

## STRATEGY FOR VIRTUAL NETWORKING

### Outline of the strategy for Virtual and Hybrid Networking

Evaluation and selection criteria of Virtual Networking Support (VNS) and Virtual Mobility Grant (VMG) established by the MC are available on the website ([link here](#)), where the Strategy approved by the MC for each GP can be downloaded.

The Strategy for Virtual Networking of GP4 is built on a continuity basis with respect to GP3. An in-depth analysis of the Grant Period 4 (GP4) Grant Agreement Period Goals (GAPGs) corresponding to MoU Research Coordination (RCO) and capacity building (CBO) objectives identified in the Implementation plan of GP4 has revealed that some objectives could not be achieved using traditional networking tools and would benefit from virtual and hybrid networking activities.

In particular, the following objectives are addressed:

- The challenge: Collection of information about participants, research topics, instrumentation, experience
- RCO2 Development of procedures/methodologies for analysis by joint experimentation and realization of interlaboratory studies
- RCO3 Realization of experiments on defined/specific kinds of samples/model samples realized on purpose
- RCO4 Comparison of results, procedures and methodologies of TXRF with AAS and ICP;
- RCO6 Identification of the most relevant topics needing standardization (to get into markets, labs, instrumentation) and connection with the relevant WG, and selection of the available expert(s) of the specific WG or sub group involved in the development of method/procedure to draft the WD of ISO (CEN) New project (NP).
- RCO7 Identification of possible fields of interest for specific applications and single use instrument/sample prep devices;
- RCO8 Collection of data of TXRF analysis & comparison with other techniques and survey in the METROFOOD network for users/uses of TXRF and identification of other fields of application;
- CBO1 Organizing workshop, summer schools, courses
- CBO3 Training and joint research for young and less experienced researchers from ITC, recent groups, developing countries, women on relevant (social/env) topics
- CBO5 Identification of lacks for TXRF to be traceable at the chemical/physical level and the needs to be proposed as primary chemical method to CCQM and collect results to support the proposal
- CBO6 Include/open to different approaches and evaluate possible roadmaps for the fulfillment of stakeholders needs
- CBO7 Monitoring the number/gender of ITC action participants constantly with time, aiming to an increasing trend

A top-down approach is applied to identify specific activities that would benefit from virtual and hybrid approaches, enhancing the effectiveness of traditional networking tools in addressing the associated GAPGs. Extensive consultation with WG leaders is conducted to

identify and select Action members to organize, coordinate, and finalize these activities, ensuring the relevance and effectiveness of the virtual and hybrid networking tools.

Additionally, a bottom-up approach is implemented to provide support for ongoing collaborative research activities and facilitate completion of the related outcomes. This approach encourages active engagement and participation from all members, fostering a comprehensive and inclusive contribution to the overall goals of the Action. Voluntarily proposals from Action members aligned with GP4 GAPGs are collected and evaluated, with priority given to submissions from young researchers and ITC countries.

By combining both top-down and bottom-up approaches, the Virtual & Hybrid Networking strategy aims to create a cohesive and dynamic environment for effective collaboration. It leverages the expertise and insights of Action members while addressing specific needs and objectives outlined in the Action Implementation Plan.

To promote broader participation, a hybrid mode is implemented for all in-person events, enabling an expanded reach and enhanced engagement. This approach aligns with the strategy's overarching objective, which is to complement traditional collaboration methods within the ENFORCE-TXRF research and innovation.

### **Virtual & hybrid networking Support**

VNS in GP4 covers the following activities:

- Extensive consulting with WG leaders and Action members to prepare the Virtual & hybrid networking strategy (In attachment to this application).
- Distributing among the Action MC members and the COST Science Officer strategy on virtual networking for the entire Action, subject to MC approval.
- Supporting the MC in the discussions and planning of virtual and hybrid events and collaboration activities.
- Assisting in the selection of hosts for the virtual and hybrid networking events and collaboration activities, or act as host if no one is available.
- Assisting the selected hosts in preparation and coordination of online events and collaboration activities (including the analysis of technical needs).
- Overseeing the selection of the most appropriate virtual and hybrid tools for each specific activity promoting broader participation, enhancing engagement, and expanding reach capitalizing also on the available contents.
- Supporting the Science Communication Coordinator to make available the main outcome from awarded grants by means of social media.
- Coordinating the evaluation and selection process of the Virtual Mobility Grants.
- Reporting the activities at MC Meetings.

### **Virtual Mobility Grants**

All Action Members are communicated through the dedicated Google Group that it is possible to submit VM Grants application throughout the whole GP4. VM Grants in GP4 address the following:

#### 1) Research coordination

Design and coordinate an interlaboratory test involving laboratories equipped with different analytical techniques to analyse samples of interest for the METROFOOD community. This aims to assess the performance and comparability of TXRF analysis with other techniques (RCO2, RCO3, RCO4, RCO8).

Conduct a survey within the METROFOOD ESFRI Community to understand the current use of TXRF for elemental analysis. This will provide insights into the adoption and potential areas of improvement for TXRF in the research community. Collection of data from the various Action

Surveys to be presented in a report that will remain available on the Action website. (RCO2, RCO3, RCO4, RCO8).

Collect and analyse the results of all surveys conducted during the Action and compile them into comprehensive reports. These reports will be made available to the Action members on the website, fostering knowledge sharing and dissemination (RCO7).

Perform a literature review on TXRF applications for the analysis of solid samples using assisted suspension techniques. This will provide an overview of the current state of research and identify gaps or opportunities for further exploration (RCO7).

Develop and apply a statistical analysis procedure for elemental concentration data obtained through TXRF, focusing on medical and biological samples. This will enable robust data interpretation and enhance the reliability of TXRF analysis in these application areas (RCO7, RCO8).

## 2) Capacity building & stakeholders' engagement

Conduct a virtual mentoring activity focused on capacity building and skill development related to the setup of TXRF instruments. This activity aims to enhance the knowledge and expertise of Action members in utilizing TXRF technology effectively. The outcomes of the mentoring activity will be shared with the Action members through the website (CBO1, CBO3).

Perform activities to advance knowledge in the TXRF analytical chemical measurement process (CMP). This includes identifying and describing critical issues in the components, parameters, and steps involved in qualitative, screening, and quantitative analysis with TXRF. The findings from these activities will contribute to the development of a roadmap for the standardization of TXRF within ISO. This roadmap will include normative documents and guidelines for standard operating procedures (RCO6, CBO5, CBO6)