



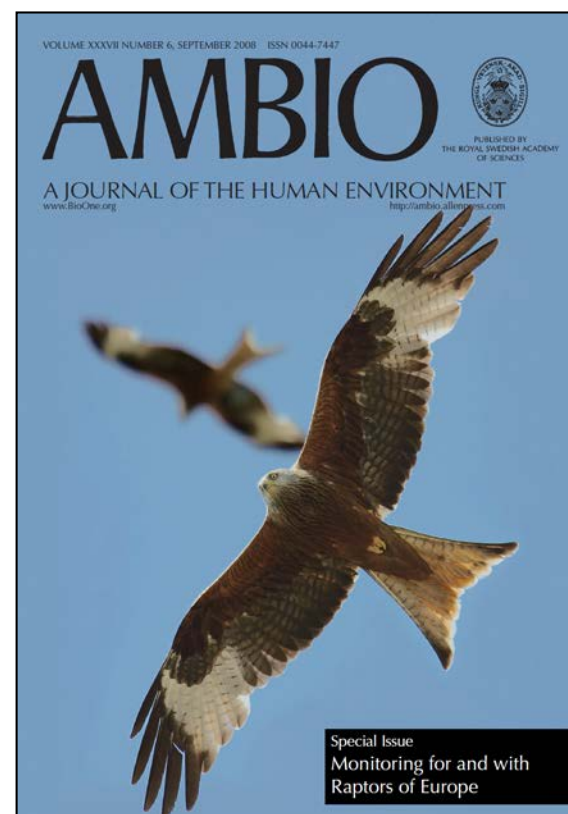
European Raptor Biomonitoring Facility

Guy Duke – Chair
December 2018



A little history

- Workshop, Scopello, Sicily 2006
- Special Issue Ambio 2008
- EURAPMON proposals 2007/08
- EURAPMON 2010-15 (ESF, c.€500k)
 - Network – ecotoxicologists, ornithologists
 - Inventory – raptor monitoring in Europe
 - Reviews – monitoring for, monitoring with raptors
 - Papers – e.g. what samples types to use
 - Protocol – contaminant monitoring with raptors
 - *Acrocephalus* 2017
- ERBFacility proposals Feb & Dec 2016
- ERBFacility 2017-21 (COST, c.€600k)





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 regs 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**
 - labs, ecotoxicologists
- **Collections**
 - NHMs, ESBs, other collections
- **Field**
 - 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**

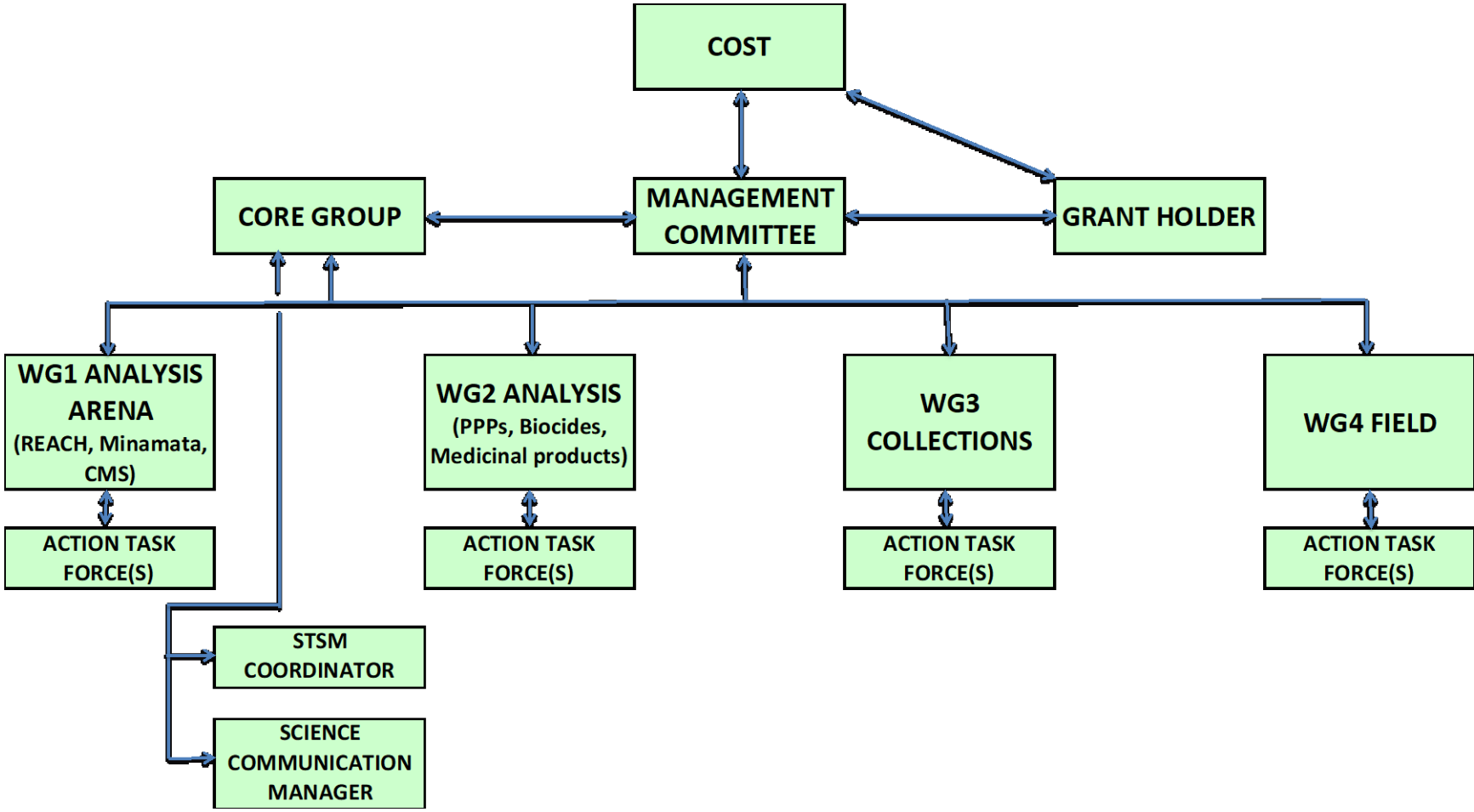


R3 Field Arena: assess current field capacities, develop framework, standards and protocols for **ERSamP**





Management Structure





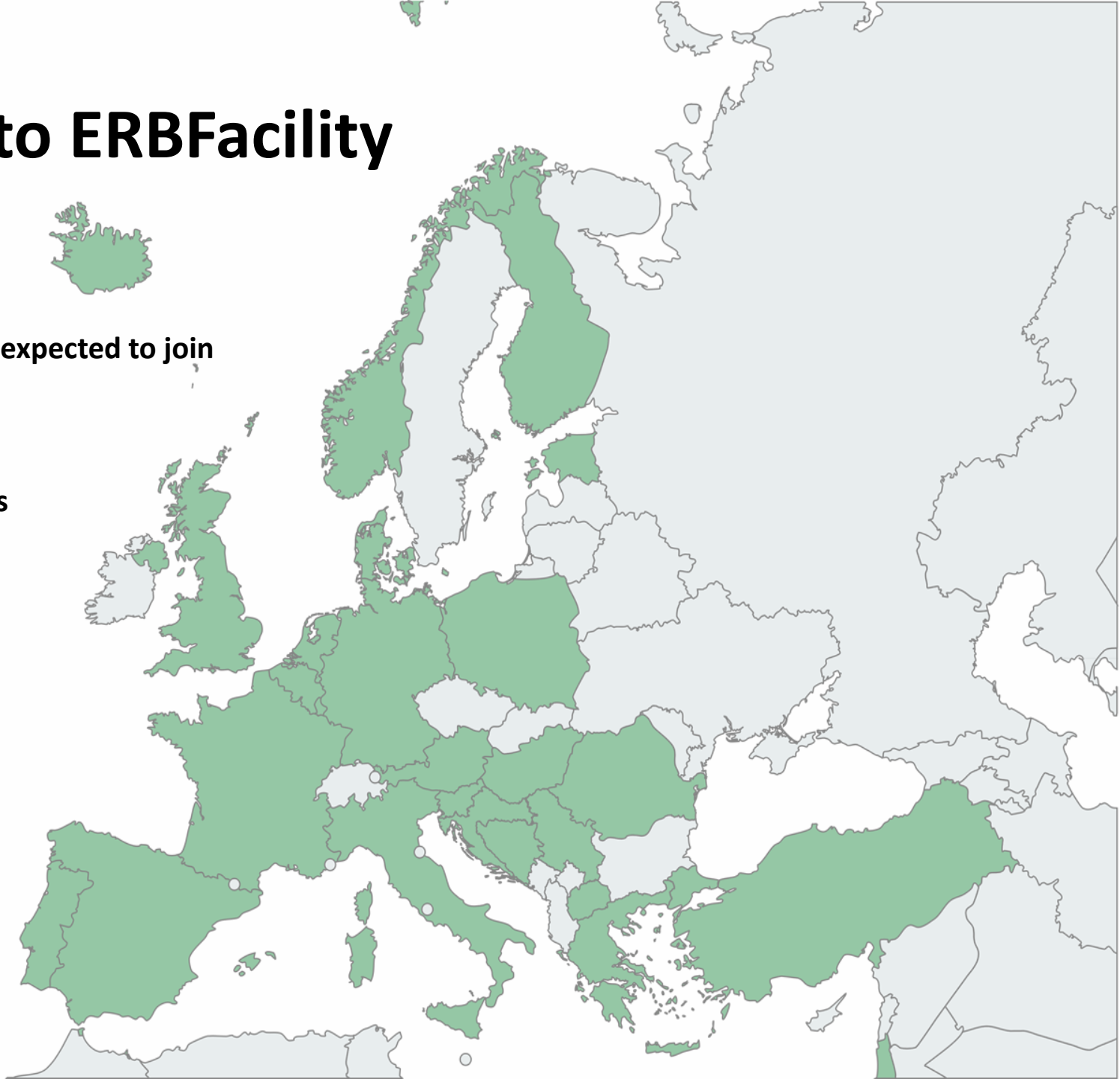
Party

Parties to ERBFacility

26 Parties - more expected to join

45 MC Members

19 MC Substitutes





Relations to existing efforts



[EURAPMON](#) – monitoring for and with raptors



[HBM4EU](#) – human biomonitoring



[NORMAN](#) – monitoring of emerging substances



[IPChem](#) – European platform for chemical monitoring

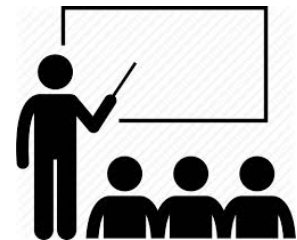


[GBIF](#) – Global biodiversity information facility



COST Activities

- **Meetings**
 - Management Committee & Core Group
 - General and WG meetings
 - Dissemination meetings
- **Short-term scientific missions**
 - 5-90 days
 - ECI STSMs: 91-180 days
- **Training schools**
 - Joint WG 1&2
 - Joint WG 3&4
- **Dissemination and communication activities**





Main Deliverables

- **WGs 1 & 2**
 - **ERBioMS technical specs**
 - Papers – lab analyses capacities, ERBioMS framework
 - Pilot reports – selected substances
 - Proof of concept, guidance for integration with regulatory processes
- **WG3**
 - **ERSpeB technical specs**
 - Meta-database of samples & linked data
 - Guidance – use of collections for contaminant monitoring
 - Papers – collections/constraints, ERSpeB framework
- **WG4**
 - **ERSamP technical specs**
 - Best practice guidance, protocols for sampling
 - Guidance – volunteer recruitment
 - Reports – proof of concept, network of collaborating organisations



Dissemination/exploitation

- Dissemination and Exploitation Plan
- Dissemination and communication tools:
 - Website – www.erbfacility.eu
 - Social media
 - Publications – frameworks, proof of concept reports, tech specs, guidance, protocols
 - High impact papers
 - Media articles
- Exploitation opportunities



European Raptor Biomonitoring Facility



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ERBFacility website launches

Welcome to our new-born
ERBFacility website. We hope
you like it!



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 page](#).



📷 White-tailed eagle *Haliaeetus albicilla*, Mull - Jacob Spinks - CC by 2.0 via Wikimedia Commons

Forthcoming Events

Review of Raptor Collections, Scoping of ERSpeB Framework

10 December 2018 - 12:30

Latest News

LIFE APEX: new €3m project to demonstrate use of apex predators for EU chemicals management

1 September 2018

Latest Tweets



ERB Facility
@ERBFacility



European Raptor
Biomonitoring Facility -
ERBFacility - welcomes
interest to join the COST
Action from suitably qualified
and experienced researchers
and practitioners. Visit
[ERBFacility.eu](#)



View image on Twitter



Oct 15, 2018



ERB Facility
@ERBFacility



ERBFacility is an open
network working towards
coordinated Europe-wide
monitoring of contaminants in
raptors with a view to
supporting the
implementation of EU



MISSIONS TO 30 APRIL 2019

(end of Grant Period 2)

WG3

- **Assessment of the extent of existing raptor collections in Europe** – Gloria Ramello, Museo Civico di Storia Naturale, Carmagnola, Italy - hosted by **René Dekker**, Naturalis Biodiversity Center, Netherlands – Oct 2018 (1 month)

WG1&2

- **Review of existing monitoring data for lead contamination in raptors in Europe** – **Laura Monclús Aglada**, Autonomous University of Barcelona, Spain – hosted by **Oliver Krone**, Leibniz Institute for Zoo and Wildlife Research, Germany – Oct-Nov 2018 (2 weeks)
- **Review of presence, concentrations and bio-analytical methods for emerging and legacy organic contaminants in raptors** – **Soledad Gonzalez Rubio**, University of Córdoba, Spain – hosted by **Veerle Jaspers**, Norwegian University of Science & Technology, Trondheim, Norway – Oct-Dec 2018 (3 months)
- **Review of the detection of veterinary pharmaceuticals in avian scavengers** – **Marta Herrero Villar**, IREC, University of Castilla La Mancha, Spain – hosted by **Mark Taggart**, Environmental Research Institute, Caithness, UK, Jan-Apr 2019 (3 months)



MISSIONS TO 30 APRIL 2019

(end of Grant Period 2)

WG4

- **Review of constraints for collection and sharing of raptor samples in Europe** – **Maria Dulsat**, IDAEA-CSIC Barcelona, Spain – hosted by **Rui Lourenco**, University of Evora, Portugal - dates (75 days)
- **Review of ringing effort in Europe** – **Abigail Maiden**, Northern Ireland Raptor Study Group – hosted by **Jari Valkama**, Finnish Museum of Natural History, Helsinki – Jan 2019 (10 days)
- **Review of protocols to inform best practice guidance for peregrine sampling** – **Lucie Michel**, University of Giessen, Germany – hosted by **Giacomo dell'Omo**, Ornis Italica, Rome, Italy – Jan-Apr 2019 (ECI) (3 months)



MEETINGS TO 30 APRIL 2019

(end of Grant Period 2)

- **10-11 Dec 2018: WG3 workshop** – Review of raptor collections, ERSpeB Framework - Royal Belgian Institute of Natural Sciences, Brussels (c. 18 participants)
- **4-6 Feb 2019: Joint WG1, WG2 WG3 & WG4 workshop** – Developing the scope for pan-European monitoring of contaminants in raptors: prioritisation of species and sample types - Hotel Metropolitan, Thessaloniki, Greece (c. 25 participants)
- **6-8 Feb 2019: WG4 workshop** – Best practice guidance for collecting raptor samples and contextual data - Hotel Metropolitan, Thessaloniki, Greece (c. 35 participants)
- **5-6 Mar 2019, 2nd ERBFacility General Meeting** - Museo La Specola, Florence, Italy (c. 60 participants)
- **7 Mar 2019: 3rd ERBFacility Management Committee Meeting** – Museo La Specola, Florence, Italy (c. 50 participants)
- **8 Mar 2019: WG4 workshop** – Topic to be finalised – Museo La Specola, Florence, Italy (c. 15 participants)
- **Week of 8 April 2019: Joint WG1 & WG2 workshop** - How chemicals in raptors can be used in regulatory risk assessment – Tallin, Estonia (c. 15 participants)