

# Open/Big Data and Citizen Science for managing the Water, Food, Energy and Environment Nexus

Presentation of the workshop  
Villa La Colombella (PG, Italy)  
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## Outlines

- Background of the workshop
- Program & Goals
- Info and communications

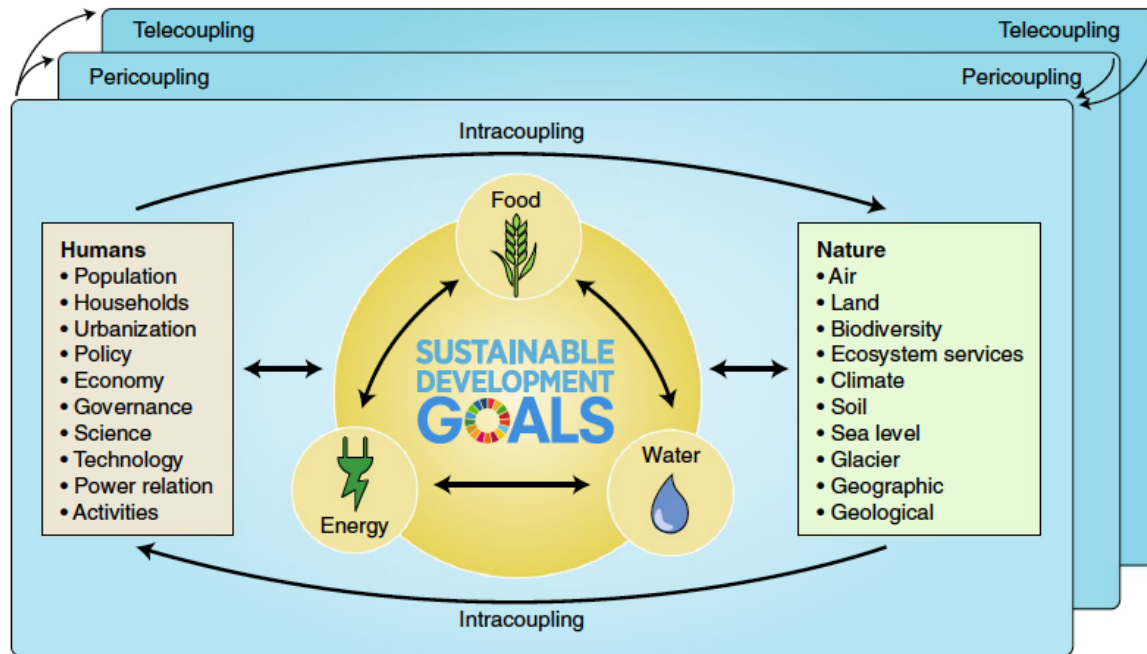
# Why this workshop?



Urban/land development for supporting  
changing population growth and dynamics

2 more billion people by 2050 globally & population redistribution

# The Nexus: increasing (need of) resources and risks



Liu, J. et al. (2018). Nexus approaches to global sustainable development.  
*Nature Sustainability*, 1(9), 466.

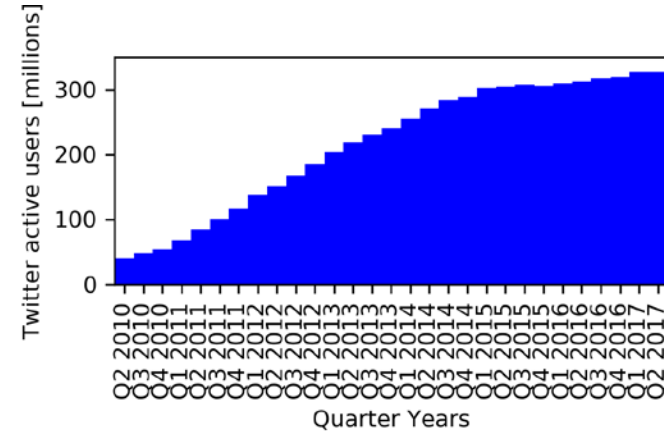
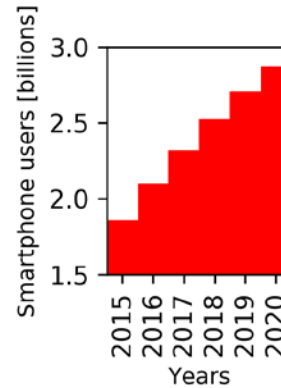
Understanding for acting (decision making)  
based on the quantification of the inter-linkages and coupling  
mechanisms

# Open and Big Data



Sensors (satellites, drones, webcams ..) are here to stay and grow  
Smartphones and mobile devices are transforming the way we work and communicate

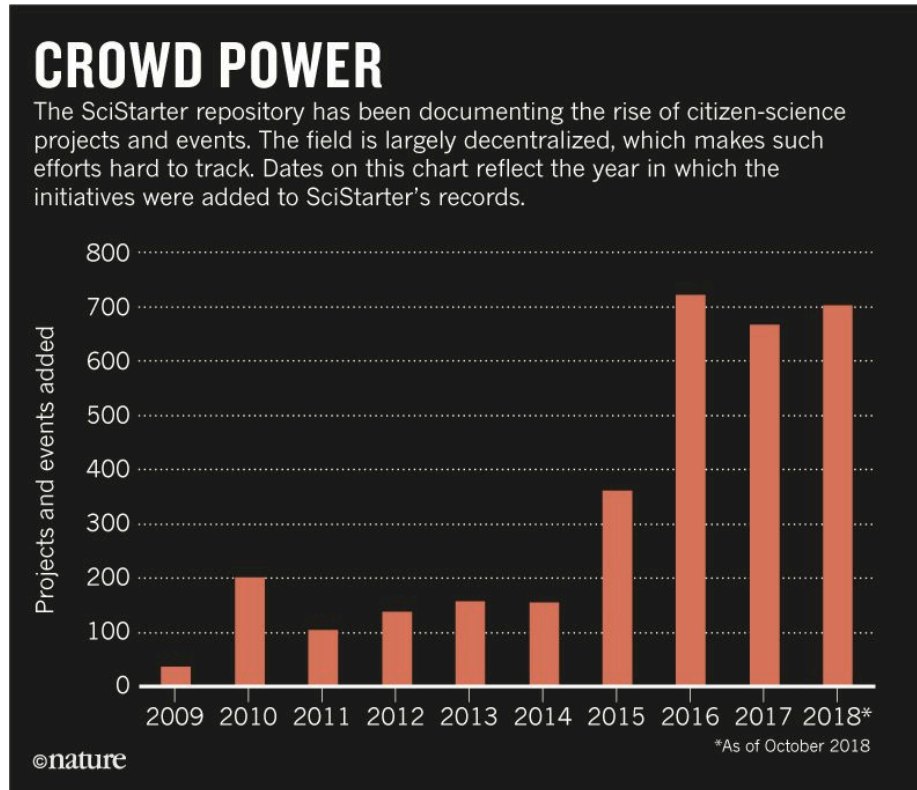
# Big Data and Citizens



Statista (2017)

From Benedict XVI (2005) to Pope Francis (2013): citizens become “human sensors”, produce and receive information

# Big Data and Citizen science



Citizen science is developed by means of the engagement of people in scientific processes. **Active citizenship** means people getting involved in their local communities and democracy at all levels, from towns to cities to nationwide and international activities.

## Program and goals

- Define the open questions, the most urgent and missing inter-linkages and gaps to put Open/Big Data and Citizen Science into action for the Nexus
- Share know how, resources, projects and ideas
- Networking and connect
- Link and engage students and young researchers and professionals
- Convert outcomes of this meeting (starting from Minutes) into a Working document (White Paper) on the Workshop topic



## Info and Communications

- #Watermanifesto by WaterOpenDay.org



- CandHy (Citizen AND Hydrology) Working Group

by the International Association of Hydrological Sciences (IAHS)

<https://iahs.info/Commissions-W-Groups/Working-Groups/Candhy.do>



- Water & SME Working/Mirror Group:

- Water & Resources
- Water & Risks
- Water & Cultural Heritage



# ROADMAP

- November 27-29, 2018 – Citizen Observatories Conference. Venice, Italy
- December 10-14, 2018 – American Geophysical Union Conference in Washington D.C., USA
- March, 11-13, 2019 – MOXXI-CANDHY Conference in New York, USA
- April, 2019 – National Workshop (Rome)
- June, 2019 – Release of the White Paper
- June 28, 2019 – Watershed Summit, Denver, USA
- July 8-18, 2019 - 27th IUGG General Assembly, Montreal (Canada)

# LOCAL ORGANIZING COMMITTEE

- Fabrizio Focolari, Simonetta Farinelli, Paola Tricoli (WARREDOC)
- Alessandro Lotti, Maria Chiara Sole, (ISPRA)
- Jackline Canevello, Simona Capone (CREA)
- Tom Cech, Nona Shipman (MSU Denver)



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