

Nuclear Innovation 2050

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Secretariat NEA NI2050

NUCLEAR INNOVATION 2050

An NEA initiative to accelerate R&D and market deployment of innovative nuclear fission technologies to contribute to a sustainable energy future



A Broad NEA Initiative

Building a co-operative framework enabling innovative fit-for-purpose nuclear fission technologies that will accelerate R&D and market deployment to contribute to a sustainable energy future

NI 2050 ACTIVITY REPORT

Acknowledgment

1. Introduction: from the initial “Project” to the broader “Initiative”
2. Budget and Scope of Member Countries nuclear R&D programmes
3. Aim and Concepts of NI2050
4. Priority Topics for concrete focussed innovation Roadmaps (Templates)
5. Next step: from Roadmaps (Templates) towards Programmes for Action – the case of Advanced Nuclear Fuels and Materials
6. Ways and Means for implementation
7. Conclusions, recommendations and way forward
8. Annexes, Reference Document and NI2050 Website

NI2050 “Templates” Topics (Final End 2018)

Target Area/TOPIC	Leaders	Groups Engaged
Accident Tolerant and Advanced Fuels	K. Pasamehmetoglu, INL N. Chauvin, CEA	NSC (WPFC, WPMM, EGISM, EGATFL), CSNI (WGFS) + FIDES
Severe Accident Knowledge and Management	G. Bruna/D Jacquemain, IRSN	CSNI (SAREF, WGAMA) ETSON, NUGENIA
Passive Safety Systems	G. Bruna/JM Evrard, IRSN	CSNI (WGAMA) ETSON
LTO Gen II 80 Years: Ageing Management	A. Al Mazouzi, EDF	CSNI (WIAGE) NUGENIA
NPP Decommissioning	M Pierracinni, EDF	RWMC/CDLM
Advanced Materials (Gen IV)	L. Malerba, SCKCEN/CIEMAT	NSC (WPFC, WPMM) + FIDES, EERA JPNM, GIF
Advanced Components (Gen IV)	H. Kamide, JAEA	GIF, CSNI/CNRA (GSAR/WGRNR)
Fuel Cycle Chemistry/Recycling (P&T)	H. Ait Abderrahim + al., SCKCEN	NSC (WPFC), CSNI (WGFCs)
Heat Production and Cogeneration	D. Hittner, NC2I	PRIME/GEMINI (NC2I, NGNP, JAEA, KAERI)
Modelling and Simulation	T. Valentine, ORNL	NSC (WPMM, EGMPEBV)
Measures and Instrumentation	G. Bignan, CEA	ANIMMA, NSC FIDES
Infrastructures and Demos	All	NSC FIDES, CSNI (ia TAREF), DB (RTFDB)

Nuclear Innovation 2050 WEBSITE

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