

MAGIC project

E-infrastructure role in health

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MAGIC: Middleware – Applications – Global - Communities

- MAGIC: Middleware for collaborative Applications and Global virtual Communities
 - Cooperation project which aims to significantly improve **the ability of researchers and academics around the world to collaborate together.**
 - To access to services supported by identity federations
 - To create awareness of privacy and security issues
 - NREN-run applications made available via a worldwide
 - To seek consensus on interoperability of real-time applications and work
 - To foster the collaborative work of Global Science Communities

Identity federation in healthcare domain

- To protect data sources in multi-institutional research
 - Regulatory laws
 - Data sharing
- Actors
 - System developers
 - System users
 - Academic centers

Federated Aggregate Cohort Estimator (FACE)

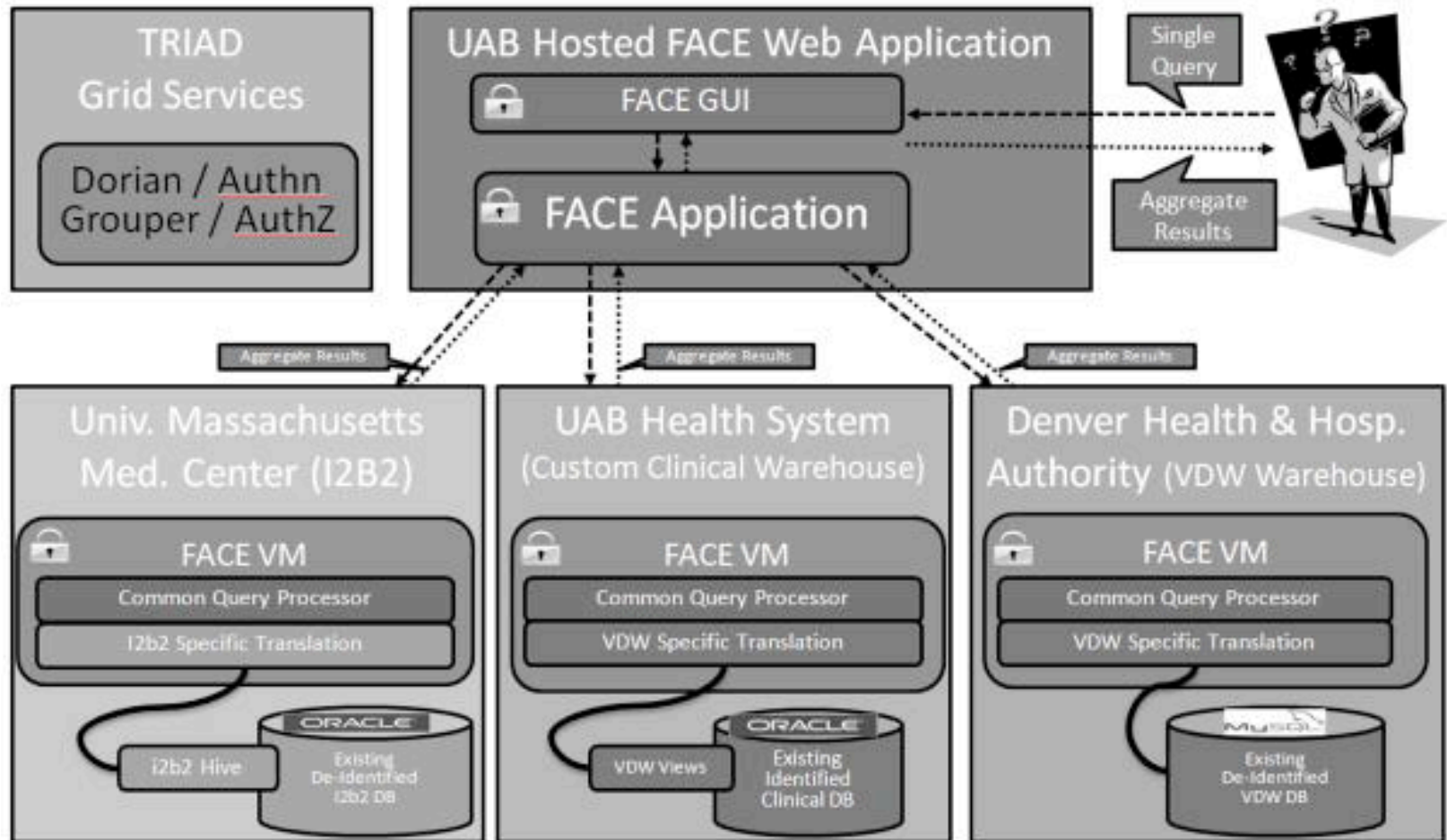
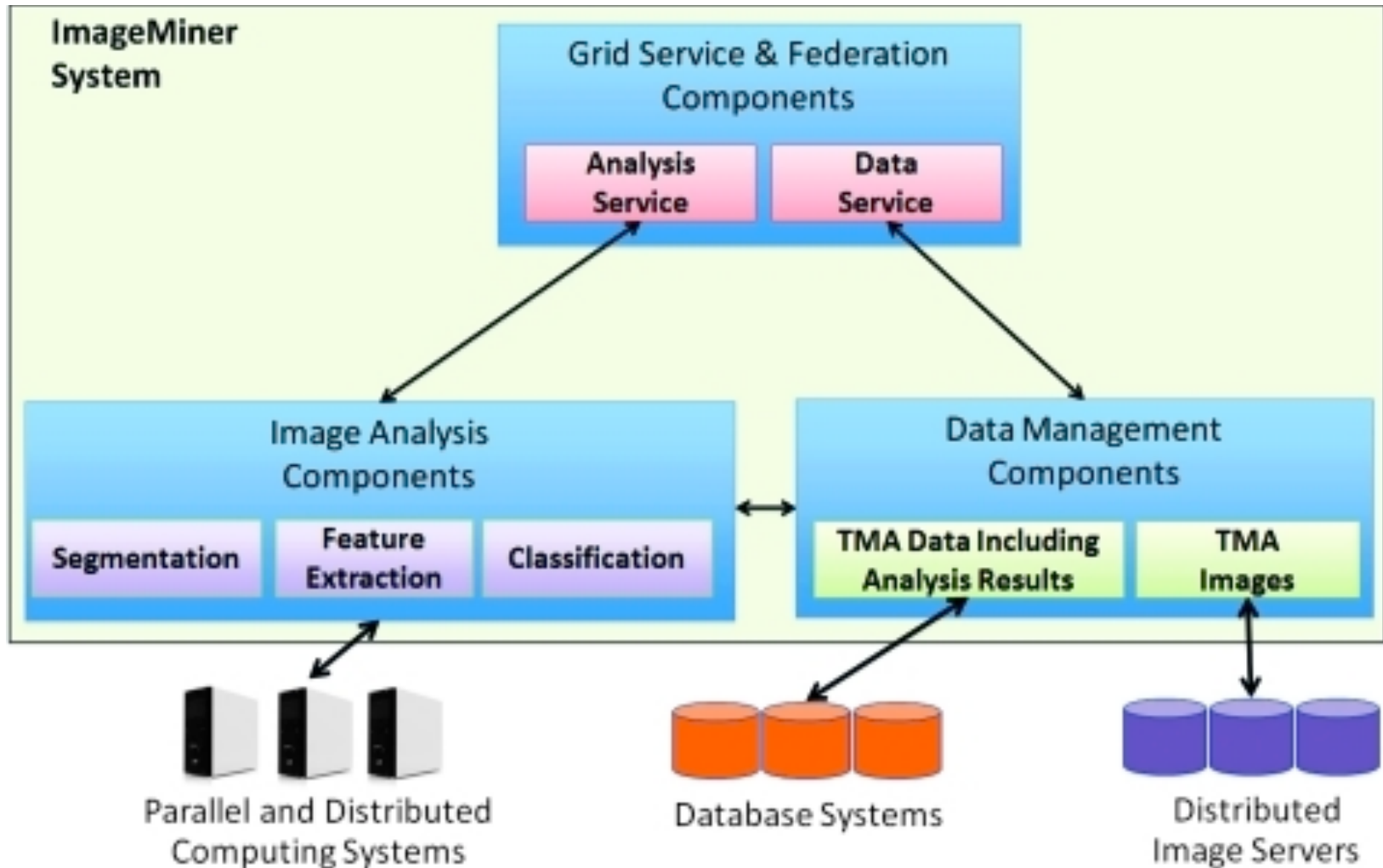


Image Miner System



Medical Schools and HCE Centers

- To enhance education
- To innovate problem-based learning
 - Clinical case models
 - Deploying to remote sites and rural regions
- To share information and experiences in telehealth technologies by using high-performance computing and communications
 - Virtual reality
 - Artificial intelligence
 - Software

e-Virtual Patients

- “an interactive computer simulation of real-life clinical scenarios for the purpose of medical training, education, or assessment”
- A repository of 320 repurposed and enriched virtual patients available under a Creative Commons License.
 - Different cultures and languages
 - Suitable for different educational levels, disciplines or healthcare professions
 - Based on real patient cases
- Healthcare virtual reality standards
- 1.8 million euros

<http://virtualpatients.eu/about/about-virtual-patients/faqs/>

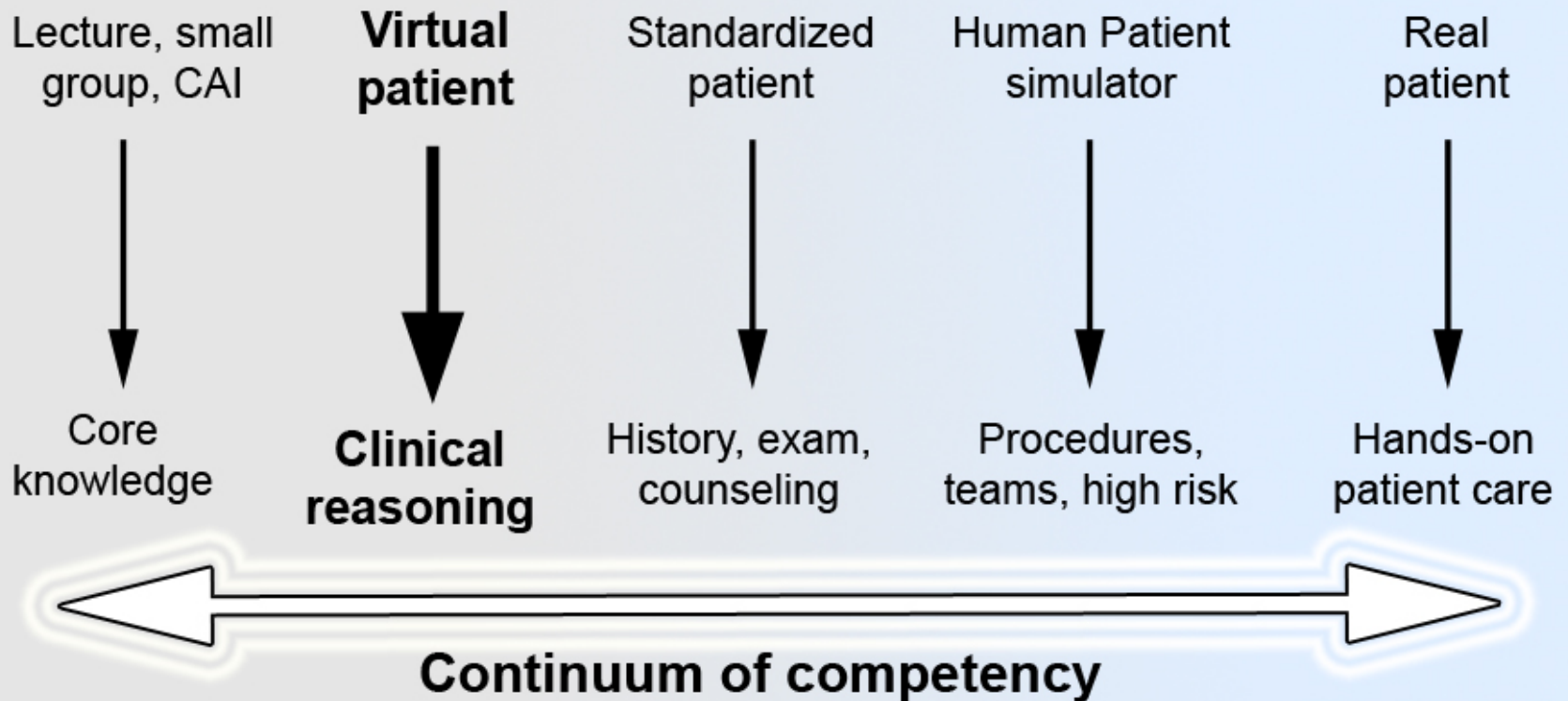
Virtual slides in path lab

- Group of students working together on the same slide.
- Share case information using a wiki, where tutor can review the content.

<http://virtualpatients.eu>

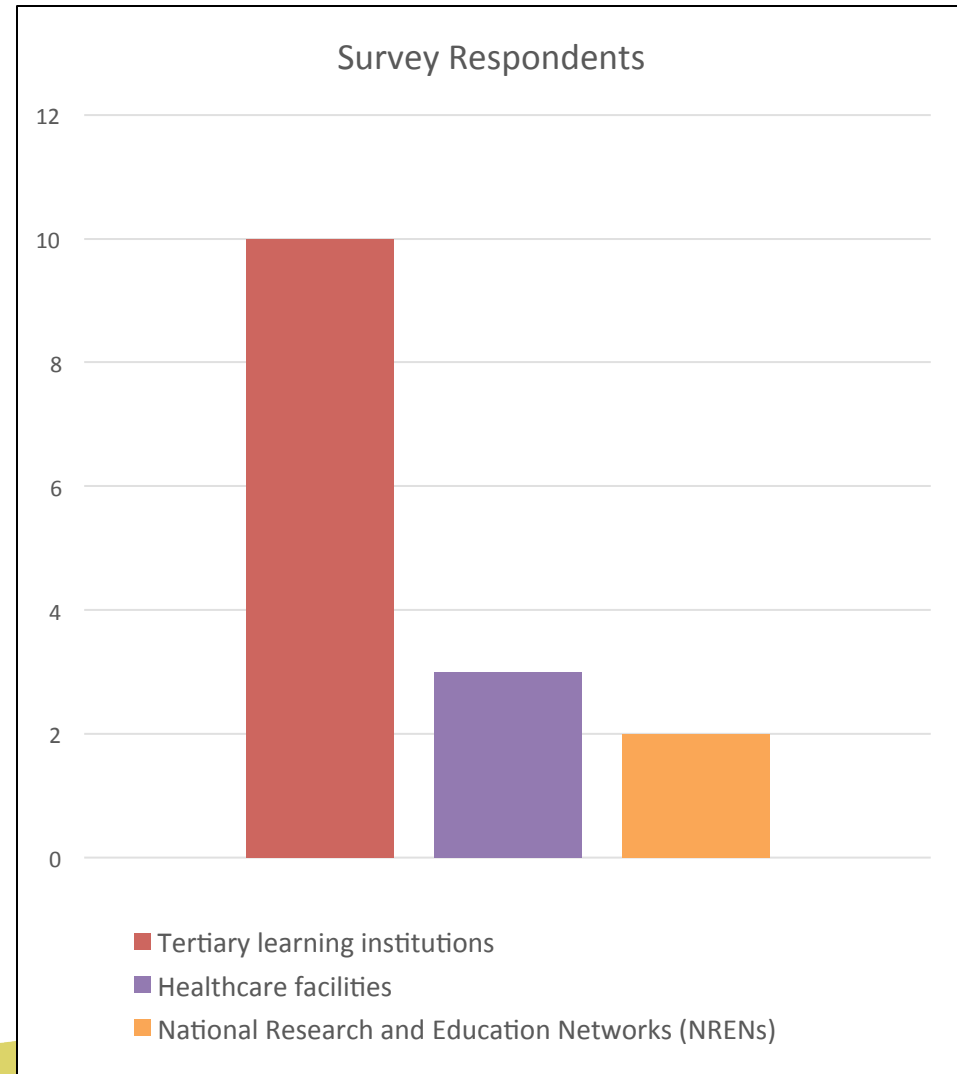
What are VPs best for?

From David A Cooke, AMEE Genoa 2006, and Medical Education 2009, 43



MAGIC eHealth first steps

- Informal survey
- 50 members – community e-mail
- Countries
 - Argentina
 - Brazil
 - Cote d'Ivoire
 - Dominican Republic
 - Ethiopia
 - Jamaica
 - Malawi
 - Mexico
 - Nigeria
 - South Africa
 - Uganda

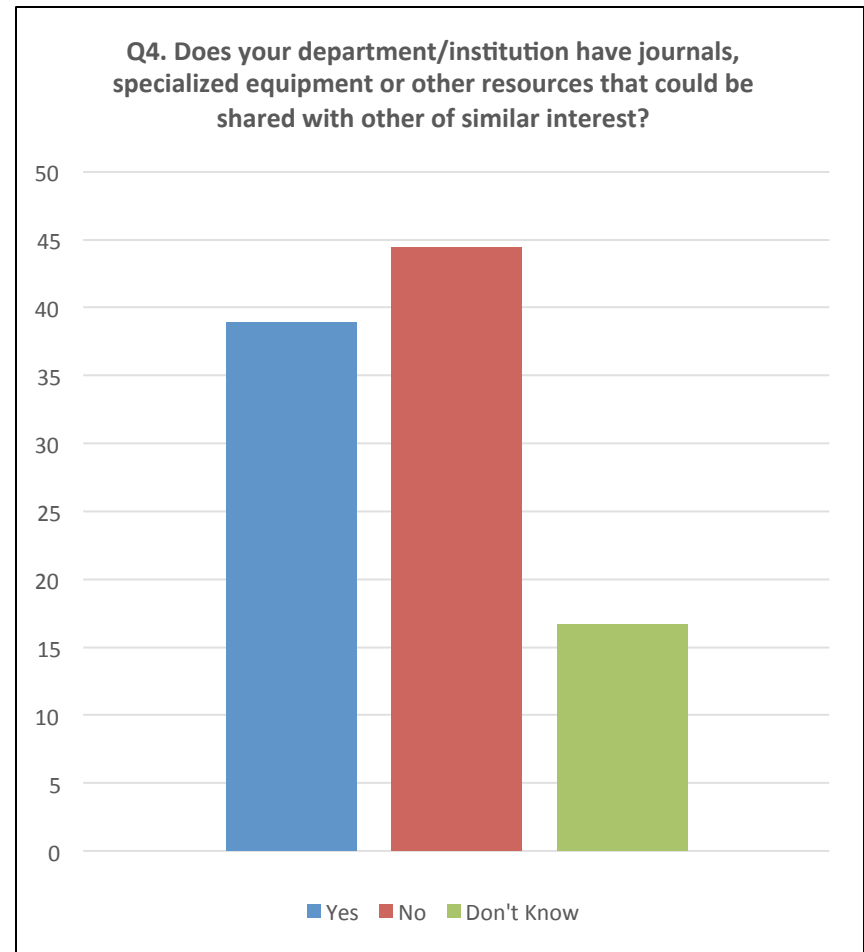


Topics

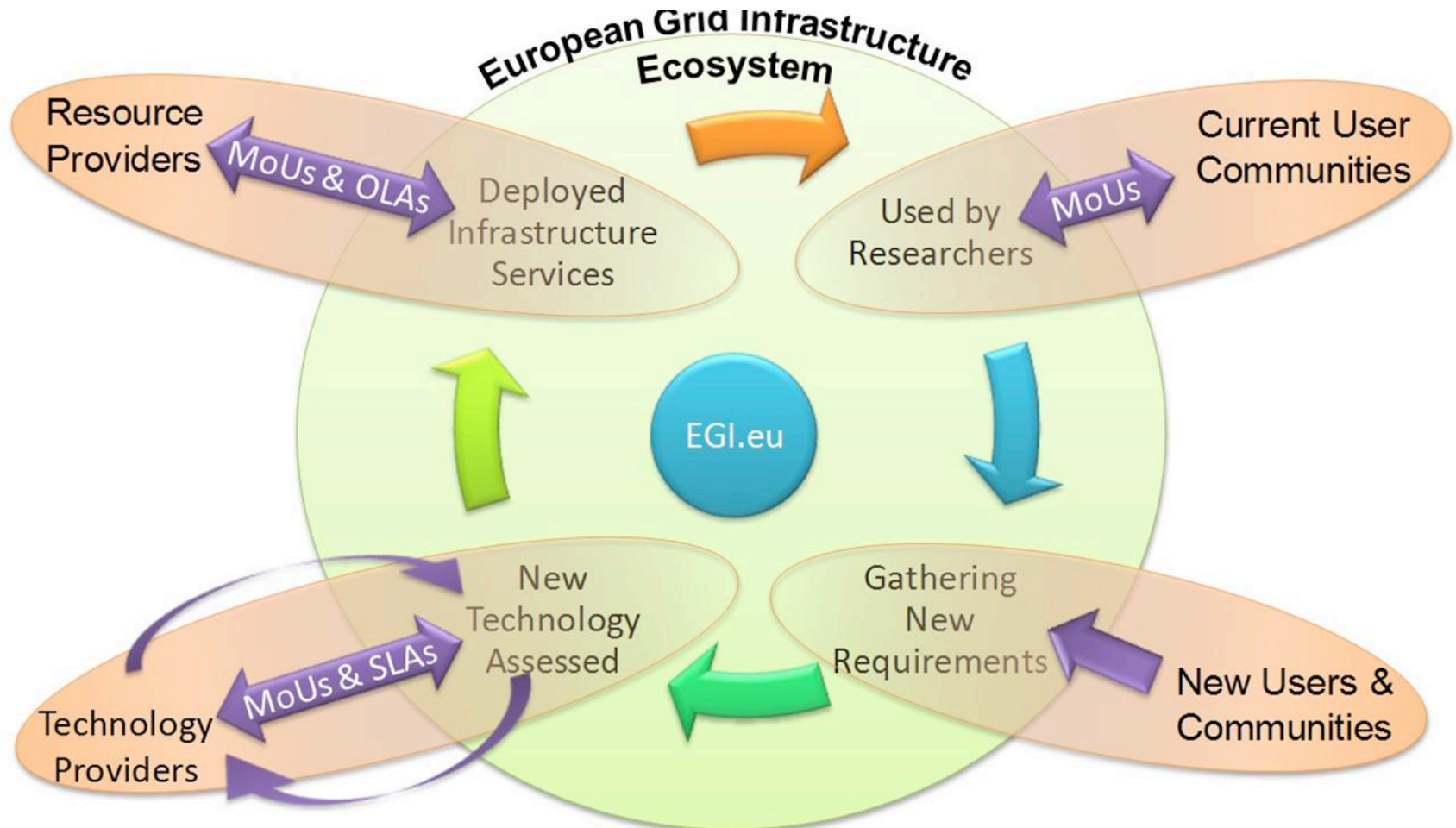
- HIV, AIDS
- University Hospitals Management and School
- **Telemedicine and HIT Standards**
- **Collaboration in Medical Education**
- Cancer
- Worker health
- Reproductive and sexual health
- National Research Network Telehealth
- Children and adolescent health
- Vaccination
- Indigenous health
- Diabetes
- Cardiology

Resource sharing

- **Does your department/institution have journals, specialized equipment or other resources that could be shared with other of similar interest?**
- YES – 38.89%
- NO – 44.44%% (Have plant tissue culture facility, UWI has resources for collaboration; i have access to some online library or text)
- Don't Know – 16.67%



What is missing?



Challenges

- To share and repurposing educational tools
 - Computer-based problem solving exercises
- To establish common frameworks to share digital content
- Increase medical students exposure to different clinical scenarios
- Practice “correct” clinical decisions
- Self-directed learning tools
- Remote and mobile access
- The printed page remains the chief of information.
- Standardisation in competency training
- To include and promote interactive resources and personalized models
- Limited awareness of privacy and security issues

<http://virtualpatients.eu/>

THANK YOU