



Strål
säkerhets
myndigheten

Swedish Radiation Safety Authority

Presentation outline

1. the Swedish Radiation Safety Authority
2. The licensing process of ESS
3. Ongoing review



- regulates, supervises and gives authorisation
- issues advice and recommendations to other authorities and the general public
- maintains emergency preparedness 24/7
- contributes to research
- contributes to safety and security internationally
- measures radiation levels and calibrates instruments.



The Swedish Radiation Safety Authority (SSM)

- 300 employees
- Nuclear safety
- Radiation protection
- Physical protection (security)
- Nuclear non-proliferation.



Vision

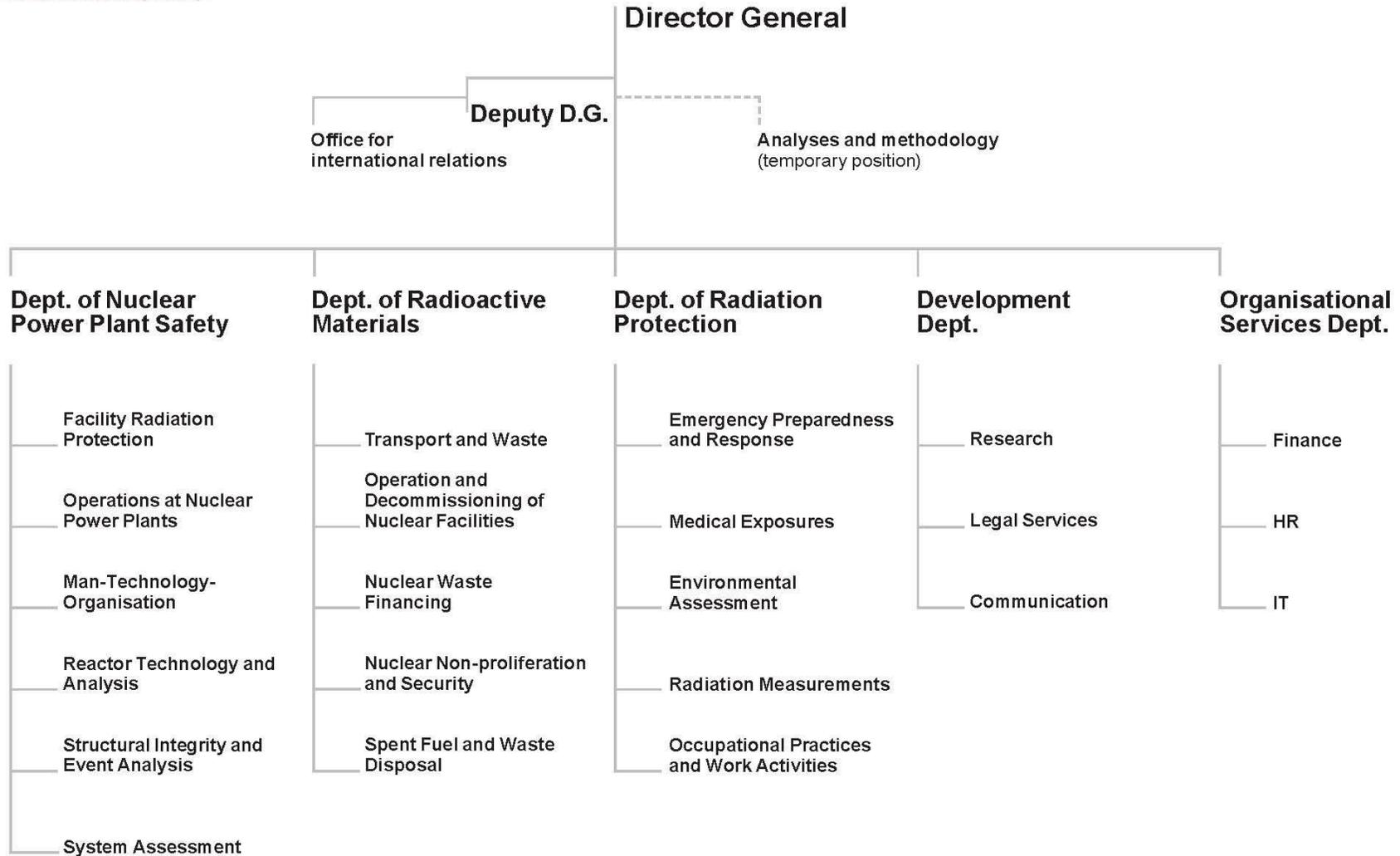
- A society safe from the harmful effects of radiation.

Mission statement

- The Swedish Radiation Safety Authority works proactively and preventively to protect people and the environment from harmful effects of radiation, now and in the future. We have a systematic and structured approach to continual improvements to our processes in order to develop our operations, render them more efficient and achieve our objectives.

Key values

- Reliability, integrity and openness.





National framework

- ➔ Radiation Protection Act
- ➔ Act on Nuclear Activities
- ➔ Swedish Environmental Code
- ➔ Administrative Procedure Act
- ➔ Instructions of the Swedish Radiation Safety Authority
- ➔ Appropriation directions and assignments from the Swedish Government
- ➔ The Authority's regulations: SSMFS.



International regulatory frameworks

- Euratom Treaty and regulations and directives from the EU
- International agreements and conventions, such as the Convention on Nuclear Safety and the Joint Convention, the Non-Proliferation Treaty and related IAEA safeguards agreements
- UN organisations such as the IAEA and UNSCEAR
- Other organisations such as ICRP, ICNIRP, HERCA, WENRA, ESARDA and INRA.



The licensing process of ESS

- ➔ Not handled as a nuclear facility
- ➔ Licensed according to Radiation Protection Act, relevant regulations and additional conditions
- ➔ Graded approach
- ➔ Stepwise process for review and licensing
 - Permissibility, installation, commissioning, operation, decommissioning
 - Permissibility (Jan 2012 - July 2014)
 - Installation (May 2016 -)
 - First commissioning of accelerator (May 2016)



The licensing process of ESS

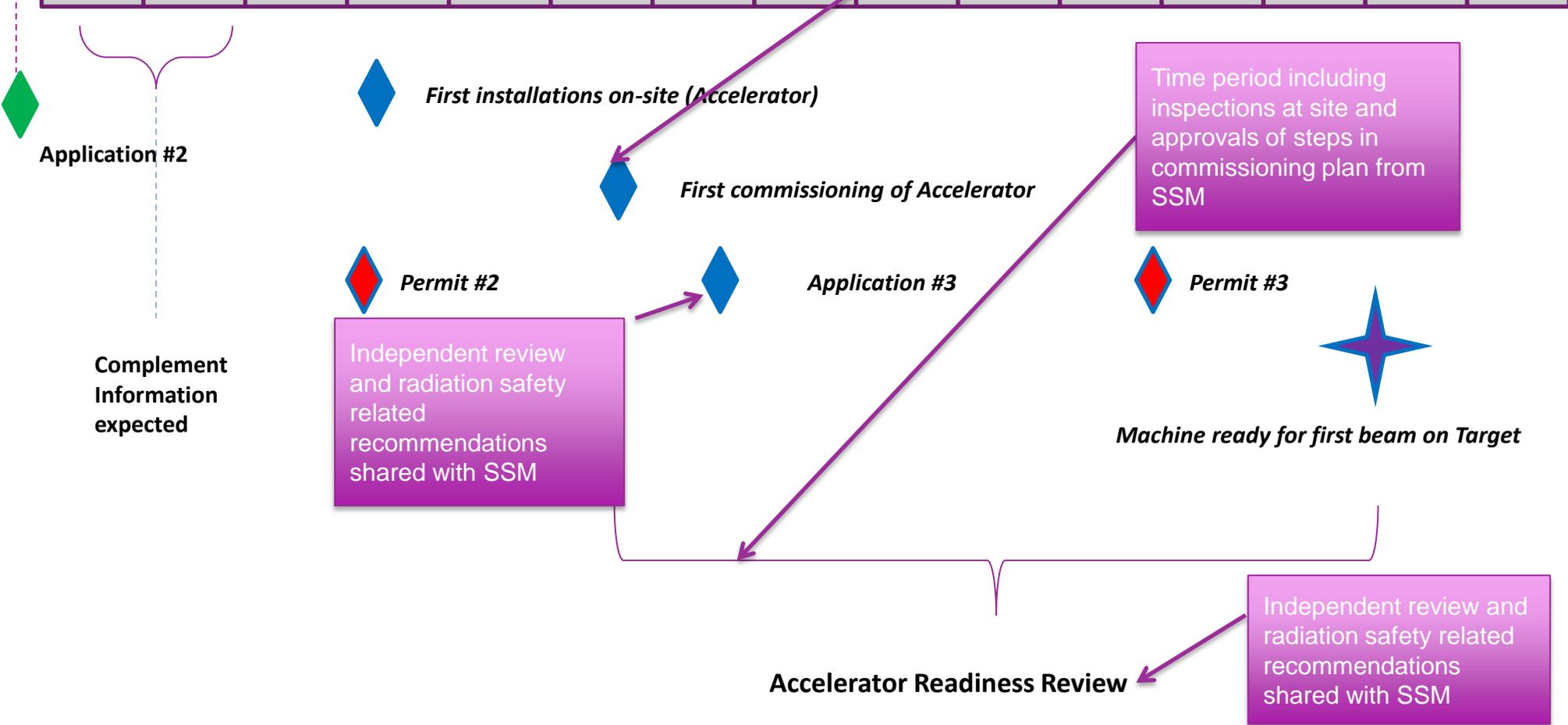
- ➔ 28 reviewers at SSM (13 of 16 sections)
- ➔ External reviewers in step 1
- ➔ Experience from visits to other facilities (ORNL, RAL, PSI, CERN, BNL, FNL)
- ➔ Prepares for own simulations, dispersion calculations and measurements (both at SSM and at ESS)
- ➔ Prepares for external research in subjects related to ESS



ESS Schedule - Permit

Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
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SSM review and permit required before commissioning





Ongoing review

- The ESS application will be done in two parts, installation and first commissioning of accelerator
- The initial review of the installation is completed and the request for additional information has been sent to the ESS
- The review will continue when SSM has received additional information and assessed the information good enough to continue the review