

**P07: DEVELOPMENT AND DELIVERY OF A PILOT SERVICE
FOR THE PHYSICAL INFRASTRUCTURE OF METROFOOD-RI**

Ogrinc N.¹⁾, Zappa G.²⁾, Zoani C.²⁾, Donard O.F.X.³⁾, Séby F.⁴⁾

¹⁾ Jozef Stefan Institute (JSI) – Department of Environmental Sciences Jamova 39, 1000 Ljubljana (Slovenia) –
nives.ogrcinc@ijs.si

²⁾ Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) –
Sustainability Department (SSPT) – METROFOOD-RI Coordination Office - C.R. Casaccia, Via Anguillarese 301, 00123
Roma (Italy) – giovanna.zappa@enea.it, claudia.zoani@enea.it

³⁾ University of Pau and Pays de l'Adour (UPPA/CNRS) – IPREM/UMR 5254 - Hélioparc Pau-Pyrénées, 2 avenue du
Président Angot, 64053 PAU cedex 9 (France) – olivier.donard@univ-pau.fr

⁴⁾ Ultra Traces Analyses Aquitaine (UT2A) – Hélioparc Pau-Pyrénées, 2 avenue du Président Angot, 64053 PAU cedex 9
(France) – fabienne.seby@univ-pau.fr

METROFOOD-RI - “*Infrastructure for Promoting Metrology in Food and Nutrition*” is composed by a Physical (P-RI) and an electronic infrastructure (e-RI). PRO-METROFOOD project (H2020 INFRADEV-02-2016, GA n. 739568), which represents the “Early Phase” of METROFOOD-RI, foresees a specific task aimed to develop a pilot service with the related pilot access to demonstrate the actual capability and added-value of METROFOOD-RI to supply services and to test its inter-operability acting as organised *Physical-RI*. In particular, the pilot service consists in the development of new *Multipurpose-Reference Materials* (RM) of food products. Two RMs of rice (rice grains and rice flour, starting from raw materials of the same origin) and a RM of oyster tissues have been prepared and widely characterised for many different parameters including: nutrients, main organic contaminants, pesticides, inorganic constituents, toxic elements, speciation analysis, stable isotopes and markers of origin/authenticity, etc. This interlaboratory comparison will help to provide certified, reference or information values for these different parameters. The matrix-analyte(s) combinations have been selected based on: current availability of RMs; main needs of new RMs in relation to food safety, food authenticity and/or food composition; and main needs in terms of analytical challenges. The selected materials are related to critical issues either for the environmental quality control (coastal zone) or directly in close correlation with some of the most consumed types of food, at European level and also on a worldwide basis. In addition, the preparation of *multipurpose-RMs* represents an innovation itself, paving the way to the development of new RMs collecting together information and certified, reference or information values for many different parameters. The RM characterization has been performed in cooperation with Laboratories from different METROFOOD-RI Partners (ENEA, CNR, INRIM, ISS, CREA, UniBS – IT; INSA – PT; IBA – RO; CIDETEC – SP; UPPA, LNE, ANSES, UT2A – FR; AUTH – GR; CULS – CZ; USZ – HU; TUM – DE; JSI, NIB, UP SRC – SI; IJZHP, FASF – MK; WIV-ISP – BE; TUBITAK – TR; DAS – MO). The inter-laboratory studies used for the RM characterisation, will give also the possibility to better set up the service of provision of Proficiency Testings and to give indications on how to organise and manage the services of PT provision & management. Homogeneity and stability studies under thermal and luminous stress are on going.

PRO-METROFOOD project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 739568.