

Bratislava 30 June – 3 July 2026



This is how ChatGPT answers to: “make a drawing of a SuperNEMO collaboration meeting in Bratislava”



Running since January

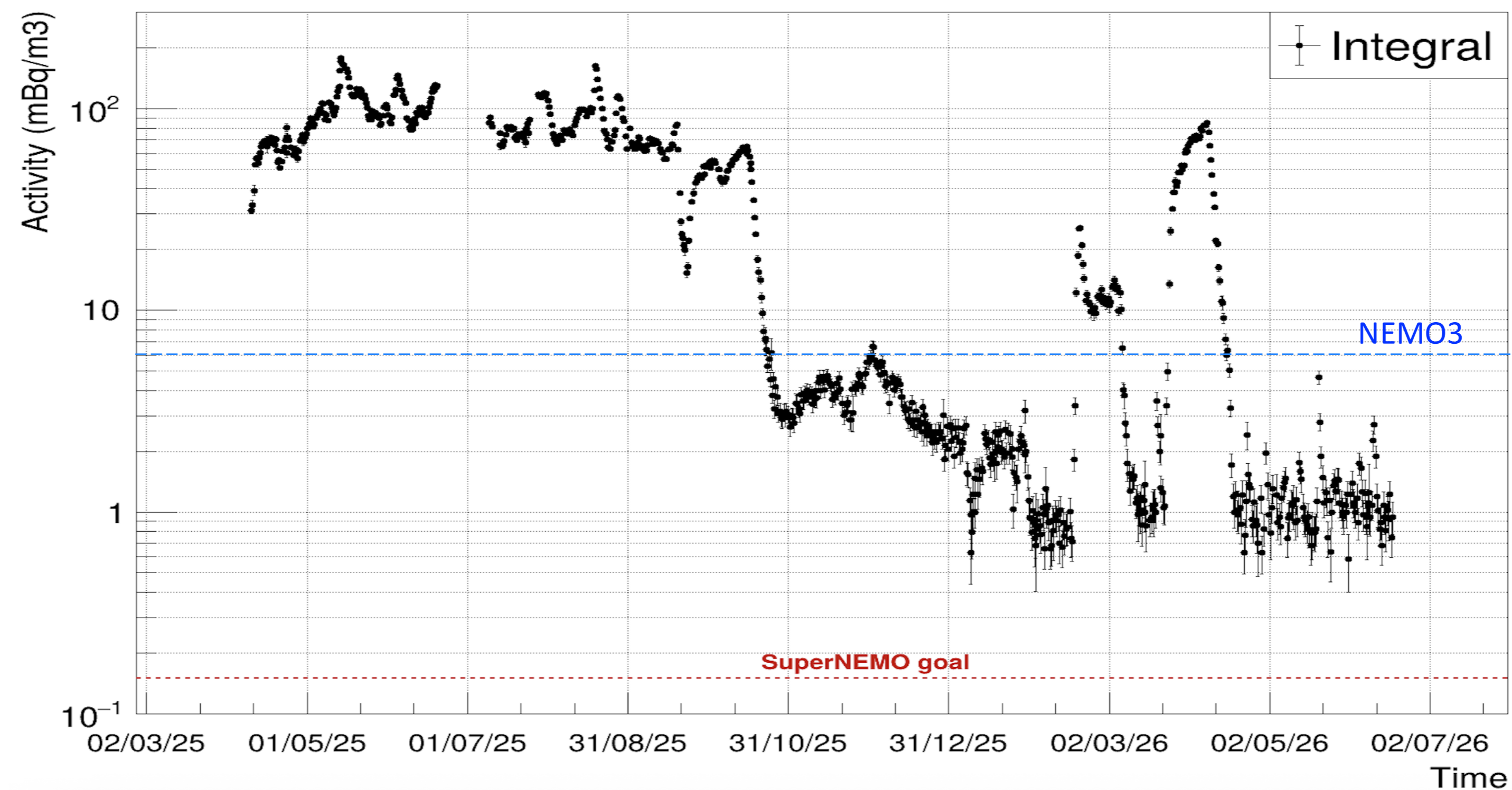
- The detector is running very smoothly !
- ~375 days of running with an excellent duty cycle: 98% (including calibrations)!



Thanks a lot to all the shifters (still need your support in the coming weeks!), and to the team who took charge of running the experiment during Manu's absence: Antoine, Elvis, Hichem, Jean-Lou, and Xalbat. And a special wish to Manu for a speedy recovery!

Our big problem: the radon level

- Lot of issues with the LSM anti-Rn facility – still very problematic
- Best level obtained inside the tracker (short period): 0.6 mBq/m³ (10 times better than NEMO3!)
- Only 42.6 days with low radon (<1mBq/m³)



Can we do more to improve the situation?

Recycling system

- Several scheduled evening/night power shutdowns impacted operations, but the team ensured continuous remote support—many thanks!
- Smooth operation - spectrometer issue occurred last week but did not affect helium recycling.
- **~75% recycled helium + ~25% fresh helium**
- Support from LSM but 2 issues occurred during Jean Lou's absence
 - 2 valve were not reopened requiring urgent on-site intervention with ethanol inside the system (thanks Hichem, Elvis)
 - Failure to drain a buffer tank near the NESS compressor leading to a cartridge issue



Ethanol inside the NESS charcoal cartridge



Analysis/simulation

A LOT OF WORK done and to do!

- **Major software improvements (thanks to the whole team!)**
 - Important bug identified and fixed (Tks Frc!) in the source bulk generator
 - Realistic curve-foil geometry (LAPP+ITEP) available soon
 - New Z reconstruction available soon
 - Standardised reconstruction for all analysis
- **Sensitivity estimates updated** using realistic experimental conditions (Rn background)
- **Analysis of multiple channels in progress:** $(e,e)_{\text{int}}$, $(e,e)_{\text{ext}}$, $(e,n\gamma)$, (e,α) ...
- **Training session this week on half-life sensitivity/measurement**



For September produce collaboration-approved ("blessed") double-beta decay spectra and the corresponding background estimation

Running/Dismantling

- **Dismantling remains scheduled in 6 months (1st January 2027) = 20 months of data (including at least 12 with high radon level)**
- **Dismantling document to be finalized within the next two weeks** for approval and signature by all funding agencies. The document will include:
 - Dismantling schedule
 - Personpower allocation by institute
 - Material distribution strategy



Need to conclude on personpower allocation and material dispatch strategy.

- **A reply to Christelle Roy (IN2P3 Director) must be sent promptly, including a proposed date for a meeting.**



Do we want extra running time? Is it justified?



Enjoy the meeting !

**We are few on site but people are connected online!
Thanks for joining!**

Welcome to new students!

**And huge thanks to Pavel and Robert for welcoming us in
their beautiful city!**

