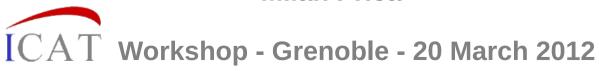
# ELETTRA Sincrotrone Trieste



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#### Elettra

- Third-generation synchrotron radiation source
- Optimised for the VUV and soft-X-ray range
- Operates between 2.0 and 2.4 GeV
- Feeds over 24 beamlines
- The total operating time of the facility is currently about 5000 hours/year, providing about 105000 hours of user time on the individual experimental stations



#### Fermi@Elettra

- A single-pass Free Electron Laser user-facility
  - wavelength range from 100 nm (12 eV) to 10 nm (124 eV)
- The main machine characteristics are:
  - High peak power (~ GW) optical pulses with synchronization to external laser sources.
  - APPLE II type undulators to enable flexible tuning of both photon wavelength and polarization
  - Implementation of seeded harmonic cascade FEL schemes for tunable and controlled short-wavelength photon pulse production
  - Advanced feedback and feed-forward systems to improve output stability.



### Related projects

- PaNdata ...
- PaNdata-ODI
- Elisa ...
  - European Light Sources Activities (I3)
- Calipso
  - Coordinated Access to Lightsources to promote Standards and Optimization
  - Kick-off meeting in Trieste in June (Together with PaNdata workshop?)



## Our 1<sup>st</sup> ICAT experience

- NFFA: Nanoscience foundries and fine analysis (FP7)
- A demonstrator built on ICAT 3.0
- Deployed a portal
  - Allows users to login, create metadata XML file(s) using forms and ingest it into ICAT catalogue
  - Query and retrieve data from the storage



#### Current ICAT involvement & plans

- PaNdata WP4 Data Catalogue Service
- Installed & testing ICAT 4.0
- All FEL BL and some synchrotron BL store data in HDF5 (NeXus?)
  - Convince them of cataloguing benefits
  - Proper use linked to data policy implementation





