European Digital UniverCity

University of Rennes 1
2, rue du Thabor
35 000 Rennes
France

Ref. Ares(2022)5387551 - 26/07/2022

D2.1 COMMON OPEN SCIENCE STRATEGY OF EDUC

EDUC Alliance Open Science Strategic Framework 2022-2026

Project Acronym	EDUC-SHARE
Project Full Name	European Digital UniverCity - Research and Innovation with and for Society
Grant Agreement No.	101017526
Programme	H2020
Instrument	SwafS
Start date of Project	01/02/2021
Duration	36 months
Deliverable No.	2.1
Document name	Deliverable D 2.1: Common Open Science Strategy of EDUC
Work Package	2
Associated Task	2.4
Dissemination Level	Public
Contractual Submission Date	31/7/2022
Actual Submission Date	26/7/2022
Main Author	Working Group
Institution	MU
E-mail	hradil@rect.muni.cz
Abstract	This deliverable reports on the EDUC Alliance Open Science Strategic Framework 2022–2026
Keywords	Open Science, Strategic Framework, Open Access, FAIR Data, Citizen Science, Cross-cutting

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017526. This work reflects only the authors' views and the Commission is not responsible for any use that may be made of the information it contains.

Executive Summary

The aim and vision of the EDUC Alliance Open Science Strategic Framework 2022–2026 (from now on, the Strategic Framework) is to ensure that the principles of Open Science (OS) are supported in becoming a part of the research process and infrastructure of EDUC Alliance member institutions. This action will allow the alliance to improve the quality of scientific research and develop an advanced form of science support services, coherent with the systemic change that the entire scientific sector in the EU is currently undergoing.

The goal of the Strategic Framework is to foster the implementation of this systemic change of scientific practices into the institutional processes of EDUC Alliance members. It aims to set priorities, help create common recommendations on essential topics regarding the Open Science agenda, and foster the adaption of the practical implementation of Open Science within the member institutions with the ultimate aim of helping our academic communities to adopt these activities. Special attention will be paid to implement Open Science policies at different levels in each Institution, also taking into consideration the specificities of each partner of the EDUC Alliance.

The Strategic Framework was prepared by experts of each member institution within the task T2.4 " Development of OS Infrastructure" of the EDUC-SHARE project from mid-2021 till mid-2022. It consists of a total of 21 objectives, including relevant indicators divided into four thematic blocks:

1. Open Access and FAIR Data (6)
2. Citizen Science and Science Diplomacy (4)
3. Open Infrastructures and Open Source (2)
4. Cross-cutting (9)

For each goal description, indicator, current status, future status as of 2026, and detailed notes are provided. Specific steps to meet the target will be part of the Action Plans. In 2026, thanks to the implementation of the Strategie Framework, the EDUC Alliance:

1. will share a common approach toward the Open Science agenda among its alliance members
2. will have a set of joint recommendations for its members on strategic topics of the Open Science agenda
3. will be an active Open Science player in the international environment
4. will be a leading university alliance regarding the Open Science agenda in the European Reseach Area

Therefore, the main goal of this Strategic Framework is to ensure systematic support for Open Science within the EDUC Alliance and its member institutions to maximize the potential that the Open Science agenda represents for the change of scientific environment in Europe.

In Europe, on 18.5.2022

EDUC Alliance Open Science Working Group members

Elodie Lelaidier (UR1)

Mikael Kepenekian (UR1)

Camille Debras (UPN)

Calum Watt (UPN)

Miguel Rodriguez (UPN)

Nathalie Reymonet (UPN)

Zsolt Bedő (UPECS)

Daniella Csizmadia (UPECS)

Tamás Horváth (UPECS)

Katharina Kloss (UP)

Marina Quartu (UNICA)

Elisabetta Cagetti (UNICA)

Sara Melis (UNICA)

Jiří Marek (MUNI)

Content

PREAMBLE **5**

VISION OF OPEN SCIENCE STRATEGIC FRAMEWORK 2022-2026 6
STRUCTURE OF STRATEGIC FRAMEWORK 6

A. EDUC ALLIANCE OPEN SCIENCE STRATEGIC FRAMEWORK 2022-2026 ..... **8**

1. OPEN ACCESS AND FAIR DATA GOALS **9**

OA1: DIAMOND OA SUPPORT 9
OA2: RIGHTS RETENTION STRATEGY 9
OA3: AUTOMATIZATION OF PROCESSES 10
FD1: ADVANCED DMP SUPPORT 11
FD3: EOSC INTEGRATION 12

2. CITIZEN SCIENCE AND SCIENCE DIPLOMACY GOALS **13**

CS1: CITIZEN SCIENCE STRATEGY 13
CS2: REGISTRATION SYSTEM 13
SD1: SCIENCE DIPLOMACY STRATEGY 14
SD2: COOPERATION WITH LOCAL AUTHORITIES 14

3. OPEN INFRASTRUCTURES AND OPEN SOURCE GOALS **15**

OI1: OPEN ACCESS TO RESEARCH INFRASTRUCTURES STRATEGY 15
OSOU1: OPEN SOURCE STRATEGY 15

4. CROSS-CUTTING GOALS **16**

ES1: HUMAN RESOURCES 16
ES2: EDUCATION AND COMMUNICATION 16
IP1: NEXT GENERATION METRICS AND RESEARCH ASSESSMENT 17
IP2: RRI AND REPRODUCIBILITY 17
IP3: LEAD BY EXAMPLE 17
AIC1: OPEN SCIENCE EXPERT BODY 18
AIC2: OPENAIRE AMKE 18
AIC3: EOSC ASSOCIATION 18
AIC4: DECLARATIONS AND MANIFESTOS 19

ANNEXES **20**

ANNEX 1: ABREVIATIONS AND DEFINITIONS 20
ANNEX 2: INDICATORS SUMMARY 21
ANNEX 3: SCHEME: EDUC ALLIANCE OPEN SCIENCE STRATEGIC FRAMEWORK 2022-2026 21
ANNEX 4: EDUC ALLIANCE OPEN SCIENCE STRATEGIC FRAMEWORK EXPERT BODY 21

Preamble

"Open Science is a system change allowing for better science through open and collaborative ways of producing and sharing knowledge and data, as early as possible in the research process, and for communicating and sharing results." European Commission[1]

After many years of research and development, Open Science is becoming the norm, the standard of scientific life. Academics worldwide encounter the effects of opening up scientific research and its results in everyday practice. Today, it is no longer just a matter of making scientific publications accessible (Open Access), but increasingly also of sharing research data (FAIR Data) and other components of the scientific process - from open methodologies, review procedures, software/tools to new methods of scientific evaluation. At the same time, there is a clear connection between knowledge from publicly funded research and the social sphere (Citizen Science). Open Science thus represents a new modern way of conducting research and opening up access to scientific knowledge through digital technologies and tools that lead to enhanced cooperation.

EDUC Alliance aspires to be a university alliance recognized on an international scale. Thus, it cannot stay away from trends that transform world science; it must reflect on them, take an active part, and find its role and place within the European Research Area and the international landscape of Open Science practices.

It is no longer enough to perceive Open Science only as an external event, which the alliance only follows as a modern trend. Today, Open Science is already a reality and an advanced infrastructure of scientific services, which express the state when a research institution behaves according to the principles of Open Science. Open Science is thus an advanced tool for the management and access to alliance knowledge, a tool for scientific diplomacy, and a synergistic complement to communication, popularization, and transfer of knowledge and technology. But it is also an essential tool for social acceptance and perception of science and research as an integral part of society's development.

Building on the existing efforts of its member institutions, the activities of EDUC Alliance Open Science Strategic Framework 2022-2026 further develop and support both individual members and the alliance itself to fulfill this critical goal.

As an ambitious academic and scientific consortium, EDUC Alliance accepts the principles of Open Science as a standard for its further development. It does so concern science as its effective functioning, where it sees the principles of Open Science as an essential part of the daily support of its academic and scientific environment. EDUC Alliance strives to make Open Science principles the norm in the European Research Area and in the wider European and social environment.

[1] Definition of Open Science from DG RDT of the European Commission: https://ec.europa.eu/info/sites/default/files/research_and_innovation/knowledge_publications_tools_and_data/documents/ec_rtd_factsheet-open-science_2019.pdf

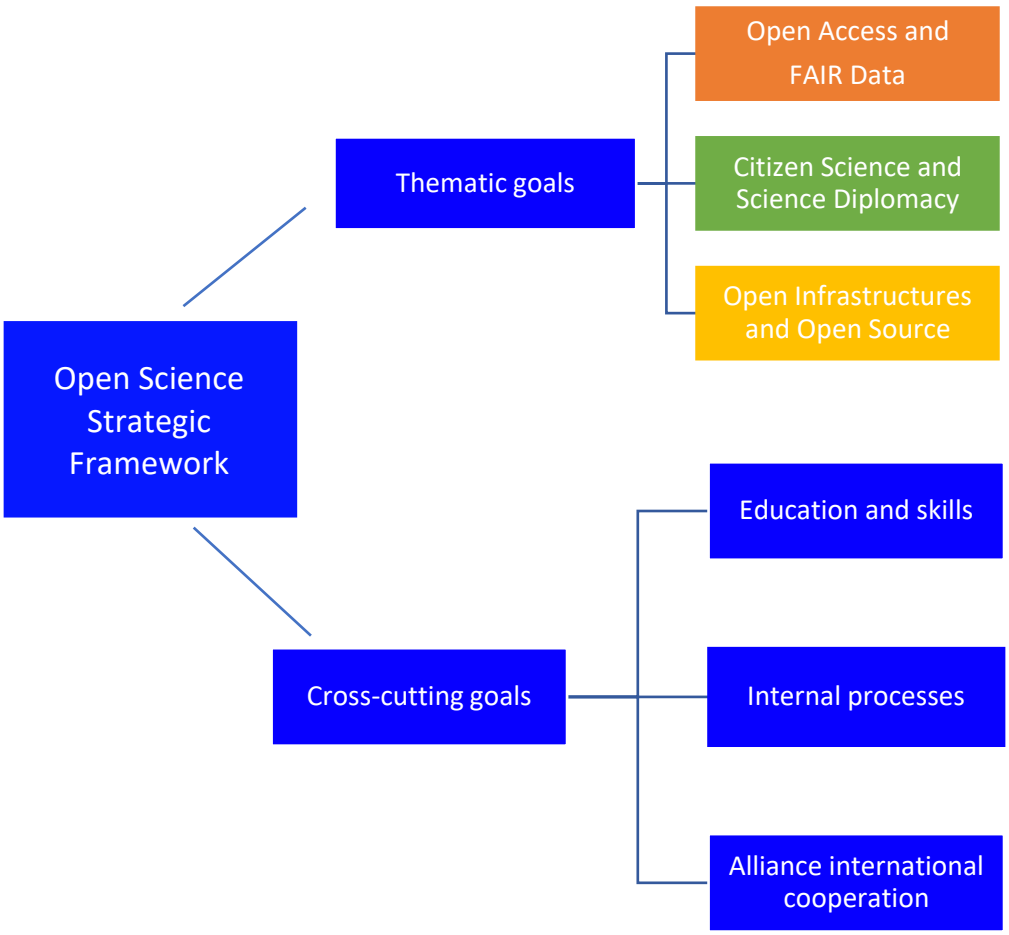
Vision of Open Science Strategic Framework 2022-2026

The Vision of the EDUC Alliance Open Science Strategic Framework 2022-2026 is to foster the development of Open Science practices among the alliance members and also to play and to establish EDUC Alliance as an inspirational consortia among the other alliances within the Open Science agenda.

Structure of Strategic Framework

Strategic Framework is composed by two documents:

A. EDUC Alliance Open Science Strategic Framework 2022-2026: vision, goals, indicators and revision mechanism;
B. EDUC Alliance Open Science Action Plan: annual Implementation steps starting in 2022 and revised yearly (prepared during the summer 2022)



The Strategic Framework is divided into vertical "Thematic goals" and horizontal "Cross-cutting goals" as represented above. This division makes it possible to appropriately adjust these goals, when necessary. For each goal, one or more indicators are used to monitor the fulfillment of the implementation. The indicators are supplemented by the value "current state" and "future (required) state by 2026". The indicators are designed to monitor the fulfillment of the strategy with the lifetime of the Strategic Framework in the next years. Furthermore, the Strategy contains the so-called "Statistical Data", which will provide a closer analytical evaluation of a specific goal.

Revision Mechanism

The Strategic Framework focuses on the period 2022-2026. Action plans prepared each year by the Open Science expert body will be used for its implementation. The action plans must also reflect the expected dynamic developments in the area. Therefore, it is appropriate to make a working outlook in a shorter period and have a mechanism for revising objectives based on the ongoing evaluation of measured indicators.

The aims of the review mechanism are:

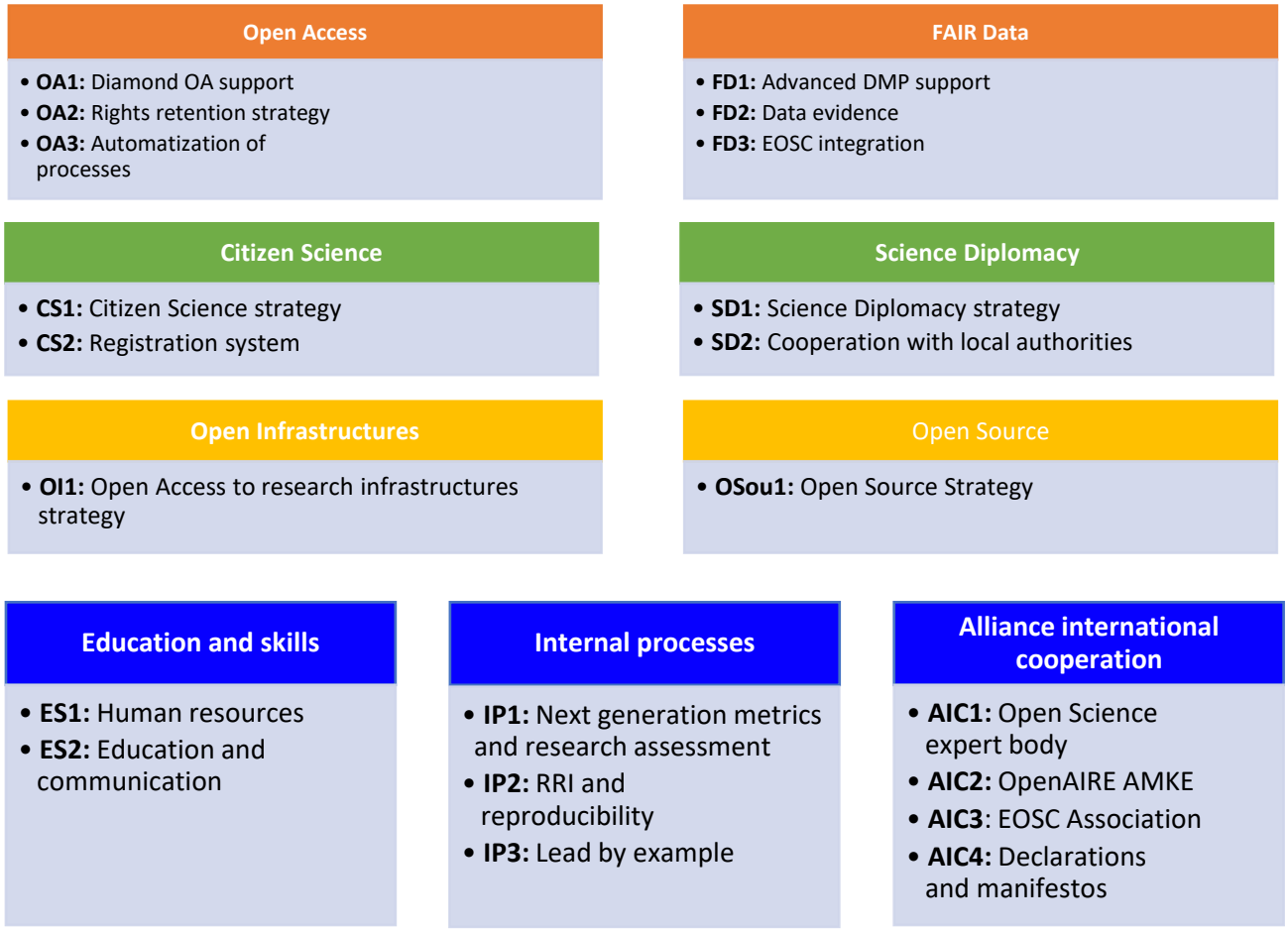
1. To enable the ongoing revision of the Strategic Framework according to the fulfillment of objectives.
2. The possibility of extending the Strategic Framework appropriately to other vertical and horizontal themes during the 2024 review.
3. Complete the adoption of the follow-up Strategic Framework steps in 2026.

A. EDUC Alliance Open Science Strategic Framework 2022-2026

The Strategic Framework consists of 21 goals divided into 4 thematic blocks:

1. Open Access and FAIR Data (6)
2. Citizen Science and Science Diplomacy (4)
3. Open Infrastructures and Open Source (2)
4. Cross-cutting (9)

Each of these blocks is further divided into sections, shown in the following diagram. For each goal, description, indicator, current status, future status as of 2026, and detailed notes are provided. Specific steps to meet the target will be part of the Action Plan.



1. Open Access and FAIR Data goals

Open Access	FAIR Data
• **OA1:** Diamond OA support • **OA2:** Rights retention strategy • **OA3:** Automatization of proecesses	• **FD1:** Advanced DMP support • **FD2:** Data evidence • **FD3:** EOSC integration

OA1: Diamond OA support

Goal: To foster Diamond Open Access (OA) within EDUC Alliance members institutions as part of their institutional strategy of Open Science.

Detailed description: Diamond Open Access is a new emerging topic within OA support at institutional levels. Diamond Open Access refers to academic journals and platforms which are open access and free to readers and authors. The goal of this intervention is to analyze current *status quo* of Diamond OA support at each member institution within the EDUC Alliance. After the analysis, the recommendations of EDUC Alliance regarding Diamond OA support will be created as an official document. Each member that can implement Diamond OA support statement within its Open Science strategy will be advised to do it.

Indicator	Unit	Current status	Future Status	Delivery Year
Analysis of current status of Diamond OA support within the EDUC Alliance members	YES/NO	NO	YES	2023
To create an EDUC Alliance recommendation on Diamond OA support as a model for other university alliances	YES/NO	NO	YES	2024
To implement actions from the recommendation on Diamond OA support as institutional strategy of Open Science within the EDUC Alliance members, where applicable	number	0	6-8	2024

OA2: Rights Retention Strategy

Goal: To foster use of Rights Retention Strategy based on cOAlition S initiative[2] within EDUC Alliance member institutions as part of their institutional support of Open Science.

Detailed description: cOAlition S is a consortium of European research agencies which has developed a Rights Retention Strategy to enable researchers supported by a cOAlition S Organisation to submit manuscripts for publication to their journal of choice, including subscription journals, whilst remaining fully compliant with their Open Science publishing initiative ("Plan S").[3] This initiative will be analyzed within EDUC Alliance members and where applicable adopted within the institutional Open Science support processes.

[2] https://www.coalition-s.org/rights-retention-strategy/
[3] https://www.coalition-s.org/rights-retention-strategy/

Indicator	Unit	Current status	Future Status	Delivery Year
Analysis of current status of use of the Rights Retention Strategy or similar as OA support tool within the EDUC Alliance members	YES/NO	NO	YES	2023
To create an EDUC Alliance recommendation on Rights Retention Strategy as a model for other university alliances	YES/NO	NO	YES	2024
To implement actions from the recommendation on Rights Retention Strategy at institutional support of Open Science within the EDUC Alliance members, where applicable.	number	0	6-8	2024

OA3: Automatization of processes

Goal: To share good practices in automatization of OA processes at institutional level within the EDUC Alliance members.

Detailed description: To implement OA support with minimal administrative burden towards researchers and academics within their institutions should be one of the primary principles of implementation of OA support. The automatization of processes can help with this goal and should be analyzed within member institutions of EDUC Alliance. The good practice should be shared among the members (e.g. API integration of arXiv.org etc.)

Indicator	Unit	Current status	Future Status	Delivery Year
First analysis of OA support processes that foster automatization at institutional level within EDUC Alliance members	YES/NO	NO	YES	2024
Second analysis of OA support processes that foster automatization at institutional level within EDUC Alliance members	YES/NO	NO	YES	2026

Statistical data	Unit	Current value
Number of connected field-specific repositories (e.g. arXiv.org) with institutional OA Repositories	number	0
Number of downloads from institutional OA Repositories of EDUC Alliance members	number	unknown

FD1: Advanced DMP support

Goal: To foster advanced Data Management Planning (DMP) support within EDUC Alliance member institutions as part of their institutional Open Science strategy.

Detailed description: Data Management Plans/Data Management Planning (DMP) support is becoming an integral part of institutional Open Science strategy. Tools, processes and approaches within EDUC Alliance should be analyzed and shared as a good practice among the members.

Indicator	Unit	Current status	Future Status	Delivery Year
Analysis of current status of DMP support within the EDUC Alliance members	YES/NO	NO	YES	2023
To create an EDUC Alliance recommendation on advanced DMP support as a model for other university alliances	YES/NO	NO	YES	2024
To implement a recommendation on advanced DMP support at institutional of Open Science strategy within the EDUC Alliance members, where applicable	number	0	6-8	2024

FD2: Data evidence

Goal: To share good practices in data evidence processes at institutional level within the EDUC Alliance members.

Detailed description: In the coming years, data evidence processes will be a new challenge for academic institutions as data sets will become more critical as official scientific outputs. The processes that will be needed at each institution for the successful implementation of data evidence should be analyzed within member institutions of EDUC Alliance. Good practices should be shared among the members (e.g., description of institutional API integration of data/metadata repositories with national CRIS systems, etc.).

Indicator	Unit	Current status	Future Status	Delivery Year
First analysis of Data evidence support processes at institutional level within EDUC Alliance members	YES/NO	NO	YES	2024
Second analysis of Data evidence support processes at institutional level within EDUC Alliance members	YES/NO	NO	YES	2026

Statistical data	Unit	Current value
Number of data sets listed as an official scientific output of EDUC Alliance members	number	0

FD3: EOSC integration

Goal: To support the integration of both institutional and EDUC Alliance processes with development of European Open Science Cloud (EOSC) at the European level.

Detailed description: EOSC is an initiative of the European Commission to provide infrastructure promoting Open Science. EOSC is becoming an integral part of the European research environment. The analysis of the integration of internal processes of members of EDUC Alliance towards EOSC activities is crucial to creating a role/position for the whole alliance concerning EOSC in the future.

Indicator	Unit	Current status	Future Status	Delivery Year
Analysis of EOSC integration processes at institutional level within EDUC Alliance members	YES/NO	NO	YES	2024
To define a role of EDUC Alliance within the EOSC ecosystem (recommendation paper)	YES/NO	NO	YES	2026

2. Citizen Science and Science Diplomacy goals

Citizen Science	Science Diplomacy
• **CS1:** Citizen Science Strategy • **CS2:** Registration system	• **SD1:** Science Diplomacy Strategy • **SD2:** Cooperation with local authorities

CS1: Citizen Science Strategy

Goal: The development of EDUC Alliance Strategy to foster Citizen Science within the member institutions, cities and local communities.

Detailed description: Citizen Science refers broadly to the participation of the general public in science. This activity is becoming an increasingly important part of Open Science practice in Europe, both in national and European projects. Cooperation or, if taken seriously, co-creation of research tasks with citizens and the public, is a crucial part of the role of universities and research organizations within society. The EDUC Alliance will build on the first experiences of its members in this area (EDUC-SHARE project WP3- Citizen engagement) to create a role model for other alliances to follow this area of Open Science.

Indicator	Unit	Current status	Future Status	Delivery Year
Analysis of current status of Citizen Science support within the EDUC Alliance members	YES/NO	NO	YES	2022
To create an EDUC Alliance recommendation on Citizen Science as a model for other university alliances	YES/NO	NO	YES	2023
To implement a recommendation on Citizen Science at institutional Open Science strategy within the EDUC Alliance members, where applicable	number	0	6-8	2025

CS2: Registration System

Goal: To analyze the possibilities of implementing a "registration system" as one of the possible Citizen Science tools to foster Citizen Science practices, its visibility, principles, and dissemination of use within the member institutions/cities/local communities.

Detailed description: One of the tools that will probably gain more and more attention will be a solution for registering citizens willing to take action within/be part of research projects with the respective university/city/local community. Collecting such activity should form a basis for analyzing the potential to create a common framework for this activity within the alliance.

Indicator	Unit	Current status	Future Status	Delivery Year
Analysis of possibilities to implement "registration system" as a support tool for Citizen Science activities within the EDUC Alliance members	YES/NO	NO	YES	2024

SD1: Science Diplomacy Strategy

Goal: To create an EDUC Alliance Strategy to foster Science Diplomacy within the member institutions, cities, and public administration in general as a new way of re-using science for public/society benefits.

Detailed description: Science Diplomacy refers to the practice of science within international partnerships and relations. This new branch of foreign diplomacy offers a framework of cooperation between academia and the public sector to provide evidence-based policymaking. This approach is slowly getting attention from academics over the world.[4] The EDUC Alliance will build on the experience of its members with Citizen Science activities and aims to create a role model for other alliances also in Science Diplomacy as an emerging concept of cooperation between academia and the public sector.

Indicator	Unit	Current status	Future Status	Delivery Year
Analysis of current status of Science Diplomacy support within the EDUC Alliance members	YES/NO	NO	YES	2024
To create an EDUC Alliance recommendation on Science Diplomacy as a model for other university alliances	YES/NO	NO	YES	2025
To implement a recommendation on Science Diplomacy at institutional level of Open Science within the EDUC Alliance members, where applicable	number	0	6-8	2026

SD2: Cooperation with local authorities

Goal: To foster cooperation of EDUC Alliance members with local authorities.

Detailed description: The aim of this activity is to systematically explore possibilities for creating systematic synergies between EDUC Alliance members and their engagement with local ecosystems.

Indicator	Unit	Current status	Future Status	Delivery Year
To establish at least one systematic cooperation of each EDUC Alliance member with the local authority	YES/NO	NO	YES	2024

[4] E.g. SciTech DiploHub from Barcelona: https://www.scitechdiplohub.org/

3. Open Infrastructures and Open Source goals

Open Infrastructures	Open Source
• **OI1:** Open Access to research infrastructures strategy	• **OSou1:** Open Source Strategy

OI1: Open Access to research infrastructures strategy

Goal: To create EDUC Alliance Strategy to foster OA to its members' research infrastructures.

Detailed description: OA to research infrastructures is a crucial part of research infrastructures principles of operation. The goal is to share common practices among the members of EDUC Alliance and to create sharing experience among the alliance members (building on the experience from EDUC-SHARE project WP2- Research Infrastructure).

Indicator	Unit	Current status	Future Status	Delivery Year
Analysis of current status of OA to research infrastructures within the EDUC Alliance members	YES/NO	NO	YES	2022
To create an EDUC Alliance recommendation on OA to research infrastructures as a model for other university alliances	YES/NO	NO	YES	2023
To implement a recommendation on OA to research infrastructureswithin the EDUC Alliance members, where applicable	number	0	6-8	2025

OSou1: Open Source Strategy

Goal: To create an Open Source Strategy to foster the use of Open Source within EDUC Alliance members' institutions as a new part of their institutionalf Open Science strategy.

Detailed description: "Open Source" refers to the use of publicly available software and source code. Within Open Science strategy, this represents an emerging area of interest. The goal of this activity should be based on analyzing existing practices within the members of the alliance and sharing good practices in the implementation phase.

Indicator	Unit	Current status	Future Status	Delivery Year
Analysis of current status of Open Source support within the EDUC Alliance members	YES/NO	NO	YES	2023
To create an EDUC Alliance recommendation on Open Source as a model for other university alliances	YES/NO	NO	YES	2024
To implement a recommendation on Open Source at institutional level of Open Science within the EDUC Alliance members, where applicable	number	0	6-8	2025

4. Cross-cutting goals

Education and skills	Intenal processes	Alliance international cooperation
•**ES1:** Human resources •**ES2:** Education and communication	•**IP1:** Next generation metrics and research assesment •**IP2:** RRI and reproducibility •**IP3:** Lead by example	•**AIC1:** Open Science expert body •**AIC2:** OpenAIRE AMKE •**AIC3:** EOSC Association •**AIC4:** Declarations and manifestos

ES1: Human resources

Goal: To create an EDUC Alliance recommendation to support the development of human resources dedicated to Open Science support at its members' institutions.

Detailed description: Skilled human resources are crucial for the good implementation and adoption of Open Science practices within the member institutions of the alliance. This activity aims to share good practices, create the alliance recommendation regarding this topic and further develop activities from WP5- HRS4R process of the EDUC-SHARE project.

Indicator	Unit	Current status	Future Status	Delivery Year
EDUC Alliance recommendation to support development of human resources in the agenda of Open Science in Europe and within the members institutions	YES/NO	NO	YES	2023

ES2: Education and communication

Goal: To promote education and communication activities of Open Science practices as an integral part of Open Science strategy at members' instititutions.

Detailed description: This activity aims to follow the latest trends in education and communication about Open Science principles and share good practices among the alliance members.

Indicator	Unit	Current status	Future Status	Delivery Year
First analysis of current status of the education and communication of Open Science within the member institutions	YES/NO	NO	ANO	2023
Second analysis of current status of the education and communication of Open Science within the member institutions	YES/NO	NO	ANO	2024
Third analysis of current status of the education and communication of Open Science within the member institutions	YES/NO	NO	ANO	2025
Forth analysis of current status of the education and communication of Open Science within the member institutions	YES/NO	NO	ANO	2026

IP1: Next generation metrics and research assessment

Goal: To create the EDUC Alliance recommendation on support of development of next generation metrics and research assessment use in Europe and its member institutions.

Detailed description: The topic of reforming research assessment is an essential issue in the current development of the European Research Area.[5] This goal aims to create a joint recommendation of members of the alliance regarding this topical issue.

Indicator	Unit	Current status	Future Status	Delivery Year
EDUC Alliance recommendation to support development of next generation metrics and research assessment in Europe and within the member institutions	YES/NO	NO	YES	2023

IP2: Responsible Research and Innovation (RRI) and reproducibility

Goal: To create the EDUC Alliance recommendation on the support of RRI and reproducibility practices of scientific work in Europe and its member institutions.

Detailed description: The topic of RRI and reproducibity of research are other essential issue in the current development of the European Research Area. This goal aims to create a joint recommendation of members of the alliance regarding this topical issue.

Indicator	Unit	Current status	Future Status	Delivery Year
EDUC Alliance recommendation to support RRI and reproducibility in Europe and within the members institutions	YES/NO	NO	YES	2024

IP3: Lead by example

Goal: To implement Open Science minimal common standards at each institutional member of EDUC Alliance by following the principle "Lead by example."

Detailed description: This goal aims to establish minimal common standards with the alliance members to enable at least some harmonization between the institutions. The minimal common standards consider issues concerning grant schemes at the member institutions, use of ORCID, enabling the harvesting of the repositories by OpenAIRE, and implementation of processes to support the principle as open as possible, as closed as necessary (AOAP, ACAN).

Indicator	Unit	Current status	Future Status	Delivery Year
Each member of EDUC Alliance will implement OS conditions towards its grant schemes, if applicable	number	0	6-8	2024
Each member of EDUC Alliance will foster the use of ORCID within its internal processes, if applicable	number	0	6-8	2024
Each member of EDUC Alliance will foster the use of OpenAIRE harvesting within its internal processes, if applicable	number	0	6-8	2024

[5] For more infomration, please visit: https://ec.europa.eu/info/news/process-towards-agreement-reforming-research-assessment-2022-jan-18_en

Each member of EDUC Alliance will develop processes to follow the principle as open as possible, as closed as necessary (AOAP, ACAN), if applicable	number	0	6-8	2025

AIC1: Open Science expert body

Goal: To establish EDUC Alliance Open Science expert body to help the alliance to navigate in the area of Open Science.

Detailed description: The EDUC Alliance Open Science expert body consists of nominated expert delegates from each partner institution. The expert body monitors developments in Open Science practices within the alliance, provides a forum to deal with different institutional approaches and challenges towards Open Science, and monitors adaptions of this Strategic Framework and related tasks. The Open Science expert body also creates an official annual Action Plan to deliver the goal of this Strategic Framework. The expert body members vote its chairman every year together with the new Action plan for the respective year. The establishment of the EDUC Alliance Open Science body is envisaged for September 2022.

Indicator	Unit	Current status	Future Status	Delivery Year
Establishment of EDUC Alliance Open Science expert body	YES/NO	NO	YES	2022
Creation of 2022 Action Plan	YES/NO	NO	YES	2022
Creation of 2023 Action Plan	YES/NO	NO	YES	2023
Creation of 2024 Action Plan	YES/NO	NO	YES	2024
Creation of 2025 Action Plan	YES/NO	NO	YES	2025
Creation of 2026 Action Plan	YES/NO	NO	YES	2026

AIC2: OpenAIRE AMKE

Goal: To establish EDUC Alliance as a member of OpenAIRE AMKE.

Detailed description: This goal aims to enable close integration of EDUC Alliance Open Science activities with the OpenAIRE AMKE activities.

Indicator	Unit	Current status	Future Status	Delivery Year
EDUC Alliance as a member of OpenAIRE AMKE	YES/NO	NO	YES	2023

AIC3: EOSC Association

Goal: To establish EDUC Alliance as an observer member of EOSC Association.

Detailed description: This goal aims to enable close integration of EDUC Alliance Open Science activities with the EOSC activities.

Indicator	Unit	Current status	Future Status	Delivery Year
EDUC Alliance as an associated member of EOSC	YES/NO	NO	YES	2023

AIC4: Declarations and manifestos

Goal: To analyze the status quo of Open Science's international environment and adopt joint recommendations on emerging issues of Open Science practices.[6]

Detailed description: This goal aims to enable the alliance to be up to speed regarding important international activities in an Open Science environment.

Indicator	Unit	Current status	Future Status	Delivery Year
First analysis of the current status of Open Science declarations and manifestos within the member institutions and from the international perspective.	YES/NO	NO	YES	2023
Second analysis of the current status of Open Science declarations and manifestos within the member institutions and from the international perspective.	YES/NO	NO	YES	2024
Third analysis of the current status of Open Science declarations and manifestos within the member institutions and from the international perspective.	YES/NO	NO	YES	2025
Forth analysis of the current status of Open Science declarations and manifestos within the member institutions and from the international perspective.	YES/NO	NO	YES	2026

[6] E.g. Diamond OA supprot etc.

Annexes

Annex 1: Abbreviations and definitions

Term	Description
Open Science	"Open Science is a system change allowing for better science through open and collaborative ways of producing and sharing knowledge and data, as early as possible in the research process, and for communicating and sharing results."[7]
Open Access	Open access is the practice of providing online access to scientific information that is free of charge to the user and is reusable. It is now widely recognised that making research results more accessible to all contributes to better and more efficient science, and to innovation in the public and private sectors.[8]
Diamond Open Access	Diamond Open Access refers to academic journals and platforms which are open access and free to readers and authors.
Open Source	Open Source refers to the use of publicly available software and source code.
Data evidence	The processes needed at each institution for the successful monitoring of produced research data.
DMP	Data Management Plan are a key element of good data management. A DMP describes the data management life cycle for the data to be collected, processed and/or generated by a Horizon 2020 project. As part of making research data findable, accessible, interoperable and re-usable (FAIR).[9]
FAIR (principles)	In 2016, the '**FAIR Guiding Principles for scientific data management and stewardship'** were published in *Scientific Data*. The authors intended to provide guidelines to improve the **F**indability, **A**ccessibility, **I**nteroperability, and **R**euse of digital assets. The principles emphasise machine-actionability (i.e., the capacity of computational systems to find, access, interoperate, and reuse data with none or minimal human intervention) because humans increasingly rely on computational support to deal with data as a result of the increase in volume, complexity, and creation speed of data.[10]
EOSC	European Open Science Cloud: The ambition of the European Open Science Cloud (EOSC) is to develop "Web

[7] Definition of Open Science from DG RDT of the European Commission: https://ec.europa.eu/info/sites/default/files/research_and_innovation/knowledge_publications_tools_and_data/documents/ec_rtd_factsheet-open-science_2019.pdf

[8] https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science/open-access_en

[9] https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/data-management_en.htm

[10] https://www.go-fair.org/fair-principles/

	of FAIR Data and services' for science in Europe. EOSC will be a multi-disciplinary environment where researchers can publish, find and re-use data, tools and services, enabling them to better conduct their work. EOSC builds on existing infrastructure and services supported by the EC, Member States and research communities. It brings these together in a federated 'system of systems' approach, adding value by aggregating content and enabling services to be used together.[11]
Citizen Science	Citizen science is a broad term, covering that part of Open Science in which citizens can participate in the scientific research process in different possible ways: as observers, as funders, in identifying images or analysing data, or providing data themselves. This allows for the democratisation of science, and is also linked to stakeholders' engagement and public participation.[12]
Science Diplomacy	Science Diplomacy, Innovation Diplomacy, Techplomacy, STI Diplomacy and SciTech Diplomacy are all different ways of referring to the same thing: the use of scientific, technological and academic collaborations among countries, regions and societies to address common issues and to build sound international partnerships. Experts use a wide variety of definitions for this concept, nevertheless, science diplomacy has become an umbrella term that includes several kinds of research-based, scientific, academic and engineering exchanges among nations and societies.[13]
RRI	RRI initiatives are designed towards a comprehensive participation of all stakeholders involved in the process of R&I starting from a very early stage, from design and implementation to evaluation. It relies on a joint effort of a multi-actor society wherein researchers, citizens, policy makers, business, and NGOs work side-to-side during the whole R&I process in order to align scientific outcomes with the ethical values, requirements, and expectations of society.[14]
OpenAIRE (AMKE)	OpenAIRE is an active network in 35 countries, the National Open Access Desks, who are experts in the local scene and are eager to help you on any issues related to open science.[15]
cOAlition S	cOAlition S funders (a group of national research funders, European and international organisations and charitable foundations) have agreed to implement the 10 principles

[11] https://www.eosc.eu/about-eosc
[12] https://wayback.archive-it.org/12090/20170401084542/https://ec.europa.eu/digital-single-market/en/citizen-science
[13] https://www.scitechdiplohub.org/what-is-science-diplomacy/
[14] https://www.orion-openscience.eu/resources/rri
[15] https://www.openaire.eu/

	of Plan S in a coordinated way, together with the European Commission and the ERC. Other research funders from across the world, both public and private, are invited to join cOAlition S.[16]
Plan S	Plan S states the fundamental principles for future Open Access publishing. Science Europe, funders, the European Research Council and the European Commission worked together to clarify and publish implementation details. The plan does not advocate any particular Open Access business model, although it is clear that some of the current models are not compliant.[17]
ORCID	The ORCID iD: a unique, persistent identifier free of charge to researchers. ORCID stands for Open Researcher and Contributor ID. The name ORCID also represents a global, not-for-profit organization to realize its vision to enable transparent and trustworthy connections between researchers, their contributions, and their affiliations by providing a unique, persistent identifier for individuals to use as they engage in research, scholarship, and innovation activities.[18]
AOAP, ACAN	As open as possible, as closed as necessary respresnt the guiding principle of research data management enebling the full use of FAIR principles within the management of research data.

[16] https://www.coalition-s.org/about/
[17] https://www.coalition-s.org/why-plan-s/
[18] https://info.orcid.org/what-is-orcid/

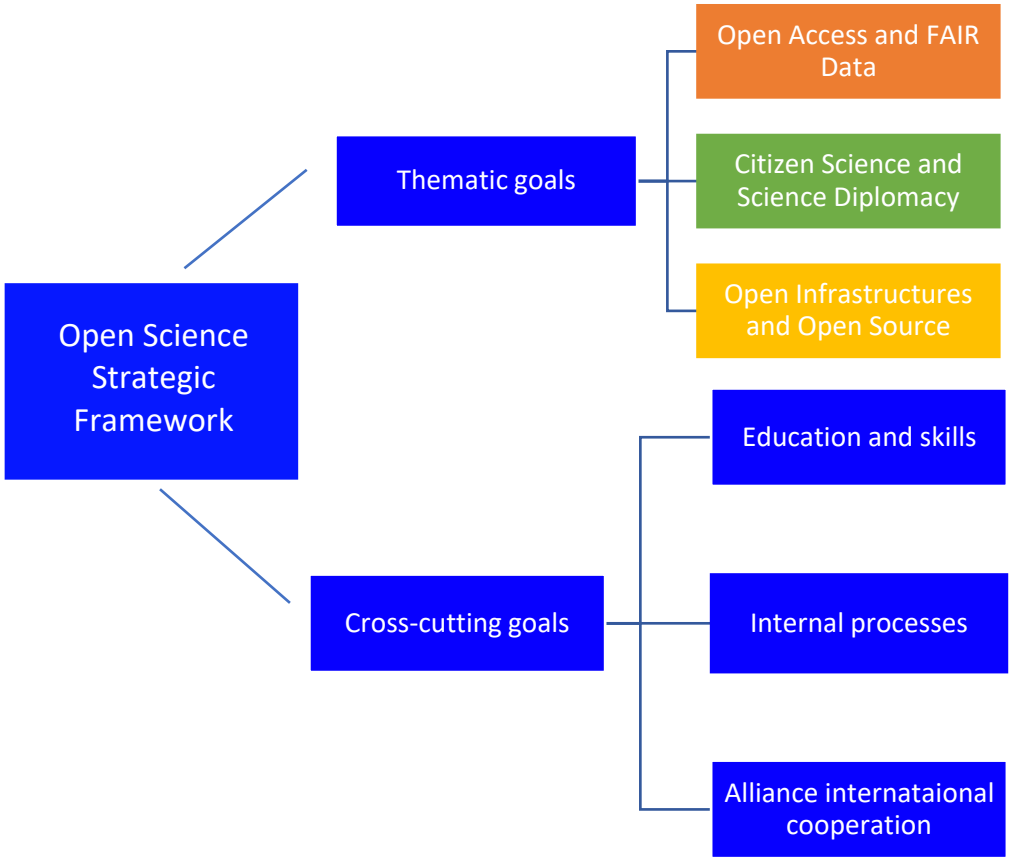
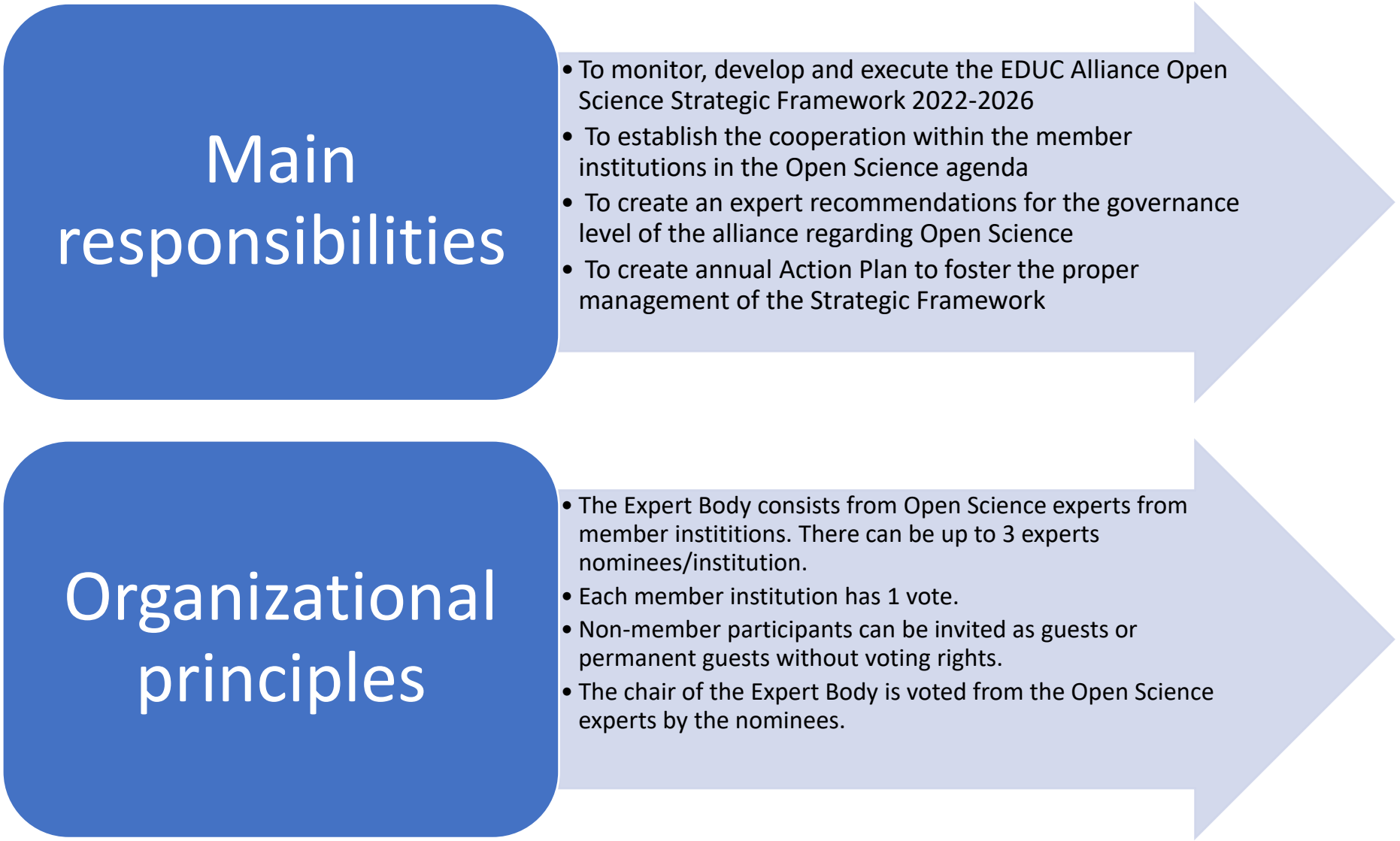
Annex 2: Indicators summary

Goal	Indicator	Unit	Current status	Future status	Delivery year
OA1	Analysis of current status of Diamond OA support within the EDUC Alliance members	YES/NO	NO	YES	2023
OA1	To create an EDUC Alliance recommendation on Diamond OA support as a model for other university alliances	YES/NO	NO	YES	2024
OA1	To implement actions from the recommendation on Diamond OA support at institutional support of Open Science within the EDUC Alliance members, where applicable	number	0	6-8	2024
OA2	Analysis of current status of use of the Rights Retention Strategy or similar as OA support tool within the EDUC Alliance members	YES/NO	NO	YES	2023
OA2	To create an EDUC Alliance recommendation on Rights Retention Strategy as a model for other university alliances	YES/NO	NO	YES	2024
OA2	To implement actions from the recommendation on Rights Retention Strategy at institutional support of Open Science within the EDUC Alliance members, where applicable.	number	0	6-8	2024
OA3	First analysis of OA support processes that foster automatization at institutional level within EDUC Alliance members	YES/NO	NO	YES	2024
OA3	Second analysis of OA support processes that foster automatization at institutional level within EDUC Alliance members	YES/NO	NO	YES	2026
FD1	Analysis of current status of DMP support within the EDUC Alliance members	YES/NO	NO	YES	2023
FD1	To create an EDUC Alliance recommendation on advanced DMP support as a model for other university alliances	YES/NO	NO	YES	2024
FD1	To implement a recommendation on advanced DMP support at institutional support of Open Science within the EDUC Alliance members, where applicable	number	0	6-8	2024
FD2	First analysis of Data evidence support processes at institutional level within EDUC Alliance members	YES/NO	NO	YES	2024
FD2	Second analysis of Data evidence support processes at institutional level within EDUC Alliance members	YES/NO	NO	YES	2026
FD3	Analysis of EOSC integration processes at institutional level within EDUC Alliance members	YES/NO	NO	YES	2024
FD3	To define a role of EDUC Alliance within the EOSC ecosystem (recommendation paper)	YES/NO	NO	YES	2026
CS1	Analysis of current status of Citizen Science support within the EDUC Alliance members	YES/NO	NO	YES	2022
CS1	To create an EDUC Alliance recommendation on Citizen Science as a model for other university alliances	YES/NO	NO	YES	2023

CS1	To implement a recommendation on Citizen Science at institutional support of Open Science within the EDUC Alliance members, where applicable	number	0	6-8	2025
CS2	Analysis of possibilities to implement “registration system” as a support tool for Citizen Science activities within the EDUC Alliance members	YES/NO	NO	YES	2024
SD1	Analysis of current status of Science Diplomacy support within the EDUC Alliance members	YES/NO	NO	YES	2024
SD1	To create an EDUC Alliance recommendation on Science Diplomacy as a model for other university alliances	YES/NO	NO	YES	2025
SD1	To implement a recommendation on Science Diplomacy at institutional level of Open Science within the EDUC Alliance members, where applicable	number	0	6-8	2026
SD2	To establish at least one systematic cooperation of each EDUC Alliance member with the local authority	YES/NO	NO	YES	2024
OI1	Analysis of current status of OA to research infrastructures within the EDUC Alliance members	YES/NO	NO	YES	2022
OI1	To create an EDUC Alliance recommendation on OA to research infrastructures as a model for other university alliances	YES/NO	NO	YES	2023
OI1	To implement a recommendation on OA to research infrastructures at institutional support of Open Science within the EDUC Alliance members, where applicable	number	0	6-8	2025
OSou1	Analysis of current status of Open Source support within the EDUC Alliance members	YES/NO	NO	YES	2023
OSou1	To create an EDUC Alliance recommendation on Open Source as a model for other university alliances	YES/NO	NO	YES	2024
OSou1	To implement a recommendation on Open Source at institutional level of Open Science within the EDUC Alliance members, where applicable	number	0	6-8	2025
ES1	EDUC Alliance recommendation to support development of human resources in the agenda of Open Science in Europe and within the members institutions	YES/NO	NO	YES	2023
ES2	First analysis of current status of the education and communication of Open Science within the member institutions	YES/NO	NO	ANO	2023
ES2	Second analysis of current status of the education and communication of Open Science within the member institutions	YES/NO	NO	ANO	2024
ES2	Third analysis of current status of the education and communication of Open Science within the member institutions	YES/NO	NO	ANO	2025
ES2	Forth analysis of current status of the education and communication of Open Science within the member institutions	YES/NO	NO	ANO	2026

IP1	EDUC Alliance recommendation to support development of next generation metrics and research assessment in Europe and within the members institutions	YES/NO	NO	YES	2023
IP2	EDUC Alliance recommendation to support RRI and reproducibility in Europe and within the members institutions	YES/NO	NO	YES	2024
IP3	Each member of EDUC Alliance will implement OS conditions towards its grant schemes, if applicable	number	0	6-8	2024
IP3	Each member of EDUC Alliance will foster the use of ORCID within its internal processes, if applicable	number	0	6-8	2024
IP3	Each member of EDUC Alliance will foster the use of OpenAIRE harvesting within its internal processes, if applicable	number	0	6-8	2024
IP3	Each member of EDUC Alliance will develop processes to follow the principle as open as possible, as closed as necessary (AOAP, ACAN), if applicable	number	0	6-8	2025
AIC1	Establishment of EDUC Alliance Open Science expert body	YES/NO	NO	YES	2022
AIC1	Creation of 2022 Action Plan	YES/NO	NO	YES	2022
AIC1	Creation of 2023 Action Plan	YES/NO	NO	YES	2023
AIC1	Creation of 2024 Action Plan	YES/NO	NO	YES	2024
AIC1	Creation of 2025 Action Plan	YES/NO	NO	YES	2025
AIC1	Creation of 2026 Action Plan	YES/NO	NO	YES	2026
AIC2	EDUC Alliance as a member of OpenAIRE AMKE	YES/NO	NO	YES	2023
AIC3	EDUC Alliance as an associated member of EOSC	YES/NO	NO	YES	2023
AIC4	First analysis of the current status of Open Science declarations and manifestos within the member institutions and from the international perspective.	YES/NO	NO	YES	2023
AIC4	Second analysis of the current status of Open Science declarations and manifestos within the member institutions and from the international perspective.	YES/NO	NO	YES	2024
AIC4	Third analysis of the current status of Open Science declarations and manifestos within the member institutions and from the international perspective.	YES/NO	NO	YES	2025
AIC4	Forth analysis of the current status of Open Science declarations and manifestos within the member institutions and from the international perspective.	YES/NO	NO	YES	2026

Annex 3: Scheme: EDUC Alliance Open Science Strategic Framework 2022-2026



Annex 4: EDUC Alliance Open Science Strategic Framework Expert Body