

**The creation and development of MDEP  
(Multinational Design Evaluation Programme)**

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on New Reactor Design Activities**

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# Introduction

- **Former ASN President (until November 2012)**
- **Co-founder and first MDEP Chairman (2006-2012)**
- **Not a neutral point of view**
- **Belief in collective initiatives**

- **Focus on the foundation of MDEP: context, motivations and ambitions**
- **MDEP achievements presented by Gary Holahan**

# The context in 2000-2005

- **« Nuclear Renaissance » in Western countries: EPR, AP1000**
- **Cooperation between the Regulatory Bodies of the vendor/recipient countries**
- **Convergence of Regulatory Practices → convergence of Regulatory Requirements**
- **Generation IV International Forum (GIF)**
- **Single certification in the long term**

# In this context, two approaches

- **USNRC**
  - Nils Diaz: to extend worldwide the US certification
- **Europe:** Regulatory Bodies of France, Finland and other countries
  - Example of the cooperation between ASN and STUK
  - While maintaining and assuring national responsibility

# Frank and open discussions

- **New Reactor Design: EPR + AP1000**
  - **Regulatory Bodies: USNRC, ASN + STUK + other European RB**
  - **Relations USNRC/ASN:**
    - Quite excellent on technical issues
    - Different views (resident inspectors, PSA/Deterministic approach)
  - **A lot of frank and open discussions with my US counterparts.**
- ➔ **Creation of MDAP (Multinational Design Assessment Programme) in 2005**

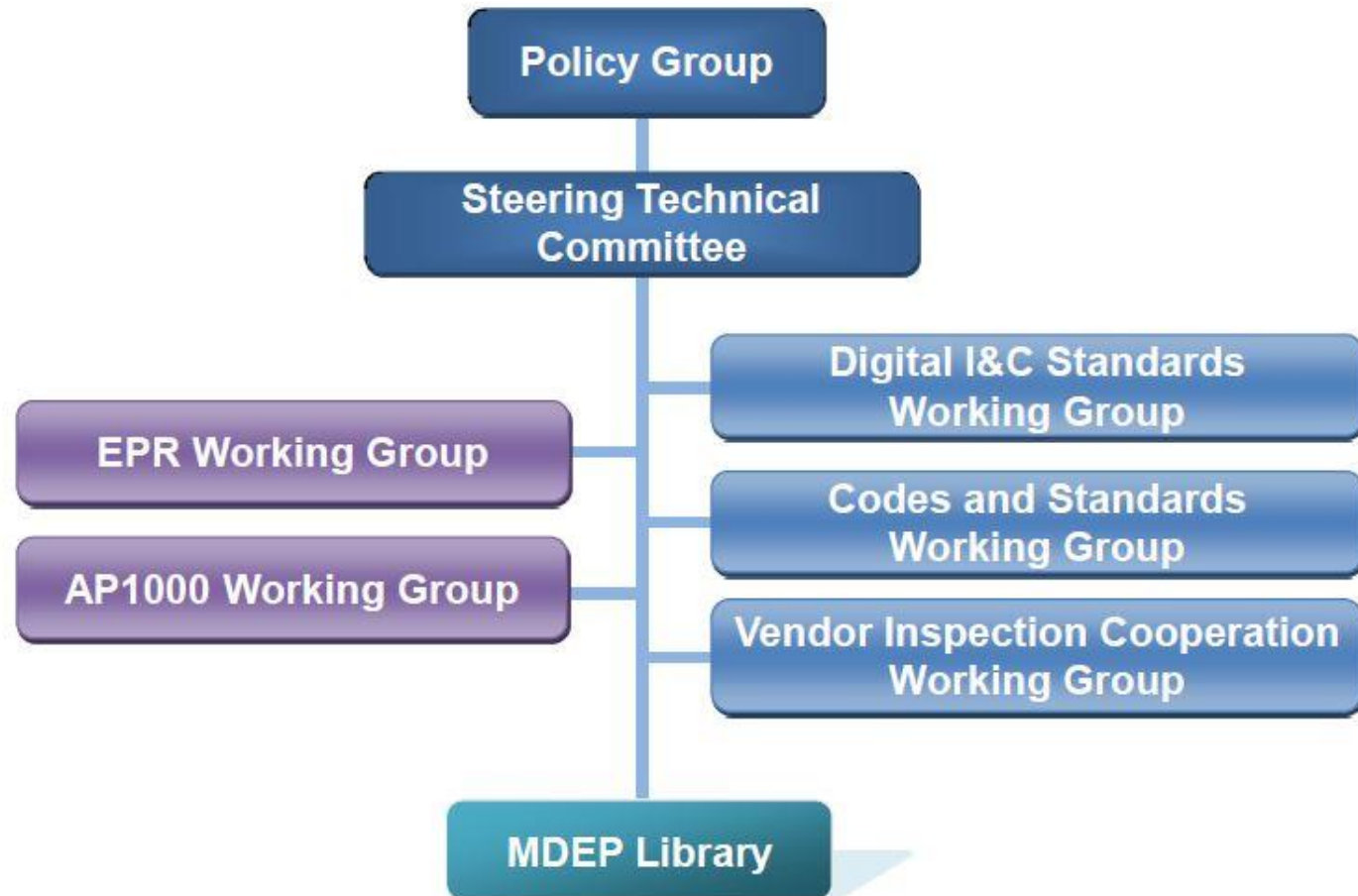
# A step-by-step development

- **From MDAP to MDEP**
- **A one-year pilot project conducted in 2006-2007 to assess the feasibility of the programme**
  - Focused on Severe Accidents, Digital Instrumentation and Controls and Emergency Core Cooling Systems
- **Initial two-year programme approved in 2007**
- **Specific recommendations and structure identified and approved in 2008**
- **Converted into long-term programme in 2009**

# Expected outcomes of the initial programme

- **Setting up an enhanced co-operation among regulators:**
  - To improve the effectiveness and efficiency of regulatory design reviews
  - To raise the safety assessment quality and the safety level
  - To facilitate convergence of regulatory requirements

# MDEP Organization in 2009





# Evolution of Motivations and Ambitions

- **To go as far as possible on cooperation, sharing, harmonization and convergence of the reactor design review**
- **Maintaining two complementary categories of working groups:**
  - Design-specific WGs, including technical experts subgroups
  - Issue-specific WGs
- ➔ **Possibility of cross-cutting activities**
- **In depth examination:**
  - IRRS / Regulatory Bodies
  - OSART and WANO / Operators
  - ? / Design

# MDEP Challenges

- **Active involvement of Regulators, Vendors and Operators**
- **Innovative approaches and limited routine works**
- **Keep the initial impetus and structure going**

# Conclusion

- **10 years of strong international commitment on the new reactor design safety evaluation**
- **Clear interest for a collective initiative**
- **Complementary approaches:**
  - Design-specific WGs
  - Issue-specific WGs
- **Pride of being a co-founder of MDEP**