CITIZEN SCIENCE IN SERVICE OF THECLIMATE CHANGE ADAPTATION – Workshop Event

This important event is comprised of two lectures and one main workshop on Citizen science in service of the climate change adaptation

SCHEDULE OF THE WORKSHOP EVENT

1. **Welcome speech: CIT representative - 10 min**
2. **Lectures: Smart Cities – 45 min**
3. **Lecture: Science – Society relations: RRI and UNESCO frameworks in a time determined by AI – 45 min**
4. **Short break – 15 min**
5. **Workshop: Citizen science in service of the climate change adaptation – 3 hours**
6. **Closing session: - 15 min**

1) **Lectures:**

A) Smart Cities; approaches, digital and social tools

by
Dr. Eugen Musta
Head of Business Administration Department, CIT

B) Sustainable development goals and ISO standards for smart cities

by
Dr. Enriko Ceko
Head of Business Administration & IT Department, CIT

2) **Lecture:**

Science – Society relations: RRI and UNESCO frameworks in a time determined by AI

by
Dr. Dobrivoje Lale Eric
Head of International Cooperation
Center for the Promotion of Science (CPN)
Belgrade, Serbia

Conceptually from 2010 and practically since 2014, the Responsible Research and Innovation policy (RRI) has been shaping European R&I environment during the period covered mostly by the Horizon 2020 program. Novel framework – Horizon Europe – is looking (far) beyond the existing scope, trying to create a functional symbiosis with the UN's Sustainable Development Goals policy (SDGs). Although core elements and key RRI values are already integrated, the question remains how to practically align Europe-oriented policy with a global system that has its own priorities and specificities. H2020 project RRING may offer insightful and relevant perspectives, being conceived as a truly global endeavor with a goal to assess related policies and research practices under the umbrella of UNESCO Recommendation on Science and Scientific Researchers. The Recommendation was unanimously
adopted in 2018 by the general council of UNESCO consisting of 193 member states. The Recommendation is an inspiring mechanism for bringing science closer to all citizens and establishing an independent and stable environment for the advancement of research processes.

First, quadrennial national reports of member states were due for submission in March 2021. Serbia's Report was created by the Working Group (WG) appointed in December 2020 by the Ministry of Education, Science and Technological Development. The WG was coordinated by the CPN team that provided technical and logistic support to the process through the project RRING. The WG was engaged in the collection, analysis and assessment of relevant data,

materials and legal documents, as well as in drafting several versions of the Report. In the period of three months, WG had numerous virtual meetings, bilateral exchanges and discussions. The Report is divided into ten key (thematic) areas, as defined by UNESCO. Each area is addressed through relevant aspects from the perspective of the Republic of Serbia and its scientific environment, elaborating and respecting its legal and strategic framework, responsible institutions and organizations, adequate cases and examples, and its external influence, reach and dissemination.

Global, sovereign relevance currently possesses, however, an unprecedented super-technology. Artificial Intelligence (AI) undoubtedly colors our lives and increasingly impacts the environment we are in and the decisions we make. Thousands of researchers worldwide are engaged in its development and application while guiding knowledge from highly heterogeneous disciplines and fields – cognitive and neurosciences, mathematics, linguistics, robotics, machine learning, etc. – towards creating a new technological reality. With these aspirations and accelerated content hyper-production, many key questions and topics have been overlooked or abstracted, leaving their interpretation to a minority which is willing for a deeper, open, and unrestrained dialogue.

On top of EU's determination to regulate and control the applicability and deployment of AI-based systems – the AI Act (still in the proposal phase), the general assembly of UNESCO recently adopted a ground-breaking Recommendation on the Ethics of Artificial Intelligence. The Zaragoza Declaration, created within the network of the European ARTificial Intelligence – AI Lab (Creative Europe project) in 2019, preceded this process and paved the way for further considerations in the field emphasizing the need for social and environmental responsibility, traceability, transdisciplinary and humanistic conduct of research, etc.

AI needs a critical societal analysis and valorization, and its values and meaning should be integrated into formal educational processes, however informal educative formats targeting all ages should be stimulated as well. It could even become a driving force of the STE(A)M integrative educational framework. Technological dominance undoubtedly increases the distance between different social strata, as AI finds its application first and foremost pleasing particular interests of large systems. In a world so heavily divided, witnessing a clear gap between technological advancements, societal challenges and global crises, we should try to provide uninterrupted bonds between science, policy and society at large, in order to inform and influence policy makers, use existing knowledge for a global prosperity and adequately prepare emerging generations for the world they're getting in.

key words: Responsible Research and Innovation (RRI), Recommendation on Science and Scientific Researchers (UNESCO), artificial intelligence (AI), RRING (Horizon 2020), AI Lab (Creative Europe), Center for the Promotion of Science (CPN)

Main Workshop: Citizen science in service of the climate change adaptation

Scope

In these extremely challenging times, the change of climate at Earth is only one in a series of worrisome issues we are currently facing, while its manifestations and influence are fiercely and increasingly experienced across the planet, threatening the very existence of life on our planet. Given these complex circumstances, climate crisis outcomes require equal attention, as well as adequate knowledge and means for citizens and other stakeholders to recognise cause-effect relations and available mitigation measures.

The H2020 TeRRIFICA project has developed an innovative approach to science communication open to individuals and groups to take an active part and influence climate change institutional, governmental and policy adaptations. In a system defined by RRI policy, SDGs, citizen science and climate adaptation and mitigation measures, TeRRIFICA operates in six European regions with very distinctive challenges. A practical outcome of this co-creation process is locally focused but globally empowered climate actions, based on the collected and visually represented data. TeRRIFICA crowd-mapping tool demonstrates actual geographical spread of climate changes by showcasing effects which citizens encountered and marked on a daily basis.

Through a discussion on experiences and identification of critical effects of climate changes, the workshop at the Canadian Institute of Technology in Tirana, Albania, aims to establish modalities for testing and applying gained knowledge at the local level, in order to enable incremental improvement of climate literacy, citizens' participation and decision-making processes, i.e:

- empower, inspire and mentor citizens to reach out and involve their immediate surroundings in addressing urgent environmental issues in their communities,
- provide guidance to educational authorities to influence school curricula towards integration of citizen science approaches to climate change topics,
- motivate policymakers to include the crowd-mapping tool into policy initiatives for climate change mitigation at local level.

Center for the Promotion of Science (CPN) from Belgrade, Serbia, acts as a regional project hub and coordinator of activities across South-East Europe – from Croatia to Romania and from Albania to Hungary. Together with local partners belonging to diverse professional and social groups, the CPN has been organising numerous project presentations, advocacy meetings, educational activities, workshops, training sessions, etc, with a goal to define common regional framework and foster future partnerships and joint actions. The workshop will be conducted by dr Tanja Adnadjevic, CPN's project coordinator, and Dobrivoje Lale Eric, who is coordinating activities across the SEE region. This event will also have its networking purpose, as several collaborative opportunities will be presented and discussed. The special attention will be given to the *Climate Capsule*, which is an experimental, mobile and modular scientific, educative and artistic platform, allowing personal and collective explorations of climate changes and its devastating consequences. A final segment will be dedicated to the forthcoming Horizon Europe project *Climate Europe II*, which will offer numerous opportunities for regional partners and stakeholders.