

# **GRS**Global Research for Safety

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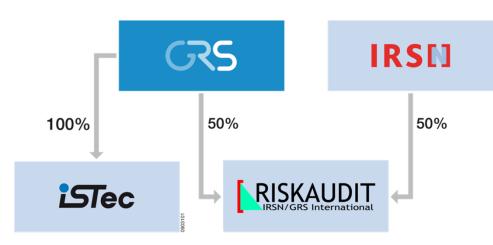
4<sup>th</sup> European MELCOR User Group (EMUG) Meeting April 16/17, 2012 GRS Cologne



## **Data and Facts**

- about 450 employees at fore German locations
- about 350 researchers (engineers, physicist, chemist, geologist)





ISTec - Institut for Safety Technology (daugther of GRS, located in Garching)

RISKAUDIT (daugther of GRS/IRSN located in Paris)



## **General Activities**

## **Reactor Safety Analysis & Research**

- safety analysis
- **PSA**
- crisis team
- research and code development (ATHLET-CD, COCOSYS, ASTEC)



# **Radiation & Environment Protection**



## **Non-nuclear Techniques**

- geothermal topics
- other activities



## **International Activities**

- Cooperation within European TSO Network (ETSON) and within EUROSAFE conference,
- Participation in international research projects (OECD/NEA) and Cooperation with foreign Institutes,
- Work for traditional German Ministries and within international Projects,
- Contribution to common EU projects and international organizations (f.e. IAEO, OECD/NEA)
- Work for international clients/authorities
   (Netherlands, UK, Argentina, Eastern European Countries, ...)











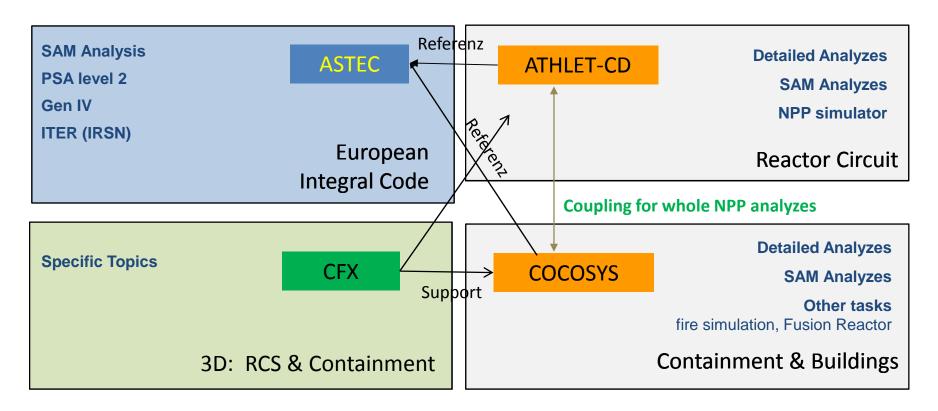






## **GRS Code Strategy**

- use of different codes separately and coupled
  - → Detailed codes **ATHLET-CD** & **COCOSYS** (GRS)
  - → European Integral Codes **ASTEC** (IRSN/GRS) and MELCOR (SNL)
  - → 3D Code **CFX** (ANSYS)





#### **MELCOR** related Activities MELCOR 2.1 PSA Level 2 PHWR **PWR** until 2011 2005/2006: MELCOR 1.8.6 Test of PWR Konvoi model Test of BWR-69 model 11/2000: MELCOR 1.8.5 PSA Level 2 BWR-69 PSA Level 2 PWR 1300 until 2005 until 2001 9/1997: MELCOR 1.8.4 **BWR** ATLAS application AM Analysis - PAR system 10/1994: MELCOR 1.8.3 Input Deck develop-PSA Level 2 BWR-72 ment and validation until 1997 1992: MELCOR 1.8.2 Input Deck development and validation