





### HORIZON EUROPE POLICY SUPPORT FACILITY

2021 - 2027

#### **PSF OPEN GREECE**

Enhancing the performance and long-term sustainability of the Greek national research infrastructures (NRIs)

DISSEMINATION EVENT

Athens, 30 October 2023





| National Hellenic Research Foundation, 48 Vassileos Constantinou Avenue, 11635 Athens "Leonidas Zervas"<br>Amphitheatre |   |  |  |  |
|---|---|--|--|--|
| 9:00 - 9:15   | Opening and welcoming<br>– Dr. Antonios GYPAKIS, Head of the Policy Planning Department, GSRI<br>– Prof. Dimosthenis SARIGIANNIS, Director and President of the Board of the NHRF |  |  |  |
| 09:15 – 09:30   | Prof. Athanasios KYRIAZIS, Secretary General for Research and Innovation, GSRI  |  |  |  |
| 09:30 – 09:45   | Anna Panagopoulou, Director, DG Research and Innovation, European Commission  |  |  |  |
| 09:45 – 10:00   | Enhancing the performance and long-term sustainability of the Greek national research infrastructures (NRIs)<br>Alasdair Reid, Rapporteur PSF Open Greece.                        |  |  |  |
| 10:15 – 10:30   | Q&A   |  |  |  |
| 10:30-11:00   | Coffee break  |  |  |  |





|               | Participatory Session   |  |  |
|---------------|---|--|--|
|               | Presentation of the three implementation plans:   |  |  |
|               | <ul> <li>Implementation plan 1: a funding system designed to enhance performance, Thomas<br/>Zacharewicz, Expert of PSF Open Greece (online).</li> </ul>                      |  |  |
| 11:00-12:30   | <ul> <li>Implementation plan 2: a monitoring and evaluation framework for the NRIs, Alasdair Reid,<br/>Rapporteur and expert of PSF Open Greece.</li> </ul>                   |  |  |
|               | <ul> <li>Implementation plan 3: enhancing research digitalisation and open science practices in the NRI ecosystem, Damien Lecarpentier, Expert of PSF Open Greece.</li> </ul> |  |  |
|               | Discussion with the audience  |  |  |
| 12:30 – 12:45 | Overall conclusions   |  |  |
|               | Alasdair Reid, Rapporteur PSF Open Greece   |  |  |
| 12:45 –13:00  | Concluding remarks & future perspectives for the Greek NRIs   |  |  |
|               | Dr. Antonios Gypakis, Head of the Policy Planning Department, GSRI  |  |  |



## **PSF OPEN GREECE**

Enhancing the performance and long-term sustainability of the Greek national research infrastructures (NRIs)

Alasdair Reid, Rapport and Expert of PSF Open Greece



## **PSF Open Greece: Focus areas**



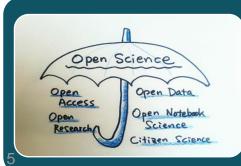
### Development of a general framework for performance-based funding of RIs

- Recommendation 4.1.2 of the PSF Report: "Develop a medium-term, performance-based funding framework for NRIs"
- Type of eligible expenses would be appropriate to the different life-cycle stage of the NRIs (preparatory or growth phase)
- Review of best practices from EU countries
- Link with KPIs: funding will be based on the RIs performance



Development of a set of Key Performance Indicators (KPIs) that reflect the role of RIs in the national R&D system and a methodology for their implementation

- Recommendation 4.1.5 of the PSF Report "Adopt a set of key performance indicators that reflect the specific role of RIs in the national R&I system".
- List of indicators that better suit the different types of NRIs (thematic field, orientation, life-cycle stage etc.).
- A methodology for the implementation should be provided



Guidelines for Open Science and Digitisation around which NRIs should further develop their data policies and connect with national and European research data platforms

- Recommendation 4.2.5 of the PSF Report: "Enhance open science and FAIR research data management capacities of the NRIs"
- Incentivise NRIs to use Open Science practices and FAIR principles
- Mechanisms to assess the e-needs of the thematic NRIs in order to elaborate a general digitalisation strategy for NRIs and link them to the digital ones.

## **The PSF Open Greece panel**

### Rapporteur

Alasdair Reid (Belgium)

### **Independent Experts**

Alasdair Reid (Belgium)

Thomas Zacharewicz (France)

Damien Lecarpentier (Finland)

### **National Expert**

George Strogylopoulos (Greece)

## **Project Manager**

Susana Elena-Perez

## **DG R&I Policy Officer**

Vladimir Manolov



# The PSF Open Greece process

### Inception phase

- Kick-off meeting with Greek authorities (20 February 2023)
- Literature review and analysis of European examples and practices
- Inception report

### Assessment phase

- 1st mission of the panel to Greece (27-29 March 2023)
- Interviews with NRI representatives and selected projects, Greek authorities, policymakers and other relevant stakeholders
- First draft of the three implemention plans (PSF Open draft report)

### Consultation on the proposed implemention plans

- 2nd mission of the panel to Greece (30 May 1 June 2023)
- Additional working meetings with NRIs and R&I policy-makers to discuss the implemention plans
- Second draft of PSF panel report (July 2023)

### Presentation of final report

- Final report based on feedback from Greek authorities and European Commission (August 2023)
- Dissemination event in Athens (October 2023)



## **Implementation plans**

Each plan includes:

- A review of the state of the art in Greece compared to European and international practice;
- An overview of the proposed actions to strengthen the Greek NRI ecosystem including a roadmap diagram; and
- A full **description of each of the actions**, indicating the action owner, timeframe, resources needed and key milestones (see table below)

| Action number             | Action title   |
|---------------------------|--|
| Action owner(s)           | Organisation(s) in the Greek R&I system that should be the lead for implementing the action. |
| Timeframe                 | Indicative timeframe for the action  |
| Resources                 | Human, funding, regulatory/administrative measures, etc.                                     |
| Description of the action | Details of what needs to be done to implement the action.                                    |
| Milestones                | Main milestones for the action   |



# PSF Open report's contribution to Greek R&I policy

- 1. Benchmark of Greek R&I policy in favour of research infrastructures and open science:
  - Recent introduction of performance-based funding within Greek higher education funding system aligning with international trends;
  - Only a few Member States have put in place a monitoring and evaluation framework for RIs opportunity for Greece to join the 'frontrunners';
  - Coordinated effort to develop open science plan in Greece and existing expertise.
- 2. A basis for Greek contribution to the European Research Areas (ERA) policy agenda:
  - Action 1 on 'open sharing of knowledge and re-use of research outputs through the development of the European Open Science Cloud
  - Action 8 to 'strengthen sustainability, accessibility and resilience of research infrastructures in the ERA',



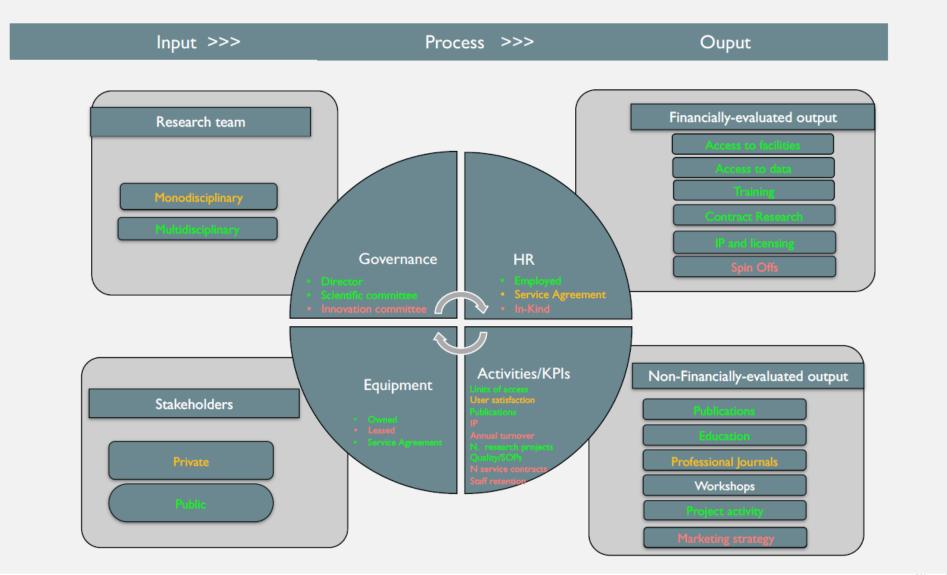
## **IMPLEMENTATION PLAN 1**

## A FUNDING SYSTEM DESIGNED TO ENHANCE PERFORMANCE

Thomas Zacharewicz, Expert of PSF Open Greece



## Introduction – How to enhance performance and LTS of Greek NRIs?



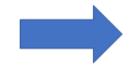
Research Infrastructure Sustainability Model Template





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# Introduction – How to link LTS to funding?



What share of funding should be tied to performance?



Under which periodicity should performance be assessed?



How should the evaluation be conducted?

### Case studies analysed:

- Peer-review assessment system of NRIs in Czech Republic
- Quantitative assessment of research and technology organisations in the Basque Country (Spain).



## **Overview of proposed actions**

Develop a Long-term sustainability plan for NRIs

Define objectives of the LTS

Develop a pathway for NRIs towards LTS Embed the funding mechanism within LTS of NRIs

Define share of funding tied to performance

Define the periodicity of the assessment

Define the modalities of the assessment

Implementation of the new funding scheme

Implementation of the first phase of evaluation (eligibility criteria)

Implementation of the second phase of the evaluation (quality criteria)

**Funding decision** 



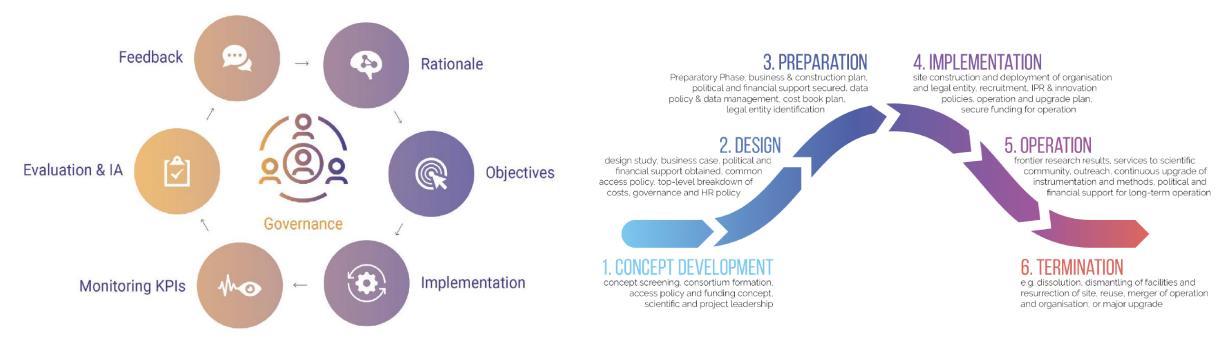
## **IMPLEMENTATION PLAN 2**

## A MONITORING AND EVALUATION FRAMEWORK FOR THE NRIs

## Alasdair Reid, Rapport and Expert of PSF Open Greece



## Introduction – monitoring and evaluation of RIs



Policy-cycle - what do we want to monitor?

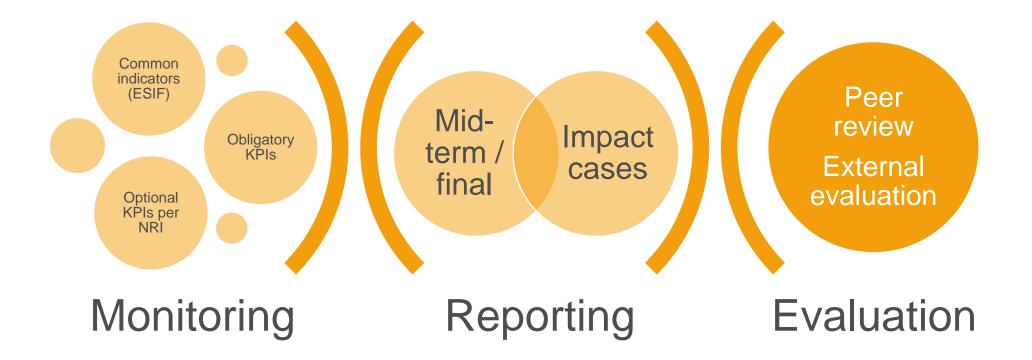
• Are the funded research infrastructures - on track with their implementation, meeting the short- and medium- term objectives and contributing to long-run impact (on Greek research system, on innovation, on meeting societal challenges...)

**RI Lifecycle** – what do we want to monitor?

 Is the research infrastructure operating at capacity (usage), do the RI staff have the skills needed for operating the equipment, is the funding secured sufficient to upgrade equipment, does the RI have in place the necessary procedures, etc.

Commission

## Three key steps in NRI M&E process





# **Key performance indicators**

<u>Common indicators</u> required by ESIF Management Authorities

- Researchers working in support research facilities (RCO 06)– output indicator
- Nominal value of research and innovation equipment (RCO 08) – output indicator
- Publications from support projects (RCR 08) – result indicator.

Five <u>obligatory KPIs</u> to be tracked by all NRIs

- 1. Usage of the NRI
- 2. Number of students using and being trained at the NRI
- 3. Income generated by the NRI additional to ERDF grant
- 4. Number of publications acknowledging use/services provided by the NRI
- Number of publicly accessible datasets used externally

Option for NRIs to select <u>additional KPIs</u> relevant for their activities / objectives





### **Detailed indicators (see report for full details)**

| Indicator(s)   | Detailed indicators  |
|--|--|
| Usage of the NRI   | <ul> <li>For NRIs providing access to facilities/equipment:</li> <li>Number of requests for use received and granted.</li> <li>Total annual usage hours by users external to NRI consortium partners as % of total available usage hours.</li> <li>For resource/data NRIs one or more of the following :</li> <li>number of registered users of collections or data services,</li> <li>Number of downloads of datasets or digital resources.</li> <li>Broken down by academic users, business users (and other user types depending on the NRI) and whether Greek or internationally located.</li> </ul> |
|  | <ul> <li>Number of masters and PhD students who have been trained at or performed some of their studies/research at the NRI. Each student should only be counted once per year (not per access). Can be quantified by the number of training hours at the NRI provided (per student). Data should be broken down by:</li> <li>Masters / PHD / others (e.g. short courses for industrial researchers).</li> <li>Distinguishing between students funded/hosted by NRI consortium partners and external to NRI students</li> <li>by nationality (Greek or international).</li> </ul>                        |
| Income generated<br>by the NR<br>additional to ERDI<br>grant                     | Total income generated broken down by source:<br>• grant (e.g. Horizon Europe, other national or regional programmes, etc.),   |
| Number o<br>publications<br>acknowledging<br>use/services<br>provided by the NRI | f Number of publications based on research performed using facilities and (digital) resources provided by the NRI.<br>Distinguishing between publications authored by researchers of the NRI consortium partners and external researchers.<br>Over time this indicator can be further refined, e.g. to track the percentage of open access publications, the percentage of publications in the top<br>(10%) cited publications in the same field and the percentage of publications co-published with industry.  |
|  | V Number of data sets produced as a result of researchers using the NRI that are subsequently accessed by other users. For date NRIs, number of datasets (digital objects), metadata, software, etc. made available to users, For NRIs that do not yet have publicly accessible datasets, alternative indicators may be used that measure progress towards making open research data available.  |



# Monitoring data feeds into mid-term and final reporting template – structured by 6 criteria

|    | Maturity of governance structure and management procedures         |    |
|----|--|----|
|    | Quality of user access policy                                      |    |
|    | Strategic Outlook: uniqueness and alignment with national strategy |    |
|    | European collaboration   |    |
|    | Impact on research excellence (including training of researchers)  |    |
|    | Impact on innovation (on one or more S3 priorities).               |    |
| 19 |  | Eu |

Commissio

## **Overview of actions**

NRI monitoring and evaluation framework design and set up

- M&E management committee (team)
- KPI 'menu' for NRIs to select a relevant subset from
- Templates for reporting and impact cases
- Open data
   repository set up

### NRI management performance tracking

- Monitoring procedure for selected KPIs defined and data collection
- Annual reporting on NRI progress and performance
  Impact cases (narratives)

### NRI peer review (midterm and final)

- Peer review panels set up for (groups of) NRIs to assess scientific excellence and NRI operations
- Peer review
   hearings/site visits
- Peer review reports submitted to GSRI

### Impact evaluation (2027+)

- Consolidated KPI dataset
- Consolidated set of impact cases
- Peer review reports
- Tender for evaluation
- Evaluation focusing on impacts on research system, innovation and societal priorities



# Key tools provided by the report

**Detailed definition of KPIs** 

Periodic reporting template - six main criteria for assessing performance

Impact cases template – narrative approach



**IMPLEMENTATION PLAN 3** 

## ENHANCING RESEARCH DIGITALISATION AND OPEN SCIENCE PRACTICES IN THE NRI ECOSYSTEM

Damien Lecarpentier, Expert of PSF Open Greece



# Introduction – Open Science & Digitalisation

- National Open Science Plan (June 2020) + establishment of HOSI (February 2022) are positive developments that will allow Greece to align with other European countries.
  - a clear mandate, executive power, and financial support, should be made more explicit for HOSI to be able to effectively steer the implementation of the actions laid out in the national plan.



### **Case studies analysed:**

- The French Committee for Open Science involving higher authorities and decision makers at all stages (France)
- The Open Science and Research initiative in Finland: Open Science for and by the Research Community (Finland)



## **Finnish case**

### The National Steering Group for Open Science and Research:

- Members appointed by the key organisations in the Finnish research community.
- Drafted (2019) and accepted (2020) the Declaration for Open Science and Research.
- Accepts policy documents.

### **Expert panels**:

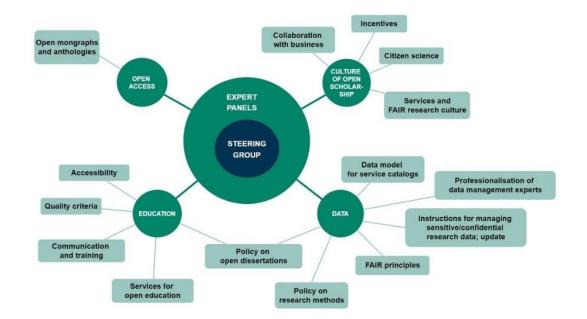
- Membership is open. The panels had ca. 500 members in total in 2022.
- Draft the policies for the four areas: the culture of open scholarship, open data, open access to research publications and open education
- Accept recommendations drafted by working groups.

### Working groups

• Draft the recommendations.

## Secretariat for the National Open Science and Research Coordination :

- Supports the national coordination of open science and research.
- A part of the Federation of Finnish Learned Societies
- Funded by the Ministry of Education and Culture





# Introduction – Open Science & Digitalisation

• Open science practices are often discussed at the level of individual researchers, but the role of research facilities and infrastructures in fostering an open science ecosystem is also critical.

 A successful open science strategy need to include, as part of the national roadmap, requirements and incentives for NRIs to provide FAIR data and effectively contribute to the open science agenda.



### **Case studies analysed:**

 National roadmaps and requirements for NRIs in France, Finland, Denmark, Czech Republic, Slovakia and the Netherlands.



# Introduction – Open Science & Digitalisation

• Open science increasingly relies on the use of digital technologies, for accessing, analysing, sharing and preserving research data.

 Greater collaboration between all stakeholders, in particular research infrastructures and e-Infrastructures, is required to anticipate e-Infrastructure requirements of RIs and identify the critical services they need to support open science.



### **Case studies analysed:**

- Anticipating and assessing the e-needs of research infrastructures in the ESFRI Roadmap
- Implementation of national repositories / services (Research Data Gouv, France),
   FAIRdata, Finland)

## **Overview of proposed actions**

Support the development of the Hellenic Open Science Initiative (HOSI)

- Give mandate to HOSI to oversee the implementation of the open science agenda in Greece

- Revise HOSI governance to include more effective steering from stakeholders

- Support HOSI financially to be able to effectively coordinate discussions and activities Incentivise Research Infrastructures to support FAIR data and contribute to the Open Science agenda

- Ensure availability of clear access policies

- Make data management plans (DMPs) mandatory

- Make contribution to Open Science a performance criterion Strengthen the technical infrastructure and support collaboration between horizontal and thematic infrastructures

- Assess e-Infra needs at proposal preparation stage and during operation
- Support the development of a national data repository
- Develop the Greek EOSC node





## **OVERALL CONCLUSIONS**

## Alasdair Reid, Rapport and Expert of PSF Open Greece



# **Cross-cutting conclusions of the report**

If the implementation plans are executed in a timely manner, this will make a significant contribution to long-term sustainability of NRIs in Greece. But **challenges remain**:

- Development of a research infrastructure funding scenario to gradually scale up national budgetary means - Czech Republic example where a balanced mix of national and ESIF funding is used to fund R&I investments may be a useful 'learning case'.
- 2. Update the national research infrastructure roadmap based on the existing 'landscape' to define strategic needs to a 2030 plus horizon and take into account RI energy and resource efficiency improvements, contribution to (EU) technological sovereignty, etc.
- 3. Leverage increased private co-investment in NRIs may include further consideration of the form of legal entity issue for NRIs so as to facilitate public-private partnerships in research and technology infrastructures.
- 4. Adoption of a 'whole of government' approach by involving a broader group of stakeholders and ministries to steer NRI development => develop NRI stakeholder engagement strategies that address a broad range of users and contribute to addressing societal challenges.





### Support to Greece in the implementation of PSF Country recommendations

Final report





For more information on the PSF Open Greece visit:

https://ec.europa.eu/research-andinnovation/en/statistics/policy-support-facility/psfopen/support-greece-implementation-psf-countryrecommendations



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