



Strategy Report on Research Infrastructures
ROADMAP 2018

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Strategy Working Group**

Info Day – 17th January 2017

**Málaga
Spain**

Health and Food Strategy Working Group

Health and Food Sector

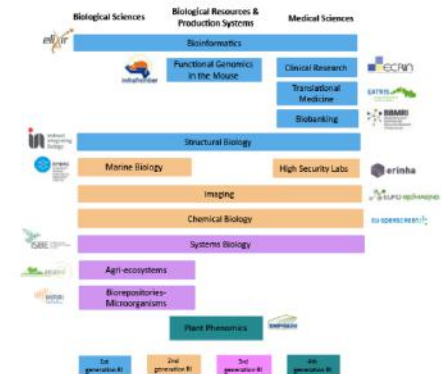
- **The economic impact of investments in large-scale biomedical research, e.g. 3.75 bn € investment in the Human Genome Project, has spurred an estimated 900 billion € in economic growth.**
- **The bioeconomy is estimated to be worth at least 2 trillion € in the EU.**
- **Distributed Research Infrastructures are at the heart of these and other large investments in the sector.**



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The Health and Food landscape keeps evolving and our challenges remain

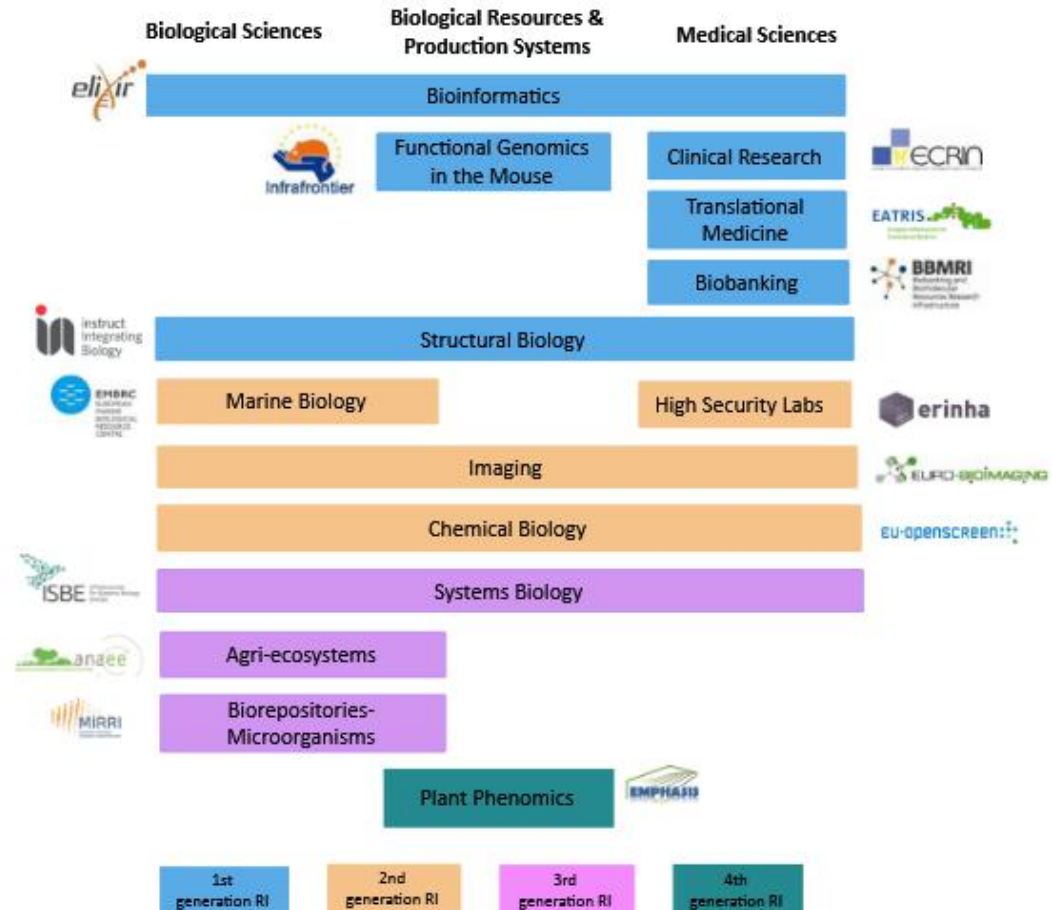
- There is a rising demand for health care in Europe and worldwide, brought by an ageing population with increased disease burden, especially with chronic diseases.
- The global demand for food is predicted to increase 50% by 2030 and 100% by 2050. We need to produce more food, prevent and manage livestock pathogens, improve nutritional and health benefits of foods, make food accessible and affordable, globally, and minimise food waste.



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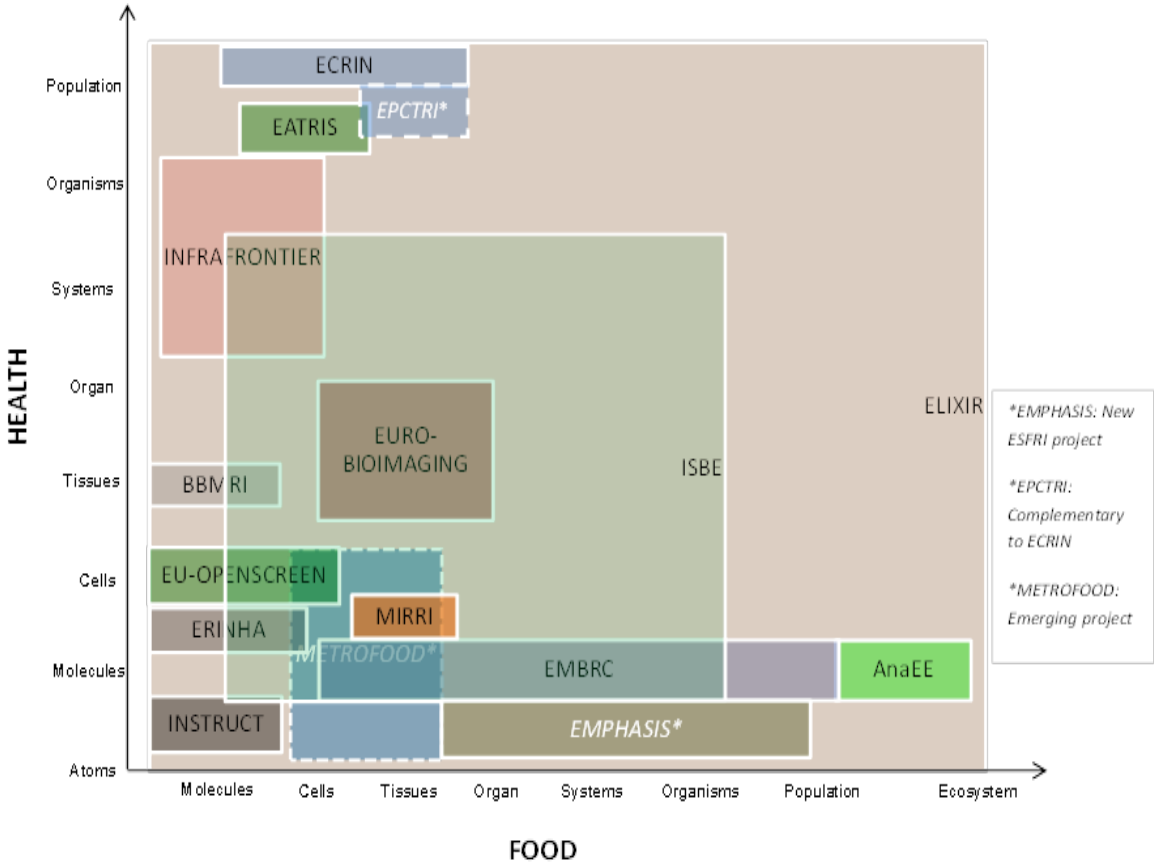
Health and Food Landscape

Landmarks and Projects



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The indicative position of ESFRI RIs relative to the different levels of organisation in the 'Health and Food'



Landmarks and Projects

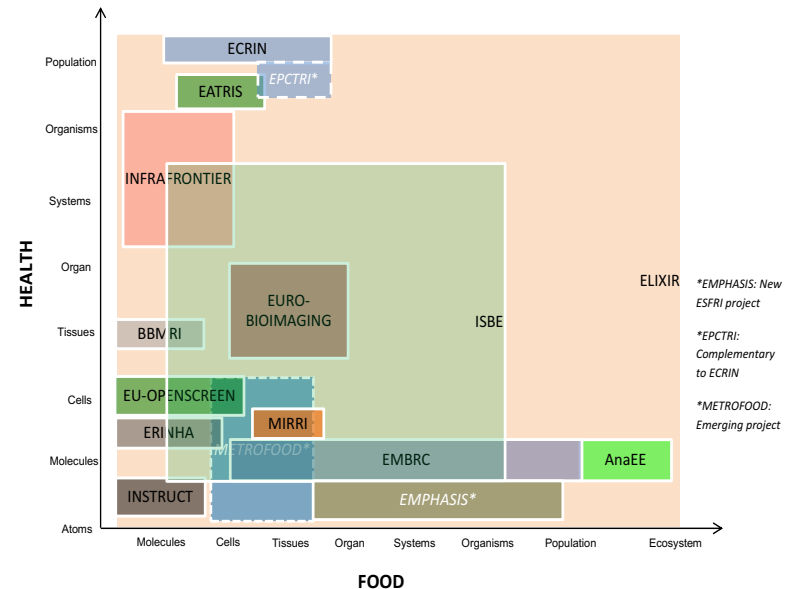
Complementary Emerging

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Since 2002, significant impact of ESFRI on RI landscape. This is highly visible in Health and Food.

Now the impact of Health and Food landscape is visible in the ERA

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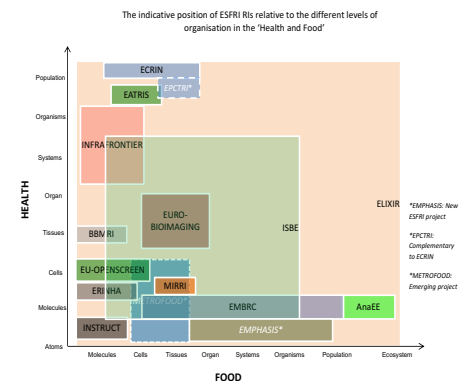


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Landmarks and Projects

...are contributing to building the European Research Area:

- Pan-European **open access** to cutting-edge technology platforms for academia and industry
- Interdisciplinary research across Europe, **harmonising and standardising** the research landscape and reducing fragmentation
- Translating findings from **basic science to new applications** in health, food and bioeconomy sectors
- High **interoperability** of research processes, creating seamless value chains
- **Opportunities** to maximise the competitiveness of Europe's knowledge-based industry – e.g. the pharmaceutical and biotechnology industries
- **Training and education** to future professionals in the life sciences;
- Attracting and retaining **world-leading scientists**
- **International impact** and outreach
- Helping co-ordinate national RI **budgets and leveraging** additional MS investments



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Working at the boundaries

New opportunities and new questions

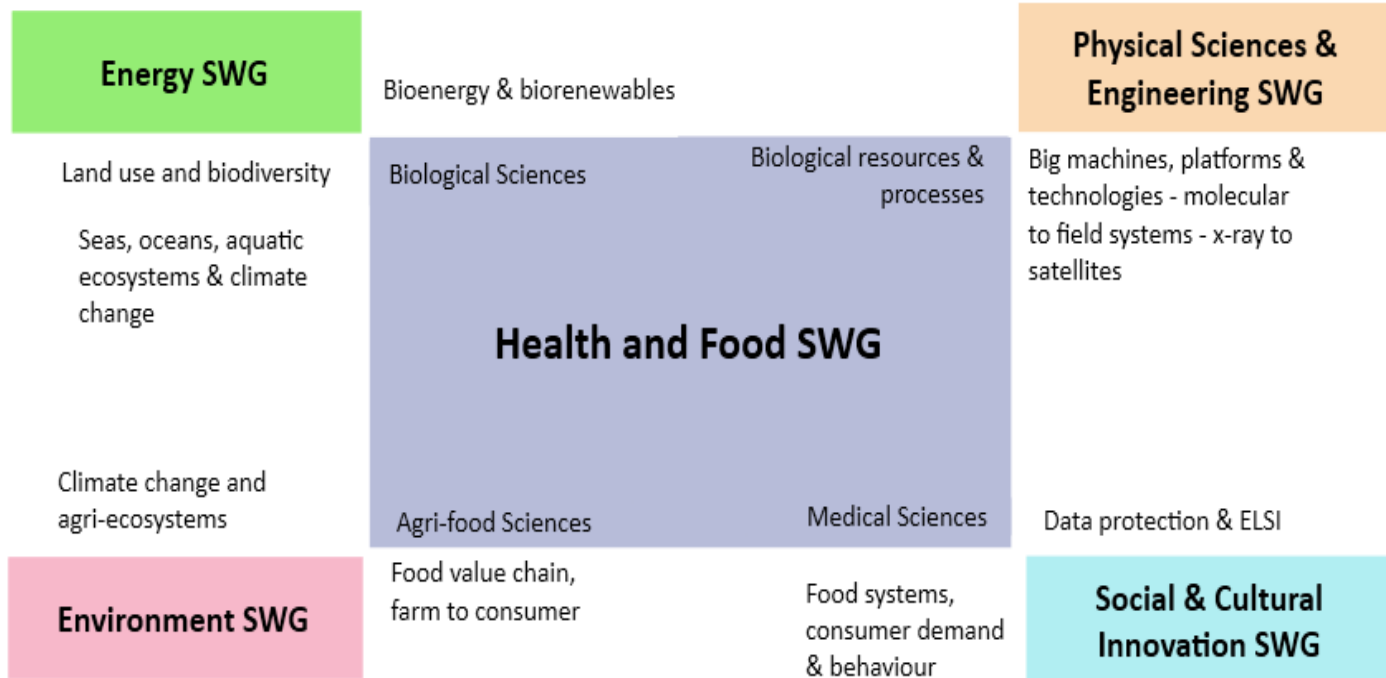


Fig 6: Some interconnections of Health and Food Strategic Working Group Remit with other domains

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Working at the boundaries

New opportunities and new questions

CONNECTING THE LANDSCAPES

e.g. from ageing to food systems; from food and non-food systems to satellites

Our Landmarks and Projects have a role in this

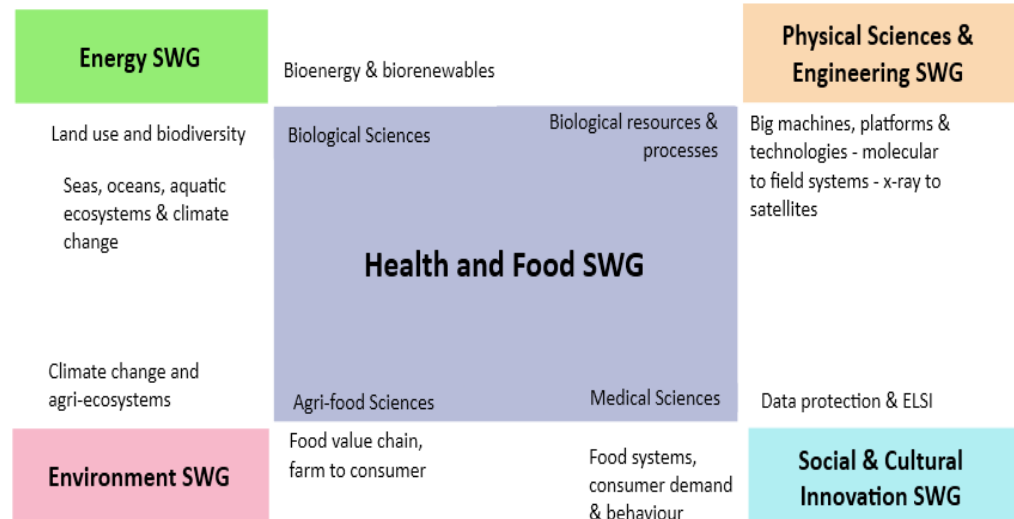


Fig 6: Some interconnections of Health and Food Strategic Working Group Remit with other domains

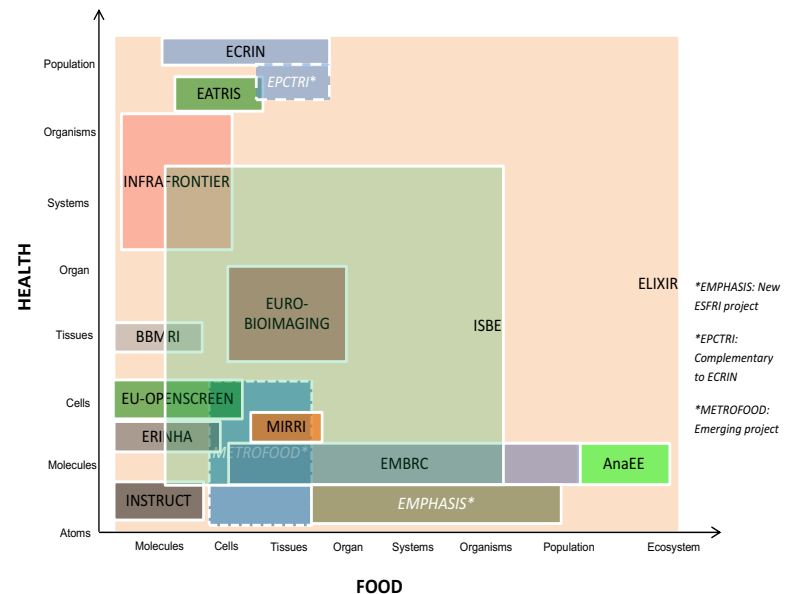
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Landscape analysis

In brief

- Update the landscape analysis (Sep 2016 – Sep 2017)
- Provide an overview of RI ecosystems
- Identify gaps and promote inter- and cross- disciplinary aspects
- Explore complementarities and effectiveness at the boundaries
- Forward look and trends

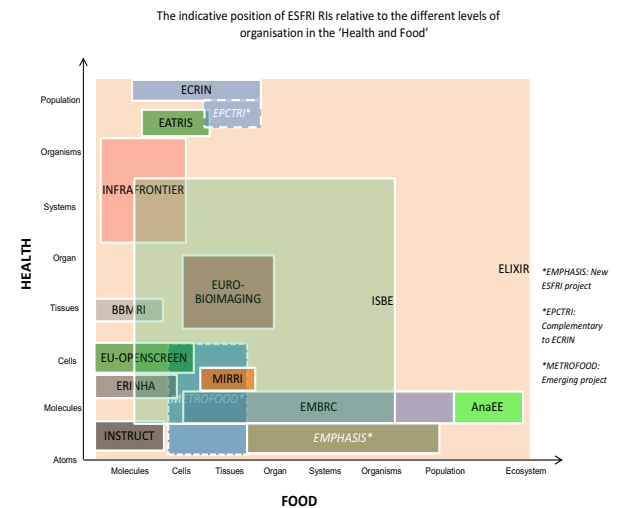
The indicative position of ESFRI RIs relative to the different levels of organisation in the 'Health and Food'



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Towards a methodology for measuring socio-economic impact of RIs

From generic...
to Health and Food specific



Aligned to value of RIs and connected to investment strategies

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Towards a methodology for measuring socio-economic impact of RIs

- **Direct benefits:** Positive impact directly made by RIs
 - Examples: directly created jobs; direct outputs from using RI service; reduced time for data acquisition etc.
- **Indirect benefits:** Positive impact resulting indirectly from the *RIs* (*negative impact avoided due to the existence and use of RIs*)
 - Examples: commercial supplier's turnover due to procurement of equipment/resources for RI, reduced duplication of effort as a result of using RI services etc.
- **Near term benefits:** Benefits received in the near term (up to 5 years)
 - Examples: publications, professionals trained etc.
- **Long term benefits:** Benefits received in the longer term (beyond 5 years)
 - Examples: new spin offs as a result of scientific output through the use of RI services,
- **Private benefits:** Benefits to individuals and stakeholders directly affiliated to the RI
 - Examples: financial benefit to RIs, publication in journals, theses etc.
- **Public benefits:** Benefits to individuals and stakeholders not directly affiliated to the RI
 - Examples: impact on policy decisions as a result of research outcomes etc.

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The landscape keeps evolving – our challenges remain urgent

- How will RIs continue evolving to respond to these?
- What will the future user needs be?
- European leadership and Internationalisation
- Visibility and Embedding
- Individuality, Connectivity and Convergence

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