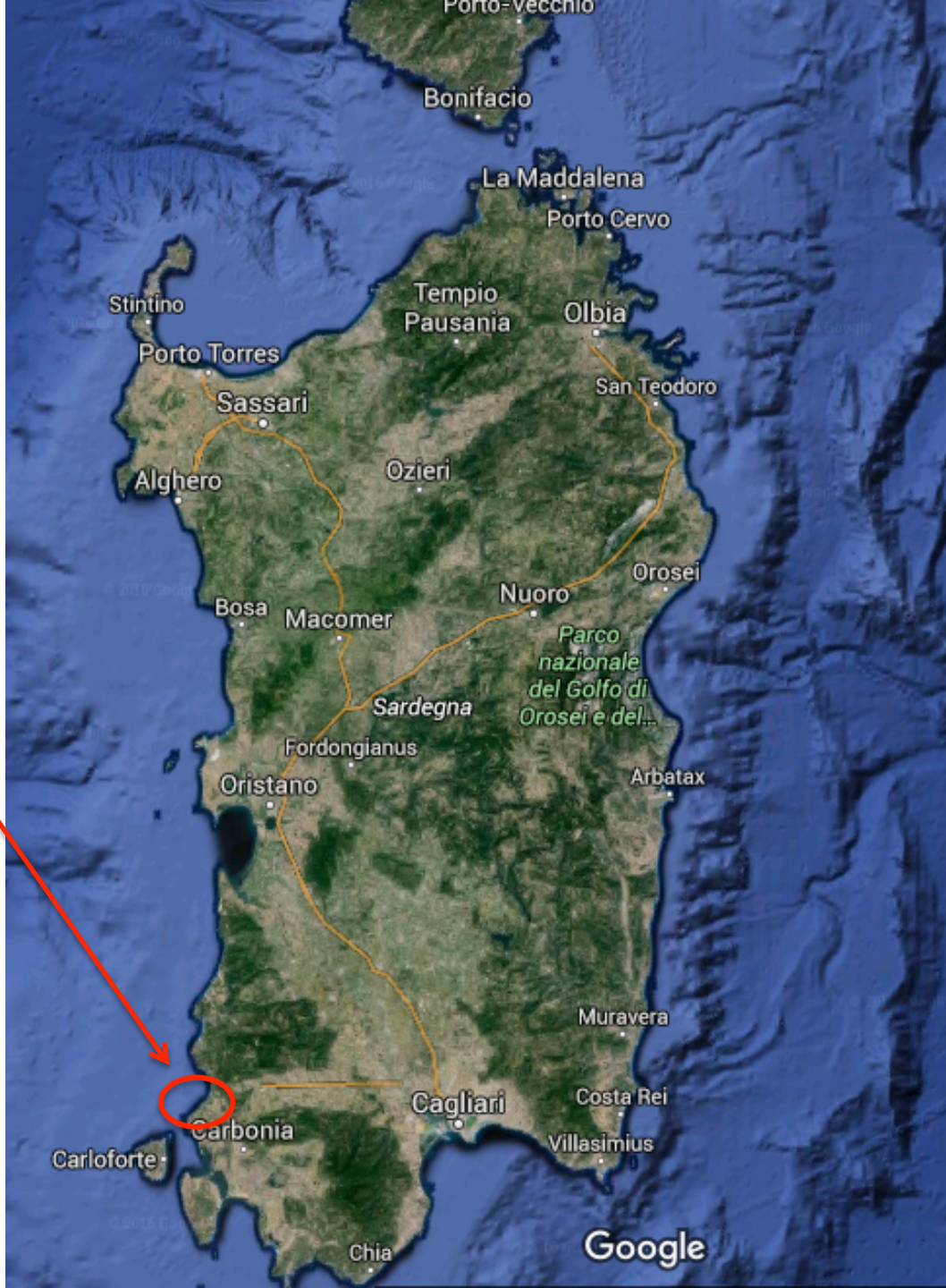
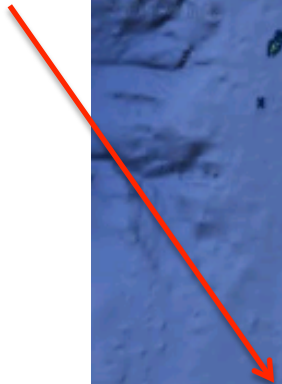


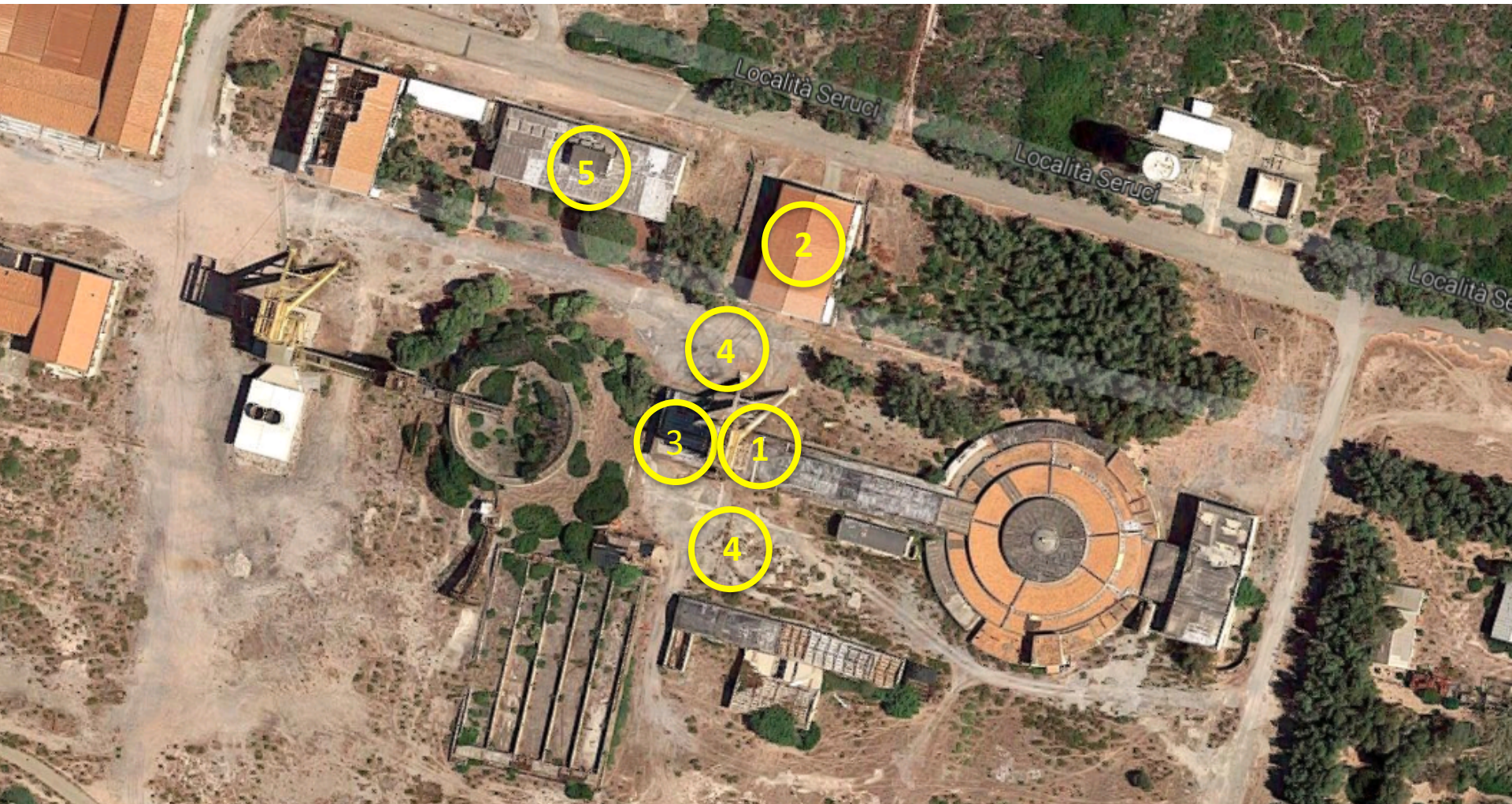
Aria Project

- Aria is a Darkside project: the purpose is to further reduce the Ar-39 contained in the UAr
- This project is supported by INFN, NSF, RAS, Carbosulcis and Princeton University
- The isotopic separation is achieved with very tall (350 m) cryogenic distillation columns
- The first distillation column (Seruci I) has a diameter of 30 cm, the final column (Seruci II) will have a larger diameter (150 cm)

Aria site @
Seruci mine -
Sardinia

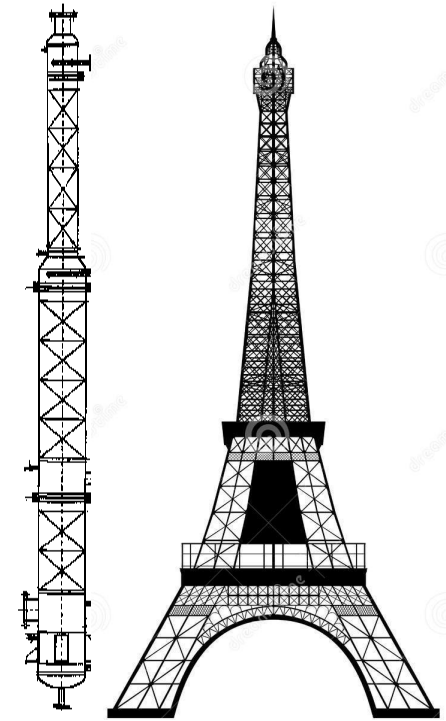
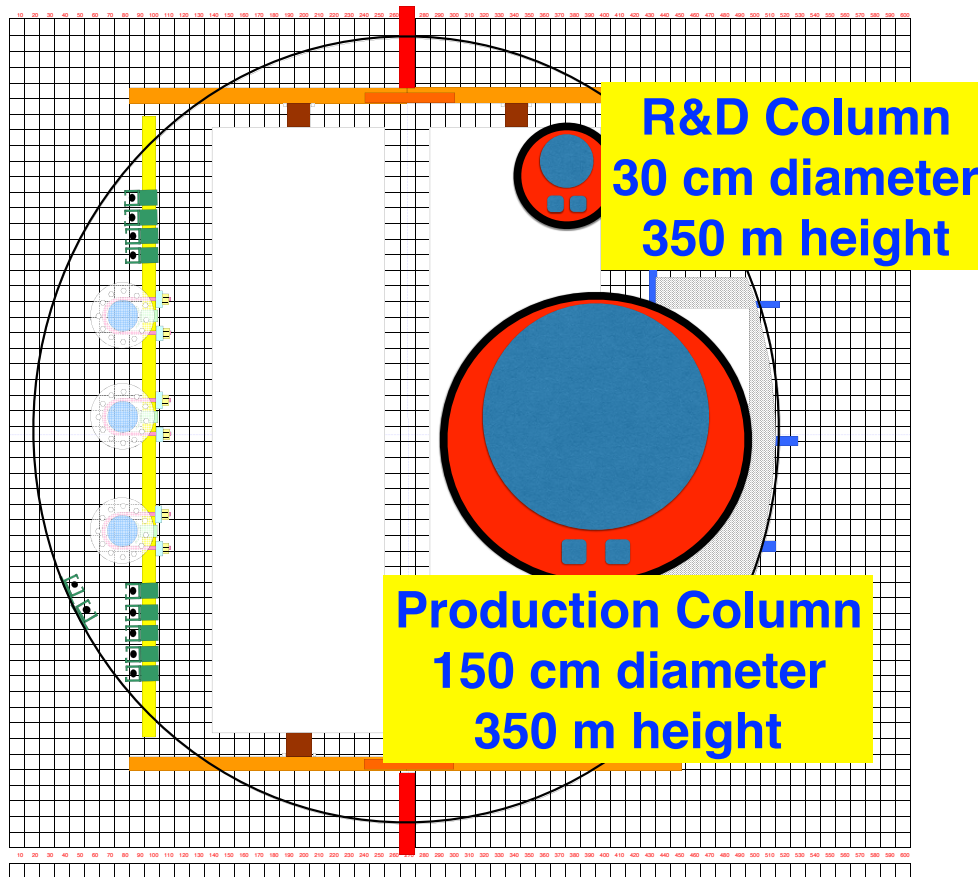






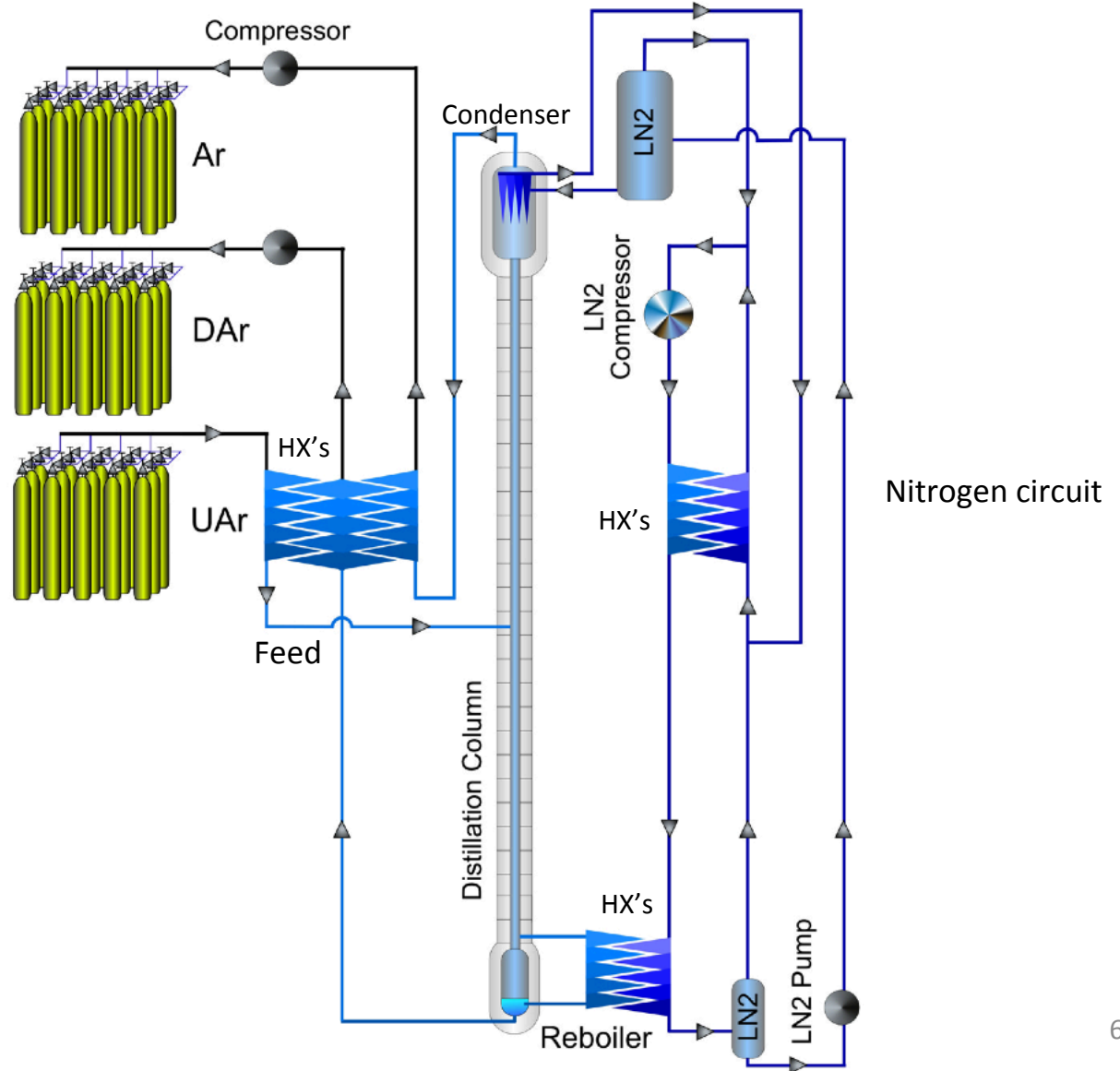
Seruci mine top view

- ① Castle of Shaft n.1
- ② Winches Room of shaft n.1
- ③ External Decking Area
- ④ Yards
- ⑤ Electrical cabin



The Seruci I column is made of 28 modules, 12 m each plus top and bottom modules

Simplified schematic of the process



Milestones for Seruci I column (R&D)

- ✓ The first module has just been completed and successfully leak checked on the production site (Polaris)
- Subsequent modules will follow at a rate of one every 2 weeks – all leak checked both at Polaris and at CERN
- Installation at Seruci of 1-module column (not underground) for test purposes foreseen in June 2016
- Start installing the column in the Seruci shaft by Nov 2016
- Column operation in second half of 2017

Milestones for Seruci II column (Ar prod. DS-20K)

- Design and fabrication by mid 2018
- Installation by end 2018
- Operation in 2019