

# Supporting Scientific Co-operation in NEA

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## NEA member countries

(as of December 2017)



## Strategic partners



The NEA's current membership consists of 33 countries in Europe, North America and the Asia-Pacific region.

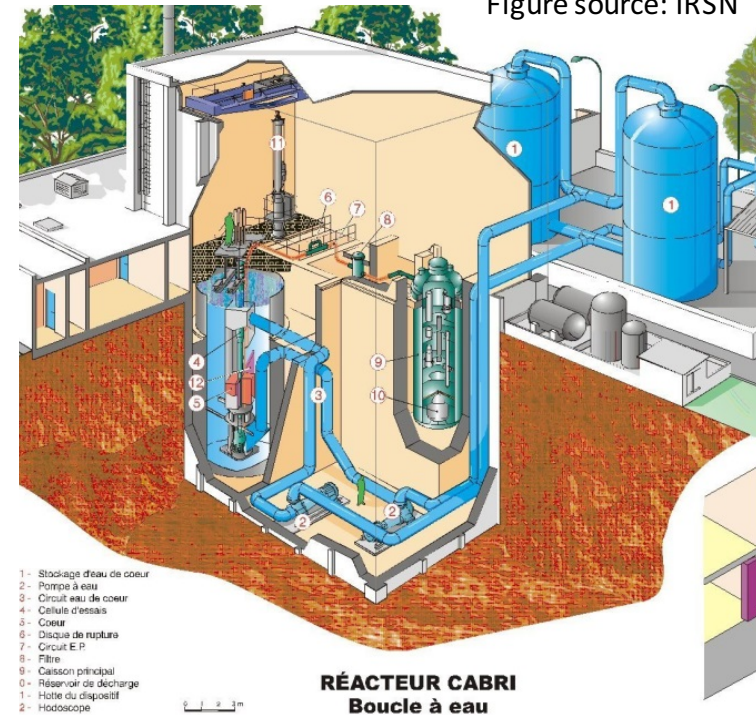
## What is a joint project?

- NEA's joint safety projects and information exchange programmes exist to enable interested countries to pursue research or sharing of data in the area of nuclear safety
- Projects are performed on a cost-sharing basis under the auspices and with the support of the NEA
- Partners' contributions are typically financial (can be a blend of financial and in-kind depending entirely on what the partners agree)
- A number of stages need to be completed (see next slides) but, ultimately, the partners formalize their cooperation by signing a common agreement fixing the project structure, the planned programme & schedule of work and the contributions expected from all partners

## CABRI International Project (CIP)

- Ability of PWR fuels to withstand sharp power transients due to rapid reactivity injection, experiments led by IRSN (France)
- Status
  - 18 partners (11 countries)
- Budget
  - ~ EUR 74 million
- Work progress
  - first criticality in refurbished reactor in 2015, commissioning & power tests in 2016
  - CIP test was successfully performed on 16 April 2018
- Documentation: <http://www.oecd-nea.org/jointproj/cabri.html>

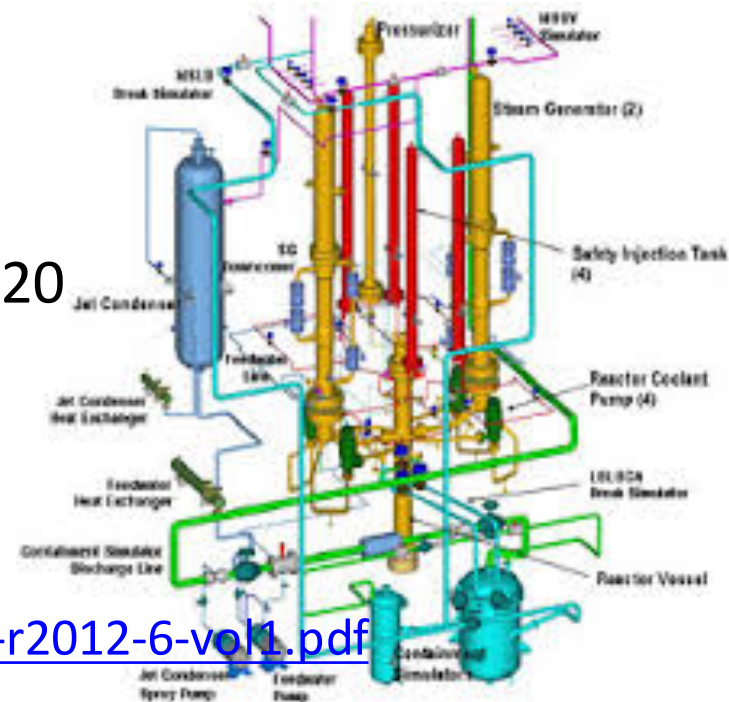
Figure source: IRSN



## ATLAS-2

- Large-scale thermal-hydraulic integral-effect experiments on mixing, stratification, counter-current flows, etc. and validation of simulation models for advanced LWRs, performed by KAERI (Korea)
- Status
  - 10 countries (incl. non-NEA)
  - Phase 2, October 2017- September 2020
- Budget
  - EUR 3 million
- Documentation:

<https://www.oecd-nea.org/nsd/docs/2012/csni-r2012-6-vol1.pdf>



## HYMERES-2

- Phase 2 of HYMERES Project on large-scale Hydrogen Mitigation Experiments for Reactor Safety
- Led by PSI (PANDA, Switzerland)
- Aim is detailed analysis of the containment phenomenology during postulated severe accident with the release and distribution of Hydrogen. Link with NEST Project.
- Status
  - 10 countries (1 non-NEA)
  - July 2017 – June 2021
- Budget
  - EUR 4.8 million
- Documentation: <https://www.oecd-nea.org/jointproj/hymeres2.html>

## Thank you for your attention



All NEA publications and institutional documentation available at  
[www.oecd-nea.org](http://www.oecd-nea.org)

