



DS4Skills

COMMON EUROPEAN DATA
SPACE FOR SKILLS

D4.1 Guidelines on how to adopt a human-centric approach to Data Space for Skills for each of the data space role profiles

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Executive summary

This deliverable provides practical guidance on how to adopt a human-centric approach in the Data Space for Skills. It translates high-level principles into actionable recommendations that support stakeholders in joining, operating, and interacting within the ecosystem.

The Data Space for Skills is based on a federated and decentralised model in which multiple actors exchange data and services under a shared framework of governance, standards, and trust. While technical infrastructure enables this exchange, successful adoption depends, to a large extent, on organisational clarity, usability, and stakeholder engagement. A human-centric approach is therefore essential to ensure that participation is accessible, transparent, and aligned with the needs of different actors.

To address this, the deliverable adopts a role-based perspective, distinguishing between data providers, data users and service providers, intermediaries, and orchestrators. Each role is associated with specific responsibilities, challenges, and requirements, which are reflected in tailored guidance throughout the document.

A key contribution of this deliverable is the translation of human-centric and ethical principles into practical implementation guidance. This includes recommendations on onboarding, governance, data-sharing practices, and the design of services that are understandable, trustworthy, and usable for end users. Attention is given to reducing complexity, clarifying roles and responsibilities, and supporting organisations with different levels of maturity.

The deliverable is complemented by a set of templates and tools that support practical implementation. These include onboarding checklists, example consent and information wording, key elements of data-sharing arrangements, and a risk and ethics checklist. Together, these resources provide a structured and reusable toolkit that can be applied across different use cases and organisational contexts.

The guidance will be further validated and refined through the ongoing implementation of DS4Skills use cases. This iterative approach will ensure that the proposed framework remains aligned with practical needs and evolving ecosystem requirements.

By combining conceptual guidance with concrete tools, this deliverable contributes to enabling a Data Space for Skills that is not only technically functional, but also trusted, usable, and scalable across Europe.

Table of Contents

1	INTRODUCTION	8
1.1	Objectives of the guidelines	8
1.2	Target audiences	8
1.3	Scope and limitations.....	8
2	THE DATA SPACE FOR SKILLS	9
2.1	Network of trust.....	9
2.2	Core principles.....	9
2.3	Typical data and services.....	10
3	HUMAN-CENTRIC AND ETHICAL FRAMEWORK.....	10
3.1	Human-centric design principles for Data Space for Skills.....	10
3.2	Inclusiveness and accessibility.....	11
3.3	Data protection and privacy.....	11
3.4	Fairness and transparency.....	11
4	DATA SPACE FOR SKILLS ROLE PROFILES	12
4.1	Overview of roles and interactions	12
4.2	Data providers.....	12
4.3	Data users and service providers	12
4.4	Intermediaries.....	13
4.5	Orchestrators and governance bodies.....	13
5	PRACTICAL GUIDANCE PER ROLE PROFILE	14
5.1	Guidance for data providers.....	14
5.2	Guidance for data users and service providers.....	15
5.3	Guidance for intermediaries.....	15
5.4	Guidance for orchestrators.....	16
6	JOINING AND OPERATING IN THE DATA SPACE FOR SKILLS.....	16
6.1	Typical onboarding steps by role	16
6.1.1	Data providers.....	17
6.1.2	Data users and service providers	17
6.1.3	Intermediaries.....	18
6.1.4	Orchestrators	18
6.2	Governance basics per role.....	19
6.2.1	Data providers.....	19
6.2.2	Data users and service providers	19
6.2.3	Intermediaries.....	20
6.2.4	Orchestrators	20

6.3	Practical tips and common pitfalls	21
7	TEMPLATES AND TOOLS.....	22
7.1	How to use templates and tools	22
7.2	Summary of annexes	23
8	CONCLUSIONS AND NEXT STEPS	23
9	ANNEXES.....	24
	Annex A: Onboarding checklist by role profile.....	
	Annex B: Example information/ consent wording.....	
	Annex C: Key elements of a data-sharing arrangement.....	
	Annex D: Simple risk and ethics checklist.....	

LIST OF TABLES

Table 1: Mapping of role profiles and templates15

ABBREVIATIONS

AI	Artificial Intelligence
API	Application Programming Interface
D4.1	Deliverable 4.1
ESCO	European Skills, Competence, Qualifications and Occupations
EU	European Union
GA	Grant Agreement
GDPR	General Data Protection Regulation
WP	Work Package

1 Introduction

1.1 Objectives of the guidelines

The objective of this deliverable is to provide practical guidance on how to adopt a human-centric approach in the context of the Data Space for Skills. It translates high-level principles into operational recommendations that support stakeholders in joining, operating, and interacting within the ecosystem.

An aim of the guidelines is to bridge the gap between conceptual frameworks and real-world implementation. While the Data Space for Skills is underpinned by principles such as data sovereignty, interoperability, and trust, their practical application requires clear processes, role definitions, and usable tools. This deliverable therefore focuses on making these principles actionable for different types of participants.

In addition, the guidelines aim to strengthen trust, usability, and adoption by addressing not only technical and governance aspects, but also the user perspective. Attention is given to ensuring that participation in the Data Space for Skills is understandable, proportionate, and accessible to organisations with varying levels of maturity.

The deliverable is complemented by a set of templates and tools provided in the annexes, which are designed to support stakeholders in applying the guidance in practice.

1.2 Target audiences

The guidelines address all stakeholders participating in the Data Space for Skills, taking into account the diversity of roles and organisational contexts within the ecosystem.

Four main role profiles are considered throughout the document:

- data providers
- data users and service providers
- intermediaries
- orchestrators.

These roles reflect the different ways in which organisations contribute to and interact within the Data Space for Skills, from providing data and developing services to enabling infrastructure and coordinating governance.

The guidance is intended to support a wide range of actors, including education and training providers, companies, public authorities, technology providers, and ecosystem coordinators. As organisations may take on more than one role, the document adopts a flexible approach that allows stakeholders to identify the guidance most relevant to their specific situation.

1.3 Scope and limitations

This deliverable focuses on the organisational, governance, and human-centric dimensions of participation in the Data Space for Skills. It provides guidance on onboarding, role definition, data-sharing practices, and ethical considerations, with the aim of supporting effective and responsible participation.

Technical implementation aspects, such as infrastructure components or system-level integration, are addressed in other parts of the project and are therefore not covered in detail here. The present document instead focuses on how stakeholders can engage with these technical components in a structured and user-oriented way.

The guidance is designed to be adaptable and applicable across different contexts. It does not prescribe a single model of implementation but rather provides a framework and supporting tools that organisations can tailor to their specific needs and constraints.

2 The Data Space for Skills

2.1 Network of trust

The Data Space for Skills is based on a federated model in which independent participants exchange data and services under a shared framework of rules, standards, and governance. In this context, trust is not established through central control, but through a combination of technical, organisational, and legal mechanisms that enable reliable and secure interaction between participants.

This network of trust relies on clearly defined roles, transparent governance processes, and shared principles for data access and use. Mechanisms such as identity and authentication, data usage agreements, and consent and access control ensure that interactions take place in a controlled and accountable manner. At the same time, each participant retains control over its own data, including decisions on how and under which conditions it is shared.

Trust is therefore both a prerequisite for participation and an outcome of consistent and responsible interaction. It must be established through clear rules and processes, and continuously reinforced through reliable operation, transparency, and respect for agreed conditions across the ecosystem.

2.2 Core principles

The functioning of the Data Space for Skills is guided by a set of core principles that define how data and services are shared and used within the ecosystem.

A central principle is data sovereignty, which ensures that participants retain control over their data, including decisions regarding access, usage, and conditions of sharing. This is closely linked to trust, as participants must be confident that their data will be handled in accordance with agreed rules.

Interoperability is equally important, as it enables data and services to be exchanged across different systems and organisational contexts. This requires the use of common standards, shared semantics, and alignment between participants, allowing data from different sources to be combined and used effectively.

The Data Space for Skills is inherently decentralised, meaning that no single actor controls the ecosystem. Instead, value is created through collaboration between multiple participants, each contributing data, services, or infrastructure components.

These principles together create the conditions for data sharing that is both flexible and trustworthy, enabling the development of use cases that generate tangible value for education, employment, and workforce development.

2.3 Typical data and services

The DS4Skills use cases illustrate the diversity of data and services within the Data Space for Skills, reflecting the range of stakeholders and real-world applications involved.

The data integrated in the Data Space for Skills typically includes information related to learning opportunities, skills and competencies, labour market demand, and user-related data such as learning experiences or career paths. This includes, for example, data on courses, programmes and learning outcomes, skills classifications such as ESCO, job offers and labour market trends, as well as individual learning histories. These datasets originate from a variety of sources, including education and training providers, companies, public authorities, and digital platforms.

On top of this data, a wide range of services are developed to generate value. These include skills matching and recommendation systems, learning and skills analytics, AI-based classification and enrichment services, as well as visualisation and decision-support tools. These services transform raw data into actionable insights that can support both individuals and organisations.

The combination of diverse data sources and value-added services enables new forms of interaction and value creation. In practice, this supports the development of personalised learning pathways, improves alignment between education and labour market needs, and contributes to more efficient processes, for example by reducing manual data handling and enabling data-driven decision-making.

At the same time, the diversity and heterogeneity of data and services introduce challenges related to interoperability, data quality, and governance. Addressing these challenges requires a structured and human-centric approach, ensuring that data and services remain usable, trustworthy, and aligned with the needs of participants.

3 Human-centric and ethical framework

The adoption of a human-centric approach is essential to ensure that the Data Space for Skills delivers value in a way that is inclusive, trustworthy, and aligned with societal expectations. While technical infrastructure enables data exchange, it is the design of processes, services, and governance that determines whether the ecosystem is usable and accepted by its participants.

This section outlines the key dimensions of a human-centric and ethical framework, which reinforce the guidance provided throughout the deliverable.

3.1 Human-centric design principles for Data Space for Skills

A human-centric Data Space for Skills places the needs and capabilities of users at the centre of its design and operation. This means that services and processes should be intuitive, understandable, and aligned with real-world use cases.

In practice, this involves reducing unnecessary complexity, supporting informed decision-making, and ensuring that users can clearly understand how data and services are used. It also

includes automating processes appropriate to reduce administrative burden, while maintaining transparency and user control.

A human-centric approach therefore goes beyond usability in a narrow sense. It encompasses the overall experience of participation, from onboarding and governance to the use of services and interpretation of results.

3.2 Inclusiveness and accessibility

Inclusiveness and accessibility are essential to ensure that the Data Space for Skills can be adopted by a broad range of stakeholders. Participants differ in terms of size, sector, resources, and digital maturity, and these differences must be considered in the design of processes and tools.

This requires providing clear guidance, reducing barriers to entry, and ensuring that services can be used across different contexts. It also involves supporting multiple languages and ensuring that data and services are understandable across cultural and organisational boundaries.

Standardisation plays an important role in this context, as it helps create a common basis for understanding and interaction. At the same time, flexibility is needed to accommodate diverse needs and use cases.

3.3 Data protection and privacy

Data protection and privacy are fundamental components of a trustworthy Data Space for Skills. Given the sensitivity of skills and personal data, participants must ensure that data is handled in a responsible and compliant manner.

This includes applying principles such as data minimisation, purpose limitation, and secure data storage and exchange. Clear consent and communication practices are also essential, ensuring that data subjects understand how their data is used and can exercise control over it.

A human-centric approach to data protection emphasises not only compliance with legal requirements, but also transparency and user trust. Participants should therefore aim to make data practices understandable and accessible, rather than treating them as purely formal obligations.

3.4 Fairness and transparency

Fairness and transparency are particularly important in the context of data-driven and AI-enabled services. As the Data Space for Skills increasingly relies on automated processes, it is essential to ensure that outcomes are explainable, unbiased, and accountable.

Participants should provide clear information about how data is processed and how results are generated. Where possible, users should be able to understand the logic behind recommendations or classifications and have the possibility to question or validate outcomes.

Addressing fairness also requires attention to potential biases in data and algorithms, as well as ongoing monitoring and improvement of services. A human-centric approach therefore includes both technical and organisational measures to ensure that the ecosystem operates in a fair and transparent manner.

4 Data Space for Skills role profiles

4.1 Overview of roles and interactions

The Data Space for Skills is composed of multiple actors that interact to enable the secure exchange and use of data and services. These actors can be grouped into four main role profiles:

- Data providers
- Data users and service providers
- Intermediaries
- Orchestrators and governance bodies

Each role contributes to a broader value chain in which data is created, shared, processed, and transformed into services that generate value for end users. The interaction between these roles is not strictly linear, but ecosystem-based, requiring coordination, interoperability, and trust. Clear role definitions and responsibilities are therefore essential to ensure efficient collaboration and reduce complexity in onboarding and operation.

4.2 Data providers

Data providers are organisations that make data available within the Data Space for Skills. Typical actors include higher education institutions, training providers, companies and HR systems, public authorities, and labour market or skills data providers. They contribute datasets such as learning opportunities, skills information, learner records, certifications, or labour market intelligence.

Their role is foundational, as the value of the Data Space for Skills depends primarily on the reliability, relevance, and usability of the data made available. Data providers are therefore responsible for ensuring data quality, accuracy, and completeness, as well as for providing clear metadata and documentation that allow other actors to understand and correctly use the data. They must also define appropriate conditions for data access and usage, ensure compliance with applicable legal and regulatory requirements, and implement appropriate consent, privacy, and access control mechanisms where personal or sensitive data is involved.

In practice, data providers often face several challenges. These include fragmented and heterogeneous data formats, limited standardisation, high manual effort in data sharing processes, and concerns about loss of control over data once shared. A human-centric approach requires that these challenges are addressed not only through technical solutions, but also through clear governance support, practical onboarding guidance, and mechanisms that allow providers to maintain trust and confidence in how their data is used.

4.3 Data users and service providers

Data users and service providers consume data from the Data Space for Skills to create value-added services, insights, and functionalities for end users. Typical actors include analytics providers, dashboard developers, AI and machine learning services, matching and recommendation platforms, and career guidance or advisory services.

Their role is to transform available data into practical outputs that support better decision-making, personalised recommendations, skills intelligence, or operational improvements. In

doing so, they are responsible for ensuring that the services they provide are transparent, reliable, and understandable. This includes validating the quality of outputs, ensuring that services are user-friendly and accessible, respecting the usage conditions attached to the data they consume, and taking appropriate measures to avoid bias or misleading results, especially in AI-driven applications.

A central challenge for this role profile lies in balancing innovation with trustworthiness. Data users and service providers often work with data from multiple heterogeneous sources, which may vary in quality, semantics, and completeness. They must therefore ensure that services remain robust and meaningful despite these differences. In addition, many end users are not technical experts, which means that outputs must not only be accurate but also interpretable and actionable. A human-centric approach therefore requires particular attention to explainability, usability, and fairness.

4.4 Intermediaries

Intermediaries enable the functioning of the Data Space for Skills by providing the infrastructure and services needed for secure, trusted, and interoperable data exchange. These may include data space connectors, identity and authentication providers, consent management services, and other technical or organisational infrastructure providers that facilitate the connection between participants.

Their main role is to act as enablers of trust and scalability across the ecosystem. This includes supporting secure data exchange, ensuring interoperability between systems, managing authentication and access control, facilitating onboarding and integration, and maintaining reliable and high-performing infrastructure. In many cases, intermediaries also play an important role in simplifying participation for less mature actors by reducing technical complexity and offering support throughout the onboarding and operational phases.

The key challenge for intermediaries is to reconcile strong security and compliance requirements with usability and ease of adoption. Infrastructure that is too complex or burdensome may discourage participation, while overly simplified approaches may weaken trust or create risks. Intermediaries must therefore strike a careful balance, providing services that are secure and robust while remaining understandable, accessible, and proportionate to the needs of diverse stakeholders. From a human-centric perspective, their role is not only technical, but also facilitative.

4.5 Orchestrators and governance bodies

Orchestrators and governance bodies are responsible for the coordination, coherence, and long-term functioning of the Data Space for Skills. These actors may include ecosystem coordinators, alliances, public authorities, platform operators, or other entities tasked with defining participation rules and supporting collaboration across stakeholders.

Their role is to provide the governance framework within which all other actors operate. This includes defining rules for participation and data sharing, clarifying roles and responsibilities, ensuring compliance with legal and ethical requirements, supporting onboarding processes, and promoting ecosystem growth and sustainability. Orchestrators also play a key role in aligning different stakeholder interests and ensuring that the Data Space for Skills remains trusted, coherent, and strategically relevant over time.

This role profile faces particular challenges related to complexity and diversity. The Data Space for Skills brings together actors with different objectives, capacities, and levels of maturity,

which means governance must be both clear and adaptable. Orchestrators must balance openness with control, flexibility with compliance, and innovation with trust. A human-centric approach requires that governance is not only formally sound, but also practical, transparent, and understandable for participants. In this sense, governance is not only a control function, but also an enabling one.

Building on these role definitions, the following chapter provides practical guidance tailored to each role profile

5 Practical guidance per role profile

This section translates the human-centric principles outlined earlier into practical and actionable guidance tailored to each role profile within the Data Space for Skills. The recommendations are designed to support stakeholders in both onboarding and operational phases, while ensuring usability, trust, and compliance.

The Table 1 provides an overview of the main role profiles, their core responsibilities, and the supporting templates provided in the annexes.

Table 1. Mapping of role profiles and templates

Role Profile	Core Responsibilities	Human-Centric Focus	Relevant Templates (Annex)
Data Providers	Provide high-quality data, metadata, and access conditions	Data usability, transparency, privacy protection	Annex A (onboarding), Annex B (consent), Annex C (data sharing), Annex D (risk & ethics)
Data Users & Service Providers	Transform data into services, analytics, and recommendations	Explainability, fairness, usability	Annex C (data sharing), Annex D (risk & ethics)
Intermediaries	Enable secure, interoperable data exchange and onboarding	Simplicity, accessibility, trust infrastructure	Annex A (onboarding), Annex B (consent), Annex D (risk & ethics)
Orchestrators	Define governance, coordinate ecosystem, ensure compliance	Clarity, trust, ecosystem usability	Annex A (onboarding), Annex B (consent), Annex C (data sharing), Annex D (risk & ethics)

5.1 Guidance for data providers

Data providers should prioritise the delivery of high-quality, well-structured, and reusable data that can be effectively understood and used by other participants in the Data Space for Skills. This requires not only technical preparation of datasets, but also clear documentation and contextualisation through metadata.

A human-centric approach implies that data is not only accessible, but also meaningful and usable across contexts. Data providers should therefore adopt common standards and classifications where possible, reduce fragmentation, and minimise manual data handling. Clear

and transparent data usage conditions should be defined to ensure that other participants understand how data can be accessed and used (see Annex C).

Strong data protection practices are essential. Data providers should implement principles such as data minimisation, purpose limitation, and appropriate anonymisation or pseudonymisation. Consent mechanisms must be clear and understandable for data subjects, ensuring transparency and trust (see Annex B).

To facilitate participation, data providers should streamline internal processes, clarify responsibilities, and rely on standardised onboarding approaches (see Annex A). Risk and ethical considerations should also be systematically assessed (see Annex D).

Key takeaways for data providers:

- Ensure high data quality, standardisation, and clear metadata
- Define transparent data access and usage conditions
- Implement robust privacy and consent mechanisms
- Use standard templates to simplify onboarding and reduce effort

5.2 Guidance for data users and service providers

Data users and service providers should focus on transforming data into services that are understandable, trustworthy, and useful for end users. This requires particular attention to usability, transparency, and the reliability of outputs.

A human-centric approach requires that services are intuitive and accessible. Outputs should be clear and actionable, enabling users to make informed decisions. Where AI or automated processes are used, transparency is essential. Users should be able to understand how results are generated and, where relevant, challenge or validate them.

Ensuring fairness and avoiding bias is critical. Service providers should implement processes to monitor performance, validate outputs, and continuously improve models. Ethical and risk considerations should be integrated into service design and evaluation (see Annex D).

Service providers must also respect data governance rules, including usage conditions defined by data providers (see Annex C). Clear communication about how data is used and how services operate is essential to build trust.

Key takeaways for data users and service providers:

- Ensure transparency and explainability of services
- Validate outputs and monitor for bias
- Design user-friendly and accessible services
- Respect data usage conditions and governance rules

5.3 Guidance for intermediaries

Intermediaries enable participation in the Data Space for Skills by providing the infrastructure and services required for secure and interoperable data exchange. Their role is essential in reducing complexity and lowering barriers to entry.

A human-centric approach requires intermediaries to make participation as simple and accessible as possible. This includes providing clear documentation, onboarding support, and

user-friendly integration processes (see Annex A). Organisations with limited technical capabilities should be able to participate without excessive effort.

Identity, authentication, and access control mechanisms must be robust but also understandable and proportionate. Similarly, consent management processes should be designed in a way that allows users to retain control over their data without unnecessary complexity (see Annex B).

Intermediaries should actively support interoperability by promoting common standards and facilitating alignment between systems. Risk and ethical considerations related to infrastructure and data exchange should also be assessed (see Annex D).

Key takeaways for intermediaries:

- Provide secure, reliable, and standards-compliant infrastructure
- Simplify onboarding and reduce technical complexity
- Ensure user-friendly identity and consent management
- Support interoperability and system alignment

5.4 Guidance for orchestrators

Orchestrators are responsible for establishing and maintaining the governance framework of the Data Space for Skills. Their role is to ensure that the ecosystem operates in a coherent, trusted, and scalable manner.

A human-centric governance approach requires that rules, processes, and responsibilities are clearly defined and communicated. Participants should be able to easily understand how to join the data space, what is expected of them, and how governance decisions are made. Structured onboarding processes should be supported through clear guidance and tools (see Annex A).

Governance frameworks should include clear data-sharing principles and agreements (see Annex C), as well as transparent consent and communication practices (see Annex B). Risk and ethical considerations should be systematically addressed at ecosystem level (see Annex D).

Orchestrators should also foster trust and collaboration by ensuring transparency, enabling stakeholder engagement, and continuously refining governance mechanisms based on feedback and experience.

Key takeaways for orchestrators:

- Define clear, transparent, and practical governance frameworks
- Provide structured and user-friendly onboarding processes
- Foster trust, collaboration, and stakeholder engagement
- Use templates and tools to ensure consistency and scalability

6 Joining and operating in the Data Space for Skills

6.1 Typical onboarding steps by role

While all participants in the Data Space for Skills follow several shared onboarding principles, the practical entry point, requirements, and sequence of actions differ depending on the role

assumed in the ecosystem. A role-based approach is therefore essential to make onboarding clearer, more proportionate, and easier to operationalise. This also helps organisations understand from the outset which responsibilities, governance requirements, and support tools are most relevant to them.

The onboarding checklist provided in Annex A is intended to support this process by offering a structured starting point for each role profile. In practice, organisations may take on more than one role but distinguishing between the main role profiles remains useful for defining priorities and sequencing onboarding activities.

6.1.1 Data providers

For data providers, onboarding typically begins with the identification of the datasets that may be shared within the Data Space for Skills and an initial assessment of their relevance, quality, and readiness. This often requires internal coordination between business, operational, legal, and technical functions to clarify what data can be made available, under what conditions, and for which purposes.

A key early step for this role is the clarification of ownership and responsibility for the data. Data providers need to determine who is accountable for data quality, metadata, access conditions, legal review, and technical preparation. At this stage, the use of a role-based onboarding checklist can help ensure that the main organisational and governance requirements are addressed in a structured way (see Annex A).

This is typically followed by the preparation of data-sharing conditions. Data providers need to define the terms under which data may be accessed and used, including restrictions, responsibilities, and safeguards. Where personal or sensitive data is involved, appropriate information and consent practices must also be considered (see Annex B), together with the broader key elements of a data-sharing arrangement (see Annex C).

Once governance conditions are clarified, data providers move into technical preparation and connection. This may involve structuring datasets, improving metadata, aligning with relevant standards, and implementing the necessary connection mechanisms. Before going live, validation is important not only to confirm technical functionality, but also to verify that data quality, access controls, and privacy requirements have been correctly implemented. Risk and ethics checks can support this final review (see Annex D).

6.1.2 Data users and service providers

For data users and service providers, onboarding usually starts with a clarification of the intended use of data and the value that the organisation aims to create within the Data Space for Skills. This means identifying which datasets are needed, what types of services or outputs will be developed, and which governance and usage conditions may apply to the relevant data sources.

At an early stage, these actors need to define their service logic clearly. This includes clarifying whether they will provide analytics, matching, recommendation, visualisation, or other forms of value-added functionality, and how these services will interact with end users. Because these services may rely on data originating from multiple providers, it is important to review the applicable access and usage conditions carefully and to ensure that data-sharing arrangements are well understood (see Annex C).

Attention should also be given to issues of transparency, fairness, and explainability, especially where services involve algorithmic or AI-supported processing. These elements should not be left until a later stage but integrated into onboarding and service design from the beginning.

Annex D can support this process by helping service providers identify and address relevant ethical and operational risks.

The technical onboarding of data users and service providers usually includes integration with the relevant data exchange mechanisms, testing of service inputs and outputs, and verification that usage conditions are correctly reflected in service operation. Before full deployment, these actors should validate not only technical functionality, but also the quality, interpretability, and usability of the outputs generated.

6.1.3 Intermediaries

For intermediaries, onboarding is centred on their enabling role within the Data Space for Skills. Unlike participants who mainly provide or consume data, intermediaries are onboarded in relation to the infrastructure and trust services they make available to the ecosystem. This means that the onboarding process for this role is often more focused on interoperability, identity and access management, integration support, and operational reliability.

A first step typically consists of clarifying the precise intermediary functions that will be performed, such as authentication, consent management, connector provision, or other infrastructure support services. Given the centrality of trust in this role, it is important to establish clearly how the intermediary's services align with the overall governance framework and participation requirements of the ecosystem.

Intermediaries must also ensure that their onboarding process itself supports ease of participation for others. This means preparing documentation, guidance, and support processes that enable data providers and service providers to connect without excessive complexity. In this respect, intermediaries are not only onboarding themselves into the data space but also preparing to onboard others. Annex A is therefore relevant not only for their own role, but also as a practical reference for the support they provide to participants.

Because intermediaries often handle security-critical functions, testing and validation are especially important. This includes verifying interoperability, authentication flows, access control, performance, and operational resilience. Consent-related processes should also be reviewed for clarity and usability where relevant (see Annex B), and risk assessment should be carried out in a structured way (see Annex D).

6.1.4 Orchestrators

For orchestrators, onboarding is closely linked to governance definition and ecosystem coordination. Their role is not limited to entering the Data Space for Skills as a participant but extends to shaping the conditions under which other actors participate. As a result, their onboarding involves a stronger focus on governance clarity, role definition, stakeholder communication, and the provision of practical support mechanisms.

The onboarding of orchestrators usually begins with a clarification of scope, mandate, and governance responsibilities. This includes identifying which decisions the orchestrator is responsible for, how participation rules are communicated, and how trust, compliance, and stakeholder coordination will be supported in practice. Clear governance documentation and role communication are particularly important at this stage.

Orchestrators also need to ensure that the broader onboarding model of the ecosystem is coherent and usable. This includes aligning role profiles, participation requirements, onboarding materials, and templates so that participants can move through the process with clarity. Annex A is particularly important in this respect, as it provides the basis for structured role-based onboarding. Annex C supports the clarification of data-sharing conditions, while Annex B can help ensure consistency and transparency in information and consent-related communication.

Because orchestrators are responsible for enabling trust and participation at ecosystem level, they should also integrate ethics and risk considerations into onboarding design from the outset. This includes identifying governance risks, participation barriers, and areas where additional support or simplification may be needed. Annex D can serve as a practical tool to support this review.

6.2 Governance basics per role

Effective participation in the Data Space for Skills depends on a governance framework that is trusted, understandable, and sufficiently structured to support interoperability and compliance across a diverse range of actors. While several governance principles apply across all participants, their practical implications differ depending on the role assumed within the ecosystem.

Adopting a role-based perspective helps clarify responsibilities, reduce ambiguity, and ensure that governance remains both robust and usable in practice.

6.2.1 Data providers

For data providers, governance primarily concerns the conditions under which data is made available and used within the Data Space for Skills. This includes defining clear data access rights, usage conditions, and any restrictions or obligations attached to the data.

A central governance responsibility for this role is to ensure that data is shared in a controlled and transparent manner. Data providers must clearly specify how their data can be accessed, who can use it, for which purposes, and under which conditions. These elements should be formalised in structured data-sharing arrangements (see Annex C), which provide a common basis for trust and interoperability.

Where personal or sensitive data is involved, data providers must also ensure compliance with data protection requirements. This includes implementing appropriate consent mechanisms, informing data subjects about how their data is used, and maintaining clear accountability for data processing activities. Annex B supports this by providing example wording that can help ensure clarity and consistency in communication.

In addition to legal compliance, data providers should consider broader ethical aspects such as fairness, potential misuse, and unintended consequences of data sharing. Integrating risk and ethics reflection into governance processes can help strengthen trust and support responsible data use (see Annex D).

Overall, governance for data providers should enable controlled data sharing while maintaining data sovereignty and accountability.

6.2.2 Data users and service providers

For data users and service providers, governance is closely linked to how data is used, processed, and transformed into services. Their primary responsibility is to ensure that data usage complies with the conditions defined by data providers and with the overall governance framework of the Data Space for Skills.

This includes respecting data access rights, usage limitations, and any obligations related to onward processing or sharing. Clear understanding and implementation of data-sharing arrangements are therefore essential (see Annex C).

In addition, service providers must ensure that their services operate in a transparent and responsible manner. This is particularly important when using AI or automated decision-making processes. Governance should therefore include mechanisms to ensure explainability, traceability, and accountability of outputs.

Fairness and bias mitigation are also key considerations. Service providers should actively monitor their models and outputs to identify potential biases or unintended effects and take corrective action where necessary. Ethical and risk considerations should be embedded into service development and operation rather than treated as an afterthought (see Annex D).

From a human-centric perspective, governance for this role should ensure that services are not only compliant, but also understandable and trustworthy for end users.

6.2.3 Intermediaries

For intermediaries, governance focuses on enabling secure, reliable, and interoperable interactions between participants. Their role places them at the centre of trust infrastructure, which means that governance requirements often relate to identity management, access control, and the integrity of data exchange processes.

Intermediaries must ensure that authentication and authorisation mechanisms are implemented in a robust and consistent way, while remaining proportionate and usable for participants. This includes managing identities, controlling access to data and services, and ensuring that only authorised interactions take place.

Consent management is another important governance dimension for this role, particularly where intermediaries facilitate or host consent-related processes. These mechanisms should be designed in a way that is both compliant and understandable for users (see Annex B).

Interoperability is also a governance concern. Intermediaries should support common standards and facilitate alignment between different systems and formats, ensuring that participants can interact seamlessly within the Data Space for Skills.

Given their enabling role, intermediaries should also assess and manage risks related to infrastructure, security, and data exchange processes (see Annex D). Governance for intermediaries should therefore combine strong security with usability and accessibility, ensuring that trust is maintained without creating unnecessary complexity.

6.2.4 Orchestrators

For orchestrators, governance is the central function. Their role is to define, maintain, and evolve the governance framework of the Data Space for Skills, ensuring that it remains coherent, trusted, and adaptable over time.

This includes defining participation rules, clarifying role profiles, establishing data-sharing principles, and ensuring compliance with legal and ethical requirements. Governance must be clearly documented and communicated so that participants can easily understand how the ecosystem operates and what is expected of them.

Orchestrators are also responsible for ensuring that governance processes are practical and proportionate. Overly complex or rigid frameworks can hinder participation, while insufficient structure can undermine trust. A balance must therefore be struck between flexibility and control.

Supporting onboarding and participation is another key governance function. Orchestrators should provide structured guidance, templates, and support mechanisms that enable participants to join and operate within the Data Space for Skills with clarity and confidence. Annex A, Annex B, and Annex C are particularly relevant in this context as practical tools to support governance implementation.

Finally, orchestrators should integrate ethical considerations and continuous improvement into governance. This includes monitoring adoption, identifying challenges, and refining governance frameworks based on feedback and practical experience. Risk and ethics assessment should be part of this ongoing process (see Annex D).

From a human-centric perspective, governance should not only ensure compliance, but also enable participation, trust, and long-term sustainability of the ecosystem.

Across all role profiles, effective governance in the Data Space for Skills depends on clarity, transparency, and proportionality. While responsibilities differ, a shared commitment to trust, usability, and responsible data practices is essential to ensure that the ecosystem can function effectively and scale over time.

6.3 Practical tips and common pitfalls

Experience from the DS4Skills activities indicates that several recurring challenges can limit effective participation in the Data Space for Skills if they are not addressed early and explicitly. These challenges are often not purely technical. In many cases, they arise from a lack of clarity, insufficient support, or a mismatch between governance or technical design, and the practical realities of the organisations involved.

One of the most common difficulties is the absence of clear role definition and ownership. When organisations are unsure about their responsibilities, the onboarding process tends to slow down, internal coordination becomes more difficult, and trust between participants may be weakened. This is particularly likely where several departments or entities are involved, or where one organisation takes on multiple roles. A practical way to address this is to define internal ownership early and make systematic use of role-based onboarding tools such as those included in Annex A.

Another common issue is excessive complexity in onboarding and operation. Even where the underlying logic of the Data Space for Skills is sound, participation can become burdensome if processes are fragmented, poorly explained, or dependent on too many manual steps. This can discourage participation, especially among smaller organisations or first-time participants. Simplification, standardisation, and clear guidance are therefore not secondary concerns, but central adoption factors. Templates and structured guidance can help make the process more predictable and reduce unnecessary effort.

A further challenge concerns the gap between successful integration and actual use. Technical connection alone does not guarantee that data and services will be used effectively or generate value for users. If services are difficult to understand, poorly aligned with practical needs, or not clearly embedded into user workflows, adoption may remain limited even after onboarding has technically been completed. This highlights the importance of maintaining a strong user perspective throughout operation and not only during initial design.

Resource constraints also represent a practical barrier for many participants. Organisations may lack time, staff capacity, technical expertise, or internal coordination mechanisms needed to participate fully. A human-centric approach requires acknowledging these realities and designing processes that are proportionate to them. This can be supported by reducing administrative

burden, clarifying priorities, and offering support mechanisms that help organisations progress step by step rather than requiring full maturity from the outset.

Finally, insufficient consideration of ethics and risk can undermine trust, even where legal compliance is formally in place. Participants may overlook issues related to fairness, transparency, bias, or unintended consequences, particularly in the context of AI-enabled services or personal data processing. For this reason, risk and ethics reflection should be embedded into both onboarding and operation as a practical routine, rather than being treated as a one-off compliance exercise. Annex D can support participants in doing so in a structured and proportionate way.

Overall, effective participation in the Data Space for Skills depends on more than successful technical connection. It requires clear roles, usable governance, structured support, and continuous attention to user needs, trust, and responsible operation. The annexed templates are intended to support exactly this type of participation by providing practical tools that organisations can adapt to their specific context.

7 Templates and tools

The practical adoption of a human-centric approach in the Data Space for Skills requires not only principles and guidance, but also concrete tools that can be directly applied by stakeholders. To support this, the present deliverable is complemented by a set of templates and tools provided in the annexes.

These resources are designed to translate the guidance provided in previous chapters into operational support instruments that can be used by organisations during onboarding and day-to-day participation. They aim to reduce complexity, improve consistency, and accelerate adoption across different role profiles and organisational contexts.

The templates are intentionally designed to be modular and adaptable, allowing stakeholders to tailor them to their specific needs while maintaining alignment with the overall governance and human-centric principles of the Data Space for Skills.

7.1 How to use templates and tools

The templates provided in the annexes are intended to support stakeholders at different stages of their participation in the Data Space for Skills, from initial onboarding to ongoing operation and governance.

For organisations entering the Data Space for Skills, the onboarding checklist (Annex A) provides a structured starting point to identify the key steps, responsibilities, and requirements associated with their role profile. It helps ensure that no critical elements are overlooked and that onboarding is approached in a systematic and efficient manner.

During the definition of data-sharing practices, the key elements of a data-sharing arrangement (Annex C) can be used as a reference framework to structure agreements between participants. This supports clarity, transparency, and alignment between stakeholders, while reducing ambiguity and potential misunderstandings.

Where personal or sensitive data is involved, the example information and consent wording (Annex B) provides guidance on how to communicate clearly with data subjects and ensure that consent practices are understandable and compliant. This is particularly important in building trust and ensuring responsible data use.

Throughout both onboarding and operation, the risk and ethics checklist (Annex D) can be used to identify, assess, and mitigate potential risks. This includes risks related to data protection, fairness, transparency, and the use of AI-driven services. The checklist is designed to be simple and practical, enabling regular use rather than one-off assessment.

The templates are not intended to be used in isolation. Their value is maximised when they are applied in combination, supporting a coherent approach to onboarding, governance, and operation.

7.2 Summary of annexes

The annexes provide four complementary tools that together support the practical implementation of a human-centric Data Space for Skills.

Annex A provides an onboarding checklist structured by role profile. It supports organisations in identifying the key steps, responsibilities, and requirements associated with their participation. It is particularly useful during the initial onboarding phase but can also serve as a reference during operation.

Annex B provides example information and consent wording. It supports clear and consistent communication with data subjects and other stakeholders, helping to ensure transparency and compliance with data protection requirements.

Annex C outlines the key elements of a data-sharing arrangement. It provides a structured framework for defining data access conditions, usage rights, responsibilities, and safeguards, supporting trust and interoperability between participants.

Annex D provides a simple risk and ethics checklist. It enables participants to systematically consider potential risks and ethical aspects associated with data sharing and service provision, supporting responsible and trustworthy operation.

Together, these annexes form a practical toolkit that complements the guidance provided in this deliverable and supports its implementation across different roles and contexts.

The templates and tools presented in the annexes are a central component of this deliverable, ensuring that the guidance provided is directly actionable. By supporting structured onboarding, clear governance, and responsible operation, they contribute to lowering barriers to participation and enabling the scalable adoption of the Data Space for Skills.

8 Conclusions and next steps

This deliverable has provided practical, role-specific guidance to support the adoption of a human-centric approach in the Data Space for Skills. It translates high-level principles into actionable recommendations and complements them with concrete tools that enable stakeholders to participate effectively in onboarding, governance, and operation.

A key conclusion is that the successful implementation of the Data Space for Skills depends not only on technical infrastructure, but equally on trust, usability, and clarity of roles and responsibilities. A human-centric approach is essential to ensure that data sharing and service provision deliver tangible value to users while remaining accessible, transparent, and aligned with ethical and regulatory requirements.

The role-based structure adopted in this deliverable has demonstrated that different participants face distinct challenges and responsibilities. Data providers must ensure data quality and controlled sharing, data users and service providers must deliver trustworthy and interpretable outputs, intermediaries must enable secure and interoperable exchange, and orchestrators must provide clear and practical governance. Aligning these roles within a coherent framework is critical for the overall functioning of the ecosystem.

Another key finding is the importance of reducing complexity in onboarding and operation. Without clear processes, structured guidance, and practical tools, participation can become burdensome and limit adoption. The templates and tools provided in the annexes address this challenge by offering ready-to-use resources that support consistency, reduce effort, and facilitate implementation across different contexts.

Looking ahead, the guidance provided in this deliverable will be further validated and refined through the ongoing implementation of DS4Skills use cases. Practical experience gathered from these activities will provide valuable insights into the effectiveness of the proposed approach and highlight areas for improvement. This iterative process will support the continuous evolution of both governance practices and supporting tools.

In addition, further alignment with technical developments and emerging standards will be essential to ensure interoperability and scalability. As the Data Space for Skills evolves, governance frameworks and onboarding approaches will need to remain adaptable to accommodate new participants, services, and use cases.

Finally, the long-term success of the Data Space for Skills will depend on its ability to foster trust, demonstrate value, and support a wide range of stakeholders across Europe. By providing clear guidance and practical tools grounded in real use case experience, this deliverable contributes to building a foundation for a scalable, sustainable, and human-centric Data Space for Skills.

9 Annexes

Annex A: Onboarding checklist by role profile

Annex B: Example information/ consent wording

Annex C: Key elements of a data-sharing arrangement

Annex D: Simple risk and ethics checklist

D4.1: Annex A

Version 1.0

Onboarding checklist by role profile

The onboarding checklists are intended to support a structured and meaningful onboarding process for participation in the Data Space for Skills.

They are designed to:

- clarify roles and responsibilities across stakeholders
- ensure that key onboarding steps are addressed
- support coordination and communication between participants

The checklists should not be understood as a purely administrative exercise, but as practical tools to guide onboarding and facilitate collaboration between data providers, data users, intermediaries, and orchestrators.

Each checklist should be completed by the relevant role at the appropriate stage of onboarding and may be shared with other stakeholders where necessary to ensure alignment.

The level of detail and completeness of the checklists may vary depending on the maturity of the organisation and the specific use case. Participants are encouraged to prioritise the most relevant elements and progressively enhance their approach over time.

How to use the checklists

- Complete the checklist during the initial onboarding phase
- Update it as needed during implementation
- Share relevant elements with other stakeholders where coordination is required
- Use it as a reference throughout operation

A0 Participant profile and contacts

Field	Response
Organisation name	
Use case	
Primary contact	
Legal and data protection contact	
Security contact	
Technical contact (for coordination with WP3)	
Role profile(s) in the data space (tick all that apply)	<input type="checkbox"/> Data provider <input type="checkbox"/> Data user and service provider <input type="checkbox"/> Intermediary <input type="checkbox"/> Orchestrator

Note: The roles defined above refer to functional roles within the data space (e.g. data provider, data user, intermediary). Where personal data is processed, the corresponding GDPR roles (e.g. Controller, Processor) should be clearly identified as part of the data-sharing arrangement.

A1 Checklist for all participants

Done	Item	Notes / evidence
<input type="checkbox"/>	Define your participation purpose in one paragraph (what value, for whom, and why a data space is needed).	
<input type="checkbox"/>	List the datasets or services you will provide or consume, including whether personal data is involved.	
<input type="checkbox"/>	Identify internal decision makers and approval owners (business, legal, data protection, security).	
<input type="checkbox"/>	Decide your minimum viable pilot scope (smallest useful data share and smallest useful output).	
<input type="checkbox"/>	Confirm which onboarding guidance you will follow and where it is documented (link).	
<input type="checkbox"/>	Agree the responsibility split with partners (who approves what, who maintains what, who communicates issues).	
<input type="checkbox"/>	Confirm whether additional trust or governance documentation is required beyond platform agreements.	
<input type="checkbox"/>	Set a timeline with target dates for readiness, pilot, and review.	

A2 Data Provider checklist

Done	Item	Notes / evidence
<input type="checkbox"/>	Confirm data ownership and your right to share Confirm data ownership and the legal basis for sharing the data (including, where applicable, a lawful basis for processing personal data, such as consent, contract, or legal obligation). the data for the stated purposes.	
<input type="checkbox"/>	Decide whether the pilot can start with anonymised or synthetic data to reduce early legal friction.	
<input type="checkbox"/>	Describe your dataset in a short data sheet (purpose, fields, update frequency, known limitations).	
<input type="checkbox"/>	Define permitted uses, prohibited uses, retention, and onward sharing rules in plain language.	
<input type="checkbox"/>	Define the process for data subject rights handling if personal data is involved (who receives requests, response times).	
<input type="checkbox"/>	Nominate an owner for ongoing human-centric safeguards (transparency text, oversight process, user feedback handling).	
<input type="checkbox"/>	Agree how corrections will be handled if data quality issues are found by consumers.	
<input type="checkbox"/>	Prepare communications text to set expectations about limitations and appropriate use of the data.	

A3 Data user and service provider checklist

Done	Item	Notes / evidence
<input type="checkbox"/>	Document the decision workflow where your outputs are used and where human review happens.	
<input type="checkbox"/>	Define the minimum safeguards for outputs that may influence opportunities or outcomes (review, override, explanation).	
<input type="checkbox"/>	Define an error handling policy for outputs that look wrong or incomplete (reporting, escalation, correction).	
<input type="checkbox"/>	Document which organisations will receive outputs and under what usage conditions.	
<input type="checkbox"/>	Confirm whether personal data is needed. If yes, justify minimisation and define retention.	
<input type="checkbox"/>	Prepare plain language explanations for end users and stakeholders (what it can do, cannot do, uncertainty).	
<input type="checkbox"/>	Define a user feedback and correction loop (how users flag issues, how you respond, how you improve).	

A4 Intermediary checklist

Done	Item	Notes / evidence
<input type="checkbox"/>	Publish clear joining steps and required evidence for participants (what to prepare before applying).	
<input type="checkbox"/>	Provide a trust and governance information pack (what platform agreements cover and what they do not).	
<input type="checkbox"/>	Provide a template RACI for roles and responsibilities across provider, user, intermediary, orchestrator.	
<input type="checkbox"/>	Define a standard onboarding quality gate (e.g. roles assigned, data described, legal basis confirmed, access conditions defined, basic safeguards in place).	
<input type="checkbox"/>	Provide guidance for dispute resolution, incident escalation, and offboarding responsibilities.	

A5 Orchestrator checklist

Done	Item	Notes / evidence
<input type="checkbox"/>	Define membership criteria, decision-making, and governance routines (including updates to policies and templates).	
<input type="checkbox"/>	Provide the standard template pack (annexes B to D) and explain when each is needed.	
<input type="checkbox"/>	Define the minimum human-centric safeguards baseline for all use cases (review, override, explanation, contestability).	
<input type="checkbox"/>	Define how compliance with safeguards is monitored and how issues are addressed.	
<input type="checkbox"/>	Publish a change log and update routine for guidance materials to avoid drift.	

D4.1: Annex B

Version 1.0

Example information and consent wording

Copy the blocks that apply. Replace bracketed text. Delete sections that are not relevant. Keep the text short and user-friendly.

B0 Quick selection checklist

- Personal data is processed
- Outputs may influence opportunities or outcomes (jobs, training, staffing, project assignment)
- Automated enrichment or AI-assisted processing is used
- Sharing occurs across organisations
- An optional feature requires consent

B1 Core transparency notice (short)

Purpose

[Organisation] participates in the DS4Skills data space to support [purpose, e.g., skills matching, learning recommendations, workforce planning]. We use data to generate insights and recommendations that help [user group] make better decisions.

What data is used

We use [data categories]. We share only what is needed for the stated purpose and apply data minimisation.

How decisions are made

The outputs are decision support. A human reviews results before they are used. You can ask for clarification and request corrections.

Sharing

Data may be shared with [recipient organisations / categories] for the stated purpose under agreed conditions.

Your rights and contact

You can exercise your data protection rights by contacting [contact]. You can also lodge a complaint with your supervisory authority.

B2 AI-assisted processing explanation (plain language)

We use automated tools, including [AI-assisted services], to help [extract, classify, or enrich] skills information. We monitor the quality of outputs and require human review when outputs are used for decisions that matter. If something looks wrong, we have a process to report and correct it. This information is provided in clear and accessible language and, where relevant, may be adapted to different languages and contexts to ensure understanding.

B3 Human review, override, and contestability block

A trained person reviews recommendations before they are used. You can request an explanation of the factors that influenced a recommendation and you can challenge or correct information that is inaccurate. Where appropriate, a person can override the recommendation.

B4 Purpose limitation and non-surveillance commitment (employee contexts)

Your data is used only for learning and development, skills and career support, and workforce planning activities described above. It is not used for employee monitoring or surveillance, disciplinary decisions, or any other unrelated purpose.

B5 Consent block for optional features

If you choose to enable [optional feature], we will process [data] for [purpose]. This is optional. If you do not consent, you can still use [core service].

You can withdraw your consent at any time by [method]. Where you withdraw consent, no further processing will take place for this feature. Where applicable, personal data will be deleted or no longer used, in line with data protection requirements. Previously generated outputs may be retained where necessary for legal or operational reasons but will no longer be updated or used for new decisions.

You also have rights under data protection law, including the right to request access, erasure, or to object to processing.

B6 Pilot testing block using anonymised or synthetic data

During early testing, we use anonymised or synthetic datasets where possible. We do this to validate workflows and safeguards before any personal data is shared in operational settings.

D4.1: Annex C

Version 1.0

Key elements of a data-sharing arrangement

This template is a practical outline. It can be used as a term sheet or expanded into a full agreement. It complements platform agreements and helps address trust and responsibility questions.

C0 Term sheet template

Item	Fill in
Parties	[Provider] and [Consumer/Service provider] and any intermediaries
Purpose	[Clear purpose statement]
Permitted uses	[List]
Prohibited uses	[List]
Data in scope	[Dataset names, versions, key fields]
Personal data	<input type="checkbox"/> No <input type="checkbox"/> Yes (describe categories and safeguards)
Legal roles	<input type="checkbox"/> Controller-controller <input type="checkbox"/> Controller-processor <input type="checkbox"/> Joint controllers (attach arrangement)
Retention	[Period]
Onward sharing	<input type="checkbox"/> Not allowed <input type="checkbox"/> Allowed with conditions: []
Security baseline	[Access control, encryption, logging expectations]
Human-centric safeguards	[Human review, override, explanation, correction process]
Incident handling	[Who to contact, timeframes, escalation]
Change management	[How updates to data, mappings, policies are handled]
Offboarding	[Revocation steps, deletion/return confirmation]

C1 Responsibilities and RACI template

A simple RACI model can be used to clarify responsibilities between stakeholders involved in data sharing. Use this table to avoid ambiguity about who approves and who maintains what.

- **R = Responsible** → who does the work
- **A = Accountable** → who owns the outcome (final decision maker)
- **C = Consulted** → who needs to be involved / give input
- **I = Informed** → who needs to be kept updated

Activity	Provider	User/service provider	Intermediary	Orchestrator
Approve permitted uses and purpose	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]
Maintain transparency text and user communications	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]
Handle rights requests	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]
Validate and correct data quality issues	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]
Review and override policy for outputs	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]
Incident handling and escalation	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]
Update skills mappings and taxonomy alignment	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]
Offboarding and revocation	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]	[R/A/C/I]

D4.1: Annex D1

Version 1.0

Simple risk and ethics checklist

Use this checklist at the start of onboarding and again before go-live. It supports human-centric risk identification and mitigations. It does not replace a DPIA where one is required.

D1 Pre-flight checklist

Risk area	Question	Answer	Mitigation action /	Owner
Human impact	Could outputs influence opportunities or outcomes for people	<input type="checkbox"/> No <input type="checkbox"/> Yes	If yes: require human review, override, explanation, and correction process.	
Fairness	Could any group be disadvantaged due to data coverage or model behaviour	<input type="checkbox"/> No <input type="checkbox"/> Yes	If yes: define monitoring and a process to investigate and correct issues.	
Transparency	Can you explain in plain language how outputs are produced and used	<input type="checkbox"/> No <input type="checkbox"/> Yes	If no: add B2 and B3 blocks and create user-facing FAQ.	
Personal data	Is personal data processed or shared	<input type="checkbox"/> No <input type="checkbox"/> Yes	If yes: confirm lawful basis, information duties, rights handling, retention, and whether a DPIA is needed.	
Purpose limitation	Is there a risk of reuse beyond the agreed purpose	<input type="checkbox"/> No <input type="checkbox"/> Yes	If yes: add prohibited uses, access controls, and auditing expectations in the data-sharing arrangement.	
Security and access	Are access controls and logging responsibilities	<input type="checkbox"/> No <input type="checkbox"/> Yes	If no: complete C1 RACI and define incident	

	clear between parties		escalation contacts.	
Quality and reliability	Could poor data quality lead to misleading outputs	<input type="checkbox"/> No <input type="checkbox"/> Yes	If yes: define minimum quality expectations and a correction loop.	
Human oversight	Is there a documented review and escalation policy when outputs look wrong	<input type="checkbox"/> No <input type="checkbox"/> Yes	If no: define review, thresholds, and escalation path; assign an owner.	
Adoption and trust	Is there a plan to build and maintain stakeholder trust	<input type="checkbox"/> No <input type="checkbox"/> Yes	If no: create a short expectations guide and training plan; include non-surveillance commitments where relevant.	

D2 Data Protection Impact Assessment triggers

Consider a Data Protection Impact Assessment (DPIA) if one or more of the following apply:

- Processing involves profiling or systematic evaluation of individuals in a way that may affect them materially.
- Large-scale processing of personal data, or sensitive contexts such as employment relationships.
- Automated processing is used and outputs may influence important decisions.
- Data is shared across organisations with new or complex governance arrangements.