

FEAST

Food systems that support transitions to healthy and sustainable diets



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the European Union**

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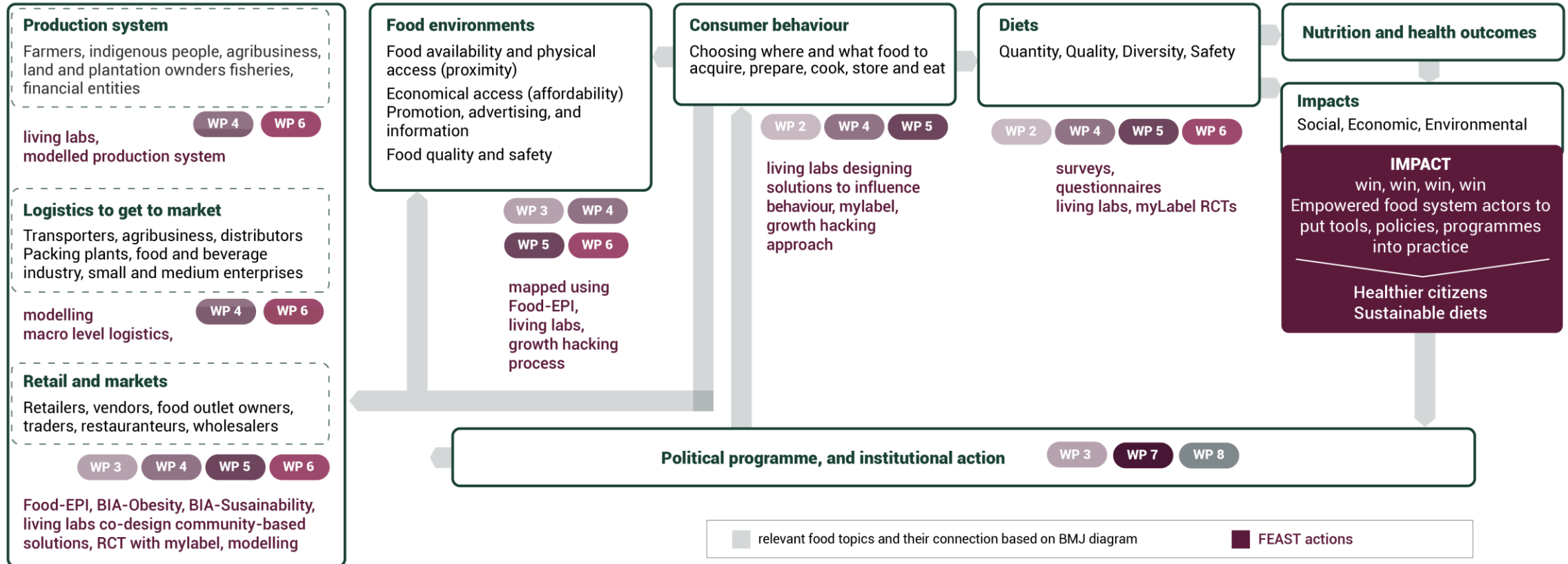
Value & Food Systems

Value = outcomes/cost



Food Systems

FOOD SUPPLY CHAINS





What outcomes do we **need** food systems to achieve?

Humans

- Increased food security
- Better health

Environment

- Improve soil health
- Improve biodiversity
- Reduced GHG
- Optimised H2O use
- Improved land use

Economy

- Increased employment
- More just distribution of revenue
 - Farmers
 - Small businesses



One Health¹

an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems.



What do our food systems cost?

Land
Minerals (soil)
Fresh Water
Carbon
Methane
Plants
Animals
Money
Health
...



What Value **should** Food Systems Deliver?

Make it easy for all people in Europe to eat delicious, healthier and more sustainable food



What Food Systems **SHOULD NOT DO**

People: LOSE

- Poor-quality diets - leading cause of death and a top contributor to Non-Communicable Disease (NCD – high BP, diabetes, obesity/overweight)
 - NCDs: ~75% of all diseases in Europe
 - NCDs: ~ 85% of all deaths in Europe
- Entrench health inequalities

Environment: LOSE

- 26% of global greenhouse gas (GHG) emissions
- 50% of global habitable land use
- 70% of freshwater use
- 78% of eutrophication
- 60% of biodiversity loss

Public Sector/Society: LOSE

- EU governments spend about €700 billion/year to treat NCD
 - ~70% of the ~€1 trillion (7-10% of GDP) EU governments spend annually on healthcare
- Cost of overweight/obesity to increase from \$2 trillion to \$4 trillion by 2035

Large Multinationals: WIN

- Processed foods sales: ~\$350 billion, ~7% profit margin
- Soft drinks – sales: ~\$100 billion, ~14% profit margin
- Fast food – sales: ~\$75 billion, ~13% profit margin

<https://www.frontiersin.org/journals/sustainable-food-systems/articles/10.3389/fsufs.2022.1039127/full>



FAIR in FEAST

FEAST Data Management Objectives

FAIR (Findable, Accessible, Interoperable and Reusable) and ‘as open as possible, as closed as necessary’ will be FEAST’s guiding principles.

Deliver FEAST’s project objectives through the safe, effective and efficient use of data, FEAST focuses on four overarching objectives for data management:

1. To maintain responsible conduct of research across all WPs, including strict compliance to ethical guidelines and safe data management.
2. To ensure there is a strong process in place for protecting data and IP, following the rules ‘as open as possible, as closed as necessary’.
3. To ensure that findings are actively shared with the FEAST Consortium’s key stakeholders.
4. To harmonize and standardize data according to the requirements of FEAST.



FAIR in FEAST

Making data findable, including provisions for metadata, the F in FAIR

To make data findable, the data must be described by metadata; a good description of the data sets is the prerequisite for identification and thus findability.

Data sets including publications will be publicly available. A persistent identifier (PID), such as Digital Object Identifiers (DOI), will be used for naming and locating documents, data, and software in a consistent manner.

PIDs can identify many different entities:

- **Digital** - Documents, data, software, services
- **Physical** - People, instruments, artefacts, samples
- **Conceptual** - Organizations, projects, vocabularies



FAIR in FEAST

Making data accessible, the A in FAIR. Data Repositories and Metadata

FEAST partners are already using different repositories for the deposition of their research data.

Code will be stored at partner Git repositories.

The following Table shows the first collection of trusted data repositories that will be further explored for use in FEAST.

Table: List of trusted data repositories that will be further explored by the FEAST team

Repository Name	Hyperlink
Mendeley Data	https://data.mendeley.com
Zenodo	https://zenodo.org
FigShare	https://figshare.com
GitHub and/or GitLab to publish code	https://github.com/ , https://gitlab.com/



FAIR in FEAST

Making data accessible, the A in FAIR. Data Licence and Metadata

Based on FEAST partner requirements and the data is collected:

- we explore different options with the Data Protection Officer (DPO) of FEAST partners to determine restrictions on data use, how access will be provided to the data and how the identity of the person accessing the data be ascertained
- we use systematically, and obligatory, open licensing models (mainly CC-BY)
- the licensing models will be applied to publications, content, data and code



FAIR in FEAST

Making data interoperable, the I in FAIR.

FEAST partners use common vocabularies and protocols to ensure FEAST data aligns with other datasets in the sector.

There are several protocols that can be used to facilitate these processes, including:

- MAXQDA - a software program designed for computer-assisted qualitative and mixed methods data, text and multimedia analysis
- Community-endorsed ontologies, such as used by FAO, based on <https://www.fao.org/agrovoc/about>
- Data content (structure, period, sample population, etc.) will be described using the Data Documentation Initiative (DDI) standard and a methodological overview (.docx)
- CESSDA – European social science research protocols
- OpenAIRE Guidelines - <https://guidelines.openaire.eu/en/latest/>

If no suitable vocabularies or protocols can be found, or if they are not suitable for the data collected in FEAST, mappings to more commonly used standards will be carried out.



FAIR in FEAST

Increase data re-use, the R in FAIR.

Documentation needed to validate data analysis and facilitate data re-use will be provided as soon as relevant data sets are published.

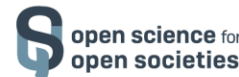
FEAST's research partners will provide readme files, study protocols and analyses in an analytical plan document (e.g., data cleaning steps) with all relevant information to enable validation of the data analysis as well as facilitate data re-use.

This can include, but is not limited to:

- information on methodology (methodology documents) (e.g. WP2, WP3 and WP4)
- codebooks, software manuals (e.g. WP6)
- protocols on data cleaning, analyses, variable definitions, units of measurement (e.g. WP2, WP3 and WP6)
- definitions and clear contact information



FEAST Consortium





Thank you!

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