



Access to Research Infrastructures: Process and Modalities

Module 4 - Access to RIs Services

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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
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Ministero
dell'Università
e della Ricerca



Hello!

I am Rosa Maria Petracca Altieri




I am here because I.....

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Module Overview

-  Access and services definitions
-  Characterization of the RI offer of services
-  Identification and description of the different services for the Catalogue of services

Break

-  Hands-on session for the ITINERIS Catalogue of Services

Recalling the RI definition

RI are facilities, **resources** and **services** that are **used** by the research communities to conduct research and foster innovation in their fields



— Article 2 (6) of the Regulation (EU) No 1291/2013 of 11 December 2013:
‘Establishing Horizon 2020 - the Framework Programme for Research and Innovation
(2014- 2020)’

The use of the RI → ACCESS

Yes!
We're
Open!

‘Access’ refers to the legitimate and authorised **physical, remote and virtual** admission to, interactions with and **use** of Research Infrastructures and to services offered by Research Infrastructures to Users.

Article 3 (c) of the European Charter for Access to Research Infrastructures



Relevance

-  Access corroborates the RI's role in supporting the creation of science of excellence and advancing the frontiers of knowledge in various sectors.










What access?

ACCESS services

Access **TO**
resources and
services



Access TO **resources** and services

-  Equipment
-  Data
-  Expertise and know-how
-  Fields
-  Samples
-  Bio-resources
- 



Access TO resources
and **services**



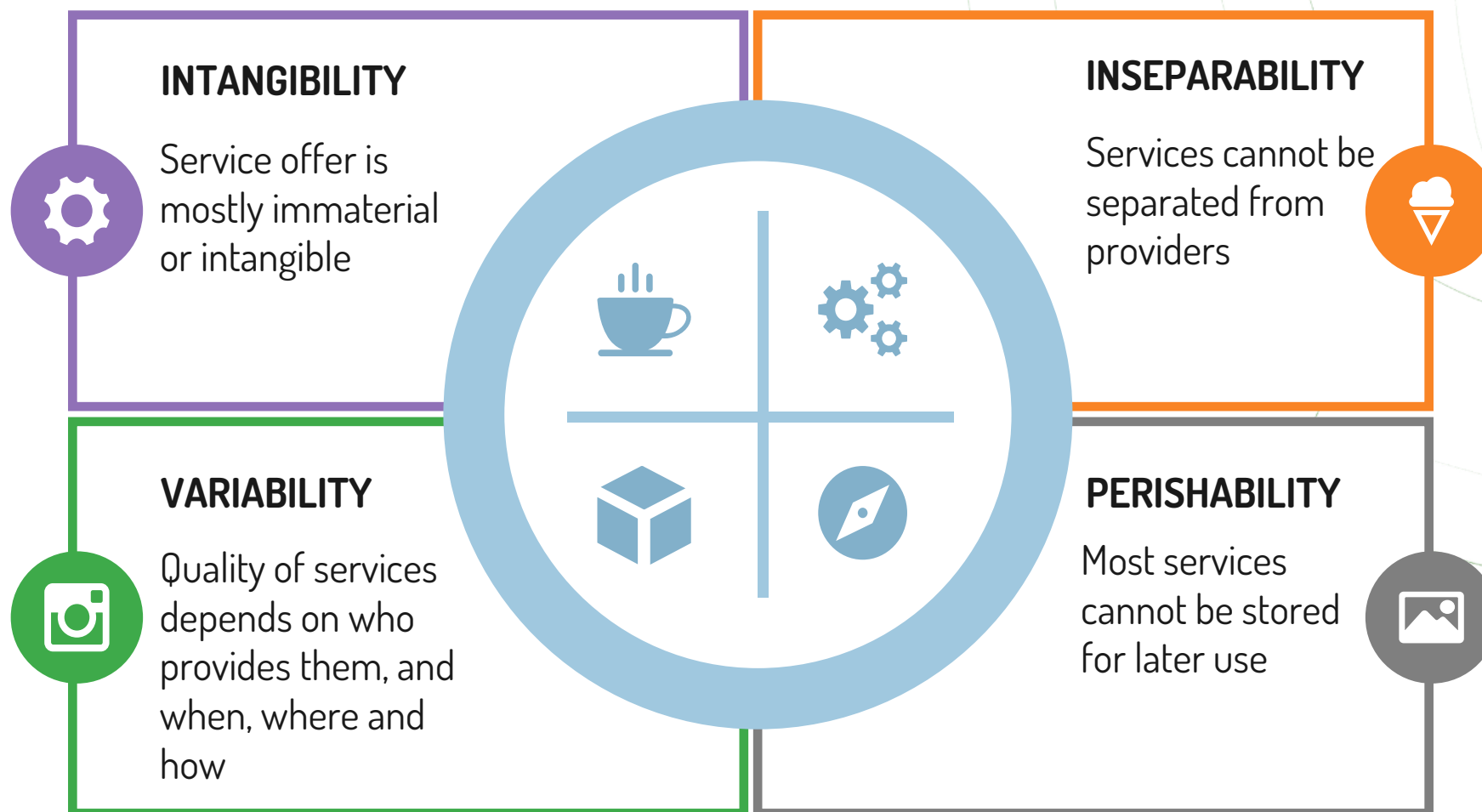
Definitions of services

“Services are non-material output of an economic system, an activity/task performed for the benefit of the recipients”
(in economics)





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

“Services are economic activities that create value and provide benefits for customers at specific times and places as a result of bringing about a desired change in – or on behalf of – the recipient of the service.”
(in service marketing; Christopher Lovelock)

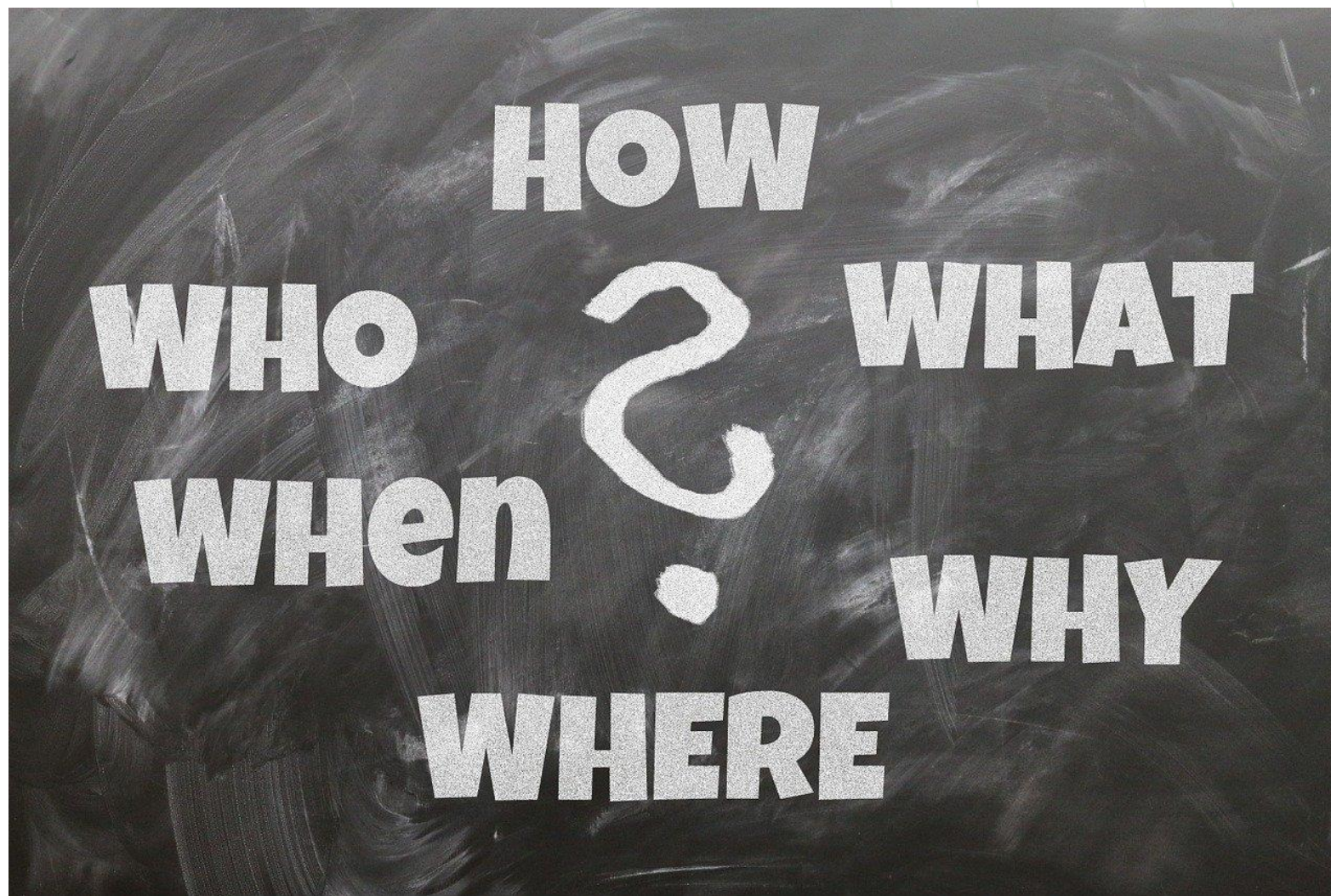
4 Services characteristics



Classification of services

-  External – Internal services
-  Self-services: services in which there will be the presence of only the users/customers (for example virtual services)
-  Inter-personal services: there is the presence of both users and providers, though not necessarily in person (education, entertainment services, etc.)
-  Remote Services – services in which there will be the in-person presence of only providers (for example lab analysis, etc.)

Services: a definition in science?



Five 'W's for services

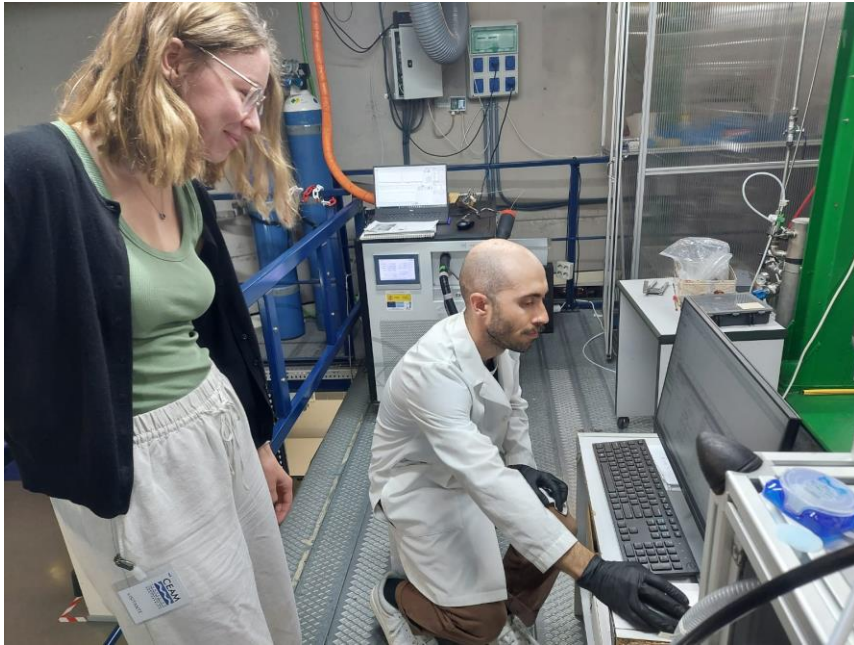
 **What:** activities that provide benefits to the recipient bringing about **a desired change/outcome**

Value



Five 'W's for services

 **Who:** providers (researchers, technicians, managers, etc.)



Five 'W's for services

 **Where:** facilities (fixed, mobile, virtual)

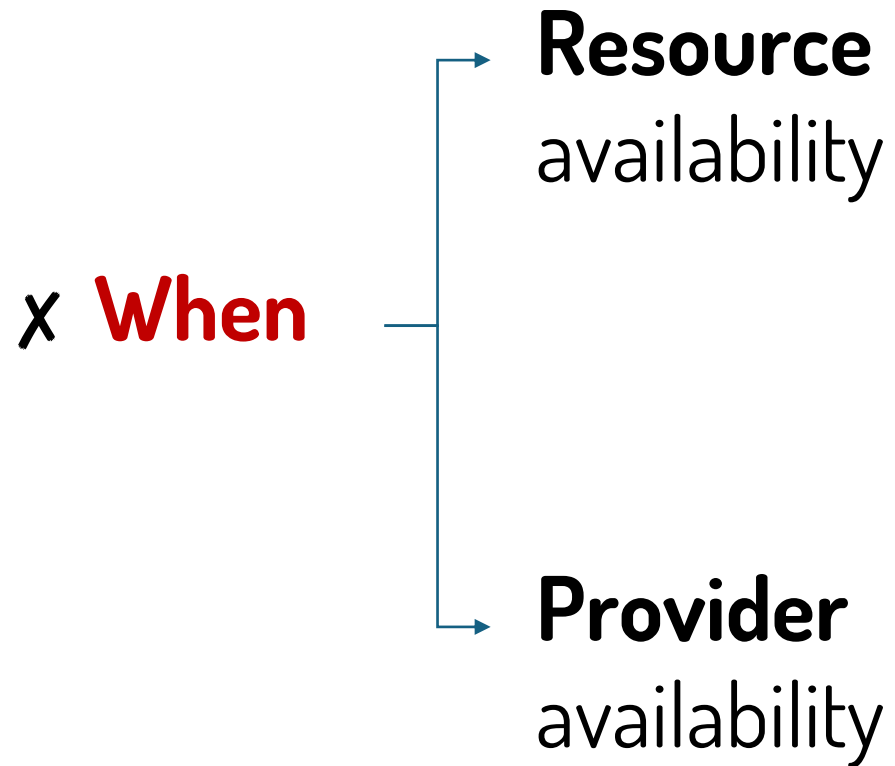


Five 'W's for services

x When → **Resource availability** →



Five 'W's for services



Five 'W's for services



- ✗ **Why:** to respond to the needs of science users to advance knowledge and tackle societal challenges

Services: a definition in science?

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

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

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



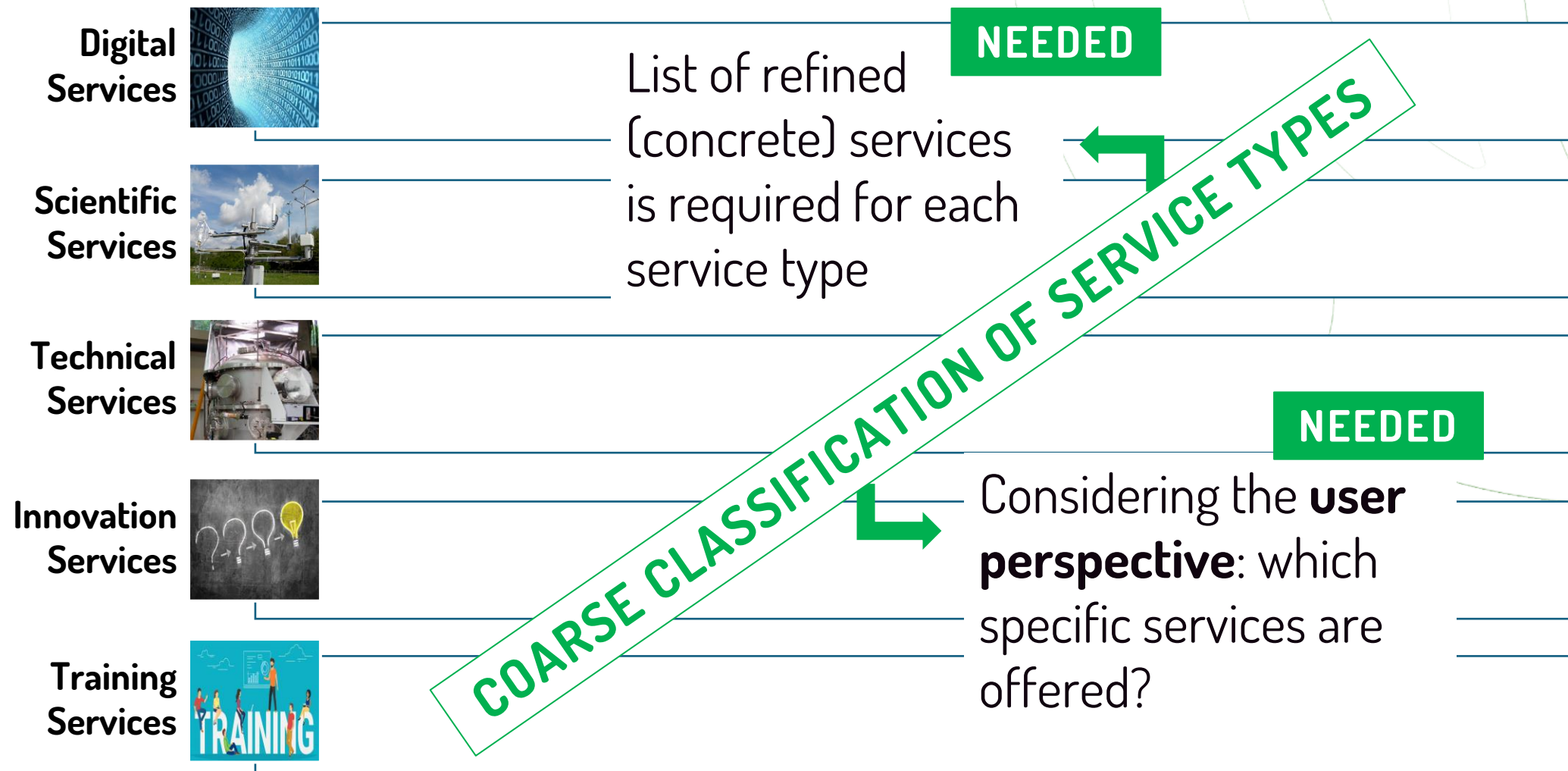
Use of scientific facilities for technological development, prototype testing, industrial or market-oriented applications including private sector use

Training Services

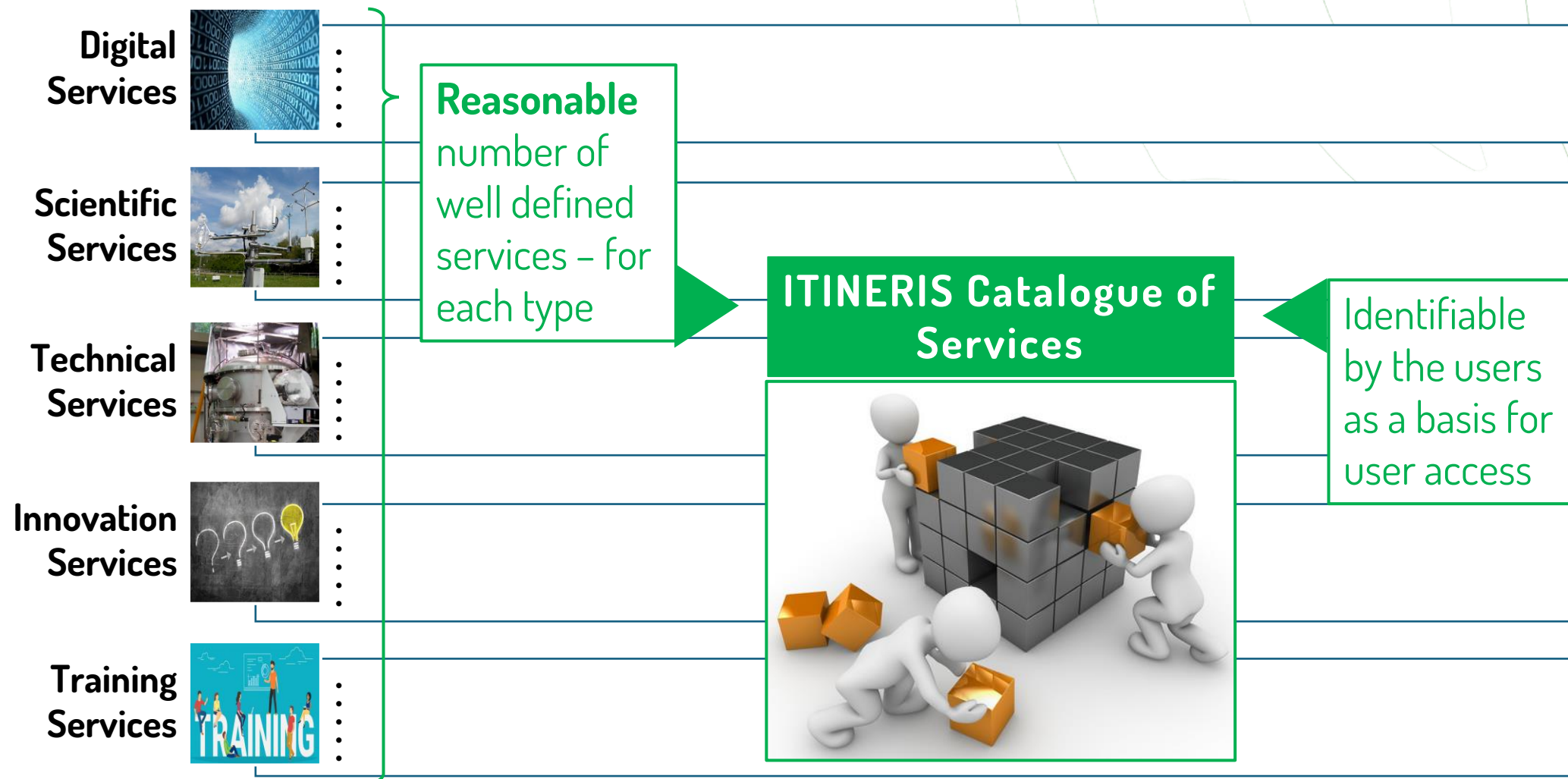


Training of scientists, new generations of researchers, and facility personnel to acquire knowledge and skills and provide good practices to exploit all essential tools for science

Definition of services → Challenge



Definition of services → Challenge



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.



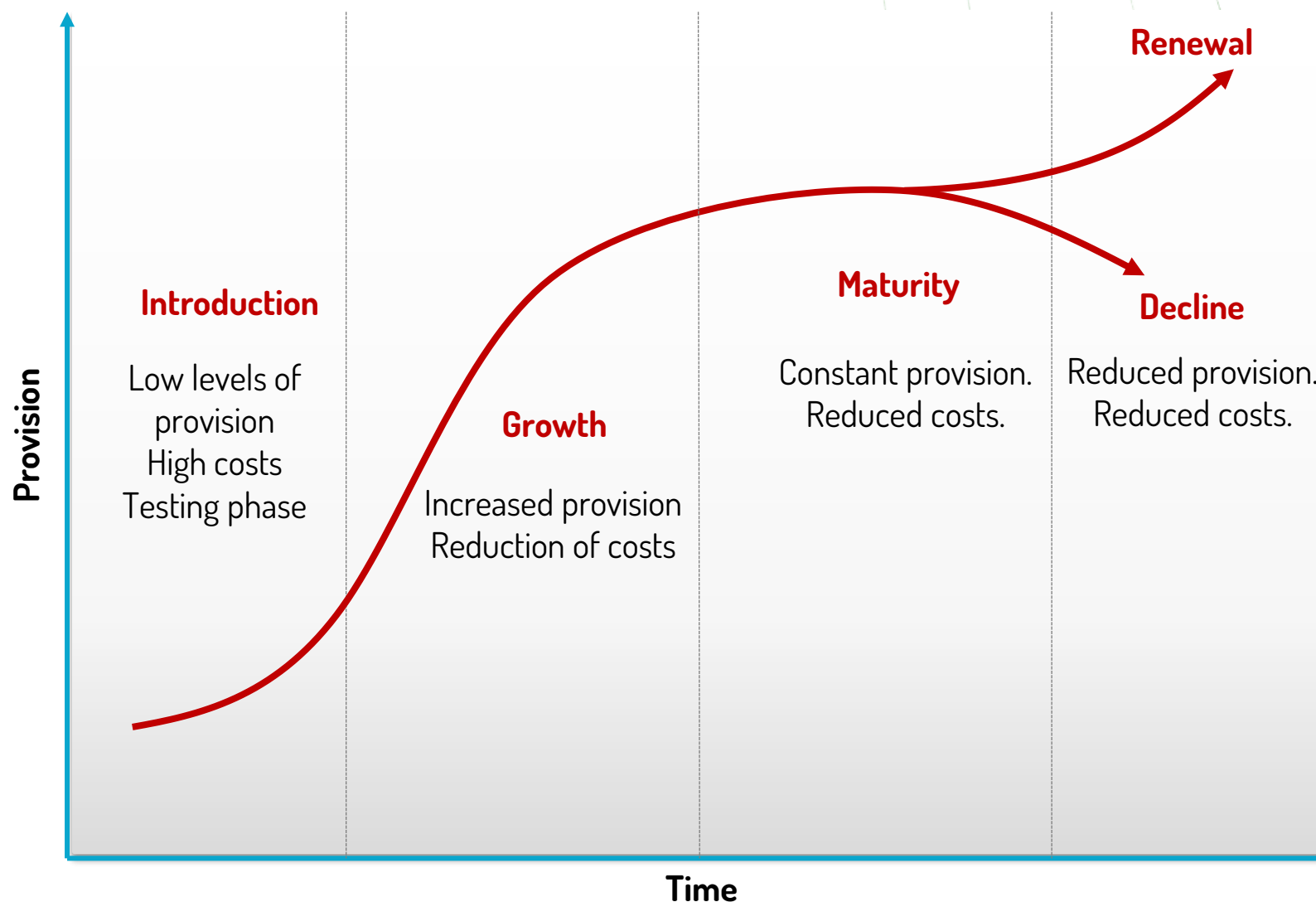
For IT services



For other services,
facilities, etc.

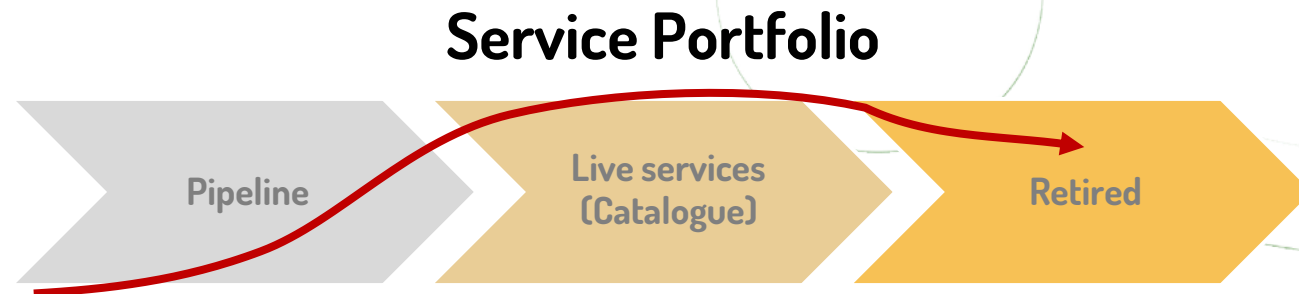
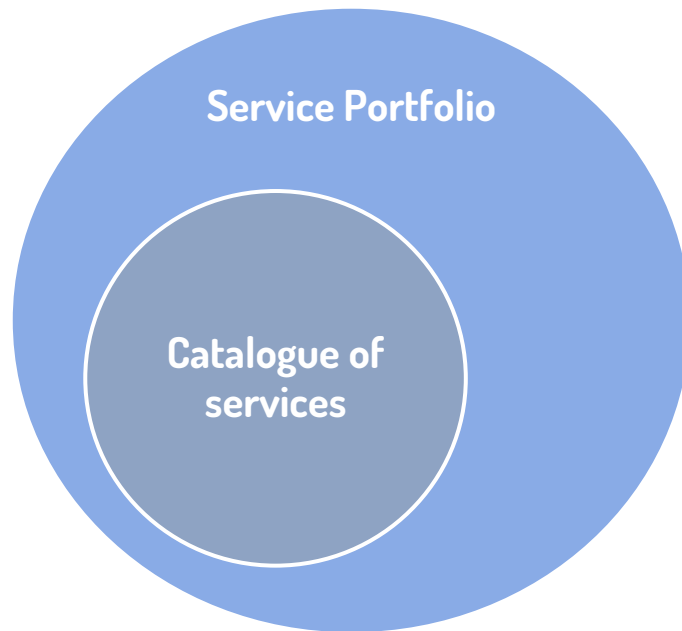
In science, it is also a **foundation for defining services** and communicating those services to the science users

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.

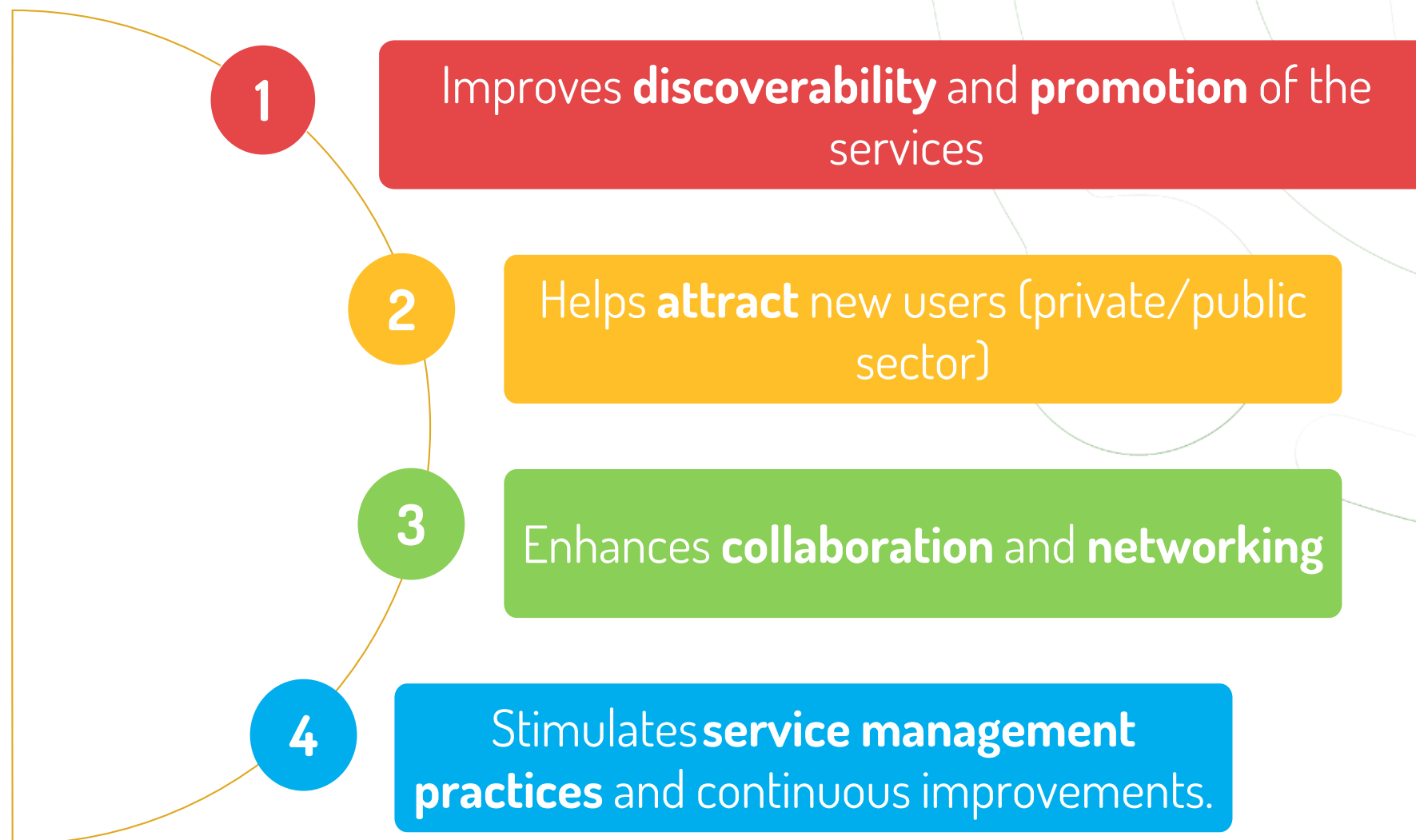


Catalogue of Services: purposes

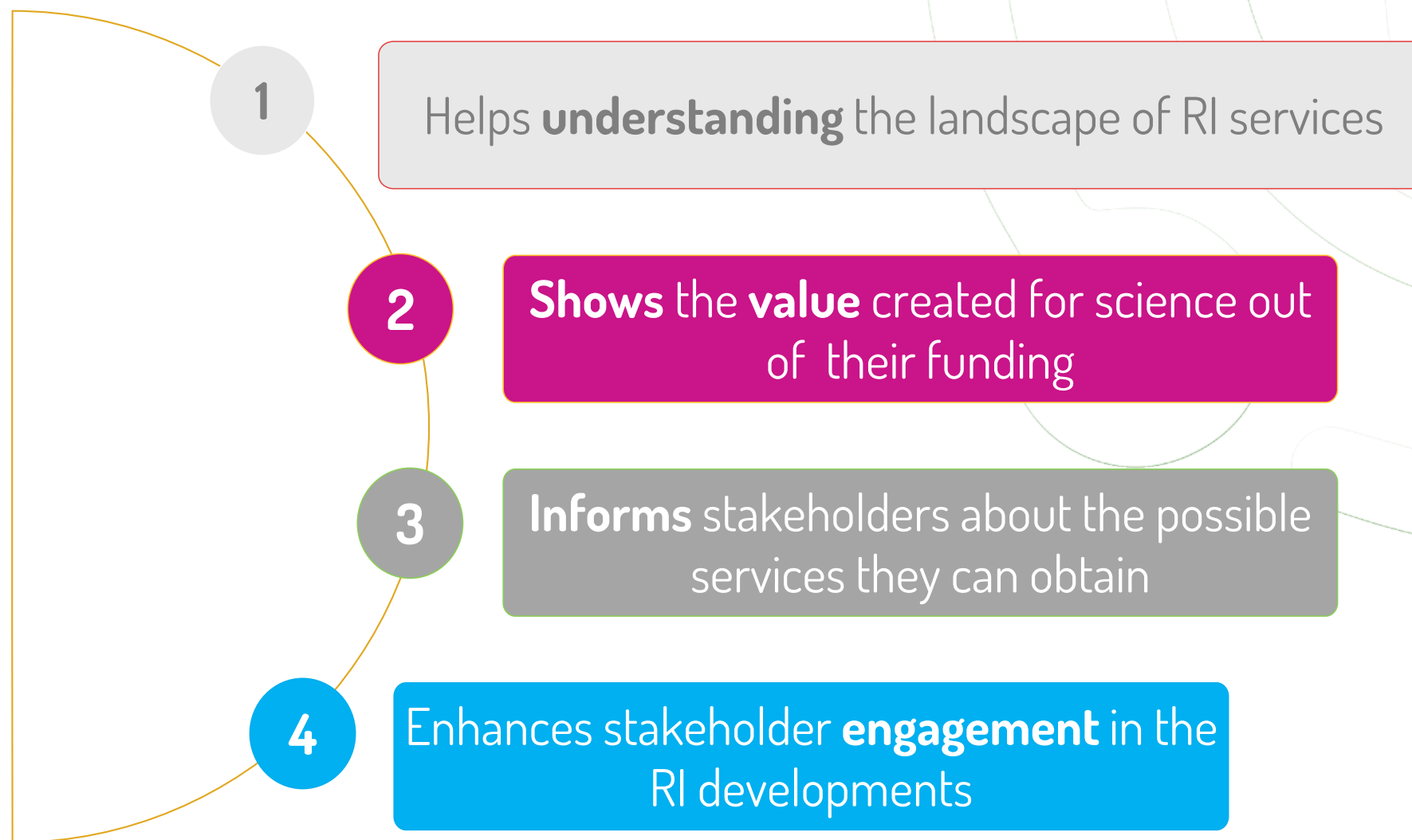
-  To ensure maximum use of all RI's resources by improving their visibility
-  To ensure that stakeholders know what value the RI creates, maintains and provides with the services for excellent science they use and support
-  To ensure that users are aware of the services available to support their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

Benefits for **providers, users, stakeholders**

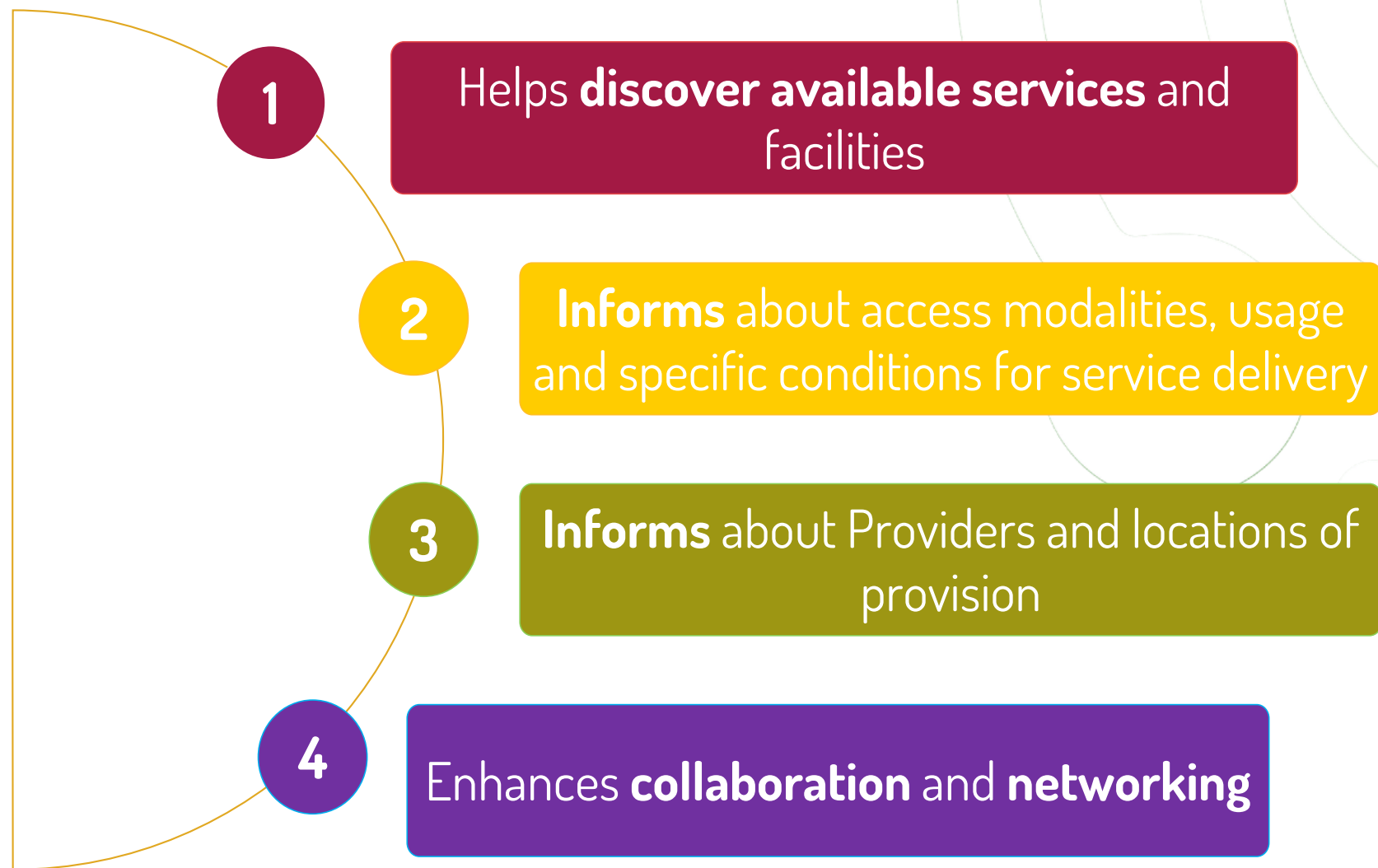
Benefits for providers



Benefits for Stakeholders



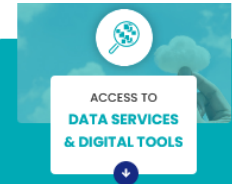
Benefits for Users



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.



ACCESS TO
DATA SERVICES
& DIGITAL TOOLS

ACCESS ACTRIS
DATA PORTAL

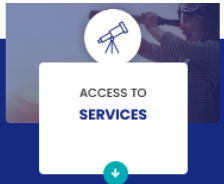
READ ACTRIS
DATA POLICY

Data services related to ACTRIS data, data products, and digital tools provided by ACTRIS Data Centre (DC) include:

- ✓ Access to long-term, quality controlled ACTRIS measurements data from both observational and exploratory platforms, data products, and digital tools, through a single entry point, completing raw data, automatic calibration and quality-assured data
- ✓ Meta data associated to the data products documenting data, data traceability and data flow, citation service, and data attribution, including version control
- ✓ Data curation service for campaigns and dedicated research projects and initiatives, external or internal to ACTRIS.

Learn more

ACTRIS Data Policy
ACTRIS Data Management Plan
ACTRIS Access Policy



ACCESS TO
SERVICES

ACTRIS offers physical and remote access to a wide number of ACTRIS resources and services

Service type Category All resources



ACTRIS Catalogue of Services

Find your service

5 Providers | 12 Research areas

Home / Catalogue Of Services / Services

Filters

Resources

Provider: 1 - 6 of 37 services

Service types

Research area

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 PSN 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 NFs 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 availat users

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

Access the resources

Overview Details

Physical

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

G Twitter YouTube Facebook

Instrument-specific calibration @ Cluster Calibration Center (CCC)

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


Provider: CAIS - 28 December 2021

About

This service is to calibrate nano-mobility particle size spectrometers, ion spectrometers or nano-CPCs in the size range of ca. 1-10 nm in mobility diameter

AnaEE Catalogue of services





Analysis and Experimentation on Ecosystems

ABOUTSERVICESPROJECTSRESOURCES

Home

The AnaEE-ERIC facility catalog

Print Share f X in

Communiqué

On March 1, 2023

The new AnaEE Facility Catalog is online!

BROWSE THE CATALOG

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

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Service Catalog

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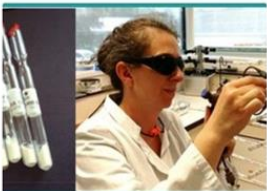
There are 202 results



4PMI - Dijon


EMPHASIS

DijonFrance



Access to food related bacteria for...


MIRRI - ERIC





Access to fungal resources of inter...

MIRRI - ERIC

MarseilleFrance



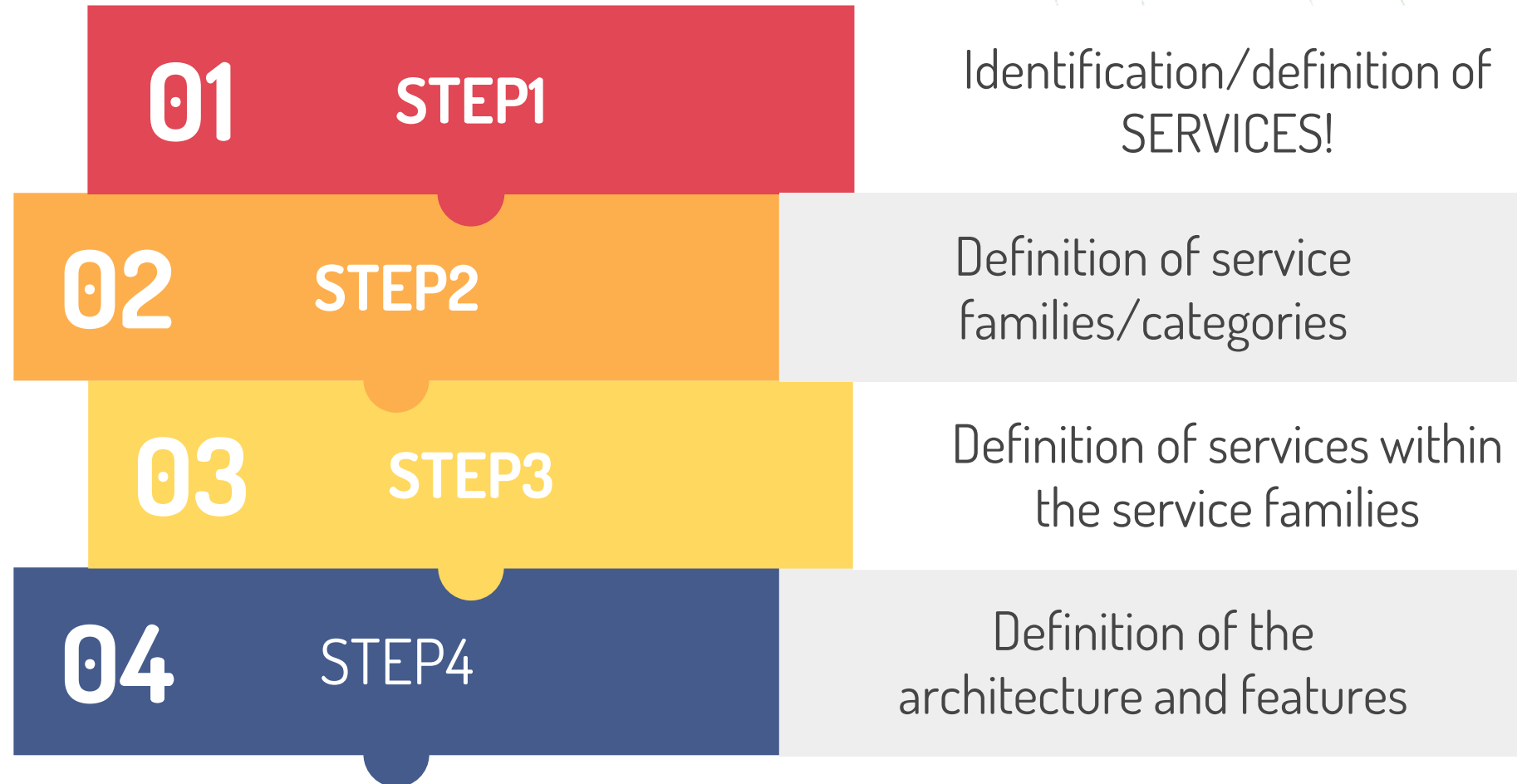




Training current RIs staff and user communities: “Access to Research Infrastructures: Process and Modalities”, Rome, 23-25/10/2024

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What are the steps for developing a Catalogue?



Step 1 - Service ID

| | |
|--|---|
| Basic information | a) Name of the service b) Summary description of each service c) Provider/s d) Location/s |
| Classification information | 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 |
| Maturity information | Service status (beta, implementation, operational) Date of availability Provided since: |
| Access information: | 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) |
| Support information (at facility) | 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: https://www.tropos.de/en/research/projects-infrastructures-technology/coordinated-observations-and-networks/tropos-research-site-melpitz</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 | <p>Prof. Hartmut Herrmann (herrmann@tropos.de)</p> <p>Dr. Laurent Poulain (poulain@tropos.de)</p> |

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. More information at http://actris-cimone.isac.cnr.it/measurement_sites/cimone</p> <p>This service includes:</p> <ul style="list-style-type: none"> – Administrative support for helping the users with shipping of materials (before and after the campaign). – Administrative support for the fulfilment of the internal procedures related with the provision access (Mt. Cimone is located in a military area). – Storing of the equipment at the CNR-ISAC headquarters before and after the access. – Technical support at the infrastructure by senior technicians, including support during installation of equipment and execution of measurements. – Interaction with senior atmospheric scientists for data interpretation and optimal definition of experiment strategy. – Shipping to the infrastructure from Bologna (not dangerous goods) for equipment with total volume < 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. – Daily transportation of max 2 people to the infrastructure (during the snow season this cannot be fully guaranteed). |
| 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 | atmo-access@isac.cnr.it |

HANDS-ON EXERCISE

DEFINITION OF SERVICES

Describe your own service → Instructions

Total time: 40 minutes

Background: In this exercise, you have to create a service description that follows a basic “Resource Profile” The description should provide answers to all three of the questions What? For whom? & Why use? – all contained in a text that should not exceed **1000 characters**.

Tips: Select a service to work with: ideally, this will be an operational service that your organisation is planning to onboard to the ITINERIS Catalogue. It is also fine to select a service that is still under development. What is important is that you are reasonably familiar with it.

Your task is to produce a concise text that describes a service in a way that potential end users can quickly judge whether they can benefit from using the service.

Step 1 – Keywords / Step 2 – Sentences

Define important keywords & bullet points for each question

| Questions | Your keywords & bullet points |
|--|-------------------------------|
| a) what the resource does, what functionality it provides and activities it enables to perform | |
| b) the primary benefits or value delivered by the service/resource to its users | |
| c) the primary users of the service/resource (e.g., researchers, students, industry professionals)? Communities or groups most likely to benefit from it. | |

Formulate 2-3 sentences for each question

| Questions | Your short sentences |
|--|----------------------|
| a) what the resource does, what functionality it provides and activities it enables to perform | |
| b) the primary benefits or value delivered by the service/resource to its users | |
| c) the primary users of the service/resource (e.g., researchers, students, industry professionals)? Communities or groups most likely to benefit from it. | |

Step 3 - Description

Name: Intercomparison of Lidar systems at CNR Atmospheric Observatory

URL: http://www.ciao.imaa.cnr.it/index.php?option=com_content&view=article&id=24&Itemid=157

This research/technical service consists in the direct intercomparison of lidar systems with the ACTRIS lidar reference system operating at the CNR Observatory, to ensure quality of measurements and data. At present it is able to provide aerosol backscatter at 1064, 532 and 355 nm, extinction at 532 and 355 nm, depolarization measurements at 532. In the future, the new reference lidar system will also be able to provide depolarization measurements at 1064 and 355 nm, and water vapor mixing ratio. The intercomparison checks the instrumental and technical performances of the lidar system in terms of range corrected signals, including several QA tests and correction procedures like trigger delay, first range bin, telecover, Rayleigh fit test, depolarization calibration, dead-time corrections.

Target users come from Academia, Private sector and public sector. They can have physical access to the service and the facility (also participating in the campaigns), or remotely, sending their instruments for calibration at the Observatory.



THANKS!

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