FNS - Cloud

Food Nutrition Security

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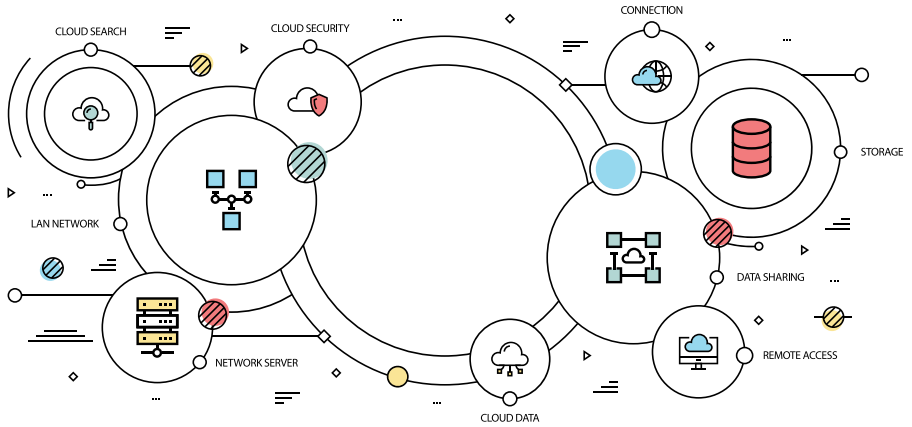

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Food Nutrition Security Cloud (FNS-Cloud) has received funding from the European Union's Horizon 2020 Research and Innovation programme (H2020-EU.3.2.2.3. – A sustainable and competitive agri-food industry) under Grant Agreement No. 863059 – www.fns-cloud.eu

FNS-Cloud vision

FNS-Cloud will help overcome European research fragmentation by integrating and federating existing food nutrition security (FNS) data, tools and services (resources), to provide added value FAIR data that can reduce knowledge gaps, facilitate better research and exploitation, inform policy, and help deliver sustainable diets to European citizens.

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FNS-Cloud Consortium

- 35 beneficiaries
- 11 EU Member States (AT, BE, BG, DE, DK, ES, GR, IE, IT, NL, and SI), UK, Serbia, & Switzerland
- Research organisations including universities
- For-profit and non-profit SMEs and Associations
- IT specialists, FNS researchers and social scientists, lawyers, science communicators, multiplier organisations

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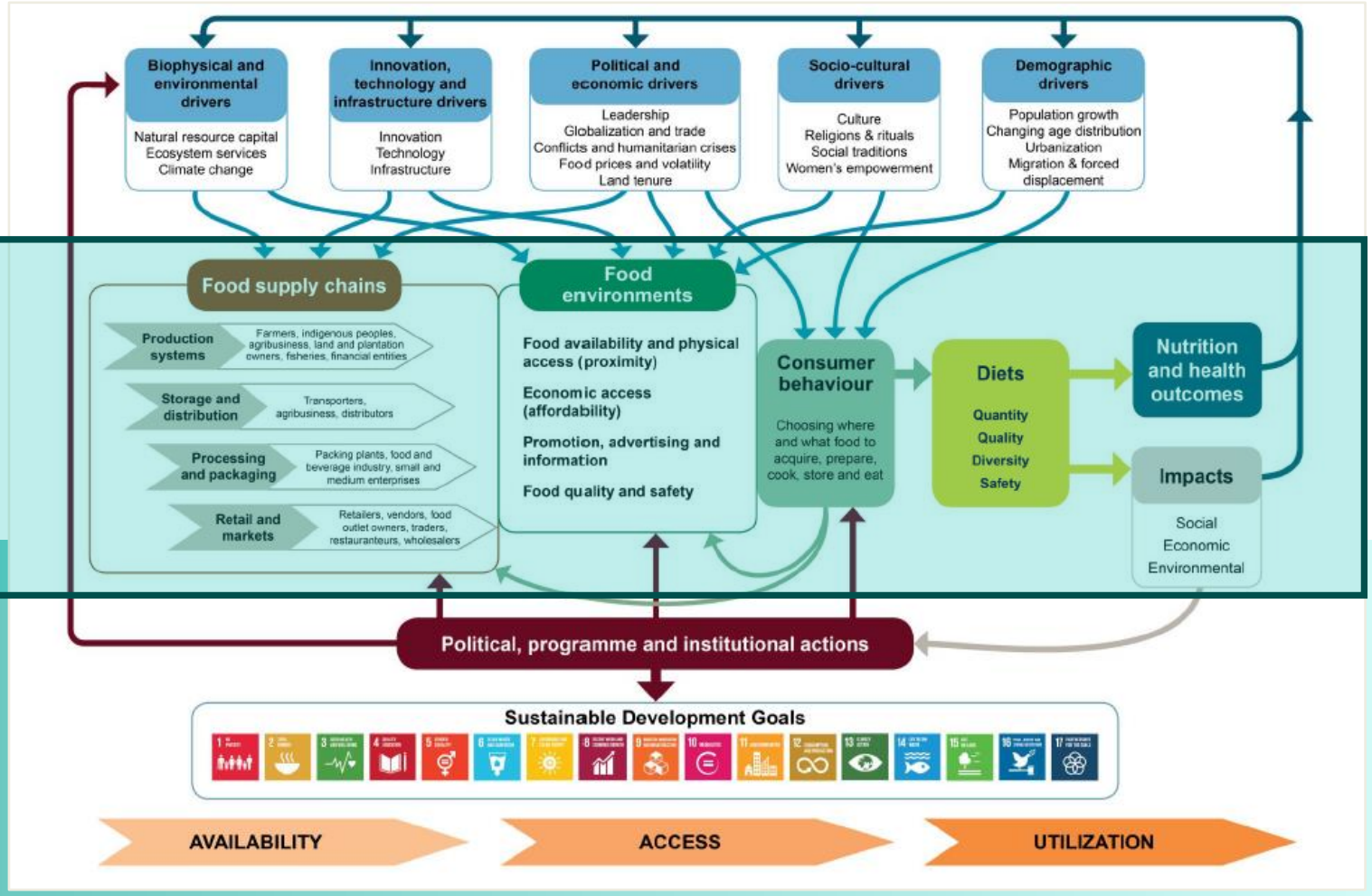
Supporting Dietary Behaviour Change



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FNS-Cloud in the food and health landscape

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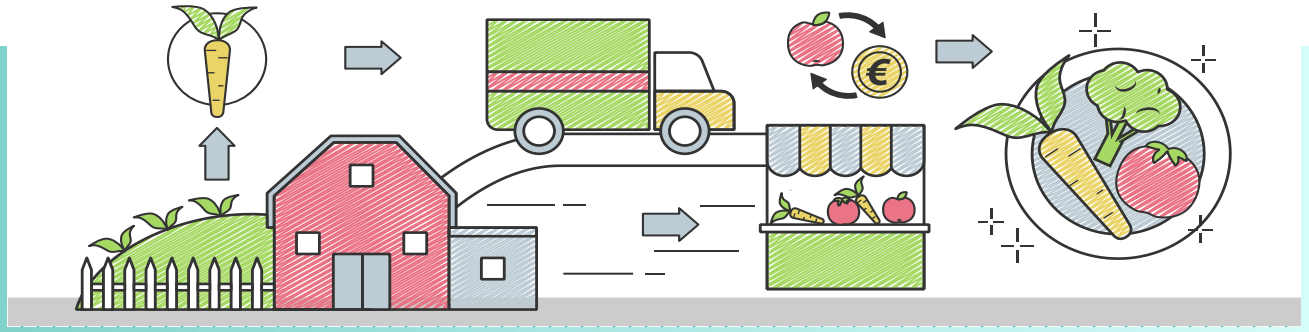
FNS-Cloud Use Cases & Field Trials

Nine use cases and field labs focus on:

- Making existing and emerging FNS data FAIRer
- Generating proof-of-principle data where none exists
- Testing the FNS-Cloud infrastructure, tools, and services



Existing data, use cases to develop …

- Food traceability & metrology search engine (milk, olive oil, fish) (ENEA, IT)
- Food labelling data and reformulation tools (branded foods db) (NUTRIS, SI)
- Total diet studies risk assessment (consumers, professionals) (RIVM, NL)
- Food intake, consumer behaviour & lifestyle (mapping tool, merging strategies, data quality and usability assessment) (UCD, IE)
- Lifestyle and NCDs cohort data (type 2 diabetes risk) (HUA, GR)

Emerging or no data, field trials to fill gaps …

- Novel dietary intake and behaviour tools (24 h recall ethnic groups) (UCD, IE)
- Novel dietary intake and behaviour tools (eNutri FFQ, elderly) (UoR, UK)
- Family meal planning (Lifely, IT)
- Healthy diets for healthy microbiome (QIB, UK)
- Alert classification system for food-diet-drug interactions (IMDEA, ES)

API feeding food composition data EuroFIR's 39 global FCDB to Blue-Cloud

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Demonstrators that will:

- Be tested amongst user communities
- Address any limitations and implement improvements
- Analyse advancements in TRL and performance

FNS-Cloud Demonstrators

Bringing use cases and field trial data, knowledge, tools, and services together to answer research questions

- Agri-food data and tools (DEM01) – traceability, metrology, labelling, (re)formulation, and benefit:risk
- Nutrition & Lifestyle (DEM02) – intake, behaviour, purchase, preparation, consumption, and composition
- Non-communicable diseases and microbiome (DEM03) – healthy diets, healthy microbiome, risk for T2D, food-drug interactions

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FNS-Cloud Education, Training and Support

Delivering education, training, and support to enhance skills and build confidence amongst user communities

- **Train-the-trainer programme** at hubs across EU (IFA-ISEKI - AT, ILSI-Europe - BE, EFFoST - NL, and EuroFIR - BE)
- **Community of Practice** (myFNSCloud), a bespoke online platform, hosting elearning, resources, and networking activities (EuroFIR - BE, UWTSD - UK)
- **Work-based learning** to enhance professional practice (UWTSD – UK)
- **Annual conference and social media** (EuroFIR - BE, UWTSD - UK, ILSI-Europe - BE, EFFoST - NL)

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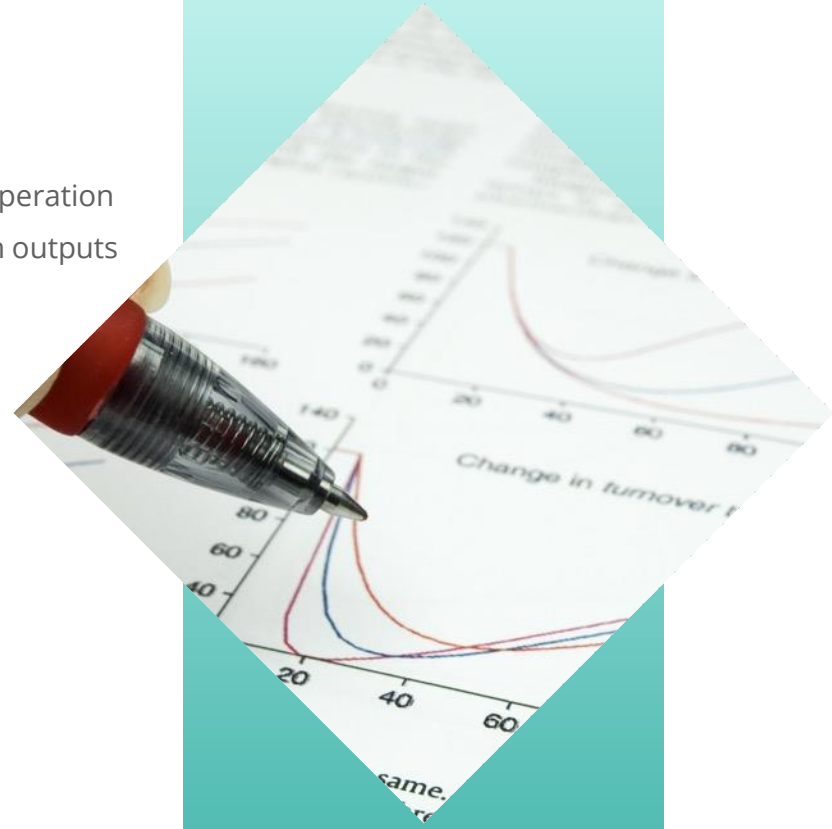
Expected Impacts

Outputs of the project

- Improved professional skills and competencies and confidence
- Increased trans-national and trans-interdisciplinary exchange/ cooperation
- Greater emphasis on user-communities and user-centred research outputs
- Sustainability (cloud, users, potential to grow)
- Scientific excellence globally and employments opportunities



Uptake of recommendations

- Measurable increase in FNS data FAIRification
- Facilitation of dialogue and exchange amongst user communities
- Improved and more frequent exchange with stakeholders
- Improved health in older adults, prolonging quality-of-life
- Sustainable food chain generating safe, nutritious, affordable foods

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THANK YOU
Food | Nutrition | Security | Cloud