

8:30 **Registration and OPENING**

9:30 **Introduction to the Citizen Observatories**

| | Parallel Session | | |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:00 | Data integration, data assimilation techniques, advanced water modeling Chairman: Leonardo Segura Alfonso (IHE Delft) | Decision support in extreme weather climate events Chairman: Anastasios Karakostas (Centre for Research and Technology Hellas) | Designing for impact: leveraging the social innovation potential of citizen observatories for science, policy and practice. |
| 10:00 | Flood mapping due to levee failure: the case of the Roncajette River A. D'Alpaos (University of Padua) | An experience on how to develop user-centered technology for a Citizen Observatory of water C. Bagnasco (Techrain spa) | Interactive carousel session with different stations that will share experiences from the Ground Truth 2.0 project |
| 10:20 | An online game to improve crowdsourced stream level class data B. Strobl (University of Zurich) | A citizen Observatory to improve early warning of floods of the Gander in Mondorf-Les-Bains, Luxembourg C. de Jong (LIVE, University of Strasbourg) | Station 1Co-designing sustainable citizens observatories to leverage their potential for participatory environmental governance and empowerment U. Wehn (IHE Delft)Station 2Stakeholders collaborating in a CO in Sweden in the gover- nance and management of aquatic ecosystems focused on water quality Tessy Cerracotta-Pargman (Stockholm University) |
| 10:40 | An innovative solution for the monitoring and the hydraulic management of the territory: the SI.MO.G.I.T. platform C. Bendoricchio (Consorzio di Bonifica Acque Risorgive) | A Crisis Classification System for flood risk assessment: the beAWARE project S. Vrochidis (Centre for Research and Technology Hellas) | |
| 11:00 | New concepts of Early Warning Systems for debris flows based on mathematical models C. Gregoretti (University of Padua) | Social media observations for flood event monitoring in Italy over a one-year period I. Kompatsiaris (Centre for Research and Technology Hellas) | |
| 11:20 | Coffee break | | |
| 11:40 | Coastal vulnerability under climate change: GIS technologies to support data management F. Rizzetto (Istituto di Scienze Marine, CNR) | Using crowdsource information for managing climate events through the use of modern mobile technology P. Hertweck (Fraunhofer IOSB) | Station 3 Integrating citizen observations and official monitoring data: challenges and good practice |
| 12:00 | Smart tools to fill the gap between citizens and meteorological hazard information A. Garinei (University Guglielmo Marconi, Radarmeteo) | Applying Semantic Web Technologies for Decision Support in Climate-Related Crisis Management A. Karakostas (Centre for Research and Technology Hellas) | S. Vranckx (VITO) Station 4 Tackling interoperability issues for citizen observatories J. Masó (CREAF) Station 5 |
| 12:20 | Investigating the effects of citizen observatories in relation to the existing in-situ monitoring networks L. Alfonso (IHE Delft) | DRONES – Rescue from above I. Ben-Harrush (IBM Research) | |
| 12:40 | The I.M.A.Ge. Early Warning System for real time flood forecasting in the Brenta-Bacchiglione river system R. Mel (University of Padua) | Providing meteorological data for emergency response in the beAware project A. Karppinen (Finnish Meterological Institute) | Maximising impacts from citizen observatories: opportunities for success and sustainability S. Loiselle (Earthwatch) |
| 13:00 | Panel discussion | | |
| 13:20 | Lunch Time | | |

| | Parallel Session | | |
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| 14:50 | Communities involvement in Environmental Management Chairman: Steven Loiselle (Earthwatch, University of Siena) | New challenges for integrated water cycle management Chairman: Rudy Rossetto (Scuola Superiore Sant'Anna) | Community of Practice (CoP 3) Forum |
| 14:50 | A global community approach to improve catchment stewardship and environmental management S. Loiselle (Earthwatch) | Water resource monitoring in a tropical montane forest in Kenia using Citizen Science N. Njue (ILR - Justus Liebig University, Centre for International Forestry Research) | Interoperability and standards for citizen observatories Organizer: CREAF - Ecological and Forestry Applications Research Centre Adopting data quality, curation and preservation of citizen-science data, and addressing privacy and licensing for CO sustainability |
| 15:10 | City Nature Challenge: a multi-city Citizen Science approach for monitoring urban biodiversity V.E. Cambria (University of Padua) | Promoting the application of ICT tolls by means of an innova- tive participatory approach for water resource management G. De Filippis (Scuola Superiore Sant'Anna) | |
| 15:30 | Citizen Science activityin River Contract "Fiumi Uniti per Tutti - Ravenna" for water management and monitoring F. Di Grazia (Multicentro CEAS RA21, Fondazione Flaminia) | Water values: participatory water ecosystem services (WES) mapping and assessment in the Arno river basin T. Pacetti (Univerisity of Florence) | |
| 15:50 | Potential of Citizen Science for enhancing the spatial assessment of physical habitat in rivers G. Zolezzi (University of Trento) | The environmental effects of derivations in the plain between Piave and Sile: the dry period experience P. Battagion (Consorzio di bonifica Piave) | |
| 16:10 | Panel discussion | | |
| 16:30 | CSMON-LIFE - data from the people, data for the people. Citizen Science in Italy S. Martellos (University of Trieste) | Flood risk management in urban and peri/urban areas: attitudes towards innovative drainage approaches in Mediterranean areas of Italy and France S.M. Piacentini (Scuola Superiore Sant'Anna) | |
| 16:50 | Citizen Science and community education for environmental restoration of headwater catchments J. Křeček (Czech Technical University) | Induced riverbank filtration for managed artificial groundwater recharge at Apače field M. Vremec (University of Maribor) | |
| 17:10 | LIFE LAGOON REFRESH. Ecological restoration in Venice Lagoon (Italy): concrete actions supported by numerical modeling and stakeholder involvement A. Feola (Italian National Institute for Environmental Protection and Research) | Introducing to "CONCERT-EAUX" project. Climatchange and water in the Alps R. Pozzani (Istituto Internazionale di Studi Liguri- IISL) | |
| 17:30 | Identification of heavily modified water bodies in the Veneto Region (Italy): preliminary resutls and perspectives N. Surian (University of Padua) | Global Hydrological Monitoring and Flood Forecasting System (GH ² MF ²) Non-Profit Project. A Pilot Hydrological Modeling in Transboundary KOSHI River Basin [Tibet(China), Nepal, India] E. Ortiz (Idrologia e Ambiente Srl) | |
| 17.50 | Panel discussion | | |

17:50 Panel discussion

18:10 Closing time





Parallel Session Earth Observation data for natural hazards and water **Decision support in extreme weather climate events** Chairman: 9:00 9:00 Community of Practice (CoP 1) Forum Anastasios Karakostas (Centre for Research and Technology Hellas) management Chairman: G. Vingione (SERCO Italia S.p.A.) A novel Decision Support System based on the exploitation of Co-designing citizen observatories and An innovative platform for Earth Observation data collecion 9:00 9:00 satellite-to-earth microwave links engaging citizens and data publication G. Vingione (SERCO Italia S.p.A.) D. Caviglia (University of Genoa, WMO-CIMO) H2020 MOSES Project just ended – hints on evaluation and 9:20 Organizer: IHE Delft Institute for Water M.G. Scarpino (SERCO Italia S.p.A) FloodCitiSense: An Early Warning Service for Urban Pluvial Flooding perspectives 9:20 Education L. See (International Institute for Applied Systems Analysis) The E2mC Project: pre-operational results combining Social 9:40 Addressing incentives and barriers for Stakeholder motivations and impacts 9:40 Media and Crowdsourcing for Rapid Mapping participation, engagement strategies and Chairman: Kristine Stepenuck (CSA, University of Vermont) M. A. Biscardi (e-GEOS S.p.A.) citizen-science ethics The Italian Citixen Science landscape: a descriptive analysis to under-9:40 10:00 Ocean Satellite Monitoring and Marine Ecosystem stand the public participation in scientific research **Observation and Study System in Operative Frameworks** F. Bartoccioni (University of Rome Tor Vergata) V. Forneris (CNR DTA) Community-based development and use of strategic scenarios to 10:00 anticipate and communicate flood risks: the case of LIFE Project Enhanced flood maps using synthetic aperture radar (sar) 10:20 "FRANCA" images, hydraulic modeling and social media R. Scolozzi (University of Trento) V. Scotti (La Sapienza University Rome, e-géos Telespazio/ASI) Integration of water-guality observation networks operating at 10:20 multiple scales Satellite microwave sensors as support for water management 10:40 L. Ceccaroni (Earthwatch) and risk mitigationS. Paloscia (IFAC, National Research Council Citizen science in water research: the value and potential of diversity 10:40 of Italy) S. Brouwer (KWR Watercycle Research Institute) 11:00 S²IGI: an integrated system for Forest Fires management The stakeholders participation in SEA procedure for the approval 11:00 process of land plans: an experience in Regione Lombardia G. Laneve (La Sapienza University, Rome) E. Alessi Celegon (i4 Consulting S.r.l.) IAHS Working Group on on "Citizen and Hydrology" (CANDHY) F. 11:20 I.MODI - Implemented MOnitoring system for structural 11.20 Displacement M. Marsella (Survey Lab, Sapienza University) Nardi (University for Foreigners of Perugia) Panel discussion 11:40 12:00 Lunch Time

13:30 Plenary Session **ROUNDTABLE**

Development and implementation of Citizen Science: the advantages and limits of the direct transfer of environmental knowledge for policy, industry, research and society (Moderator: A. Gaeta - RAI journalist)

| 15:30 | 15:30 Parallel Session | | |
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| 15:30 | Earth Observation data for natural hazards and water management Chairman: G. Vingione (SERCO Italia S.p.A.) | New approaches for data capturing Chairman: Joan Masò Pau (CREAF) | Community of Practice (CoP 2) Forum |
| 15:30 | ONDA Service G. Vingione (SERCO Italia S.p.A.) | CrowdWater: a smartphone app for the collection of hydrological information by citizen scientists J. Seibert (University of Zurich) | Impact and value of citizen observatories for governance Organizer: |
| 15:50 | Earth Observation and social multimedia data fusion for natural hazards and water management: the H2020 EOPEN Project paradigm M.G. Scarpino (SERCO Italia S.p.A) | Instrumental detection of debris flows for early warning purposes: the observatory of Gadria catchment, Eastern Italian Alps F. Comiti (Free University of Bozen) | IHE Delft Institute for Water Education Defining socio-economic and environmental impacts of community-based environmental monitoring for public authorities and decision makers including risk evaluation |
| 16:10 | Coffee break | | |
| | Land Use and Land Cover monitoring Chairman: Steffen Fritz (IIASA) | | |
| 16:30 | Citizen scientists monitoring the environment: the latest apps from IIASA S. Fritz (IIASA) | Local knowledge as a validation tool for the hydrodynamic modeling of Lake Garda, Italy M. Amadori (University of Trento) | |
| 16:50 | Data fusion for supporting agriculture management in Africa: AFRICULTURES project R. Orsi (Scuola di Ingegneria Aerospaziale) | Mysnowmaps: first analysis of crowd-sourced snow data M. Dall'Amico (MobyGIS Srl) | |
| 17:10 | Riparian vegetation in Citizen Science monitoring B. Gumiero (University of Bologna, Fondazione Flaminia) | Citizen science-based low-cost devices to support flood risk and early warning service F. Accaino (Italian Institute of Oceanography and Experimen- tal Geophysics OGS) | |
| 17:30 | A multi-perspective overview of flood-risk changes in Emilia-Romagna (Northern Italy) S. Persiano (University of Bologna) | Trusted Spotter Network Austria – a benchmark for crowd- sourced weather and impact observations in Europe? T. Krennert (Zentralanstalt für Meteorologie und Geodynamik, Austria) | |
| 17:50 | Multi-sensor and multi-temporal optical/SAR GIS data integration for urban sprawl monitoring of the District of Rome: a geostatistical approach M. Martino (European Space Agency) | POP-Rain: citizen observations of spatial rainfall intensity F. Nardi (University for Foreigners of Perugia) | |
| 18:10 | Panel discussion | | |
| 18:10 | Closing time | | |
| 20:0 | Social Dinner: Special Night in Venice | | |
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9:30 Parallel Session

| | Resilience and Territorial Safety Chairman: R. Ranzi (University of Brescia) | Data integration, data assimilation techniques, advanced water modeling Chairman: Leonardo Segura Alfonso (IHE Delft) | Community of Practice (CoP 4) Forum |
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| 9:30 | SOL, a publicly available system for real time flood forecasting supported by citizens for citizens G. Ravazzani (Milan Polytechnic) | Value of crowdsourced streamflow data for model calibration S. Etter (University of Zurich) | UN Sustainable Development Goals (SDGs) and citizen observatories Organizer: IIASA - International Institute for Applied Systems Analysis Potential and challenges of using Citizen Science (CS) data in the SDG process; CS and its important role in both monitoring and implementation of the SDGs: combined use of Geospatial data, EO and CS, use of additional |
| 9:50 | Crowdsorcing mobility patterns for emergency responce F. Ciravegna (University of Sheffield) | Citizen science data improve flash flood analysis and prediction M. Borga (University of Padua) | |
| 10:10 | FLORIMAP: A pilot project about smart flood risk management policies R. Rosso (Milan Polytechnic) | Understating the effects of different citizen engagement sce- narios on the assimilation of crowdsourced observations L. Alfonso (IHE Delft) | |
| 10:30 | Coffee Break | | heterogeneous data (e.g. socio-economic data, crop management information, etc.) to complement traditional |
| 11:00 | Improving resiliency with open data and open source software: the case of Comoros Islands E. Cattaneo (GeneGIS GI Srl) | GIS-based methodology for pluvial flood hazard analysis: a case study in the urban area of Rome F. Leone (Civil Protection Department) | surveys |
| 11:20 | A novel design approach: towards low vulnerable buildings to debris flow exposure S. Simoni (Mountain-eering S.r.l.) | Numerical modeling to identify the effects of the rehabilitation interventions of a Tagliamento River stretch F. Zanello (Idrostudi s.r.l.) | |
| 11:40 | Modeling electric and water distribution systems interdipen- dences in urban areas risk analysis G. Fattoruso (ENEA) | Review of flooding map at a small scale P. Martini (Inprogest) | |
| 12:00 | BLINKS: an ICT-based tool for citizens' flood risk awareness and participation D. Molinari (IDPA, National Research Council of Italy) | Flash-floods, landslides and urban inundations: integration of Large Scale Monitoring Networks and Local Early Warning Systems G. Bernardi (CAE S.p.A.) | |
| 12:20 | Panel discussion | | |

12:40 Lunch Time

Parallel Session

| 14:40 | Public participation mechanisms Chairman: Raquel Ajates Gonzalez (University of Dundee) | Innovative platforms for collecting, handling, processing and storing of citizen-generated environmental data Interactive session exploring smart technologies, include crowdsourcing tools, serious gaming applications, portable sensors, machine learning algorithms (experiences from the SCENT project) | Citizen Science Workshop: New opportunities for research and innovation in the EU and the US |
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| 14:40 | Best practices in serious games: Gamification strategies to support public participation in citizen observatories S. Tamascelli (XTeam Software Solutions) | SCENT - Smart Toolbox for Engaging Citizens (Overview and State of Play) C. Tsiakos (Institute of Communication & Computer Systems) | New opportunities for research and innovation in the EU and the US Moderators: Barbara Kieslinger, Dietmar Lampert (ZSI, Centre for Social Innovation) The workshop aims to facilitate the dialogue between scientists and policy makers in terms of hot and emerging topics, to identify the value of and concrete opportunities for international collaboration, especially between the EU and US, and to provide input on concrete policy options to support the advancement of citizen science. Organizers: D. Lampert (ZSI - Centre for Social Innovation, Austria); Anne Bowser (Woodrow Wilson International Center for Scholars, Washington D.C., USA) |
| 15:00 | The winning formula for making children future citizen scientists: lessons (meteorology) and practice (installing and maintaining an open hardware monitoring system) A. Fedi (ACROTEC Foundation) | Extraction of river measurements from multimedia M. Krommyda (Institute of Communication & Computer Systems) | |
| 15:20 | Massive Online Open Citizen Science: Use of MOOCs to scale rigorous Citizen Science training and participation R. Ajates Gonzalez (University of Dundee) | Interoperability in citizen-generated data C. Tsiakos (Institute of Communication & Computer Systems) | |
| 15:40 | Sustainable management, control and consumption of water resources in a changing climate: a new science shop at UNIBS G. Grossi (University of Brescia) | Machine Learning Techniques for Improved LC/LU maps M. Krommyda (Institute of Communication & Computer Systems) | |
| 16:00 | Say Do Communicate: citizens active for the community and the environment Paolo Silingardi (Achab s.r.l.) | Crowdsourcing tools for environmental data collection S. Tamascelli (XTeam Software Solutions) | |
| 16:30 | Panel discussion | Scent Toolbox Interactive Demonstration M. Krommyda, C. Tsiakos (ICCS) | |
| 17:00 | Closing remarks and preview of the technical visit Chairman: Francesco Baruffi (Alto Adriatico Water Autorithy) | | |

17:30 Closing time





Technical Visit on the potential use of the COs in environmental monitoring, special focus on monitoring biodiversity and positive-negative impacts generated by anthropic works

| 9:30 | Palazzo Labia - Introduction to the technical visit | |
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| 10:30 | Departure for the technical visit to the MOSE system for the Venice Lagoon protection from flooding (by boat) | |
| 11:00 | Visit combined with an experiment of Urban Nature observatory for the monitoring of biodiversity: contest among participants | |
| 13:00 | Refreshment | |
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| 14:30 | Closing time | |
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