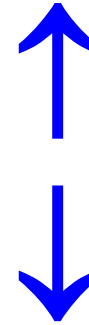


Synergies?
Overlaps?
Contacts?

Discussion!

WP 4
Site Preparation

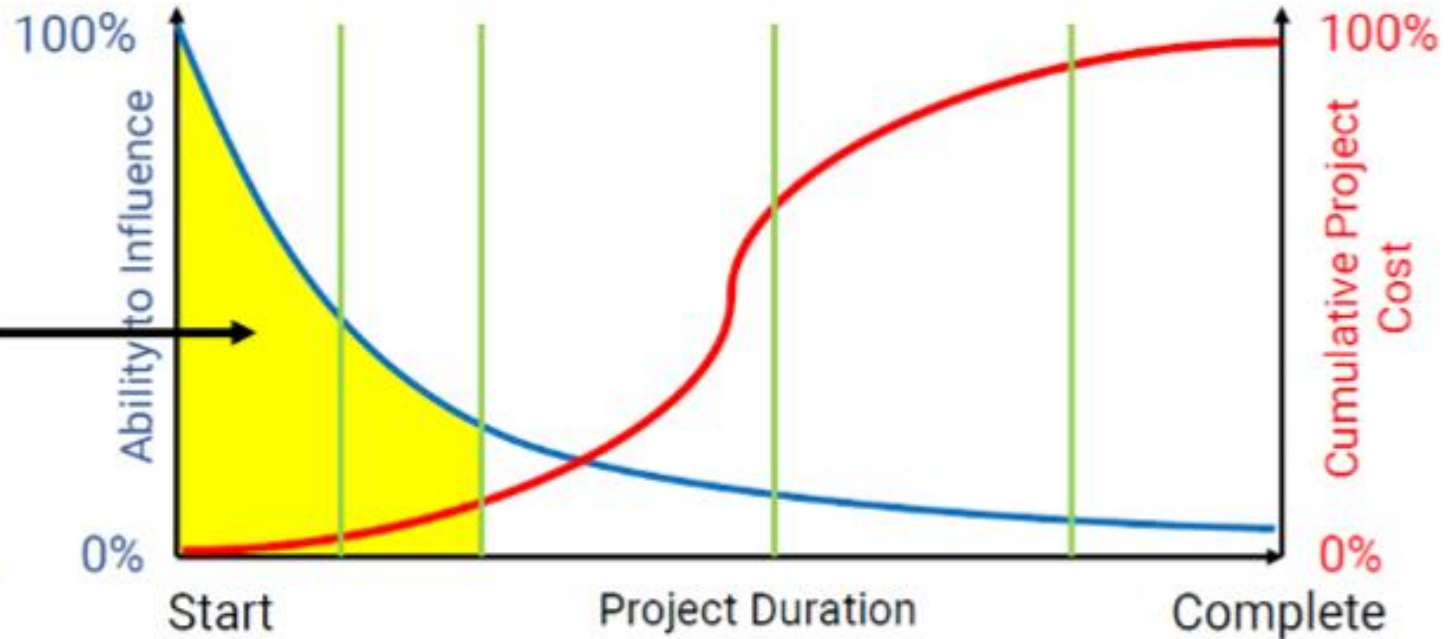


WP 1-3 & 5-10

WP7: *Innovation and Industrial engagement*

Early Contractor Involvement ???

ECI enables 3-party collaboration during the period of highest influence, this opportunity is missed with design-bid-build and design-build



	Concept / Feasibility	Pre-Design	Detailed Design & Long Lead Procurement	Construction	Start-Up
<i>Design – Bid – Build</i>	Owner and Designer			Contractor	All 3 Parties
<i>Design-Build</i>	Owner & Owner's Engineer		Design-Build Contractor		All 3 Parties
<i>Early Contractor Involvement</i>	All Three Parties: Owner, Designer & Contractor				

WP7: *Innovation and Industrial engagement*

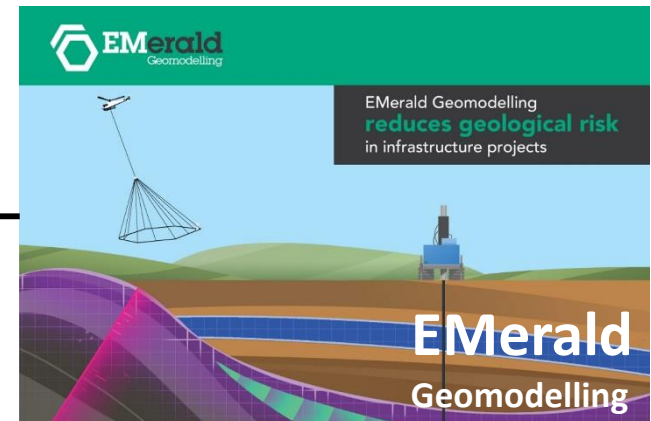
Lots of campaigns (some 'standard', some 'innovative'):

- *Active/passive (large area) seismic campaigns (innovative –EM– seismic vibes?)*
- *Airborne EM/gravimetric campaigns?*
- *3D Mapped Underworld Dimension (3D MUD™) Model (Auracle Geospatial, collaboration established)*
- *Combined data analyses (seismic/EM/Gravimetric)?*



- *Windturbine studies?*

Seismic Mechatronics



WP7: *Innovation and Industrial engagement*



NL DE FR EN

Open menu



Where Einstein telescope meets optical fibre research



18 July 2022

Written by Einstein Telescope NL

Between October 2021 and March 2022, a 250-metre-deep hole with a diameter of 10 cm was drilled near Cottessen. Its main purpose? To investigate the structure of the subsurface, and whether it would be quiet enough for the Einstein Telescope. To this end, a vibration sensor was placed at a depth of 250 metres. But when Nikhef-researcher Frank Linde met Rob Jansen of TNO, they came up with something else: this narrow well also offered the chance to test whether they could use a fibre optic cable as a sensor over its entire length. This sensor could measure temperature, deformation and vibrations. And this technology, in turn, can be useful for all kinds of applications.

WP7: *Innovation and Industrial engagement*

Industry event and subsidies already awarded to better connect Einstein Telescope to industry

Euregio Meuse-Rhine

Sardegna



Science and industry team up in project 'Einstein Telescope Technologies'

10 February 2022
Written by Einstein Telescope NL

There are a lot of studies and projects going on to prepare the border area of Belgium, Germany and the Netherlands for the Einstein Telescope. The newest project is *Einstein Telescope Technologies* (ETT): a project focusing on developing the required technology, subsurface studies and spinoff to other sectors. The project officially kicked off in November 2021, and will run until the end of 2023. It is carried out by a consortium of 12 knowledge institutes and companies. How does this project add to the other projects and preparations? And why is it important to cooperate with industry? Prof. Stefan Hild explains.



Industrial Opportunity Days 2022

ILO Network Italia
Rete Industrial Liaison Officers

9–10 Jun 2022
Istituto Nazionale di Astrofisica - Osservatorio Astronomico di Capodimonte (Napoli)
Europe/Rome timezone

And not to forget: we (WP4) haev to deliver socio-economic impact studies

WP7: *Innovation and Industrial engagement*

Recent industry event in Italy



Einstein Telescope: technological challenges and industrial opportunities

D. D'Urso
Co-chair ET Site Preparation Board
Università di Sassari & INFN
ddurso@uniss.it, domenico.durso@infn.it

Credits: G. Gemme (gianluca_gemme@ge.infn.it)
M. Punturo (punturo@pg.infn.it)



WP9: *Sustainable Development Strategy*

concrete



water



cuttings



energy



WP2: *Organization, Governance and Legal Aspects*



- **Legal entity:**

Desirable to establish legal entity.

- *In view of (large) contracts (VAT?)*
- *In view of incidents: water pollution, sinkholes, ...*

- **Final ET RI layout:**

- *What can we do to speed this process up?*
- *Also impacting overall costs:
initial investment as well as annual exploitation budget*

- **Site selection:**

BGR input needed:

- *Bidbook format/procedure/timeline*
- *Opinions on single-site ↔ multi-site i.e. overall cost considerations*
- ...

Δ / L



WP3: *Financial Architecture*

- **Possible addendum to Bidbook?**

“fair sharing of costs and scientific, industrial and socio-economic returns among all participating parties in the ET consortium”

WP5: *Project Office and Engineering Department*

WP6: *Technical Design*

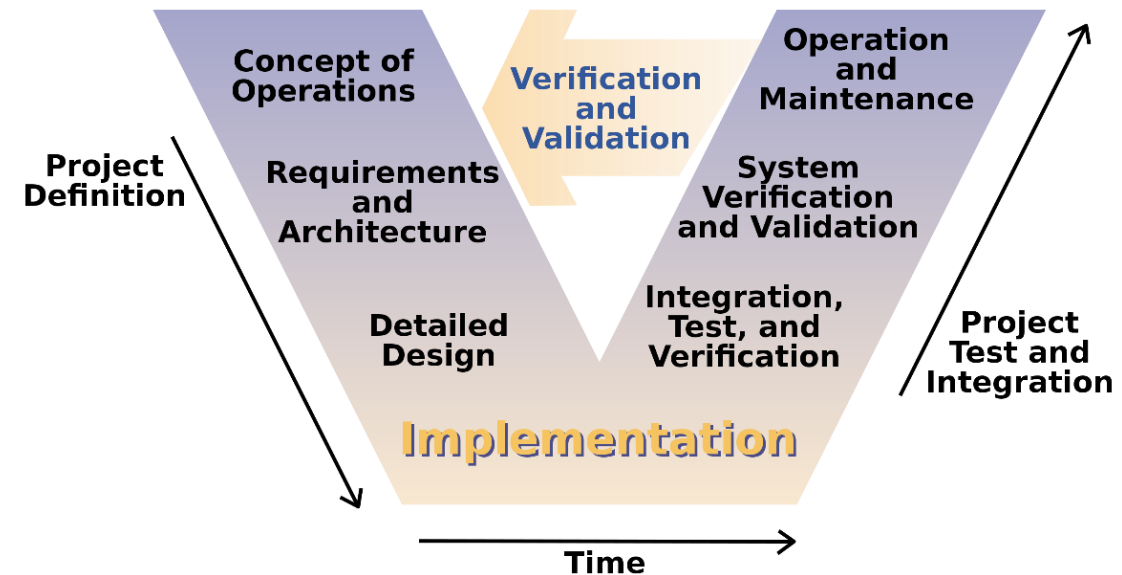
- **Civil engineering:**

Obvious synergy (sub-surface, but also ...) this requires close collaboration



- **Technical design:**

A hell lot of work ahead of us ... we are all short of engineers/technicians



WP10: *Education, Outreach & Citizen Engagement*

- **WP4 can (and does) offer/engage:**
 - *Field work for students:
high-school and university alike
Desirable to establish legal entity.*
 - *‘Town meetings’ for locals*
- ***PR/communications contact
coordinates for Sardegna & EMR***

Geology students on field work



WP8: *Computing and Data Access*

- **WP4 needs:**

- Convergence towards common data formats
- *Storage and access to the relevant data*
(seismic campaigns, EM, ERT, magnetic, gravimetric, ...)
- *(modest) computing needs*