

***Introductory remarks: Report on
French delegation visit to Gremikha***

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Complete remediation to permit closure of the site or reuse for other purposes

- ▶ ***Detailed visit by French delegation on 2003, July 18th***
- ▶ ***The storage site is enclosed within a limited area (6 hectare)***
- ▶ ***Hence, problems are intricate and must be addressed globally***

Work breakdown (1)

- ▶ ***a) evacuate the submarines laid up at piers (under progress)***
- ▶ ***b) bring the 2 Alfa class submarines and the reactor section with their cores aboard***
- ▶ ***c) repair infrastructures and unload the 3 remaining SRC***
- ▶ ***d) evacuate Alfa class submarines and empty reactor section***
- ▶ ***e) evacuate the 9 SRC to an industrial site for disassembling***

Work breakdown (2)

- ▶ ***f) sort out, condition and evacuate VVER spent fuel elements***
- ▶ ***g) sort out, condition and evacuate radioactive solid waste***
- ▶ ***h) treat radioactive liquid waste; collect, condition and evacuate sediments and residues***
- ▶ ***i) decontaminate buildings, infrastructures and ground***
- ▶ ***j) monitor radioactivity of the site***

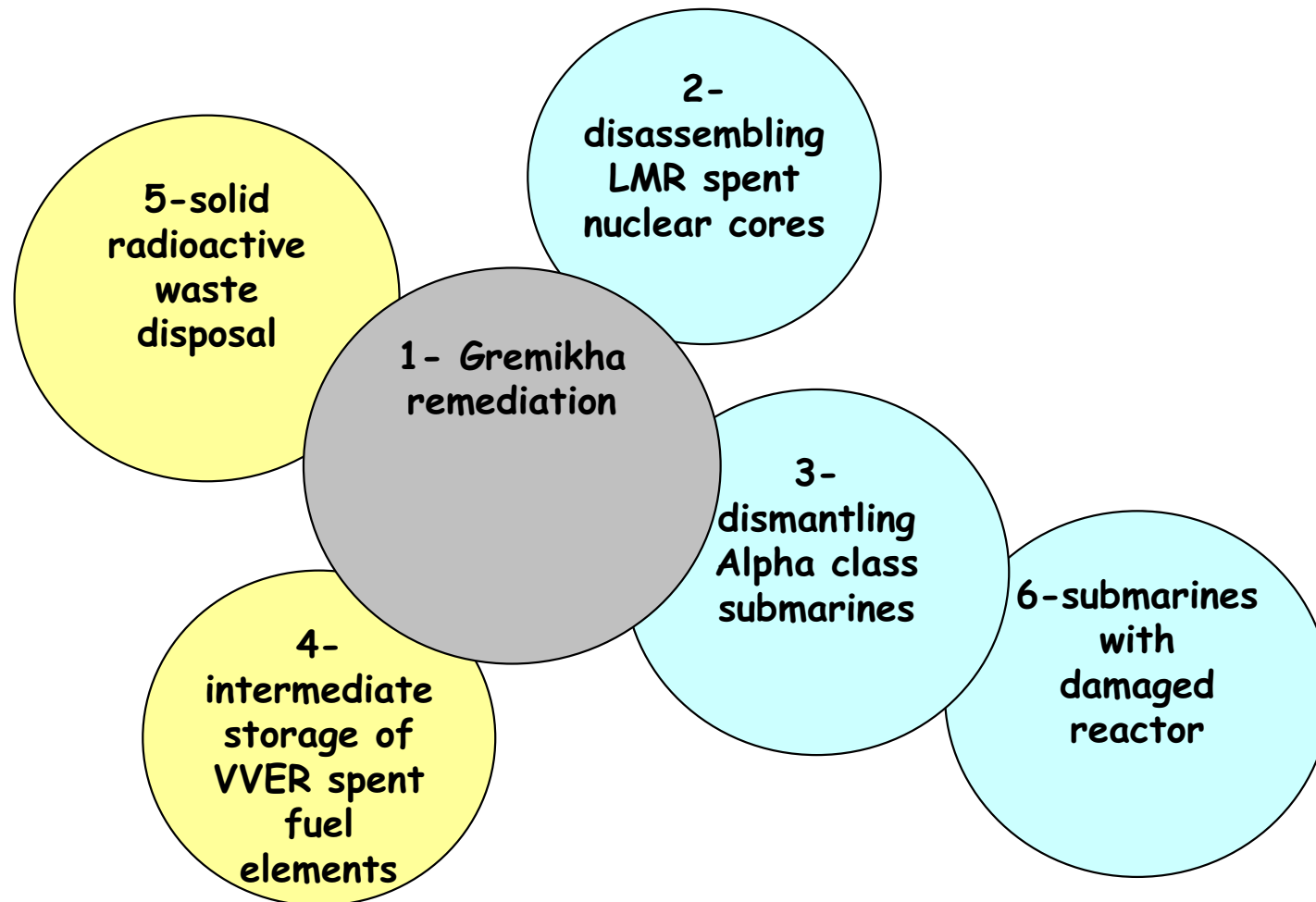
Preliminary work

- ▶ ***Establish an inventory of radioactive materials***
- ▶ ***For each type, determine their final destination***
- ▶ ***Determine the optimum order of planned operations to minimize on site work***
- ▶ ***Identify infrastructure and tools that can be reused and new facilities that must be brought to the site***
- ▶ ***Qualify tools and procedures***

Gremikha remediation project and other projects (1)

- ▶ ***Gremikha remediation cannot be completed without the completion of other projects such as:***
 - ◆ ***Creation of a regional center for radioactive solid waste storage***
 - ◆ ***Creation of a regional center for temporary storage of VVER spent fuel elements***
 - ◆ ***Creation of a specific facility for disassembling LMR spent nuclear cores***
 - ◆ ***Adaptation of a shipyard for dismantling Alpha class submarines***

Gremikha remediation project and other projects (2)



Gremikha remediation project characteristics

- ▶ ***The work is not really different of what has been done already elsewhere, but...***
 - ◆ ***the remote location,***
 - ◆ ***the poor state of infrastructures and facilities***
 - ◆ ***the harshness of the weather***
- ▶ ***Demand great care in planning and off site work preparation***

- ▶ ***Retrieval of radioactive waste in bulk: Cadarache experience***
- ▶ ***French experience in waste management and waste disposal: Centre de l'Aube***
- ▶ ***French experience in spent fuel management and storage: Cascad, NUHOMS***
- ▶ ***French experience in dismantling LMR: Super Phénix***