



# Access to Research Infrastructures: Process and Modalities

## Module 2 - Access to RIs: Services

Rosa Maria Petracca Altieri

ACTRIS Service and Access Management Unit- CNR – IMAA

19 March 2025



### IR0000032 – ITINERIS, Italian Integrated Environmental Research Infrastructures System

(D.D. n. 130/2022 - CUP B53C22002150006) Funded by EU - Next Generation EU PNRR-  
Mission 4 “Education and Research” - Component 2: “From research to business” - Investment  
3.1: “Fund for the realisation of an integrated system of research and innovation infrastructures”



Finanziato  
dall'Unione europea  
NextGenerationEU

Ministero  
dell'Università  
e della Ricerca

Italiadomani  
FONDO NAZIONALE  
DI RIFERIMENTO PER  
L'EDUCAZIONE



# Module Overview

- 🌐 Access services and Access TO services
- 🌐 Towards a definition of SERVICE in science
- 🌐 Science service types classification
- 🌐 Characterization of the RI offer of services
- 🌐 Identification and description of the different services for the Catalogue of services
- 🌐 *Hands-on session for the ITINERIS Catalogue of Services*

# Module Overview

- 🌐 Access services and Access TO services
- 🌐 Towards a definition of SERVICE in science
- 🌐 **Science service types classification**
- 🌐 **Characterization of the RI offer of services**
- 🌐 **Identification and description of the different services for the Catalogue of services**
- 🌐 ***Hands-on session for the ITINERIS Catalogue of Services***

# Services: a definition in science?

- ✗ **What:** activities that provide benefits to the recipient bringing about **a desired outcome** → **Value**
- ✗ **Who:** providers (researchers, technicians, managers, etc.)
- ✗ **Where:** facilities (fixed, mobile, online...)
- ✗ **When:** resources + providers availability
- ✗ **Why:** to respond to the needs of science users to advance knowledge and tackle societal challenges

*"A service is a means of delivering value to users by facilitating outcomes users want to achieve  
(ITIL, the British Office of Government Commerce)"*

**Units of value that can be provided, as result of a facility operation, to deliver an intended solution to a user research problem/need**

# Science services type classification

## Digital Services



Use of quality data and data products and other digital services including data documentation, compilation, archiving, preservation, traceability, citation and attribution

## Scientific Services



Use of experimental research facilities equipped with state-of-the-art instrumentation and equipment for scientific exploration and realisation of experiments

## Technical Services



Use of scientific expertise centres to ensure instrument quality, high performance measurements and methodologies, calibrations and intercomparisons, quality procedures and tools

## Innovation Services



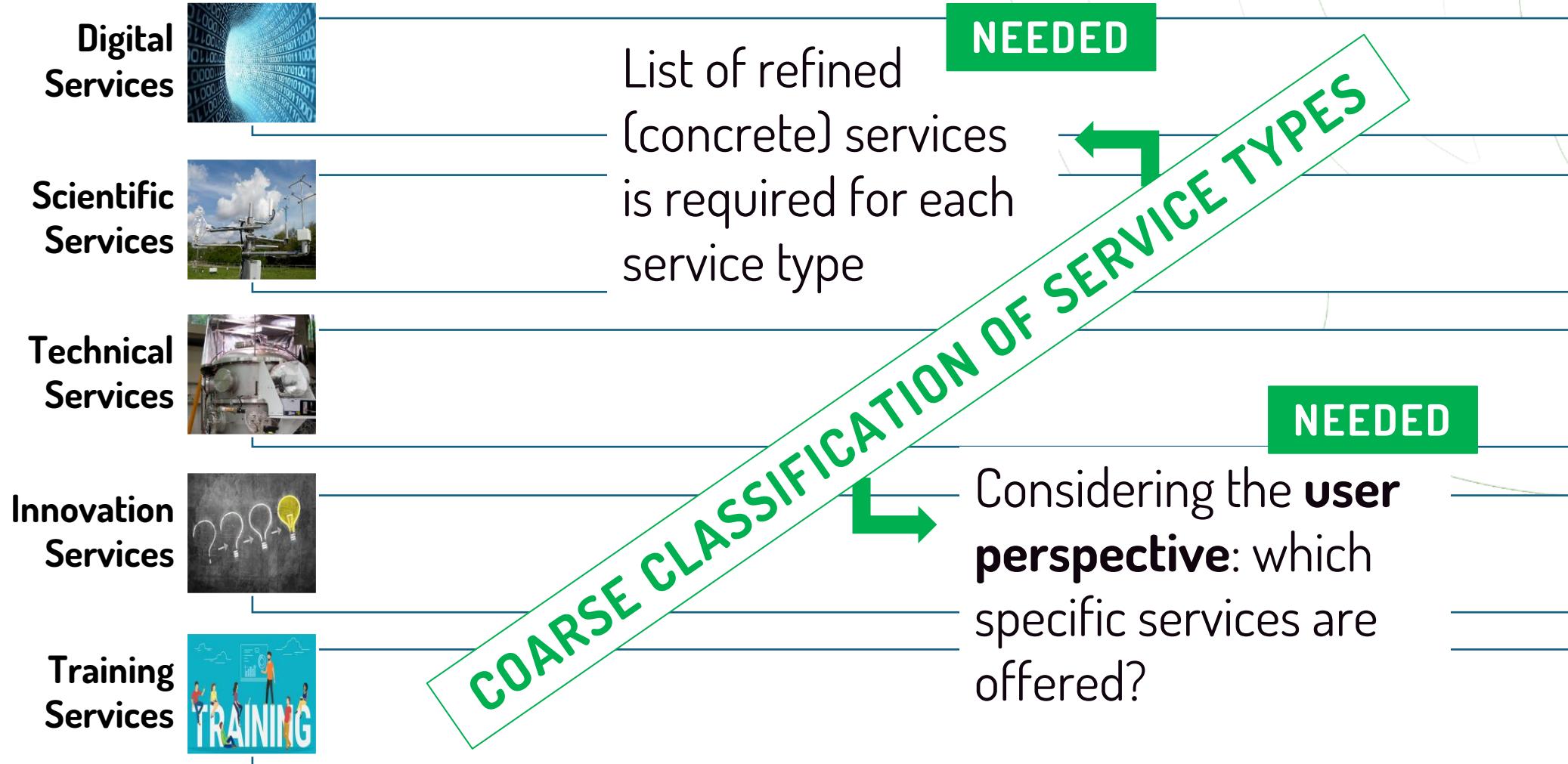
Use of scientific facilities for technological development, prototype testing, industrial or market-oriented applications including private sector use

## Training Services

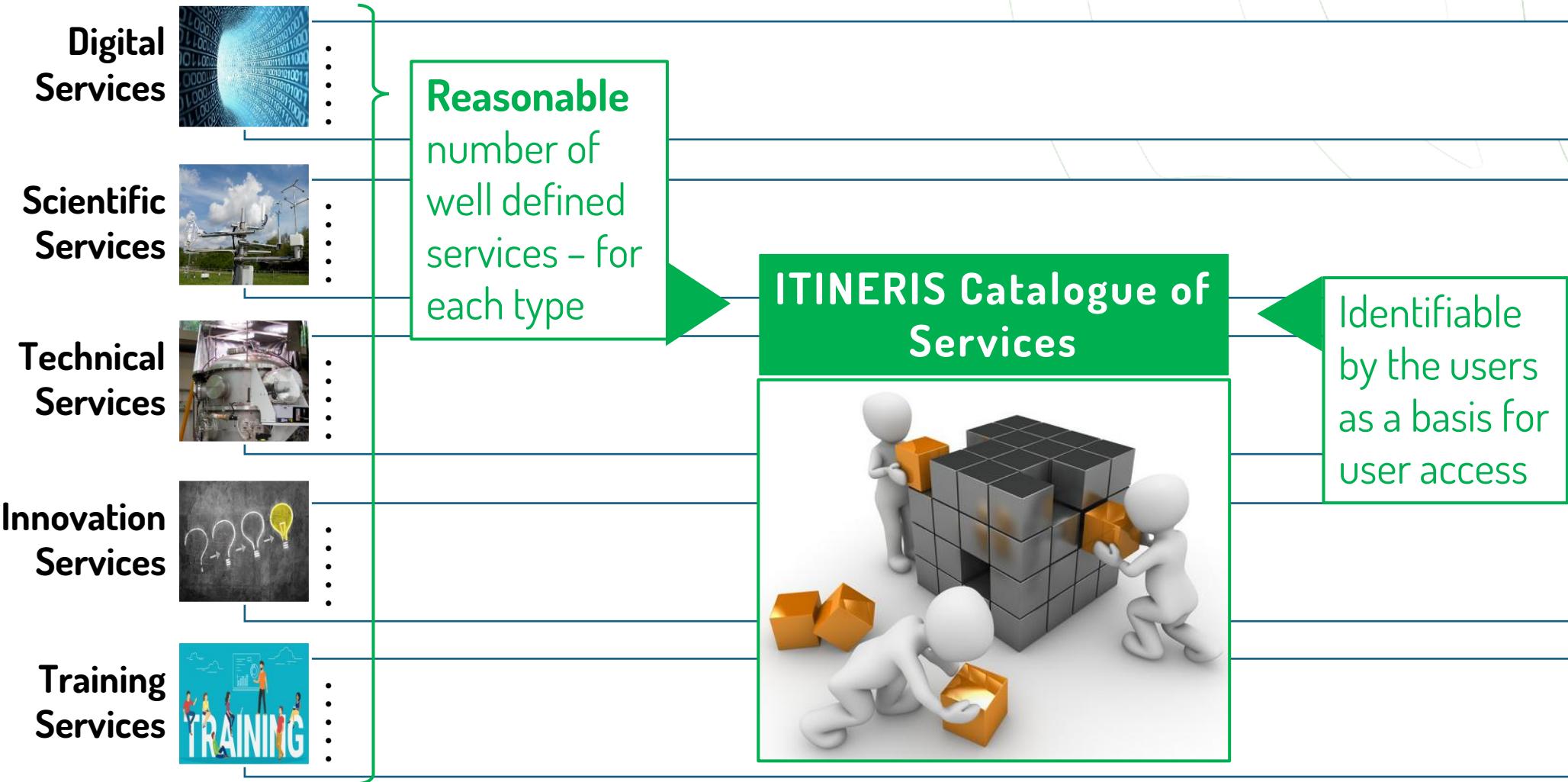


Training of scientists, new generations of researchers, and facility personnel to acquire knowledge and skills and provide good practices to exploit all essential tools for science

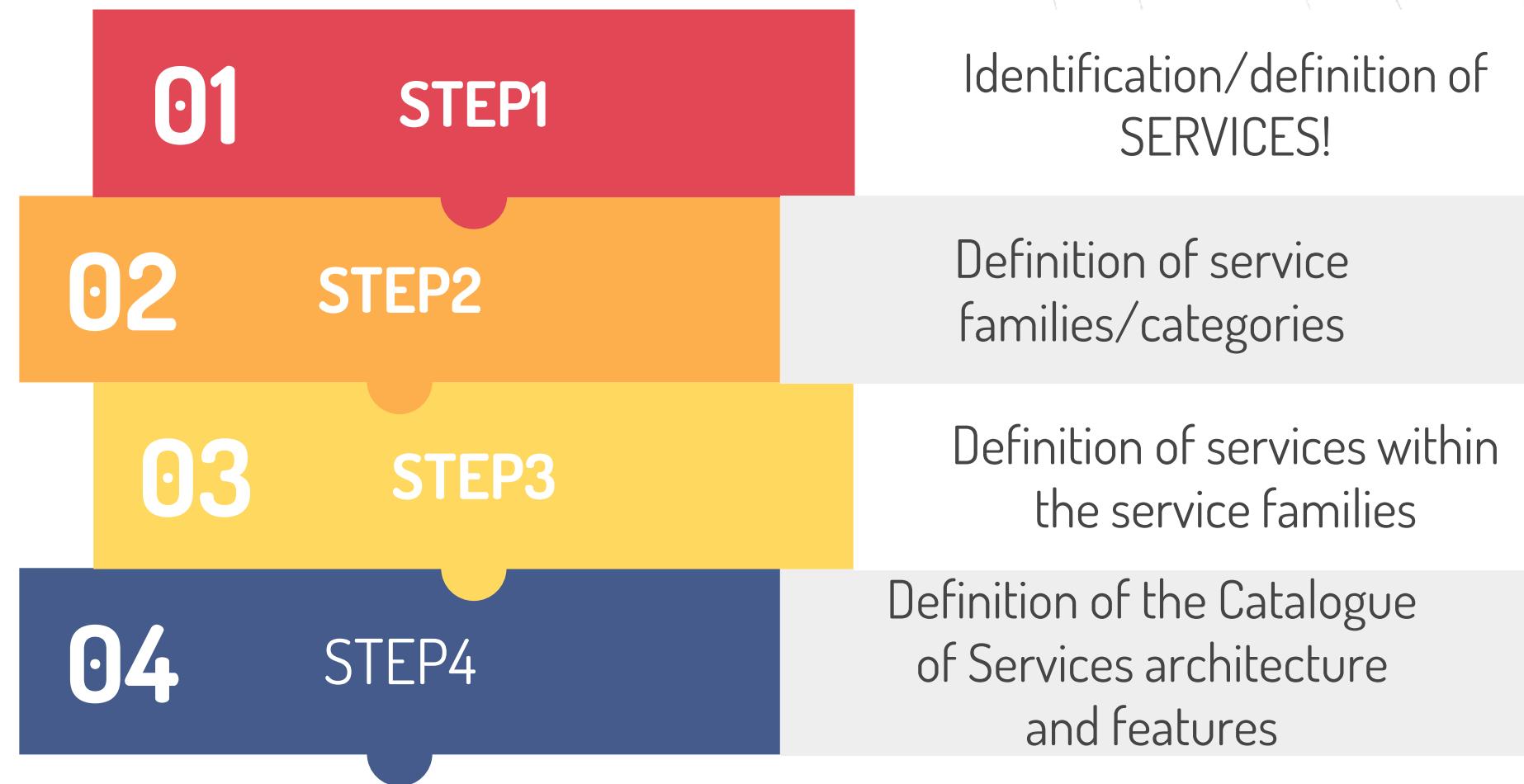
# Definition of services → Challenge



# Definition of services → Challenge



# Characterising the RIs' offer of services



# What is a catalogue of services?

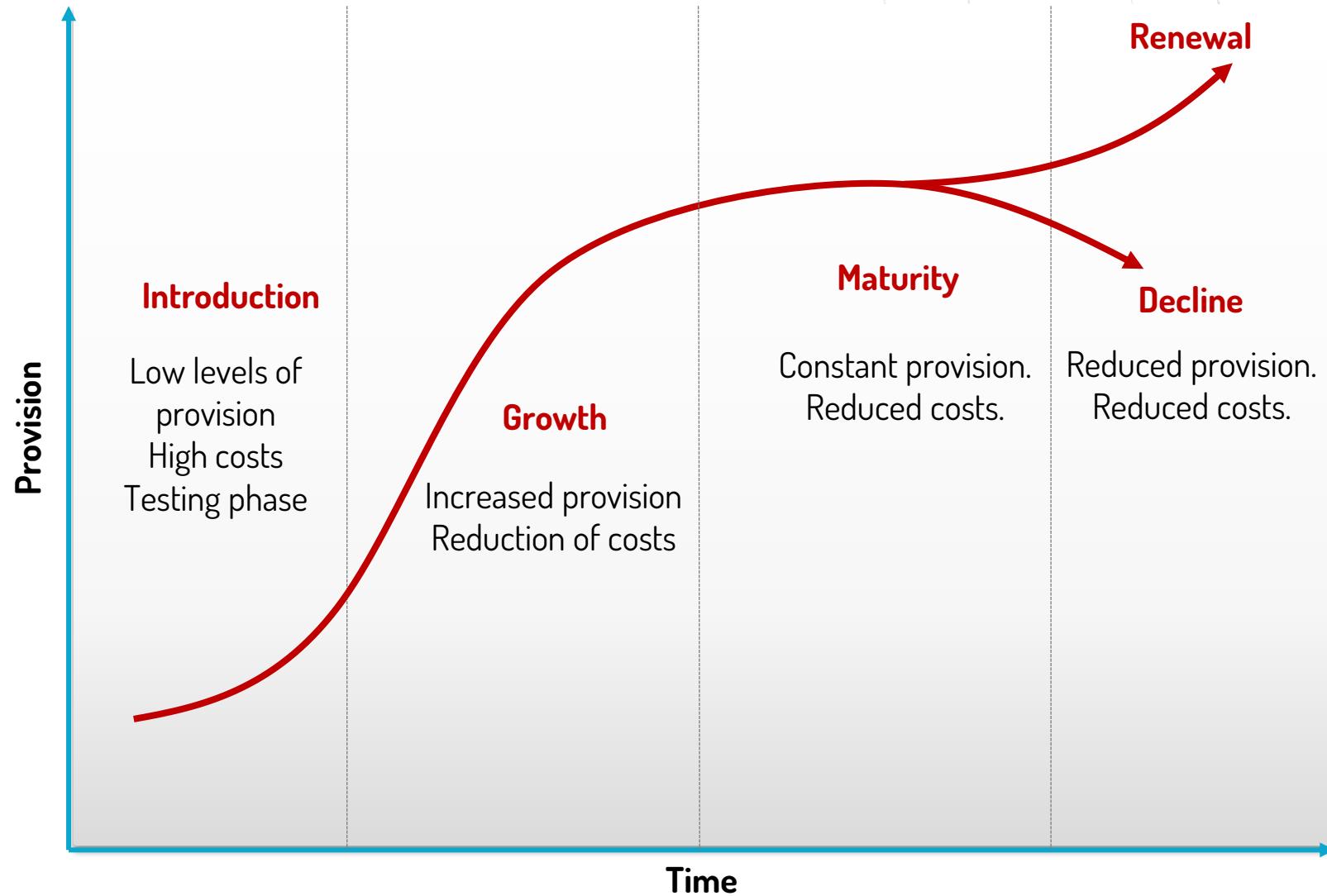
Online tool providing the user access to a digital registry to search for, view and get all relevant information about the services offered by an organization.

For IT services

For other services,  
facilities, etc.

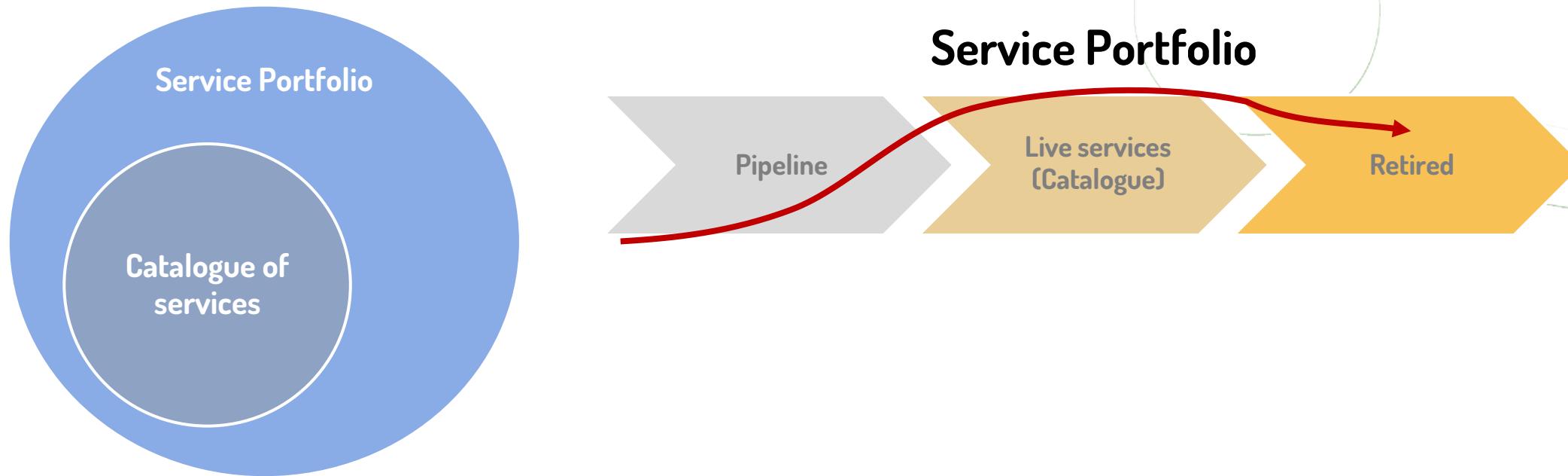
In science, it is also a **foundation for defining services** and communicating those services to the science users

# Service Life Cycle Curve



# Catalogue of services or Service Portfolio?

A service portfolio is a record of the complete life-cycle of all the services and products managed by an organization.



# Catalogue of Services: purposes

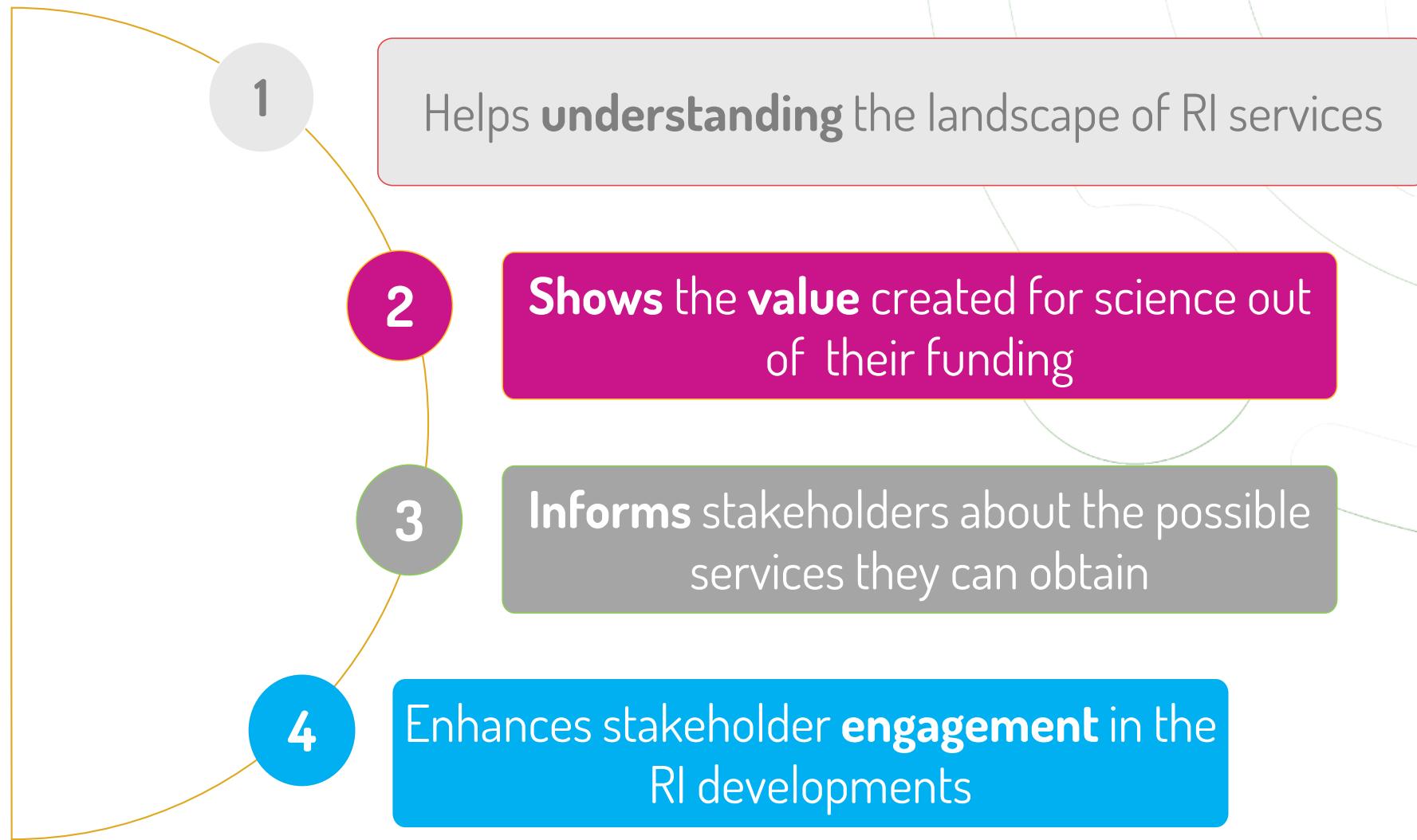
- 🌐 To ensure maximum use of all RI's resources by improving their visibility
- 🌐 To ensure that stakeholders know what value the RI creates, maintains and provides with the services for excellent science they use and support
- 🌐 To ensure that users are aware of the services available to support their research and satisfy their needs

Benefits for **providers, users, stakeholders**

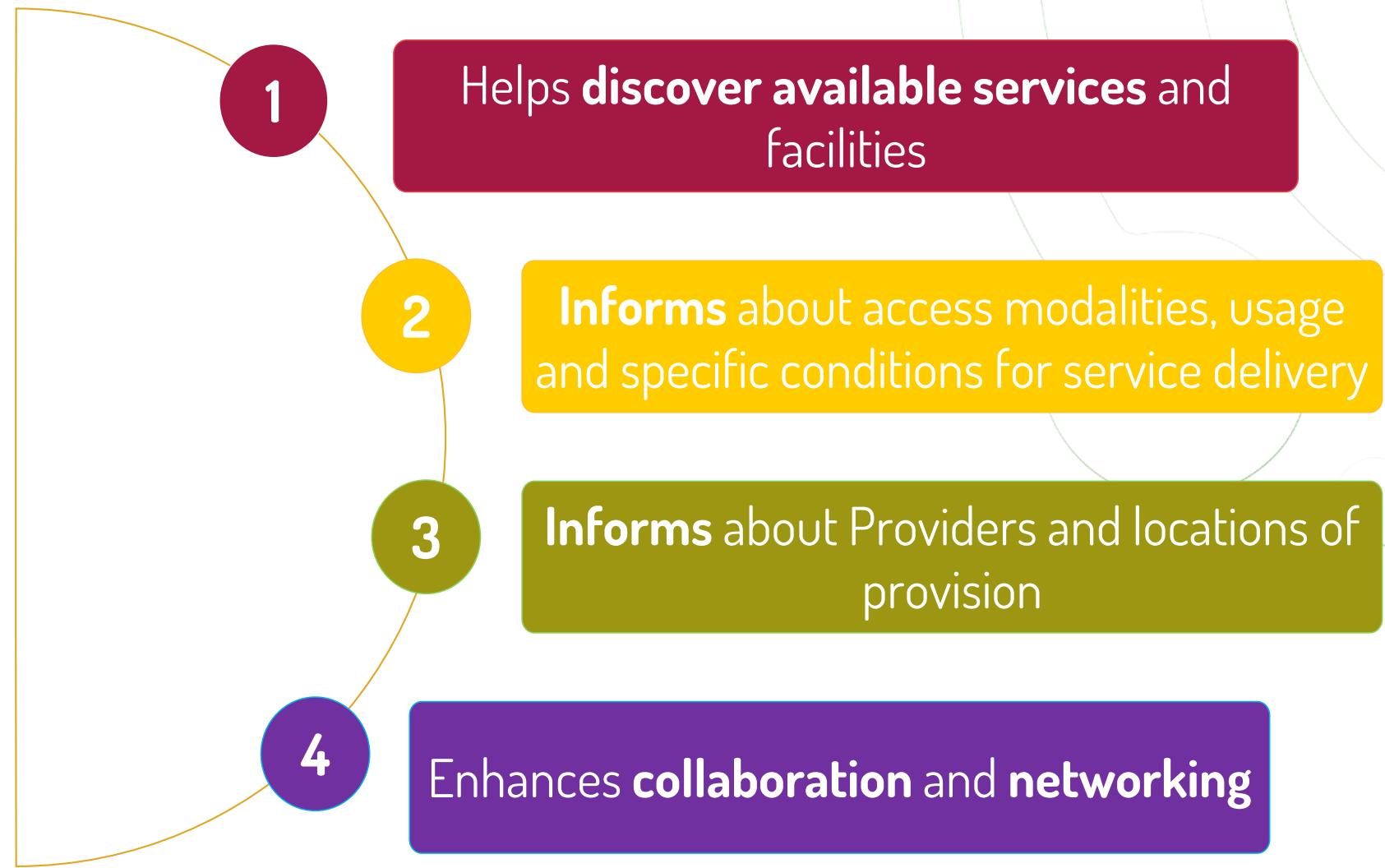
# Benefits for providers



# Benefits for Stakeholders



# Benefits for Users



# Some examples: ACTRIS catalogue



ACTRIS provides access to a large variety of high-quality services to a wide range of users and needs, for scientific, technological and innovation-oriented usage.



## ACTRIS Catalogue of Services

Find your service



### Resources

#### Provider

#### Service types

#### Research area

#### Target users

#### Access type

#### Atmosphere type

#### Countries

#### Access request

### Instrument-specific calibration @ Cluster Calibration Center (ccc)

by CAIS-ECAC 

Calibration of nano-mobility particle size spectrometers, ion spectrometers or nano-size range of ca. 1-10 nm in mobility diameter

RESEARCH AREA: Aerosol coating

### Training of operators and scientists @ Cluster Calibration Center (ccc)

by CAIS-ECAC 

Training and capacity-building (possibility to tailor the training depending on the participants, e.g. usage of high-resolution-DMA calibration setup, operation of PSA sampling of sub-10nm particles)

RESEARCH AREA: Air quality, Aerosols lifecycle, Atmospheric chemical processes, Atmospheric comp

### Performance Evaluation: aerosol chemical analyses @ EMC2

by CAIS-ECAC 

The performance of NPs measuring elemental composition of particulate matter is evaluated based on: QA/QC outputs, participation in inter-laboratory comparison and training workshops, and effective data reporting to ACTRIS DC. Service available

USERS: Academia, Businesses, Research & Innovation, Policy Makers, Monitoring Agencies, Students

RESEARCH AREA: Air quality, Climate, Ecosystems, Atmospheric chemical processes, Atmospheric dynamics, Other

Home / Instrument-specific calibration @ Cluster Calibration Center (ccc)

[Access the resources](#)

0

Links

- [Ask a question about this resource?](#)
- [Webpage](#)
- [Manual](#)

#### Facility

Central facility CAIS-ECAC

#### Research Area



Aerosol coating

#### Target Users

Academia, Businesses, Research & Innovation, Policy Makers, Monitoring Agencies, Students

#### Share



# AnaEE Catalogue of services



**Analysis and Experimentation on Ecosystems**

**ABOUT** **SERVICES** **PROJECTS** **RESOURCES**

Home

## The AnaEE-ERIC facility catalog

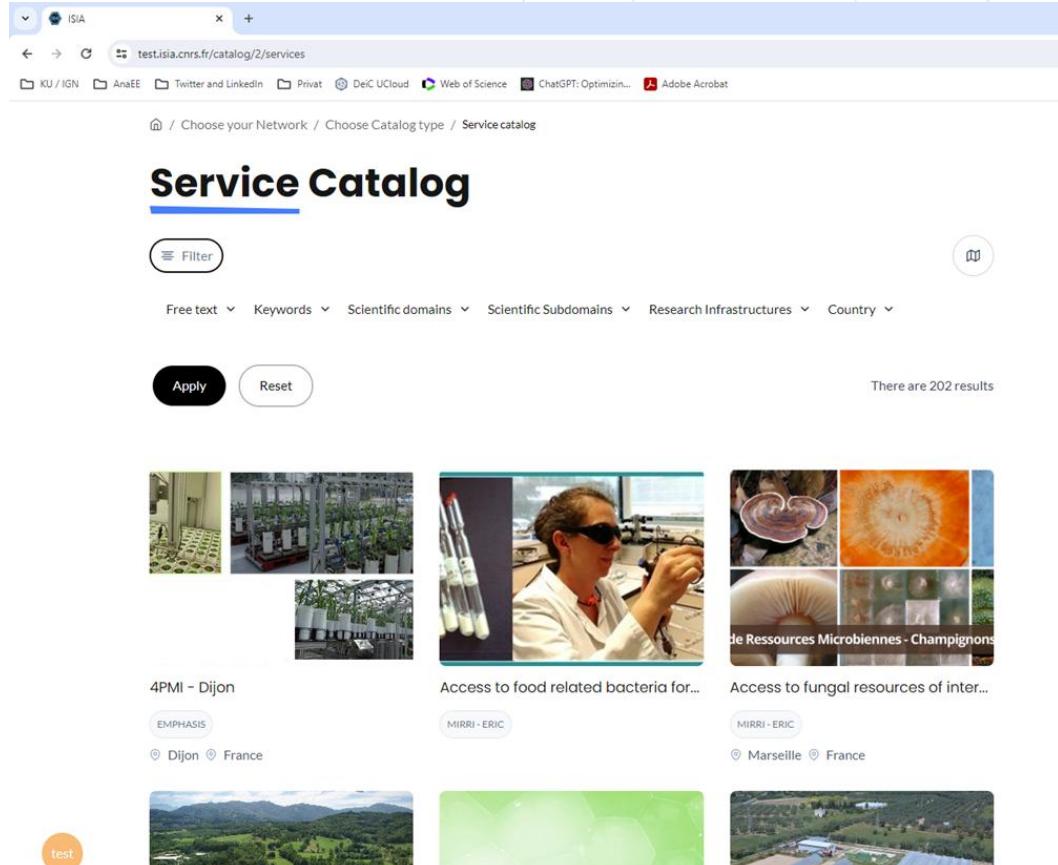
Print  Share     

**Communiqué**

**On March 1, 2023**

The new AnaEE Facility Catalog is online!

**BROWSE THE CATALOG**



ISIA / test.isia.cnrs.fr/catalog/2/services

/ Choose your Network / Choose Catalog type / Service catalog

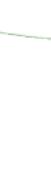
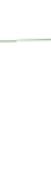
## Service Catalog

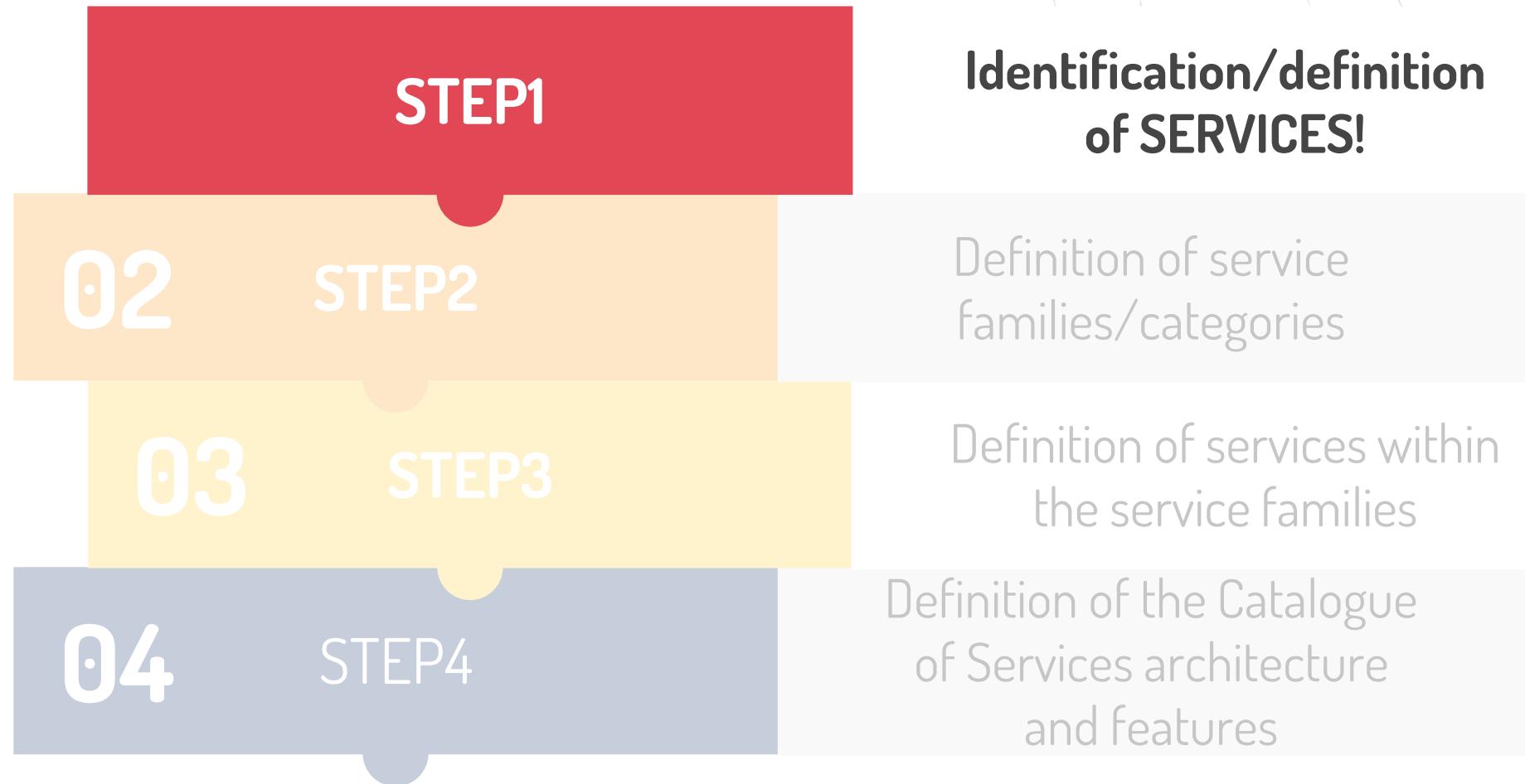
Filter

Free text  Keywords  Scientific domains  Scientific Subdomains  Research Infrastructures  Country

Apply Reset

There are 202 results

4PMI - Dijon                      <img alt="Facility image" data-bbox="37401 741 3760



# Step 1 – Service Model Canvas

USERS	PROVISION
<p><b>KEY USERS</b></p> <p><i>List the main users of your service by category. Who are the most important for you? Who requests your service more?</i></p>	<p></p> <p><b>ACCESS</b></p> <p><i>How is the service provided (through physical access, virtual access, remote access, hybrid access)? Detail the service availability.</i></p>
<p><b>SERVICE PROPOSITION</b></p> <p><i>Why would someone use the service? What value does the service bring?</i></p>	<p></p> <p><b>ACTIVITIES (main &amp; ancillary)</b></p> <p><i>Specify the physical, intellectual and human resources involved in the provision.</i></p>
<p><b>USAGE</b></p> <p><i>How frequently is the service used? Please distinguish between internal users (e.g., employees) and external users (e.g., users from other institutions/private companies/public bodies, etc.) and provide the percentage of usage for each user type.</i></p>	<p></p> <p><b>RESOURCES &amp; STAFF</b></p> <p><i>Specify the physical, intellectual and human resources involved in the provision.</i></p>

# Step 1 - Service ID

<b>Basic information</b>	a) Name of the service b) Summary description of each service c) Provider/s d) Location/s
<b>Classification information</b>	a) Research area/s (different levels) b) Geographical environment c) Type/s of service (different levels) d) Atmosphere type (ambient or controlled) e) Target users f) Keywords
<b>Maturity information</b>	Service status (beta, implementation, operational) Date of availability Provided since:
<b>Access information:</b>	Type of access Service provision procedure Estimated duration of the provision Possible fees (if any, and type of users who may be subject to fee)
<b>Support information (at facility)</b>	a) Available logistic and support services b) Training

# Two examples

## SERVICE 1 – Aerosol physico-chemical properties (ground and vertical)

TYPE OF SERVICE	Data, research, technical, innovation, training service
SERVICE DESCRIPTION	<p>Long-time observation of Physical and chemical properties of aerosols combining online and offline measurements. Ground-based measurements can be completed with vertical measurements (ceilometer, LIDAR, ...).</p> <p>In addition, the specific flight-restricted area over the station offers the possibility for UAVs, drones, and tethered balloon flights.</p> <p>The research site Melpitz can be used for research projects, measurement campaigns, intercomparison, and test facility for new instruments.</p> <p>More information at: <a href="https://www.tropos.de/en/research/projects-infrastructures-technology/coordinated-observations-and-networks/tropos-research-site-melpitz">https://www.tropos.de/en/research/projects-infrastructures-technology/coordinated-observations-and-networks/tropos-research-site-melpitz</a></p>
ATMOSPHERE TYPE	Ambient
TYPE OF ACCESS	Physical, remote
TARGET USERS	Academia, business/private sector, public sector
SERVICE STATUS	The service is available (operational and ready to be offered)
AVAILABILITY PERIOD	All year round
TIME CONSTRAINTS	None
CONTACT	Prof. Hartmut Herrmann (herrmann@tropos.de) Dr. Laurent Poulain (poulain@tropos.de)

## SERVICE 2 – Calibration of ozone analyzers at CMN-PV

LOCATION	Italy, Monte Cimone (Modena)
TYPE OF SERVICE	Technical service
SERVICE DESCRIPTION	<p>Calibration of ozone analyzers with secondary ozone calibrator. Equipment secondary ozone calibrator Thermo 49i-PS with WMO-GAW certification. Air-conditioning systems are available at the laboratories where instruments are located together with devices for protection by power surges and lightning.</p> <p>More information at <a href="http://actris-cimone.isac.cnr.it/measurement_sites/cimone">http://actris-cimone.isac.cnr.it/measurement_sites/cimone</a></p>
This service includes:	<ul style="list-style-type: none"> <li>– Administrative support for helping the users with shipping of materials (before and after the campaign).</li> <li>– Administrative support for the fulfilment of the internal procedures related with the provision access (Mt. Cimone is located in a military area).</li> <li>– Storing of the equipment at the CNR-ISAC headquarters before and after the access.</li> <li>– Technical support at the infrastructure by senior technicians, including support during installation of equipment and execution of measurements.</li> <li>– Interaction with senior atmospheric scientists for data interpretation and optimal definition of experiment strategy.</li> <li>– Shipping to the infrastructure from Bologna (not dangerous goods) for equipment with total volume &lt; 2 m3 (max: 350 kg) except than during snow season. The transport of dangerous good or larger/heavier materials which need special vehicles is NOT included in the offered services.</li> <li>– Daily transportation of max 2 people to the infrastructure (during the snow season this cannot be fully guaranteed).</li> </ul>
ATMOSPHERE TYPE	Ambient
TYPE OF ACCESS	Physical, remote
TARGET USERS	Academia, Business, Public sector
SERVICE STATUS	The service is available (operational and ready to be offered)
AVAILABILITY PERIOD	All year round, but accessibility cannot be fully guaranteed during the snow season
TIME CONSTRAINTS	Multi-day stay of external users at the "O. Vittori" observatory must be discussed and planned with CNR-ISAC. External users are allowed to access the "O. Vittori" observatory only under CNR-ISAC personnel supervision. Accessibility rules can change as a function of the evolution of the COVID-19 pandemic.
CONTACT	<a href="mailto:atmo-access@isac.cnr.it">atmo-access@isac.cnr.it</a>



# HANDS-ON EXERCISE

## DEFINITION OF SERVICES



# THANKS!

**IR0000032 – ITINERIS, Italian Integrated Environmental Research Infrastructures System**  
(D.D. n. 130/2022 - CUP B53C22002150006) Funded by EU - Next Generation EU PNRR-  
Mission 4 "Education and Research" - Component 2: "From research to business" - Investment  
3.1: "Fund for the realisation of an integrated system of research and innovation infrastructures"

