Free and open satellite data supporting innovation in the green management and sustainable development of urban areas.

Bologna, Italy  | 26 October 2017

Information Pack

#Spotlight
learning.climate-kic.org
This intensive one day course aims at promoting the awareness and the knowledge of Copernicus services and geospatial data products with Environmental Data Modeling and Geocomputation in the smart cities management.

According to the WTO – World Trade Organization the world population is going to be 9 Billions by 2050 and ¾ of it will be living mostly into cities. This increasing urbanization has already raised big challenges so the need to analyze and understand dynamics and risks is vital for managing and designing the future of the cities. Copernicus is a European Union Program aimed at developing European free and open information services based on satellite Earth Observation and in situ (non-space) data. In the Smart Cities domain, the Copernicus program helps to assess urban monitoring in terms of climate indicators and their impacts on the urban context. In this way, it supports urban planners, environmental engineers and administrative authorities improving urban management, including urban greening thus quality of life of citizens, planning of mitigation and adaptation practices for key human and societal activities.

Through the sharing of real case studies and the use web tools, participants can explore new approaches to urban challenges, management and sustainable development by using Earth Observation added-value data coming from Sentinel satellites and Copernicus Services.

The course is preceded by a launching webinar helping the participants familiarize with the Copernicus key concepts.

The course is officially co-organized with the Copernicus Academy Italian member Studiomapp S.r.l (www.studiomapp.com) and ASTER (www.aster.it) and it is led by Marco Folegani, Managing Director of the Italian private company MEEO S.r.l (www.meeo.it), partner of the European Space Agency (ESA). MEEO is affiliated partner Climate-KIC since 2011.

**Learning objective**

The course introduces a systemic approach in using Copernicus satellite data and monitoring services (www.Copernicus.eu) in combination with some open source tools for image and data process, to support green management initiatives in the urban areas by:

- Understanding what Sentinel satellites and Copernicus Services are, why they are important and how they relate to the green and climate challenges;
- Using key approaches and tools for designing new analytics models or reconfiguring existing ones based on earth observation;
- Implementing sustainability-oriented methodologies to address climate challenges in green management activities
- Understanding the potential benefit of Copernicus program in Sustainable urban development
Who can join?

Remote sensing based information products can support urban manager users in decision making at many different levels: from urban planners to environmental engineers:

- Technicians of environmental agencies
- Local and regional decision-makers
- Public administration professionals
- Urban planners
- Environmental engineers

Background

Vast amounts of global data from satellites and from ground-based, airborne and seaborne measurement systems are being used to provide information to help service providers, public authorities and other international organizations improve the quality of life for the citizens of Europe. The information services provided are freely and openly accessible to its users. Copernicus is a European Union Program aimed at developing European information services based on satellite Earth Observation and in situ (non-space) data. In particular the Urban management is currently benefit of Copernicus services that use satellite imagery (Sentinels) and climate change services (C3S) for feeding urban management models, for estimating damages after meteorological events (including extreme events) and for improving the smart urban areas management, for planning adaptation and mitigation responses to climate change.
What we offer:

The training course is aimed at providing those basic skills and knowledge that will enable trainees to identify those Copernicus products and services particularly useful for smart urban management. This means to know which are the data to be used (i.e. which service in climate data and land use data), where to access to the right tools to manage these data and how to correctly understand the results by means of the exploration of example of Copernicus projects in urban smart management. In particular the expected outcomes are:

- Knowledge of current data and information provided by Sentinel satellites and Copernicus Services;
- Understanding of the future opportunities of Earth observation;
- Knowledge of the current tools and frameworks to support, facilitate and accelerate the use of Copernicus satellite data in those fields;
- Data sources identification to solve specific problems in the sustainable urban development;
- Discussion of practical cases;
- Increasing the innovation potential of respective organizations and address specific issues;
- Concrete opportunities of potential new collaborations;
- Becoming part of a world-class network of professionals and researchers within the Climate-KIC and Copernicus community.
## Agenda:

### Online module #0 - 13 October 2017
#### Launching Webinar

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:00</td>
<td>Welcome to participants and introduction to the course program</td>
</tr>
<tr>
<td>16:10</td>
<td>Participants roundtable</td>
</tr>
<tr>
<td>17:00</td>
<td>Assignment of tasks in view of the in-presence course and presentation of some web portal based on Environmental Satellite data to practice with before the in-presence course</td>
</tr>
<tr>
<td>17:50</td>
<td>Logistics information and description of the course online platform</td>
</tr>
<tr>
<td>18:00</td>
<td>End of launching webinar</td>
</tr>
</tbody>
</table>

### In-presence course – 26th October 2017
#### Copernicus: from geospatial to urban dream management

Free and open satellite data supporting innovation in the green management and sustainable development of the urban areas

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Welcome</td>
</tr>
</tbody>
</table>
| 9:10  | **Module #1 – Assignment review**  
Co-creation session: discussion about the task assigned to attendees at the end of launching webinar and sharing of the feedback and reflection. |
| 10:00 | **Module #2 - Copernicus Overview**  
10.00 Knowledge consolidation: Copernicus world overview by Stephane Ourevitch                                                       |
<p>| 11:15 | Break                                                                                                                                                                                                    |
| 11:30 | Focus on Copernicus products and services for Smart Urban management by Annekatrien Debien-Copernicus Support Office: Discussion, Questions and answers.                                                 |
| 13:00 | Lunch break                                                                                                                                                                                               |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 14:00 | **Module #3 Tools**  
Data processing: main tools and examples by Simone Mantovani - MEEO S.r.l, Earth Observation Data web portal expert. |
| 14:45 | Data integration and analytics: “Qirate, an example of location intelligence service for assessing quality of life in urban areas” by Angela Corbari and Leonardo Dal Zovo – STUDIOMAPP SRL |
| 15:30 | Short review of previous sessions, feedback and reflection            |
| 15:45 | Coffee break                                                         |
| 16:00 | **Module #4 – Assignment finalisation**  
Co-creation session: analysing solutions and business approach with the participants use cases forming groups. Continuous feedback and support by experts. |
| 17:30 | Reflection and conclusions of the three working groups: lessons learnt and follow up. |
| 18:00 | End of course                                                        |
Coaches and Experts

Angela Corbari – Coach and Natural resources management & Remote Sensing Expert
Angela holds a Master’s degree in Natural Sciences, Conservation and Natural Resources management from the Alma Mater Bologna University, Italy. She is specialized in GIS (Geographic Information Systems) for agriculture and natural resources. She is a certified Wildlife technician from Institute of Environmental Protection in Italy (ISPRA) and certified Agrotechnician. She had been working for more than 10 years as professional consultant for Human - wildlife conflicts in agriculture and impact assessment studies for Italian local authorities and private businesses. She also participated in several European projects. An active innovator, she founded Studiomapp srl in 2015, a startup that aims at developing maps and apps for Quality of life that have been recently appointed by European Commission as Copernicus Academy member. and his M.S. and Ph.D. degrees from Stanford University.

Marco Folegani – Training leader and Remote Sensing expert
He holds a bachelor degree in Physics from the University of Ferrara and he is founder and managing director of the MEEO S.r.l and SISTEMA G.m.b.H, Italian and Austrian companies respectively, both focusing on environmental data processing, climate data services, solar radiation mapping, air quality monitoring, multi-spectral and multi-temporal analysis, geo-spatial data infrastructures implementation for time series access and visualization, standardization of processes (OGC, Inspire). During his professional experience he has written more than 50 proposal of research project at regional (POR), national (ASI) and European (ESA, FP7, H2020, Climate-Kic) level. He is managing several Climate-KIC projects in the Climate Adaptation, Sustainable Land Use and Urban Transition domains.

Simone Mantovani – EO data web portal expert
Simone holds an academic degree in Physics, from the University of Ferrara. Founder and managing director of the MEEO S.r.l and SISTEMA G.m.b.H, he has over than ten years’ experience in the framework of National and International projects, funded by the European Space Agency (ESA) and European Commission. He led the implementation of relevant tools for Big Data exploitation in the framework of European Space Agency programmes, in particular, he led the implementation of EO Datacube and EO Data Service based on a key platform for data exploitation called MEA - Multi-sensor Evolution Analysis. He is leading, for MEEO, the European Project Earthserver2, to support the Climate & Atmosphere and Land & Ocean communities on exploiting full mission of heterogeneous products including satellite, forecasts, ground-measurements.
Coaches and Experts

Leonardo Alberto Dal Zovo - Data Scientist & Software Developer

Leonardo holds a Bachelor’s degree in Computer Science from the Padua University, Italy. He is a Software Analyst and Developer leading development teams within corporate and European projects. He has a 10 years experience on projects for the public sector (local authorities’ services, Open Data and Smart Cities), agriculture and logistics. In 2015 he cofounded Studiomapp srl as the Chief Technology Officer and he is the technical leader of Qirate, a location intelligence service that measures the quality of life and liveability of a place integrating and analysing different sources and types of data, including data from space. He is also advisor at the World Bank, serving as a contributor and moderator of the “Open Data Innovations Network” LinkedIn group.

Stephane Ourevitch is the supervisor of the Copernicus Support Office.

He has more than 20 years of experience in management, and has had leading roles in several Copernicus and Security-related projects (BOSS4GMES, SpaceExpo, Copernicus4Regions). He is an expert on Copernicus and Space Policy in a very international context. Stephane has held top management positions at Becker Flugfunkwerke and Dassault Electronique, and has an MBA, Masters in Law, Political Science / Int’l Affairs (Sciences Po).

Annekatrien Debien is an engineer with 7 years of experience in the Earth Observation sector.

Her experience includes technical project management of EU FP7 and ESA projects, user outreach and education, and product development on applications such as agriculture, forestry, and sea ice. She currently works on facilitating the development of the content of the Copernicus User Uptake Infosessions, and as On Duty Operator for the Copernicus Support Office.
Partner organisations

**MEEO** is a privately-held company devoted to the development and implementation of products and services based on remote sensing of the Earth-Atmosphere system. MEEO is able to provide a wide range of services and products based on analysis of multispectral, multisensor and multitemporal satellite data for environmental monitoring, land management and agriculture. MEEO is partner of the Climate-KIC and of the European Space Agency working on several National and European projects.

**Climate-KIC** is Europe’s largest public-private innovation partnership, working together to address the challenge of climate change. It drives innovation in climate change through creative partnerships large and small, local and global, between the private, public and academic sectors. All Climate-KIC partners bring their industry experience to the community and are connected through the centres across Europe.

**ASTER** is the Consortium for innovation and technology transfer of Emilia-Romagna. Its partners are the Emilia-Romagna Regional Government, the six Universities and the National Research Centres located in the region (the National Research Council-CNR, the Italian National Agency for New Technologies, Energy and Sustainable Economic Development-ENEA, the National Institute for Nuclear Physics-INFN), the Regional Union of Chambers of Commerce, working in collaboration with regional Business Associations and Innovation Centres.

The **Copernicus Academy**, launched by the European Commission, will connect European universities, research institutions, business schools, both private and non-profit organisations, in the Participating Countries of the Programme and beyond. The goal of the Network is to develop lectures, training sessions, traineeships as well as educational and training material to empower the next generation of researchers, scientists, and entrepreneurs with suitable skill sets to use Copernicus data and information services to their full potential.

**STUDIOMAPP SRL** is an innovative startup established to create innovative tools to help improving the quality of life and promote the economy through technology; it is specialized in Geographic Information Systems, Open data, Software Analysis and Development. It develops products and services in the field of Smart Cities, Environmental and Economic Sustainability, Mobility, Transport and logistics, Tourism and Cultural Heritage, Agriculture, Land and Natural Resource Management, Health and Social.
Course location and logistics

Bologna, Italy – 26 October 2017

Launching webinar: 13 October 2017
In-presence course: Bologna, CNR Centro Congressi via Gobetti 101 – 26 October 2017

City Description

Bologna is the largest city (and the capital) of the Emilia-Romagna Region, in Northern Italy. It is the seventh most populous city in Italy, located in the heart of a metropolitan area of about one million.

The first settlements date back to at least 1000 BC. The city has been an urban centre, first under the Etruscans (Velzna/Felsina) and the Celts (Bona), then under the Romans (Bononia), then again in the Middle Ages, as a free municipality (for one century it was the fifth largest European city based on population). Home to the oldest university in the world, founded in 1088, Bologna hosts thousands of students who enrich the social and cultural life of the city. Famous for its towers and lengthy porticoes, Bologna has a well-preserved historical centre (one of the largest in Italy) thanks to a careful restoration and conservation policy which began at the end of the 1970s.

In 2000 it was declared European capital of culture and in 2006, a UNESCO “city of music”. The city of Bologna was selected to participate in the Universal Exposition of Shanghai 2010 together with 45 other cities from around the world.

The best way to discover Bologna is on foot, covering the history, traditions and architecture at the shelter of its 40 km of porticoes, candidated as Unesco “world heritage site”. A unique pathway in the world that allows you to enjoy the city with no umbrellas when it rains and the cool shade when the sun warms our summer months.
Practical information
How to get to the Bologna course venue

From the airport to the city centre:

By bus (BLQ)
One way ticket from/to Airport costs 6€ - Tickets can be purchased on board too. It takes about 20 minutes to get from the Airport to Bologna city center ("Rizzoli" stop) or to Bologna Centrale train station.

By taxi:
You can call or reserve a Taxicab from COTABO +39 051 372727 or CAT RadioTaxi +39 0514590 How to get to the airport - Click here

To the venue:
You can reach the course venue by bus number 87, which stops just in the area. Here is the map.
From the city centre and the train station, the suggested bus stop for departure is "autostazione" at the beginning of "via Indipendenza" (see "google street view" for the right stop. Bus direction: "Via Gobetti – rotonda CNR").
The bus ticket shall be bought at a Kiosk, a bar or a tobacco shop. On the 87 usually there aren’t ticket selling machines.
If you are coming directly from the airport it takes about 1 hour by public transport. You shall get the shuttle BLQ and then get the bus 87. By taxi it takes about 15 minutes for approximately €15/20.
Accommodation:

Suggested hotels in the city centre of Bologna:

Tre Vecchi ★★★★
Via Indipendenza, 47
P. 051231991
bookinghoteltrevecchi@zanhotel.it
www.zanhotel.it

Hotel Regina ★★★
Via Indipendenza, 51
P:051248878 Fax 0519914309
bookinghotelregina@zanhotel.it
www.zanhotel.it

Hotel Internazionale ★★★★
Via Indipendenza, 60
P. 051 245544 Fax 051 249544
internazionale@monrifhotels.com
www.monrifhotels.it

Zanhotel Europa ★★★★
Via Cesare Boldrini, 11
P:0514211348 Fax 0519914311
bookinghoteleuropa@zanhotel.it
www.zanhotel.it

Hotel Accademia ★★
Via Delle Belle Arti, 6
P. 051232318 Fax 051263590
hotelaccademia@hotelaccademia.com
www.hotelaccademia.com
Fees and registration

Course fee 400 EUR.

- Course fees cover participation in the workshop, workshop material, boarding during the workshop and any site visits.
- A 50% discount on the regular fee is available for Climate-KIC partners, public institutions, Climate-KIC alumni and NGOs.
- Participation can be cancelled free of charge until four weeks before the course. Fees already paid will be reimbursed. 50% of course fees are payable in case of cancellation later and up until one week before the course. Full fees apply in the case of cancellation less than one week before the course.

Diversity

Climate-KIC values diversity and welcomes applications from all suitably qualified candidates regardless of age, gender, race, disability, sexual orientation, religion or ethnic background.

Grant application

Grant applications are possible for participants of EIT Regional Innovation Scheme (EIT RIS) including citizens of the following countries: Bulgaria, Cyprus, Estonia, Latvia, Malta, Portugal, Romania, Serbia and Slovenia. Grants cover the participation fee, workshop material, boarding during the workshop and any site visits.

Deadline

Please note that spots are limited and applications will be assessed as they come in. Early applications are advised. The deadline for registration is 30 September 2017.

For further enquiries, please contact: paola.valandro@climate-kic.org

In collaboration with:

[Logos of collaborating organizations]