figure 8: Discover page V2

On the relationship page, the project team added explanations to some terms and a button to reset your search.

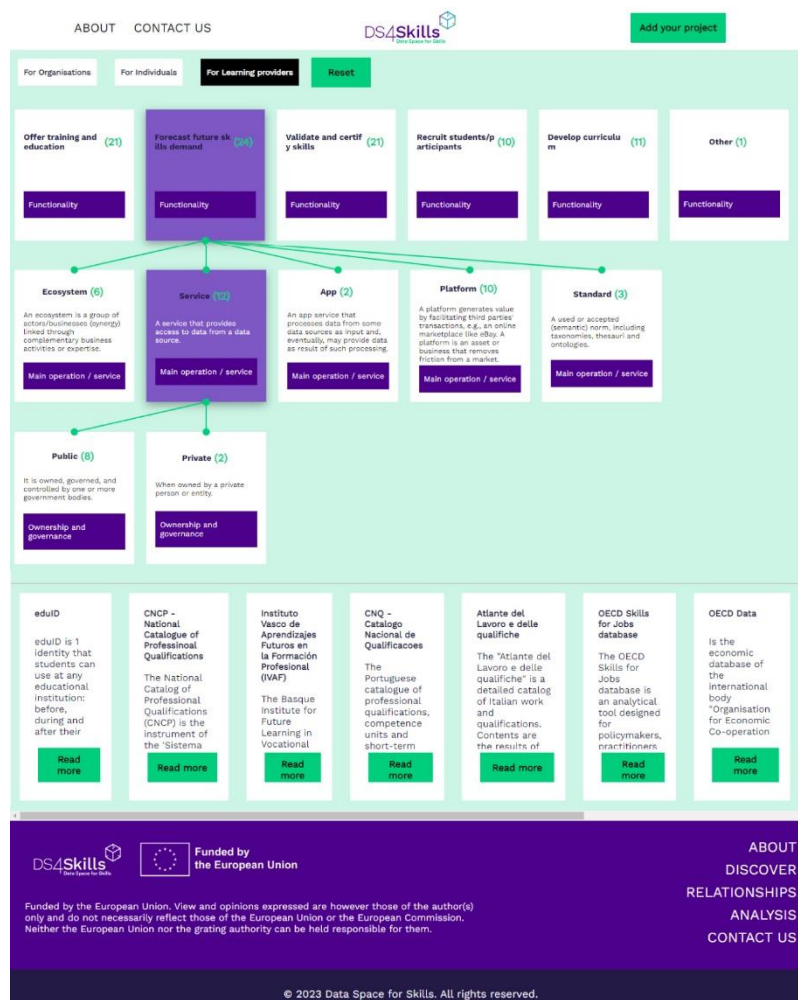


Figure 9: Relationships page V2

The development team added an analysis page that consists of a visualization of all initiatives as topic maps. This was produced using a semantic AI and the process is further explained in section 5.

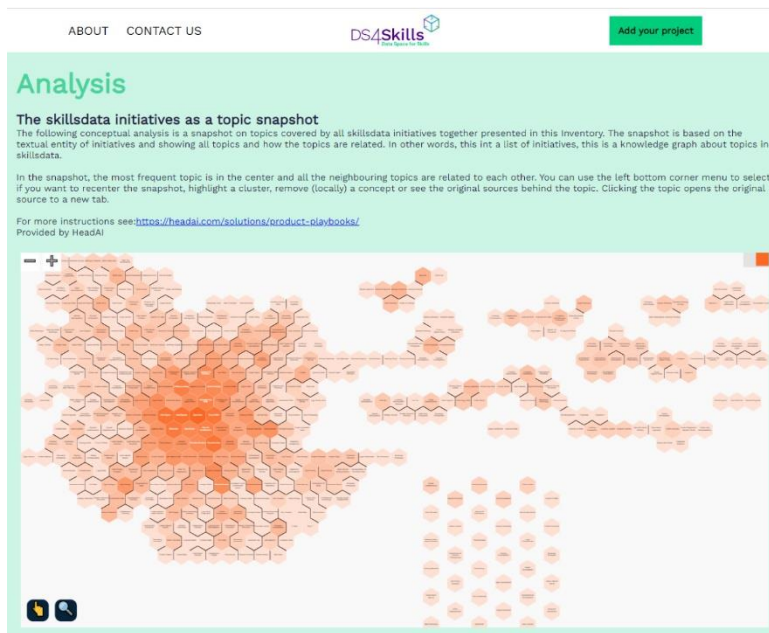
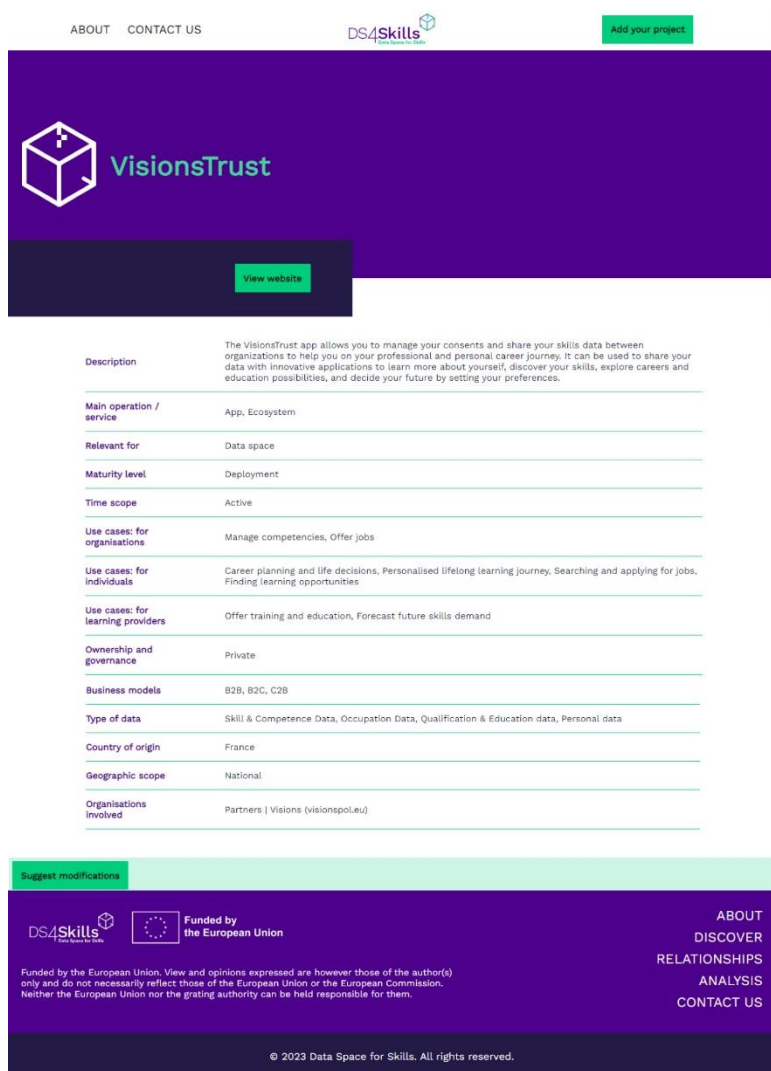


Figure 10: Analysis page

On the project page, the project team added some information and change the order of items.



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DS4Skills

Add your project

VisionsTrust

View website

Description The VisionsTrust app allows you to manage your consents and share your skills data between organizations to help you on your professional and personal career journey. It can be used to share your data with innovative applications to learn more about yourself, discover your skills, explore careers and education possibilities, and decide your future by setting your preferences.

Main operation / service	App, Ecosystem
Relevant for	Data space
Maturity level	Deployment
Time scope	Active
Use cases: for organisations	Manage competencies, Offer jobs
Use cases: for individuals	Career planning and life decisions, Personalised lifelong learning journey, Searching and applying for jobs, Finding learning opportunities
Use cases: for learning providers	Offer training and education, Forecast future skills demand
Ownership and governance	Private
Business models	B2B, B2C, C2B
Type of data	Skill & Competence Data, Occupation Data, Qualification & Education data, Personal data
Country of origin	France
Geographic scope	National
Organisations involved	Partners Visions (visionspol.eu)

Suggest modifications

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Figure 11: Project page V2

Once the modifications were made and a first version of the site developed, the project team conducted a second meeting for testing. This was conducted with the partners of DS4Skills involved in WP2. Each participant had access to a demo version of the inventory and to an online board on which to input their feedback and suggestions for each page.

Adjustments were made based on the feedback from the participants, including:

- Adding an introduction to the relationships and analysis pages,
- Adding explanations of the terms in a hover effect on the filters in the discover page,
- Putting description first in the projects page,
- Adding explanations to the form page as well as drop-down lists with suggested answers for certain questions such as "maturity".

Description of functionalities

Functionalities allowing users to browse and search the initiatives

Discovery via filters

This allows users of the online inventory to:

- Select the criteria they are looking for
- Find the relevant initiatives
- Easily access the initiative's presentation page

This entry point allows for search of initiatives through selection of pre-defined property values that an initiative may or may not have. In order not to start with a blank view, the default view will show all available initiatives, and once a filter is selected, will show only those which correspond to the selected filters. The project team decided to use an “AND” operator logic for the filters, meaning that when selecting multiple filters, it will show the initiatives that have all the selected filters and not those that have only one or the other. The project team thought it would make more sense for precise searching of initiatives.

Discovery via property relationships

This allows users of the online inventory to:

- Have a guided search of the inventory,
- Enter through the type of organisation the initiatives serve,
- Select the functionality the initiatives provide to the type of organisation,
- Easily find the relevant initiatives.

This page is heavily inspired by what eduxs proposed. Starting with a very simple view of one or two parameters from the same filter layer, it is then possible to click your way through the relationships attached to each clicked property and end up with the initiatives corresponding to that search path. Technically, the project team had to pre-define the different layers of filter values to build the different search groups and map the existing initiatives to the different filters. To display relationships, the project team created them using simple svg lines starting from the selected filter to all the attached filters of the next filter layer group. The project team also worked on having a display of the amount of initiatives inside each filter, recalculated every time the search path is changed, so that the user knows if there actually are initiatives corresponding to that search path and how much. Initiatives are rendered at the bottom of the page regardless of the depth of the search path. So as soon as the first filter is selected, initiatives corresponding to that filter will start showing up. This avoids having to go to the end of all filter layer groups in order to view the initiatives.

Discovery by topics

This functionality allows users to search the initiatives through the topics they address.

This page is a conceptual analysis, a snapshot, on topics covered by all skills data initiatives together presented in the Inventory. The snapshot is based on the textual entity of initiatives and showing all topics and how the topics are related. In other words, this is not a list of initiatives, this is a knowledge graph about topics in skills data.

Furthermore, the knowledge graph construction is fully automated by applying Headai Graphmind, a cognitive AI capable to process text like people would do: pointing out the meanings, topics and their relation within the context. Headai is a consortium member in the DS4Skills project.

Describing properties

As many keywords used can be unclear to some, the project team had to find ways to describe and define them without breaking the ease-of-use of the platform. In that regard the project team decided to make pretty much every property of an initiative, and every search property hoverable to view its unique description for the context with examples in some cases. This eventually helps initiative upon addition of their project to understand each of the fields they need to input, and helps those who look for specific initiatives to understand the different filters.

Functionalities allowing users to propose content

Adding an initiative

This allows users to submit a new initiative.

From anywhere in the inventory, adding a form is a click away. In the header section, there is a link to "Add your project" which will take you to a page with a form to fill out all the details of the initiative. Once the initiative added, it will not be directly visible in the Inventory, an Administrator will need to review it and validate it. Once validated, it will then show up in the inventory.

Modifying a project

This allows users to suggest a modification to an existing initiative.

Anyone can make a modification suggestion to an initiative. By going to the details page of a project and scrolling down at the bottom of the page, a button proposing to suggest modifications can be found. Once clicked, it will open up a form page, which is similar to the one when registering a new project but pre-filled with the existing information of the initiative to modify. Once modifications submitted, they are saved temporarily and no other suggestions on that same project can be made

by another user until an admin has either validated or declined the modification suggestions.

For Admins

The admin dashboard categorises the initiatives in 3 main categories:

- New projects pending validation,
- User submitted modification suggestions,
- All, already validated projects.

For each one, a link takes you to the review page where it is possible to adjust, validate (or decline for user suggestions) the project easily, making it publicly available in the inventory.

Technical description

To build the inventory, the development team used React as the project's frontend Javascript library, which is served by a simple express.js server. The express server holds API endpoints to create and retrieve initiatives and uses mongoose and MongoDB to store these. The decision to use MongoDB as the schema model for initiatives is not set in stone and subject to change, additionally, it was faster to set up with the project's technical resources.

Based on EDUXS' work, the development team built a knowledge graph and data models to fit the needs of the project. The initial reflections on these data models as well as the knowledge graph, can be found in this open-source repository: <https://github.com/VisionsOfficial/DS4Skills>.

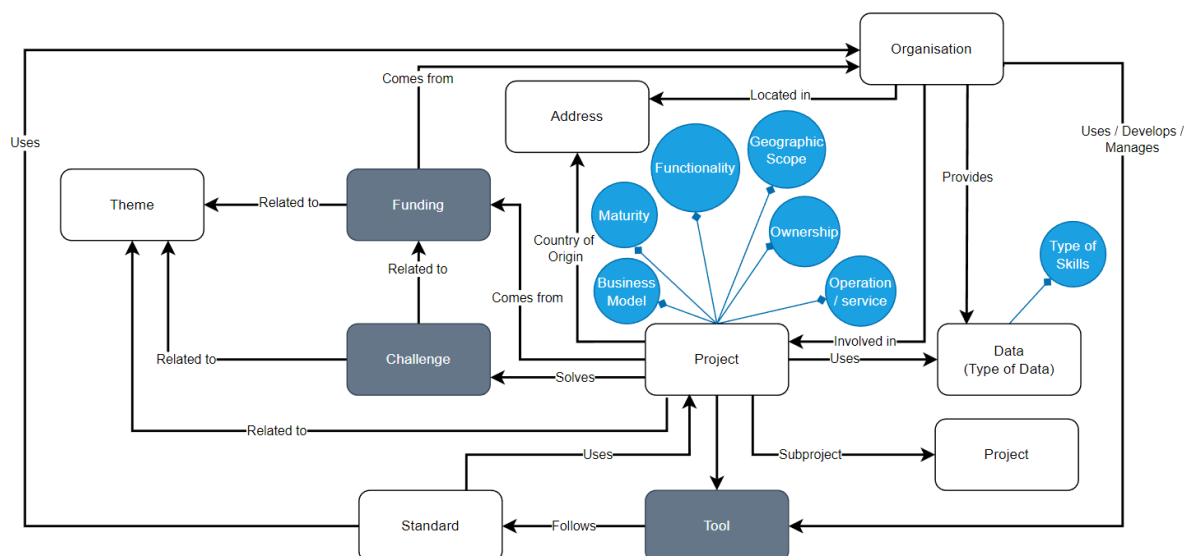


Figure 12: Online inventory data model graph

Phases of the inventory

Phase 1: Design, elaboration and publication of the online inventory

The online inventory has been created from December 2022 to mid-February 2023. Based on the assessment methodology (Deliverable 2.1), 99 initiatives were assessed and are present in the online inventory at the end of February 2023. This is the starting point and the DS4Skills online inventory will be updated and moderated during the project lifetime and beyond. Moreover, the online inventory will be also available in a format accessible for browsing and to be imported in typical relational databases common formats.

Phase 2: Dissemination and moderation during DS4Skills

Since end February 2023 until the end of DS4Skills (end October 2023), the online inventory will be disseminated to the following target groups:

- Edtechs / HRTechs
- Training organisations
- Public services on employment and guidance
- Universities and VET providers
- Employers

Through the “add project” and moderation functionalities, the users of the online portal will be able to submit new initiatives and suggest changes to details on the initiatives already incorporated.

As the DS4Skills team only had access to the publicly available information on the initiatives, it is foreseen that not all details displayed in the online inventory might be fully accurate. DS4Skills partners will be ensuring this moderation to make sure the inventory is as up to date and as accurate as possible until the end of DS4Skills. The inventory will be updated with a 2-monthly frequency. Depending on the number of suggestions done by the users this frequency could be increased.

Phase 3: Maintenance after DS4Skills

DS4Skills coordinator at DIGITALEUROPE and partner Visions will ensure the maintenance of the online inventory during 2 years after the end of DS4Skills closure. A hand-over process and the transference of all information to the consortium selected for the Implementation of the Data Space on Skills will be ensured, within the DS4Skills deliverable on main results (October 2023) and direct contact with the relevant awarded consortium for the Implementation of the European Data Space for Skills.

Conclusions

The online inventory is an important tool for general communication purposes, targeted dissemination and sustainability of the projects results after the project finalisation. For the main stakeholders of the DS4Skills project, it is also a way to showcase their initiatives.

Parallel and similar inventory activities are executed in other data spaces projects funded under the DEP. These projects have not, at the time of release of this document, yet discussed and coordinated efforts to align.

As a follow up activity just after the publication of the online inventory is to spread it amongst the stakeholder's community and to offer them the overview and enable them to add relevant initiatives. This means the inventory will be maintained over time - and the categorisation and assessment methodology (D.2.1) will be used over the course of the project.

The online inventory will be updated on a continuous basis during the project lifetime and beyond. Moreover, it has been transferred to the our DSSC relation manager (David Regeczi, TNO) to consider the methodological approach for the DSSC Radar and other data spaces inventories in other areas.

The online inventory sets the groundwork and connections to move towards the implementation phase coming after DS4Skills, where a pilot project will be co-funded by the Digital Europe Programme (DEP) to implement a European skills data space following the DS4Skills blueprint.

Appendix A: Results of the survey and desk research

Assessment of in scope initiatives

The table below describes the initiatives that were deemed in scope, as well as their assessment scores. They are assessed as one of the following categories: Not Relevant (with a score of 0), Somewhat Relevant (with a score of 1) or Highly Relevant (with score of 2). Relevance scores are the sum of the separate assessment scores.

	Title initiative	Assessment 1: Openness and standardisation	Assessment 2: Adoption	Assessment 3: Application domain	Score
1	My Professional Data	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
2	Gaia-X Merlot	Highly relevant	Somewhat relevant	Highly relevant	5
3	DASES (Data Space Education and Skills)	Highly relevant	Highly relevant	Highly relevant	6
4	VisionsTrust	Highly relevant	Somewhat relevant	Highly relevant	5
5	Pôle Emploi	Not relevant	Not relevant	Not relevant	0
6	fr.EBSI project / BCdiploma	Somewhat relevant	Highly relevant	Somewhat relevant	4
7	Competitive Skills	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
8	Open Skills Network (OSN)	Somewhat relevant	Not relevant	Not relevant	1
9	Digitaal Skills Paspoot	Somewhat relevant	Not relevant	Not relevant	1
10	Jobready	Not relevant	Somewhat relevant	Not relevant	1
11	SkillLab	Somewhat relevant	Highly Relevant	Somewhat relevant	4
12	Europass	Somewhat relevant	Highly Relevant	Not relevant	3
13	Digital Skills and Jobs Platform: the home of digital skills in Europe	Not relevant	Somewhat relevant	Somewhat relevant	2
14	eduID	Highly Relevant	Somewhat relevant	Somewhat relevant	4
15	PSET CLOUD	Somewhat relevant	Not relevant	Not relevant	1
16	Open Badge Factory	Somewhat Relevant	Highly Relevant	Not relevant	3

17	ComPas	Somewhat relevant	Somewhat relevant	Not relevant	2
18	SkillsCV	Not relevant	Somewhat relevant	Not relevant	1
19	Edubadges	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
20	European Digital Student Service Infrastructure (EDSSI)	Not relevant	Somewhat relevant	Not relevant	1
21	VisionsGalaxy	Somewhat relevant	Highly relevant	Somewhat relevant	4
22	CompetentNL	Highly relevant	Not relevant	Somewhat relevant	3
23	EMREX	Somewhat relevant	Highly Relevant	Not relevant	3
24	Edu-V	Not relevant	Not relevant	Somewhat relevant	1
25	Open Badges	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
26	Digitalna znanja in priložnosti (Digital Skills&Jobs)	Not relevant	Somewhat relevant	Not relevant	1
27	SWAMID	Somewhat relevant	Somewhat relevant	Not relevant	2
28	National Education Platform	Somewhat relevant	Not relevant	Somewhat relevant	2
29	Karamel	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
30	Experience API (xAPI)	Somewhat relevant	Somewhat relevant	Not relevant	2
31	ORCID	Not relevant	Somewhat relevant	Not relevant	1
32	Mijnhouseofskills	Not relevant	Not relevant	Somewhat relevant	1
33	PHYD	Not relevant	Somewhat relevant	Relevant	2
34	The European Student Card	Somewhat relevant	Highly relevant	Not relevant	3
35	Gateway Connects	Not relevant	Somewhat relevant	Not relevant	1
36	The T3 Innovation Network	Highly relevant	Somewhat relevant	Relevant	4
37	Luotettava työntekijä - palvelu // Reliable Worker - service / Digital Employment	Highly relevant	Somewhat relevant	Relevant	4
38	Dashemploi	Somewhat relevant	Somewhat relevant	Relevant	3
39	Skills Data: Digital Self on My skills	Highly relevant	Not relevant	Not relevant	2

40	Velocity	NA	Somewhat relevant	Relevant	2
41	Kompetenspasset /Micro-credentials	Unclear	Not relevant	Somewhat relevant	1
42	National Skill Observatory / Upskill	NA	NA	NA	0
43	Data infrastructure for skills supply and lifelong learning / Kompetensförsörjning och livslångt lärande	NA	Not relevant	Somewhat relevant	1
44	fit4internet	NA	Somewhat relevant	Relevant	2
45	DISCO-VET (Digitally Signed Credentials and Open Badges in VET and HE)	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
46	Xbildung	Unclear	Somewhat relevant	Somewhat relevant	2
47	Digital Europe for All (DE4A)	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
48	EgenData	NA	Not relevant	Somewhat relevant	1
49	Cedefop Skills-OVATE	Somewhat relevant	Highly relevant	Somewhat relevant	4
50	Lightcast	Not relevant	Somewhat relevant	Not relevant	1
51	HeadAI - Foresight analytics store	Somewhat relevant	Highly relevant	Highly relevant	5
52	Observatorio de las ocupaciones	Somewhat relevant	Not relevant	Somewhat relevant	2
53	Los perfiles de la oferta de empleo	Not relevant	Somewhat relevant	Not relevant	1
54	IKANOS	Somewhat relevant	Highly relevant	Highly relevant	5
55	Gencat (Public Agency for Professional Training and Qualification of Catalonia)	Somewhat relevant	Somewhat relevant	Not relevant	2
56	CNCP - National Catalogue of Professional Qualifications	Not relevant	Somewhat Relevant	Somewhat relevant	2
57	Instituto Vasco de Aprendizajes Futuros en la Formación Profesional (IVAF)	Not relevant	Somewhat Relevant	Somewhat relevant	2

58	CNQ - Catalogo Nacional de Qualificacoes	Not relevant	Somewhat Relevant	Somewhat relevant	2
59	Atlante del Lavoro e delle qualifche	Not relevant	Somewhat Relevant	Somewhat relevant	2
60	Oktonine	Not relevant	Somewhat relevant	Highly relevant	3
61	Linkedin	Not relevant	Highly relevant	Somewhat relevant	3
62	Orientoi	Not relevant	Somewhat relevant	Somewhat relevant	2
63	Inokufu Learning Object API	Highly relevant	Highly relevant	Somewhat relevant	5
64	Becomino	Not relevant	Somewhat relevant	Somewhat relevant	2
65	OECD Skills for Jobs database	Somewhat relevant	Highly relevant	Highly relevant	5
66	OECD Stat	Not relevant	Highly relevant	Not relevant	2
67	OECD Data	Not relevant	Highly relevant	Not relevant	2
68	Big Data Value Education Hub	Somewhat relevant	Highly relevant	Somewhat relevant	4
69	ARTificial Intelligence Skills Alliance (ARISA)	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
70	European Software Skills Alliance (ESSA)	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
71	Platforma za napovedovanje kompetenc / Skills forecasting platform	Not relevant	Not relevant	Somewhat relevant	1
72	Malta Qualifications Database	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
73	France Université Numérique (FUN)	Somewhat relevant	Highly relevant	Somewhat relevant	4
74	Digivisio 2030	Somewhat relevant	Not relevant	Somewhat relevant	2
75	CareerBot	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
76	HakosaloCRM	Not relevant	Somewhat relevant	Not relevant	1
77	Vigeo	Not relevant	Not relevant	Somewhat relevant	1
78	OSKA	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
79	eelloo	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
80	Skills Pulse	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
81	Futureproof	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
82	Intelligent Prediction project	Not relevant	Not relevant	Somewhat relevant	1

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83	Fast Degree	Not relevant	Somewhat relevant	Somewhat relevant	2
84	Claned	Somewhat relevant	Highly relevant	Somewhat relevant	4
85	Finnish Pori Brigade	Not relevant	Somewhat relevant	Somewhat relevant	2
86	SDG scorecard tool	Not relevant	Somewhat relevant	Somewhat relevant	2
87	Sustainable Me	Not relevant	Somewhat relevant	Somewhat relevant	2
88	Jobtech Taxonomy	Somewhat relevant	Somewhat relevant	Somewhat relevant	3
89	SUSA-navet	Not relevant	Somewhat relevant	Somewhat relevant	2
90	Reskilling 4 Employment (R4E)	Not relevant	Somewhat relevant	Somewhat relevant	2
91	MatchIT	Not relevant	Not relevant	Somewhat relevant	1
92	DigiKoalici in Czechia	Not relevant	Somewhat relevant	Highly relevant	3
93	Harno	Not relevant	Somewhat relevant	Somewhat relevant	2
94	Wise Up	Not relevant	Somewhat relevant	Somewhat relevant	2
95	CONFIDENT	Not relevant	Somewhat relevant	Somewhat relevant	2
96	Toolbox Datenkompetenz (TBDK)	Not relevant	Not relevant	Somewhat relevant	1
97	BQ-Portal	Not relevant	Somewhat relevant	Somewhat relevant	2
98	Polish Agency for Enterprise Development	Not relevant	Somewhat relevant	Somewhat relevant	2
99	European Training Foundation	Not relevant	Highly relevant	Somewhat relevant	3
100	EBSI Educational Credentials Use Case	Somewhat Relevant	Somewhat Relevant	Somewhat relevant	3
101	1edtech	Somewhat Relevant	Highly Relevant	Not Relevant	3
102	EQF	Highly Relevant	Highly Relevant	Somewhat relevant	5
103	ESCO	Highly Relevant	Highly Relevant	Somewhat relevant	5
104	Wasp-ED objective 5: TECHNICAL PLATFORM AND EDUCATION DATA	Not Relevant	Not Relevant	Not Relevant	0
105	Edugain	Highly relevant	Highly Relevant	Somewhat relevant	5

106	Skolenhetsregistret (School register)	Not Relevant	Somewhat relevant	Not Relevant	1
107	School statistics	Not Relevant	Somewhat relevant	Somewhat Relevant	2
108	Innovet XR - Data framework and learning data dashboard for innovative technology (in education)	Somewhat Relevant	Not Relevant	Not Relevant	1
109	Virtual Finland (Job offering use case)	Somewhat Relevant	Somewhat Relevant	Somewhat relevant	3
110	MunJob SkillMap	Not Relevant	Somewhat Relevant	Somewhat relevant	2

Out of scope initiatives

The table below lists all initiatives that have been considered for the online inventory, but were deemed out of scope. They are listed along with the reason for this decision.

	Name	In/out scope reason
1	CHAISE: Blockchain Skills for Europe	Not on data sharing or a data source, but about developing a model or VET program regarding blockchain skills
2	Gaia-X	Generic initiative, not skills/education domain. See Gaia-X Merlot.
3	International Data Spaces (IDS)	Generic initiative, not skills/education domain
4	SCUNY (School UNited Economy)	Inactive. After the hackathon, where the idea existed, no visible actions of the initiative have been perceived.
5	Vlaams Smart/Sensor Data Space (VSDS)	Data space in another domain
6	GoodPeople	Outside EU, no data sharing
7	National Labor Exchange (NLx)	Data source from outside EU (USA)
8	MunJob	Matching platform
9	Coreseer	Matching platform (and training supplier)
10	Compte Personell de formation	Training supplier/education provider
11	Monster	Matching platform
12	Indeed	Matching platform
13	Welcome to the Jungle	Matching platform
14	French Education Data Hub	No correct documentation found
15	SkillSurvey	Outside EU, commercial CRM system
16	iCIMS	Outside EU, commercial CRM system
17	Gear-Up	It is not a data sharing initiative, but assists govts/businesses with initiatives surrounding skills in open badges. Project ComPas where

		this party is involved in, is included, so put this one out of scope
18	Gaia-X Finland	No need to investigate, as this is a GAIA-X hub in one of the associated countries. We can just analyse GAIA-X itself
19	Oriane	Too limited information can be found, unknown status (in)active, very regional
20	MUZA	Limited information available
21	ENRLMM Big Data Knowledge Hub	Seems to be not on data sharing, but knowledge sharing. Website and thus no information found
22	System for forecasting the Polish labour market	Limited information, and also inactive
23	Institute of Digital Sciences Austria (IDSA)	Is not an initiative/platform/ecosystem, but the existence of a new institute/university in Austria
24	Willhaben	Matching platform
25	karriere.at	Matching platform
26	Profesia	Matching platform
27	BestJobs	Matching platform
28	Profession.hu	Matching platform
29	JOBDNES.CZ	Matching platform
30	National Employment Office in Hungary	Matching platform
31	Post-Platforms	Generic initiative, not skills/education related. But interesting to share with DSSC, because they have an interesting view on the technical building blocks and how a data ecosystem should look like
32	Curriculum alignment with labor market data	Study already two years ago, is a research report
33	Sveriges dataportal (The Swedish national dataportal)	Data portal is not relevant, as it not within skills/educational domain and is offering, not exchanging data. But, data portal was used by researchers to search for relevant initiatives
34	NIVAM - National Institute of Education and Youth in Slovakia	National institute/employment service
35	National Employment Service in Slovakia - the Ministry of Labour, Social Affairs and Family of the Slovak Republic	National employment service, matchingplatform
36	Headai - AI and analytics for skillsdata interoperability	Not an initiative itself, but AI company. Projects/initiatives that HeadAI is involved in are included in the research/inventory
37	Enterprise skilling initiative	Seems to be a Microsoft platform to learn skills for usage of Azure and other Microsoft technologies
38	SkillsCommons	Outside EU, workforce trainings not in scope
39	arbetsformedlingen.se	National employment service
40	Minddig	Matching platform
41	TRR	Seems to be kind of matching platform. Not related to data sharing or datasets
42	Rejustify	Start-up working on data cleansing, but not related to skills domain or data sharing initiatives

43	EduXS.eu	Is not a data space or data source itself, but is another inventory listing initiatives. We have used the EduXS inventory to look for more relevant initiatives
44	OBSERVAL	It is not related to data sharing/spaces. Not sure whether it is a data source, because the website is currently not working. Seems to be an institute validating competences, which is not a data source, so it could be set out of scope.
45	Skills for green transition	Not about data spaces or data sources, but on (re-)educating people and attracting qualified workers
46	Future Skills - the Initiative	Not about data spaces or data sources, but on improving learning and teaching
47	The Network "Integration through Qualification (IQ)"	They have some factsheets available, but it is not a real data source
48	The Policy Lab Digital, Work & Society	Employment service
49	Stifterverband	Joint initiative for research/innovation
50	Alliance for Initial and Further Training	Political/organisational initiative, between 2014-2018, not active anymore
51	Foundation for the Development of the Education System (FRSE)	This is a foundation, involved in initiatives that are already on our list. The foundation itself is not an initiative.
52	CSR Voice: Poland on Workforce Reskilling and Upskilling	This is an interview, not an initiative
53	Alisa Management Laboratory	Commercial training provider
54	TRANSVAL-EU	Project on validation of transversal skills, but not on data sharing or a data source
55	Project Digitalization initiative for the involvement of students and the improvement of study quality at the University of Latvia and the partner universities of the project	Project on improving digital skills in Latvia, but not on data sharing or a data source
56	The Expert Group on Future Skills Needs	Expert group advising the government
57	Solas - learning works	Employment service, no data source or related to data sharing
58	The Digital Skills and Jobs Coalition	It's a coalition, not a project/initiative on data sharing
59	European Job Days	Matching platform
60	TRR	This is a foundation interested in employment transitions and working life and the data useful for this. But this is not an initiative useful for setting up a data space. They might be interested in our project results.
61	SpaceCRAFT, Space Training Catalogue, Space Skills Literature Library	Provide overview of skills, trainings in the space domain. Based in the UK.
62	EYD	General initiative, not in skills/education domain
63	Fairness In Teaching (FIT)	This is not related to data sharing. The FIT project aims to make teaching fairer and develop an approach for this.

64	eIDAS2	Legislation, not an initiative
65	single digital gateway	Legislation, not an initiative

References of the initiatives

In scope initiatives (link to website)	
1	https://www.vlaanderen.be/digitaal-vlaanderen/het-vlaams-datanutsbedrijf/projecten-vlaams-datanutsbedrijf
2	http://merlot-education.eu/en/homepage/ https://internationaldataspace.org/adopt/data-space-radar/
3	https://prometheus-x.org/
4	https://visionspol.eu/en/home/
5	https://www.pole-emploi.fr/accueil/
6	https://www.bcdiploma.com
7	https://tieke.fi/palvelut/osaamisen-kehittaminen/digitaitojen-osaamismerkkijarjestelma/
8	https://www.openskillsnetwork.org/
9	https://www.volandis.nl/kijk-vooruit/digitaal-skills-paspoort detailed descriptions: https://www.bouwennederland.nl/media/10626/eindrapport-prototype-digitaal-skills-paspoort-final-draft.pdf https://www.hva.nl/binaries/content/assets/subsites/the-work-lab/vrij-reizen-over-de-arbeidsmarkt-2.0-light.pdf?1643048886403
10	https://www.jobready.fr/
11	https://skilllab.io/en-us
12	https://europa.eu/europass/en
13	https://digital-skills-jobs.europa.eu/en
14	https://www.surf.nl/eduid-1-digitale-identiteit-voor-studenten
15	https://psetcloud.org.za/
16	https://openbadgefactory.com/en/
17	https://compas.works/nl/compas-geef-richting-aan-je-toekomst/ https://compas.works/nl/compas-project-in-breda/
18	https://skillscv.nl/
19	https://www.surf.nl/edubadges-digitale-certificaten-uitreiken-aan-studenten https://wiki.surfnet.nl/display/Edubadges/Edubadges
20	https://edssi.eu/
21	www.visiongalaxy.io
22	https://www.werk.nl/arbeidsmarktinformatie/skills/competentnl-standaard-voor-skills-in-nederland
23	https://emrex.eu/
24	https://www.edu-v.org/
25	https://openbadges.org/
26	https://skills-jobs.digitalna.si/
27	https://www.sunet.se/services/identifiering/swamid
28	https://www.gtai.de/en/invest/industries/digital-economy/national-education-platform-to-meet-digital-learning-challenge-746636#toc-anchor--1 https://www.oecd.org/education/ceri/National-Education-Platform-Germany.pdf
29	https://karamel.career/

30	https://xapi.com/ https://github.com/adlnet/xAPI-Spec/blob/master/xAPI-About.md#def-learning-record-store
31	https://orcid.org/
32	https://www.houseofskillsregioamsterdam.nl/instrumenten/platform-mijnhouseofskills/
33	https://www.phyd.com/
34	https://europeanstudentcard.eu/esc-initiative/
35	https://gatewayconnects.ca/about-gateway/
36	https://www.uschamberfoundation.org/t3-innovation
37	https://www.vastuugroup.fi/fi-en/cooperation/digital-employment https://oldwww.mydata.org/mydata-case-digital-employment-and-life-long-learning-the-reliable-worker/
38	https://mindmatcher.org/
39	https://oldwww.mydata.org/skillsdata/
40	https://www.velocitynetwork.foundation/
41	https://www.ri.se/en/what-we-do/projects/micro-credentials
42	The project kick-off meeting was done on Dec 7, 2022. No information/website yet.
43	https://beta.dataportal.se/kompetens-och-livslangt-larande
44	https://www.fit4internet.at/view/verein
45	https://www.discovet.eu/about-the-project/
46	https://xbildung.de/web/
47	https://www.de4a.eu/about-project https://daad-credentials.vercel.app/
48	https://gitlab.com/groups/arbetsformedlingen/individdata/egendata/-/wikis/home
49	https://www.cedefop.europa.eu/en/tools/skills-online-vacancies
50	https://lightcast.io/
51	https://headai.com/shop/
52	https://www.sepe.es/HomeSepe/que-es-el-sepe/observatorio/deteccion-necesidades-formativas.html
53	https://www.sepe.es/HomeSepe/que-es-el-sepe/observatorio/perfiles-de-la-oferta-de-empleo.html
54	https://ikanos.eus/en/
55	https://aplicacions.ensenyament.gencat.cat/e13_cfp_icqp/menuInici.do
56	https://incual.educacion.gob.es/busqueda-de-cualificaciones
57	https://ivac-eei.eus/es/
58	https://catalogo.anqep.gov.pt/
59	https://atlantelavoro.inapp.org/
60	https://oktonine.com/
61	https://www.linkedin.com/
62	https://www.orientoi.fr/
63	https://developer.inokufu.com
64	https://becomino.com
65	https://www.oecdskillsforjobsdatabase.org/index.php#FR/
66	https://stats.oecd.org/
67	https://data.oecd.org/education.htm
68	https://www.big-data-value.eu/education-hub/
69	https://aiskills.eu/

70	https://www.softwareskills.eu/about/
71	https://www.gov.si/zbirke/projekti-in-programi/platforma-za-napovedovanje-kompetenc-pnk/
72	http://qualifications.ncfhe.gov.mt/#/more-database
73	https://www.fun-mooc.fr/en/
74	https://digivisio2030.fi/en/frontpage/
75	https://www.3amk.fi/en/collaboration-areas/careerbot-ai-team/
76	https://www.hakosalo.fi/
77	https://www.ri.se/en/vigeo
78	https://oska.kutsekoda.ee/en/
79	https://eelloo.nl
80	https://osaamispulssi.fi/
81	https://apps.apple.com/fi/app/futureproof-2022/id1639096188
82	https://ennakointiakatemia.fi/in-english/?
83	https://play.google.com/store/apps/details?id=com.apps.fastdegree&hl=en&gl=US&pli=1
84	https://claned.com/
85	https://maavoimat.fi/-/porin-prikaatin-varusmiespalveluksessa-opittuja-taitoja-todennetaan-tekoalyn-avulla?languageId=en_US
86	https://sdg.eduplan.fi/
87	https://eduiX.com/blog/2021/09/16/get-to-know-sustainable-me/
88	https://jobtechdev.se/en
89	https://susanavet2.skolverket.se/#/login
90	https://reskilling4employment.eu/en/
91	https://utveckling.skane.se/tema/matchit/
92	https://digikoalice.cz/
93	https://harno.ee/en
94	https://wise-up.at/
95	https://confident.feaa.uaic.ro/about/Pages/default.aspx
96	https://toolboxdatenkompetenz.de/en/
97	https://www.bq-portal.de/en
98	https://uslugirozwojowe.parp.gov.pl/
99	https://www.etf.europa.eu/en
100	https://ec.europa.eu/digital-building-blocks/wikis/display/EBSI/What+is+EBSI
101	https://www.1edtech.org/
102	The European Qualifications Framework (EQF) Europass
103	Homepage (europa.eu)
104	Technical Platform (WA5) WASP-ED
105	eduGAIN – enabling worldwide access
106	Skolenhetsregistret - Skolverket
107	https://www.skolverket.se/skolutveckling/statistik
108	InnoVET-projecten XR (vlaanderen.be)
109	Virtual Finland Testbed
110	https://site.munjob.com/en/skillmap

Out of scope initiatives (link to website)

1	https://www.digitaleurope.org/chaise-blockchain-skills-for-europe https://chaise-blockchainskills.eu/
2	Home - Gaia-X: A Federated Secure Data Infrastructure
3	Home - International Data Spaces
4	https://devpost.com/software/scuny-die-community-fur-schuler-innen-berufserfahrene
5	https://www.vlaanderen.be/digitaal-vlaanderen/onze-oplossingen/vlaamse-smart-data-space https://vlaamseoverheid.atlassian.net/wiki/spaces/VSDSSTART/overview
6	https://www.goodpeople.co.uk/
7	NLx Research Hub
8	https://www.munjob.com/
9	Ohjelmistokehityksen RekryKoulutus Kumppaniyrityksien haku avoinna (coreseer.com)
10	Accueil du site Mon Compte Formation Mon Compte Formation
11	Monster Jobs - Job Search, Career Advice & Hiring Resources Monster.com
12	Vacatures zoeken Indeed
13	Welcome to the Jungle - Le guide de l'emploi
14	Error 500 - the Datahub
15	Reference Checking, Employee Retention, Credentialing Solutions Online SkillSurvey
16	iCIMS Recruiting Software Platform & #1 Applicant Tracking System
17	Je bent meer dan een diploma - Gear Up (gear-up.nl)
18	https://www.gaiax.fi/
19	https://visionspol.eu/en/use-cases/
20	https://www.gov.si/zbirke/projekti-in-programi/vzpostavitev-informacijskega-sistema-za-upravljanje-in-razvoj-zaposlenih-v-drzavni-upravi-muza/
21	https://bigdatahub.uvt.ro/
22	https://ibs.org.pl/en/research/system-for-forecasting-the-polish-labour-market/
23	https://www.bmbwf.gv.at/en/Topics/Higher-education---universities/Institute-of-Digital-Sciences-Austria-(IDSA)-%E2%80%93-A-new%2C-innovative-University-of-Technology-for-Digitalisation-and-Digital-Transformation-in-Austria.html
24	https://www.willhaben.at/jobs/
25	https://www.karriere.at/ueber-uns
26	https://www.profesia.sk/en/
27	https://www.bestjobs.eu/
28	https://www.profession.hu/
29	https://www.jobdnes.cz/
30	https://munka.hu/
31	https://postplatforms.org/
32	https://blogs.worldbank.org/education/jobs-skills-and-potential-ai-kenya
33	https://www.dataportal.se/
34	https://nivam.sk/
35	https://www.sluzbyzamestnanosti.gov.sk/
36	https://headai.com/
37	https://esi.microsoft.com/
38	www.skillscommons.org
39	https://arbetsformedlingen.se/other-languages/english-engelska
40	https://www.minddig.com/explore

41	https://www.trr.se/
42	rejustify.com
43	www.eduxs.eu/feedback
44	https://www.observal.es/es/areas/cualificacion/catalogo
45	https://greentransitiontogether.com/2022/10/07/danish-companies-encourage-further-education-for-a-just-green-transition/
46	https://www.future-skills.net/initiative
47	https://www.netzwerk-iq.de/en/
48	https://www.denkfabrik-bmas.de/en/
49	https://www.stifterverband.org/english
50	https://www.aus-und-weiterbildungsallianz.de/AAW/Navigation/EN/Home/home.html
51	https://www.frse.org.pl/about-the-foundation
52	https://www.csreurope.org/newsbundle-articles/csr-voice-poland-on-workforce-reskilling-and-upskilling
53	https://amlaboratory.com/en/
54	https://www.transvalproject.eu/about-transval-eu/the-project/
55	https://tsi.lv/five-latvian-universities-are-implementing-a-digitalization-initiative-to-improve-the-quality-of-studies/
56	http://www.skillsireland.ie/about-us/
57	https://www.solas.ie/
58	https://www.digitalcoalition.lu/
59	https://europeanjobdays.eu/en
60	https://www.trr.se/
61	https://spaceskills.org/
62	eyd.tech
63	https://www.fairnessinteaching-project.eu/
64	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0281
65	https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.295.01.0001.01.ENG

www.skillsdataspace.eu



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