

Status of KM3NeT

Depth:
3451.00m

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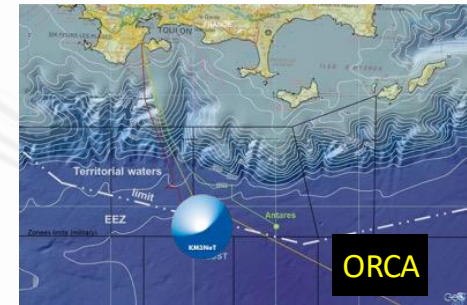
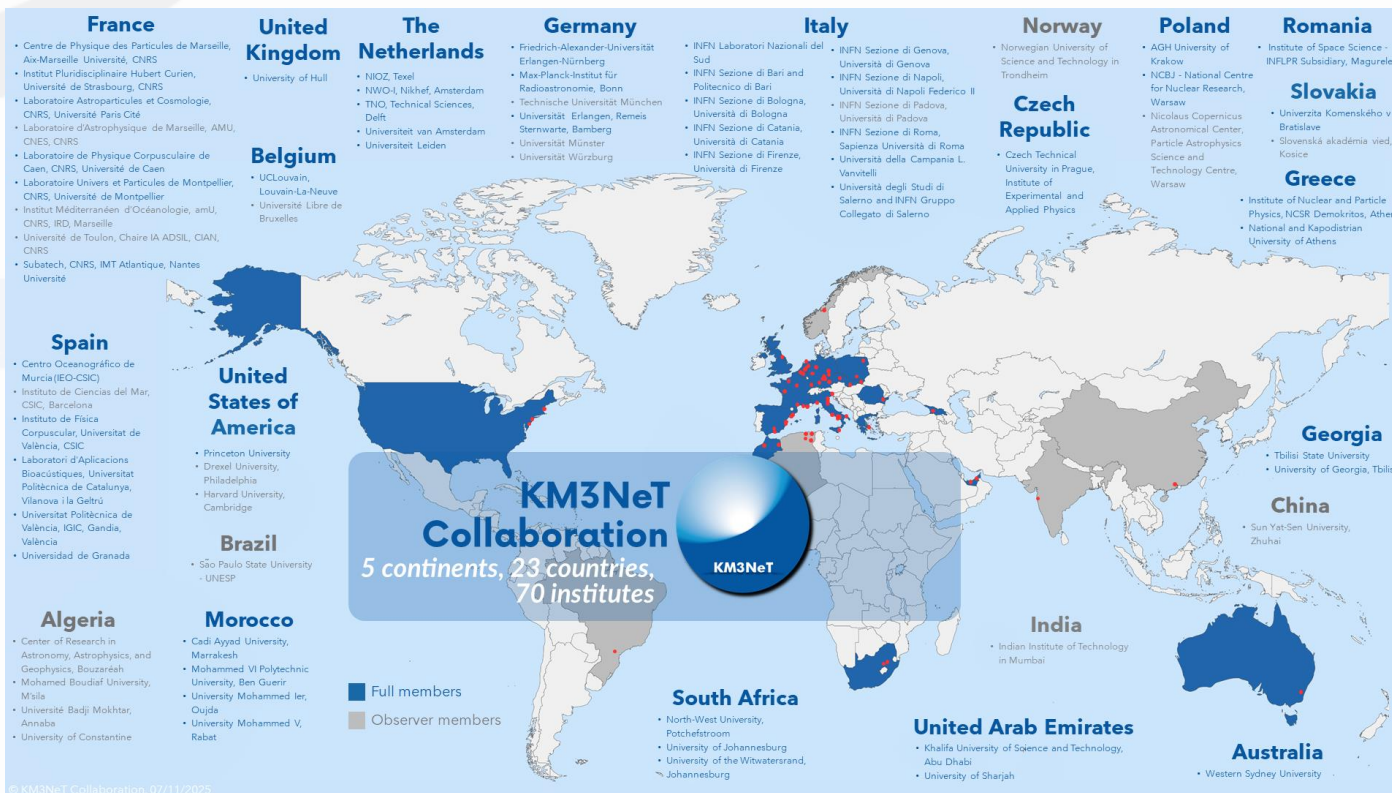
The KM3NeT Collaboration and the abyssal sites

Multi-site, deep-sea infrastructure
Single collaboration, single technology

KM3NeT 2.0: Letter of Intent

<http://dx.doi.org/10.1088/0954-3899/43/8/084001>

J. Phys. G: Nucl. Part. Phys. 43 (2016) 084001



Oscillation Research
with Cosmics In the Abyss

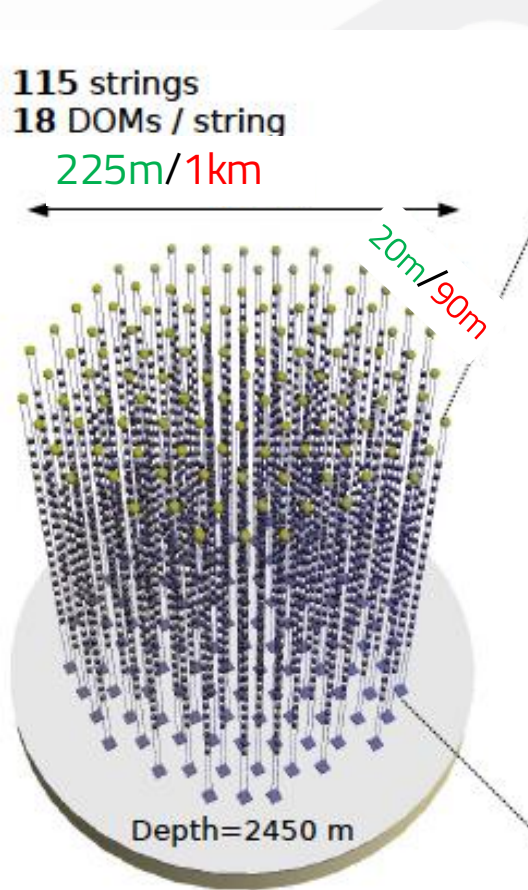


Astroparticle Research
with Cosmics In the Abyss

Connection nodes of

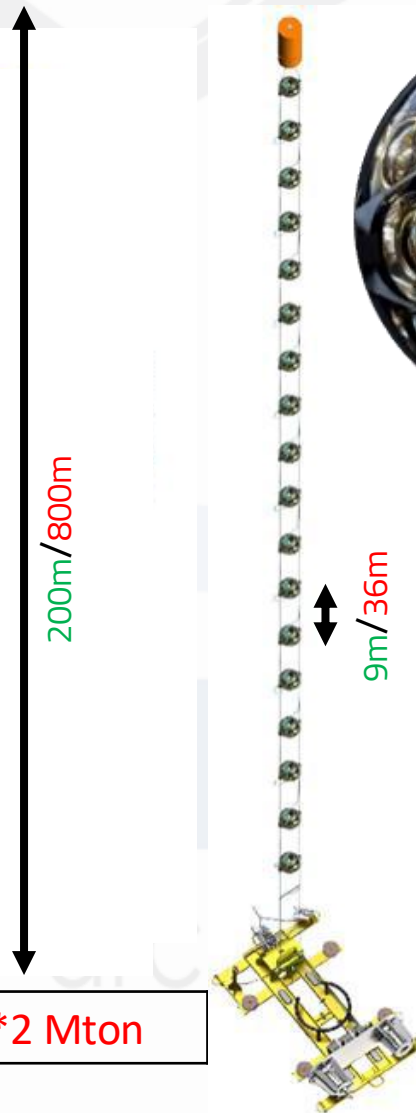
emso
european multidisciplinary
seafloor & water column
observatory

A KM3NeT building block: **ARCA** and **ORCA**

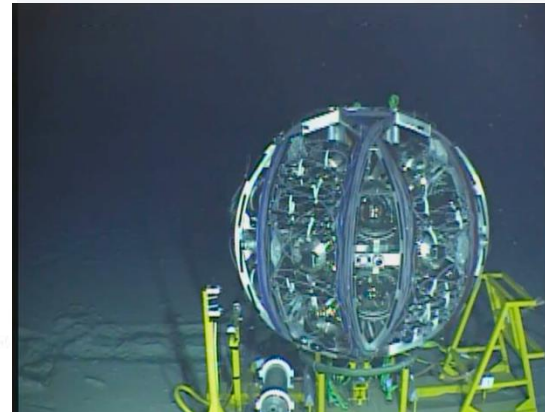


Depth: 2440m/3400m

Instrumented mass	7 Mton	500*2 Mton
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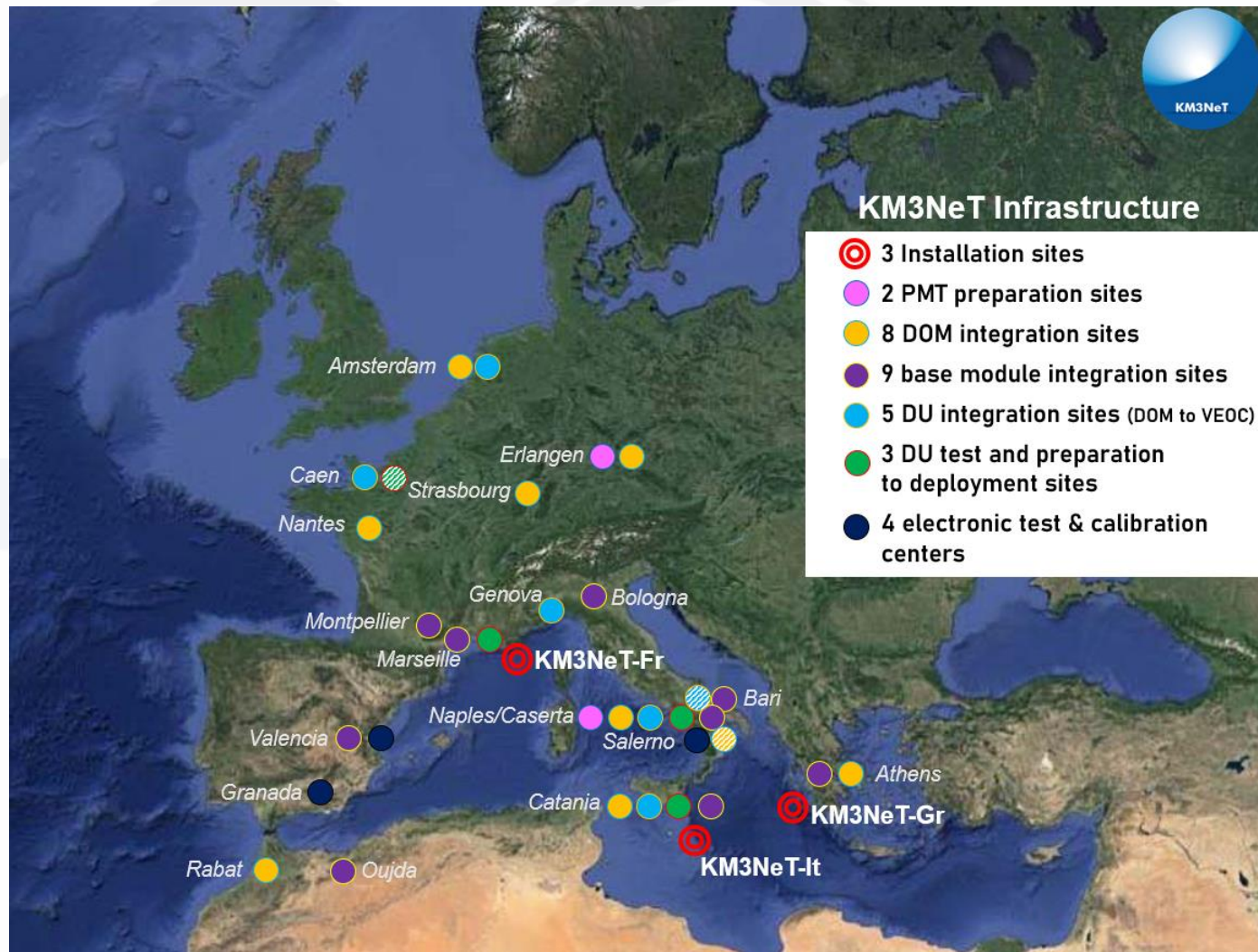


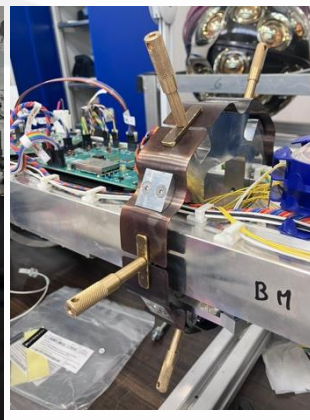
- 31 x 3" PMTs
- All data to shore: Gbit/s optical fibre
- White Rabbit time synchronisation
- LED flasher & acoustic piezo
- Tiltmeter/compass

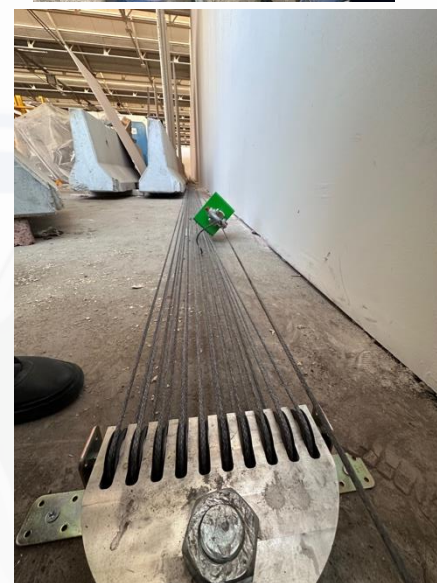


- Unfurling by autonomous ROV
- Rapid deployment
- Multiple strings in one sea campaign

Detector construction: a Collaboration wide effort











How many DUs are secured?

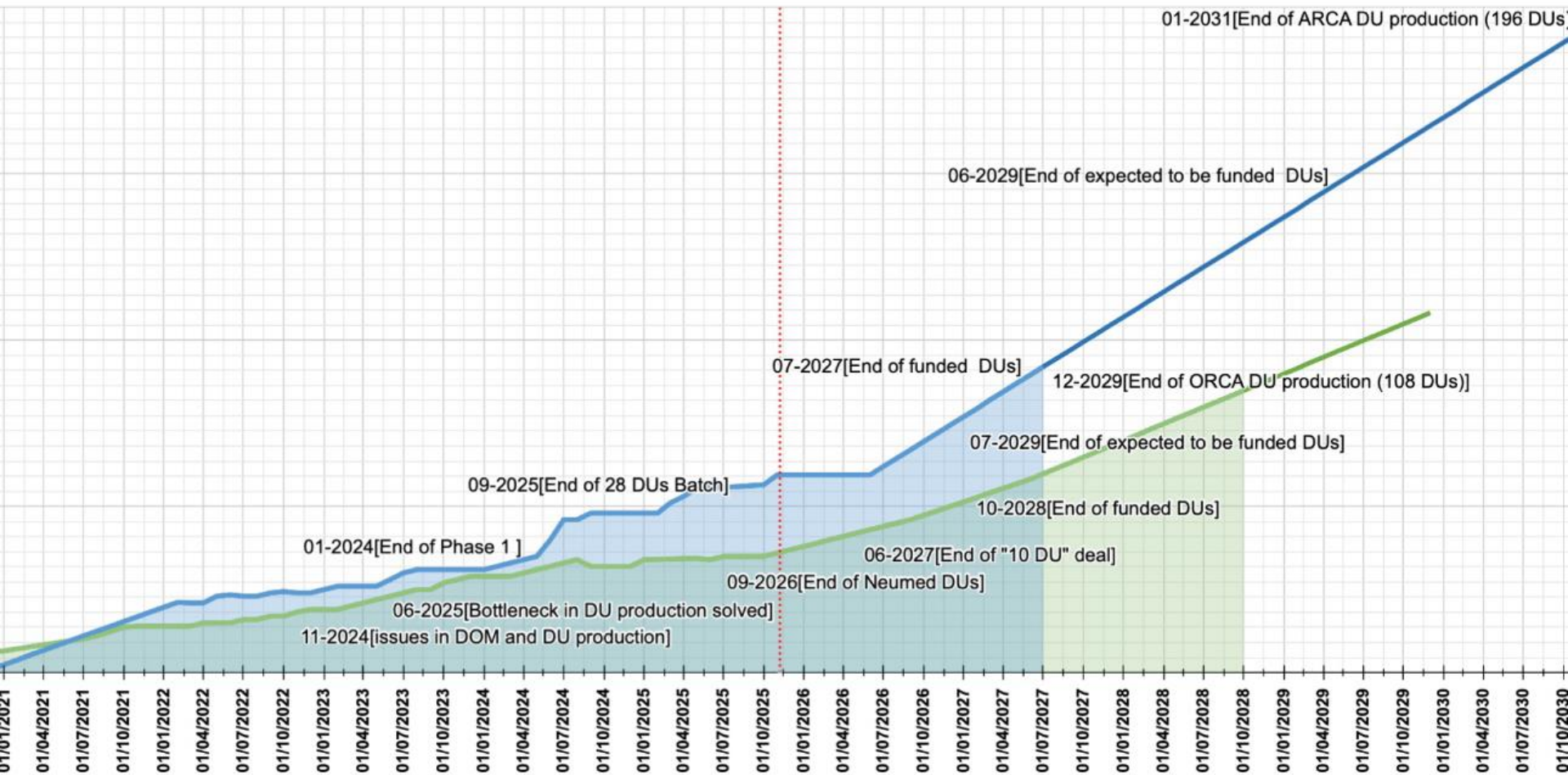
How many could become available in 2026?

- Already funded: 108 DUs from previously approved project
- Partially funded 16 DUs
- Project under review
 - KM3Ne(X)T will bring 22 brand new DUs + the funds to complete the 16DUs
 - NAUTILUS will bring 5 brand new DUs (+5.5 M€ +PNRR personnel for 18 months)
- By mid of 2029 (assuming the long-term plan) we could have **141** DUs installed in ARCA

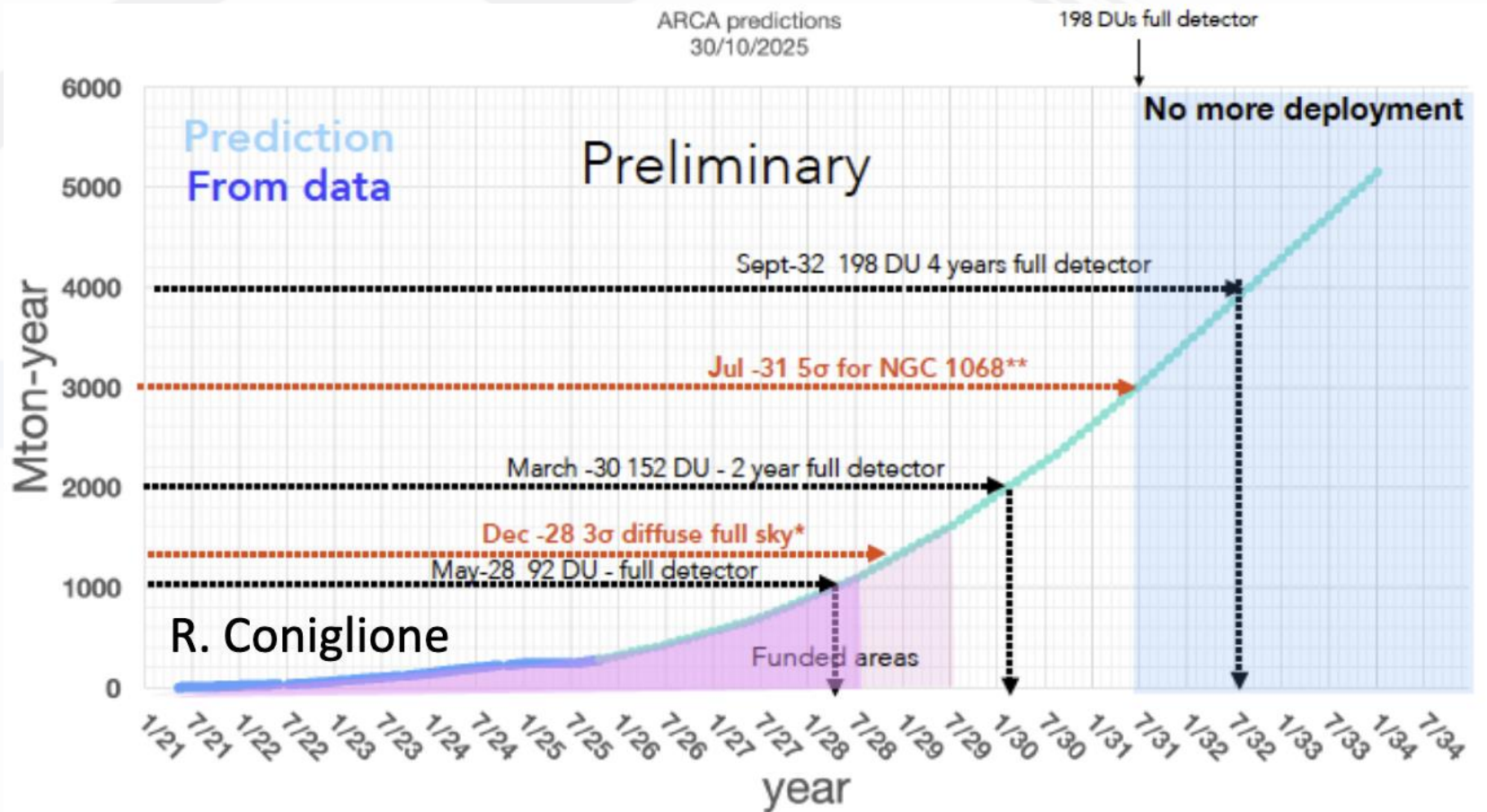
NB the assumption here is that KM3Ne(X)T and NAUTILUS are approved not later than March 2026.

Long term plan construction

■ ORCA DU ■ ARCA DU ■ Funded ■ Funded -- today -- Latest update



Long term plan physics





Luck is a dividend of sweat. The more you sweat, the luckier you get.