# Safety, Swedish and ESS Site Regulations

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www.europeanspallationsource.se
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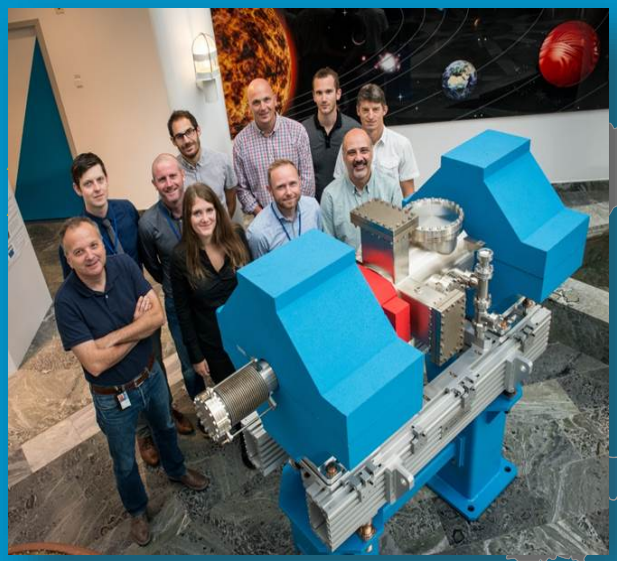
# Outline

- Introduction
- ESH&Q
- ESS site
- Legal aspects
- Site regulations
- Installation work at site
- Conclusion

# ESS In-kind Partners

EUROPEAN SPALLATION SOURCE



*Elettra – Sincrotrone Trieste*
*ESS Bilbao*
*Forschungszentrum Jülich*
*Helmholtz-Zentrum Geesthacht*
*Huddersfield University*
*IFJ PAN, Krakow*
*INFN, Catania*
*INFN, Legnaro*
*INFN, Milan*
*Institute for Energy Research (IFE)*

*Rutherford-Appleton Laboratory, Oxford(ISIS)*
*Copenhagen University*
*Laboratoire Léon Brilouin (LLB)*
*Lund University*
*Nuclear Physics Institute of the ASCR*
*Oslo University*
*Paul Scherrer Institute (PSI)*
*Polish Electronic Group (NCBJ, TU Warsaw, TU Lodz)*
*Roskilde University*


*ERIC = European Research Infrastructure Consortium*

# ESS Mission

**Vision**

Our vision is to build and operate the world's most powerful neutron source, enabling scientific breakthroughs in research related to materials, energy, health, and the environment, and addressing some of the most important societal challenges of our time.

**Mission**

To do this, we commit to deliver ESS as a facility that:

- Is built safely, on time and on budget
- Produces research outputs that are best-in-class both in terms of scientific quality and in terms of socioeconomic impact
- Supports and develops its user community, fosters a scientific culture of excellence and acts as an international scientific hub
- Operates safely, efficiently, and economically and responds to the needs of its stakeholders, its host states and member states
- Develops innovative ways of working, new technologies, and upgrades to capabilities needed to remain at the cutting edge

# ESS Mission and ***Safety***

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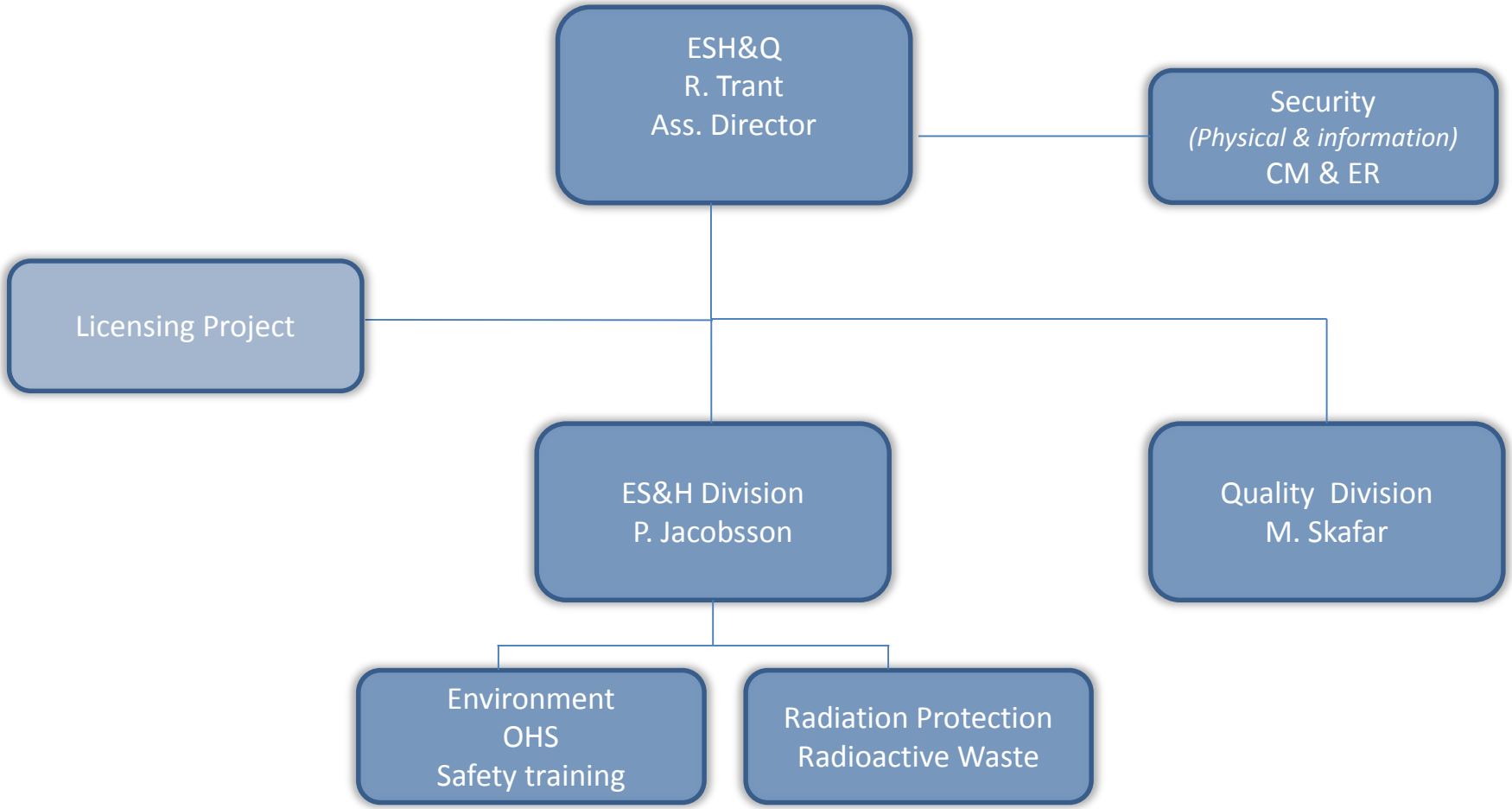
# ESH&Q functions

ESH&Q is responsible for developing and maintaining the **ESH&Q strategy**, in particular the **regulatory compliance strategy** for ESH, developing an ESS **safety and quality culture** incl. the **continuous improvement** of related programs and activities, as well as the coordination of **licensing activities** and **contacts with the host state(s) in ESH&Q matters**.

ESH&Q develops, supports, monitors and assures the **implementation of policies, rules, processes, objectives and best practices** at all levels of the organization in matters of ESH&Q.

- **E**nvironmental protection, **S**afety & occupational **H**ealth *(incl. RP)*
- **Q**uality
- Licensing *(SSM, Env. Court, Länsstyrelsen Skåne, Fire Brigade, Municipality)*
- Security, crisis management and emergency response coordination

# ESH & Q structure



# ESS site – May 2017

EUROPEAN SPALLATION SOURCE

# ESS and SKANSKA *(construction partner)*

- **Partnership between ESS and SKANSKA:**
  we work together and
  we solve upcoming issues together.

- **ESS is a green-field laboratory/site:**
  - ESS has no cultural “heritage” in work place safety,
  - **ESS adopts and develops the successful safety culture** that SKANSKA has implemented for the work site!

# ESS and SKANSKA *(construction partner)*

# Legal aspects – Swedish legislation

- The Swedish acts and regulations were updated/revised 2008 to be in accordance with EU directives, especially for workplaces with staff from different companies performing work at the same time.

  The different acts appoints different roles as;

  - Work Environment Act: Work Environment Coordinator (*in Swedish: Samordningsansvarig*)
  - Planning and Building Act: Construction Safety Officer (*in Swedish BAS-U*)
  - Accident Prevention Act: Fire safety responsible officer
  - Electrical Safety Code: Electrical Safety Responsible

- It is quite common that the first three positions are held by the same person.

- NOTE: The legal aspects points at COORDINATION and setting rules. The responsibility ALWAYS lies with the company (the line organisation) performing the work!

# ESS/Skanska Requirements

- Today, the ESS site is a ***construction site*** managed by the construction company Skanska, thus all work has to follow the procedures set by the site.
- For the whole site area there is a *BAS-U* responsible (the production manager; Stefan Svensson, Skanska)
- He delegate the role of being *BAS-U* responsible into different areas (which is visible for everyone at site by maps)
- ESS has taken over the *BAS-U* role (formally delegated in writing from Skanska) for the areas where installation now starts of the machine.
- ESS has chosen to call this role *Area Safety Coordinator*, thus combining the two legal roles (BAS-U and Work Environment Coordinator) as shown on previous slides.
- Reporting/Coordination is done on a daily basis to the site manager

# Installation at site

**Site Responsible BAS-U**

# Before work 1(2)

- Perform a Work Environment Safety plan, based on a risk analysis/risk assessment
- The plan must contain
  - Identified work hazards (e.g. work at heights, work with heavy equipment, electrical work, noise)
  - Electrical installation plan
  - Use of machinery (fork lifts, cranes…)
  - Identification of PPE
  - Need of scaffolding or other *external* safety equipment
  - Chemical substances to be used
  - Other information according to specific aspects …

# Before work 2 (2)

- The plan must appoint a responsible work manager present at site, preferably speaking English (otherwise there must always be a English speaking person present at site from the work force)
- The plan has to be approved by the Area Safety Coordinator BEFORE the work can be started
- Basic Safety Induction (incl. the ID06 card) is mandatory for everyone to enter the site
- Additional Safety Training/Certificates (forks lift, working at height …) has to assessed case by case.

# Related presentations

Tomorrow morning

- *Organisation and Set-Up of Needed Services and Support for Installation – Peter Radahl*
- *ESS installation Coordination – Tobias Lexholm*
- Accelerator Installation Safety Support: strategy and lessons learned – Duy Phan

Tomorrow afternoon

- Accelerator Readiness Review - Lali Tchelidze


ESS site:
Construction & installation & commissioning
ESS mission: … facility …
Is built safely, on time and on budget
ESS site & Safety:
Key is safety coordination & works preparation
SAFETY FIRST
Remember: we work safely or not at all

# Fundamental questions to ask ourselves

- Do we want to be compliant with applicable laws? ✓
  - National and European legislation, standards and directives
  - ➡ **Requirements**
- Do we want to have a facility that we can up-date and repair with high availability? ✓
  - Drawings, material certificates, test/inspection reports etc.
  - ➡ **Technical file**
- Do we want to have a safe facility with a high quality user program? ✓
  - Safety/risk assessment
  - ➡ **Safety file**