



Authority for Nuclear Safety and
Radiation Protection

Preparation of licensing process for large NPPs & SMRs

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Introduction

ANVS and new nuclear ambitions in the Netherlands



Legal Competences ANVS

- › Authorization (a/o Licensing)
- › Oversight and enforcement
- › International cooperation
- › Public communication
- › Conduct&commission research
- › Advising on policy, legislation and regulations
- › Role in crisis preparedness and response
- › Supporting government organizations with expertise





Growing government ambition for nuclear

- > 2020: 100% public investment for new RR PALLAS
- > 2021: LTO of NPP beyond 60y, prepare 2 large new NPPs
- > 2022&23: investment in nuclear knowledge infrastructure
- > 2024: SMR support program
- > 2024 *agreement of government under construction:*
+2 large NPPs, +option for SMRs

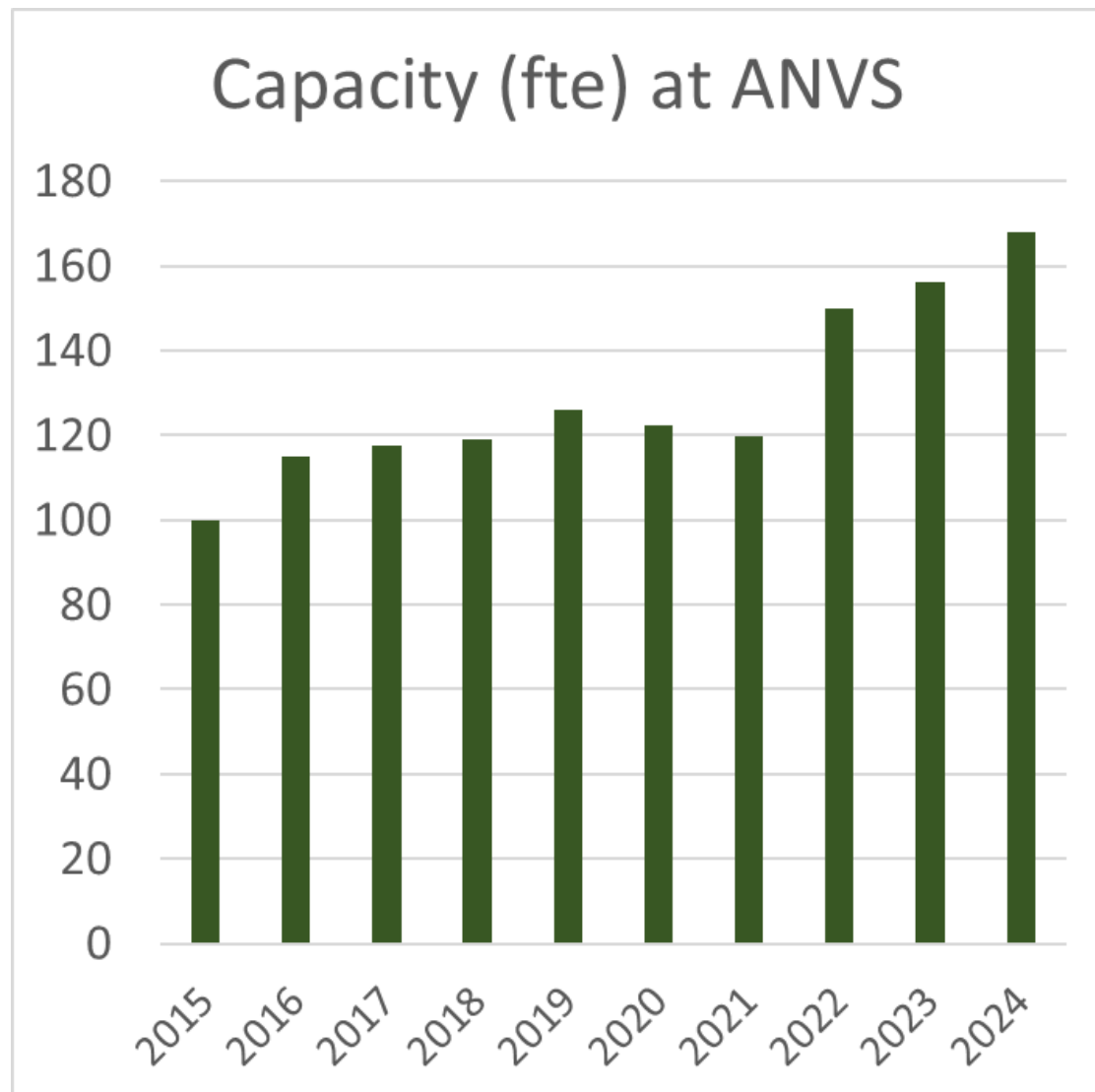


Organizational Readiness

Capacity and competence development



Capacity & competence building



- > Pro-active monitoring of developments and identification of future needs
- > Recruitment and training (ANVS Academy, traineeship)
- > Internal program 'New Nuclear Initiatives' for integral approach to organizational readiness, prioritization and dynamic decision making
- > International regulatory collaboration bilateral (AU, BE, CA, DU, FR, KR, PL, UK, US, ZA) and multilateral (IAEA, WENRA, ENSREG, OECD NEA)



Workforce and Gender, Diversity and Inclusion

- › Chair Board ANVS is Co-chair International Gender Champions Group
- › In context of Dutch Feminist foreign policy; spread the message around the world but also bring it back home
- › Examples at ANVS:
 - Bias training team leads for recruitment
 - ANVS working group
 - Rainbow network
 - Put topic on agenda in (national) nuclear sector



Training on the job (1/2) Licensing PALLAS

- › Start pre-license interaction
June 2015
- › Submission (incomplete) PSAR
March 2021
- › License application
June 2022
- › License to construct granted
March 2023





Training on the job (2/2): international activities

- › Interaction with 3 vendors of large NPPs in the technical feasibility study via EZK
- › Observer in GDA phase 2 by ONR for Rolls Royce SMR
- › Phase 2 of Joint Early Review of Nuward SMR (with regulators from FR, FI, CZ, SE, PL)
- › Interaction with Thorizon (collaboration with ASN)



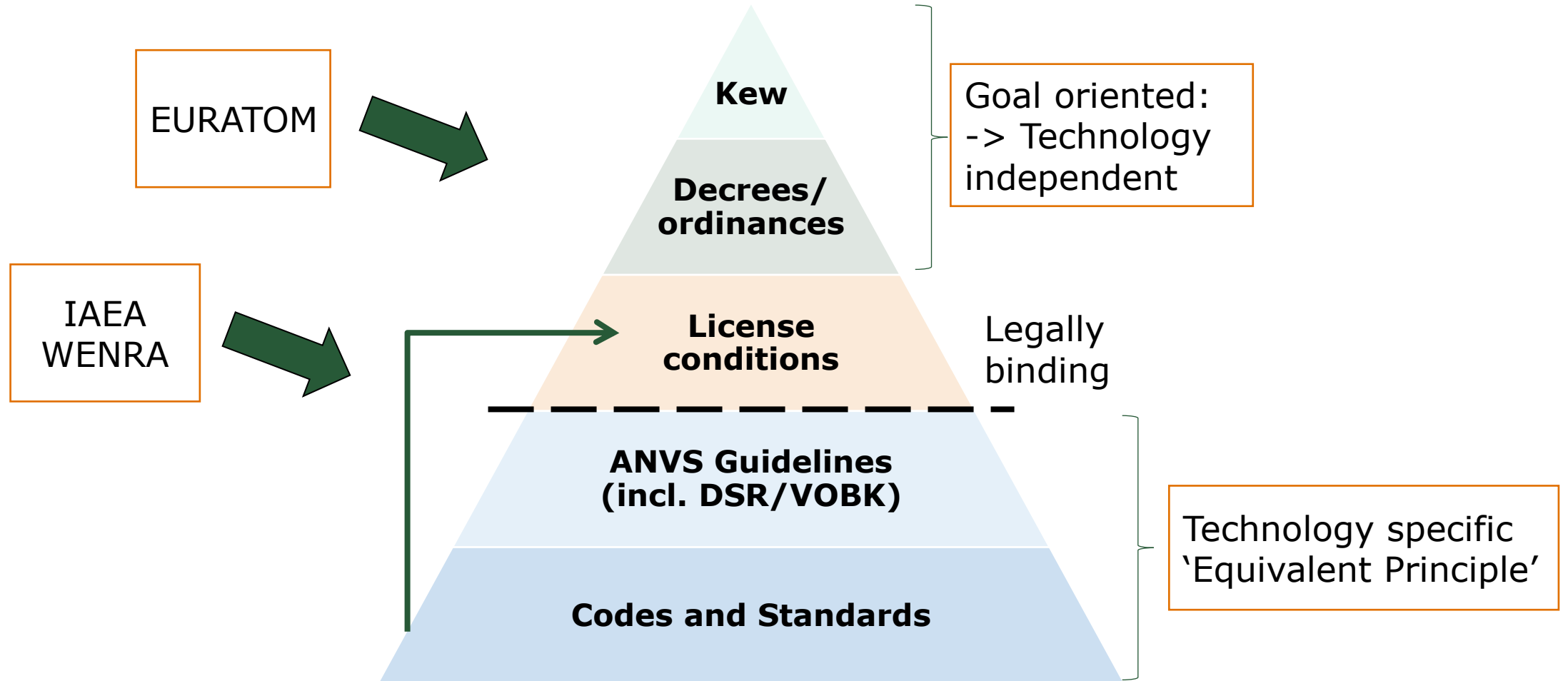


(Pre)licensing in the Netherlands

National and European



Dutch regulatory framework: fit for future





Pre-licensing (technical interactions, safety review, preparation of application)

Multiple years (unrestricted)

Formal licensing procedure

Application license and application EIA

Draft license decision ANVS

Notification of draft license decision and public consultation

Final license decision ANVS


6 months (reasonable extension possible)

Notification of final license decision ANVS and option to appeal at the Council of State




ANVS engagement from start to construction license


> Orientation phase: exchange information

- 
- Build-up of knowledgeable organization and budget
 - Choice of location, start of IEA procedure
 - Basic design / tender with clear design specifications

> Pre-licensing phase: technical review and assessments

- 
- Positive ANVS review (scope, level of detail, correctness) of safety (PSAR) and environmental impact information
 - Admissible license application including EIA and safety report

> Formal license application procedure: decision after consultation

- 
- Review of organization readiness, approved decommissioning & security plans



Current engagement in NL

- Explain the Dutch licensing process to potential applicants
- Clarify Dutch requirements and guidelines to applicants and vendors
- Inform involved parties on relevant safety aspects
 - Example: published ANVS viewpoints on relevant location aspects as part of the strategic environmental impact assessment procedure





(Pre)licensing in Europe

Lessons of ENSREG in the European SMR pre-Partnership



What is key for pre-licensing of SMRs in Europe (1/2)

Licensing process / safety requirements

Licensing process

Quite similar in Europe
Authorisation remains the
sovereign responsibility of
states



Cannot lead to international
certification or reciprocal
recognition of the authorisations
issued by the safety authorities

Safety requirements

Established in different
frameworks (IAEA, WENRA)
Built on the experience of
what is already implemented



Rather how to demonstrate
compliance with the
requirements that
needs to be worked on

 **Further
cooperation**



What is key for pre-licensing of SMRs in Europe (2/2)

- › Engage **early dialogue** between designers/licensees and regulators on main elements of the design options
- › Promote cooperation of “interested” regulators to carry out a **joint safety pre-assessment** on a mature design and its **dissemination with other regulators** confronted with that design at a later stage.
- › Identify in an early phase **potential blocking points** in the safety requirements or licensing processes and arrangements for convergence



Conclusion

- > ANVS has experience and is further building its competence and capacity in preparation for new nuclear initiatives in NL
- > Early engagement is important
- > International collaboration of ANVS with regulators that are reviewing/have reviewed the specific design in the pre-licensing phase is crucial

