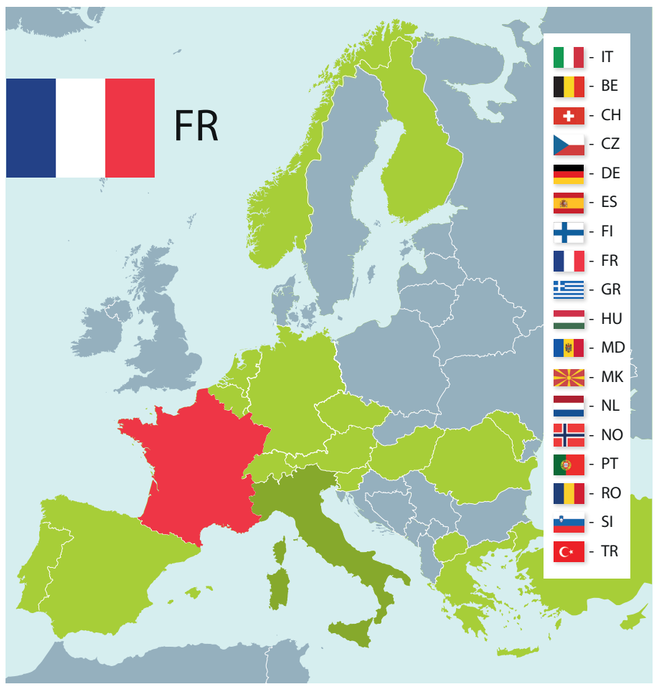


METROFOOD·FR

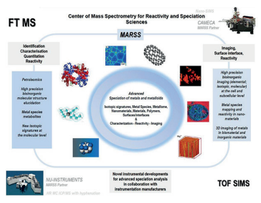
The French Node of METROFOOD-RI

- To enhance quality and reliability of measurement results
- To make available and share data, information and metrological tools
- To enhance scientific excellence in the field of food quality & safety
- To strengthen scientific knowledge, promoting scientific cooperation and integration

PARTNERS

Université de Pau et des Pays de l'Adour (UPPA)

UPPA contributes to the PRO-Metrofood project by means of the Center of Mass Spectrometry for Reactivity and Speciation Sciences (MARSS).
The MARSS – IPREM facilities is an exceptional analytical plateform with unique analytical prototypes such as for isotopic determination, a MC HR ICP/MS (Nu 1700), a NanoSIMS fitted with a unique O- probe for advanced metal assessment. It also features a unique high resolution Mass Spectrometer with 2 of the latest Orbitrap generation.
MARSS is located in the IPREM Institute physically and administratively. The overall expertise of the institute is related with inorganic, metal- lomics, isotopic and imaging in environmental samples, biota and food.



www.univ-pau.fr

LABORATOIRE NATIONAL DE MÉTROLOGIE ET D'ESSAIS (LNE)

The French National metrology Institute (LNE) is a research infrastructure bringing the expertise in support of the reliability and comparability of analytical data.
This will imply the provision of reference values for the certification of reference materials and for proficiency testing schemes as well as quality assurance tools mainly applied to the fields of inorganic and organic contaminations and nanoparticles characterisation.
For trace metals analysis, LNE develops and applies primary methods such as isotope dilution (ID), which is a method with the highest metrological qualities the operation of which can be completely described and understood, and for which a complete uncertainty statement can be written in terms of SI units.

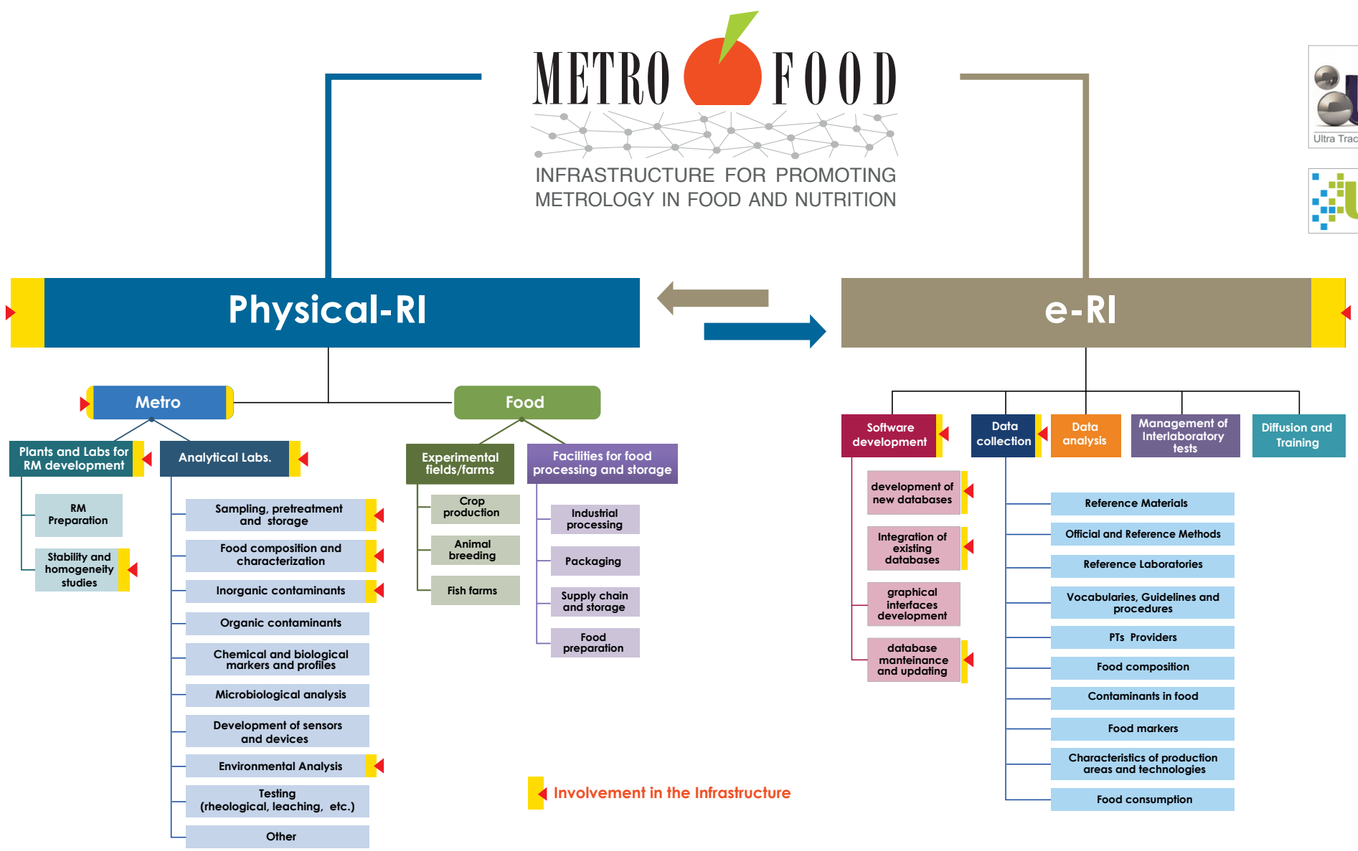
www.lne.eu

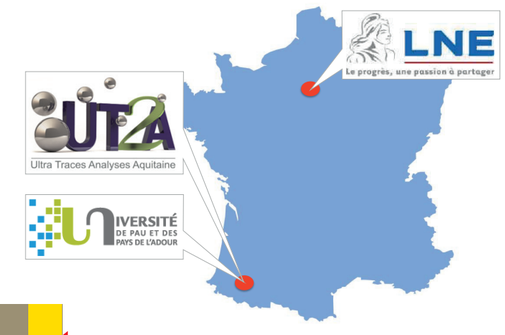
Ultra Traces Analyses Aquitaine (UT2A)

ADERA-UT2A (non-profit organization) is a technology transfer laboratory resulting from the will of scientist to provide innovative analytical solutions in the field of environment, food, biomedical and pharmacopeia with their expertise in analytical chemistry.
Analytical services provided by UT2A-ADERA are trace element determination, speciation analysis, bio-molecules and nanoparticles characterization.
UT2A main customers are from major industries, SMEs and public organizations but also works as subcontractor for major analytical laboratories from their expertise in speciation analysis.

www.ut2a.fr

METROFOOD
INFRASTRUCTURE FOR PROMOTING METROLOGY IN FOOD AND NUTRITION





Pre-existing value:
- **23.896 k€, out of which 2.338 k€ at METROFOOD-RI disposal**
- *Involved researchers:* **Tot. 7 units (3,1 FTE)**
- *Research Areas:* **Trace element analysis, Speciation analysis, Nanoparticles analysis, Isotopic analysis**

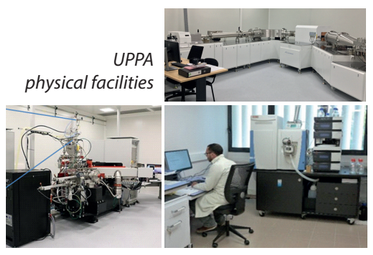
Physical Facilities

Analytical Labs

UPPA

The main analytical facilities involved in the METROFOOD project are the HR resolution ICP/MS, the Orbitrap platform, and the NanoSIMS.

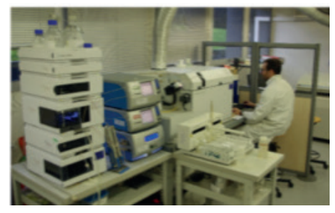
UPPA physical facilities



UT2A

The facilities involved in METROFOOD-RI are 4 ICP-MS that can be coupled to HPLC and GC, 1 ICP-AES, the different nanoparticles analysers (DLS, SP-ICP-MS, A4F-MALLS-ICP MS) and all the materials available for sample preparation.

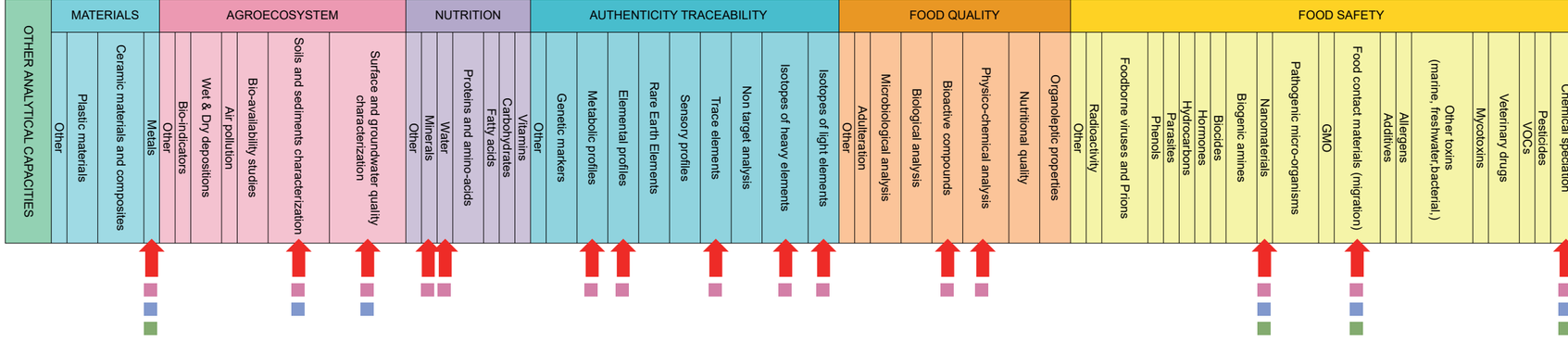
UT2A physical facilities

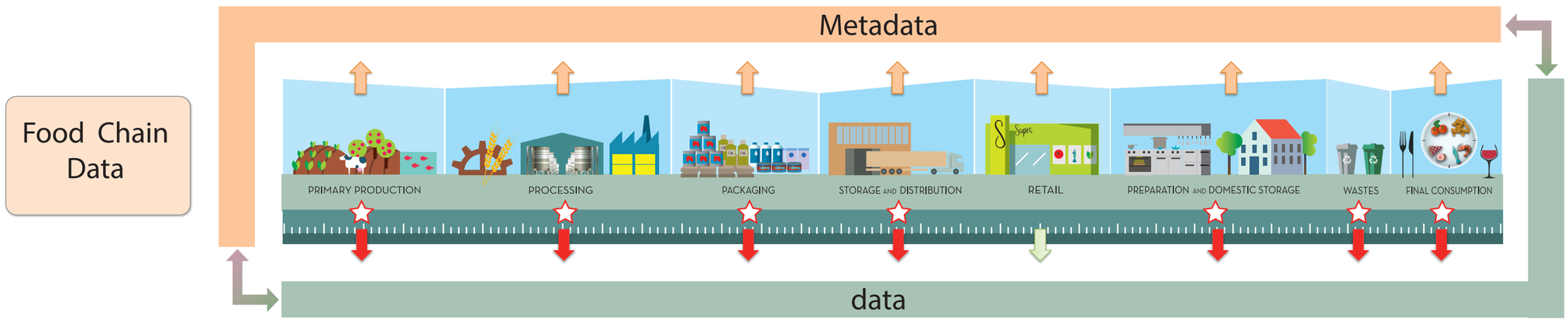


LNE

For trace metals analysis, LNE develops and applies primary methods such as isotope dilution (ID) in combination with ICP-MS (either quadrupole or high resolution), which is a method with the highest metrological qualities the operation of which can be completely described and understood, and for which a complete uncertainty statement can be written in terms of SI units.

LNE physical facilities





ESFRI
European strategy Forum on Research Infrastructures

METROFOOD-PP project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871083.

Contact **Olivier DONARD**
Institute / Address **Center of Mass Spectrometry for Reactivity and Speciation Sciences IPREM CNRS UMR 5254, Université de Pau et des Pays de l'Adour, Hélioparc Pau Pyrénées 2 avenue du Président Angot, 64053 Pau Cedex 9**
E-mail **olivier.donard@univ-pau.fr**
http://recherche.univ-pau.fr/fr/competences-et-expertises/labellisations/equipex-marss.html
National webpage address **www.metrofood.fr**