



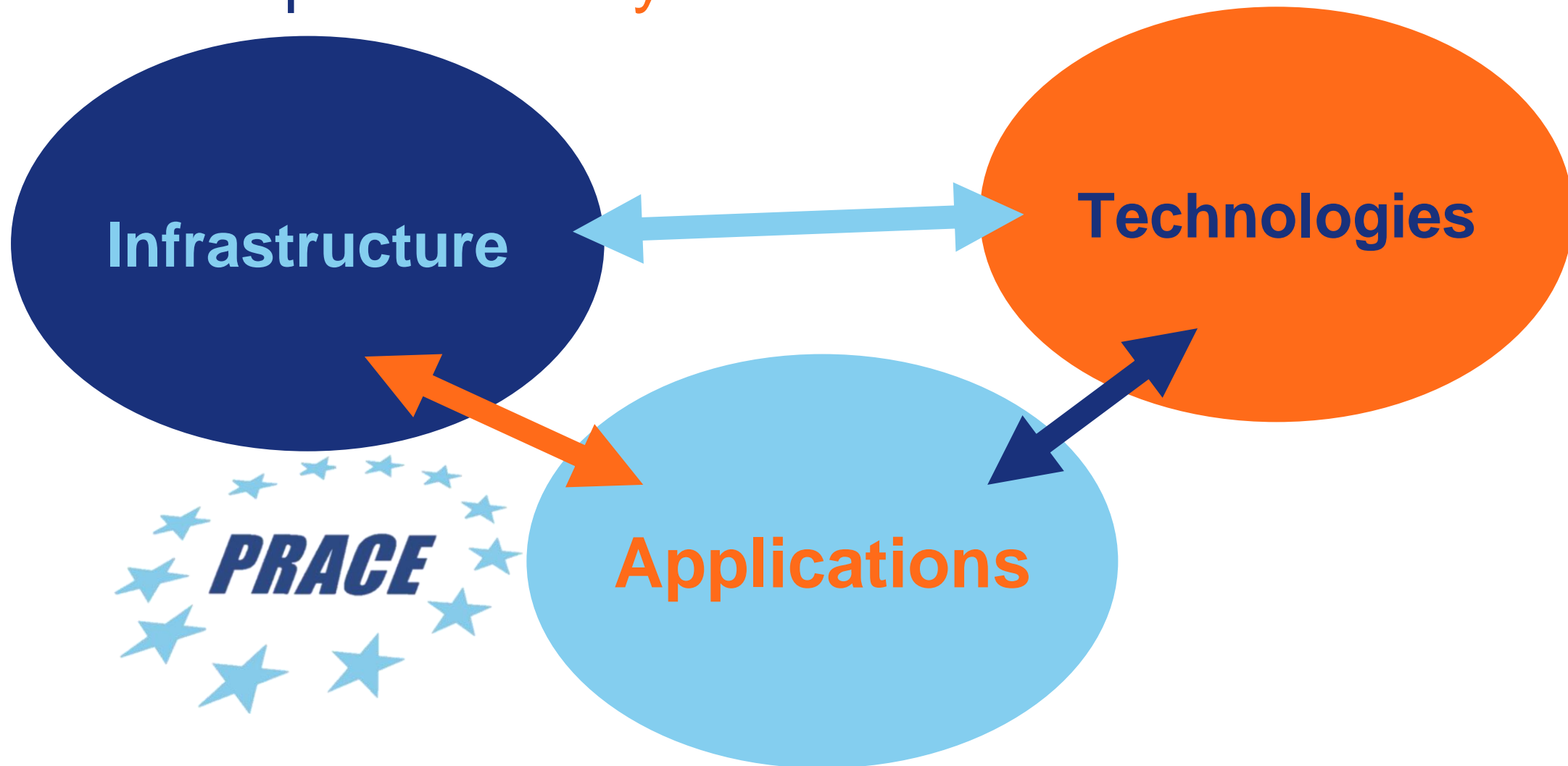
PARTNERSHIP FOR ADVANCED COMPUTING IN EUROPE

# Workshop on the European HPC ecosystem From the Infrastructure to the Applications

Serge Bogaerts

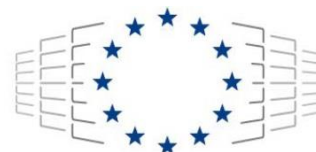
*PRACE Managing Director*

# Three pillars ecosystem model



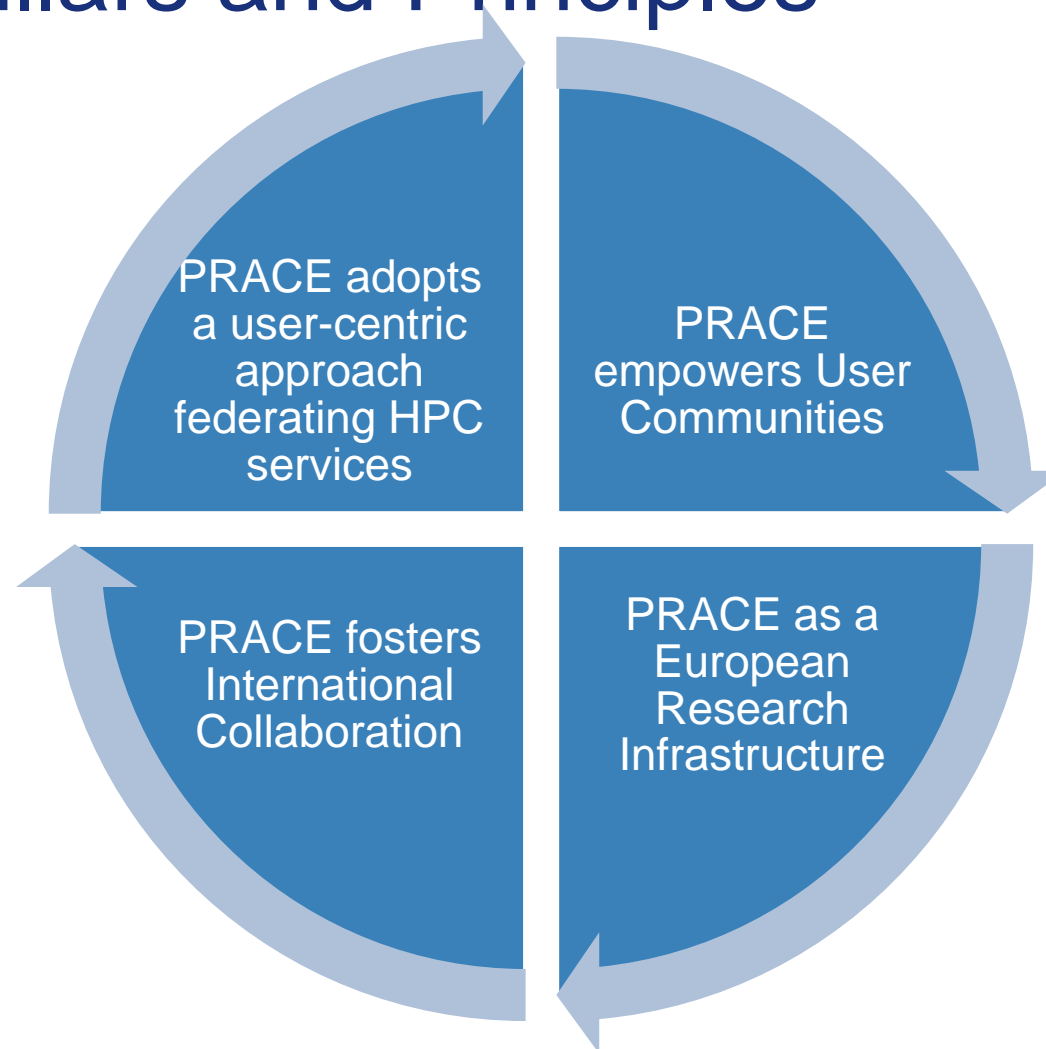


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# PRACE 3 Pillars and Principles





# As a European Research Infrastructure

- ▶ Enable high-impact scientific discovery and R&D across disciplines
- ▶ Enhance European competitiveness for the benefit of society
- ▶ Access to world-class computing and data management resources
- ▶ Sound, recognised and science-driven peer review process
- ▶ Pooling high-level services to foster Scientific Collaboration and Innovation
- ▶ Leveraging the power of the available European Computing and Data Infrastructure.



# Empowers User Communities

- ▶ Integrates active involvement of User Communities
- ▶ → support their scientific discoveries and research developments
  
- ▶ Open and transparent Governance
- ▶ Involving communities, jointly with HPC agencies and centres
  
- ▶ Guarantees principles underpinning scientific excellence applied to peer review processes distributing resources



# User-centric approach federating HPC services

- ▶ Elevates the competence of PRACE partners
- ▶ Coordinating and aligning the support for users of the infrastructure
- ▶ Continuous, aggregated collection of feedback and scientific roadmaps from users
- ▶ European-wide independent technology watch
- ▶ Identifies new services to anticipate needs of potential new users
- ▶ Exchange platform for computing centres and HPC stakeholders  
→ improve HPC services w/ AI, QC convergence



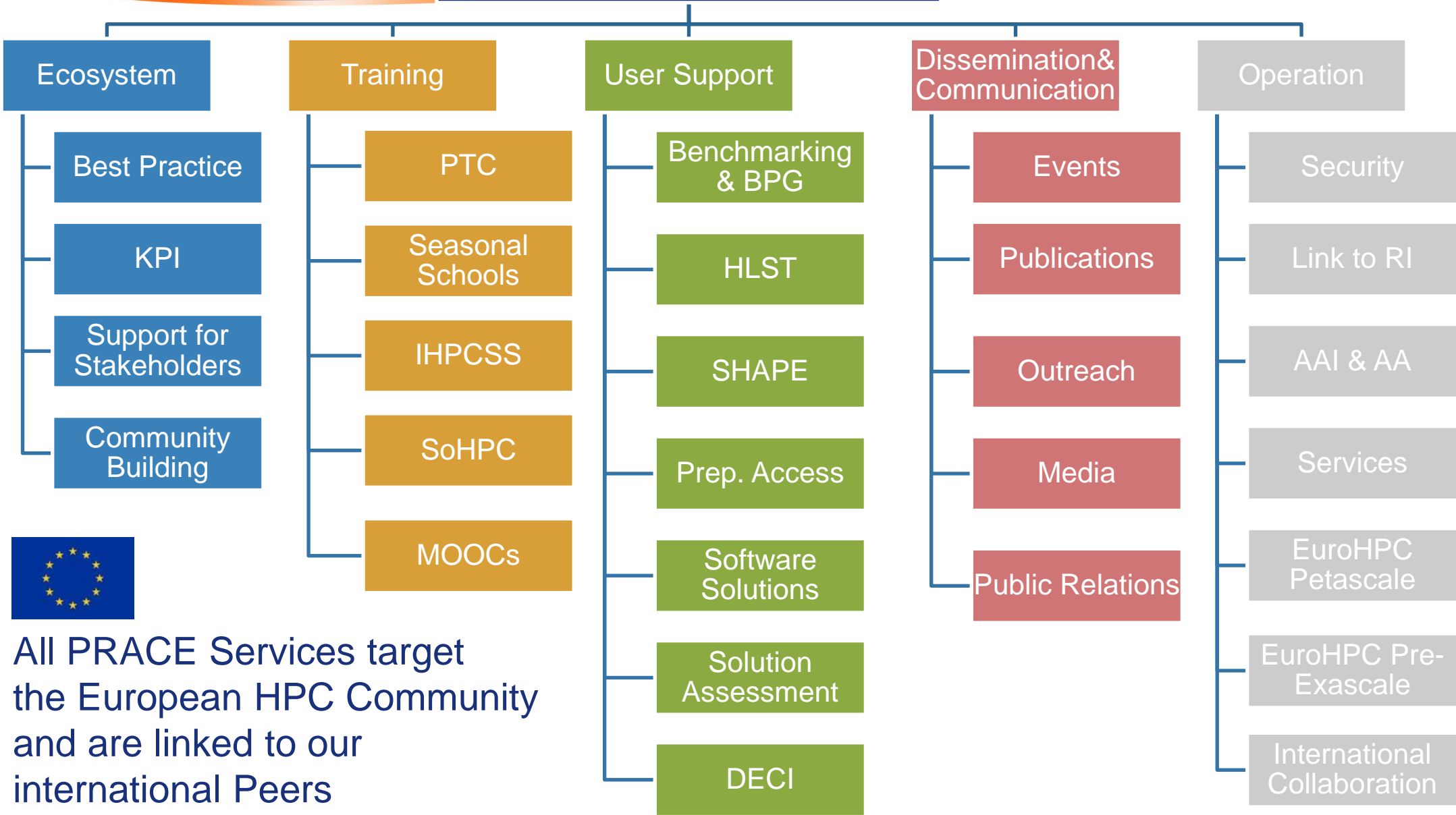
# Fosters International Collaboration

- ▶ Maintains, and further develops international collaboration beyond Europe
- ▶ Strengthens the development of the HPC services in Europe
- ▶ Benefits Scientific Collaboration





# PRACE Knowledge Services



All PRACE Services target the European HPC Community and are linked to our international Peers



# Draft Gap Analysis

- ▶ Never enough effort devoted to SW / Application optimization with efforts coordinated and made available to researchers / users in Europe
  - ▶ Key to energy efficient computing
  - ▶ End of the initiative on forward-looking software solutions across application domains
- ▶ Number of operational services and exchange forums will have to be re-structured
  - ▶ Federating resources HPC / Data / Cloud & Inclusive (from scratch)
  - ▶ Expectations for data management are huge / not properly defined (EOSC)
- ▶ Outreach to future users
  - ▶ New application domains
  - ▶ Industry & public sector users with full set of services in Europe



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# THANK YOU FOR YOUR ATTENTION

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