

ÚJV Řež, a. s.

Division  ENERGOPROJEKT PRAHA

All for Power Conference 2023

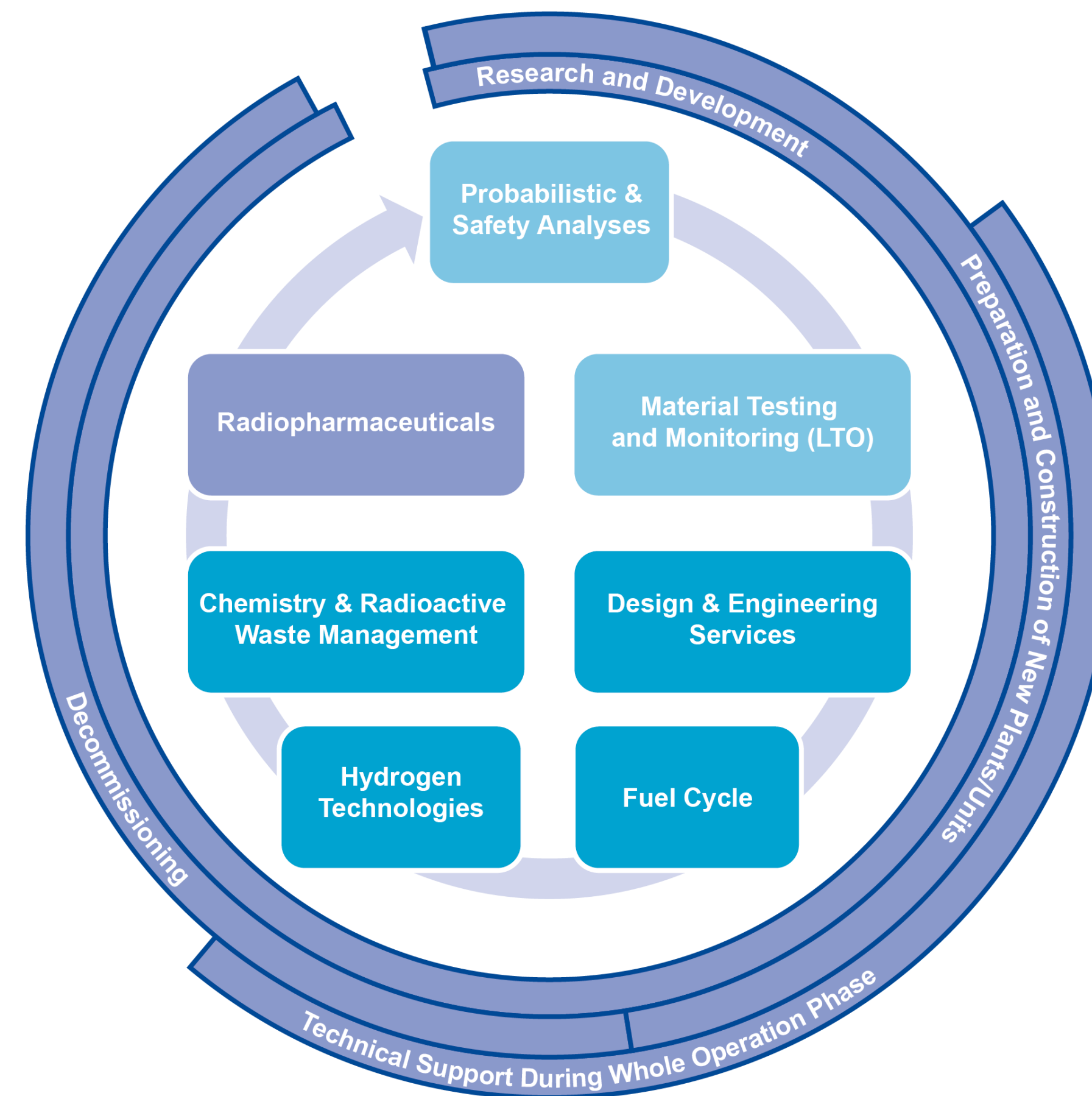
20.11.2023

Ing. Petr Mach



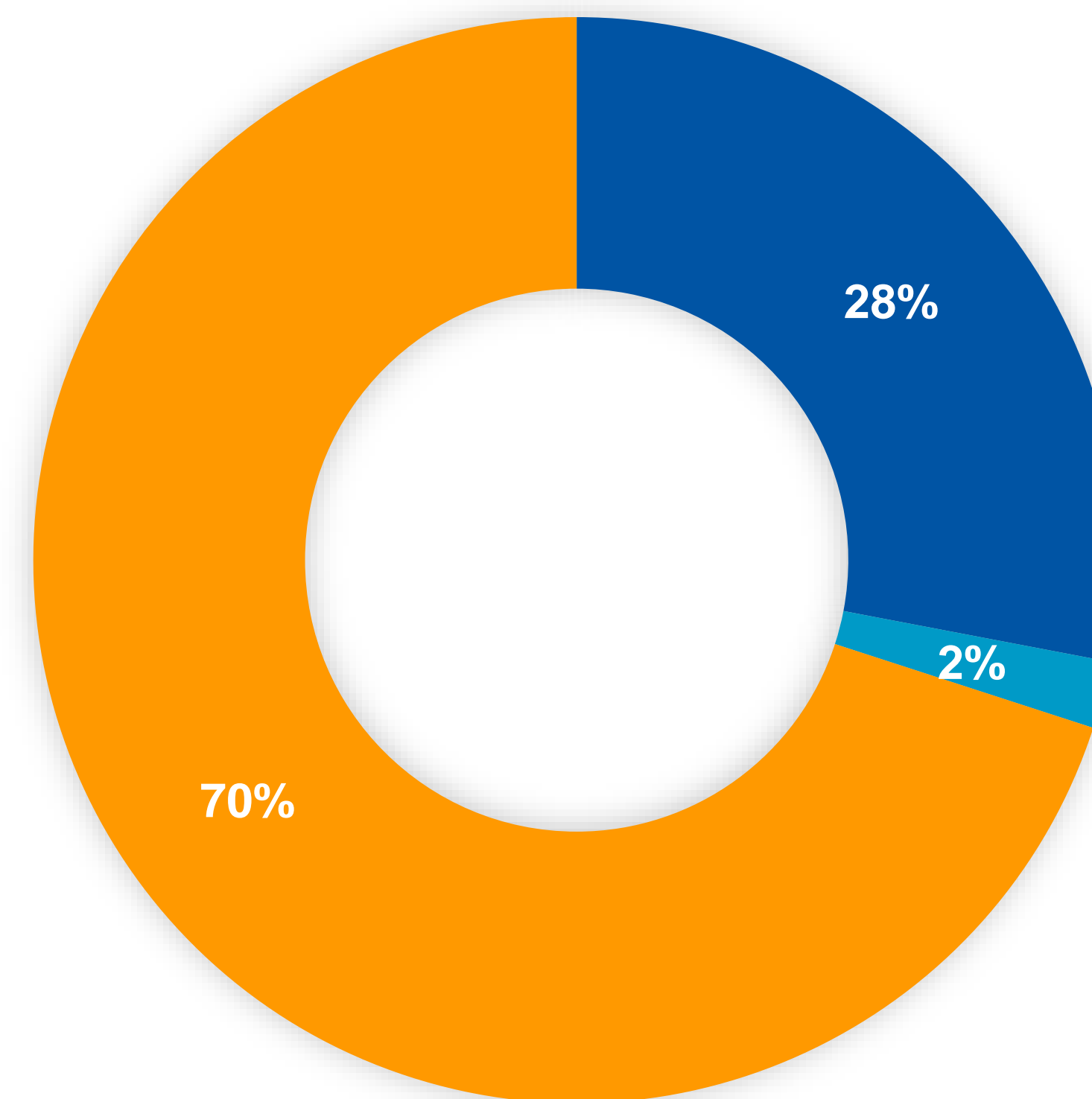
PRODUCTS & SERVICES

- Nuclear safety and reliability analysis
- Fuel cycle support services
- Design and engineering
- Radioactive waste and decommissioning
- Technical support for operation of nuclear and conventional power plants
- Applied R&D
- Hydrogen Technologies
- Radiopharmaceuticals



SHAREHOLDERS

-   ČEZ, a. s.
-   **SLOVENSKÉ
ELEKTRÁRNE** Slovenské elektrárne, a. s.
(ENEL group)
-   Husinec Municipality



UJV Group

The portfolio of services of **ÚJV Řež** is synergistically complementary to its 100% owned subsidiaries, which together with ÚJV Řež form the **UJV Group**.

UJV Group consists of:

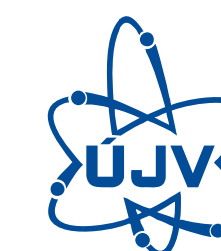
ÚJV Řež (www.ujv.cz)

Research Centre Řež (www.cvrez.cz)

Research and Testing Institute Plzeň (www.vzuplzen.cz)

ŠKODA PRAHA (www.skodapraha.cz)

RadioMedic s.r.o. (www.radiomedic.cz)





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Area of nuclear power plants design

NPP AKKUYU 4 X 1200 MW, TURKEY

Evaluation of CL Documentation of Akkuyu NPP Technical support services for the Turkey nuclear licensing authority (TAEK)

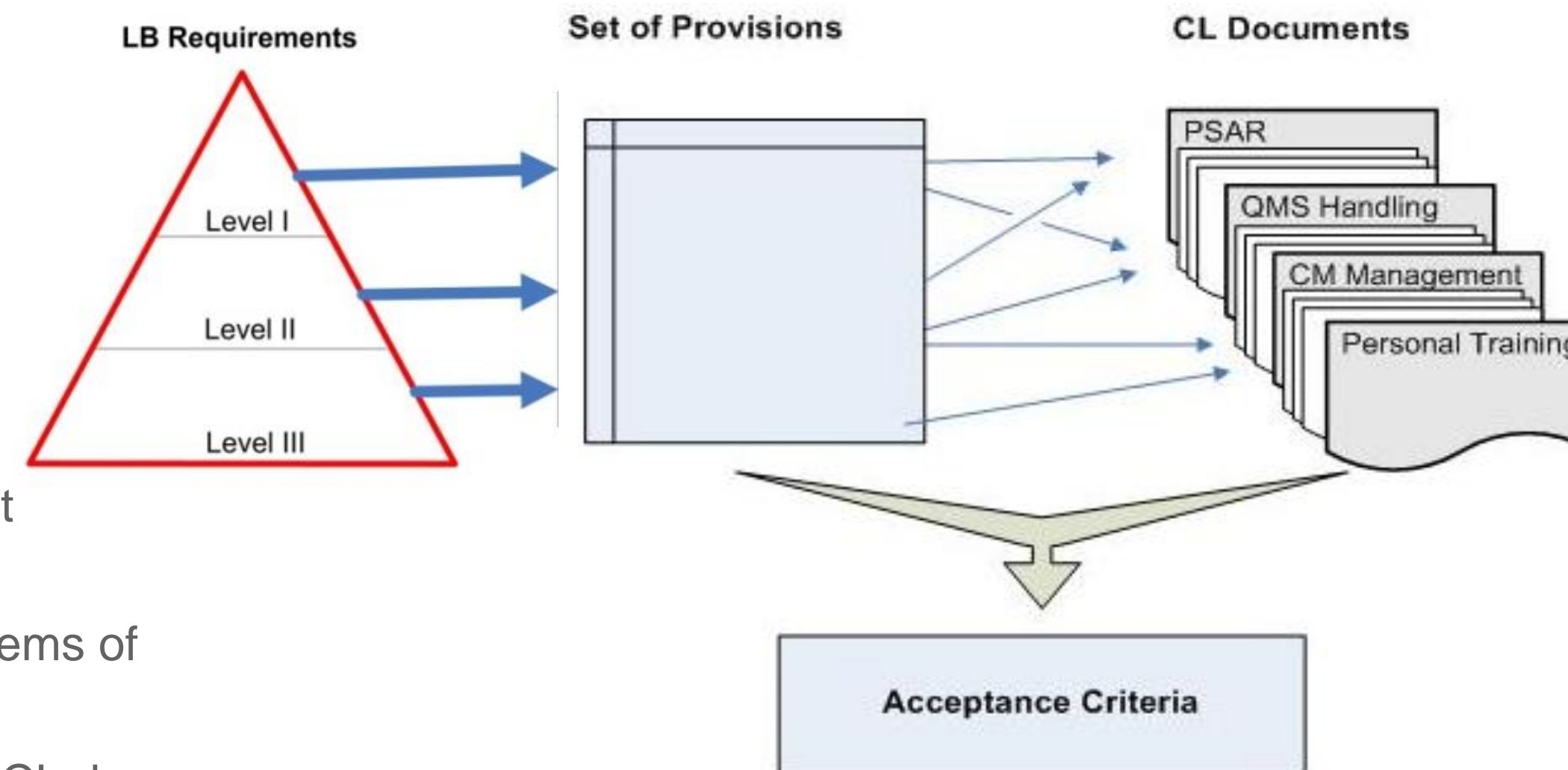


Owner: Akkuyu project company
EPC: Rosatom Overseas

Construction License Documentation
review and assessment

Approach to Implementation of services

- Compilation of LB Doc., incl. implementation of post Fukushima measures
- **Licensing Matrix:** Provisions and Criteria versus items of CL doc.
- Acceptance criteria for evaluation of compliance of CL doc. with LB requirements to **nuclear safety and radiation protection**
- Independent safety analyses of accidents scenarios incl. Severe Accidents
- The result of R&A is the **Evaluation Report** of PSAR and other CL doc.
- SW special tool for support to CL doc. evaluation – **LBAT**



COOPERATION WITH MWM ERBE - PAKS II PROJECT



Previous work for NPP PAKS II

Technical consultancy services related to the design and licensing documentation.

Content of the technical assistance:

- a) Evaluation of licensing documentation for reactor pressure vessel
- b) Evaluation of licensing documentation for core catcher
- c) Evaluation of licensing documentation for core barrel
- d) Answer to the Designer's reply in DPTRA documents (Manufacturing licensing documentation, assessment of radiation load to the reactor vessel, etc.)



Current status – Framework Contract

- List of equipment for evaluation: Core Baffle, Protective Tube Unite, Upper Unit, Sealing Components of Reactor Main Joint, Thrust Ring, Supporting Ring, Surveillance Specimens, Pressurizer, Embedded Components of the Pressurizer Fasteners, Main Coolant Pipeline, Relief Tank, Relief Tank Fasteners, Embedded Components of Relief Tank, ECCS Accumulator, Fasteners of ECCS Accumulator, Steam Generator

NPP HANHIKIVI 1200 MW, FINLAND

Hanhikivi NPP VVER-1200 PWR reactor AES-2006, Finland

Owner: FENNOVOIMA Oy., EPC supplier: Rosatom Overseas, Designer: ATOMPROEKT St. Petersburg

1st Part of work – services for Owner (2018):

- Technical consulting services – review of a draft of the Hanhikivi NPP Preliminary Safety Analyses Report
- Technical support for the future NPP operator (in cooperation with Czech utility)



2nd Part of work – services for the EPC supplier (2019):

- Technical consulting services and capacity support for the NPP Designer

UJV services for NPP Designer

- Preparation and completion of the normative basis for the NPP design
- Preparation of general methodology how to approach hazard analysis
- Preparation of methods/guides for elaboration of design hazards analysis (41 design hazards to be addressed in the design)



NPP AL DABAA 1200 MW, EGYPT

Technical support to Egyptian nuclear regulatory authority (ENRRA) - regulatory functions related to the licensing process of El Dabaa NPP (long term cooperation)



Main tasks of the project

- Review and further development of the regulatory framework
- Support in further development of ENRRA IMS (integrated mng. syst.)
- Capacity building of ENRRA
- Review and development of Authorization process for nuclear and radiation activities
- Planning and performance of ENRRA inspections during NPP construction and commissioning
- Conformity assessments of Al Dabaa NPP
- General concept of Situation and Analytical Centre

Regulatory framework

- Review
- Development
- Implementation

ENRRA development

- IMS
- Personnel
- Training
- Inspections

NPP Al Dabaa

- Authorization process methodology
- Licensing doc. assessment
- Conformity inspections

Other nuclear facilities

- Support in periodic safety reviews



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