Andrew Smith, Head of External Relations, ELIXIR

EOSC-Life

Creating EOSC for the life sciences

Modern biological and biomedical research involves complex projects and a variety of different technologies.

Some of the most **important discoveries** are made at the **interface between different life science disciplines.**

A **digital model of biological systems** on earth is now possible by breakthroughs in the technologies that study life at all its different scales

EOSC-Life

An open, collaborative space for digital biology

- Establish EOSC-Life by publishing FAIR life science data resources in EOSC

- Create an ecosystem of innovative life-science tools in EOSC

- Enable ground-breaking data driven research in Europe by connecting life scientists to interoperable European clouds via open calls for participation
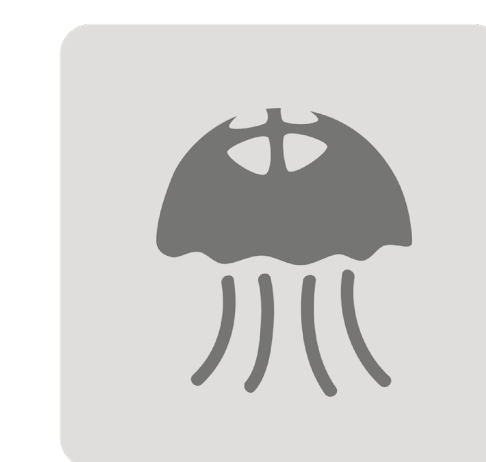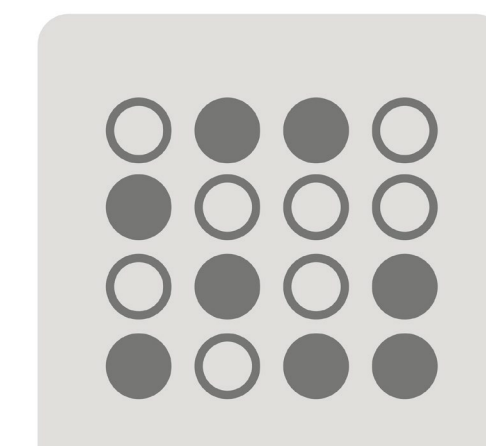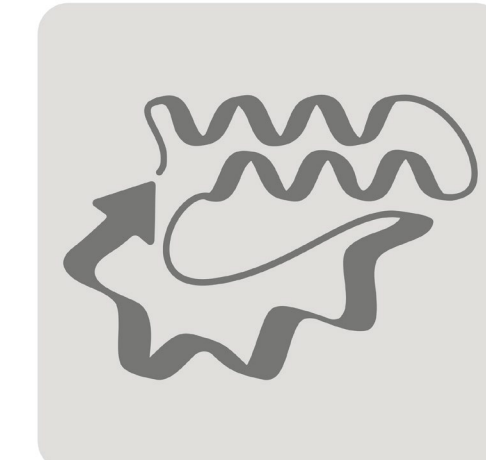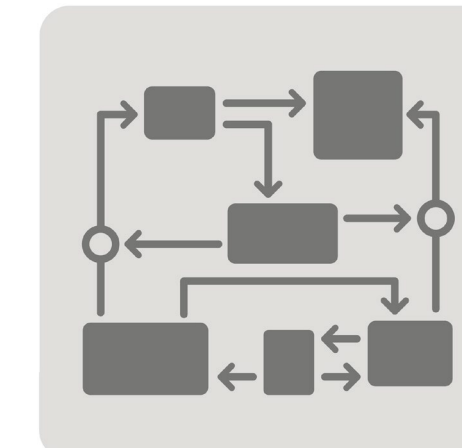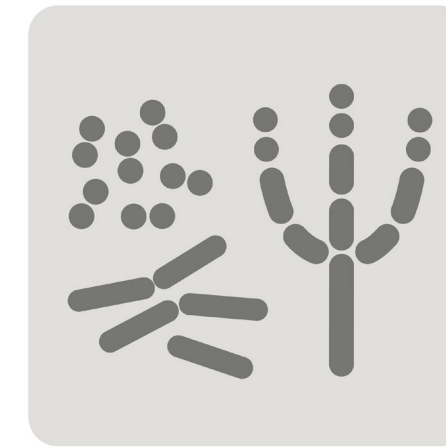
EOSC-Life

EOSC-Life Consortium

- 13 ESFRI Health and Food Research Infrastructures

  - 48 Partners and 18 linked 3rd parties

  - Sourcing e-Infrastructure services from EOSC (Cloud, AAI,…)

- 4 year Project, 23M€

BBMRI-ERIC gateway for health
- biobanks

elixir
- curated databases

EMBRC EUROPEAN MARINE BIOLOGICAL RESOURCE CENTRE
- marine model organisms

ISBE
- systems biology

EMPHASIS
- Plant phenotyping centres

eatris
- translational research

INFRAFRONTIER mouse disease models
- mouse disease models

EU-openscreen Chemical Keys for Life's Locks
- screening & medicinal chemistry

MIRRI
- microorganisms

ECRIN EUROPEAN CLINICAL RESEARCH INFRASTRUCTURE NETWORK
- clinical trials

instruct Integrating Biology
- structural biology
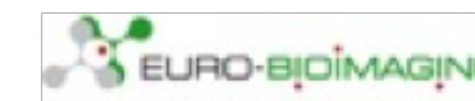
EURO-BIOIMAGING
- biological/medical imaging

erinha European Research Infrastructure on Highly Pathogenic Agents
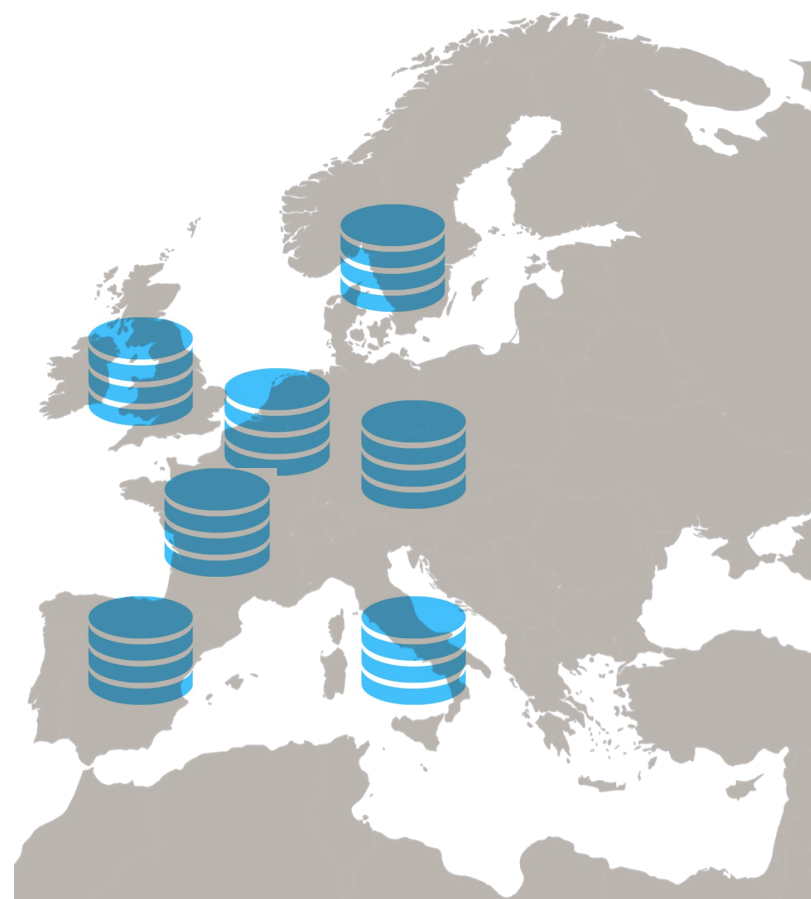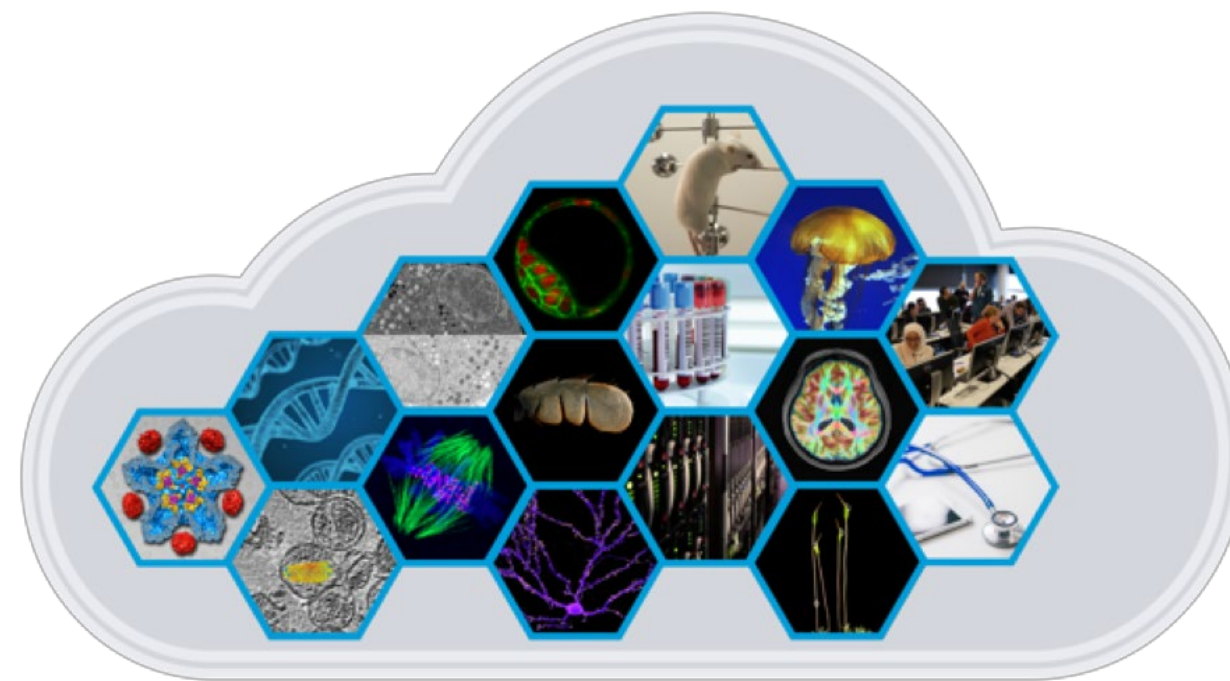- Highly Pathogenic Agents
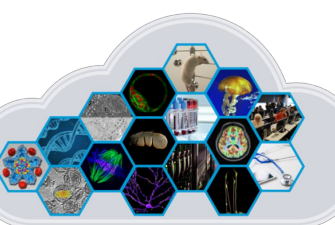
EOSC-Life

Establish EOSC-Life by publishing data and tools for cloud use

- Health and Food RI are **distributed with** many hundred partner facilities across Europe

- Health and Food RI have large community of tools developers across Europe

Publish FAIR life science data in EOSC

Ecosystem of innovative tools in EOSC

Tools Collaboratory

RI data (distributed over facilities)

EOSC-Life

Creating EOSC for the life sciences

- EOSCpilot: EDMI standard for harvesting distributed, FAIR, data and tools

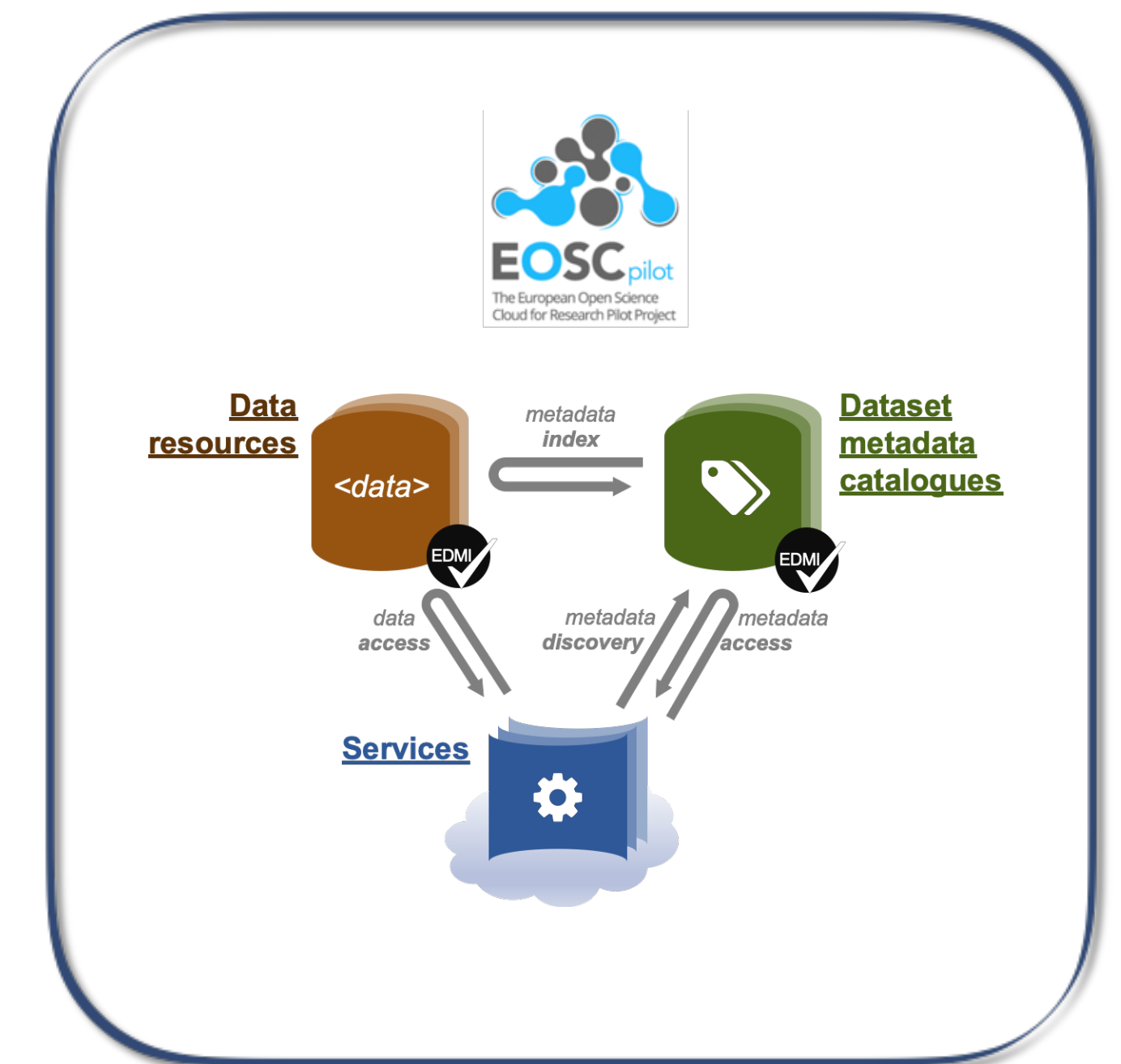- EOSC-Life: Populate the life-science registries that will feed the EOSC catalogues

RI data (distributed over facilities)
Tagged with Bioschemas/EDMI (at source)

Publish FAIR life science data in EOSC

EOSC-Life

Enable ground-breaking data driven research in Europe by connecting life scientists to EOSC
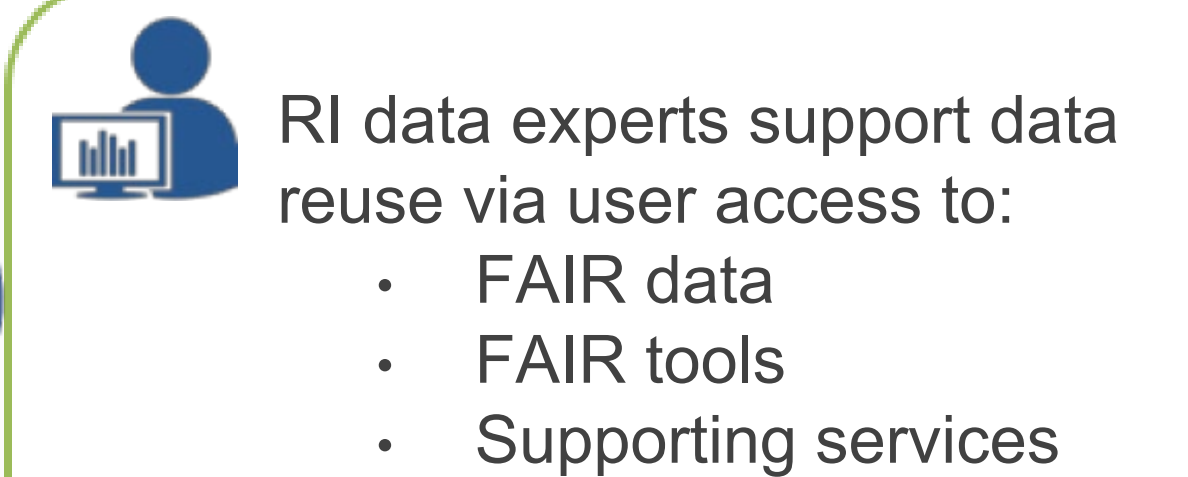

Data Produce Cycle

S. Candiani performing amphioxus egg microinjection

model system amphioxus

research vessel Nereis

RI Users access advanced facilities, samples and services

User access via open calls

Data Reuse Cycle

RI data experts support data reuse via user access to:
- FAIR data
- FAIR tools
- Supporting services

Supported by:
- Common Data Policies
- Common FAIR services
- Common User access
- Common Quality management and Innovation

EOSC-Life

Andrew Smith, ELIXIR

EOSC-Life

Creating EOSC for the life sciences