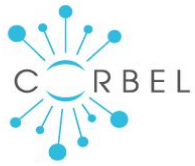




Competency-based Training

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

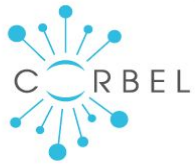
Developing and delivering training to fill the gaps

- 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

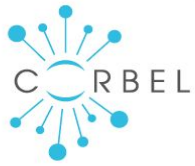


Phase 1: Definition of Competency requirements

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

16-17th February 2016
Hinxton





Phase 1: Definition of Competency requirements

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



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

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

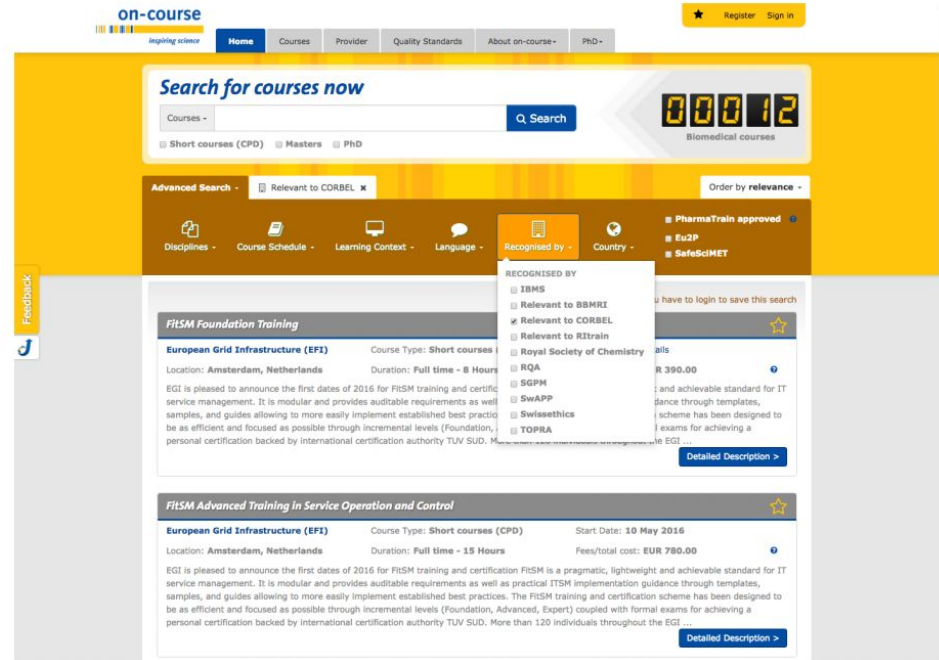
Effective behaviours

- 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



The screenshot shows the 'on-course' website interface. At the top, there is a navigation bar with links: Home, Courses, Provider, Quality Standards, About on-course, and PhD. A search bar is prominently displayed with the text 'Search for courses now'. Below the search bar, there are filters for 'Short courses (CPD)', 'Masters', and 'PhD'. A digital clock shows '00:00:12' and 'Biomedical courses'. The 'Advanced Search' section is active, showing filters for 'Relevant to CORBEL', 'Disciplines', 'Course Schedule', 'Learning Context', 'Language', 'Recognised by', and 'Country'. A dropdown menu for 'Recognised by' is open, listing various accreditation bodies: IBMS, Relevant to BSMRI, Relevant to CORBEL (checked), Relevant to Ritrain, Royal Society of Chemistry, RQA, SGPM, SwAPP, Swissethics, and TOPRA. Below the search results, two course listings are visible: 'FitSM Foundation Training' and 'FitSM Advanced Training in Service Operation and Control'. Both courses are listed by 'European Grid Infrastructure (EFI)' and are 'Short courses (CPD)'. The first course has a duration of 8 hours, and the second has a duration of 15 hours. Both courses are located in 'Amsterdam, Netherlands' and have a 'Full time' schedule. The second course also lists a 'Start Date: 10 May 2016' and a 'Fees/total cost: EUR 780.00'. Each course listing includes a brief description and a 'Detailed Description >' link.



Competency Mapper

New long-term home for the CORBEL competency framework, including learning resources

Competency Mapper

Manage Competencies ▾

Hi matser ▾

Overview

Competency mapper is a web-based tool to support the creation and management of competency frameworks for professionals working in the biomolecular sciences [read more >](#)



The BioExcel training programme is based on a competency profile. A competency is an observable ability of any professio...>



We are using a competency-based approach to developing, delivering and monitoring the CORBEL training programme. CORBEL...>



This competency framework has been developed in partnership with Research Infrastructure leaders and is aimed to support...>



The ISCB Education Committee's Curriculum Task Force described the potential for refinement and application of bioinform...>



Health Education England

We have summarised a consensus view on the competency requirements for mid-career professionals in the roles defined by...>

<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.



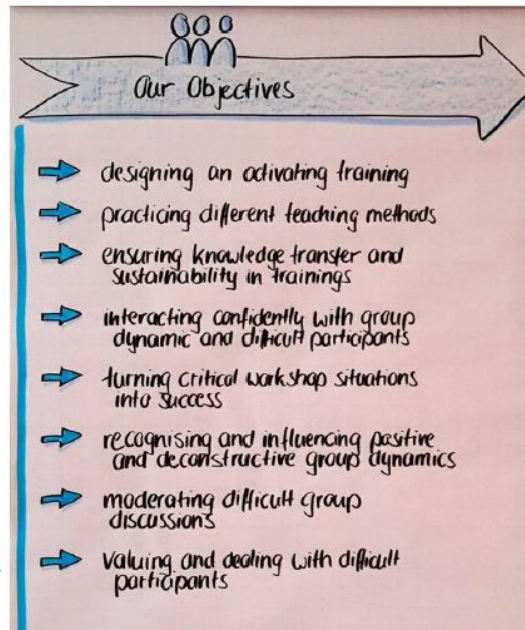


Training courses highlights

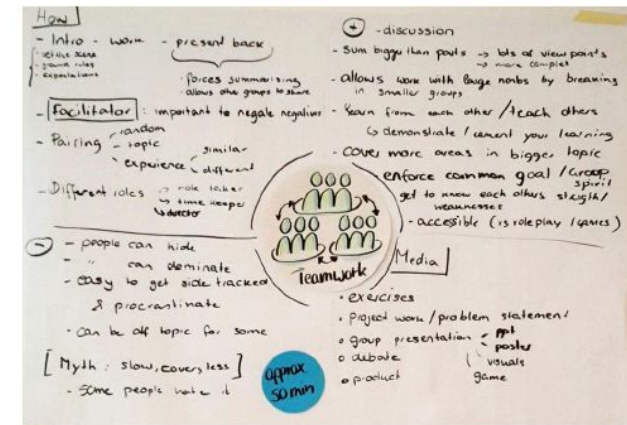
4-6th July 2018
Amsterdam

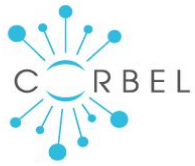


Train-the-Trainer & Course
development hackathon

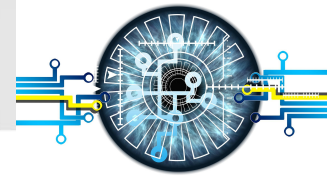


Name	The kind of trainings that I do / will do ...	Typical for me
Vera	<ul style="list-style-type: none"> Facilitate multi-day courses Run knowledge exchange / discussion sessions (e.g. training needs) Topics: training, user research, service design 	<ul style="list-style-type: none"> add game storming techniques lots of posters bullet noting project work
Terry	<ul style="list-style-type: none"> Facilitate Strategy processes scenario processes arena meetings 	<ul style="list-style-type: none"> transition thinking intuitive trying to find concrete examples for abstract items
Ivan	<ul style="list-style-type: none"> Basic coding/programming skills for biologists (w/o computational bg) PL intro 	<ul style="list-style-type: none"> pre-programming whiteboard concept mapping
Rosor	<ul style="list-style-type: none"> Elearning, webinars, face-to-face training for (young) biomedical professionals translational medicine (lab → drugs) 	<ul style="list-style-type: none"> love visuals / sketchnoting diversity / interactive activities
Ann-Ortbe	<ul style="list-style-type: none"> Sessions on research funding, tips for proposal writing, development of research funding Introduction to translational research 	<ul style="list-style-type: none"> Good at structuring a presentation Sketching complex concepts No if formal sequence as design job
Piv	<ul style="list-style-type: none"> Present: Run Start courses 2-5 days in length (How NEXT works) and bioinformatics Dev: Techs (lab, ideas, workshops) in HE/PhD 	<ul style="list-style-type: none"> ± Performer-type ± Humour ± Nerdy bits (teaching, time pressure) ± Tend not to practice





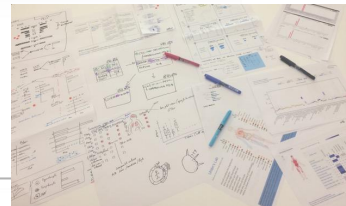
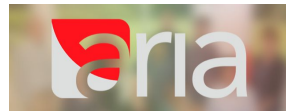
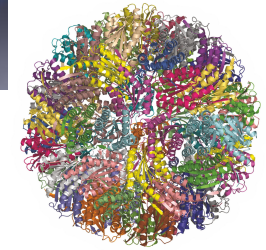
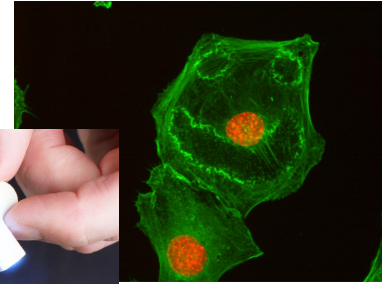
Webinar series (since 2017)



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

<https://www.corbel-project.eu/webinars/engaging-with-your-community-through-events-and-training.html>

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



ACKNOWLEDGMENTS

Members of CORBEL WP9

All our webinar speakers & hosts

All our course organisers & trainers

Markus Pasterk (WPL until June 2018) & Cath Brooksbank



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