

Preparations for new nuclear power in Sweden

SKC and ANItA Symposium
Chalmers, Sep 23, 2025

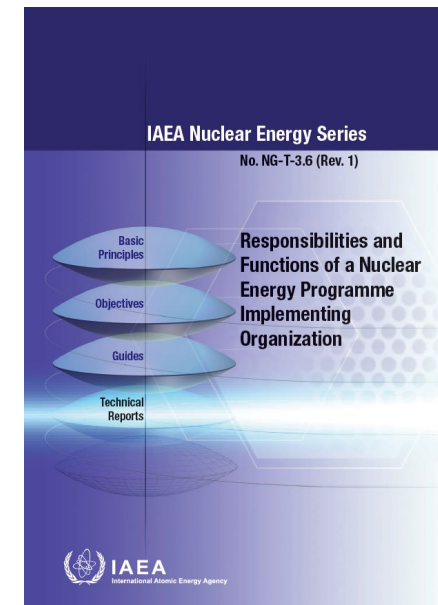
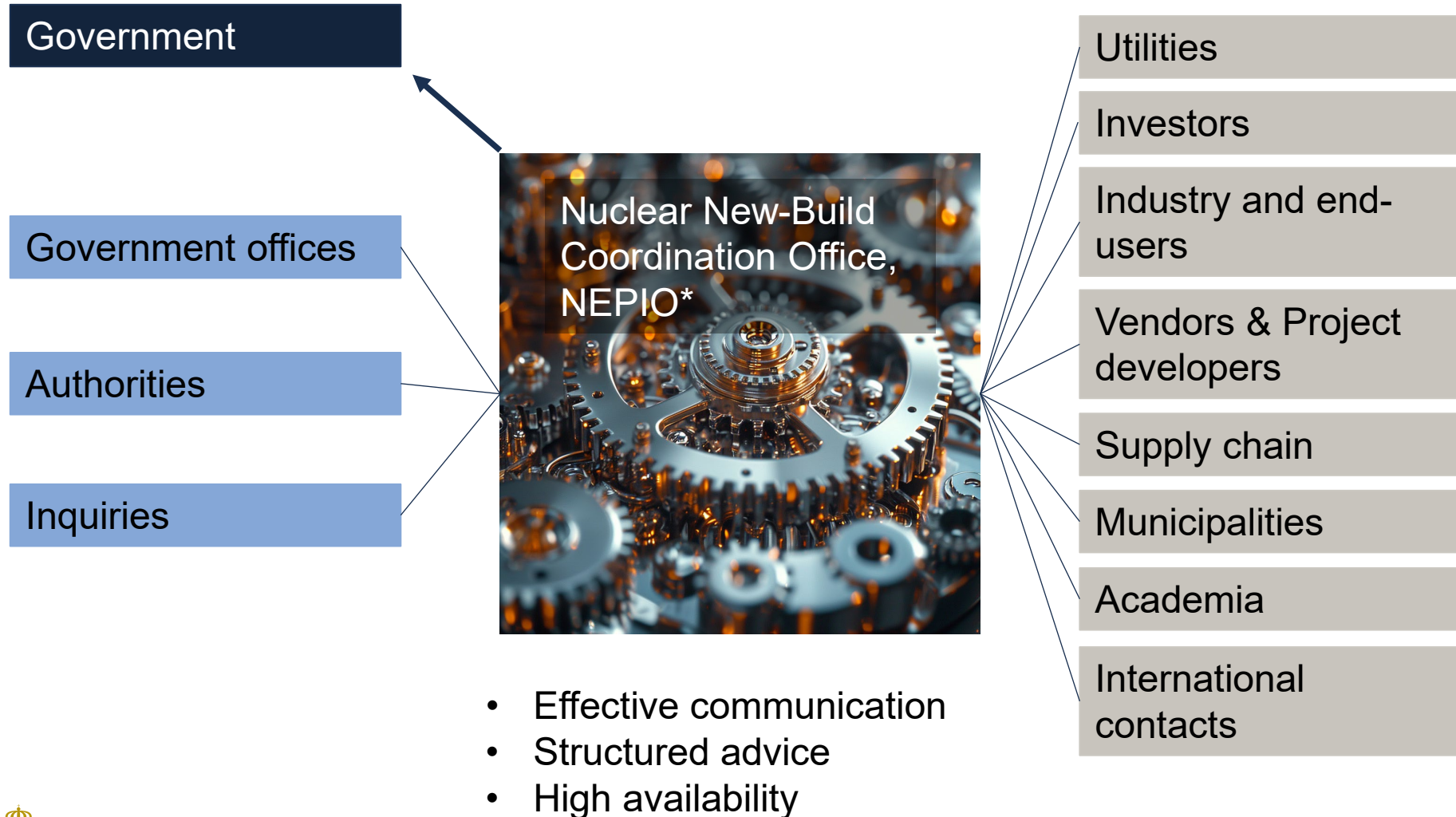
Carl Berglöf, National Nuclear New-build Coordinator
Inquiry assigned by the Ministry of Climate and Enterprise

Recent Developments: Budget Bill for 2026

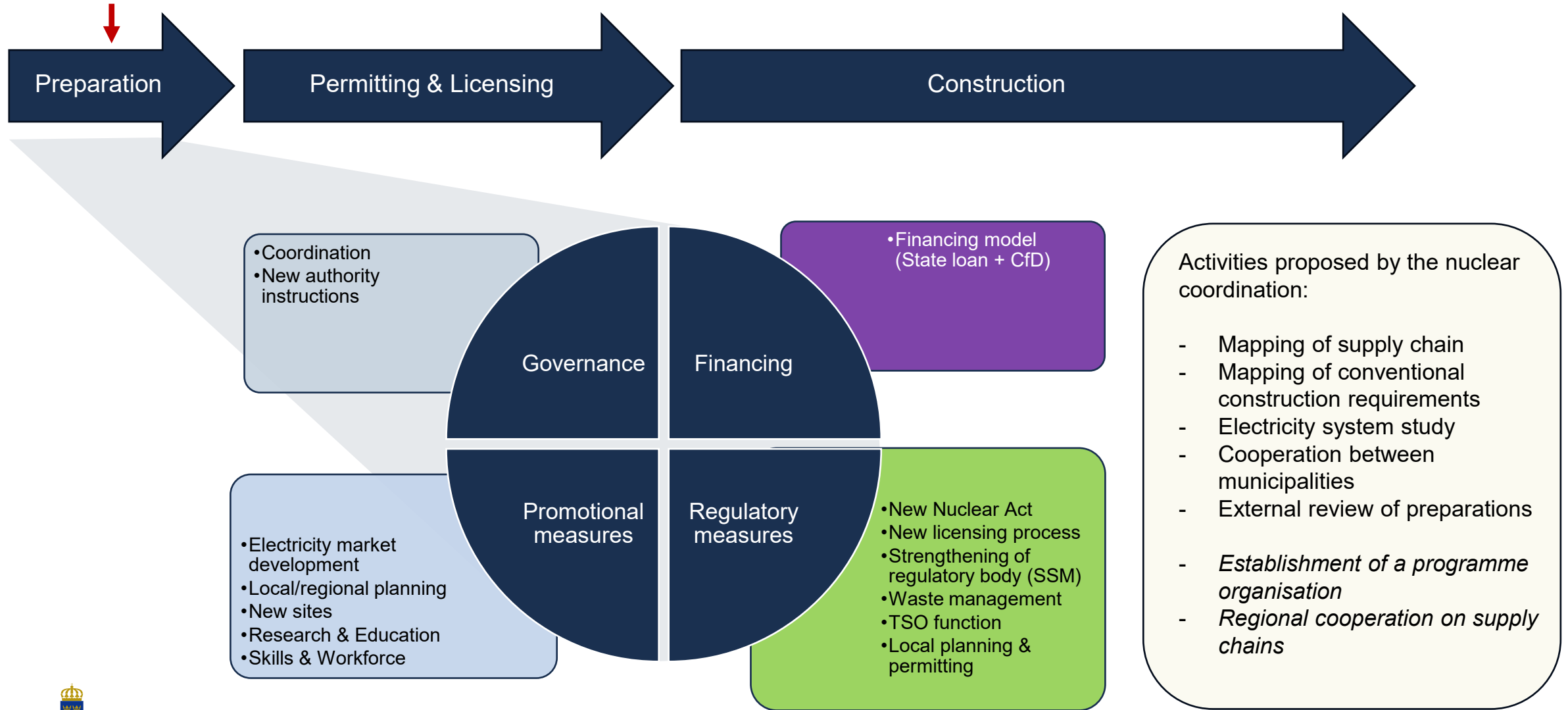
- Parliament's approval of loan agreement for nuclear investments of 220 bn SEK to be issued 2026-27
- Parliament's approval of contingency reserve of 220 bn SEK to be issued 2026-27
- Parliament's approval of entering agreements on state aid (CfD) up to 400 bn SEK for 2035-2085.
 - Estimated cost 110 bn SEK



A coordinated approach to programme development

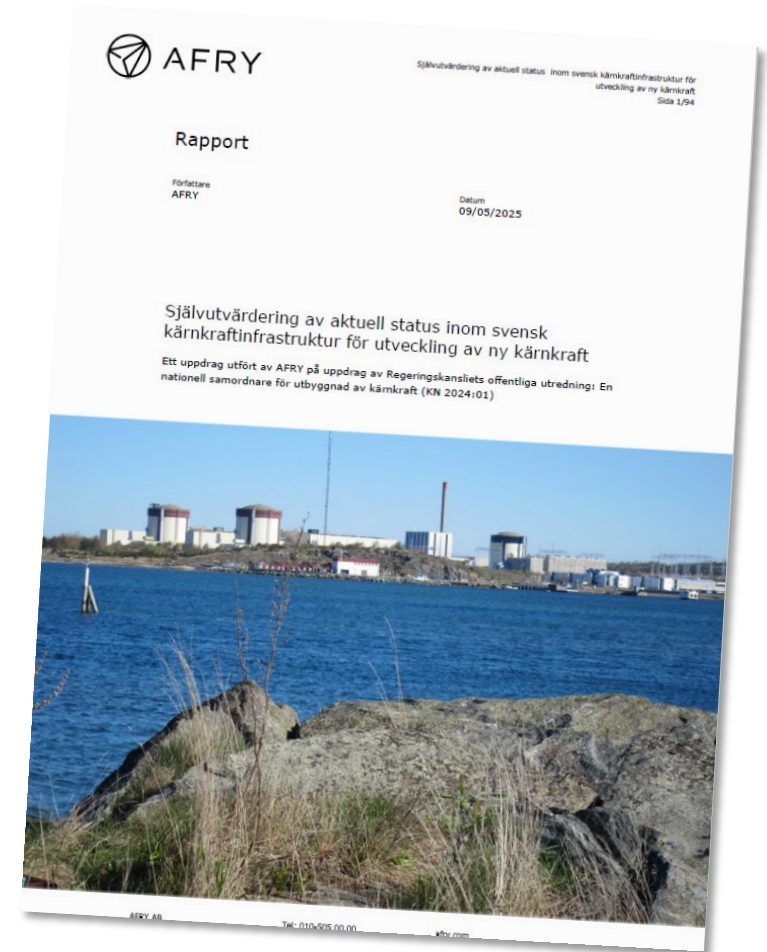


Critical path to first grid connection



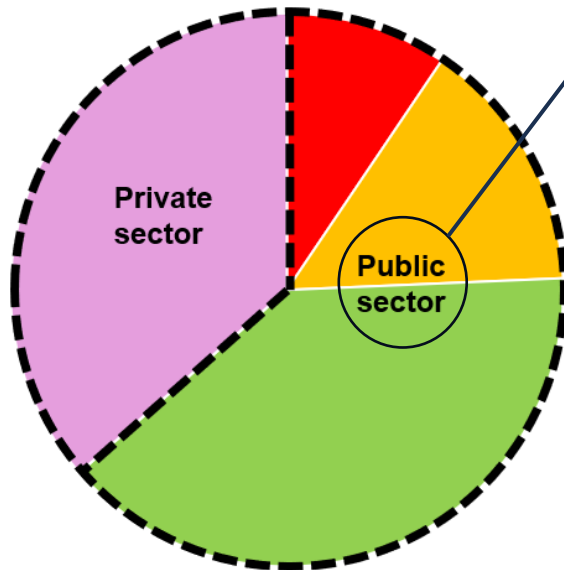
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How ready is Sweden?



How ready is Sweden?

*Self-evaluation based on
18 IAEA INIR criteria,
72 evaluations items
(up until procurement,
April 2025)**



Public sector readiness

- National strategy
- HR development
- Waste management
- Emergency planning

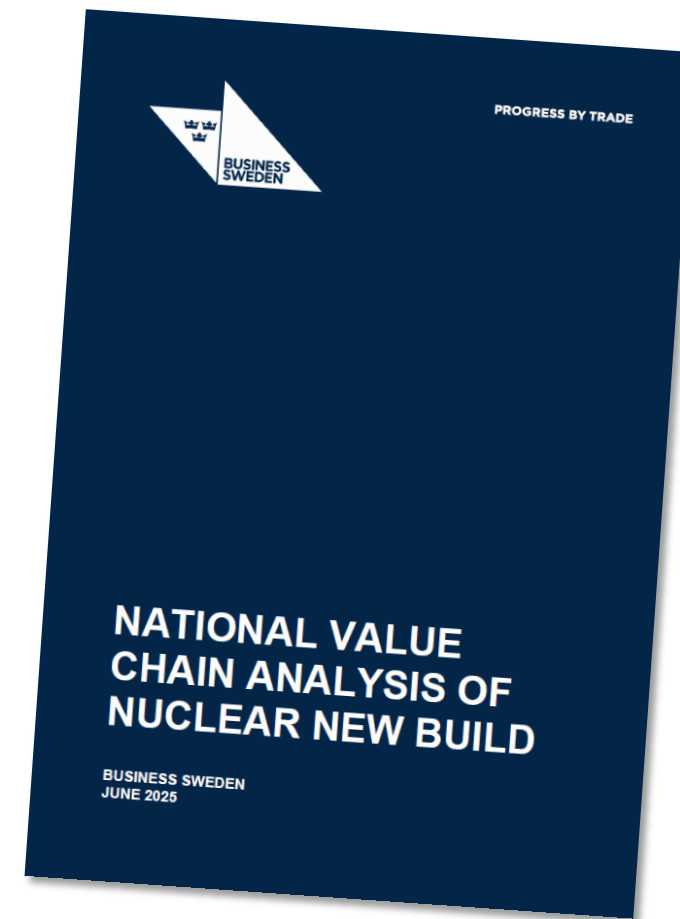
- Political clarity
- Industrial involvement
- Site and supporting facilities

- Funding and financing
- Stakeholder involvement
- Nuclear fuel cycle

- Regulatory framework
 - Nuclear safety
 - Nuclear security
 - Safeguards
 - Radiation protection
 - Environmental protection
- Electrical grid






























































































*AFRY (2025): Självutvärdering av aktuell status inom svensk kärnkraftsinfrastruktur för utveckling av ny kärnkraft




How ready is industry?



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How ready is industry?

Development	Construction	Primary circuit Nuclear Island	Secondary circuit Turbine Island	Balance of plant Cooling towers, Auxiliary buildings	Switchyard Grid connection
a. Reactor Design	a. Planning & scheduling	a. Steam turbines	a. Steam turbines	a. Condenser	a. Transformer
	  	b. Reactor internals (core)	b. Condenser	 	 
b. Feasibility study	b. Preparation & excavation		 	b. Heat exchanger	b. Switchgear
   	  	c. Steam generators	c. Moisture separator reheaters	  	 
c. Project Design*	c. Construction	d. Pressurizer	d. Feedwater system	c. Pumps and circulating water system	c. Transmission lines
  	  	e. Reactor coolant pumps		 	   
  	d) Installation	f. Containment structure	e. Instrumentation and control	d. HVAC system	d. Supporting components and services
  	   	g. Fuel supply system		    	      
d) Licensing	e. Building materials	h. Supporting components and services	f. Supporting components and services	e. Instrumentation and control	f. Supporting components and services
	    	              	   	         	

-  Swedish strongholds
-  Moderate Swedish know-how and actors
-  Lower level of Swedish know-how and actors

Swedish and Regional Capabilities*

	Development	Construction	Primary circuit	Secondary circuit	Balance of plant	Switchyard
	~10% of costs*	~40% of costs	~15% of costs	~15% of costs	~15% of costs	~5% of costs
Swedish capabilities	Moderate capabilities	Moderate capabilities	Limited capabilities	Limited capabilities	Moderate capabilities	Strong capabilities
Nordic offering (incl. Sweden)	Moderate capabilities	Strong capabilities	Limited capabilities	Moderate capabilities	Strong capabilities	Very strong capabilities

173 Swedish companies

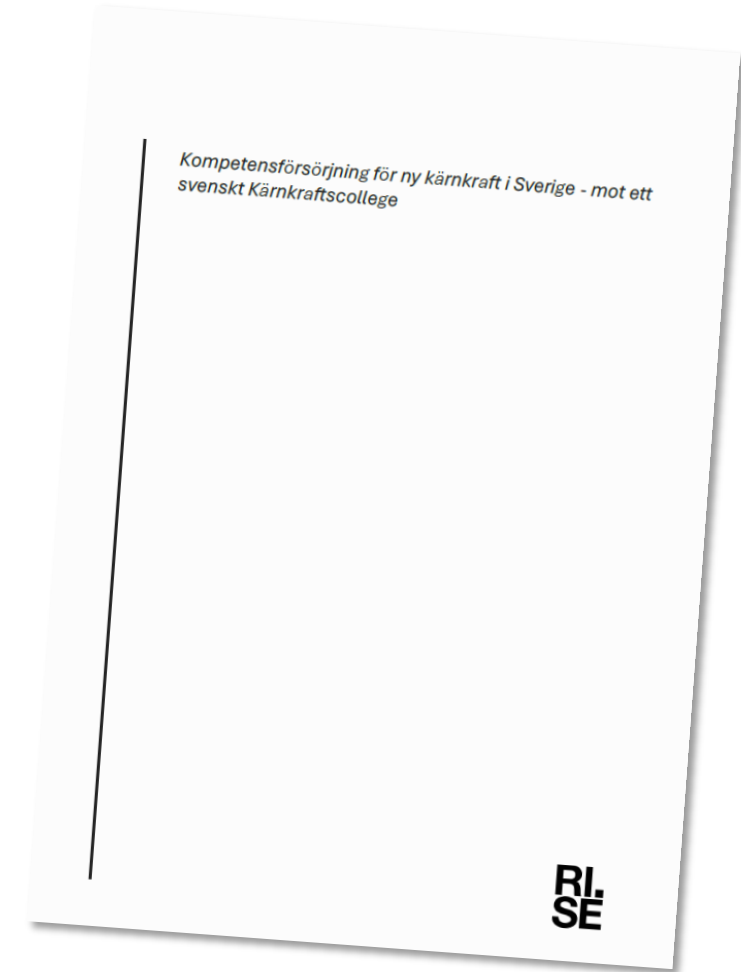
*Business Sweden: National value chain analysis of nuclear new build (June 2025)

Establishing an attractive nuclear region



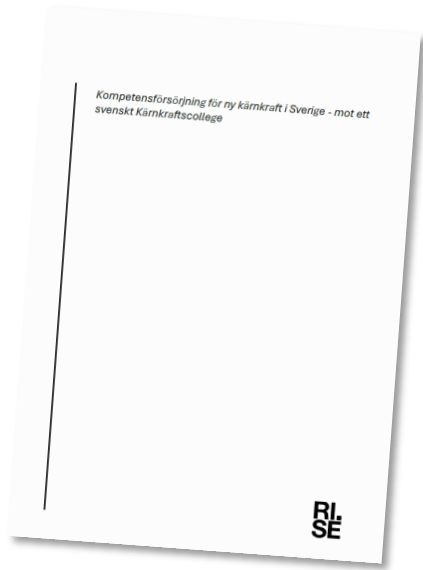
**Nordic-Baltic
Nuclear Investment Summit**
Stockholm 2025

How ready is skills supply?



Invitation to dialogue

- Oct 20, 09:00 – 12:00
- Stockholm
- More info:
 - [Karnkraftssamordningen.se](https://karnkraftssamordningen.se)



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Examples of potential projects in Sweden



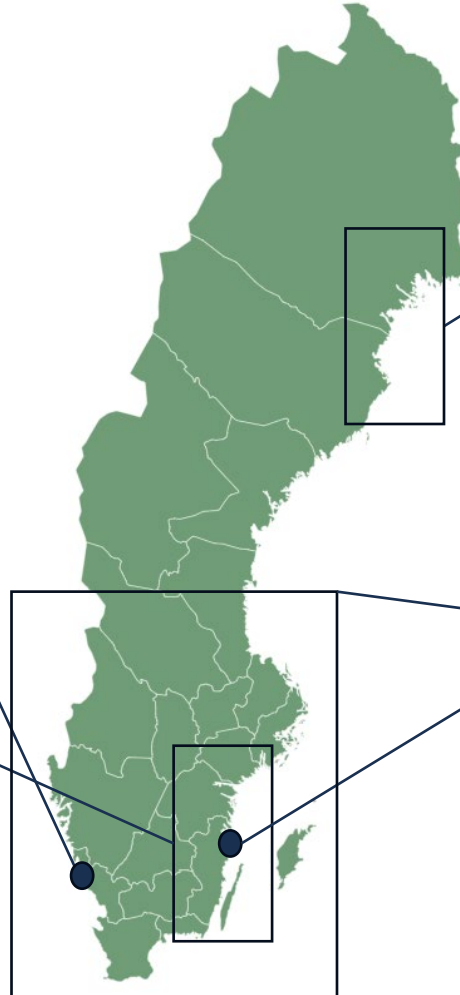
Videberg Kraft AB

- Established by Vattenfall



Re:fir South

- Four sites investigated by Kärnfull Next



FÖN – Fossilfritt Övre Norrland

- Area indicated by TSO as suitable for firm power production



Pilot Ävrö

- One of 13 municipality-driven pilots in southern SE



Test facility for lead-cooled reactors

- Operated by Blykalla

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