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# ICEDIG

Innovation and consolidation for large scale  
digitisation of natural heritage

# The Details

**Call:** H2020-INFRADEV-1-2017 (Development and long-term sustainability of new pan-European research infrastructures), as a Research and Innovation Action

**Term:** 27 months

**Objective:** To promote new research and technological innovation required to solve the challenges of digitising and seamlessly accessing over one billion objects, which will form a data pool of petabyte scale.

**Project Coordinator:** Finnish Museum of Natural History LUOMUS, Leif Schulman

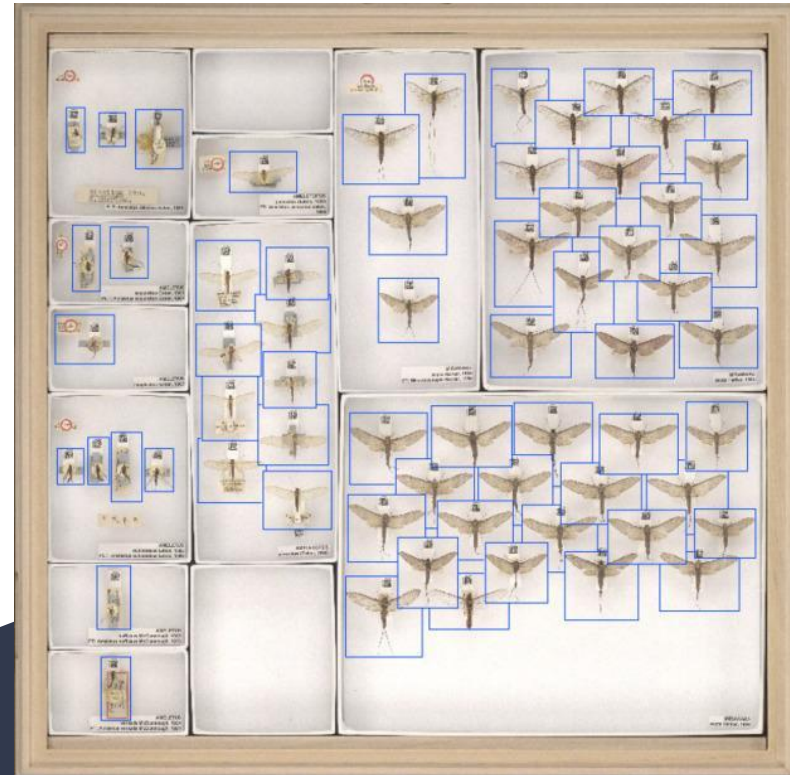
**Partners:** Coordinator +11 partners from 6 other European countries, including CETAF and Picturae





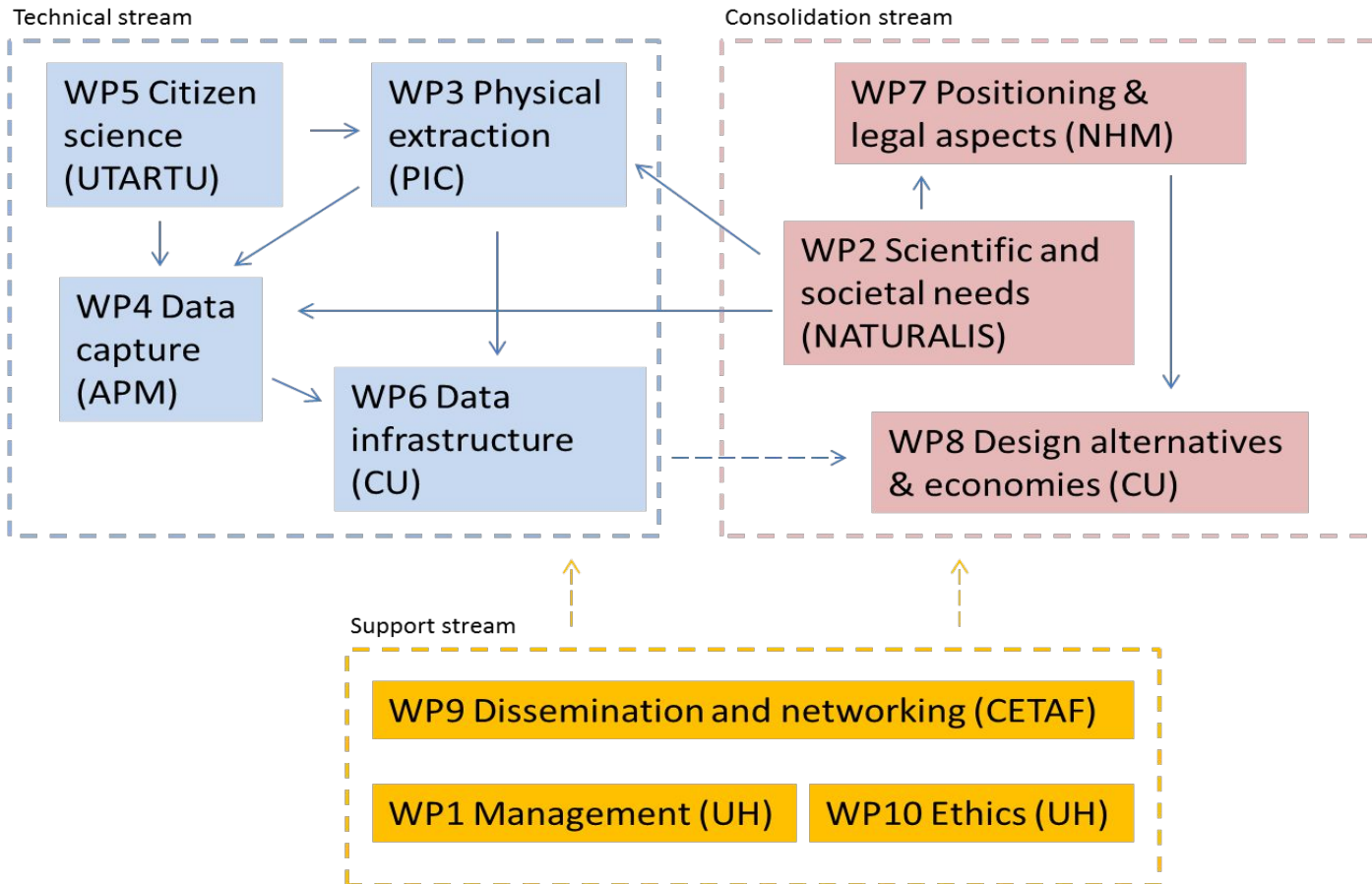
# WHY ICEDIG?

- ❖ Only around 10% of collections have been digitally catalogued and 1-2% imaged
- ❖ Scale and complexity
  - Technological issues
  - Socio-cultural issues
  - Organisational issues
  - Capacity issues



Efficiently digitising and making those data  
accessible

New research and technological innovation



# How is ICEDIG structured?



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# The technical stream

# WP3 – Imaging and other physical extraction

- Task 3.1: Automated mass 2D imaging
- Task 3.2: Automated mass 3D imaging
- Task 3.3: Potential of robotics and automated warehousing
- Task 3.4: Image quality control

Lead - Picturae



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# WP4 – Data Capture

Lead: Botanic Garden Meise

- Task 4.1 – Methods for automated text digitisation
- Task 4.2 – Data quality, verification, validation and enrichment of data
  - Transcription methods
  - Georeferencing methods
  - Linking to nomenclature
  - How do we assign work?
- Task 4.3 – Interoperability with institutional collection management systems
- Task 4.4 – A cost analysis of transcription systems



# WP5 – Citizen science

- Task 5.2: Working with citizens to transcribe and enrich data
- Task 5.3: Digitisation of small collections
- Task 5.4: Improving the detection of collection-based citizen science projects

Lead: University of Tartu



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# WP6 – Data infrastructure

Lead: Cardiff University

- Task 6.1 Open access and data management plan
- Task 6.2 Requirement analysis for DiSSCo data infrastructure
- Task 6.3 Evaluation of EOSC-provided core services



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# The consolidation stream

# WP2 – Scientific and societal needs for digitised data

Lead - Naturalis

- Task 2.1: Inventory of current criteria for prioritization of digitization  
Task 2.2: Inventory of content and incentives for digitisation of small and private collections  
Task 2.3: Design of a collection digitization dashboard



# WP7 – Policy and legal aspects

Lead: Natural History Museum, London



- Task 7.1: Identification, consolidation and harmonisation of national and European policy / legal frameworks
- Task 7.2: The development of a common digital research agenda
- Task 7.3: International convergence



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# WP8 – Design alternatives and economics

Lead: Cardiff University

- Task 8.1: Social effects and capacity building
- Task 8.2: Making organizational and partnership design choices
- Task 8.3: Making technical design choices
- Task 8.4: Gathering costs of construction and operation
- Task 8.5: Governance and business model



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# The support stream

# WP9 – Communication and dissemination

Lead: CETAF

- Task 9.1: Establishment of the engagement strategy
- Task 9.2: Operation of the communication and dissemination platforms
- Task 9.3: Deployment of networking actions
- Task 9.4: Link with cultural heritage
- Task 9.5: Liaising with the research infrastructure landscape



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# Transforming Natural Science Collections for the Digital Age

ICEDIG Opening Conference



**Where:** Helsinki, Finland

**When:** 5 – 6 March 2018

**Hosts:** Helsinki University, Finnish  
Natural History Museum Luomus

**Venue:** Economicum



# LUOMUS

FINNISH MUSEUM OF NATURAL HISTORY



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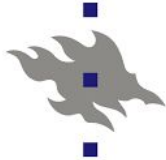


## Project Coordination:

Leif Schulman, Kari Lahti  
& Hannu Saarenmaa



LUOMUS



UNIVERSITY OF HELSINKI



MUSÉUM  
NATIONAL D'HISTOIRE NATURELLE



PICTURAE



Who are ICEDIG?



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Acknowledgements