



Coordinated by

SAGrid is a federation of computational resources, institutes, research labs and Virtual Organisations



@TheSAGrid
SAGrid

provides

A powerful platform for collaboration and research, providing services to scientists

Services include

**Identity management,
Transparent access to HPC sites, Data Storage/
movement/replication
Metadata services
Application porting
User support and Training**

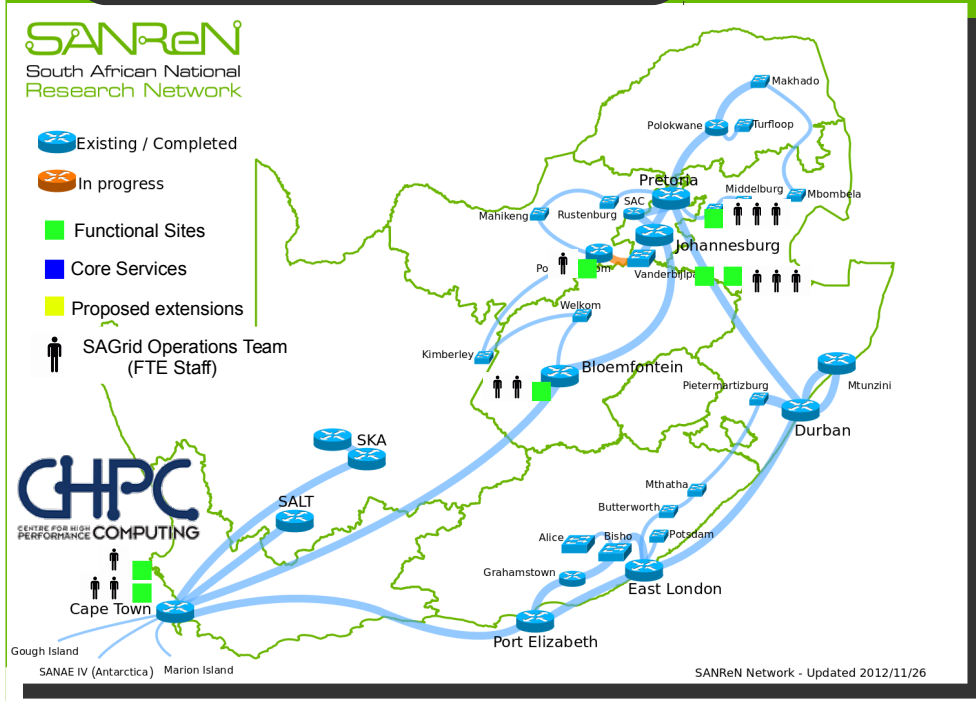
The network is the computer

Distributed computing facilities are integrated with a middleware layer to enable seamless access to a powerful infrastructure, independent of geographic location.

What will you do with your grid today ?

The grid runs a diverse set of ported applications, in engineering, earth science, bioinformatics, cosmology mathematics, physics, and more and groks data, big and small.

Researchers from any domain or institute in South Africa, or their collaborators, can find out more at <http://www.sagrid.ac.za>



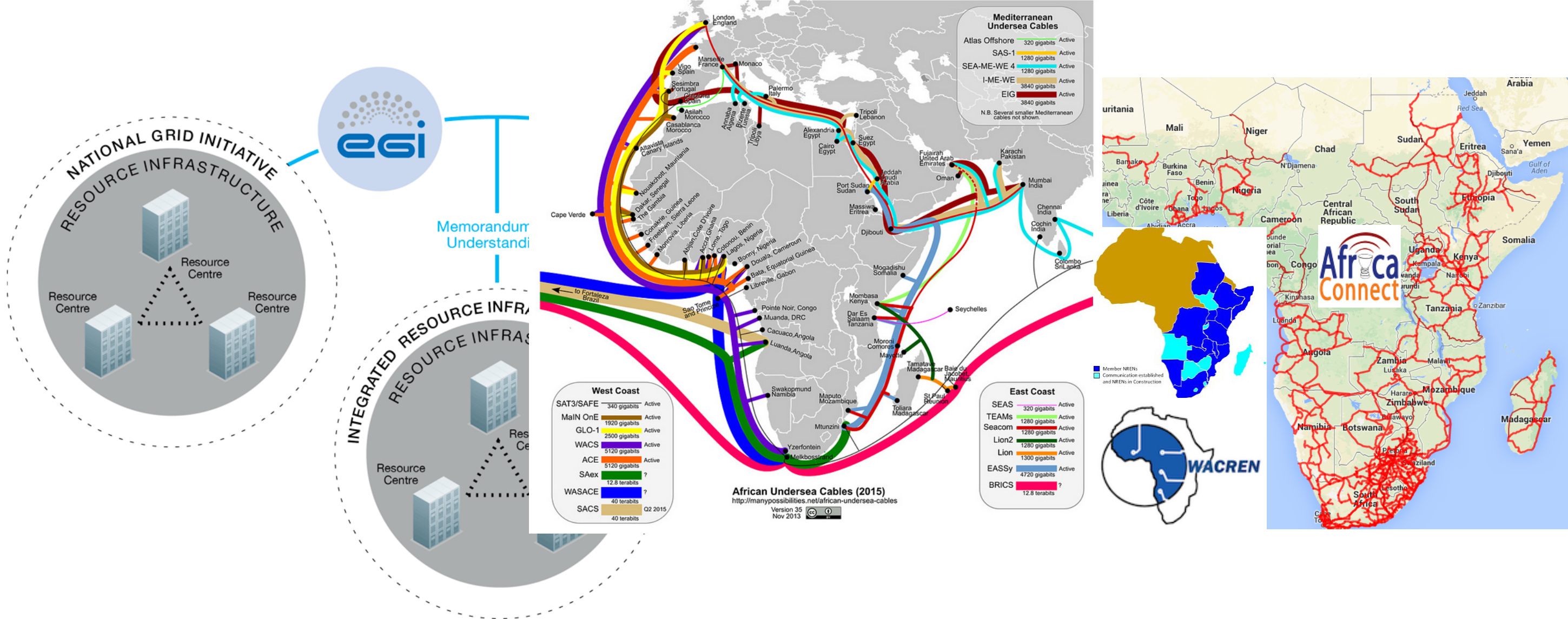
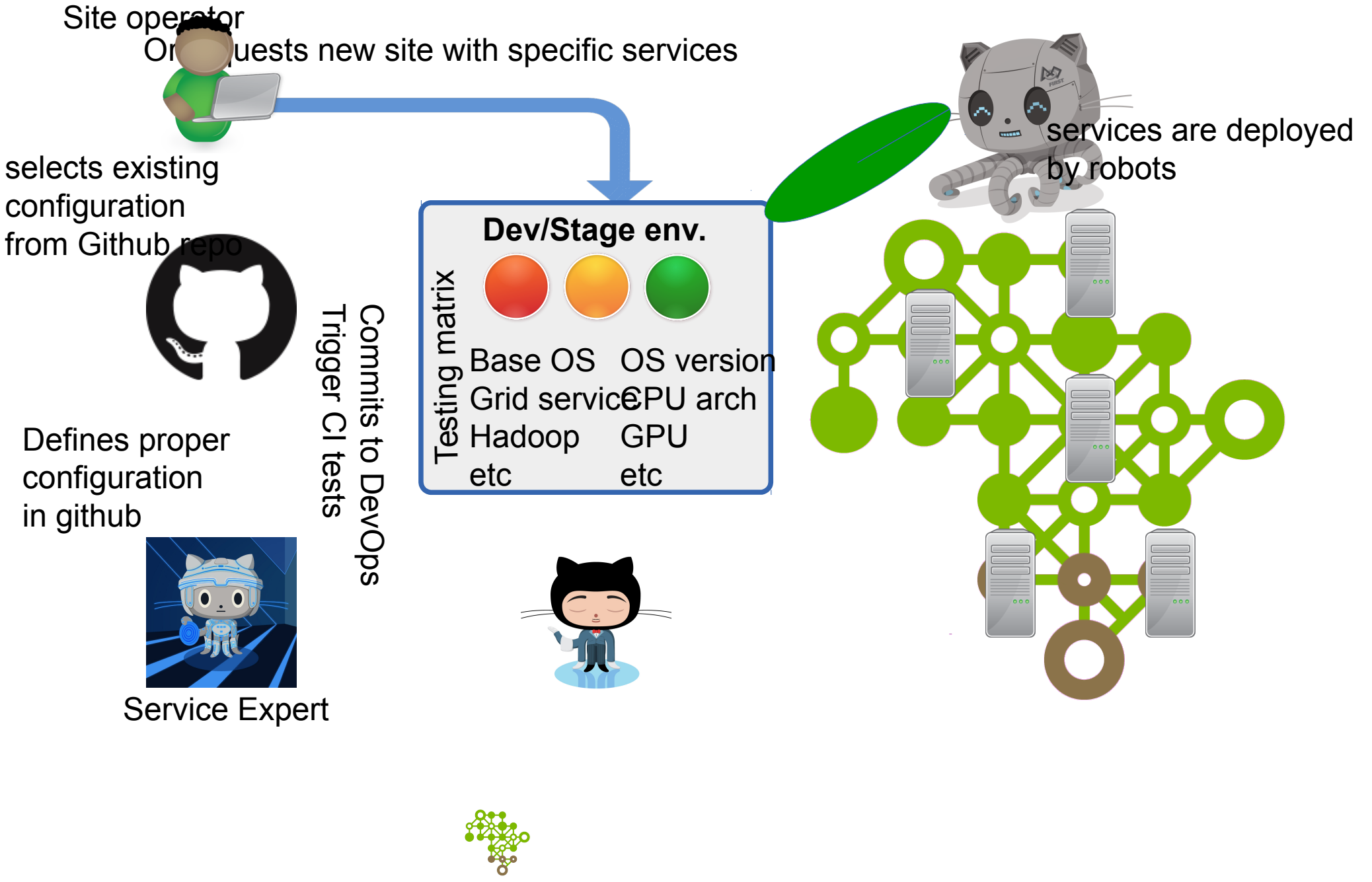
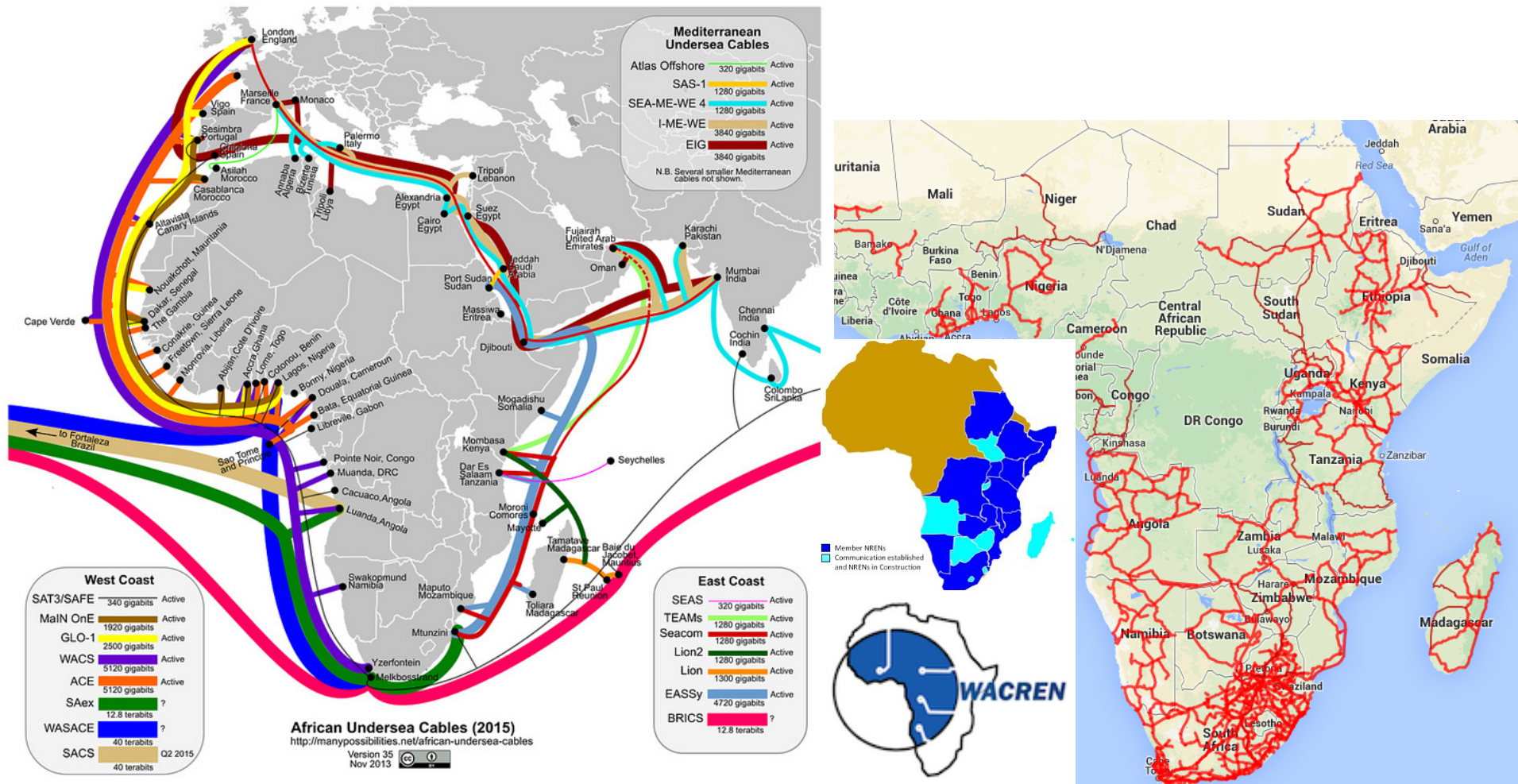
Joint research unit members



Works with



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SAGrid-2.0: Tooling up for African Collaboration

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SAGrid

SAGrid is a federation of universities, research groups and national labs, providing a powerful platform for collaboration and research. SAGrid is coordinated by the CSIR Meraka Institute, as part of the South African National Research Network (SANREN), working closely with the Centre for High-Performance Computing in Cape Town. Together, they form part of the South African National Cyberinfrastructure



science & technology
Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

CSIR
meraka

CHPC
CENTRE FOR HIGH
PERFORMANCE
COMPUTING

SANREN
South African National
Research Network

Africa-Arabia Regional Operations Centre

MoU with EGI as Integrated Resource Infrastructure Provider created first NGI_ZA, then Africa-Arabia Regional Operations Centre, thanks to CHAIN-REDS

NICIS

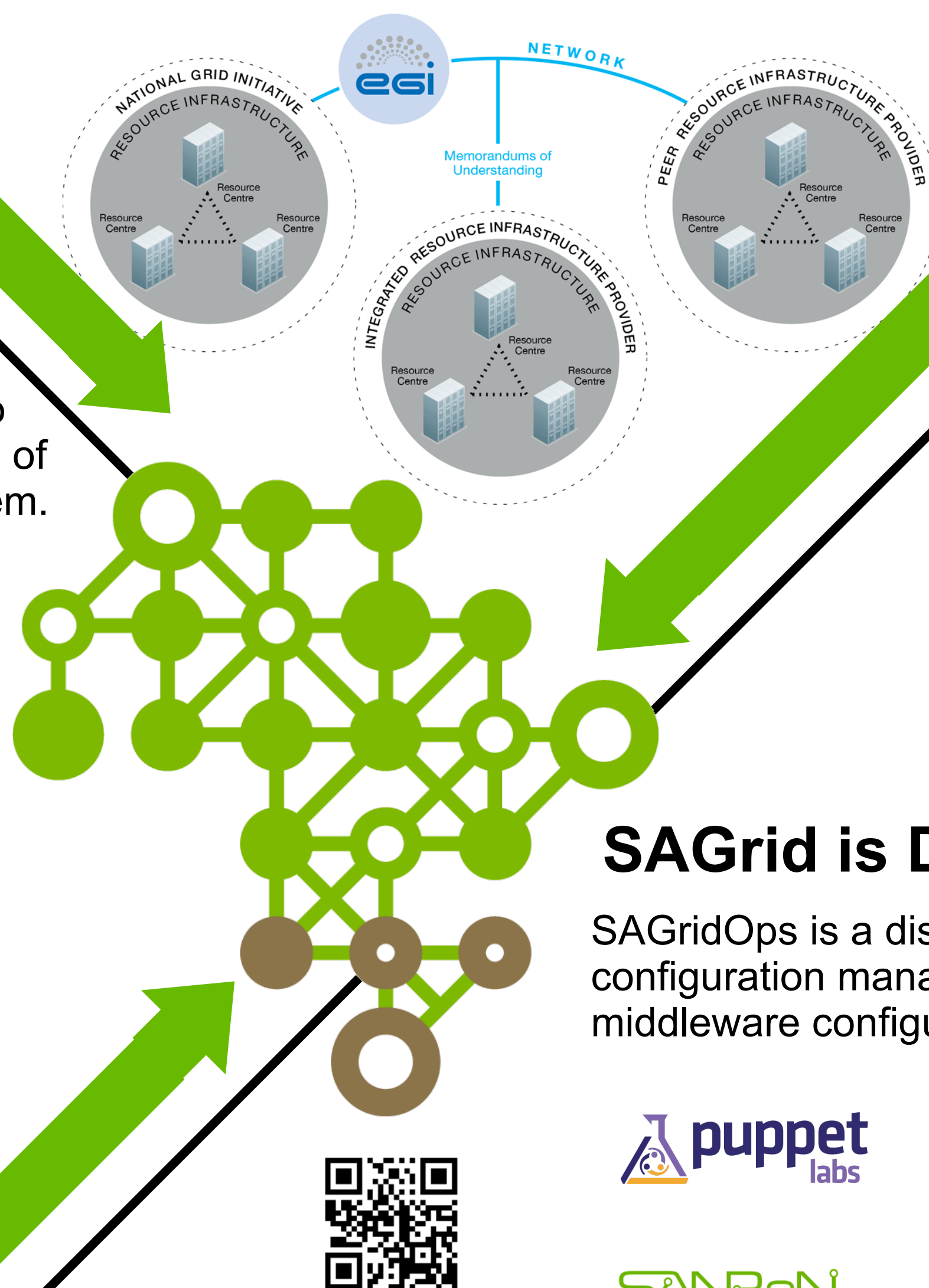
A review of South African e-Infrastructure has taken place, harmonising investments in computing, data and network infrastructures. SAGrid is adapting new tools, methodologies and services to help implement this plan and continue to enable research communities to take full advantage of the range of resources and services available to them.

Reduced barriers to entry

SAGrid is adopting the Science Gateway paradigm, allowing users to easily access grid, cloud and HPC resources seamlessly. Science Gateways for applications and data management are based on the Catania Science Gateways Framework, taking advantage of SAGA, SAML and other standards, and will become one of the services in the new South African Identity Federation

Flexible Infrastructure, Further Services

SAGrid-2.0 extends the existing NGI to provide a new range of services to user and development communities



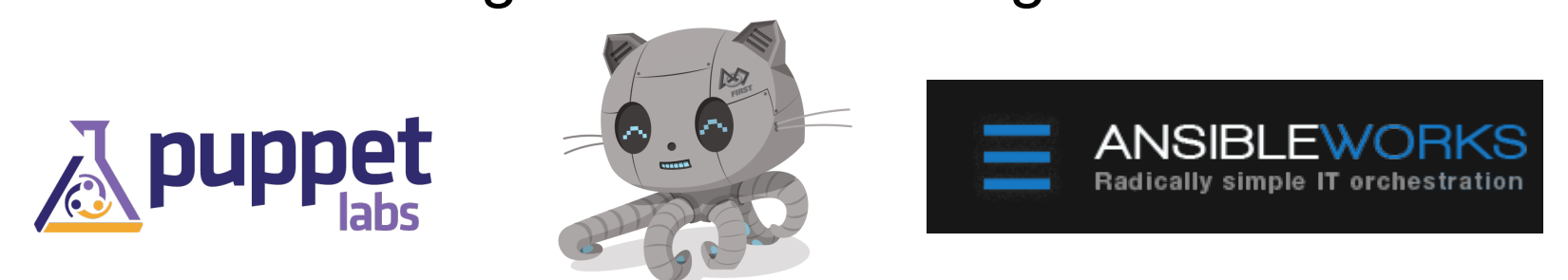
Challenges

Development of AAROC requires a scale-up and reorganisation of operations



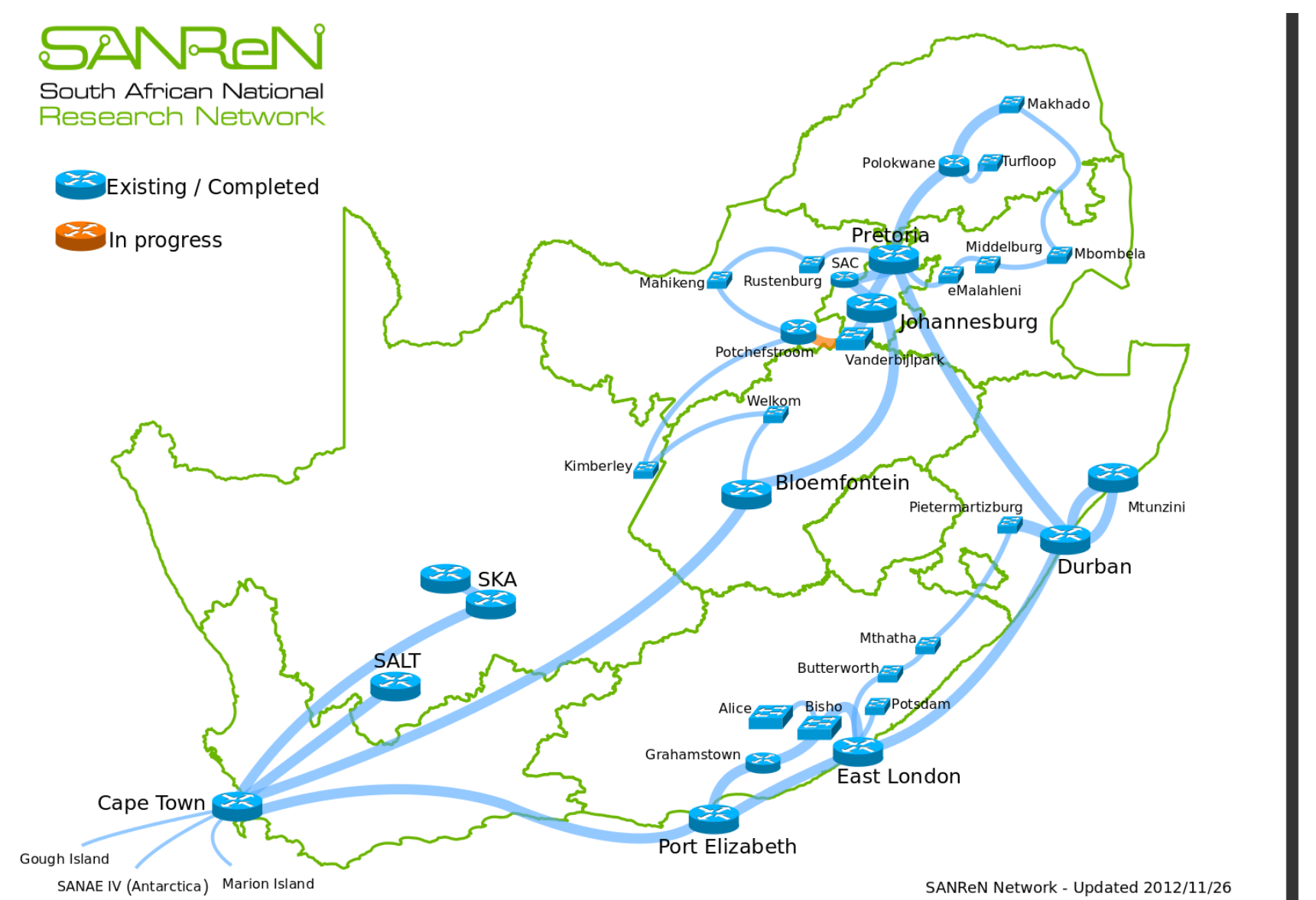
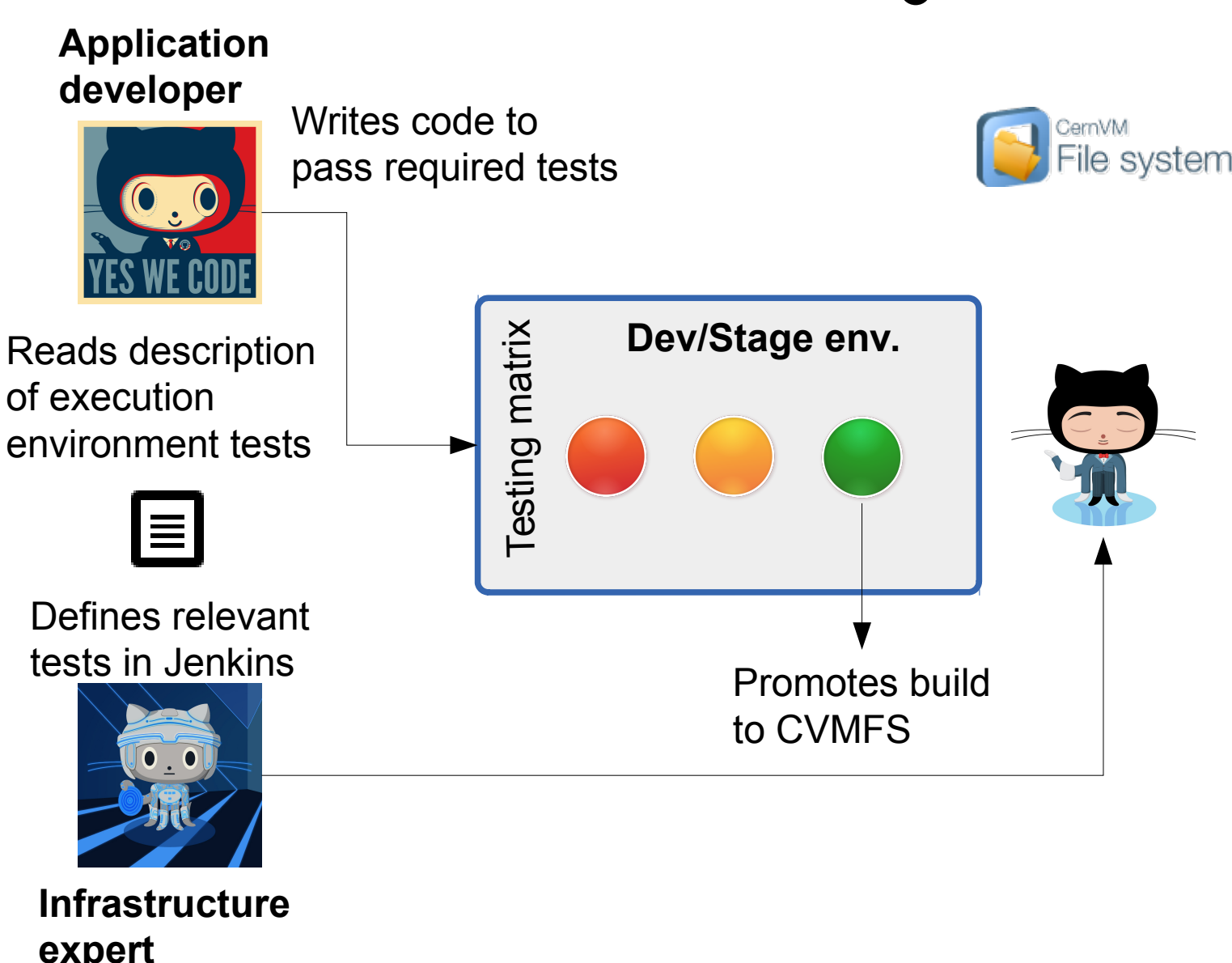
SAGrid is DevOps

SAGridOps is a distributed team. centralised configuration management allows automated middleware configuration and change control



Simple Application Porting & Delivery

A self-service portal for porting applications for several architectures and execution environments allows users to easily prepare applications for deployment. Based on Jenkins CI, this allows us to centrally test applications on different environments like ARM or GPGPU services, as well as manage dependencies.



egi

EM
EUROPEAN MIDDLEWARE INITIATIVE

