



**IAEA**

**International Atomic Energy Agency**

*Atoms for Peace*

**Consultancy**  
**on the**  
**Tenth GIF-INPRO/IAEA Interface Meeting**

**IAEA Headquarters**  
**Vienna, Austria**

**11 to 12 April 2016**

**Ref. No: I4-CS-53847**

**Terms of Reference**

**A. Background**

The Generation IV International Forum (GIF) is focused on RD&D on six selected innovative nuclear reactor design concepts. As part of this activity, GIF working groups have developed and maintain a suite of tools to analyse and compare different design alternatives related to the GIF reactor concepts from the perspectives of: 1) economics and sustainability, 2) safety and reliability, and 3) proliferation resistance and security.

INPRO Section has developed an internationally recognized methodology for nuclear energy system assessment (NESA) of sustainability that has and is being used by several Member States as part of their NES planning activities. The existing INPRO Action Plan also has projects focused on the long-term global and regional development of NES, considering both existing and future technologies. In addition, projects on specific subjects of interest regarding technology and institutional innovation are being implemented in close cooperation among INPRO Members. Moreover, INPRO provides a Dialogue Forum for technology holders and users (including both experienced and “embarking” States) to share information of mutual interest. There are other international initiatives (e.g., GIF,

IFNEC and SNETP) that share common goals with INPRO to help ensure the sustainable development of nuclear energy within the current century and beyond.

The Nuclear Power Technology Development Section (NPTDS) .promotes and facilitates information exchange and collaborative research and development in the area of advanced nuclear reactor technologies. Evolutionary and innovative advances for all reactor lines (advanced water cooled reactors, fast reactors, high-temperature gas-cooled reactors) are supported including small and medium sized reactors. Applications include seawater desalination, process heat and hydrogen generation in addition to electricity production. Activities are informed and directed by member states through technical working groups (TWG) in the different technologies. Information is disseminated to Member States through publications (NE series, TECDOCs etc.), training simulators, databases (ARIS) and toolkits.

Shared interests between GIF, INPRO, NPTDS and other IAEA offices have been confirmed in nine interface meetings held at the IAEA since 2003, having convened most recently in March of 2015. Areas of technical dialogue, coordination and cooperation have been explored in each of these meetings. Since the mutual areas of interest involve activities of interest to additional offices of the IAEA, INPRO and NPTDS encourages other IAEA offices to participate in the interface meetings to continue the technical exchange and to explore and develop opportunities for cooperation. Example outcomes of these meetings include on-going collaboration between INPRO and two GIF working groups on topics of proliferation resistance and economics. Moreover, a decision was taken by NPTDS and GIF to hold joint workshops on safety design criteria (SDC) for sodium cooled fast reactors (SFR). Four of these workshops have been held, with satisfactory results, in 2010, 2011, 2013, 2014 and 2015.

## **B. Objectives**

The objectives of the Meeting are as follows:

- Exchange information on the progress, status and future plans of activities related to RD&D and technology innovations of NES, including Gen IV reactors.
- Monitor progress and update status of action items agreed in the previous interface meeting.
- Continue exploring new areas having potential for cooperation and identifying action items and establishing priorities for further consideration.

## **C. Expected Output**

The expected outputs are as follows:

- Mutual understanding of the progress, status and future plans of IAEA and GIF activities related to R&D and technology innovation of NES
- Updated GIF-INPRO/IAEA Coordination Matrix and Action Items
- New potential cooperation areas of GIF and IAEA

## **D. Visas**

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

## **E. Working Language**

The working language of the meeting will be English with no interpretation provided. All communications, abstracts and papers must be submitted in this language.

## **F. Venue**

The assignment will commence on Monday, 11 April 2016 at 09:30 a.m. in Room PR and Building P of the Vienna International Centre (VIC). Meeting participants are requested to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the meeting on the first day, in order to allow sufficient time for issuing of grounds passes, which are necessary for official visitors to the VIC.

## **G. Organization**

Official correspondence with regard to the technical aspects of the meeting should be addressed to the Scientific Secretary:

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