

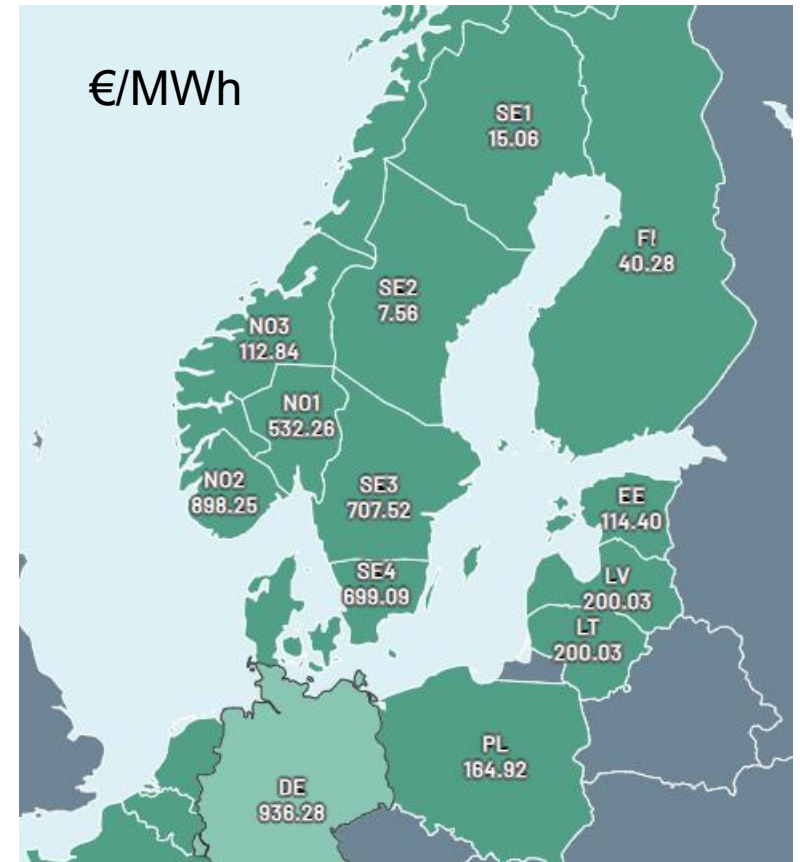
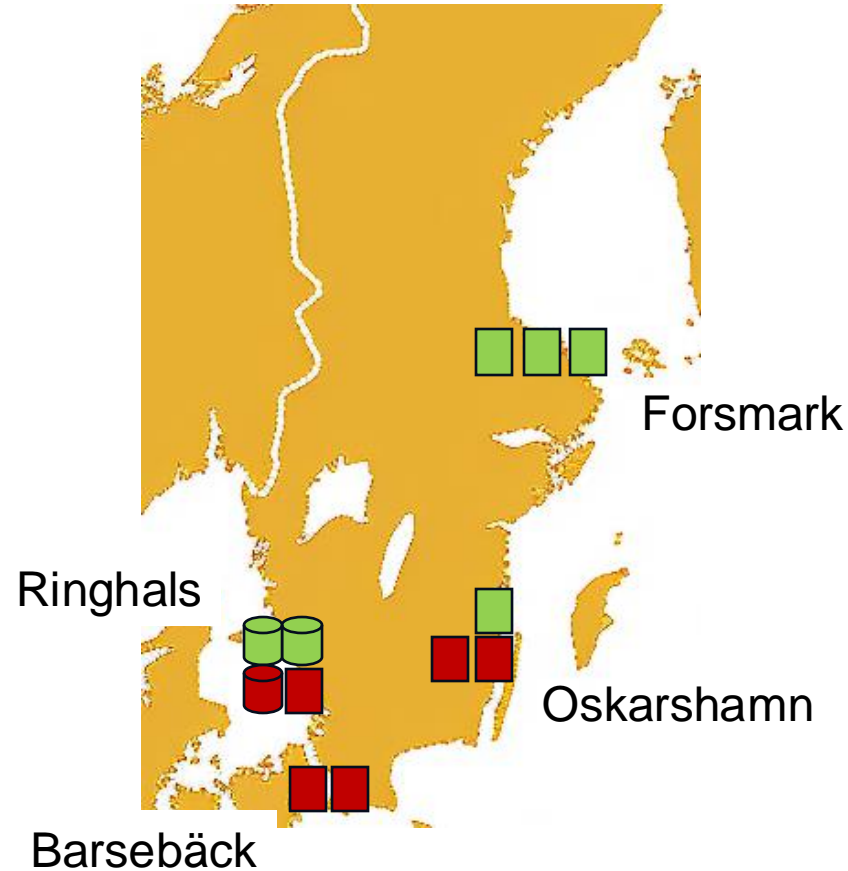
Sweden's goals for building new nuclear power plants

Fermi Energia's 6th Annual Conference
2025-02-05, Tallinn, Estonia

Carl Berglöf, National Nuclear New-build Coordinator

Inquiry assigned by the Ministry of Climate and Enterprise

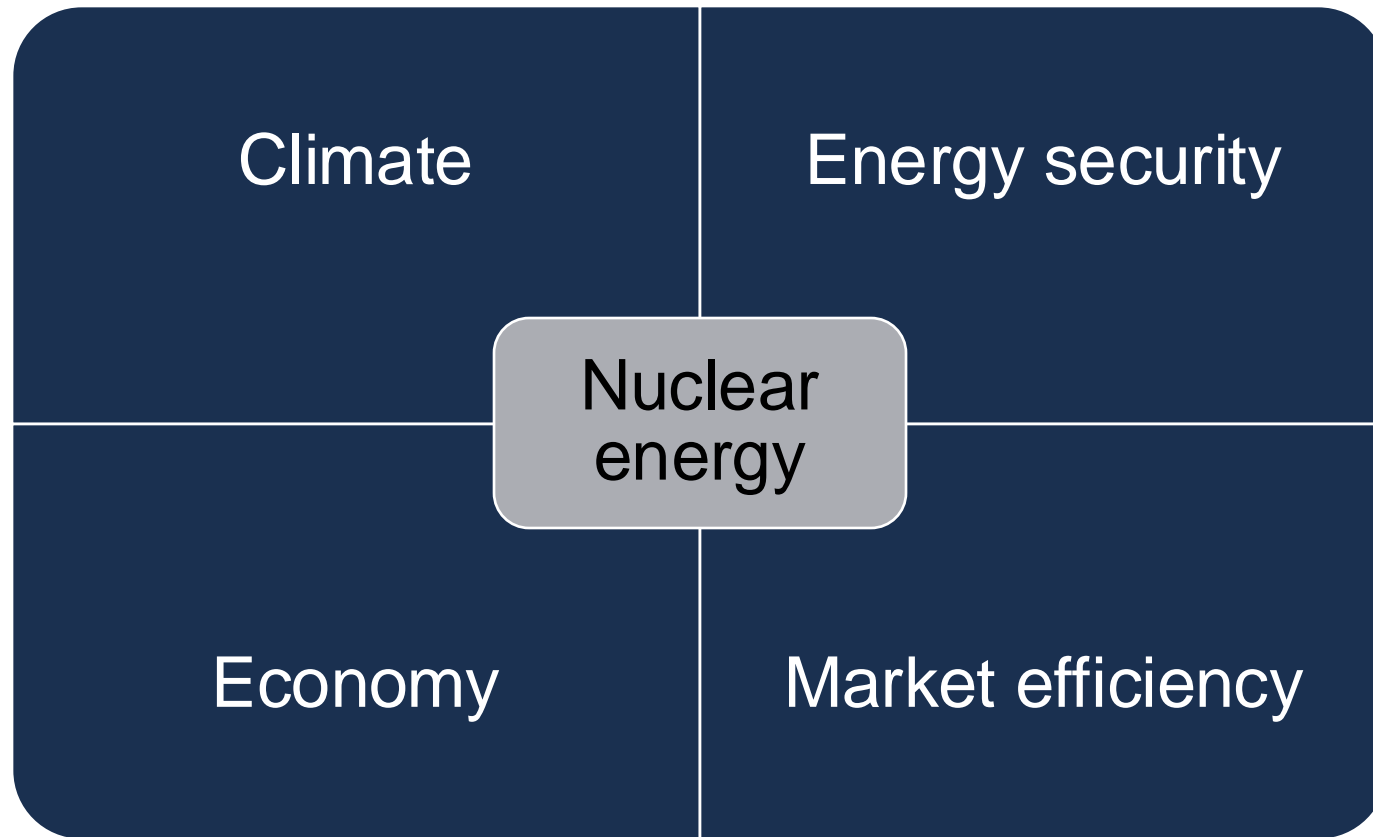
Nuclear power in Sweden today



2024-12-12, 17:00 – 18:00

Source: Nordpool

Nuclear power – a central solution to several overarching society challenges



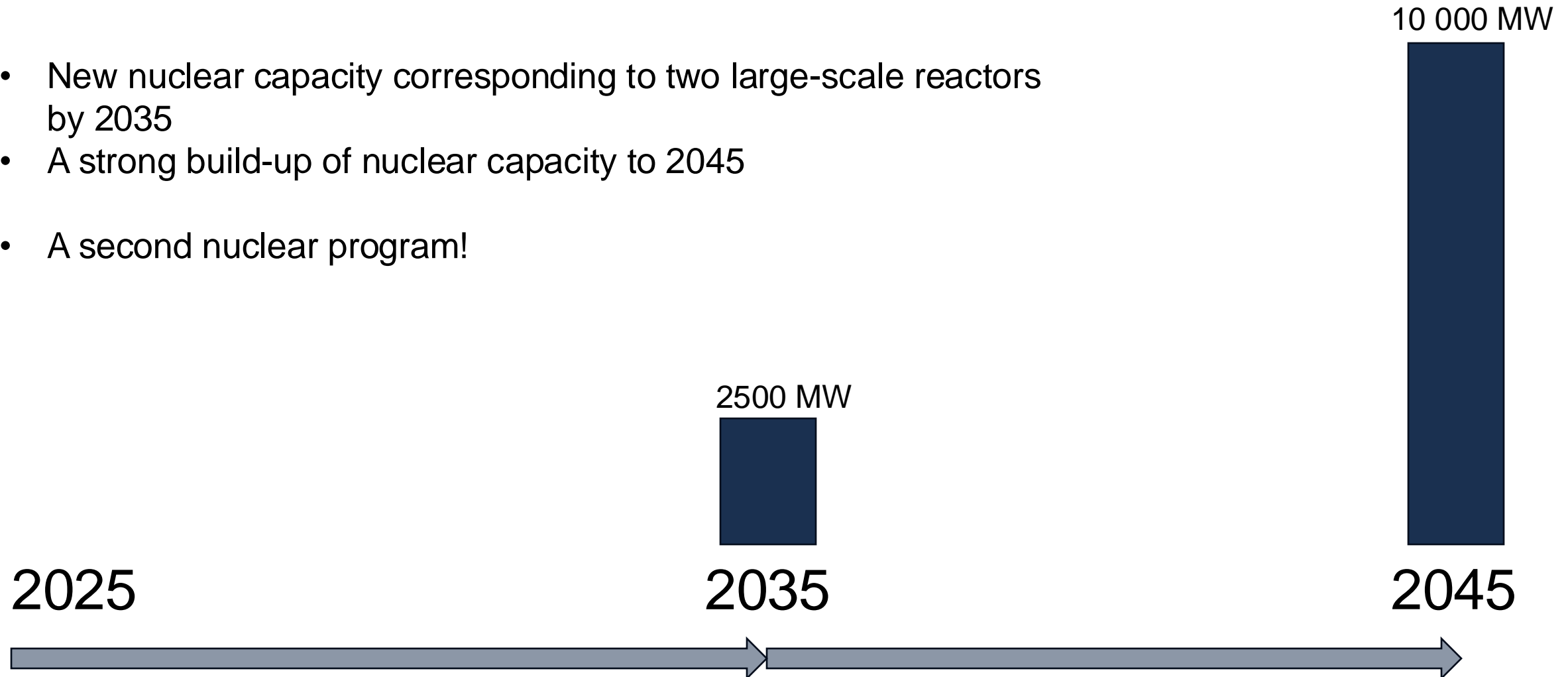
A new course for energy policy in Sweden

- “100% fossil free” electricity production
- Removed nuclear cap
- Targets for system planning
- New policy approved by Parliament
 - Includes Nuclear Roadmap



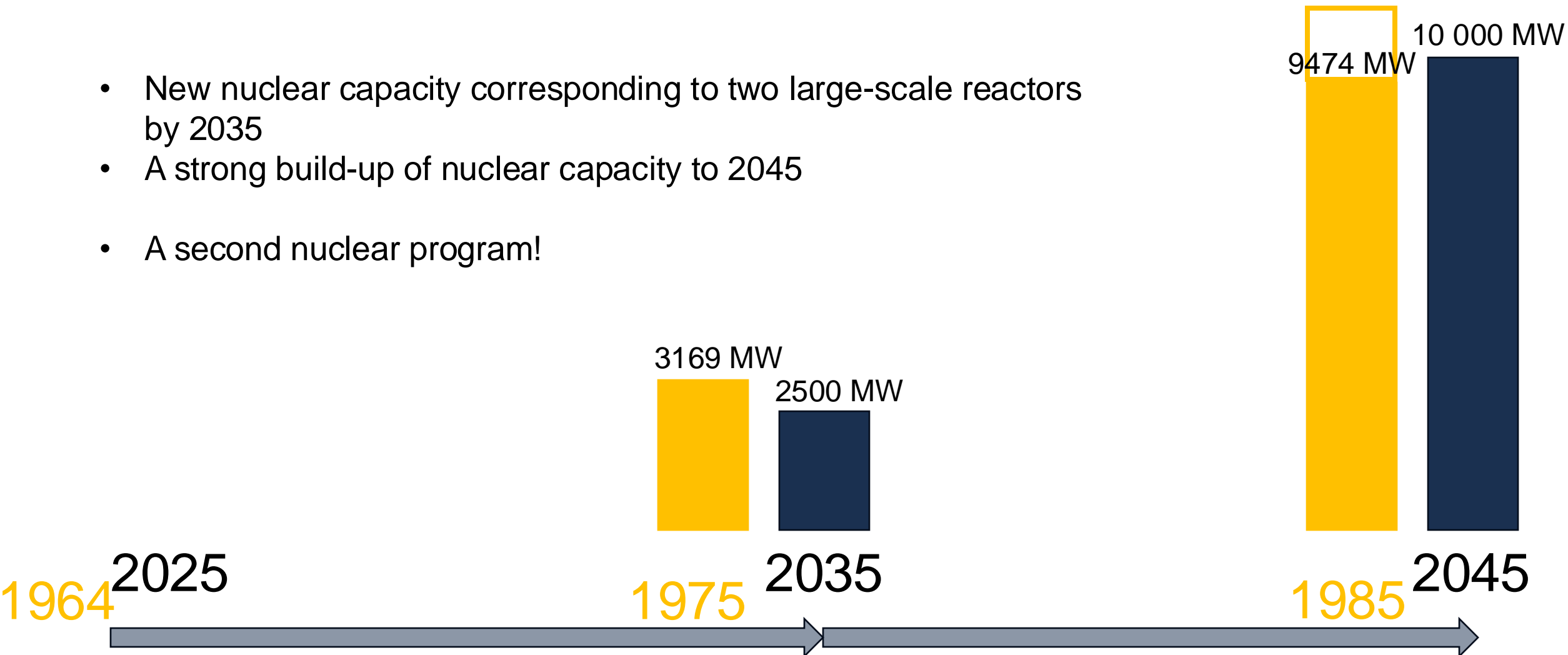
Roadmap for New Nuclear Power

- New nuclear capacity corresponding to two large-scale reactors by 2035
- A strong build-up of nuclear capacity to 2045
- A second nuclear program!



Roadmap for New Nuclear Power

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A coordinated approach to programme development

Government

Government Offices

State Authorities

Public Inquiries



- Effective communication
- Structured advice

Utilities

Investors

Industry and end-users

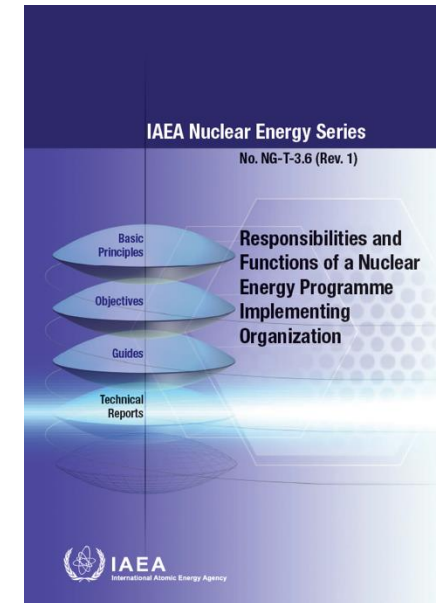
Vendors & Project developers

Supply chain

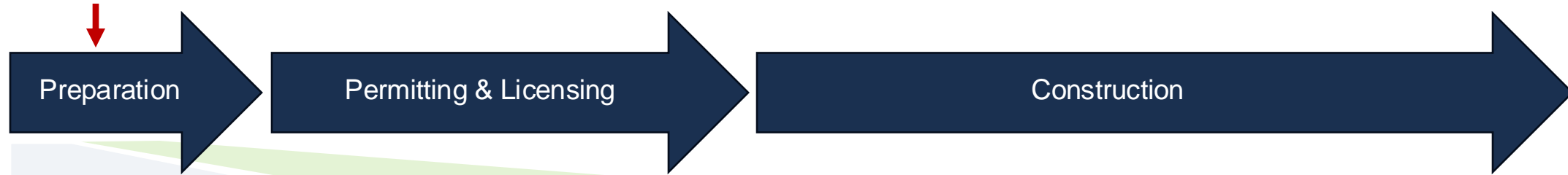
Municipalities

Academia

International contacts



Critical path to first grid connection



Promotional measures

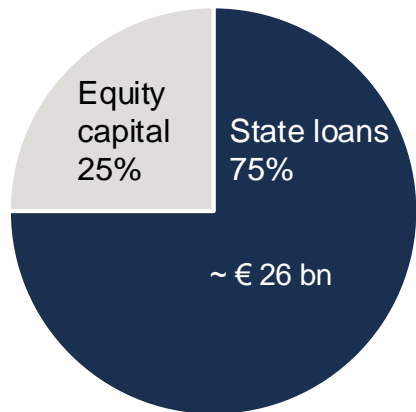
- Financing model, state aid
- Electricity market development
- New authority instructions
- Credit guarantees
- Evaluation of possible sites
- Nuclear coordination function
- Skills, workforce & supply chain

Regulatory measures

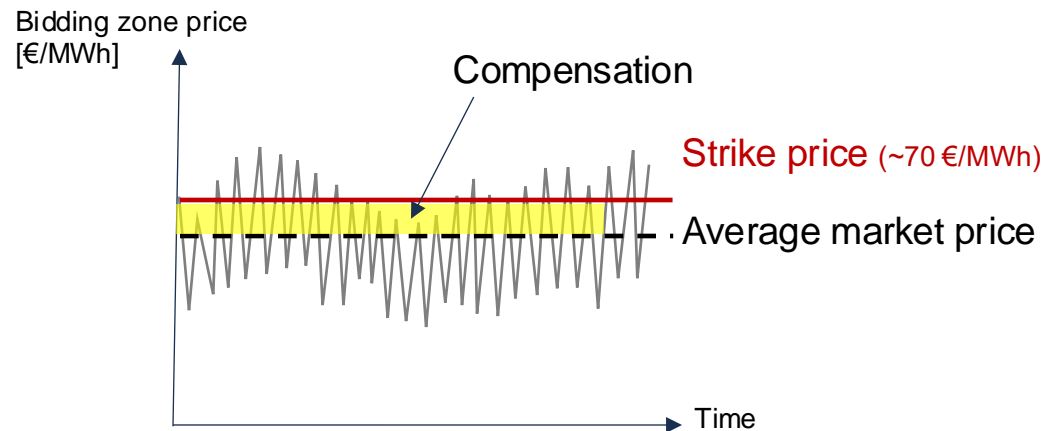
- Renewal of Environmental Act
- Renewal of Nuclear Act
- Renewal of nuclear licensing process
- Pre-licensing evaluation of new reactor designs
- Conditions for nuclear waste management
- Development of a Technical Support Organisation
- Enhancement of local permitting processes
- Skills & workforce

Proposed Financing Model (4-6 GW)

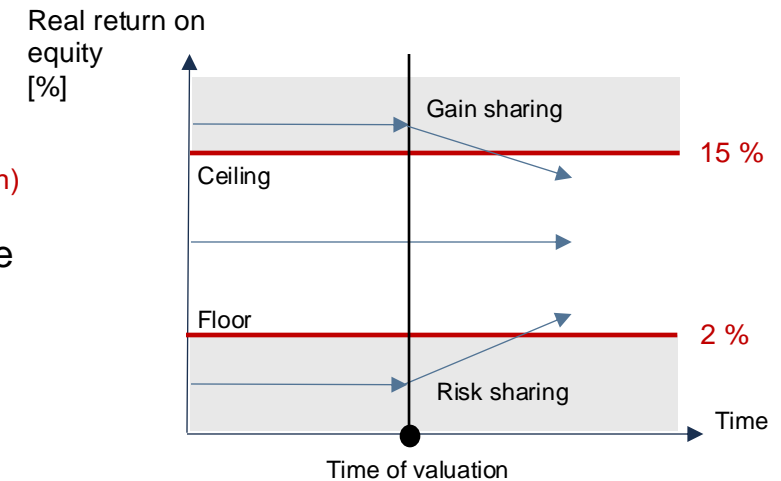
1. State loans



2. Contract for Difference (CfD)



3. Risk- and gain-share mechanism



Construction phase

Political risk

Construction risk

Operation phase

Political risk

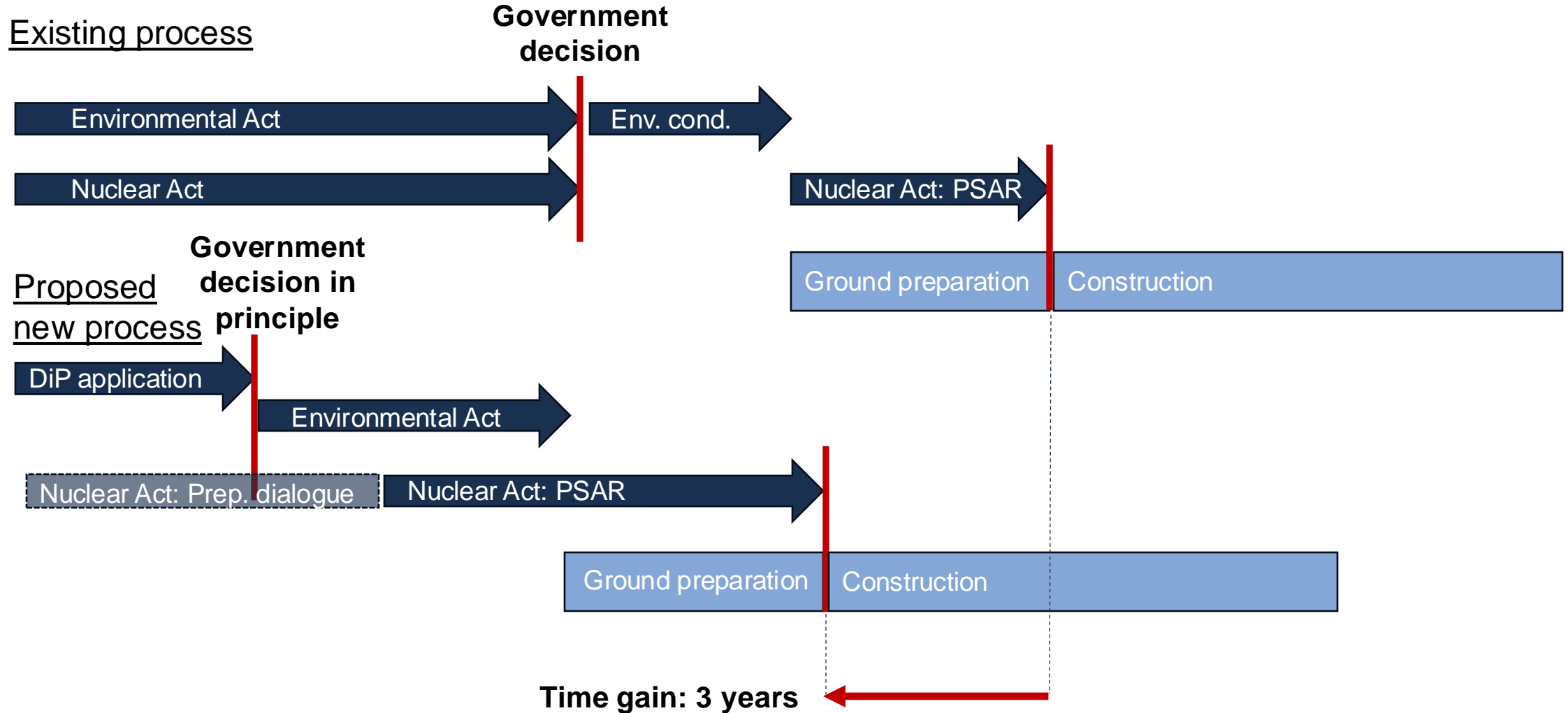
Market risk

After two years of operation

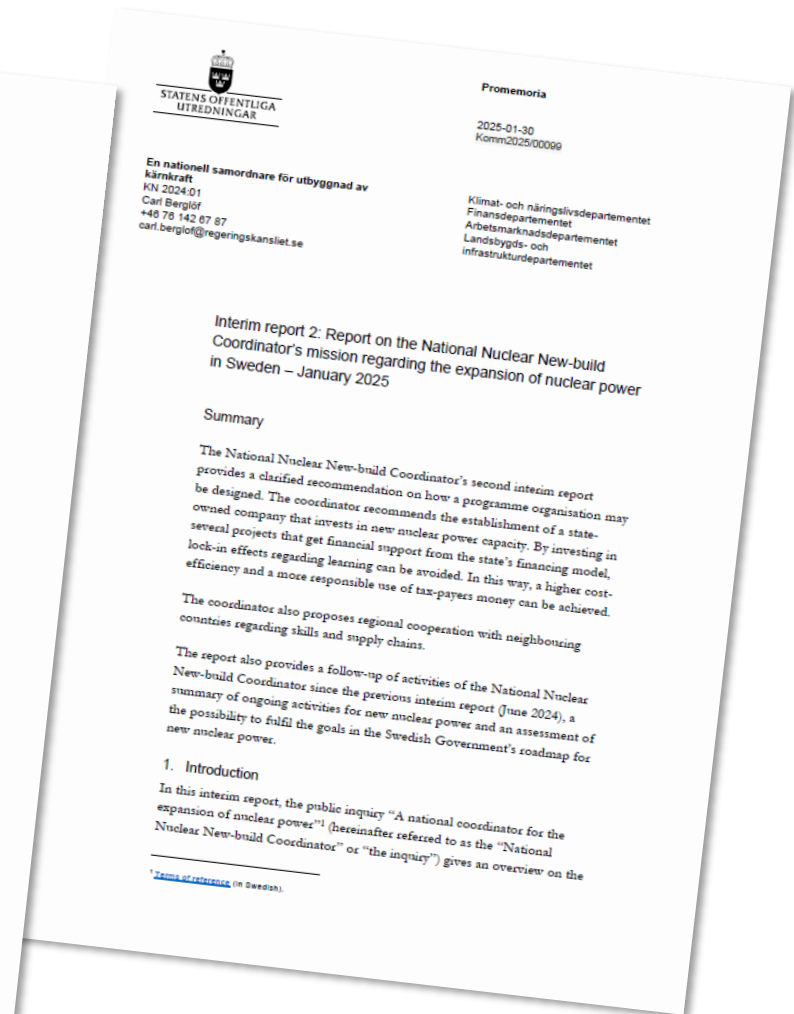
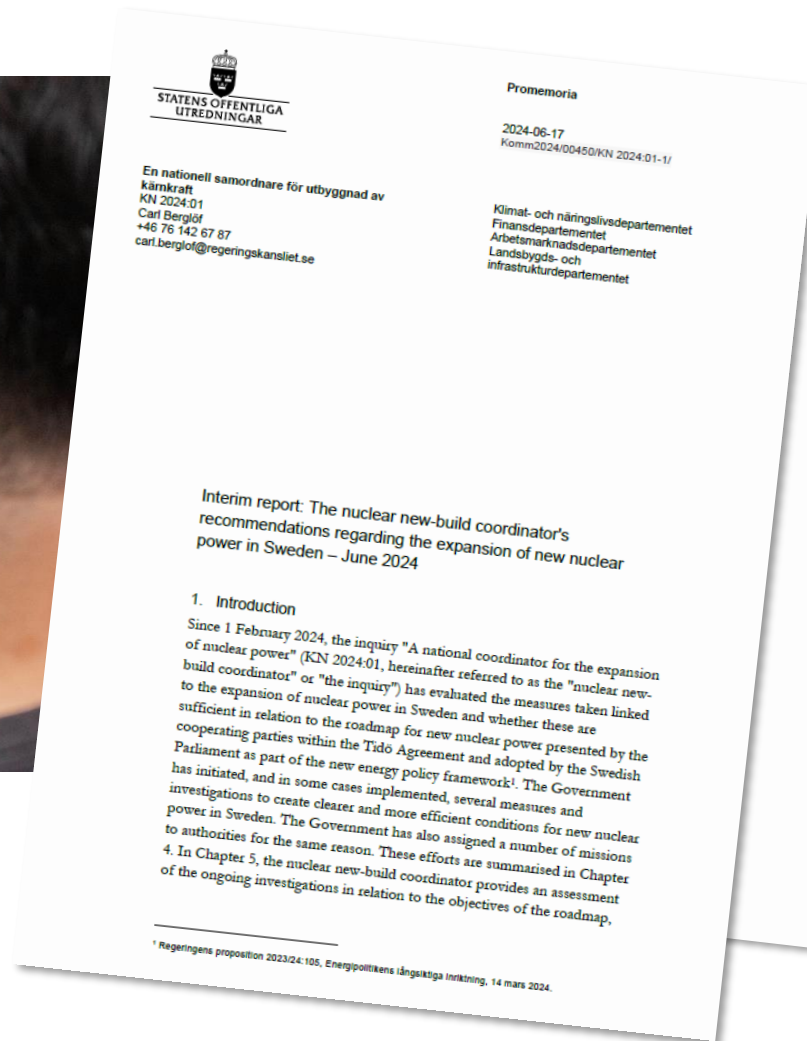
Regulatory risk

Construction risk

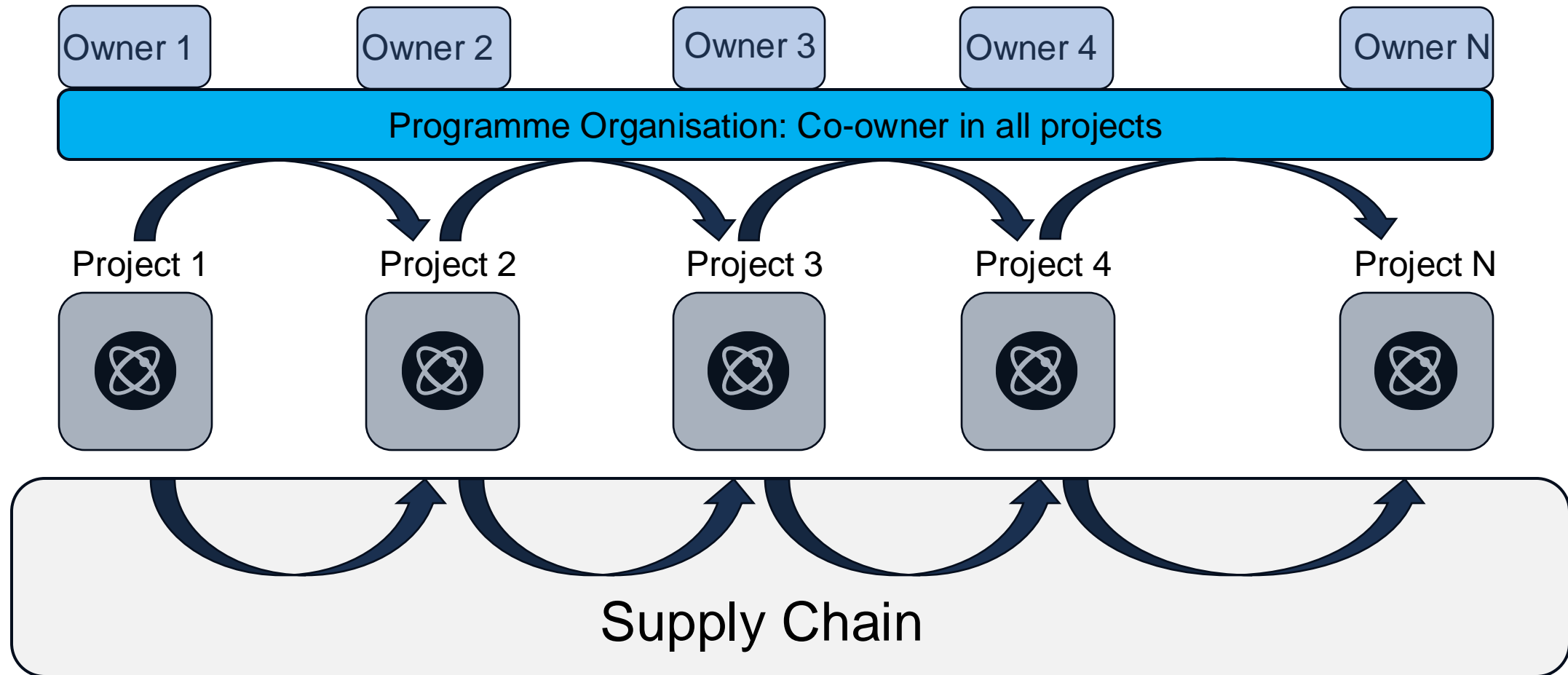
Proposed new licensing process



Two interim reports published



A missing piece: Knowledge management



Nordic-Baltic Nuclear Hub

- Supply chain
- Competence development



AI-generated photo

A national coordinator for the expansion of nuclear energy