





## 3 KEY OBJECTIVES

- → Technical solutions and new technologies to mitigate the tritium release.
- →Improvement of tritiated waste management: thermal treatment, incineration, new concepts for confining drums, among others.
- Refinement of the knowledge on radiotoxicity, ecotoxicity, dosimetry...



## THE TRITIUM PROFILE

Tritium (3H) is a radioactive isotope of hydrogen with a physical half-life of 12.3 years. The nucleus of tritium (sometimes called a triton) contains one proton and two neutrons. Tritium comes from two sources:

- → Nature (formed by the interaction of the atmosphere with cosmic rays)
- Artifical origin resulting of nuclear fission and fusion activities



## THE TRITIUM CHALLENGE

Due to new fusion & fission reactor development, the tritium release into the environment is expected to increase. New fuel management (especially for GEN IV reactors) and conception choices are required. Combined with the pressure from authorities and the public, additional releases of tritium will led to the need for new tritium release impact mitigation strategies and a better understanding of its impacts on human health and the environment.

## A 4-YEAR PROJECT (2017-2022)











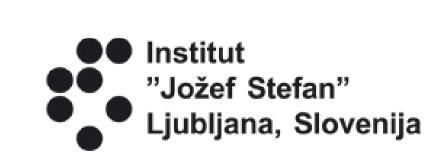
















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