



EUROPEAN
SPALLATION
SOURCE

The European Spallation Source (ESS) is a partnership of European nations committed to collectively building and operating a multi-disciplinary research facility based on the world's most powerful neutron source. The facility is under construction in Lund, Sweden, while the ESS Data Management and Software Centre (DMSC) is located in Copenhagen, Denmark. The unique capabilities of ESS will both greatly exceed and complement those of today's leading neutron sources, enabling new opportunities for researchers:

- **High intensity:** The European Spallation Source will offer neutron beams of unparalleled brightness for cold neutrons, delivering more neutrons than the world's most powerful reactor-based neutron sources today, and with higher peak intensity than any other spallation source.
- **Long-pulse flexibility:** The long neutron pulses (2.86 ms) of ESS are inherently advantageous to designing flexibility into the instruments. Tailoring the pulse width adjusts resolution and bandwidth, enabling investigations of structures and dynamics over several length- and time-scales.
- **High-performance computing:** The European Spallation Source is putting special emphasis on creating and using first-class software for instrument control, data processing, analysis, and visualisation.
- **Real-world samples and extreme conditions:** Combining state-of-the-art sample environment equipment and laboratories with the higher brilliance will allow the study of smaller real-world samples.

Website: europeanspallationsource.se

Twitter: @essneutron