NARG Steering meeting
Manchester | Sept. 2018

GIS Database

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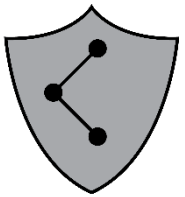
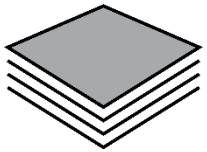
Objectives



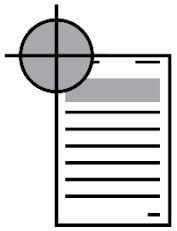
Accessible and secure platform

Create a GIS platform accessible online to all members of the NARG: sponsors, researchers and students



Abundant and reliable data

Store and access data collected by all NARG PhD students, as well as industry datasets and relevant literature



Efficient and relevant applications

Serve as a basis for current and future (i.e. ***up-to-date***) research projects conducted within the NARG

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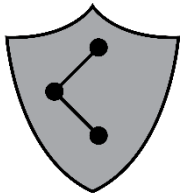
NARG Server & ArcGIS

- ArcGIS & ArcMap desktop
  - Easy viewing
  - Any data exportable for your projects
  - Layers and projects available
  - Stored as a ‘geodatabase’
  - Powerful applications
  - Accept links and thumbnails
  - Easy editing (from our side)

- NARG server
  - Located in this building
  - Colossal amount of gigabits
  - Protected by UoM network
  - Accessible remotely
  - Custom-designed website
  - Download layers/project/docs



Accessible to ‘**NARG Account**’ holders only

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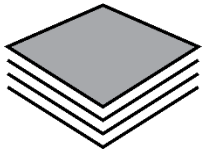
Featured data



> 30 layers

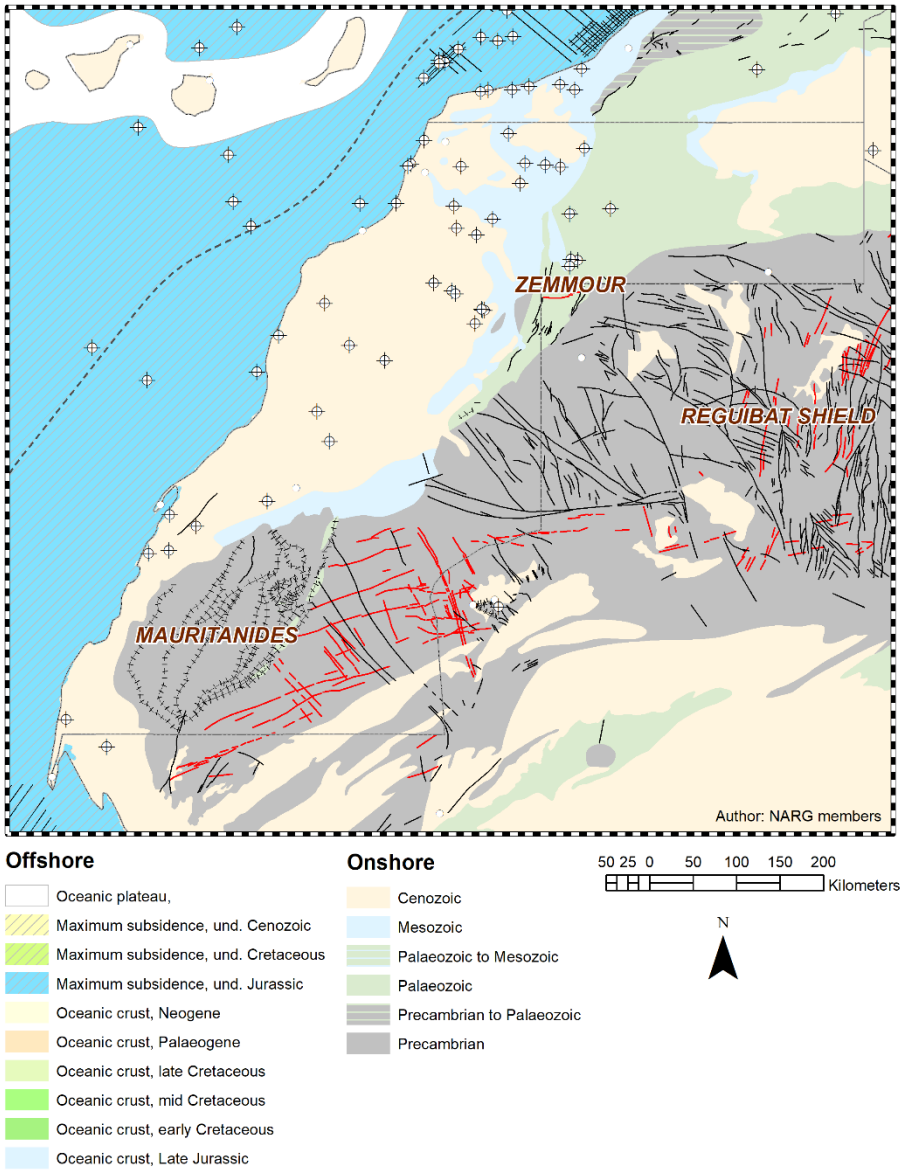
- Industry Layers
  - Wells
  - Seismic data
  - Interpreted lines
  - Hydrocarbon exploration
- Literature Layers (incl. NARG results)
  - Outcrops
  - Cross-sections
  - Stratigraphy
  - Low-temperature thermochronology
  - Time-temperature modelling
  - Geochronology
  - Paleocurrents
  - Palaeontology
  - Subsidence
  - Salt Tectonics
  - Diagenesis
- NARG Layers
  - Studies
  - Samples
  - Photographs
- Base Layers
  - Geography (roads, rivers, cities…)
  - Structural features
  - Onshore geology (superficial)
  - Offshore geology (oceanic crust)
  - DEM
  - Free-Air Anomaly
  - Magnetic Anomaly
  - Geological map Africa (Unesco, 1990)
- Georeferenced maps
  - Paleoreconstruction
  - Location and geological maps
  - Results maps

NARG

✓ All elements populated with **metadata**, **figures**, and/or **hyperlink** to NARG data

Possible applications

Location figure | *e.g. Western Sahara*



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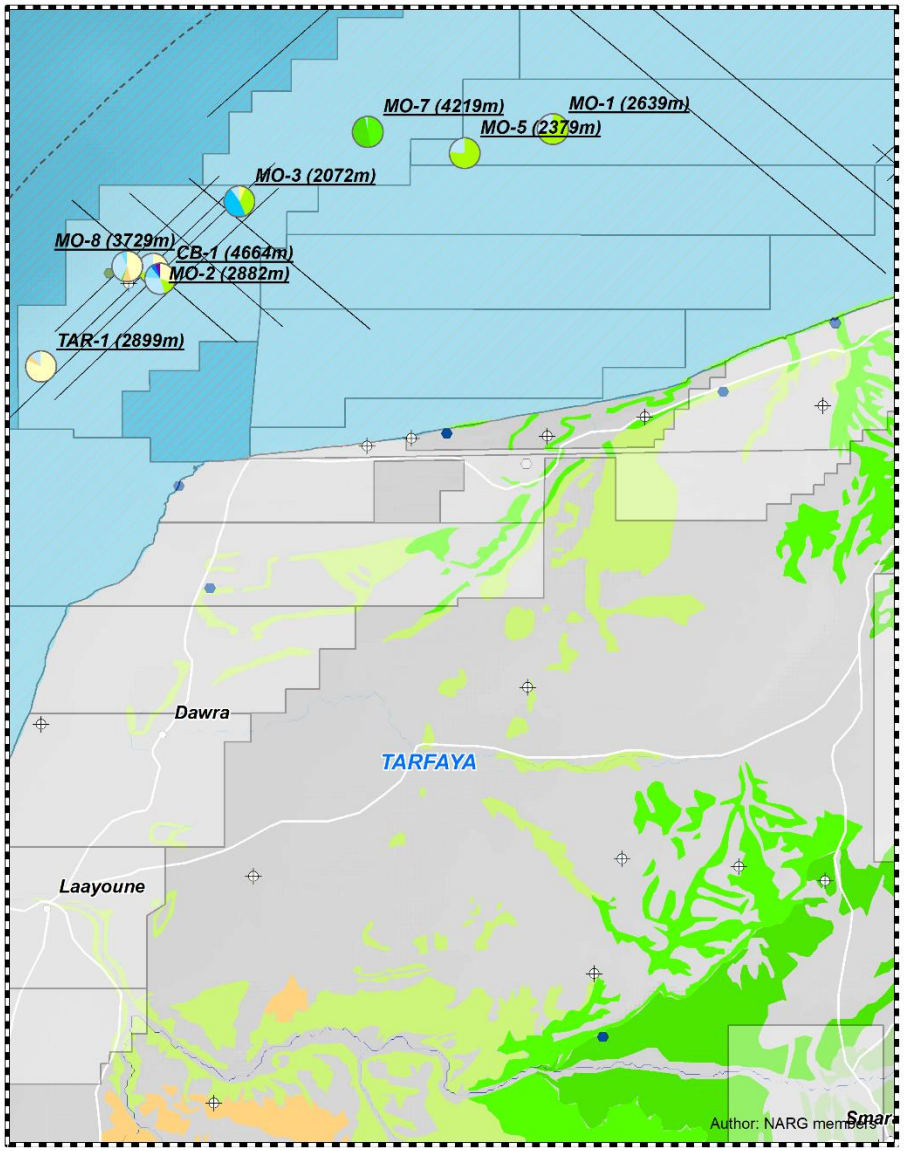
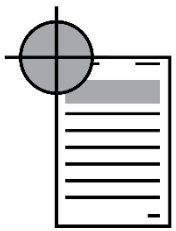
Possible applications

Basin scouting | *e.g. North Tarfaya*

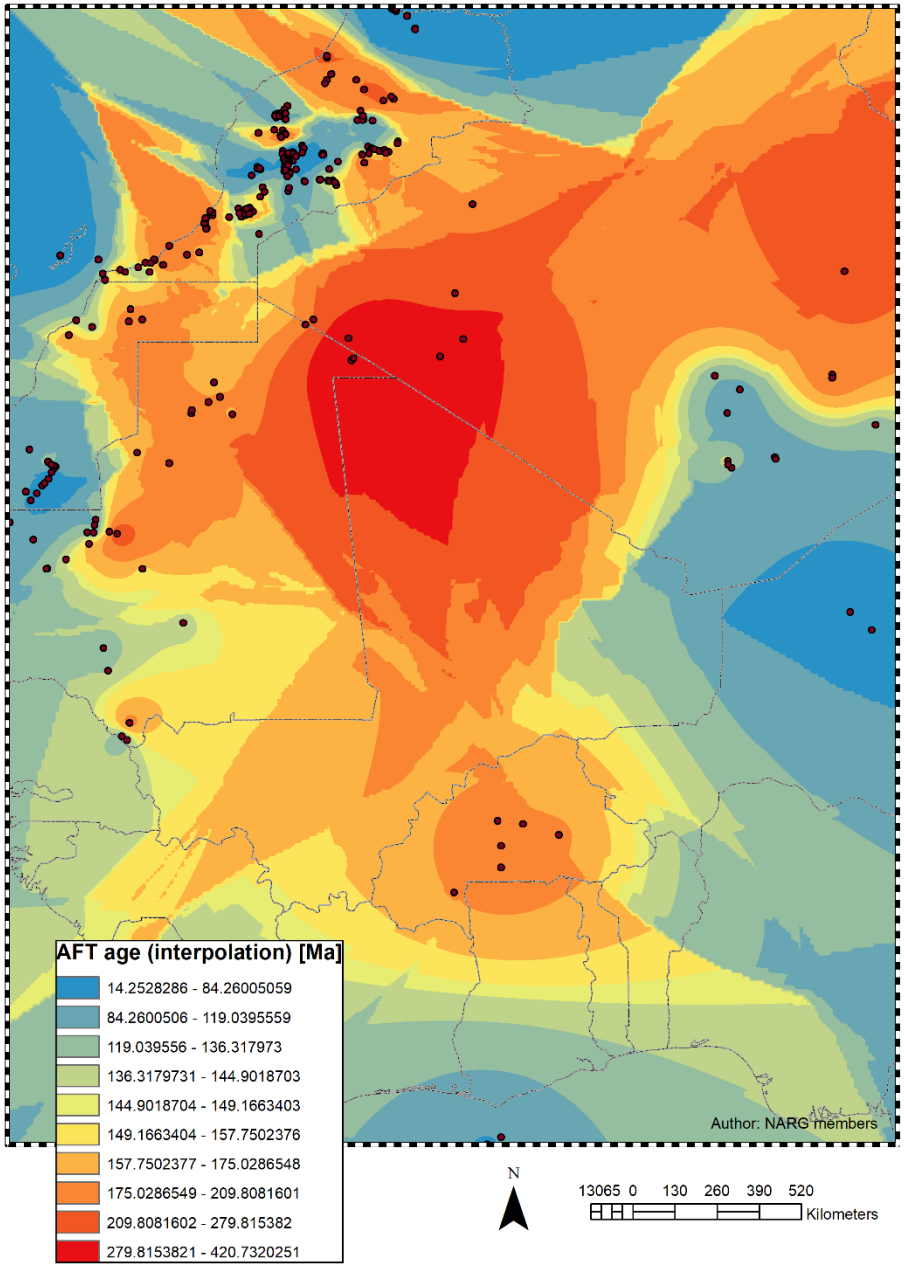


Possible applications

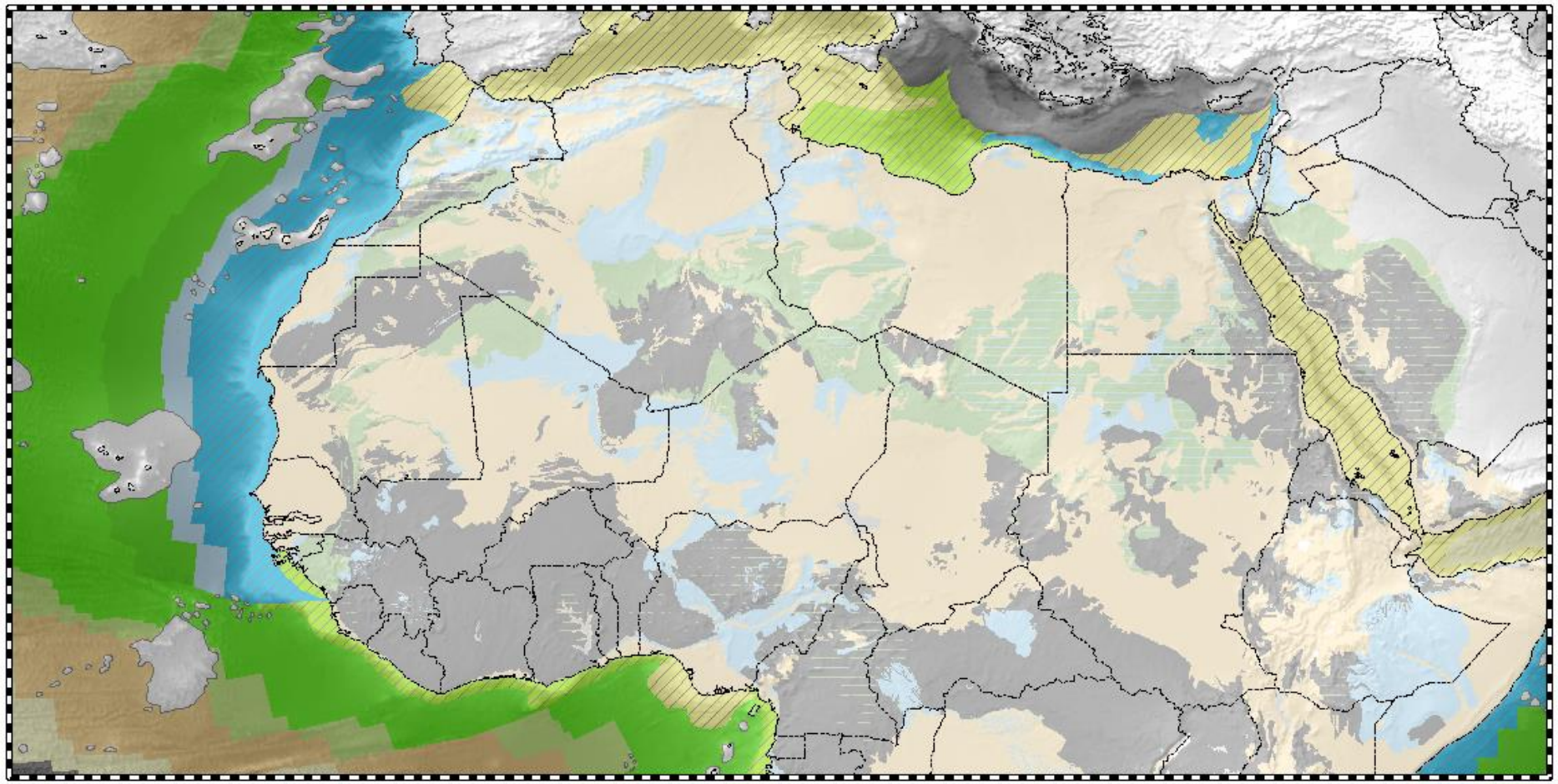
Geostatistics | *e.g. AFT NW Africa*



Data-rich figures & support basin appraisal



| Hands-on…



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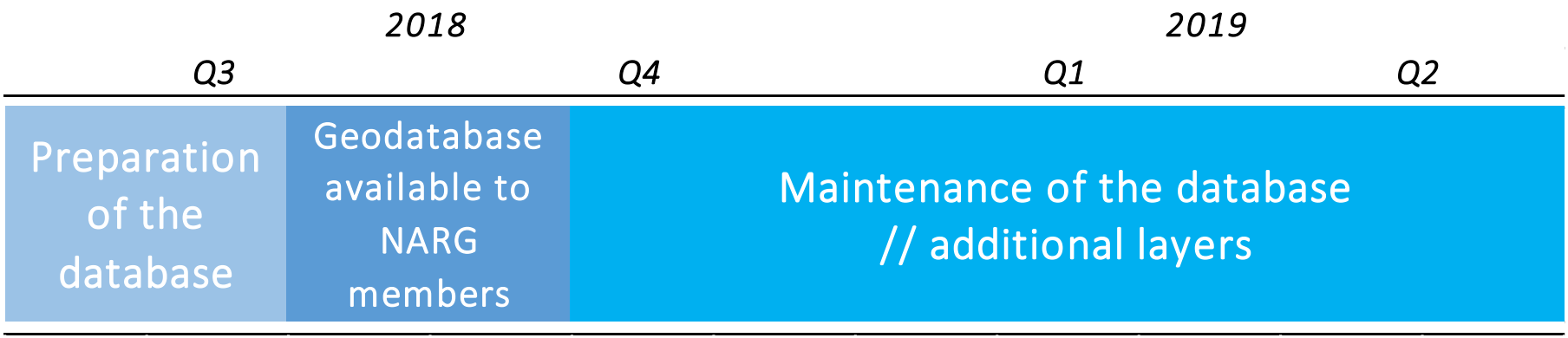
Road map



- More data…
  - Digitizing geological map
  - Add data from NARG Theses
  - Literature reviews (e.g. geochrons, diagenesis, cross-section layers, …)

- More features…
  - Database query (for stratigraphic age)
  - Thumbnails & hyperlinks
  - Surface/isopach maps from well and outcrop data
  - Significant changes to the geological map highlighted

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Thank you

Feedback & Questions

Research group

North Africa Research Group

www.narg.org.uk

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