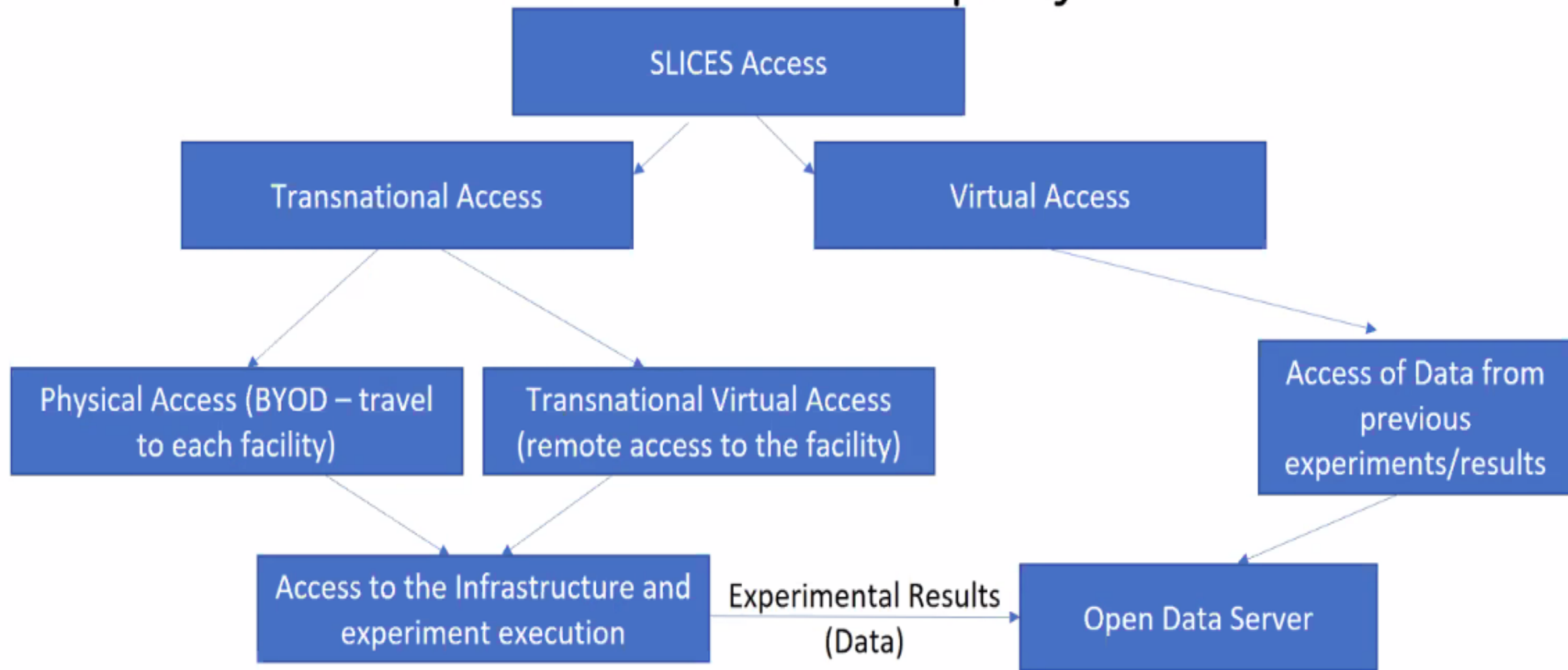


# Transnational and virtual access of SLICES infrastructures and connected long mobility

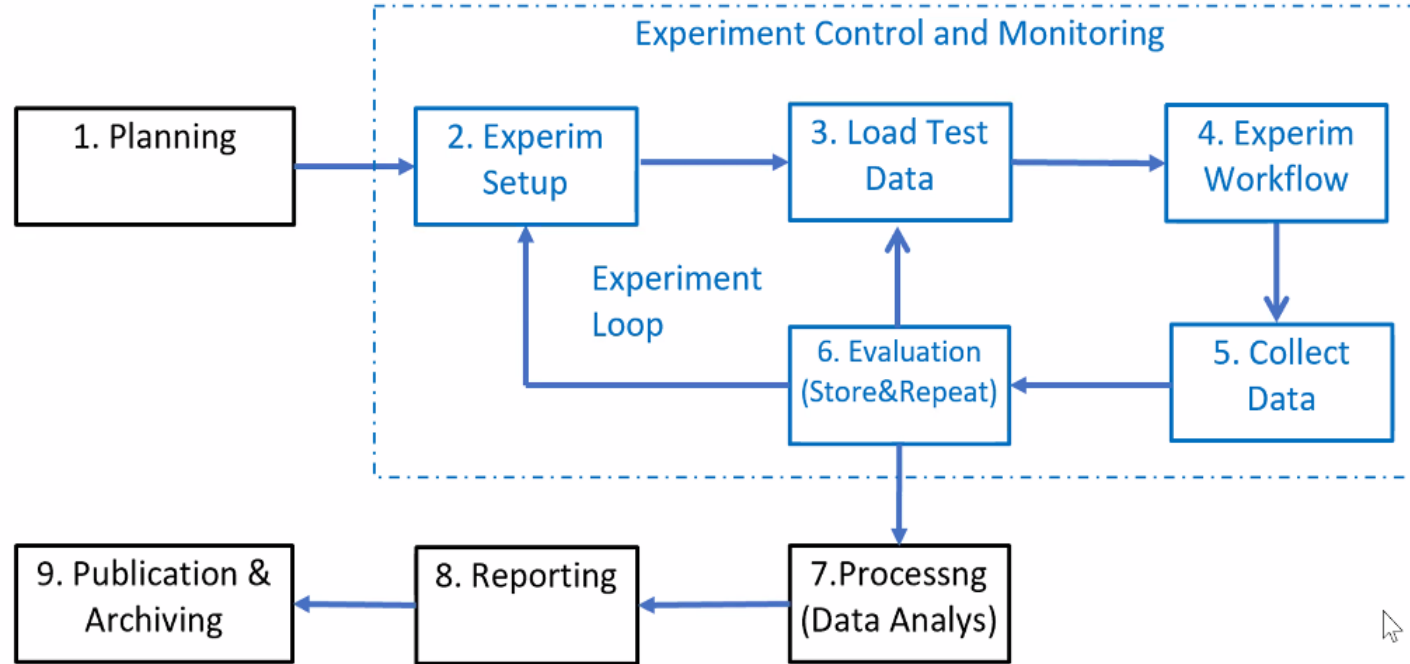
Peter Kacsuk – SZTAKI

[kacsuk@sztaki.hu](mailto:kacsuk@sztaki.hu)

# Definition of Accesses in the project



# Experiment Workflow and Stages



SLICES Data Management Infrastructure (supporting full research lifecycle)

## Experimental research stages

1. Experiment Planning
2. Experiment setup, Equipment configuration
3. Load (test) data
4. Execute workflow
5. Collect data
- 6. Evaluate and re-run experiment if needed**
7. Process/analyse data
8. Produce report
9. Archive/publish data

# Virtual Access

- Based on data stored in SLICES data repository
- E.g. real-time data of experiments can be stored
- Stored data can be used as input for simulations
- I.e., stored data can replace real-time data collected from physical resources
- You do not have to access and use the physical infrastructures if you have data representing the work of the physical infrastructures

# Concrete example

n cars in **physical**  
experiment

- In SZTAKI we have an autonomous car driving test laboratory where some physical cars run in a small experimental road.
- Someone can do a **remote experiment** where **n cars** are **really** run on the experimental road and in the meantime their parameters (location, velocity, acceleration, etc.) are collected as data and stored in a data repository with metadata annotation.



# Concrete example

- If later, someone else would like to run a new experiment with **n+1 cars** it is not necessary to do physical experiment remotely. It is enough to do **virtual experiment** by using the data collected during the physical movement of the n cars in the physical experiment
- The experimenter can simulate what happens if we place a new car among those n cars and test how to control the new car to avoid the collision with the other n cars.

n cars in **virtual experiment**



**+1 car**

# Where to collect and publish VA data?

- Data collected on the SLICES facilities (e.g. by a previous projects) can be found at the SLICES CKAN repository
- CKAN user guide: The user guide for CKAN is available here: <https://docs.ckan.org/en/2.9/user-guide.html>
- Access of CKAN : You can access the CKAN server here:  
URL: <http://ckan.iotlab.eu/user/login>  
User: slices  
Password:



The screenshot shows the login page for the CKAN server at IoT Lab. The page has a dark teal header with the IoT Lab logo and the tagline "Crowdsource The Future". Navigation links for "Datasets", "Organizations", "Groups", and "About" are visible, along with a search bar. The main content area is white and contains a "Login" form. On the left side of the form, there are links for "Need an Account?", "Forgotten your password?", and "Forgot your password?". The "Login" form includes fields for "Username:" and "Password:", a "Remember me" checkbox, and a "Login" button.

# Available mobility grants

- Short mobility (up to 3000 Euros)
- Long mobility (up to 6000 Euros)
- TA application connected mobility (up to 6000 Euros)



# Short mobility

- The goal is knowledge transfer
- It targets members of the consortium who want to visit SLICES-SC facilities in other countries for knowledge and experience transfer.
- Applicants will
  - access the equipment, the facilities and the laboratories
  - get the required technical and scientific assistance to learn and use the infrastructure.
- The expected duration of the visit is limited to **one week**, and the maximum reimbursement for travel costs and related subsistence is **3.000 Euros**.

# Long mobility: mobility for Micro Projects

- This specific mobility programme targets
  - members of the consortium,
  - as well as researchers not affiliated with any of the consortium partners, who want to use SLICES-SC facilities **in other countries** to conduct their experimentation.
- Typically, the visit will be organised into two stages.
  - **Stage 1**: applicants will access the RI equipment and facilities, and they will also be offered with the required technical and scientific assistance to learn and use the infrastructure.
  - **Stage 2**: applicants will gain full access to the related facilities for all the duration required to complete their planned experimentation and will receive support from the local researchers and staff member to implement, execute and collect the results of the experiments.
- The expected duration of the visit is **up to four weeks**, and the maximum reimbursement for travel costs and related subsistence is **6.000 Euros**.
- It is possible to split the mobility programme into two separate visits:
  - the first one to perform the activities of stage 1,
  - the second one to carry out the activities of stage 2.

# Application for transnational access that can be linked with long mobility

- Scientists and industrial researchers can submit TA applications
- The evaluation of the proposals will be based upon the information provided in the submitted application form
- The application form should be correct, sufficient and adequate for this purpose
- It should take into consideration the outlined evaluation criteria
- To achieve these points SLICES-SC provides an application template

# Post-access requirements

- After completing the experiment the User Group leader should provide an **experiment feedback report**
- All the data collected during the experiment should be stored in the SLICES-SC **Experiment Results Repository (SLICES CKAN repository)** and should be made open and available for other researchers.

# Where to collect and publish VA data?

- Data collected on the SLICES facilities (e.g. by a previous projects) can be found at the SLICES CKAN repository
- CKAN user guide: The user guide for CKAN is available here: <https://docs.ckan.org/en/2.9/user-guide.html>
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# Application for physical access

- The application must explicitly indicate if physical access is required for the experiment.
- If physical access to the facility is requested, users shall abide by the normal working practices, working hours, and health and safety regulations of the Infrastructure while present on the site.
- Travel grant for 1-week or 2-week physical accesses can be requested up to 6000 Euros. If such grant is needed it must be indicated in the application.
- If the TA application is accepted, then automatically the required travel cost is granted.

# Application template

## Section A - Project Summary

Summary of the proposed work.

## Section B – Detailed Description and Expected results

Suggested sections include:

1. Concept and objectives;
2. Business impact;
3. State of the Art;
4. Methodology and associated work plan.

## Section C – Requested facilities

What SLICES-SC facilities will be used for the experiment.

# Application template

## Section D - Background and qualifications

An overview of the applicants' scientific activities, qualifications, and technical expertise in order to judge their ability to carry out the experiment.

## Section E – Expected feedback to SLICES-SC

## Section F – Future plans

## Section G – Financial issues

*Describe if your proposal require travel grants for executing the experiment with physical presence in the specific location. Include the costs up to 6000 Euros (travel and subsistence might be needed for travelling to the facility).*

Overall max. 8 pages



# Section E – Expected feedback to SLICES-SC

- Obligatory
  - Declare that
    - you are permitted to disseminate the experiment results and you will disseminate it.
    - Upon the request of SLICES-SC **you will present your results on an online dissemination event.**
  - Declare that you will provide feedback on your experiment by filling in the **Experiment Feedback Form.**
  - Declare that you will upload the experiment results to the SLICES-SC **Experiment Results Repository.**
- Optional:
  - Give the number of scientific publications you plan and their place (conference name, journal name (D1, Q1, etc.), etc.).

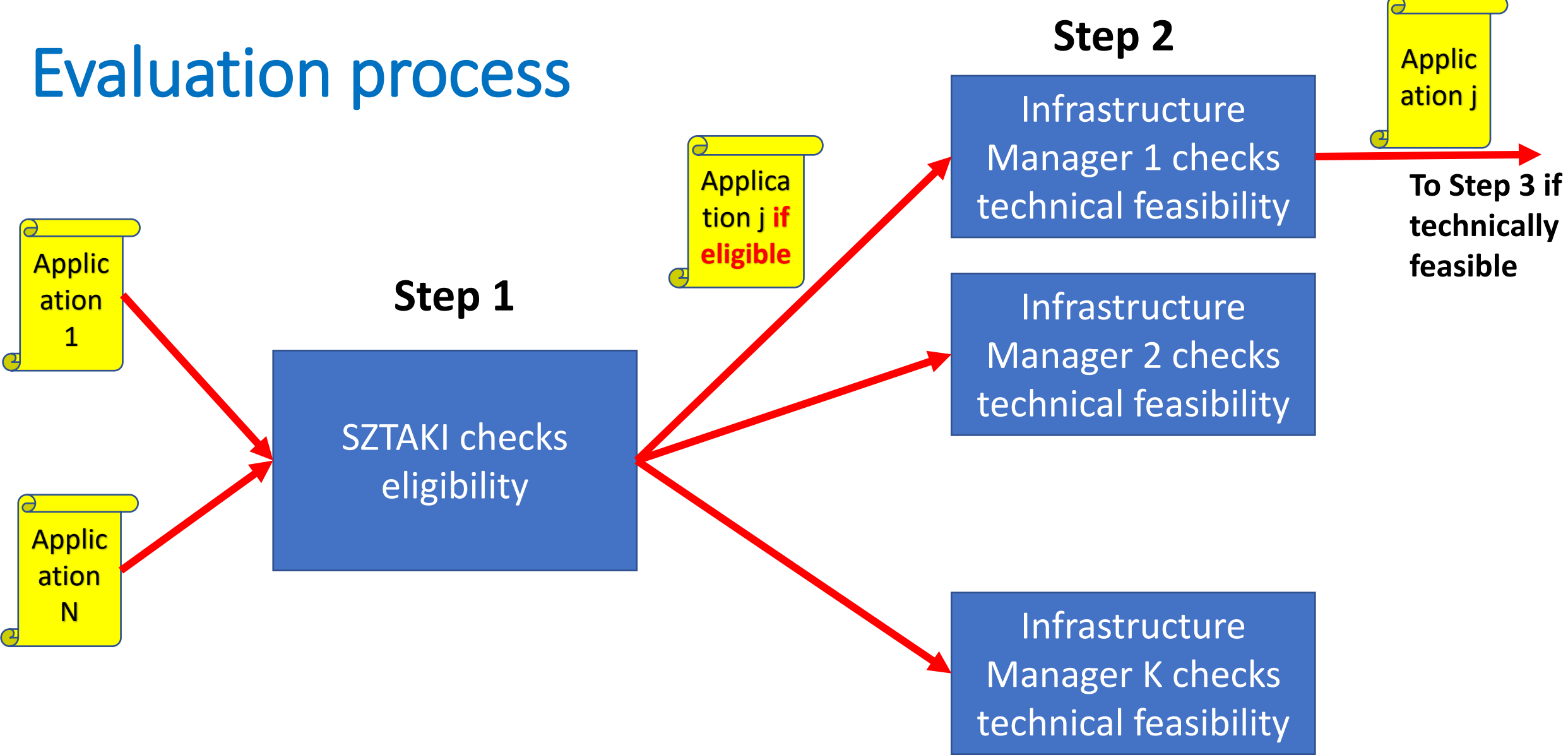
# Open Calls for transnational access (TA)

- SLICES-SC organizes open calls to provide TA
- Objective of the TA Open Call
  - to offer to the users **free-of-charge access** to the SLICES RIs
  - TA is not limited to a single RI, **large experiments can access to several interconnected SLICES RIs** at the same time
- An **evaluation procedure** was set up due
  - to the amount of access available for each facility
  - to the staff capacity to support the users and their experiments
  - to the goal to ensure high quality and excellence in line with the SLICES-RI objectives

# The evaluation process

- Submitted applications are collected at the SLICES-SC web page
- The evaluation process consists of 4 steps
  1. Checking eligibility
  2. Checking technical feasibility
  3. Scientific evaluation
  4. Final decision on applications by the independent User Committee

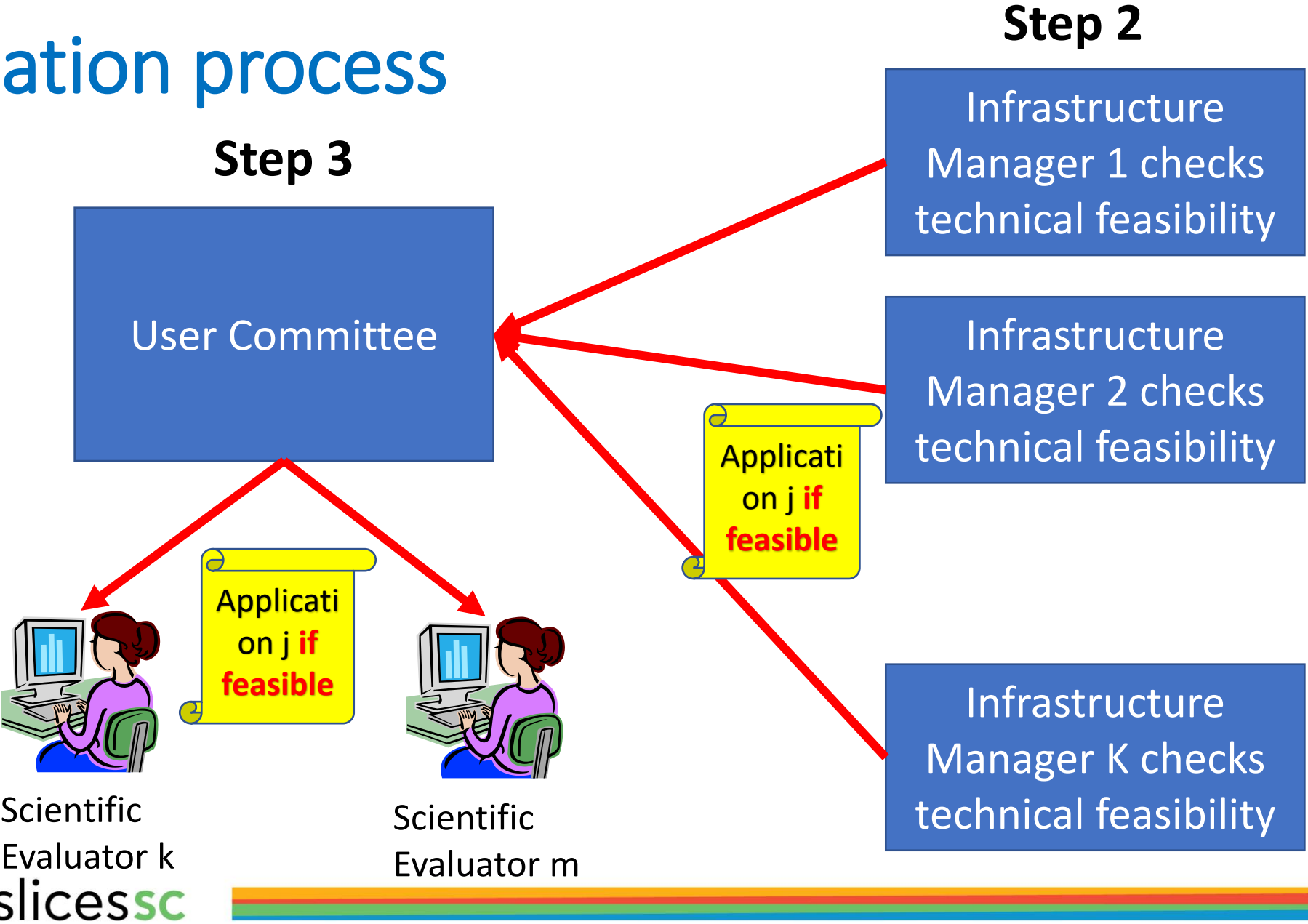
# Evaluation process



# Technical assessment

- **Technical feasibility**, adequacy with the facility characteristics:
  - Technical feasibility should only address the adequacy of the infrastructure in regard and the capacity of carrying out the requested experiment
- **Level of preparedness of the project:**
  - An assessment of the level of preparedness of the project will be provided.
- **Schedule and planning:**
  - An assessment of the actual time frame of the experiment will be carried out.

# Evaluation process



# Scientific Assessment Form

0	1	2	3	4	5	W	Sum
1. Research and scientific innovation & motivation							
						2	
2. Research and scientific relevance							
						2	
3. Clarity and methodology							
						1	
4. Socio-economic impact and sustainability of the results							
						1	
5. Scale and complexity of experiment							
						1	
6. Relevance for SLICES-SC							
						2	
7. Possible future follow-up experiments							
						1	
8. Technological expertise and quality							
						1	
Total score							

# The Open Calls

- 1<sup>st</sup> Open Call was released on 27 April 2022
- 2<sup>nd</sup> Open Call was released on 15 Dec 2022
  - Continuous submission with 3 evaluation cut-offs in 2023. These are:
    - 15 Feb 2023 (probably to be extended to 28 Feb 2023)
    - 15 May 2023
    - 30 Sep 2023
- It can be accessed on the SLICES web page:  
<https://slices-sc.eu/events/slices-sc-open-call-id-call-2/>



## SLICES-SC Open Call – ID CALL 2

Submission deadlines:

28/02/2023 – 15/05/2023 – 30/9/2023, 23:59:59 (CET)

Winners announced!  
Check the winning proposals [here](#)

The SLICES Research Infrastructure (RI) aims to develop and provide services related to experimentation in the context of digital sciences such as 5G, 6G, NFV, Internet of Things and cloud computing. The SLICES-SC project builds a community of researchers around SLICES-RI, which offers the necessary solutions to create and manage efficiently IT-related experiments. Among the features to be implemented by the SLICES-RI for the experimenters, SLICES-SC investigates a facilitated access for the experiments, the reproducibility of the research experiments, the validation of the experiment results and finally, the publication of the results in open data access.

SLICES-SC provides Transnational Access to its available infrastructures. Transnational Access (TA) means free of charge, transnational access to

# Winning proposals

## ***The CAP BABEL MACHINE Project***

- Organization: Artificial Intelligence National Laboratory at the Centre for Social Sciences
- Country: Hungary

## ***Vibration analysis at pipelines 2 VAPEUR 2***

- Organization: Euroil Kft.
- Country: Hungary

## ***Large-scale EEG Workflow Execution on Multi-GPU Systems LEWE-GPU***

- Organization: University of Pannonia
- Country: Hungary

# Winning proposals

## ***On the Evaluation of Different Cell Selection Approaches in Wi-Fi Community Networks (Sci-Fi)***

- Organization: Polytech S.A.
- Country: Greece

## ***Raft for Cloud Continuum RAFT4CC***

- Organization: PANGAEASA
- Country: Greece

## ***Evaluating a distributed deep learning framework on the SLICES infrastructure***

- Organization: Óbuda University
- Country: Hungary

# Summary: Usage and/or visit of the SLICES RIs

- Usage without accessing the SLICES RIs (virtual access: use only the experimental data)
- Usage with accessing the SLICES RIs (requires the submission of applications)
  - SLICES-SC members can go for 1-week short visits to RIs
  - SLICES-SC members and non SLICES-SC members can go for
    - Long visits
    - Transnational access
      - Remote usage without physical access
      - With long visit to Ris
- Transnational access application can be submitted according to the rules of the 2<sup>nd</sup> Open Call. See at:  
<https://slices-sc.eu/events/slices-sc-open-call-id-call-2/>

Scientific Large-scale Infrastructure  
for Computing Communication  
Experimental Studies  
**Starting Communities**

# Thank you