



Contribution ID: 386

Type: **Oral**

Implementation of 3S by INPRO

The International Atomic Energy Agency (IAEA) integrates activities in safety, security, and safeguards (3S) and promotes the concept of 3S by design. The IAEA objectifies to harmonize the 3S interfaces in an integrated manner to avoid compromise of any one realm over the others. The International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO), a key programme of the IAEA, assesses innovative reactors and fuel cycles for sustainability. In alliance with 3S, INPRO incorporates 3S concept through three of the six assessment areas: safety, security through the infrastructure assessment area, and safeguards through the proliferation resistance assessment area. In the past several years INPRO initiated collaborative projects to assess the sustainability of (small modular reactors) SMRs. The INPRO methodology is being applied for successful and sustainable development and deployment of SMRs meeting the global energy needs. The INPRO assessment identifies areas where criteria are not fulfilled, and designers need to redesign to satisfy that the SMR is sustainable. Often with innovative systems the assessment can identify gaps that need to be addressed through research and development (R&D). INPRO activities supports the IAEA's 3s in a holistic manner for sustainable deployment of SMRs.

Country OR International Organization

IAEA

Email address

ni.das@iaea.org

Confirm that the work is original and has not been published anywhere else

yes

Author: SCHERER, Carolyn (IAEA - INPRO)

Co-author: Ms DAS, Nilormi (IAEA-INPRO)

Presenter: SCHERER, Carolyn (IAEA - INPRO)

Track Classification: Topical Group C: Safety, Security and Safeguards: Track 10: Safety, Security and Safeguards Interfaces related to SMRs