NEA Data Bank Progress Report

Akira Hasegawa, Claes Nordborg,

Nicolas Soppera, Manuel Bossant

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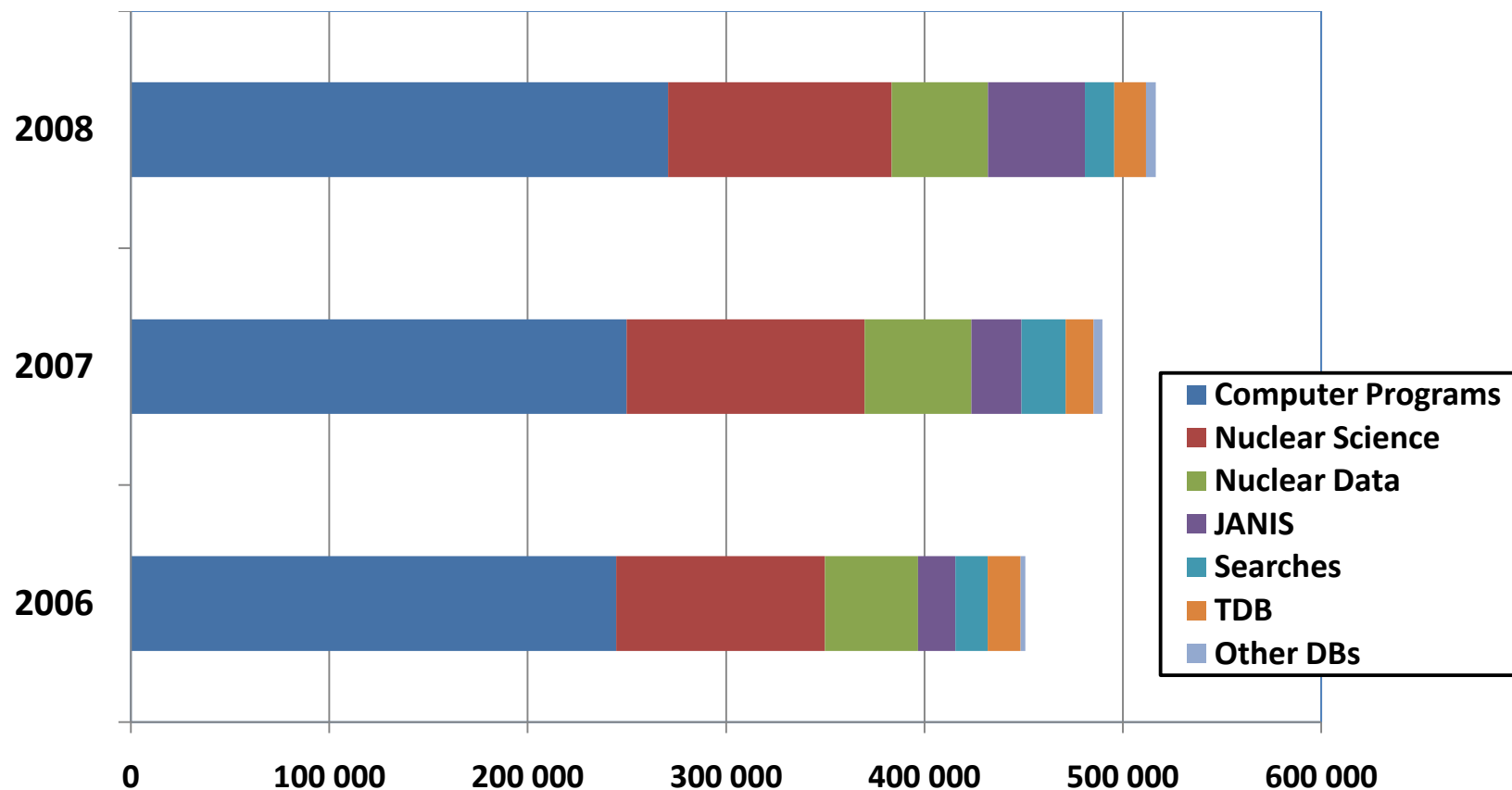
NEA Data Bank staff situation

- ✓ DB employs 19 staff (9 professionals and 10 support staff)

- ✓ 4 professionals and 3 support staff work for other parts of the NEA

- ✓ 1 ½ professionals and 1 ½ support staff work on nuclear data

- ✓ Very large staff turnover in 2009:
    - ✓ Hans Henriksson left in Jan. (to be replaced in Sept.)
    - ✓ Pierre Nagel retired in March (post open)
    - ✓ Enrico Sartori will retire in May (post open)
    - ✓ Akira Hasegawa will leave in July
    - ✓ Yolanda Rugama will leave in Oct.

Data compilation

✓ Performed using consultants (S. Maev, M. Mikhaylyukova, S. Babykina…)

✓ Area 2:

    ✓ 78 new and 340 re-transmitted neutron data experiments entered into EXFOR in 2008 and 2009

✓ Area O:

    ✓ 201 new and 76 re-transmitted charged-particle data experiments entered into EXFOR in 2008 and 2009

✓ Large number of re-transmissions to help WPEC subgroup 30

✓ 784 CINDA entries transmitted in 2009.

On-line service statistics

Legend:
- Computer Programs
- Nuclear Science
- Nuclear Data
- JANIS
- Searches
- TDB
- Other DBs

Years: 2008, 2007, 2006

X-axis: 0, 100 000, 200 000, 300 000, 400 000, 500 000, 600 000
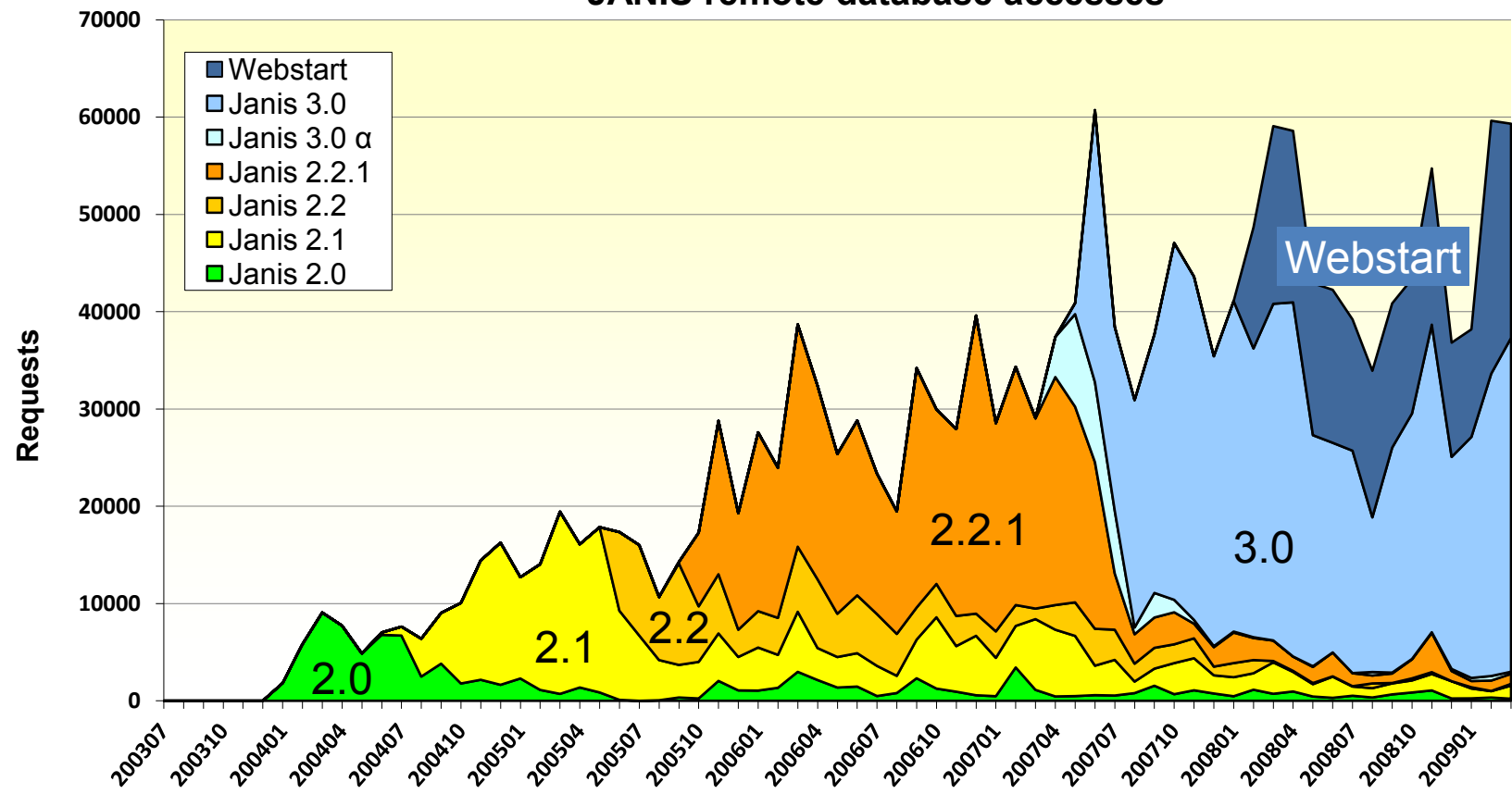
What's new in JANIS?

- ✓ ENDF support
  - ✓ files MF 12, 13, 14, 15 (photon data)
  - ✓ Plotting of Beta decay ray shapes with integration of code BTSPEC (A. Tobias, UK)

- ✓ EXFOR support
  - ✓ Format checks added
  - ✓ Cleanup of dictionary 24 in cooperation with NDS
  - ✓ EXFOR/EXFOR and EXFOR/ENDF comparison tools
  - ✓ EXFOR TRANS checker

- ✓ Work on JANIS Web ongoing

JANIS statistics

JANIS remote database accesses

NEA International Nuclear Data Evaluation Co-operation (WPEC)

✓ Subgroup 30 on "Improvement of Accessibility and Quality of the EXFOR Database" completed.

✓ Three new activities:

  ✓ Meeting Nuclear Data Needs for Advanced Reactor Systems "

  ✓ Methods and issues for the combined use of integral experiments and covariance data"

  ✓ Unresolved resonance treatment for cross section and covariance representation

✓ Many subgroups devoted to covariance data.

The Joint Evaluated Fission and Fusion (JEFF) file project

✓ The JEFF-3.1.1 general purpose file was released in Feb. 2009.

✓ The documentation associated with the JEFF-3.1.1 library was published in May 2009 as JEFF report 22.

✓ The Data Bank offers a set of processed group cross-section and Monte Carlo libraries based on JEFF3.1 and on JEFF-3.1.1 to assist scientists wanting to use the data in application calculations.

Data Bank computer program services

✓ Collection, verification and distribution of computer codes to Data Bank member countries and to IAEA countries through a special agreement.

✓ Compilation and dissemination of measured integral data in:

  ✓ Criticality safety (ICSBEP)

  ✓ Reactor physics (IRPhE)

  ✓ Nuclear fuel behaviour (IFPE)

  ✓ Radiation shielding (SINBAD)

✓ Organisation of training courses and workshops