2018 in numbers

- 152 days reactor days at 49 MW
- 5532 instrument days, 821 experiments
- 37 PhD students, 52 trainees
- 7 colloquia, 44 seminars, 25 workshops
- → ILL-ESS User Meeting in October 2018
ILL – ESS User Meeting: 500+ participants
ILL – ESS User Meeting: NPP satellite – May 2018

150+ participants, celebrated 50 years of Ultra Cold Neutrons
2018: Scientific ‘Input’ - Proposals

![Graph showing submitted, accepted, and overload proposals from Spring 10 to Spring 19.](Image)

- **Submitted**
- **Accepted**
- **Overload**
2018: Scientific ‘Output’ – Publications

533 publications to date, including 150 high impact publications.
ENDURANCE PROGRAMME

Phase 1: 2016-2018, Budget: 22 M€

- NESSE → ~20 sample environment developments for soft matter, high P, low T, etc
- BASTILLE → Mantid for TOF, backscattering, powder diffraction, reflectometry and SANS
- FIPPS delivering data since 2016 → first publication in 2018
- PANTHER and SUPERSUN commissioning in first cycle 2019
- RAINBOWS works → continuous, white beam reflectometry
- H24 and instruments – XTREMED, D10+ and IN13+ - installation 2020 (with ‘H1-H2’ beam tube)
PANTHER & SUPERSUN: pictures → reality
THE EUROPEAN NEUTRON SOURCE

PANTHER
SuperSun

Cryogenic UCN source
SuperSun

Octagonal guide
ENDURANCE PROGRAMME

Phase 2 : 2018-2023, Budget : 40 M€ - 4 packages

- CPER: 2018
  - **H16/IN5, FIPPS** (anti-Compton shields), IN20 (velocity selector), **D3-liquids**, PANTHER (choppers) (+ **THERMES/IN8**)

- Endurance2: 2019
  - Detectors (D20, D11, D22, D16), IN20 (mono & analyser), **LADI-B (=DALI)**
  - IM2020: imaging @ ILL
  - NESSE2 & BASTILLE2 – start ASAP

- Endurance2: H15 (2020-2023)
  - End of feasibility for guide and 6 instruments – ‘trumpet’ ordered

- Endurance2: 2020-2023
  - Pre-studies for FIPPS (gas-filled magnet),...
H16/IN5 – x3 brighter
PhD & Post-doc opportunities

COFUND PhD programme at ILL & ESRF (http://www.innovaxn.eu/)

- 20 fully-funded positions in each facility
- Every project must have an industry partner offering 3-months training
- 1st call for projects: deadline September 2019, PhD start in September 2020
- 2nd call: one year later

POST-DOC POSITIONS for the UK community to seed an increase in the number of instrument scientists from the UK
BEAM TIME IN 2019: 3 CYCLES STARTING 11/6

DDT – Director’s Discretionary Time (= RAPID access @ ISIS)
- Sub-committee evaluation
- 18 requests in 2018 (close historical high)

EASY Access (= XPRESS access @ ISIS)
- Short measurements to prepare/complete experiments or to complete a publication
- Available since May 2018 - Application form in the User Club
  - On all instruments in DIF, LSS and Spectroscopy
  - With almost all sample environments
- 66 measurements on ~10 instruments in 2 cycles in 2018
**BEAM TIME IN 2020**

- 1 cycle starting mid-January
- No proposal round in spring 2020
- ~12 month shutdown to install new reactor chimney, H1-H2 beam tube, H24 and instruments
- Restart spring 2021 for 3 cycles
THE EUROPEAN NEUTRON SOURCE
Gold standard for radionuclide therapy: $^{177}\text{Lu} \rightarrow ^{161}\text{Tb}$
SEE YOU IN GRENOBLE SOON - REACTOR RESTART: 11TH JUNE
NEXT PROPOSAL ROUND: 16TH SEPTEMBER - WATCH OUT FOR OPPORTUNITIES FOR TRAINEES, PhD STUDENTS & POST-DOKS