



The Hungarian 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

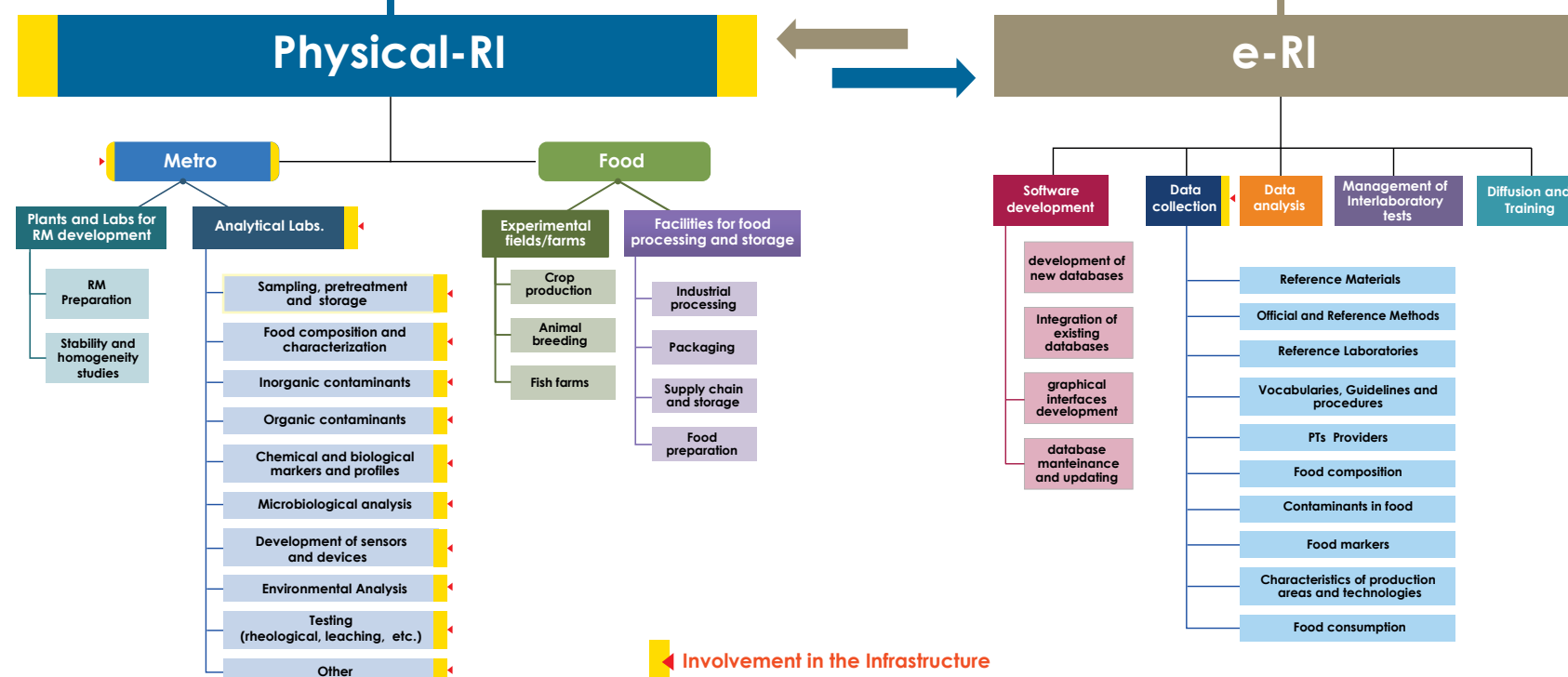


USZ - University of Szeged



The University of Szeged is one of Hungary's leading and internationally ranked higher education institutions. The most renowned scientist of the Alma Mater is Albert Szent-Györgyi, who extracted vitamin C from Szeged paprika, and was honoured with the Nobel Prize in Medicine and Physiology for the results he achieved in Szeged in 1937. The Nobel laureate scientist has worthy followers: excellent teachers and researchers at the University continue to pass on their knowledge to young students, educating generations for life. As one of the best regional universities, we have achieved noteworthy results in an international dimension thanks to our research investments with a future vision and research portfolio. We have built up strategic partnerships with a number of organizations active in industry, particularly in the field of research and development, and Europe's most modern laser centre is currently under construction here. The University has 7,000 employees, including 2,500 teachers and researchers, and almost 25,000 students. The Applied Chemistry Department has been founded in 1950 aiming at the teaching of "chemical technology" and related disciplines. After 52 years of existence major diversification can be observed in the teaching: besides the classical chemical technology, including unit operations and appliances as well, the department became accredited in "zeolite catalysis" and "environmental protection technology" for graduate students. There is a significant increase in the number of facultative disciplines comprising from "microporous and mesoporous materials" in particular zeolites, "carbon nanotubes" in material science over "quantum chemistry" to selected topics in applied mathematics like "differential equations in chemistry".

www.u-szeged.hu



Pre-existing value:
• tot. 10.832 k€

Involved researchers:
• tot. 65 units (8,8 FTE)

Physical Facilities

Analytical Labs



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At the Department the following instruments can be found: Spectroscopy (UV – VIS), Atomic force microscopy (AFM), Mechanical analysis (DMA), Raman-UV-Vis probe, Gas chromatography and mass spectrometry (GC-MS), Infrared spectroscopy and microscopy (FT-IR), Thermostates, N₂ sorption equipment (BET), Thermogravimetry (TG-dTG-DTA), Transmission (TEM-ED) and Scanning electron microscope (SEM-EDX) with X-ray diffractometry (XRD).



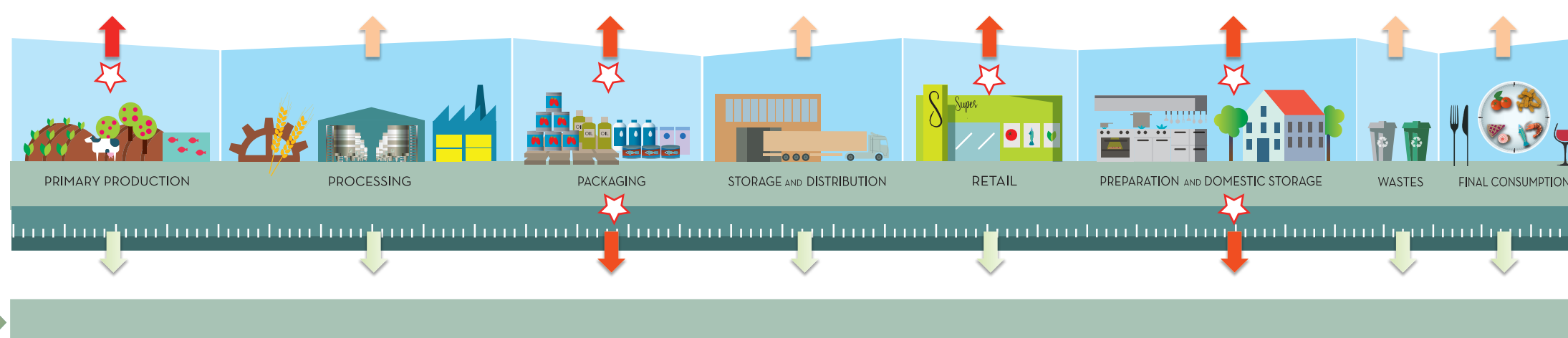
Electronic Facilities

Software

- Data Base / Data Calculation
- Calculation / Data Processing
- Modeling / Data Integration
- E-learning platforms
- Other e-facilities

ANALYTICAL CAPACITIES																															
FOOD SAFETY																															
Trace elements																															
Chemical speciation																															
Pesticides																															
VOCs																															
Veterinary drugs																															
Mycotoxins																															
Other toxins (marine, freshwater, bacterial,)																															
Allergens																															
Aditives																															
Food contact materials (migration)																															
GMO																															
Pathogenic micro-organisms																															
Nanomaterials																															
Biogenic amines																															
Bioindicators																															
Hemolysis																															
Hydrocarbons																															
Parasites																															
Phenols																															
Foodborne viruses and Phages																															
Radioactivity																															
Other																															
Organoleptic properties																															
Nutritional quality																															
Physico-chemical analysis																															
Bioactive compounds																															
Biological analysis																															
Microbiological analysis																															
Adulteration																															
Other																															
Isotopes of light elements																															
Isotopes of heavy elements																															
Non target analysis																															
Trace elements																															
Sensory profiles																															
Rare Earth Elements																															
Elemental profiles																															
Metabolic profiles																															
Genetic markers																															
Other																															
Vitamins																															
Carbohydrates																															
Fatty acids																															
Proteins and amino-acids																															
Water																															
Minerals																															
Other																															
Surface and groundwater quality characterization																															
Soils and sediments characterization																															
Bio-availability studies																															
Air pollution																															
Wet & Dry depositions																															
Bio-indicators																															
Metals																															
Ceramic materials and composites																															
Plastic materials																															
Other																															
OTHER ANALYTICAL CAPACITIES																															

Food Chain Data



Food Quality & Safety Data

