



NACIONALNI INŠTITUT ZA BIOLOGIJO  
NATIONAL INSTITUTE OF BIOLOGY

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## ERBFacility Working Group 4 workshop

# Building capacity for contaminant sampling and collection of supporting monitoring data for raptors across Europe

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Hosted by Hosted by National Institute of Biology, Ljubljana at Triglav National Park (TNP), Info Centre Dom Trenta, Na Logu in Trenta, SI-5232 Soča, Slovenia

Tuesday 17 September 09:00 – Friday 20 September 16:00, 2019

# The challenge

- Environmental contaminants: € multi-bn costs to human and wildlife health
- EU objective (7EAP) - a non-toxic environment
- EU chemicals regulations – assess risk, impose risk mitigation measures (restrict/ban)
- Need biomonitoring data to:
  - enhance chemical risk assessment
  - enhance assessment of effectiveness of regulations
  - provide early warning of emerging contaminant problems





# Why 'ERBFacility' ?

- 'Facility' (from Latin *facilis* – 'easy')
  - not an infrastructure, but a 'provision' or 'package' of key elements
- 3 key elements:
  - European Raptor **Monitoring Scheme** (ERBioMS)
  - *Distributed* European Raptor **Specimen Bank** (ERSpeB)
  - European Raptor **Sampling Programme** (ERSamp)





# The goal

- Underpin generation and use of raptor biomonitoring for EU regulatory applications
- Use raptors as sentinel species to answer:
  1. What are the environmental risks of specific chemicals?
  2. Are chemicals regulations effective in reducing environmental exposure to contaminants?
  3. Are there emerging contaminant problems requiring remedial action?
- Thereby:
  - contribute to a non-toxic environment
  - Reduce contaminant toll on human and wildlife health

# The three 'Arenas'

- **Analysis (WG 1 & 2)**
  - labs, ecotoxicologists
- **Collections (WG 3)**
  - NHMs, ESBs, other collections
- **Field (WG 4)**
  - field ornithologists/ecologists, raptor conservationists





# Capacity Building Objectives

**R1 Analysis Arena:** assess current analytical capacities, develop framework for **ERBioMS**



**R2 Collections Arena:** assess current collection capacities, develop framework and protocols for distributed **ERSpeB**



**R3 Field Arena:** assess current field capacities, develop framework, standards and protocols for **ERSamP**



# Research Coordination Objectives



- **C1 - Analysis arena**

- Collaborative work on ERBioMS
- Piloting joint assessment and reporting
- Developing guidance on integrating reports with regulatory assessments

- **C2 - Collections arena**

- Collaborative work on ERSpeB
- Constructing meta-database of samples/data
- Stimulating expansion of raptor collections

- **C3 - Field arena**

- Collaborative work on ERSamP
- Stimulating/harmonising collection of raptor samples and contextual data
- Developing and field-testing sampling framework, standards and protocols





Welcome

Welcome to the European Raptor Biomonitoring Facility COST Action (CA16224)

We are an open network of researchers and practitioners working towards coordinated Europe-wide monitoring of contaminants in raptors (birds of prey) with a view to supporting the implementation of EU chemicals regulations and thereby reducing chemical risks to raptors themselves, to the wider environment and to human health.

If you are interested to join us, please see the [Join ERB](#)

Forthcoming Events

WG4 Meeting: building capacity for contaminant sampling and collection of supporting monitoring data for raptors across Europe.

17 September 2019 - 09:00

Latest News

GM2, WC3 and WG4 Meetings held in Florence

10 March 2019

WCa 1, 2, 3 & 4 Meeting concludes in Thessaloniki

6 February 2019

WC3 Meeting held in Brussels

30 January 2019

Additional €40000 budget approved for ERB Facility

4 December 2018

ERB Facility Management Committee approves C172 W115

15 August 2018

ERB Facility Management Committee approves C172 W115

12 June 2018

First ERB Facility General Meeting held

1 March 2018

Missions

Three new Calls for STSMs, Grant Period 3 - EXTENDED DEADLINES 30 September 2019!



3 new Calls - one per Arena

ERB Facility has issued 3 new Calls for Short-Term Scientific Missions for Grant Period 3 (1 May 2019 to 30 April 2020).

ERB Facility is seeking applicants for up to 15 new Short-term Scientific Missions, from individuals who would like to play a key part in delivering the objectives of the Action, in addition to putting in place:

- A European Raptor Specimen Bank (the Collection Arena)
- A European Raptor Specimen Bank (the Collection Arena)
- A European Raptor Specimen Bank (the Collection Arena)

Who are we looking for?

Applicants may have experience in one or more of these arenas, for example in the analysis of contaminants in raptors, the storage of raptor samples in collections, and/or the gathering of raptor samples and related data (e.g. population/reproduction data) from the field.

Missions typically require skills in collating, reviewing and analysing information, and in engaging with contacts across Europe to build on their knowledge and expertise. Applicants will benefit from experienced Host Institutions, and will be involved in work that should lead to technical reports and/or scientific publications and allow them to develop their networks of contacts across Europe. Mission-holders are typically invited to attend Action meetings to present and discuss their work.

About

Why raptors?

Raptors are particularly suitable for monitoring persistent, bio-accumulative and toxic (PBT) substances because they are widespread, typically long-lived apex predators, which integrate contaminant exposure over time, over large areas and across a range of specialist and generalist food chains, are particularly sensitive to environmental contaminants and among the first organisms to exhibit readily observable responses.

Examples of contaminant problems revealed by raptors include heavy metal-induced immune system impairment, polychlorinated-biphenyl (PCB) induced impacts on reproduction closely associated with lead shot in game and toxicity associated with non-steroidal anti-inflammatory drugs (NSAIDs).



Red-tailed Blackbird, Jura - Noel Reynolds - CC BY-ND via Wikimedia Commons

Who is involved?

ERB Facility involves researchers working with analytical laboratories, curators of raptor collections in museums, specimen banks and research institutions, and field workers involved in raptor monitoring and conservation. We call these respectively the 'Analysis Arena', the 'Collection Arena' and the 'Field Arena'.

See [Governance](#) for details of who is involved.

What will ERB Facility do?

ERB Facility will develop next generation biomonitoring in Europe by delivering complementary frameworks for a European Raptor Biomonitoring Scheme, a distributed European Raptor Specimen Bank and a European Raptor Sampling Programme, a meta-database of samples, harmonized standards and protocols for analysis and reporting, best practice guidance for sampling, proof of concept for pan-European assessments and harmonized sampling.

ERB Facility will help answer:

- Is EU chemicals legislation effective in reducing environmental exposure to contaminants in Europe?
- What are the environmental risks of specific chemicals? and
- Are there emerging contaminant problems needing remedial action?

In the way, ERB Facility will improve effectiveness evaluation, risk assessment and early warning in relation to regulation of priority substances, plant protection products, biocides, veterinary products and heavy metals.

ERB Facility is timely and relevant given the shift in chemicals regulation from national to EU level and EU policy for a non-toxic environment. ERB Facility fills a key gap in wildlife biomonitoring and complements recent European developments in human biomonitoring.

See [Aim and Objectives](#) for further information.

What raptor samples are used?

Biomonitoring involves no harm to raptors. It makes use of existing specimens and samples in environmental specimen banks, natural history museums and other collections. These derive from birds found dead in the wild. Where samples from live wild birds are needed, this involves non-invasive sampling methods (e.g. collecting feathers from nests) and is done under relevant permits, typically during ringing to minimize disturbance.

MoU

The formal description of the Action is given in the ERB Facility Memorandum of Understanding, available on the COST website [here](#).

<https://erbfacility.eu/>



# European Raptor Biomonitoring Facility

**ERSamP**  
European Raptor  
Sampling Programme  
(WG4 – field arena)

**PROOF OF  
CONCEPT  
STUDY –**  
demonstrate the  
potential of the  
network/facility  
to new  
participants,  
funders and  
policy makers

How does it all  
link together  
and how is it  
coordinated?

**ERSpeB**  
European Raptor  
Specimen Bank  
(WG3 – collections arena)

**ERBioMS**  
European Raptor  
Biomonitoring Scheme  
(WG1&2 – analysis arena)





**Structure** for collecting the right samples and supporting data from the right species and areas for the agreed objectives

**Guidance** on how to collect the best samples and supporting data (on the sampled individual and the population from which it comes)

**Solutions** to constraints that prevent people from collecting samples and supporting data across Europe (such as licensing issues)

**ERBF WG4  
ROLE**

**Training school and ambassador network** to promote the guidance that is developed and involvement in ERBF to a wider group of people across Europe

**Guidance** on how to persuade more people to collect samples and supporting data and how to train them

**Proof of concept** to show that the sampling programme can work for one or more case study group of contaminants



# WG4 Field Arena - Tasks



<p><b>T4.1 Develop framework for European Raptor Sampling Framework (ERSampP)</b> (a) focal species &amp; sample matrices (b) existing sampling coverage and gaps (c) opportunities to fill gaps (d) contextual data for interpretation of contaminant exposure</p>	<p>Grant Period 1-2 First draft by April 2019</p>
<p><b>T4.2 Review key constraints</b> (legislative/practical) to activities (e.g. nest visits, transfer of samples between countries) for sampling and contextual data; identify how to resolve constraints</p>	<p>Grant Period 1-3 Mission by April 2019</p>
<p><b>T4.3 Develop best practice guidance and protocols</b> for raptor sampling and contextual data capture; trial with one or more case study species from several European countries; review and amend as appropriate; disseminate guidance and protocols</p>	<p>Grant Period 2-3 Mission by April 2019 Vulture Task Group 2 Missions in 2019</p>
<p><b>T4.4 Expand stakeholder involvement in raptor sampling and contextual field data gathering</b> - assessing potential; identifying ways to involve more professional and amateur ornithologists in raptor biomonitoring (working with NGOs and raptor ecologists in the network); developing guidance on recruitment and training</p>	<p><b>Grant period 3-4</b> Mission in 2019 Workshop in 2019 Training school</p>
<p><b>T4.5 Deliver proof of concept</b> involving, for a case study focal species (or group of species), applying the framework, guidance and protocols to collect new raptor samples and contextual field data through existing and/or novel networks</p>	<p><b>Grant period 3-4</b> Workshop in 2019 Funding discussions Missions</p>

“To be or not to be (sampled and monitored), that is the question”!

## “ACTORS” ?

- Different groups and types of people that we need to encourage to take part in the different parts of the sampling programme or to collect or store different types of samples and data
- We may also refer to them as “audiences”, “interest groups” or “participants”
- Examples: bird ringers; raptor nest monitoring volunteers; professional researchers; vets; wildlife rehabilitation staff; citizen scientists who do bird survey work; members of the public who send in carcasses; museum curators; NGOs who coordinate survey volunteers; specimen banks





# DISCUSSIONS IN FLORENCE



**Group 1 – Carcass collection**

**Group 2 – Live (blood) sampling**

**Group 3 – Population monitoring data**



What types of people could do it?

What are their motivations for fieldwork? What would put them off?

How are they currently coordinated? / How do we reach them?

What guidance and training would they need to take a more active role in ERSamP?

What feedback will they need to keep them engaged? What benefits?

**Which key people and organisations should we get involved?**



# DISCUSSIONS IN FLORENCE



## TYPES OF PEOPLE

- ✓ Vets
- ✓ Trained ringers
- ✓ Nest monitoring volunteers
- ✓ Professional ecologists
- ✓ Wildlife rehab centres
- ✓ Road ecology network
- ✓ Public citizens
- ✓ Hunters
- ✓ Police / rangers / authorities



## MOTIVATIONS

- ✓ Professional job
- ✓ Fun / hobby
- ✓ Commitment to conservation
- ✓ Passion for raptors / wildlife
- ✓ Career experience
- ✓ Contribute to something useful
- ✓ Interest in science
- ✓ Challenge / excitement of finding new nest sites



## WHAT DO THEY NEED / NOT NEED

- ✓ Specific guidance & protocols
- ✓ Regular feedback suitable for the specific audience
- ✓ Accreditation, certificate of participation or rewards
- ✓ Funding for equipment or travel
- ✓ Acknowledgement or co-authorship of publications
- X Don't want too much paperwork
- X Don't want to duplicate effort (e.g. data submission)



# ERBF Slovenia workshop

## Objectives

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- To share experiences and expertise in how to capacity build for field participants in raptor contaminant sampling and contextual data collection across Europe.
- To identify organisations and geographical areas where good practice capacity building is already going on or expertise is held, and areas where there are gaps and expertise/capacity are lacking (and the reasons for this).
- To start to develop best practice guidance on capacity building and training of participants relevant to the types of field participants required by ERBF.
- To specifically plan the capacity building required for the agreed ERBF Facility Proof of Concept study.
- To start to plan future training activities (to be delivered in Grant Period 4 – May 2020 to April 2021) and the resourcing of these capacity building activities.





# ERBF Slovenia workshop

## Outputs

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- An overview of available capacity building and training initiatives and expertise, and gaps, across Europe (both for the Proof of Concept study and the wider future pan-European sampling programme - ERSamP)
- A summary of guidance, training and capacity building required for the Proof of Concept study and ERSamP needs, with ideas on how to implement it. To include: capacity building for (a) raptor ringing (and sample collection); (b) carcass collection; and (c) contextual population data collection.
- Ideas to improve communication within the ERBF network and get more people involved in work to support the ERBF COST Action.
- Ideas on additional funding for capacity building and training - including pledges of things that could be done with in-kind support and no additional funding.
- A list of benefits to different interest groups of involvement in ERBF - which will also help with engaging more active participants from the existing network.
- Clear next steps (plans) - with agreement on who will lead and who will be involved (including how to fill and manage the relevant Short-Term Scientific Missions).







# ERBF Slovenia workshop

## Programme

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Tuesday 17 September	DAY 1 (MORNING) - CURRENT CAPACITY & GAPS
09:00 - 11:00	<i>SESSION 1 - SETTING THE SCENE (BACKGROUND &amp; EXPERTISE)</i>
09:00 - 09:15	Welcome from workshop host and National Park (Al Vrezec)
09:15 - 09:35	Background, objectives and relevant outputs from Florence on actor groups (Chris Wernham) 15 MINUTES + QUESTIONS
09:35 - 09:55	Field participants' needs as identified during the constraints review work (Rui Lourenço) 15 MINUTES + QUESTIONS
09:55 - 10:15	Relevant findings from the EURAPMON inventory (Derlink et al. review) and ERBF ringing review - existing monitoring capacity. (Al Vrezec) 15 MINUTES + QUESTIONS
10:15 - 10:45	EURING and the potential of ringers across Europe (Rob Robinson, EURING Vice-Chair) - 25 MINUTES + QUESTIONS
10:45 - 11:00	TIME FOR SHORT DISCUSSION
11:00 - 11:30	<i>COFFEE BREAK</i>
11:30 - 13:00	<i>SESSION 2 - EXISTING EXPERTISE, GOOD PRACTICE, CAPACITY &amp; GAPS ACROSS EUROPE</i>
11:30 - 12:10	Engaging and inspiring field participants - an overview perspective about motivations, challenges and the value of different approaches to training and guidance, with examples from BTO experience (Ben Darvill, BTO Scotland) - 30 MINUTES + QUESTIONS
12:10 - 12:30	A case study of the challenges of encouraging new raptor sample collection - Gaby Peniche (Scotland) - 15 MINUTES + QUESTIONS
12:30 - 12:50	Capacity building for raptor ringing - Pertti Saurola (Finland) - 15 MINUTES + QUESTIONS
12:50 - 13:00	TIME FOR SHORT DISCUSSION
13:00 - 14:00	<i>LUNCH</i>



# ERBF Slovenia workshop

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<b>Tuesday 17 September</b>	<b>DAY 1 (AFTERNOON) - CURRENT CAPACITY &amp; GAPS</b>
<i>14:00 - 16:00</i>	<i>SESSION 3 - INTRODUCING THE ERBF PROOF OF CONCEPT STUDY &amp; RELATED PROJECTS</i>
14:00 - 14:30	Introduction to the Proof of Concept study (Chris Wernham & Emma Martínez-López) 20 MINUTES + QUESTIONS
14:30 - 14:50	General considerations for motivating a road kills network - sourcing carcasses (Marcello d'Amico) - 15 MINUTES + QUESTIONS
14:50 - 15:10	General considerations from the perspective of museum collections (Ulf Johansson) - 15 MINUTES + QUESTIONS
15:10 - 15:30	The Life APEX project - experiences so far with sourcing of samples for Common Buzzard (Oliver Krone) - 15 MINUTES + QUESTIONS
15:30 - 16:00	TIME FOR DISCUSSION
<i>16:00 - 16:30</i>	<i>COFFEE BREAK</i>
<i>16:30 - 18:00</i>	<i>SESSION 4 - PROOF OF CONCEPT STUDY (CONTINUED)</i>
16:30 - 16:50	Considerations specific to Tawny Owl (Rui Lourenço)
16:50 - 17:10	Considerations specific to Common Buzzard (Chris Wernham & Ben Darvill)
17:10 - 17:50	General discussion about initiatives/contacts focused on these two species (2 break-out groups)
17:50 - 18:00	FEEDBACK & SUMMARY OF DAY 1 (Facilitators and Chris Wernham)
<i>19:00</i>	<i>MEET FOR DINNER</i>



# ERBF Slovenia workshop

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<b>Wednesday 18 September</b>	<b>DAY 2 (MORNING) - CAPACITY NEEDS BY ACTOR TYPE</b>
<i>09:00 - 11:00</i>	<i>SESSION 5 - PERSPECTIVES FROM DIFFERENT COUNTRIES / REGIONS OF EUROPE</i>
09:00 - 09:15	Example 2-minute talks from Working Group 4 Team members (Jovan Andevski, Yael Choresh, Ulf Johansson, Rui Lourenço, Al Vrezec, Chris Wernham) setting the scene for the areas we would like each participant to cover in their short summary (Chaired by Chris Wernham)
09:15 - 10:45	Two-minute summary from each participant highlighting their own COUNTRY PERSPECTIVES (to include: current capacity and skills from different actor types and organisations; gaps in skills and capacity and reasons for these gaps; possible approaches and solutions to filling the gaps). ASSUMES MAXIMUM 20 TALKS @ 2 MINUTES EACH PLUS TIME FOR SOME QUESTIONS/GENERAL DISCUSSION. ALL PARTICIPANTS WILL BE ASKED TO COMPLETE THEIR TEMPLATE OF QUESTIONS IN A LATER WORKSHOP SESSION (AFTER FURTHER DISCUSSION) TO MAKE SURE WE CAPTURE THEIR INFORMATION AND IDEAS FOR THE WORKSHOP REPORT. (Chaired by Chris Wernham)
10:45 - 11:00	Introduction to break-out group session after coffee.
<i>11:00 - 11:30</i>	<i>COFFEE BREAK</i>
11:30 - 12:30	Workshop session to make full list of existing initiatives/contacts and to group them by actor groups - getting all participants to think about organisations and initiatives in their regions of Europe and list all of these together with key contacts, and to think about capacity building and solutions to filling gaps (both for the ERBF Proof of Concept Study and wider pan-European Raptor Sampling Programme (ERSamP).
12:30 - 13:00	Feedback from break-out groups
<i>13:00 - 14:00</i>	<i>LUNCH</i>



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## Programme

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<b>Wednesday 18 September</b>	<b>DAY 2 (AFTERNOON) - CAPACITY NEEDS BY ACTOR TYPE</b>
<i>14:00 - 16:00</i>	<i>SESSION 6 - DEVELOPMENT OF GUIDANCE &amp; TRAINING/EXPERTISE SHARING OPPORTUNITIES</i>
14:00 - 14:30	ERBF Guidance Framework and guidance development so far (Jovan Andevski, Silvia Espín & Chris Wernham). We will address needs with respect to the Proof of Concept study and the ERBF programme as a whole (in relation to ERSamP).
14:30 - 15:30	Workshop session - What sort of guidance works best for different groups of actors? Each group to work on one actor type e.g. how to get enough carcasses for the PofC study; how to encourage collection of buzzard monitoring data from around Europe to inform the PofC contaminant findings; how to source blood samplings from chicks if we expand the PofC study in future?
15:30 - 16:00	Feed-back from break-out groups.
<i>16:00 - 16:30</i>	<i>COFFEE BREAK</i>
<i>16:30 - 18:00</i>	<i>SESSION 7 - DEVELOPING THE WORK PLAN FOR FURTHER GUIDANCE &amp; TRAINING/EXPERTISE SHARING OPPORTUNITIES</i>
16:30 - 17:00	Capacity building experiences with volunteers for large scale bird surveys and projects in Slovenia (Damijan Denac) - 25 MINUTES + QUESTIONS
17:00 - 18:00	Further work by break-out groups- What sort of capacity building do we need to do (a) for the Proof of Concept study, and (b) to underpin a future successful ERSamP? What products do we need? How could we best implement training / skills sharing for different target groups of actors? Break-out groups by actor type (ringers/contextual data/carcasses etc).
18:00 - 18:15	SUMMARY & CLOSE OF DAY 2
<i>19:00</i>	<i>MEET FOR DINNER</i>



# ERBF Slovenia workshop

## Programme

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<b>Thursday 18 September</b>	<b>DAY 3 - TRAINING METHODS &amp; NETWORK COMMUNICATION</b>
	SHORTER DAY OF WORKSHOP SESSIONS, TO INCLUDE OUTDOOR SESSIONS & SOME TIME FOR INFORMAL NETWORKING
<b>09:00 - 12:30</b>	<b>SESSION 8 - WALK &amp; TALK FIELD SESSION TO EXPLORE OPPORTUNITIES FOR CAPACITY BUILDING &amp; TRAINING</b>
	<i>With discussion questions suggested. The aim will be to have informal small group discussions about existing capacity, skills gaps and opportunities for expanding capacity &amp; training field participants. Ideas will be captured later in the workshop programme.</i>
<b>12:30-13:30</b>	<b>EARLY LUNCH</b>
<b>13:30 - 16:00</b>	<b>SESSION 9 - EUROPEAN RAPTOR SAMPLING PROGRAMME &amp; THE POSSIBLE ROLE OF AMBASSADORS</b>
<b>13:30 - 13:45</b>	Introduction to ERBF communication needs - general and to underpin ERSamP (Chris Wernham)
<b>13:45 - 14:00</b>	The idea of ERBF Ambassadors and their possible roles (Rui Lourenço)
<b>14:00 - 14:30</b>	Other ideas for increasing involvement of the ERBF network (Madis Leivits & Nermina Sarajlic) - 20 MINUTES + DISCUSSION
<b>14:30 - 15:45</b>	Workshop session break-out groups to explore a number of areas of communication
<b>15:45 - 16:30</b>	Feedback from break-out groups and summary of the day.
<b>16:30-17:00</b>	<b>COFFEE BREAK</b>
<b>17:00 - 19:00</b>	Free time to explore before dinner - and more time to fill the templates we wish participants to fill in.
<b>19:00</b>	<b>MEET FOR DINNER</b>



# ERBF Slovenia workshop

## Programme

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<b>Friday 19 September</b>	<b>DAY 4 - FORWARD PLANNING &amp; NEXT STEPS FOR WORKING GROUP 4 (DRAFT PROGRAMME TO BE REFINED)</b>
<i>09:00 - 11:00</i>	<i>SESSION 10 - FINALISING THE FORWARD WORK PLAN</i>
09:00 – 10:00	Task Groups to finalise planning of each work area - how will it be implemented, how will it be resourced, who will lead it /assist?
10:00-10:30	Feedback on plans in plenary.
10:30 – 11:00	General discussion in plenary
<i>11:00 - 11:30</i>	<i>COFFEE BREAK</i>
<i>11:30 - 12:30</i>	<i>SESSION 11 - SUM-UP SESSION AND WIDER DISCUSSION OF WG4 TOPICS/FUTURE WORK</i>
	Discussion of future WG4 work & STSMs – summary to feed back to Guy
12:30 – 13:00	Skype session with Guy Duke, ERB Facility Chair – feedback & discussion
<i>13:00 - 14:00</i>	<i>LUNCH</i>
<i>14:00 - 15:30</i>	<i>SESSION 12 - KEEP FREE AS FORWARD PLANNING SESSION (and contingency time to take account of any slippage)</i>
	<b>All to ensure completion of (1) Excel template on capacity (2) summary of template content for report (3) Capacity building 'offers'</b>
	Planning/writing of workshop report
	Summary of workshop and workshop close
<i>15:30 - 16:00</i>	<i>COFFEE &amp; WORKSHOP CLOSE</i>