Competency-based Training

4th and final AGM, 2.3.2020, Florence

Vera Matser (ELIXIR-EBI)
Phase 1
Definition of competency requirements
- Competency profiles for technical roles

Phase 2
Mapping of existing training
- List of relevant training flagged in on-course®
- ‘Badge’ that these course providers can use to signify relevance to RIs

Phase 3
Developing and delivering training to fill the gaps
- Series of short courses in highest priority areas
- Site visits/staff exchanges

Phase 4
Sustainable delivery
- Training to become an integral part of the training programmes offered by BMS RIs
Phase 1: Definition of Competency requirements

Survey & workshop with RItrain: Addressing skills gaps in technical operation of biomedical research infrastructures

16-17th February 2016
Hinxton
Technical operation of services - A service may fall into any of the following categories:

- **Data services** (e.g. databases, software tools, controlled vocabularies)
- **Biosample services** (e.g. collections of mice, microorganisms, cell lines, seeds, patient samples)
- **Facilities requiring physical access** (e.g. facilities for imaging, structural biology, use of pathogenic micro-organisms, marine stations, some high-end computing facilities)

High level Competency domains

- Planning and designing
- Operating and maintaining
- Enabling
- Generic competences
- Ethics, law and innovation-related competences
<table>
<thead>
<tr>
<th>Planning and designing a service</th>
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<tbody>
<tr>
<td>Technology trend monitoring and innovation</td>
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<td>Sustainable development and maintenance of existing services</td>
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<tr>
<th>Operating and maintaining a service</th>
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<tr>
<td>User Support</td>
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<td>Problem solving (including people and scientific problem solving)</td>
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<td>Service delivery</td>
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<td>Quality data monitoring</td>
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<th>Enabling a service to operate</th>
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<tr>
<td>Identification and understanding of user needs</td>
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<tr>
<td>Data presentation/visualisation, actionable data extraction</td>
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<td>Data management/pre-servantion/curation with data and insight</td>
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<th>Generic competencies</th>
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<tr>
<td>Upholding organisational values: Cross-cultural and cross-disciplinary sensitivity</td>
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<td>Working together: Communication and interpersonal skills</td>
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<th>Ethics, law and innovation-related competences</th>
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<tr>
<td>Knowledge of legal framework</td>
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<td>Understanding of the organisational ethical framework</td>
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<td>Communication with agencies and ethical boards</td>
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<td>Handling of confidential information</td>
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<td>Understanding the innovation cycle</td>
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Data management/pre-servcation/curation with data and insight

Knowledge base
- Knows where to find, and how to effectively mine, relevant data including unstructured sources such as the scientific literature and structured sources such as public data
- Awareness/working knowledge of data models and different types of database
- Knows where to find and use relevant data standards

Skills base
- Develops and/or implements organisational data strategy
- Develops and or makes use of data models including metadata
- Integrates different data sources and provides for further analysis by others
- Develops and maintains a historical data repository with appropriate version control
- Collects and manages different sources of data

Ineffective behaviours
- Pursues perfection to the detriment of completion or usability
- Lacks a methodical or consistent approach to data management
- Does not track major changes to data and who made them
- Does not contribute to relevant community initiatives
- Is un-empathic towards the needs of the user

Effective behaviours
- Contributes to the broader community of data providers and curators
- Contributes to the development and optimal use of data standards
- Aims for a balance between usability and rigor
- Pursues opportunities to engage with users and understand their needs and frustrations
- Is methodical and consistent in approach to data management/curation

Competency: Data Management/preservation/curation with data and insight
Mountain of work done by Derrin (EBI) and Doris (MUW)

~400 courses mapped to CORBEL competency profile and tagged as relevant to CORBEL
New long-term home for the CORBEL competency framework, including learning resources

https://competency.ebi.ac.uk/
Phase 3: Developing and delivering training to fill the gaps

Staff or Knowledge exchanges → Staff Programme (Oct 2018)
- CORBEL Fellowships (15)
- Staff visits (8)
- Larger knowledge exchange events (2)

To date 25 requests for staff programme events have been granted*

Note: The Staff Programme is still open for applications, but visits need to be completed by end of May (https://www.surveymonkey.co.uk/r/corbelstaffprogramme)
EuroBioimaging and ELIXIR members met during three days with the European Galaxy team in Freiburg (Germany) to make image data from the Image Data Resource (IDR) accessible through the Galaxy interface.
Training courses highlights

4-6th July 2018
Amsterdam

Train-the-Trainer & Course development hackathon
Delivered an active webinar series - minimum 20 by the end
Recordings available on website & YouTube
Average of 33 people per webinar
Engaging with your community through events and training

**Webinar 1** – view recording: How to make your event successful and eligible for EU funding: Event management for Research Infrastructures

**Webinar 2** – 12th March: Course design and delivery: guidance and tips for impactful training.

**Webinar 3** – 19th March: Practical Tips for Stepping Up Your Science Communications

**Webinar 4** – 27th March: Best practice in training and communication

Phase 4 - Sustainable delivery

Training courses integrated in partner training programme

- Data Visualisation for Biology: A Practical Workshop on Design, Techniques and Tools → Now part of EMBL-EBI programme
- Machine Learning for Image Analysis → Part of EMBL programme
- User Research & Service design → EMBL-EBI & EMBO core facility courses
- Innovation training → Continued in EATRIS Training Programme
- EOSC-Life Training (e.g. Aria, Quality Management)

Webinar series

Many RIs (e.g. EATRIS, BBMRI-ERIC, ELIXIR) now run their own webinar series. Recordings from CORBEL series will stay available
Members of CORBEL WP9

All our webinar speakers & hosts
All our course organisers & trainers

Markus Pasterk (WPL until June 2018) & Cath Brooksbank