

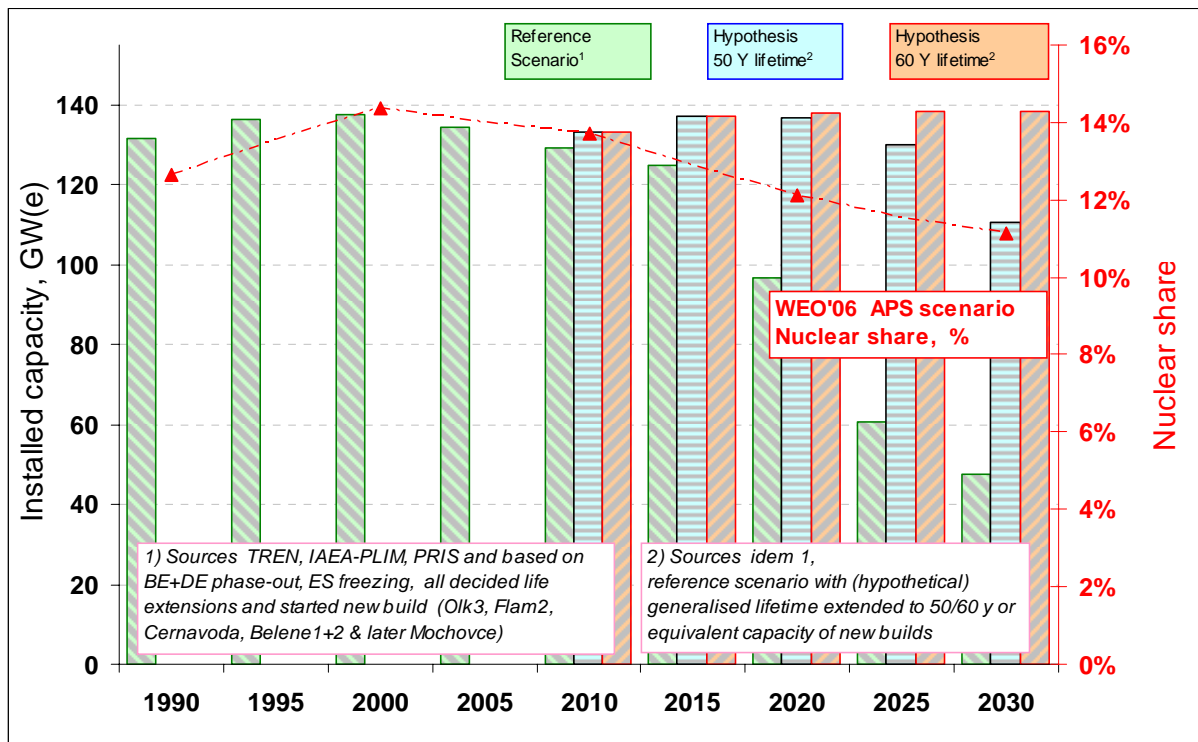
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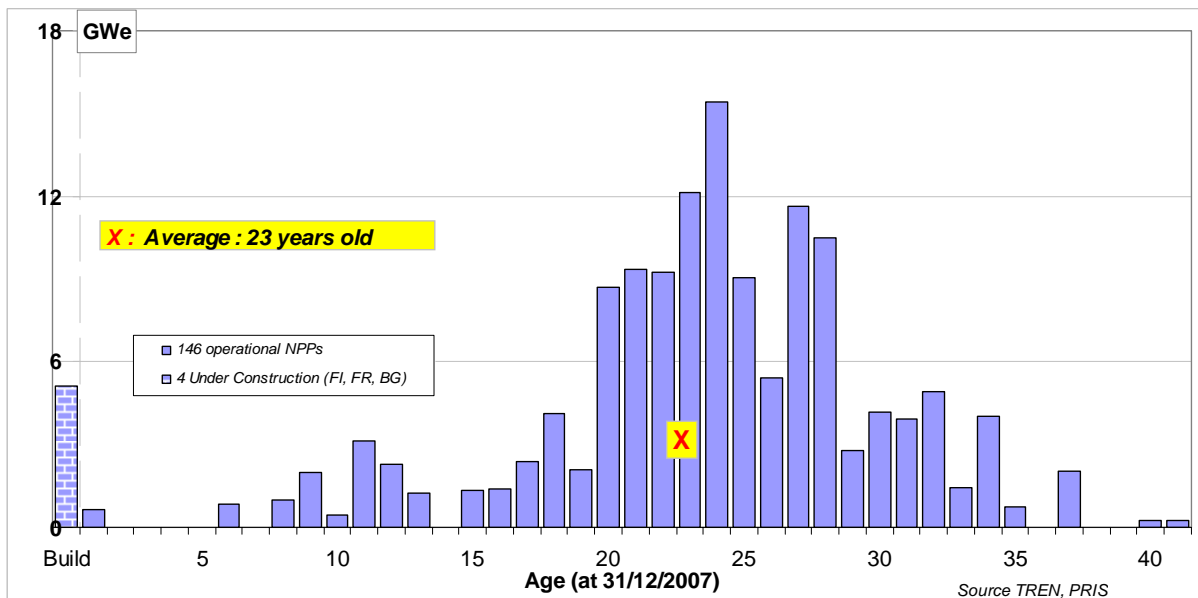
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## **ANNEX 1**

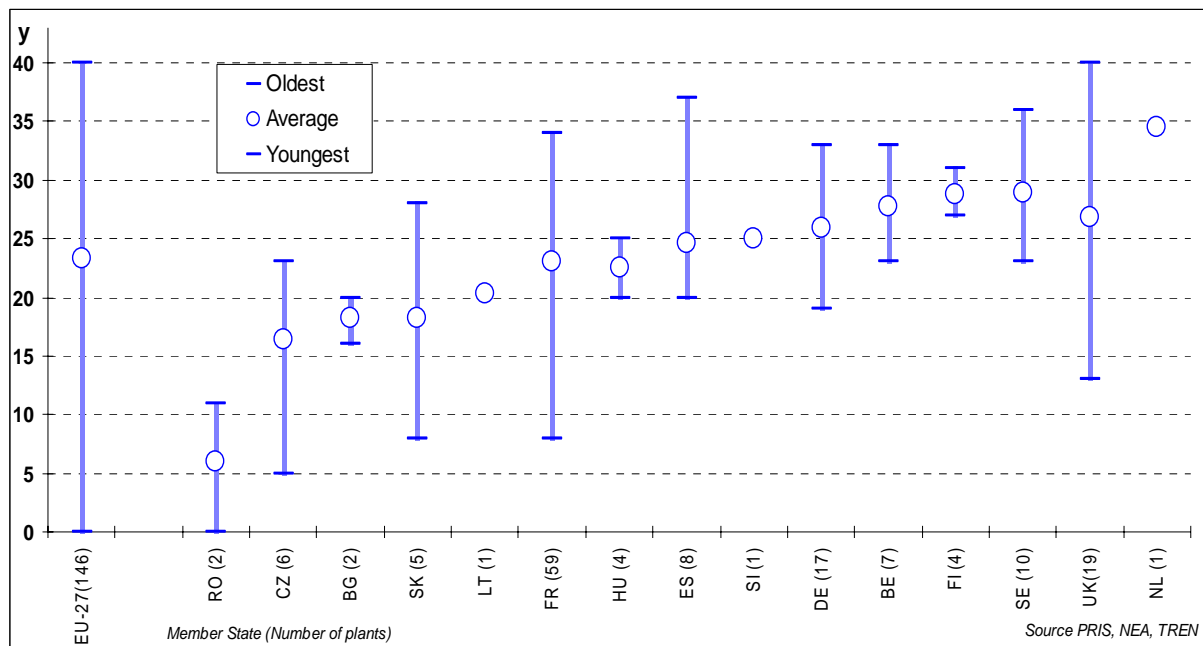
### **Update of the Nuclear Illustrative Programme in the context of the second Strategic Energy Review**



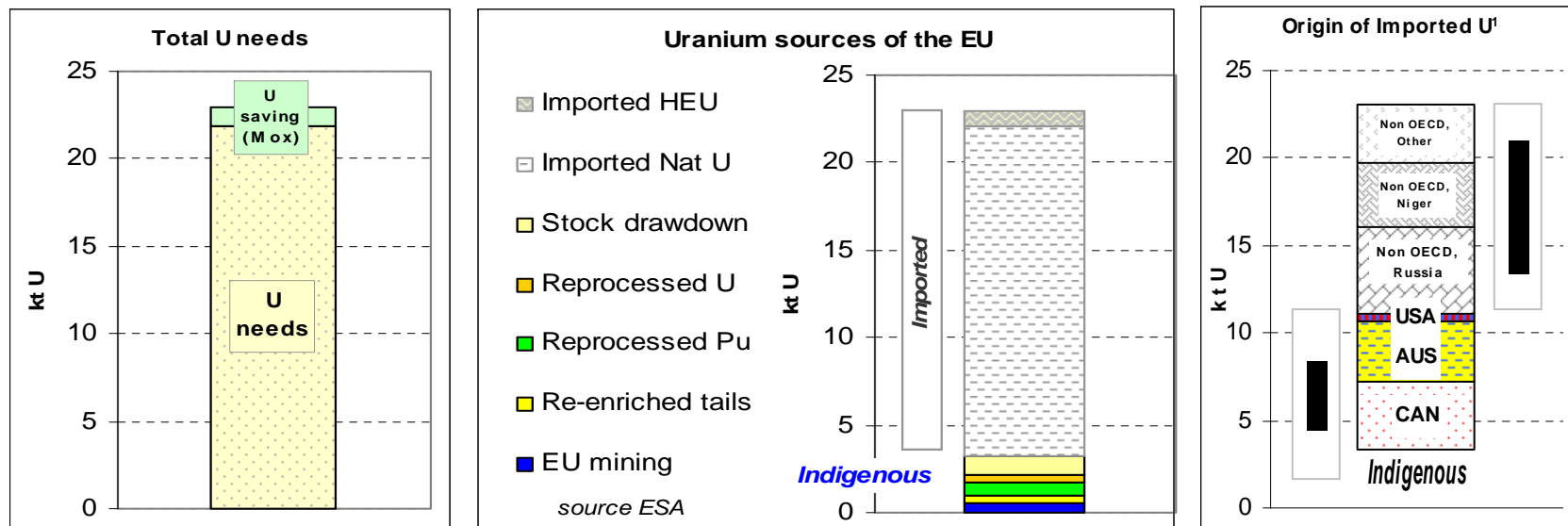
**Fig 1: Calculated decrease of nuclear power capacity, in line with the current lifetime information.**



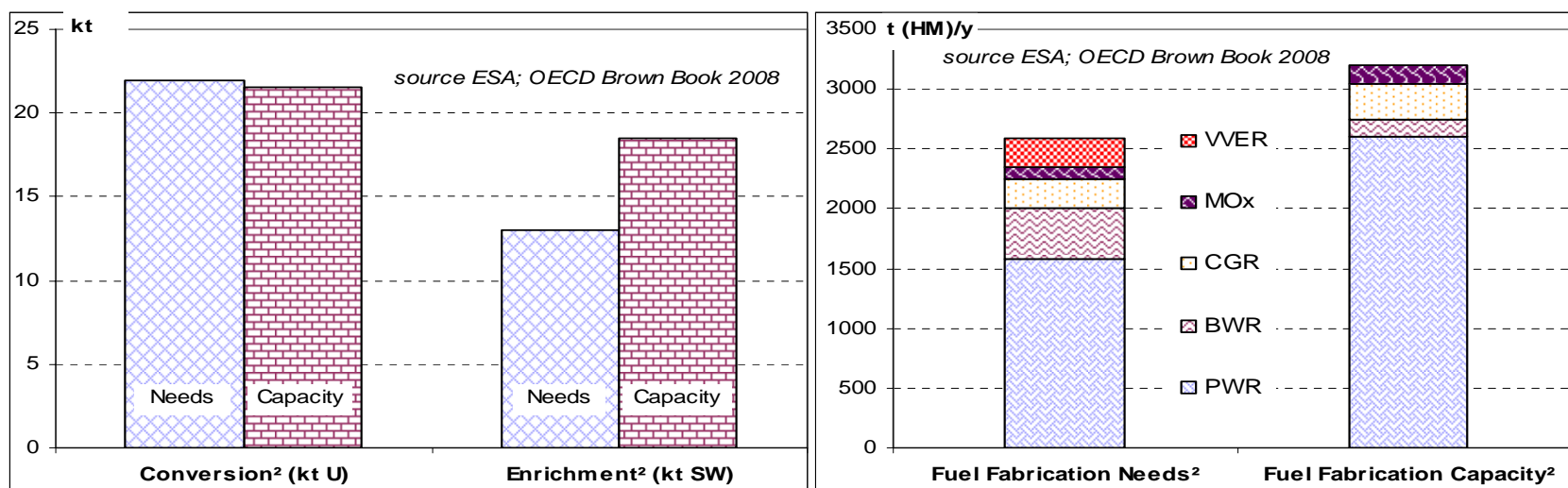
**Fig 2: Total capacity of Plants under construction & operational vs. age (31/12/2007).**



**Fig 3: Age distribution of operational NPPs in the EU (31/12/2007).**



<sup>1</sup> Share of the EU based companies in the global production of U represents about 67% of the 2007 needs of the EU (from WNA, ESA)



<sup>2</sup> The announced investments in the fuel cycle (conversion, enrichment & fabrication) will maintain the European capacities for the whole fuel cycle, in the upper demand case for 2020, except for the limited VVER fabrication market which is likely to remain 100% Russian.

**Fig 4: Current annual fuel needs and related covered capacities in the EU.**

### List of Abbreviations

AES-92	Recent Russian designed Pressurized water reactor
APS	Alternate Policy Scenario (WEO)
CANDU	CANada Deuterium Uranium design reactor
CO <sub>2</sub>	Carbon Dioxide
CSC	Convention on Supplementary Compensation for nuclear damage.
EDF	Electricité de France
ELINI	European Liability Insurance Industry
EMANI	The European Mutual Assurance for the Nuclear Industry
ENEF	European Nuclear Energy Forum
EPR	European Pressurised Reactors
ESA	Euratom Supply Agency
EU	European Union
EUR	European Utilities Requirements for Nuclear Safety
GEN IV	Generation IV Reactors are nuclear reactor designs currently being researched.
GWe	1000 Megawatts of electrical power
HEU	Highly Enriched Uranium
IAEA	International Atomic Energy Agency
IEA	International Energy Agency (OECD)
MDEP	Multinational Design Evaluation Programme
MOX	Mixed Oxide Fuel
NDA	Nuclear Decommissioning Authority
NEA	Nuclear Energy Agency (OECD)
NPP	Nuclear Power Plant
NPT	Nuclear Non-Proliferation Treaty
OECD	Organisation for Economic Cooperation and Development
PLIM	Plant Life Management (IAEA)
PRIS	Power Reactor Information System (IAEA)
PRIMES	Energy system model supported by a series of research programmes of the European Commission
PWR	Pressurised Water Reactors
SW	Separative Work (enrichment)
TEN	Trans European Networks
WEO	World Energy Outlook (IEA two year publication)
WNA	World Nuclear Association
WENRA	Western European Nuclear Regulators' Association
VVER	The Russian abbreviation VVER stands for water-cooled, water-moderated energy reactor. Russian version of PWR reactor.

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- (4) Fig 4: Current annual fuel needs and related covered capacities in the EU.