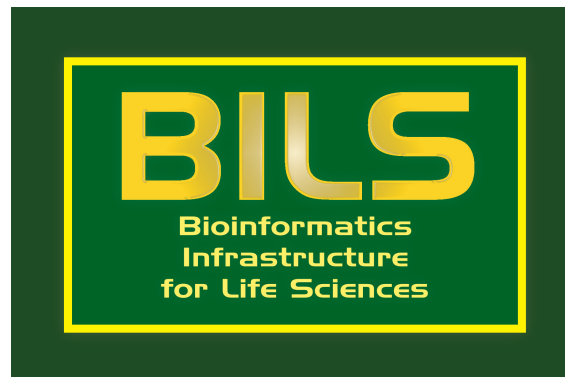


Bioinformatics Infrastructure for Life Sciences (BILS)

Sweden



Aim

The aim of BILS is to provide bioinformatics support for life science researchers in Sweden, on both local and national levels. The organisational structure should allow for changes in support needs over time as new techniques are developed and utilised. BILS will also match European efforts and will be the national contact point towards the new European infrastructure for biological information, ELIXIR, and related international collaborations. BILS will coordinate the Swedish contributions to the ELIXIR infrastructure.

VISION

- Our vision is that BILS should be a sustainable national infrastructure for biological information, supporting life sciences in Sweden. BILS will be the contact point towards ELIXIR. We envision that BILS will be of fundamental importance for large-scale projects, in providing competence, long-term data storage, computational resources, and access to data and analysis methods. BILS will help to coordinate bioinformatics support within Sweden and make bioinformatics easily accessible for life science researchers.

Why a national infrastructure?

There is need for a coordinated national bioinformatics infrastructure for life sciences for several reasons:

- to match international efforts, of which ELIXIR is the most prominent, and make it possible for Swedish researchers to efficiently utilise these resources, including coordination of Swedish contributions within ELIXIR
- to coordinate the activities at various sites in order to provide efficient and front-line research-based support to Swedish life science groups.
- to organise and provide sustainable large-scale storage of data from high-throughput sequencing, genomics, proteomics analyses, in close collaboration with SNIC centres.
- to provide computational needs within bioinformatics and neighboring disciplines for large-scale data processing, in close collaboration with SNIC centres, and
- To coordinate Swedish computational contributions within ELIXIR. _ to provide a network between bioinformatics sites in Sweden

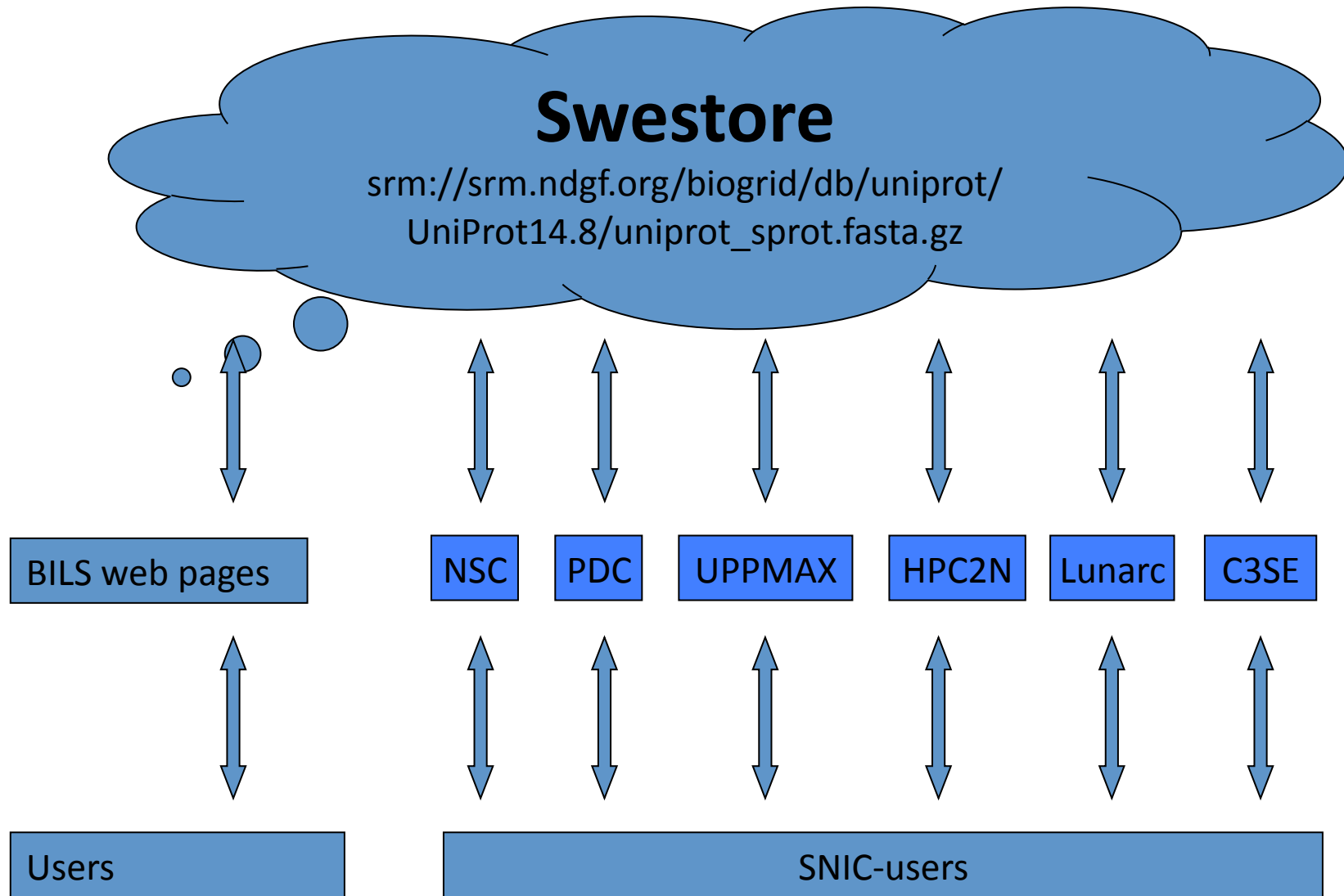
Budget From VR (The Swedish Research council)

- 2010 4 MSEK (400k Euro)
- 2011 8,5 MSEK (850k Euro)
- 2012 13 MSEK (1.2 M Euro)

Activities

- Biobanks.se: BBMRI – Biobanking and Biomolecular Resources Infrastructure and BILS pilot project www.bbmri.se
- Next Generation Sequencing: UPPNEX www.uppmax.uu.se
- SciLife Laboratories: www.scilifelab.se
- SNIC (Swedish National Infrastructure for Computing) mirroring of databases on the national storage system. www.snic.vr.se
SweGrid - The Swedish GRID initiative (3000 cores spread out over 6 clusters at 6 different sites across Sweden).

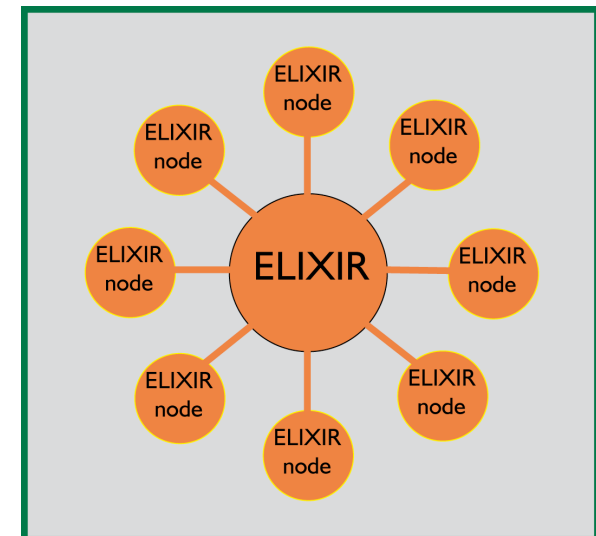
National storage



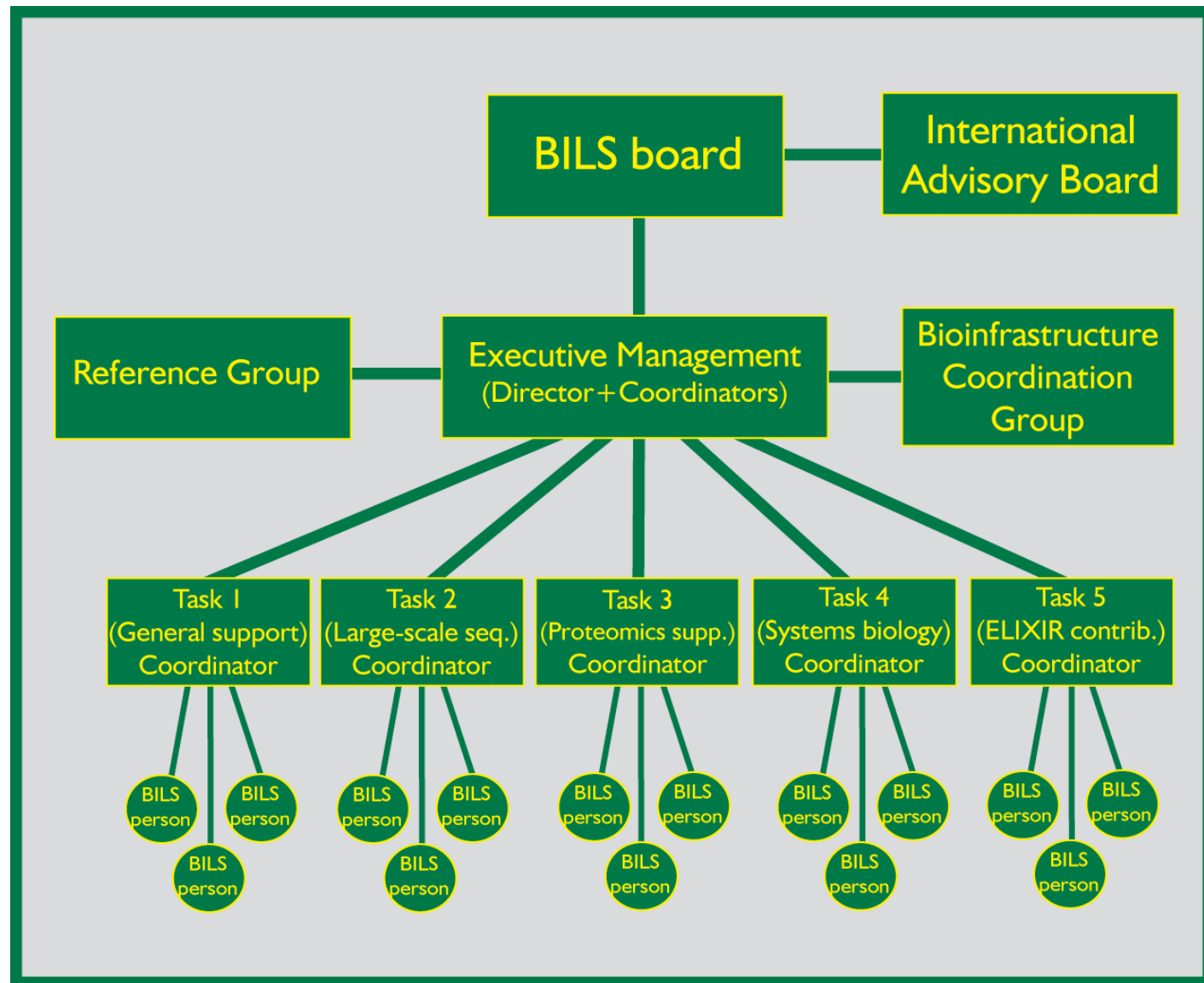
ELIXIR – the future European infrastructure for biological information

- FP7 project 2008–2010, coordinated by Prof. Janet Thornton at EBI (European Bioinformatics Institute, Hinxton)
- A reliable ***distributed*** infrastructure to provide access to biological information across all of Europe
- Sustainable funding for the ***core*** European biological data collections (genomes, sequences, structures etc)
- Sustainable funding for the ***global*** biological data collaborations (UniProt, ww-PDB etc)
- Processes for:
 - developing ***new*** core data collections
 - supporting ***interoperability*** of bioinformatics tools
 - developing bioinformatics ***standards*** and ***ontologies***
- ***Enhanced*** use of biological information in:
 - Academic Research
 - Pharmaceutical Industry
 - Biotechnology
 - Agriculture
 - Protection of the Environment

BILS, Bioinformatics Infrastructure for Life Sciences



Organisation



Contacts

- Bengt Persson bpn@ifm.liu.se
- Erik Bongcam-Rudloff
erik.bongcam@bmc.uu.se

