

Sub-Saharan Support Structures

UbuntuNet Alliance and ei4Africa

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Outline

- Background and Context
 - Regional Activities Infrastructure
- Support Activities
 - CHAIN-REDS
 - ei4Africa
- Does the region need a PMA ?



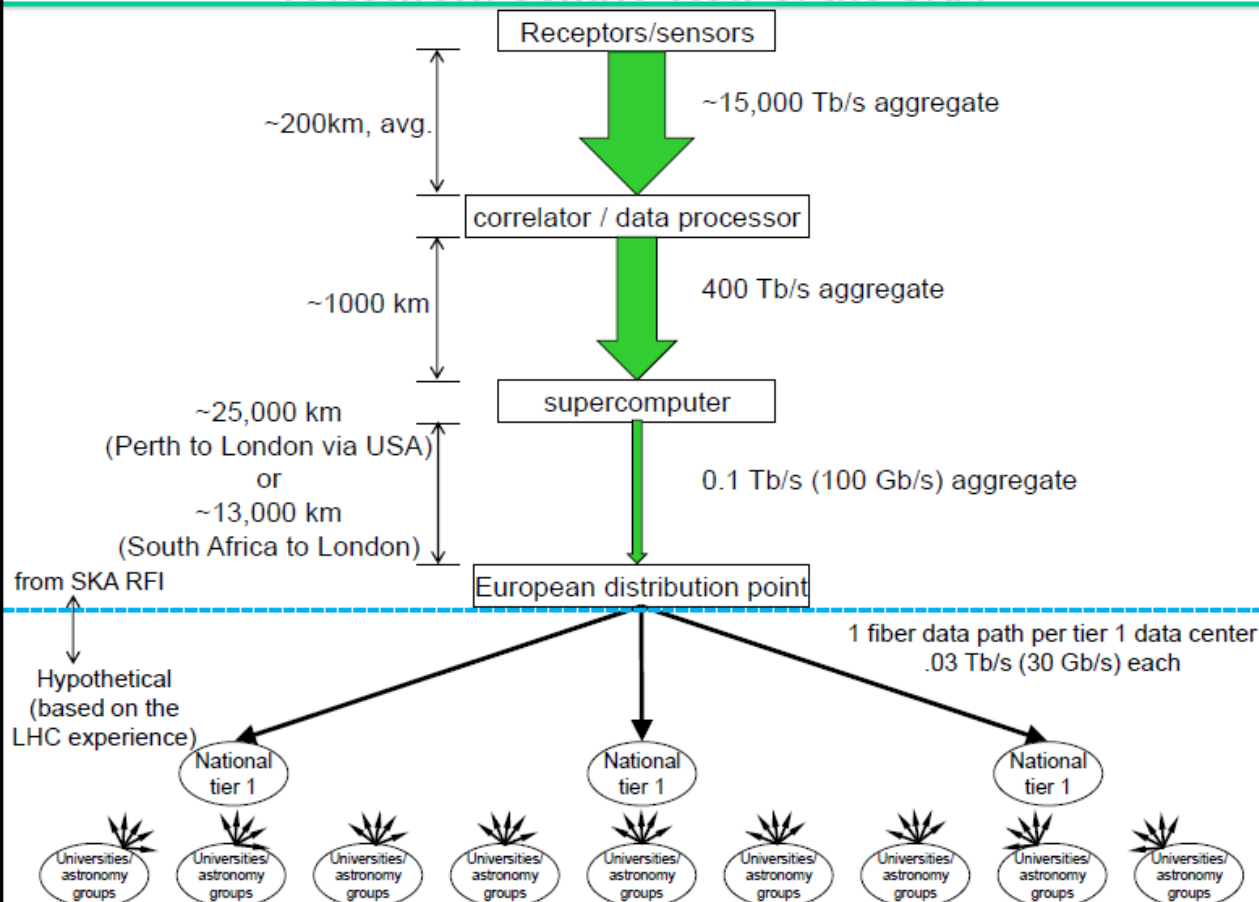
What's happening in Africa

- New African networks are driving huge advances in scientific projects in Africa
- This is necessitating e-Infrastructure investments
 - Computing and data centres
 - Network infrastructure (terrestrial fibre)
 - Collaboration networks...



Big Science in Africa – the SKA

A Network Centric View of the SKA

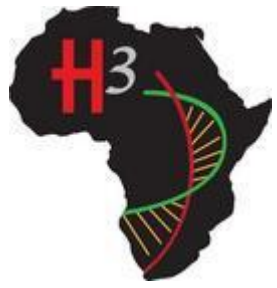


**Many similar astro activities,
e-VLBI Africa (South Africa, Ghana)
Namibia HESS, CTA.**



Big Science in Africa – LHC experiments

- Formal participation in LHC experiments has grown slowly:
- ATLAS (Morocco, South Africa), CMS (Egypt), ALICE (South Africa)
- Participation is dependent on providing some computing and data resources to participate in WLCG
- Many other countries participating to CERN activities...



Wide science in Africa - H3A BioNet



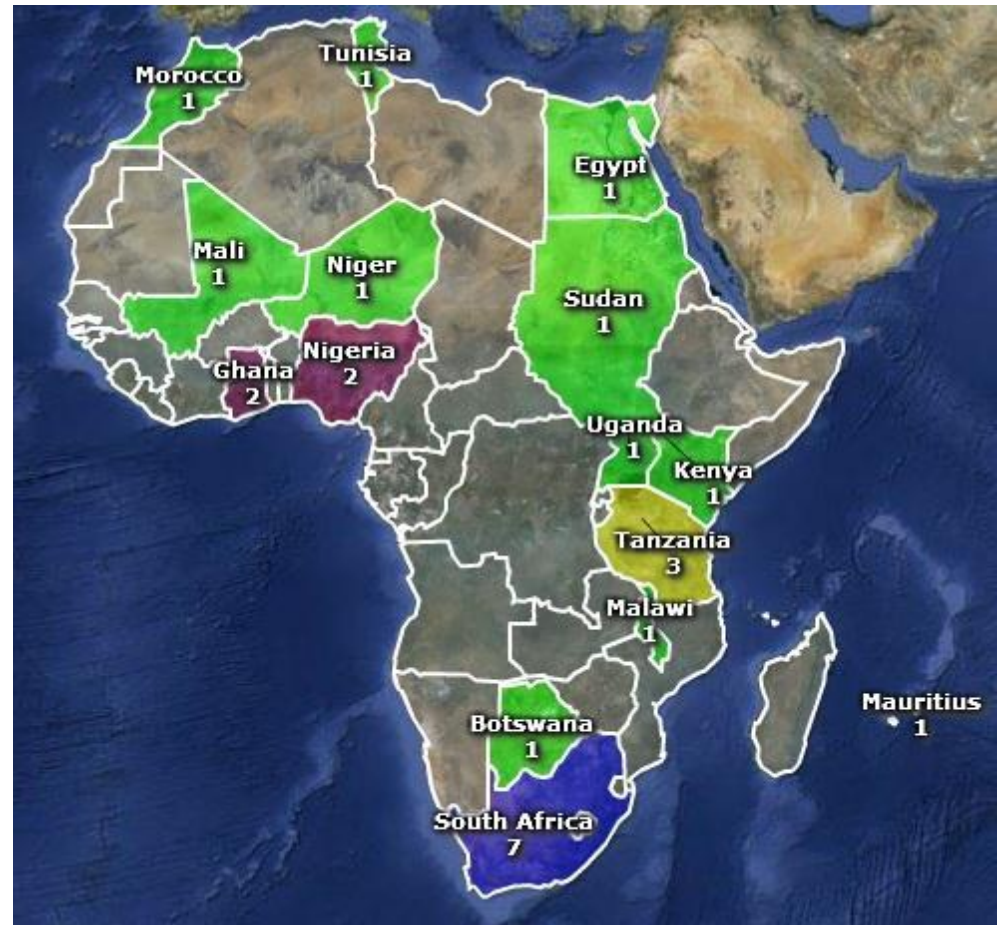
H3ABioNet

Pan African Bioinformatics Network for H3Africa

Genomics and
environmental determinants
of common diseases in
order to improve health in
Africa;

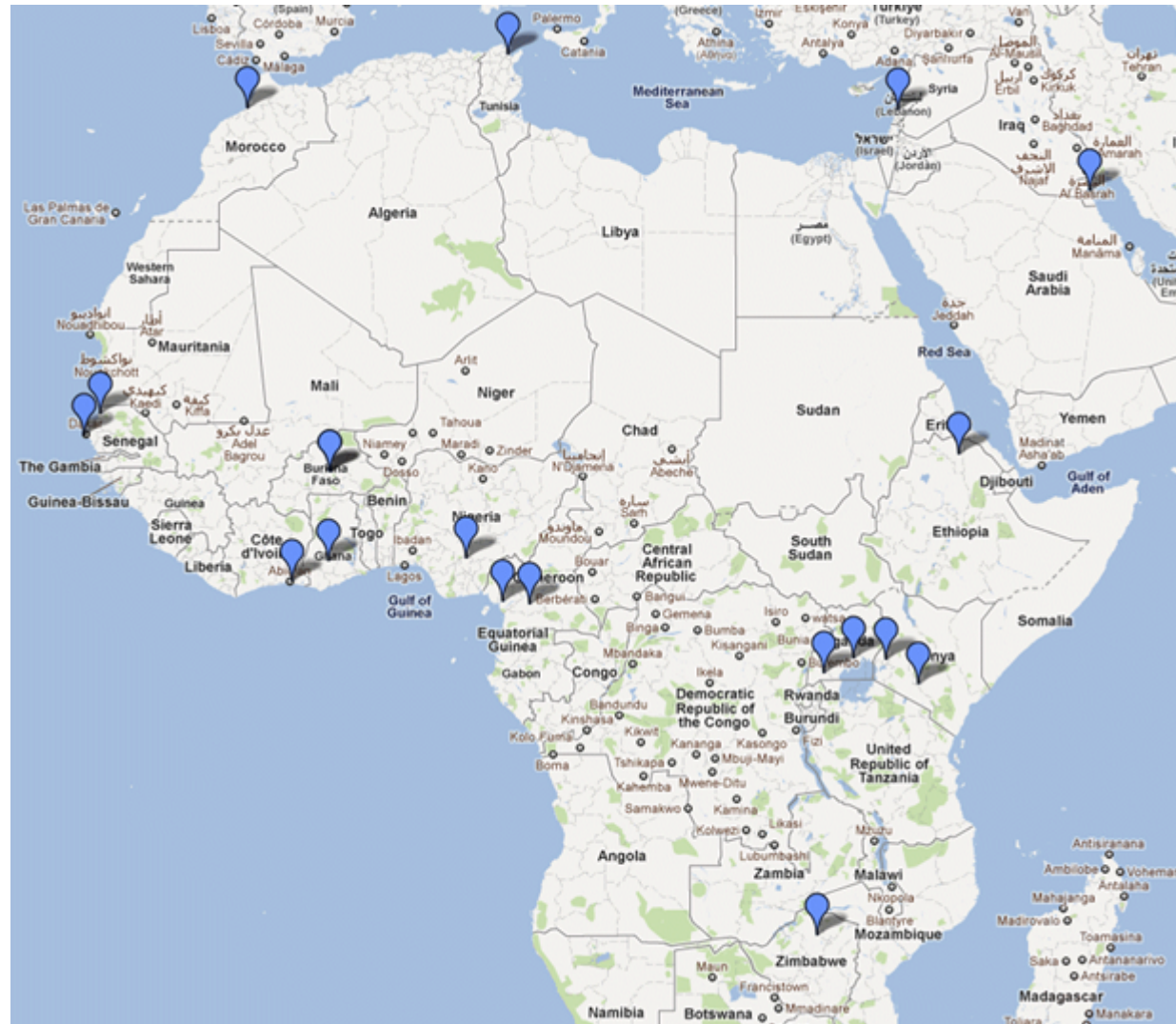
Full genome sequencing of
various populations in Africa

32 partner institutions in 15
African countries, 2 in US





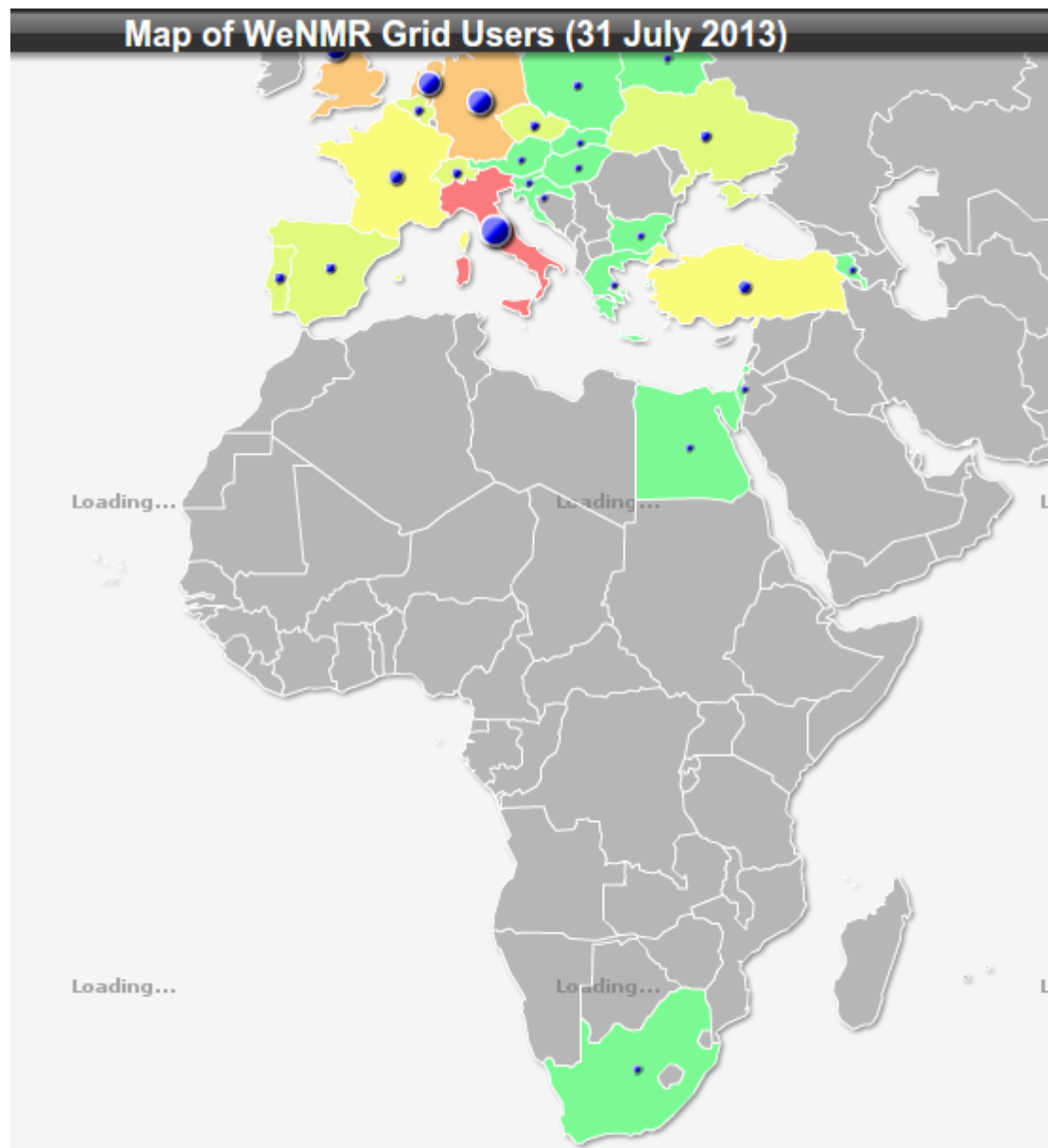
Very wide science in Africa - Everything else !



United Nations
Educational, Scientific and
Cultural Organization

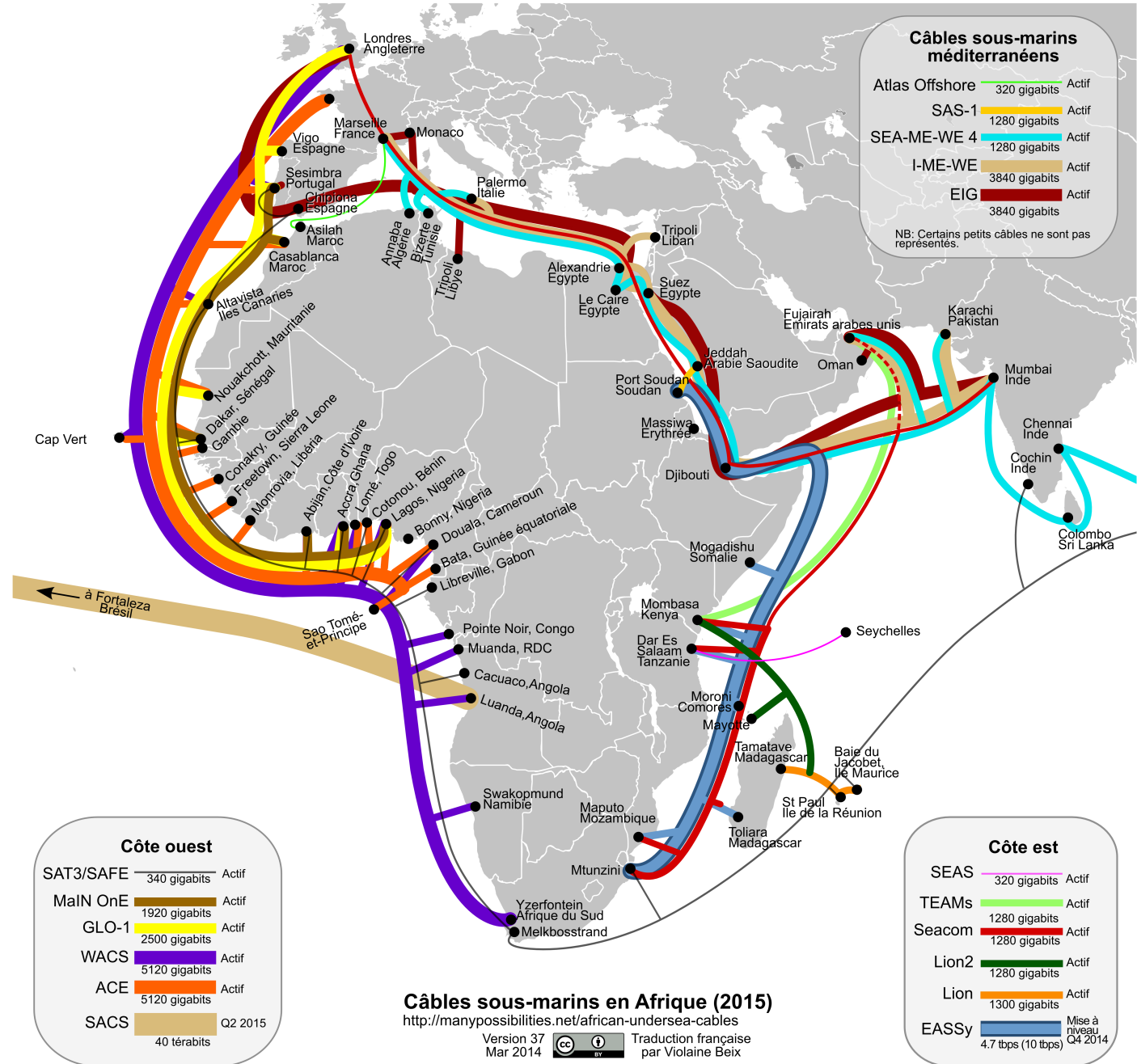


Lots of other activity (e.g. We-NMR)





African e-Infrastructure





Regional NREN Alliances





- Regional NREN alliances have membership of the various NRENS
- Provide an umbrella body for new services, etc
- The natural home for CA, IdF services...




What's happening in Africa ?



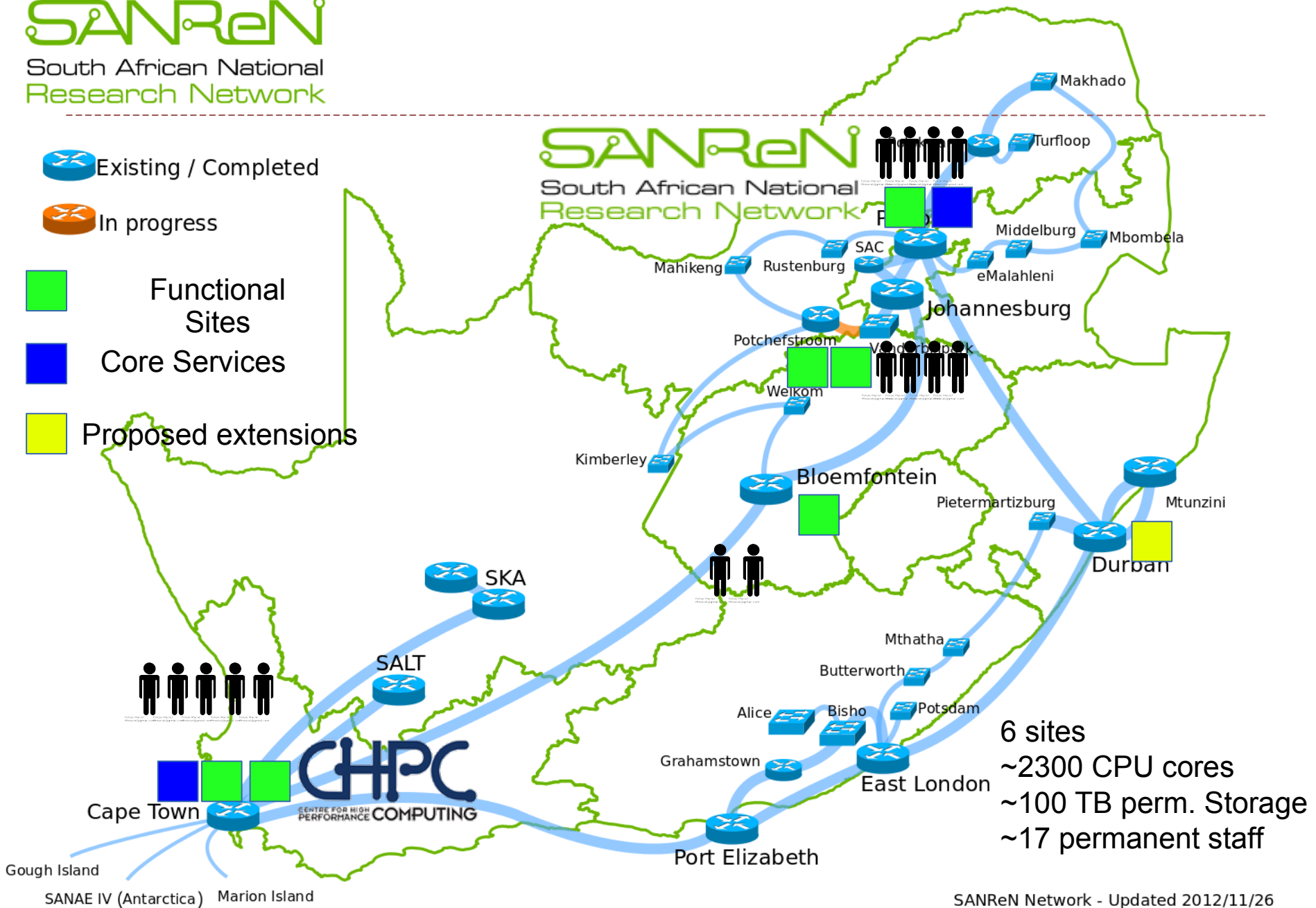
 Existing / Completed

 In progress

 Functional Sites

 Core Services

 Proposed extensions

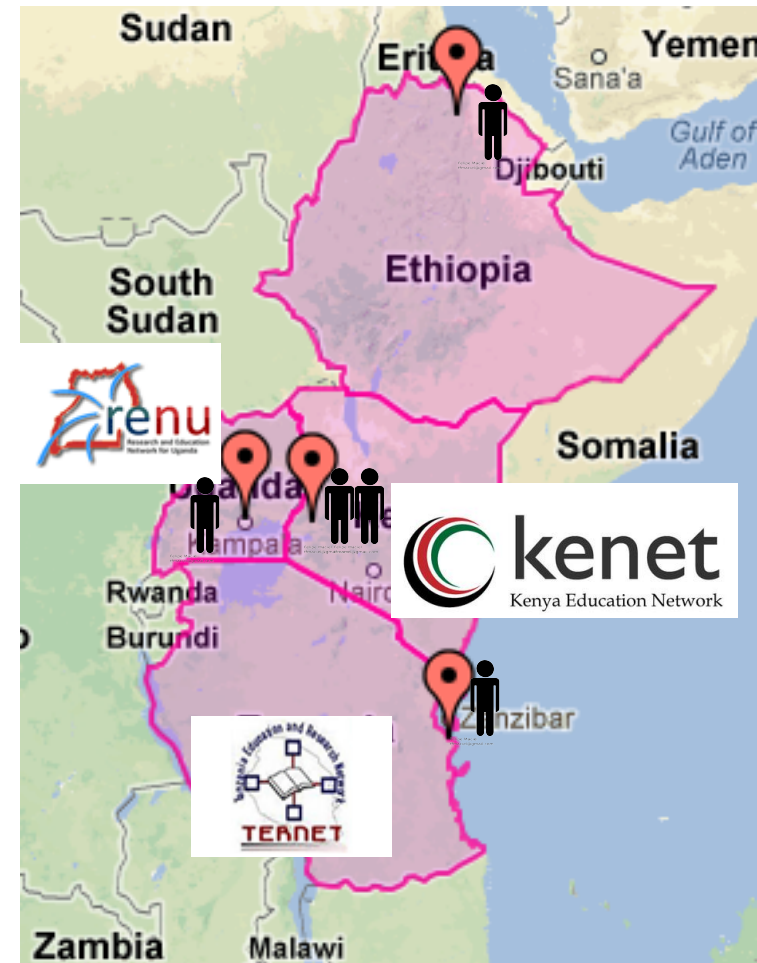


SANReN Network - Updated 2012/11/26



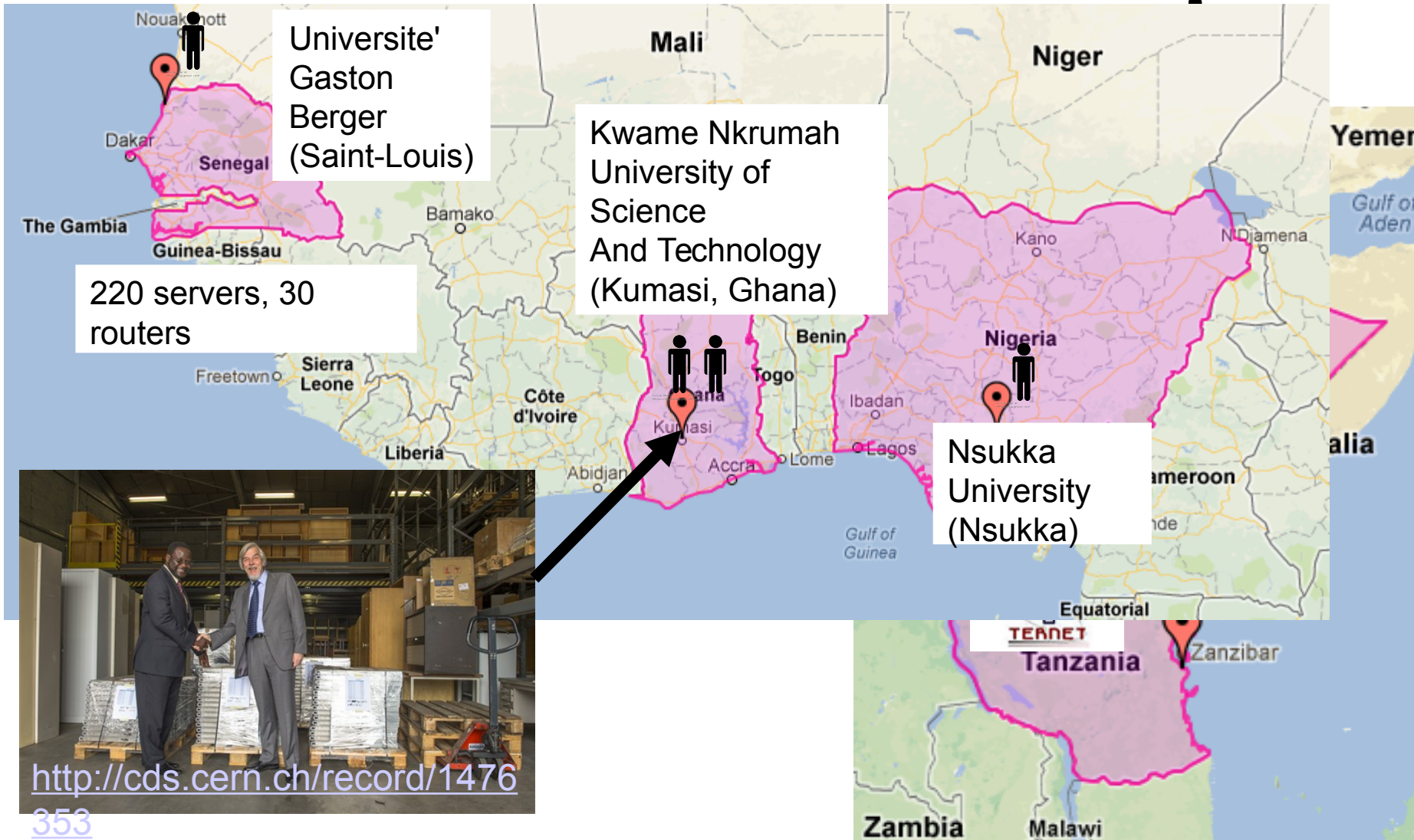
Other African sites

- Many research centres with significant HPC/data services
- ILRI – livestock and agriculture
- APHRC – population, health... etc etc





African sites





Interoperability

- NGI_ZA previously signed MoU with EGI.eu to act as Resource Infrastructure Provider
- CHAIN-REDS supported an expanded effort to include the rest of Africa and Arabia -
- Creation of Africa-Arabia Regional Operations Centre (AAROC)
- Now operational (in GGUS, GOCDB, etc)
- MoU signature imminent.



Discussion

- Africa-Arabia ROC is stimulating (semi)coherent development of e-Infrastructure in the region
- Strong demand for services, PKI is at the base of many of them.
- Without a critical mass, too sparse to sustain
- Strong support in 2 FP7 projects -
 - <http://www.chain-project.eu/>
 - <http://ei4africa.eu/>





Does the region need a PMA ?