

# Global Biolmaging Project

## D3.1 Report on 1st international training course for facility staff

<b>Project N.</b>	653493
<b>Project Title</b>	Global Biolmaging
<b>Project Acronym</b>	GBI
<b>Associated Work Package</b>	WP3
<b>Associated Task</b>	Task 3.1
<b>Lead Beneficiary (short name)</b>	UNITO, EMBL
<b>Nature</b>	Report
<b>Dissemination Level</b>	Public
<b>Estimated Delivery Date (Grant Agreement, Annex I)</b>	31/05/2017
<b>Actual Delivery Date</b>	31/05/2017
<b>Task leader</b>	Rainer Pepperkok
<b>Contributors</b>	Federica Paina, Alessandra Viale, Silvio Aime, Jean Salamero



Funded by the Horizon 2020  
Framework Program of the  
European Union

### Abstract

The first international training course on “*Management and Operation of imaging core facilities*” was held at the EMBL Heidelberg on 16-18<sup>th</sup> November 2016. The topics covered were soft and administrative skills, quality management, e-learning and how to set-up and run a facility across the domains of medical and biological imaging. They also included visits to some imaging sites demonstrating Leica, Nikon and Bruker’s instruments. This pilot course showed a widespread need for this type of training, as imaging facility staff of different levels of seniority and from various countries would all recommend or highly recommend the training to peers.

While ensuring diversity of participants was key at this stage in order to further develop the training concept, for the future editions of this course, the possibility of varying the training offer depending on the level of the participants will be explored. The following formats are currently under evaluation:

- A taught course for facility staff at the beginner levels;
- A workshop for the more experienced facility managers.

### Table of Contents

1. Introduction	Page 3
2. Course overview and applicants selection	Page 3
3. Evaluation of the course	Page 5
4. Conclusion	Page 8
5. Annex 1 – program of the course	Page 9
6. Annex 2 – Evaluation form	Page 11

## 1. Introduction

During the last decade, facility management has developed as a new career opportunity for scientists, although a clear curriculum or educational program for facility staff is still missing in most places. Therefore Euro-BioImaging has developed a recommendation for facility staff training during its Preparatory Phase I. The first advanced training course in facility management has been organized with two main purposes: 1) enabling facility managers and operators – including the ones working at the Euro-BioImaging Node Candidates – to optimally support users; 2) attracting young and talented facility staff from all around the world and promoting international knowledge exchange. This ultimately should result in more discoveries in interdisciplinary scientific areas, more high-impact publications, a greater number of innovations and technology developments, and extensive collaborations between researchers from all over Europe with their international counterparts

## 2. Course overview and applicants selection

As a first step in the course preparation, training experts from Europe, Australia and India have commonly developed a strategy for the training courses portfolio during the international workshop Exchange of Experience I (EoE I – Heidelberg, June 08-10<sup>th</sup> 2016). At this event, an organizing committee was formed and during several consultations, concluded by a conference call on June 07<sup>th</sup>, 2016, the course sessions as well as a first list of potential speakers were identified. The program was then concluded within WP3 and European and international trainers were invited to contribute to the course.

The course was held in Heidelberg on November 16-18<sup>th</sup>, 2016, immediately after the WP4 course about challenges on data management and image analysis,<sup>1</sup> in order to allow facility staff interested in both topics to attend the two courses while minimizing travel.

Interested persons could apply on-line via the Global BioImaging project website at <http://www.eurobioimaging.eu/content-page/international-training-courses-core-facility-staff>.

The course was open for 20 participants, selected on the basis of their personal experience and expectations (when applying, candidates provided the description of their profiles and motivation for attending the course), their nationality (aiming at having a balance between EU and extra-EU countries), and gender balance.

---

<sup>1</sup> See D4.1 *Report on 1<sup>st</sup> international training course for facility staff on image data tools*

The table below shows a breakdown of speakers' and participants' nationality and gender:

Country of employment of participant or invited speaker	SPEAKERS		PARTICIPANTS	
	male	female	male	female
<u>From Europe</u>				
Austria			2	1
Czech Republic			1	
Denmark		1		
Finland			2	
France	3	1		
Germany	4			
Italy		1	1	
Poland				1
Spain			1	
Sweden				1
The Netherlands			1	2
<u>Other nationalities</u>				
Argentina			2	
Australia		2		2
India			1	
South Africa			1	1

About 75% of the participants were experienced facility managers, the rest more junior technical staff or researchers.

The program of the course is reported in annex 1.

The following topics were covered: imaging facility set-up, soft skills targeted at issues relevant for facility staff (with a focus on user communication and conflict management), facility administration and management (e-management, Quality Management and metrology), e-learning and virtual platforms.

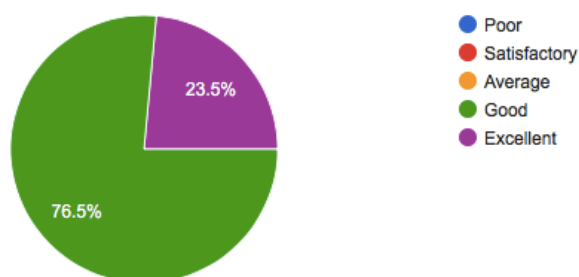
Participants were also offered the opportunity to visit some imaging manufacturers centers (Leica and Nikon for biological imaging, and Bruker for medical imaging).

### 3. Evaluation of the course

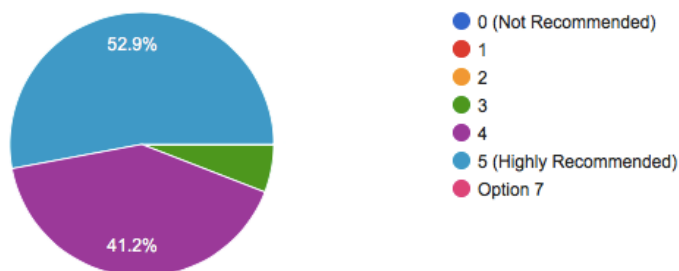
Participants were requested to fill in an evaluation form (annex 2), in order to assess their degree of satisfaction, the quality of the delivered training, and to gain information about any improvements to be made to the future courses.

17 participants answered the questionnaire.

The overall rating of the course was very good, with 23.5% of participants rating it as excellent and the remaining 76.5% rating it as good.



All attendees declared that they would recommend this course to others (52.9% highly recommended).



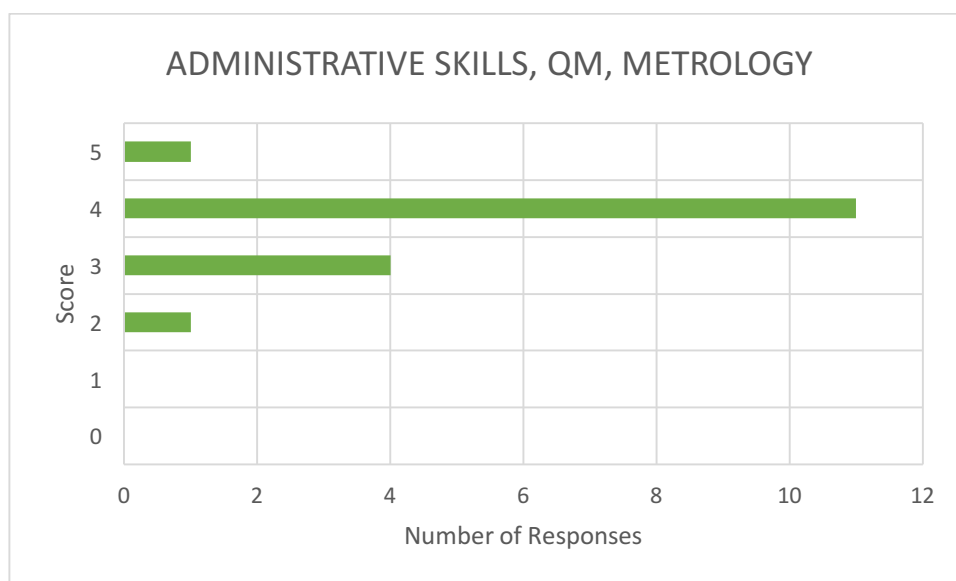
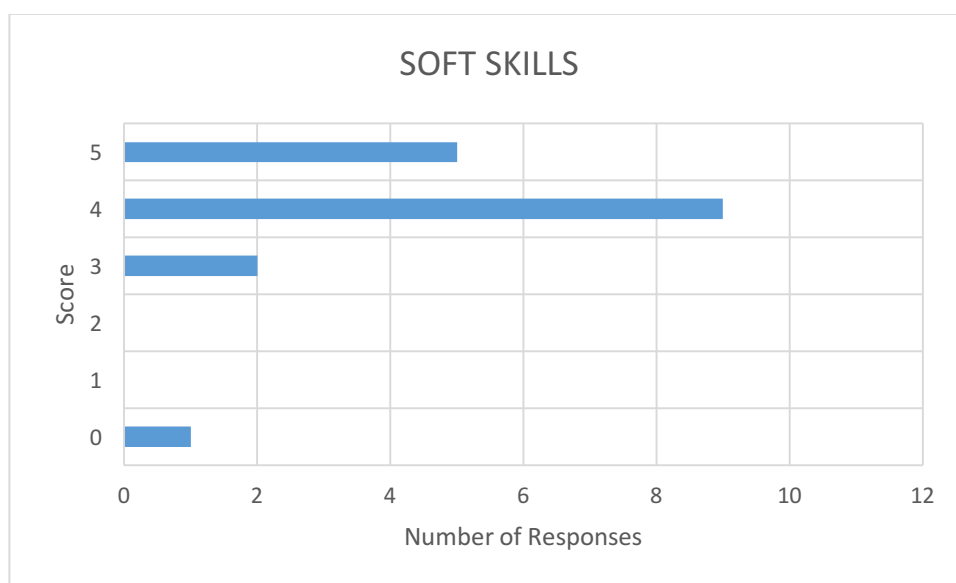
Most of participants mainly appreciated the diversity of the topics, the organization and the possibility of fruitful discussions with other participants and teachers. Even those who were already experienced declared to have taken advantage from the course, mainly because of the wide variety of items that were discussed, giving a good overview of the complex operation of imaging facilities. The vast majority of the participants (88.2%) indicated that they will use the tools/resources covered in the course in their future.

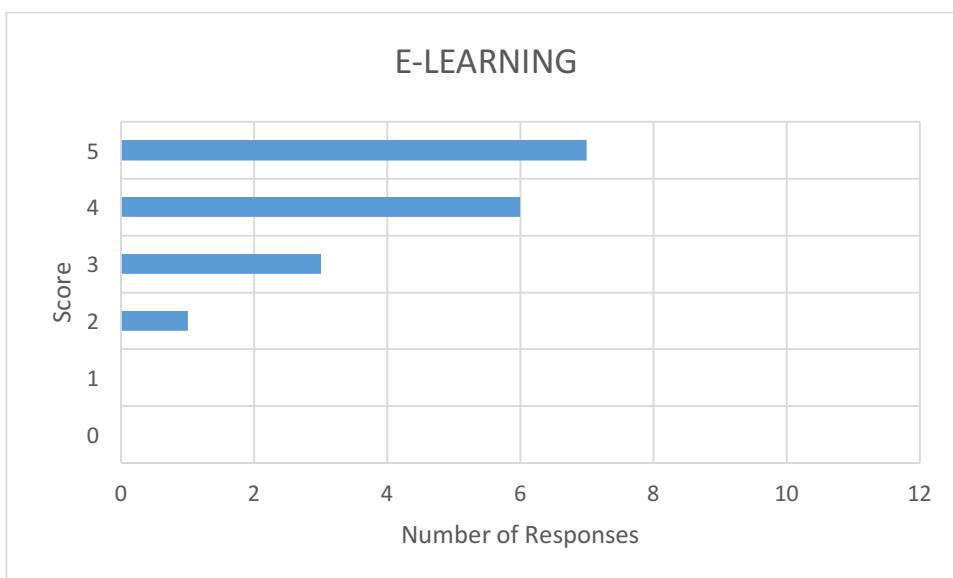
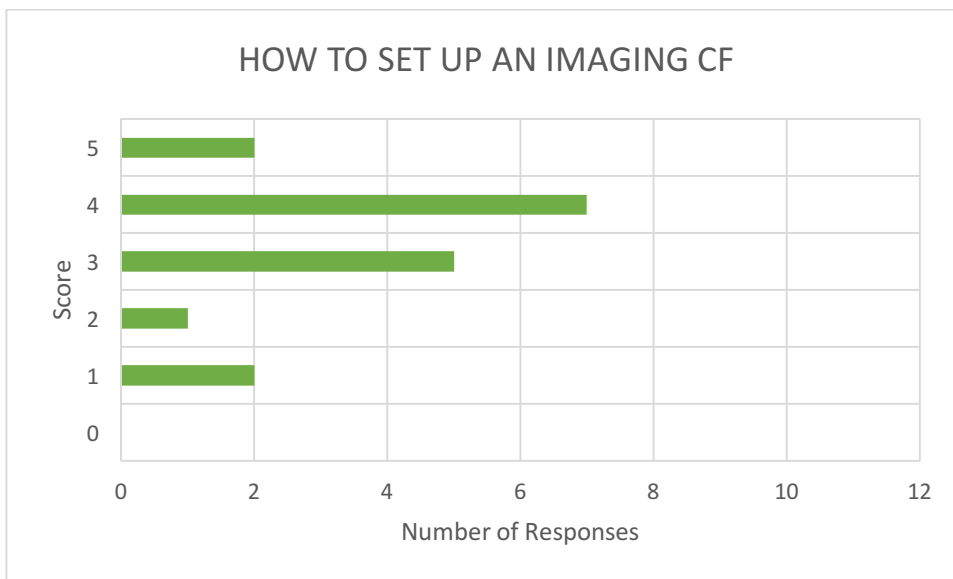
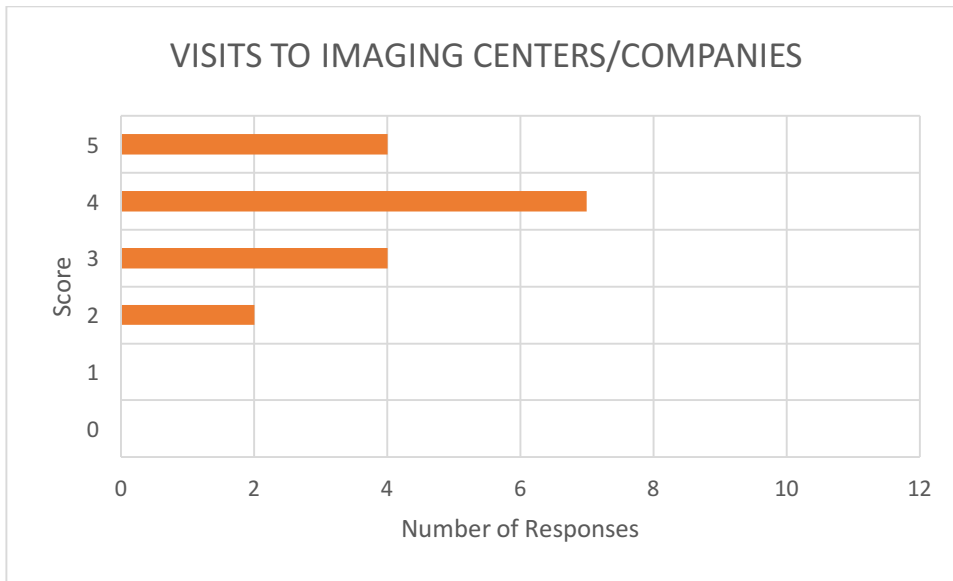
More time dedicated to the presentation and discussion of common problems among participants and with teachers in a round table session would have been appreciated.

The most appreciated sessions were those related to e-learning and to soft skills, followed by the visits of imaging centers/company sites and the session on administrative skills. Regarding the soft skills session, some participants suggested to dedicate a longer time to it in future courses, to better develop the subjects of conflict management and user communication in particular.

Both e-learning tools presented (MyScope and Olympus) were considered useful potential alternatives to hands-on training of users. The session on administrative skills and quality management was generally considered to be thought-provoking. Finally, visits to imaging centers/companies were judged interesting by most of the course attendees, nevertheless it was noted that providing more information in advance of the visits would have been beneficial in helping the participants choosing the visit of most interest to them. On the other hand, a number of participants pointed out that too much time was spent on “how to set-up an imaging facility” (also because most of them came from already set-up facilities).

The graphs below visually show the degree of satisfaction (from 0, not liked, to 5, excellent) for the various sessions of training.





#### **4. Conclusions and future plans**

The first training course on “Management and Operation of Imaging Core Facilities” was a pilot aiming at filling a gap in the currently available training offer for imaging facility staff and managers. It aimed at addressing the needs of both the biological and the medical imaging communities by either addressing topics of general interest (soft skills, administrative skills and quality management) or by including sector-specific sessions (case studies, visits to imaging centers and company sites).

Applications were received not only from Europe but also from GBI’s international partners, thus demonstrating the widespread need for this type of training. The majority of the participants were experienced facility managers, which enabled a high level of exchange of experiences and information. This was beneficial not only to the more junior facility staff, but also for the attendees at the managerial level, who could benefit from exchange of best practice with peers from around the globe.

Ensuring diversity in the course participants was important at this stage in order to further develop the training concept and learn from different experiences, backgrounds and needs. For the future editions of this course however, the possibility of varying the training offer depending on the level of the participants will be explored. The two formats currently evaluated are:

- A taught course for facility staff at the beginner levels;
- A workshop for the more experienced facility managers.

While the first format will allow junior staff to learn the necessary tools for imaging facility management, a more experienced manager will have the possibility to exchange best practices with peers and work together in a more creative way to find solutions to common problems.

With respect to the course program, the modules on soft-skills and e-Learning were particularly appreciated, regardless of the level of seniority of the course participants. Therefore, they will be further developed and more time will be reserved to them in the program.



**Annex 1 – program of the course on “Management and operation of Imaging Core Facilities”**

**1<sup>st</sup> International Training Course on  
Management and operation of Imaging Core Facilities**

**PROGRAMME**

*16<sup>th</sup>-18<sup>th</sup> November 2016  
EMBL Heidelberg, Room 518 - Building 13*

**Wednesday, November 16<sup>th</sup> 2016**

09:00 – 09:15	Welcome and introduction
<b>SESSION I: Soft Skills for Core Facility Staff</b>	
09:15 – 10:30	Balancing different professional roles in a core facility <i>(S. Kočevar &amp; Y. Liron, hfp consulting)</i>
10:45 – 12:00	The art of dealing with conflicts professionally <i>(S. Kočevar &amp; Y. Liron, hfp consulting)</i>
12:00 – 13:00	<i>Lunch</i>
<b>SESSION II: Administrative Skills, Quality Management, Metrology</b>	
13:15 – 14:00	Benchmarking of e-Management systems <i>(O. Renaud; PICT, Institut Curie)</i>
14:15 – 15:00	Quality Management according to the ISO 9001:2015, NFX50-900 <i>(M.-H. Gentil; IRCA Auditor and Associate Professor, Bordeaux University)</i>
15:15 – 16:00	Metrology in Biolmaging <i>(D. Shapman; University of Rouen)</i>
16:15 – 17:45	Open Discussion
18:30 – 20:00	<i>Dinner at EMBL</i>

**Thursday, November 17<sup>th</sup> 2016**

09:00 – 09:15	Gathering at the EMBL Heidelberg, ATC Building
10:00 – 13:00	<b>Parallel visits to imaging centres and company sites - I</b>
	<ul style="list-style-type: none"> <li>● Leica, Mannheim</li> <li>● Nikon Imaging Center, Heidelberg</li> <li>● Bruker, Mannheim</li> </ul>
14:00 – 17:00	<b>Parallel visits to imaging centres and company sites - II</b>
	<ul style="list-style-type: none"> <li>● Leica, Mannheim</li> <li>● Nikon Imaging Center, Heidelberg</li> <li>● Bruker, Mannheim</li> </ul>
19:30	<i>Dinner downtown (sponsored by Leica Microsystems)</i>

**Friday, November 18<sup>th</sup> 2016**

<b>SESSION III: How to set-up an Imaging Core Facility (half-day workshop)</b>	
09:00 – 10:00	Case Studies of advanced Biological Core Facilities: <ul style="list-style-type: none"> <li>● France Biolmaging, <i>J. Salamero (Institut Curie)</i></li> <li>● Advanced Light Microscopy Facility, <i>R. Pepperkok (EMBL)</i></li> </ul>
10:00 – 10:30	Case Study of Medical Core Facility specialized in animal imaging, <i>F. Arena (University of Torino)</i>
10:30 – 11:00	<i>Coffee Break</i>
11:00 – 11:30	Case Study of Medical Core Facility specialized in human imaging <i>S. Salehi (CAI, University of Queensland)</i>
11:30 – 12:00	Case Study of newly built Biological Core Facility <i>C. Prats (University of Copenhagen)</i>
12:00 – 13:00	<i>Light Lunch</i>
<b>SESSION IV: E-learning/hands-on in virtual training platform</b>	
13:00 – 14:30	Demonstration and hand-on session on “MyScope” <i>J. Whiting (AMMRF, University of Sidney)</i>
14:30 – 15:00	<i>Coffee break</i>
15:00 - 16:00	Open Discussion on e-learning
16:00 – 17:00	Demonstration and hand-on session on the Olympus online training tool <i>J. Marquardt (Head of Academy EMEA, Olympus Europa)</i>

Annex 3 – Evaluation form

**Course evaluation: Evaluation form for International Training course on "Management and Operation of Imaging Core Facilities"**

\* Required

**The purpose of this evaluation is to learn, improve and provide a better course for the future participants.**

---



**1. 1. Please indicate your overall rating for the entire course \***

*Mark only one oval.*

- Poor
- Satisfactory
- Average
- Good
- Excellent

**2. 1.1 Please provide a brief explanation of your ranking**

---

---

---

---

---

**3. 2. Have you used tools and skills covered in the course before? \***

*Mark only one oval.*

- Yes
- No

**4. 2.1 If yes, which ones?**

---

---

---

---

---

**5. 2.2 If not, do you think they should be part of such course anyway?**

*Mark only one oval.*

- Yes  
 No  
 I don't know

**6. 3. Will you use the tools and skills covered in the course in your future work? \***

*Mark only one oval.*

- Yes  
 No  
 Maybe

**7. 3.1 Do you have comments for the range of tools and skills covered in this course?**

---

---

---

---

---

**8. 4. Would you recommend this course? (0 Not Recommended - 5 Highly Recommended) \***

*Mark only one oval.*

- 0 (Not Recommended)  
 1  
 2  
 3  
 4  
 5 (Highly Recommended)  
 Option 7

**9. 4.1 Do you have suggestions to improve this course ?**

---



---



---



---



---

**10. 5. How do you evaluate individual parts of the course? (0 least liked - 5 most liked) \***

*Mark only one oval per row.*

	0	1	2	3	4	5
Soft skills for Core Facility Staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Administrative skills, quality management. Metrology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Company visits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How to set-up an Imaging Core Facility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e-Learning/ hands-on virtual training platform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**11. 5.1 Please comment on each of the topics covered in the course (start with the one you liked most and end with th eone you liked least)**

---



---



---



---



---

**12. 6. Which other topics would you like to see covered in future training courses?**

---



---



---



---



---

**13. 7. Any other suggestion?**

---



---



---



---