

Skills and workforce preparations for new nuclear

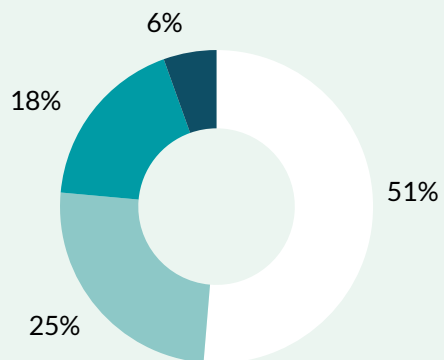
Andreas Johansson, RISE, VP Electricity production

4,329

SEK million, net sales

Adjusted operating profit: 145 SEK million

Adjusted operating margin: 3,3 %



Revenue distribution

	Business sector	2,222 MSEK
	Public funds	1,087 MSEK
	State funds	783 MSEK
	EU funds	237 MSEK

Approximately

3,300

employees

4th

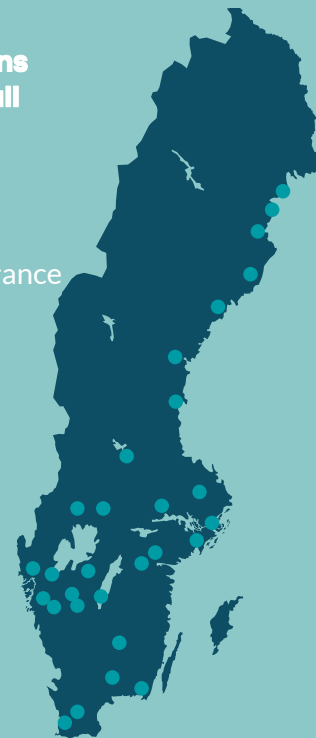
Largest institute in Europe after Fraunhofer, CEA, and TNO

130+

Test and demonstration facilities

**Our operations
are located all
over Sweden**

We also have
operations in
Norway and France



79

Customer Satisfaction Index

topplista 2025.

sveriges mest attraktiva arbetsgivare

1. RISE (4)

2. Spotify (2)

3. Volvo Group (3)

4. Polisen (9)

5. AFRY (20)

6. Volvo Cars (7)

7. CGI (ny)

8. Försvarets materielverk (5)

9. Sveriges Television (17)

10. Försvarsmakten (10)

11. Transportstyrelsen (ny)

12. Combitech (ny)

13. Tullverket (22)

14. Länsförsäkringar (ny)

15. Systembolaget (11)

16. WSP (12)

17. Trafikverket (19)

18. Lantmännen (ny)

19. SKF (ny)

20. Skatteverket (ny)

21. Dagab Inköp och Logistik (ny)

22. Ericsson (ny)

23. PwC (ny)

24. Sveriges Radio (14)

25. Siemens Energy (13)

Siffror inom parentes avser föregående års placering.

RISE - Sweden's research institute

- We help businesses and the public sector develop products, processes and entire operations for a sustainable future.
- With applied research, test and demo facilities, and interdisciplinary expertise, we provide support and knowledge throughout the entire journey – from idea to innovation and into the market.
- As a neutral platform, we can bring together different stakeholders, thereby contributing to faster transformation and increased competitiveness for businesses, society and Sweden.



Skills and workforce needed for new nuclear

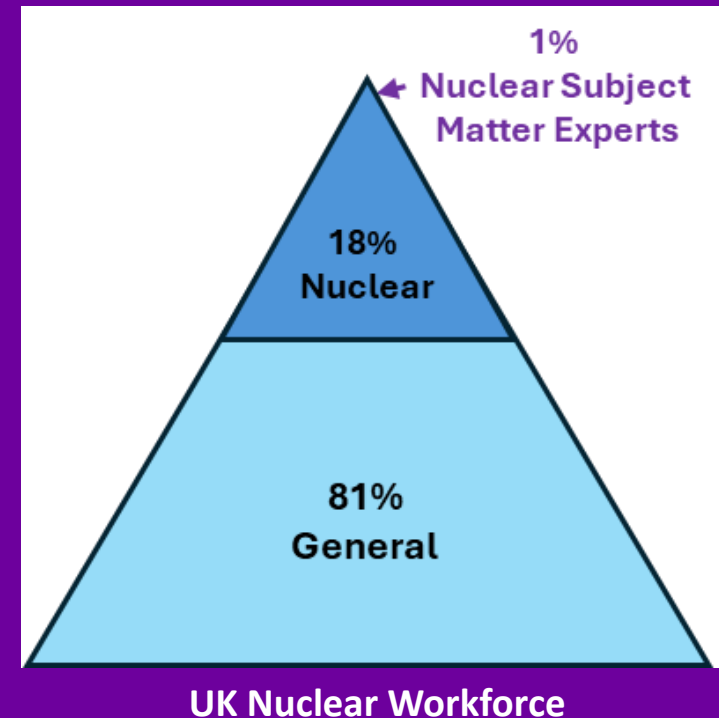
My view...

1. A stagnant sector goes into growing sector
2. Both experts and a broad workforce is critical and needed
3. Proactivity and "the ability to operate collectively" is of high importance
4. Attractiveness and trust in the nuclear sector is of high importance
5. Money is of high importance

Dalton Nuclear Institute – the next 20 years

Landscape shift:

- One in two generations growth in UK nuclear – civil and defence
- >£65 billion UK sector investment and commitments
- Tripling of nuclear electricity by 2050 agreed internationally
- Massive nuclear skills challenge in UK and abroad
- Beyond electricity use – decarbonising manufacturing and transport, health



UK

- UK aim for + 18 GW to 2050 (from 6 GW to 24 GW)
- 120 000 in total workforce by 2030 (today ~85000)
- Peak construction
 - Hinkley Point C, 26000 (~3GW, 2030)
 - Sizewell C, 10 000 (~3GW, 2035)
- 1500 new PhD by 2030
- >£65 billion UK sector investment and commitments, >£750 million in meeting the gap in skills and workforce

Sweden

- Sweden + 15 GW 2045
 - 2500 GW by 2035
 - ~15000 GW by 2045
- 21000 jobs in the industry per today
- 40 000 job opportunities according to Business Sweden for building one new reactor
- PhD?
- Investments?

Prestudy "Skills supply for new nuclear"

- investigate how **collaboration models** and structural formations can be used to ensure the supply of skills for a planned expansion of new nuclear power in Sweden
- **analyse possible models** for long-term, scalable coordination between the state, industry and educational actors
- focus on the professional groups that are required in **large numbers in the construction and operation of new plants** – rather than subject matter expertise
- **identify obstacles and bottlenecks** within the existing education and collaboration system



Inspiration from other countries - UK

- Nuclear skills taskforce
- Nuclear strategic plan for skills
- Destination nuclear
www.destinationnuclear.com



Inspiration from other sectors - railway

The Railway College is a joint initiative between the railway industry's organisations and the Swedish Transport Administration to strengthen the railway's skills supply. Railway College creates the conditions for more railway education with high quality and equivalent content, all over the country.



Interviews, workshops, discussions

- Vattenfall
- Teknikföretagen/STEM delegationen
- MYH
- KTH
- Installatörsföretagen
- Blykalla
- Department for Energy Security & Net Zero (UK)
- ...

Benchmark with other countries and sectors

- UK
- France
- Finland
- Railway
- Wind
- Battery

Current situation

Weakened competence base and reduced regrowth

Limited training capacity and lack of coordination

Challenges related to licensing authorities' capabilities and recruitment needs

Declining purchase competency for large projects

Weak regional capacity building

Inadequate systems to attract and validate international workforce building

Identified gaps

Limited national governance and coordination

Lack of coherent skills supply infrastructure

Weak agency capacity and link to skills supply

Lack of a national model for reskilling/upskilling

Undeveloped systems for international workforce

Lack of time coordination between projects

Conclusions

The countries and sectors studied have all shown some sort of proactive and state-sanctioned/coordinated approach

Sweden lack capacity to serve large-scale project in energy and infrastructure with skills and workforce, especially when the requirements on security/safety are high

Sweden lack a function that is responsible for connecting plans and needs with the capacity of the education system

The gap in skills and workforce should be planned with the same long-term perspective, robustness and priority as other critical infrastructure

Recommendation

Establish a national "nuclear college" and a temporary task force to support momentum/progress/action

Establishing a communication platform – "The nuclear power of the future" (i.e. a Swedish "Destination Nuclear")

Starting Regional skill hubs adjacent to provisioning locations

Give UKÄ and MYH the task of dimensioning education

Develop validation systems for international competence

NUCLEAR SKILLS PLAN: 15 PROJECTS

National Nuclear
Strategic Plan for Skills



National Comms Campaign



Career Switchers



Equality, Diversity & Inclusion



Regional Skills Hubs



Sector Experts into Training



Cross-Sector Leadership



Apprentices



PhDs



Future Leaders Scheme



Graduates



Create nuclear community



Nuclear Graduate Bursaries



Maximising Interchange



Sponsorship Scheme



Optimising the Training Landscape

Supported by
resource,
funding and
collaboration

NATIONAL COMMS CAMPAIGN

Destination Nuclear is a three-year comms campaign to attract and retain a skilled workforce for the UK's Net Zero and national security objectives.

Over the next 12 months, the campaign will extend its reach through television, radio, and digital gaming platforms, ensuring broader visibility and engagement. With big, bold social campaigns to engage with multiple audiences, Destination Nuclear is here to put nuclear at the forefront of careers.

The live careers portal will be enhanced with additional feature to match candidates with opportunities, while the interactive information hub will expand to engage more mid-career switchers and provide a comprehensive view of the sector.



National Nuclear
Strategic Plan for Skills

REGIONAL SKILLS HUBS

Regional Skills Hubs are essential for aligning workforce planning with local industry needs.

The North West, Midlands, South West and Scotland hubs have been established, providing critical insights into regional workforce requirements and dynamics.

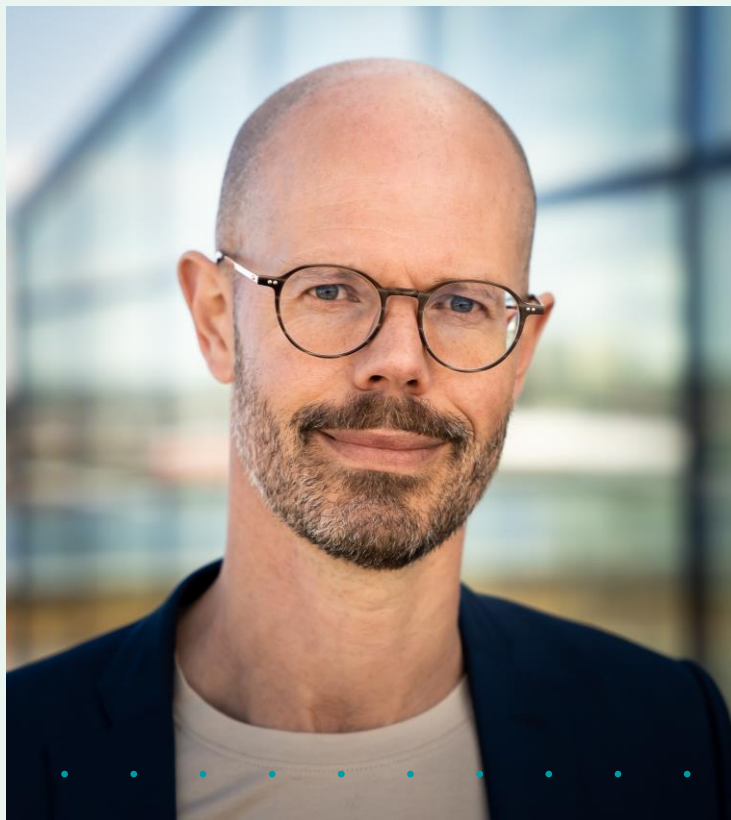
We will launch more hubs in 2025, completing a national network that facilitates collaborative workforce development.

Through these hubs, we will:

- Collaborate with established regional bodies to support delivery of skills in regions.
- Gather regional skills insights to support workforce planning and demand.
- Address regional workforce challenges by improving training and job accessibility.
- Strengthen the pipeline of skilled workers, ensuring the right talent is available where it's needed most.



**National Nuclear
Strategic Plan for Skills**



Thank you!

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