



---

Astroparticle Physics European Consortium

# General Assembly Meeting (Dec 2023)

7+8 December 2023

report from GA chair



# Minutes last GA (Warsaw, June 2023)



## APPEC GA meeting 2023

28 & 29<sup>th</sup> of June 2023, AstroCeNT Warsaw and online

<https://indico.cern.ch/event/1295199/>

Attendees: Stan Bentvelsen, Jo van der Brandt, Giacomo Bruno, Fedor Danevich, Job de Kleuver, Julie Epas, Andreas Haungs, Katharina Henjes-Kunst, Katri Huitu, Sijbrand de Jong, Uli Katz, Antoine Kouchner, Sylvie Leray, Péter József Lévai, Katrin Link, Ramon Miguel, Carlos Peña Garay, Mario Joao Pimenta, Vincent Poireau, Leszek Roszkowski, Alexandra Saftoiu, Ivan Stekl, Colin Vincent, Krijn de Vries, Xin Wu  
And Wojciech Dziejdzic, Deputy Director of International Cooperation of Ministry of Science and Education, Poland

### Welcome by GA Chair (Andreas Haungs)

- Agenda of the GA adopted
- Minutes from the last GA approved: comment from Sijbrand: the last big discussions on the mid-term review took place on the 4<sup>th</sup> of May

**Welcome words of the host** – Leszek Roszkowski, head of AstroCeNT

### Report from GA Chair

1. **In memory Stavros Katsanevas** – a symposium was held on June 1<sup>st</sup> at APC Laboratory, Paris: <https://indico.in2p3.fr/event/29126>
2. **JENA Computing Workshop** – event held in Bologna, on 12-14 June 2023 <https://agenda.infn.it/event/34738/> covering computing, HPC vs. HTC, software, data management, open data, sustainability, following the need identified at JENA 2022  
Five working groups were constituted:
  - HPC integration in the HTC federated Infrastructures

**Minutes-draft see indico,  
Please give us feedback  
until Xmas...**

# Berrie Giebels



\* 1971 ??

† November 2023

- 1998 PhD in Bordeaux
- 3 years SLAC
- H.E.S.S. and Fermi, CTA
- scientific director for astroparticle physics and cosmology at IN2P3/CNRS
- Deputy director IN2P3 2021-
- EGO council president 2016-2022
- APPEC CNRS representative

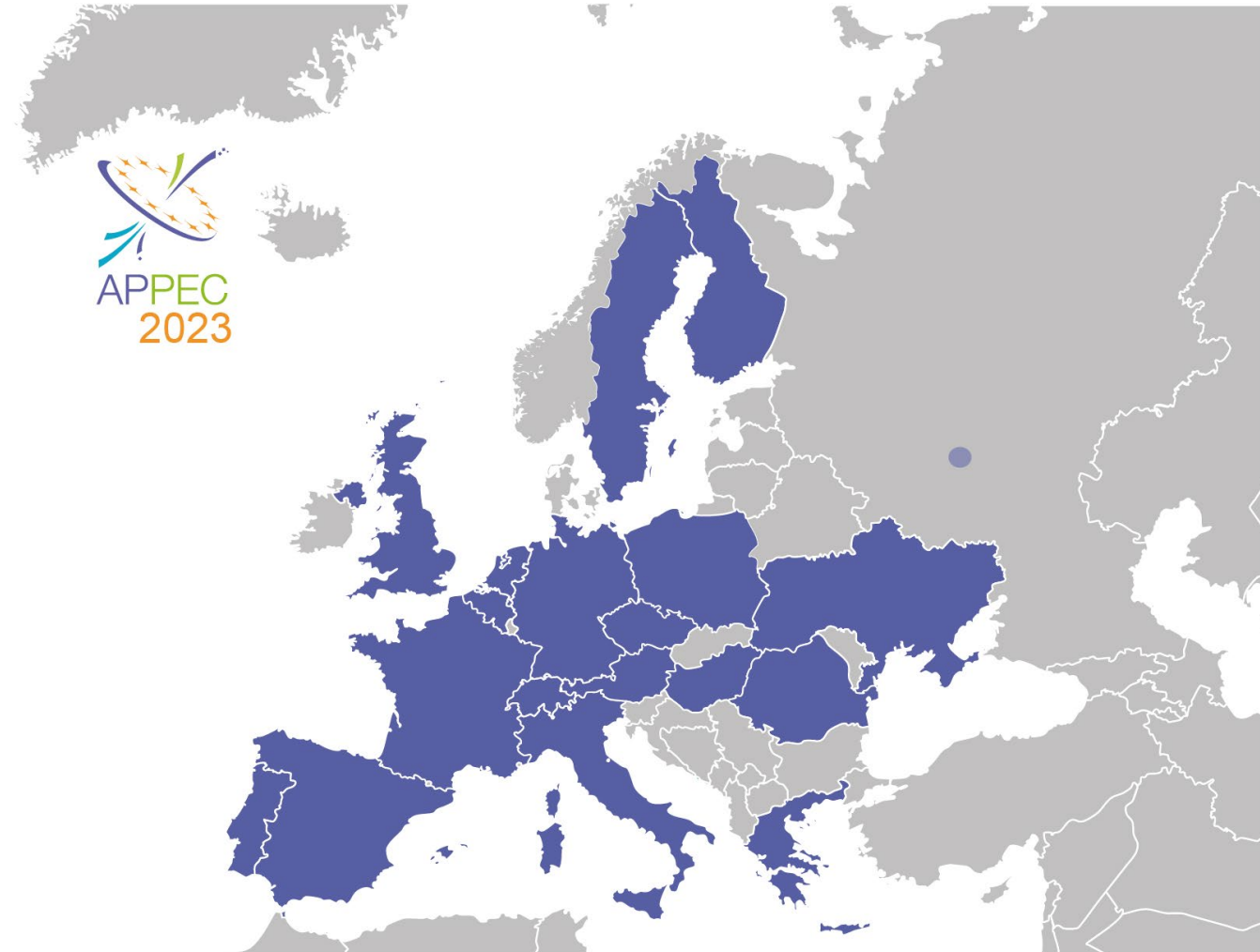
We will miss him as friend and colleague



# Activities 2023

- 3 General Assembly Meetings (2 in hybrid format)
- Joint Secretary: meetings, newsletters, etc.
- Scientific Advisory Committee
- Roadmap Midterm Update Finalization
- ACME workshops and support
- Snowmass/P5 Process
- Copernicus Academy Inauguration Torun
- Celebratory Event: APP in Poland
- ASTRONET Roadmap Publication
- ECFA R&D Detector Roadmap Implementation
- NuPECC Long Range Plans
- EuCAPT
- IYBSSD
- GWIC
- APIF
- JENA Computing Workshop
- JENA EoI Evaluations

[www.appec.org](http://www.appec.org)



# Activities 2023

- 3 General Assembly Meetings (2 in hybrid format)
- Joint Secretary: meetings, newsletters, etc.
- Scientific Advisory Committee
- Roadmap Midterm Update Finalization
- ACME workshops and support
- Snowmass/P5 Process
- Copernicus Academy Inauguration Torun
- Celebratory Event: APP in Poland
- ASTRONET Roadmap Publication
- ECFA R&D Detector Roadmap In
- NuPECC Long Range Plans
- EuCAPT
- IYBSSD
- GWIC
- APIF
- JENA Computing Workshop
- JENA EoI Evaluations

[www.appec.org](http://www.appec.org)



# Roadmap Midterm Update

---

**Printed version available!**

Please send request per Email to

**[Sabine.Bucher@KIT.edu](mailto:Sabine.Bucher@KIT.edu)**

**And add the full delivery address!**

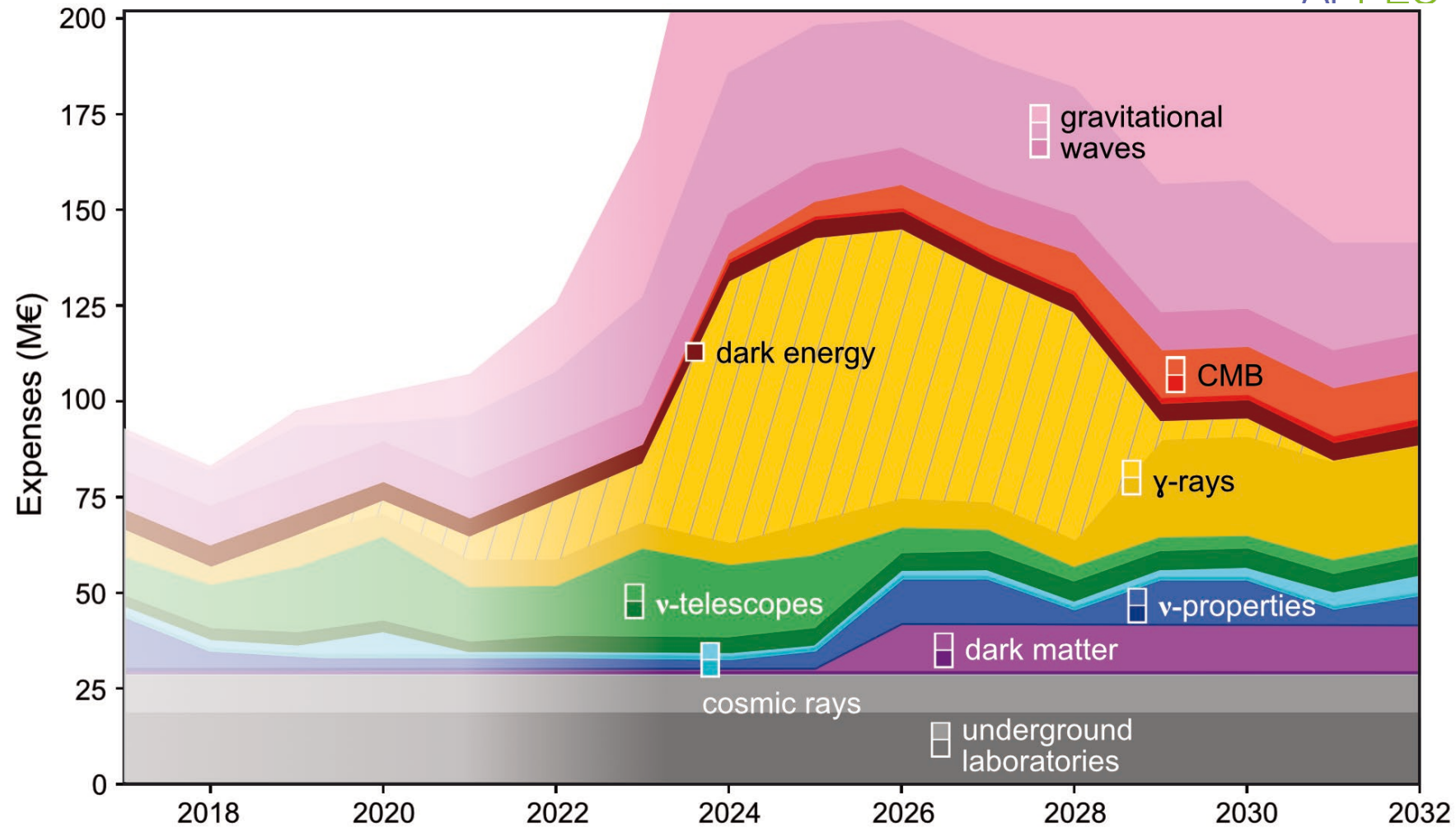


# Ressources

## A resource aware roadmap (darker colors show M&O of RI)

### Observations:

- Predictions from 2017 (until 2022) were okay
- CTA-peak shifted to later years
- CTA-investments funded
- HE Neutrinos: stretched
- ET peak has 3 colors (invest, operation, infrastructure)



Roadmap Update 2023: Projected annual capital investment



# JENA Computing



- JENA Computing Workshop in Bologna: 12-14 June 2023
- <https://agenda.infn.it/event/34738/>
- Motivation: JENAS 2022 → There is a need for a European Workshop on (federated) Computing! → Preparation for JENAS 2025
- 60-70 participants plus up to 25 online
- Topics are all aspects of (federated) computing by talks, round table discussions, initiation of JENA working group, ...
- Covering computing, HPC vs. HTC, software, data management, open data, sustainability

## JENA Computing Workshop

12 Jun 2023, 12:00 → 14 Jun 2023, 18:00 Europe/Rome

Auditorium Biagi (Biblioteca Salaborsa)

Andreas Haungs (Karlsruhe Institute of Technology), Claudio Grandi (Istituto Nazionale di Fisica Nucleare), Luca Dell'Agnello (Istituto Nazionale di Fisica Nucleare)

**Description**


ECFA European Committee for Future Accelerators

NuPECC

APPEC

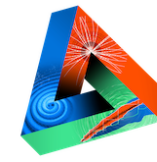
JENAA Joint ECFA-NuPECC-APPEC Activities

To be held as in-person meeting in Bologna, Italy.



**Motivation**

At the Joint ECFA-NuPECC-APPEC (JENA) Seminar in May 2022 in Madrid (<https://indico.cern.ch/event/1040535/>), both the plenary presentations and the closed session of funding agency representatives revealed that there is an increased need for discussions on the strategy and implementation of European federated computing at future large-scale research facilities.



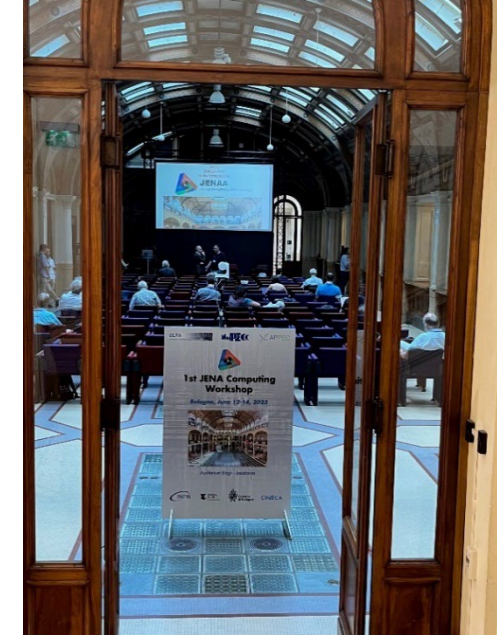
## • Results:

- Target: European white paper on (ENA) computing as input for the next JENA Symposium
- Dedicated working groups (to look deeper) on five areas:
  - HPC integration in the HTC federated infrastructures (chair: Gonzalo Merino, Simone Campana)
  - Software and Heterogeneous Architectures (chair: Graeme Stewart, N.N.)
  - Federate Data Management, Virtual Research Environments and FAIR/Open Data (=ESCAPE) (chair: ian Bird, N.N.)
  - Machine Learning and Artificial Intelligence (chair: Sascha Caron, N.N.)
  - Training, Dissemination, Education (chair: the ENA chairs)

## • Next:

- Searching for participation in the working groups from Astroparticle Physics
- Building the WGs with dedicated meetings

➔ More engagement from APP requested!



## Expression of Interests (EoI)

<http://www.nupecc.org/jenaa/?display=eois>

1. Dark Matter - iDMEu (<https://indico.cern.ch/event/869195/overview>)
  2. Gravitational Waves for fundamental physics (<https://agenda.infn.it/event/22947/overview>)
  3. Machine-Learning Optimized Design of Experiments - MODE (<https://mode-collaboration.github.io>)
  4. Nuclear Physics at the LHC (<https://indico.ph.tum.de/event/4492/>)
  5. EDM - Search of Charged-Particle Electric Dipole Moments (<https://indico.ph.tum.de/event/4482/>)
  6. Synergies of EIC with LHC - EIC; kick-off happened in June 2022 <https://indico.ph.tum.de/event/7004/>
    - **ENA chairs discussed with all EoI leads separately the status, plans, requests and schedule for 2023/24 in mid January → all Eols approved for continuation**
  7. **New: EuCAIF – European Coalition for AI in Fundamental physics**
    - **New EoI approved in Nov 2023: EuCAIF (machine learning as analysis tools)**
- **Revision of the Expert panels from APP side?!**

# JENA Expressions of Interest



<http://www.nupecc.org/jenaa/?display=eois>

## List of submitted Eol:

1. Dark Matter - iDMEu (<https://indico.cern.ch/event/869195/overview>)
2. Gravitational Waves for fundamental physics (<https://agenda.infn.it/event/22947/overview>)
3. Machine-Learning Optimized Design of Experiments - MODE (<https://mode-collaboration.github.io/#home>)
4. Nuclear Physics at the LHC (<https://indico.ph.tum.de/event/4492/>)
5. Storage Rings for the Search of Charged-Particle Electric Dipole Moments (EDM) (<https://indico.ph.tum.de/event/4482/overview>)
6. Synergies between the Electron-Ion Collider and the Large Hadron Collider experiments (<https://indico.ph.tum.de/event/7004/>)

Eols in the form of a brief letter are to be submitted to the chairs of the committees/consortia. In the letter you can elaborate on the synergy topic, the objectives, the initial thoughts and the potential communities involved. This letter is not the end of the process, but potentially the start of further communications on the expressed interest.

## JENA Eol Task Force representatives

### For ECFA:

- Stan Bentvelsen (2) ✉
- Jana Bielčíková (6) ✉
- Sascha Caron (3) ✉
- Tuomas Lappi (6) ✉
- Isabell Melzer-Pellmann (1) ✉
- Nick van Remortel (2) ✉
- Mike Seidel (5) ✉
- Claude Vallee (1) ✉
- Mikko Voutilainen (3) ✉

### For NuPECC:

- Navin Alahari (4) ✉
- Dave Ireland (6) ✉
- Eugenio Nappi (6) ✉
- Franck Sabatié (3,6) ✉
- Hans Stroehrer (5) ✉
- Eberhard Widmann (5) ✉
- György Wolf (2,4) ✉

### For APPEC:

- Jo van den Brandt (2) ✉
- Jürgen Brunner (3) ✉
- Tomek Bulik (2) ✉
- Francesca Calore (1) ✉
- Elena Cuoco (3) ✉
- Fiorenza Donato (4) ✉
- Teresa Montaruli (6) ✉
- Uwe Oberlack (1) ✉
- Xin Wu (4) ✉

# ACME - Astrophysics Centre for Multimessenger studies in Europe

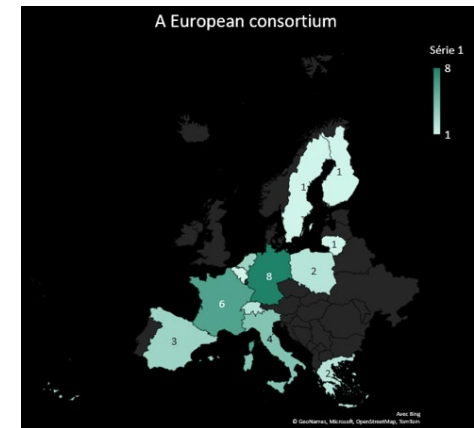


HORIZON-INFRA-2023-SERV-01-02

- Topic: **better access of users to RI services to advance frontier knowledge**, activities to improve and harmonize the access, and training for scientists.
- **ACME is set up to realize an ambitious coordinated European-wide optimization of the accessibility and cohesion between multiple leading RI, offering access to instruments, data and expertise.**
- Maximum EU contribution per project: 14.5 million euros.
- Scientific domain of interest: Astronomy & Astroparticle physics.
- Consortium: 41 partners, 15 countries, >30 research infrastructures
- Submission on March 9th, feedback in September → waiting list

→ How we can help to alive ACME?

→ What are potential EU Horizon calls in 2024, in next programme?



# Sustainability (of Research Infrastructures)

- SDGS initiated by UN and arising hot topic on (many) national levels
- Also the European Commission and ESFRI are considering dedicated measures

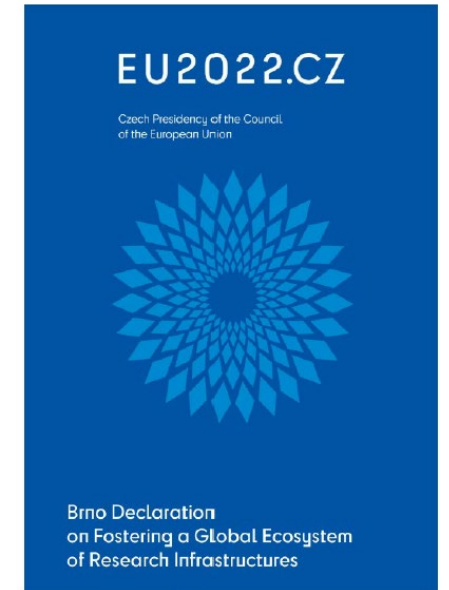
→ Ideas on appropriate measures from APPEC?



## SUSTAINABLE DEVELOPMENT GOALS

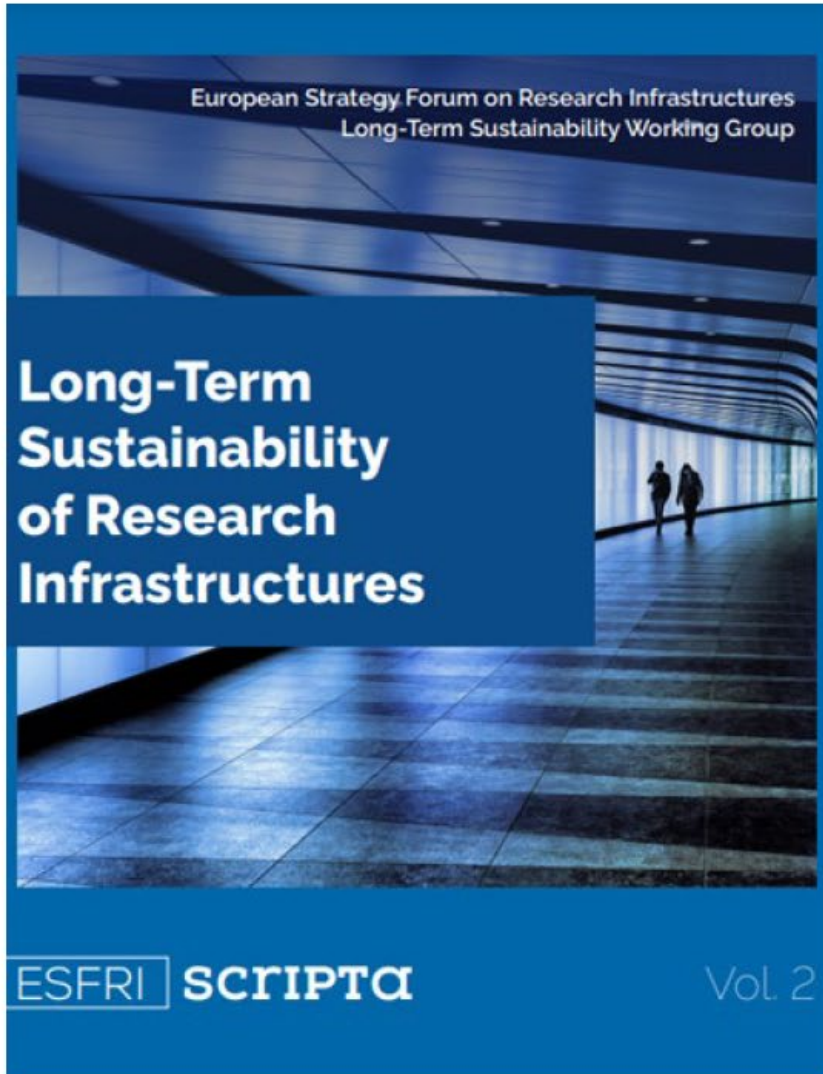


<https://sdgs.un.org/goals>



adopted during the Int I Conference on RIs in Brno (18-21 October 2022)

# Sustainability (of Research Infrastructures)



## MAIN RECOMMENDATIONS

- 1 Establish and maintain excellence** through the entire lifecycle of RIs by all appropriate means, by securing adequate framework conditions, and by opening the RIs up to the world.
- 2 Ensure that RIs have the right people in the right place at the right time** by strengthening and harmonising national research and educational systems to make sure that all essential skills are available.
- 3 Harmonise and integrate a vision for convergent operation of RIs and e-Infrastructures** in Europe to ensure cost-effective service provision to the user communities.
- 4 Fully exploit the potential of RIs as innovation hubs** by incorporating strategies for their development into national and European innovation policies.
- 5 Set up effective means of determining the economic and wider social value of RIs**, and incorporate these benefits into science-policy-society dialogues.
- 6 Establish adequate framework conditions for effective governance and sustainable long-term funding for RIs at every stage in their lifecycle**, together with effective management.
- 7 Foster broader coordination at National and European levels** when designing processes for planning and supporting national and pan European RIs and so enhance their strategic value.

[https://www.esfri.eu/sites/default/files/ESFRI\\_SCRIPTA\\_SINGLE\\_PAGE\\_19102017\\_0.pdf](https://www.esfri.eu/sites/default/files/ESFRI_SCRIPTA_SINGLE_PAGE_19102017_0.pdf)

Thanks Francesca Spagnuolo

# ESCAPE



<https://projectescape.eu/>

- ESCAPE - The European Science Cluster of Astronomy & Particle Physics ESFRI Research Infrastructure (48 months; 1/2/2019-31/1/2023)
- All of the 5 EOSC Science Clusters have put in place long-term structures – through MoU or Collaboration Agreement plus H2020 and potential Horizon Europe funded actions (or other funding)
- ESCAPE has Collaboration Agreement signed by all the partner RIs
- From 1st Feb 2023 “ESCAPE Open Collaboration” is a collaboration by a community with common interests and synergies
- OSCARS (EVERSE and others) to support the ESCAPE work plan within Horizon Europe
- OSCARS is in response to the EU call on EOSC HORIZON-INFRA-2023-EOSC-01-01 and is building on the Science Cluster approach to ensure the uptake of EOSC by research communities (Starting date: 2024-01-01; Duration: 4 years; EC funding: 25 M€)
- Open community calls every 6 months, first March 2024, 10 pages max, Submission within 60 days, Project start: Sept., Budget: 100 - 250 k€ / project; Duration: 1 - 2 years

→ cooperation between JENA computing WG and ESCAPE (Ian Bird)

→ Broader APPEC participation on the Open Collaboration?





# IYBSSD2022

<https://www.iybssd2022.org/en/home/>



- APPEC is partner (10k€)
- several flagship events
  - Opening Ceremony: July, 8, 2022; UNESCO Paris
  - E.g. Asia: Rencontre de Vietnam (Tran van Tanh) Sept 2022
  - E.g. Europe: Belgrad: September 2022: [worldacademy.org/world-conference](http://worldacademy.org/world-conference)
  - E.g. Afrika: Cape Town December 2022 , world science forum (every 4 years: 2018 Budapest, 2014 Jordan): <https://worldscienceforum.org/>
  - Closing event @CERN: 15 December 2023 <https://indico.cern.ch/event/1322261/registrations/97729/>
- → International Decade of Sciences for Sustainable Development
  - On the 25th of August, the United Nations General Assembly adopted a resolution proclaiming 2024-2033 as the International Decade of Sciences for Sustainable Development.

## IYBSSD2022 leadership



• **The International Year of Basic Sciences for Sustainable Development 2022** will put the spotlight on the links between the basic sciences and the Sustainable Development Goals. It will be a key moment of mobilization to convince economic and political leaders, as well as the general public, of their importance.

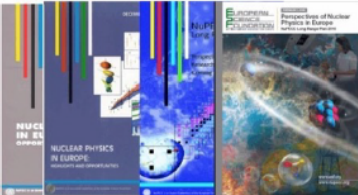
→ **Should APPEC involved in the activities? How?**

# NuPECC Long Range Plans



**NuPECC Towards NuPECC Long Range Plan 2024** SCIENCE CONNECT YOUR PARTNER IN SCIENCE

1991 1997 2004 2010



- The LRP identifies opportunities and priorities for the nuclear science in Europe
- The LRP provides national funding agencies, **ESFRI** and European Commission with a framework for coordinated advances in nuclear science in Europe

Assessment of Implementation of the NuPECC Long Range Plan 2017  
February 2022

Contributors: H. Abele, N. Alahari, W. Barth, D. Bemmerer, K. Blaum, F. Bossi A. Braeco, M. Chiossi, A. Deng, M. Dozer, S. Freeman, M. Gładziński, F. Gélis, H. Goulet, M. Grieco, M. Harakeh, M. Hon, G. Imbriani, E. Khan, K. Kirch, W. Kortem, A. Laird, J. P. Lansberg, D. Lunney, F. Maas, G. Martinez-Pinedo, S. Masciocchi, A. Mengoni, O. Navillat-Cuncic, D. Rifuggiato, P. Rossi, E. Scarparin, J. Simpson, H. Schmieden, A. Schneider, N. Severijns, Th. Stöhrker, J. Stroth, B. Ströher, U. Thoma, S. Ulmer, C. A. Ur, Ch. Weinheimer, U. Wiedner, H. Wittig

**NuPECC LRP 2017**  
<http://www.nupecc.org/lrp2016/Documents/lrp2017.pdf>

**February 2022**  
[http://nupecc.org/2017\\_LRP\\_Assessment\\_of\\_Implementation\\_final.pdf](http://nupecc.org/2017_LRP_Assessment_of_Implementation_final.pdf)

**NuPECC LRP 2024**  
**Launched in May 2022**

Marek Lewitowicz 3

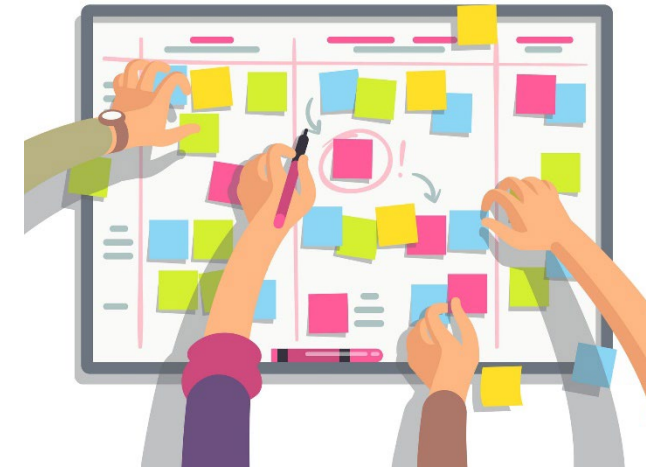
- Dedicated steering committee established (APPEC chair is member of the SC)
- May 2022: Call for inputs from the community October 2022: More than 120 inputs from community (also several from APP community)
- 10 Thematic working groups established
- 2023: Meetings of thematic WGs, see
- Recommendations drafting session 30-31/10/2023
- November 2023 - January 2024: Layout and editing of the LRP Draft, then community feedback
- May 2024: Town Meeting - presentation and feedback from the community
- November/December 2024: LRP presentation in Brussels

© Marek Lewitowicz

<https://indico.ph.tum.de/category/61/>

# APPEC plans and actions for 2024

- Finalising the APPEC MoU's
- New SAC members, election of GA chair and General Secretary
- Starting with new SAC the process of next Roadmap 2027-2036
- Evaluate implications of the US P5-process
- Following participation of APP in „ECFA R&D Detector Roadmap“; „NuPECC Long Range Plans“; „Astronet Roadmap“
- JENA Computing Working Groups and writing the white paper
- Start of Organisation of JENAS 2025
- (Hopefully) kick-off and start of ACME
- Implementation of Roadmap Update Recommendations
- Measures for the “Big 4”: Diversity, Early Career, Transfer, Sustainability
- .....



# Outlook 2024

- General Assembly Meetings: again 2 longer + ~2 shorter
- MoU and new SAC, GA chair and JS chair elections
- Attracting more APPEC member countries => Denmark, Norway, Israel, ..?
- Newsletter, Webpage, ..
- JENAA Activities and Astronomy Connections (Computing!)
- Sustainability
- APPEC Tech Forum
- Horizon Europe: ACME et al.
- Underground Facilities
- JENA Computing Initiative
- JENA Diversity Activities
- Sustainability
- Space Network of Networks (NEONS)
- IYBSSD → International Decade of Sciences for Sustainable Development (IDSSD)
- ESCAPE - Clusters, Oscars
- APIF → How to keep contact with IUPAP?
- Implementation of Roadmaps
- Governance Working Group
- European Early Career Initiative

2024

The roadmap is the nucleus of our activities



....and probably many more items in 2024!

2024



# European Astroparticle Physics Strategy 2017-2026

Mid-Term Update  
September 2023