

Scientific Large-scale Infrastructure
for Computing Communication
Experimental Studies

Research Infrastructure



SLICES-RI: Research and Innovation

Marie-José Montpetit, Ing. Ph.D.
(Interim) Executive Director

SIGCOMM Non-Paper Session: Research Infrastructures and Tools for Reproducible Data
Communication Research

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www.slices-ri.eu

SLICES: RI for Digital Research (and Innovation)

Launched in 2017; entered the ESFRI Roadmap in 2021.

Goals:

- Design, develop and deploy the next generation of Digital Services.
 - Combine networking, computing and storage resources across countries, nodes and sites.
- Support innovation in academia and industry.
- Provide education and HQP training.

Focus:

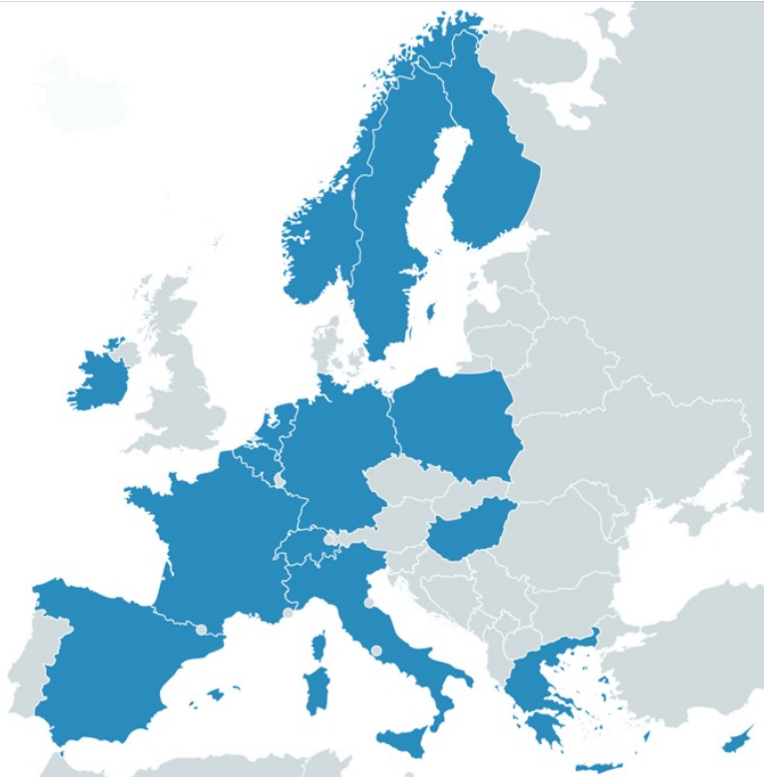
- Now: Digital technologies and services, networking, data collection and storage, cloud/edge-based architectures and services, federated AI.
- In the future: AI/ML support, INC, digital twins, distributed agents, quantum networking/computing etc.
- Common themes:
 - Data and datasets (data/information/knowledge).
 - Reproducibility.



slicesRI



SLICES is an “Internet of Platforms”

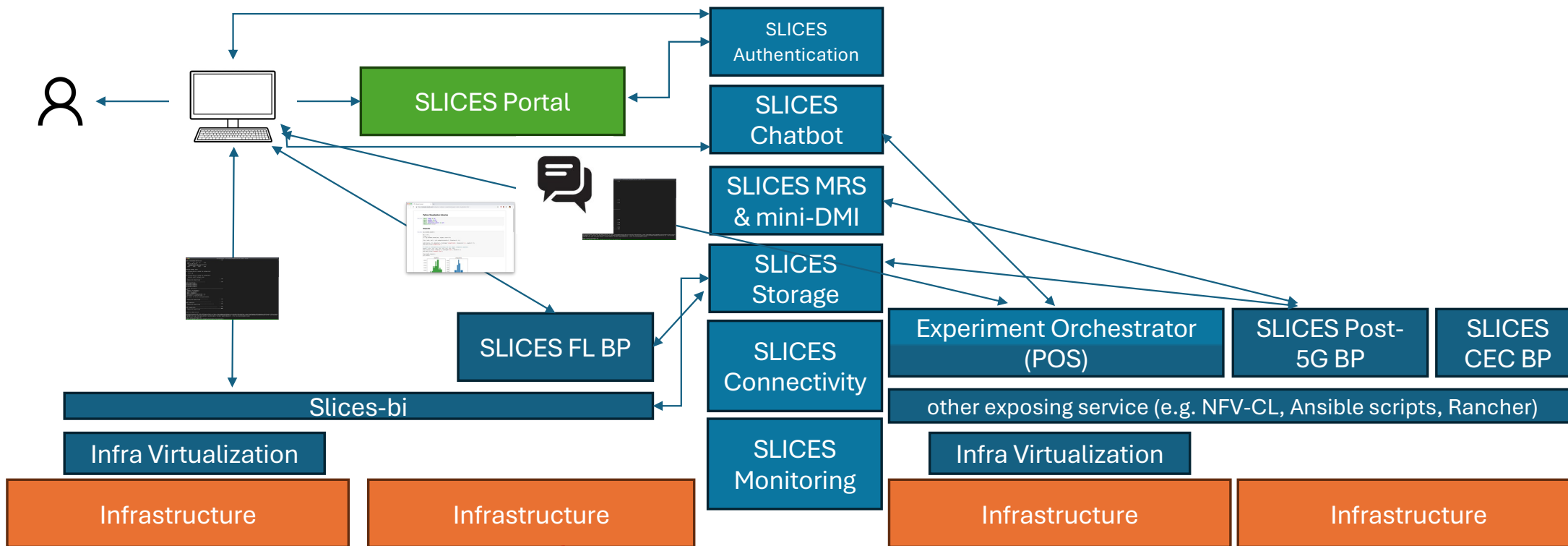


A community of **technologies**.

A community of **26 partners** from 16 countries.

A community of **researchers and innovators**.

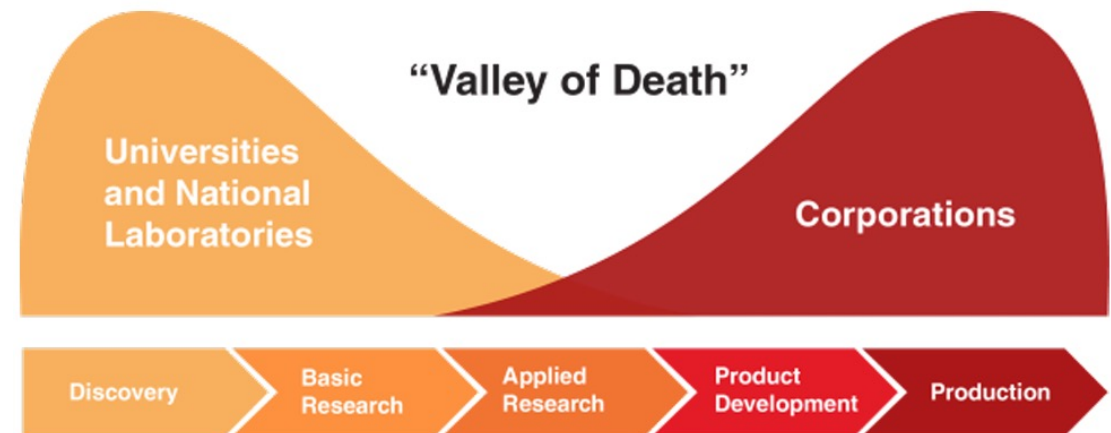
MVP



Infrastructure located at different physical locations

SLICES-RI: I = innovation

- Decrease the cost of innovation by mutualizing:
 - Technology development.
 - Resources.
 - Synergies of funding sources.
 - Avoid fragmentation.
- Bring academia and industry together with common goals:
 - Lowering time to market, foster academic cooperation, minimizing R&D costs and risks, develop new skillsets.
 - Large companies for support and SMEs and startups as users.



NSF PAWR webinar (July 28, 2016)

https://www.nsf.gov/attachments/139307/public/PAWR-Webinar_v4.pdf

Features

Project-based

- The research uses the platform and is not (necessarily) on the platform.

Top-down

- From the community.

Distributed/shared

- An internet of collaborating nodes and services using and combining BPs that have been presented to the community.

Virtualized and efficient

- Take advantage of latest developments and large communities.

Compatible and scalable

- Adapt to changes.
- “Future proof”.

Conclusion

- SLICES-RI focus:
 - Advanced infrastructures and tools in digital research.
 - User communities.
 - Blueprints.
 - Data (and datasets).
 - Reproducibility.
- SLICES-RI = research and innovation.
 - Bring industry and academia together.



It takes a village... thanks to:

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Questions?



marie-jose.montpetit@slices-ri.eu