



Co-Creation as Governance for embedding Nature Based Solution in Cities

Bringing
cities to life,
Bringing life
into cities.

16th-18th May 2018 | TRANSFORMING CITIES, ENHANCING WELLBEING: innovating with nature-based solution, **UNIVERSIDADE DA CORUNA - Coruña (Spain)**
Marino Cavallo | Metropolitan City of Bologna



This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 730222



Realizing that bureaucracy was hindering citizens' ability to improve their city, Bologna adopted new regulations allowing residents to partner with the city to revitalize public spaces. The new regulations spurred the city to establish district laboratories, where city staff connected with residents to develop their ideas and **co-design initiatives**. The labs engaged thousands of residents and resulted in more than 400 citizen-led initiatives, including turning an abandoned market into a concert hall for hundreds of local musicians to play and converting a former parking garage into a full-service bike station run by a resident cooperative.

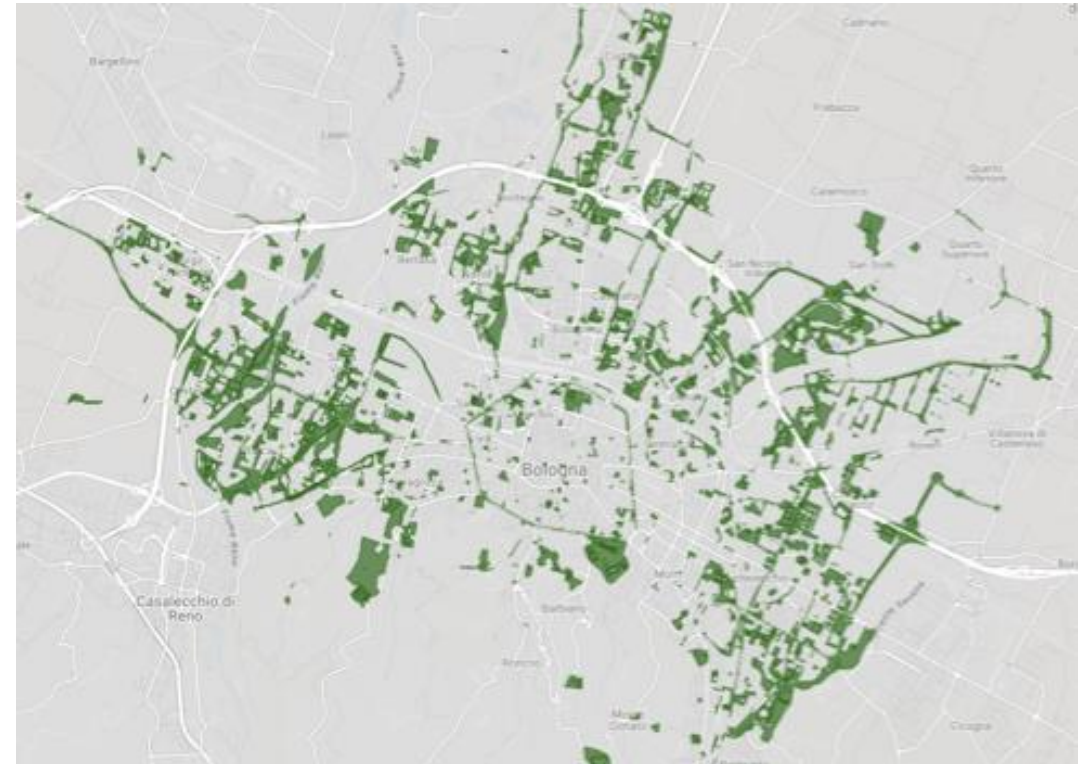
Bologna wins the *Engaged Cities* Award of Bloomberg Foundation





Metropolitan Context

- More than **1M inhabitants**, the population has been steadily growing;
- A strategic hub for **freight and passengers flows** in Italy;
- A strong **industrial** sector;
- Famous for its **food industry** and culinary arts;
- A global reference for the **cooperative** movement and **civic engagement**;
- A virtuous cities in terms of **environmental performance**, with about **2,700 urban gardens**.



Green Public spaces within the urban area of Bologna





Co-creation for us: Dreams & Concreteness

Urban and Peri-urban Agriculture

Considering climate change and the increase in population, **Urban & Peri-urban Agriculture (UPA)** plays a role in:

- providing **safe food** in urban areas;
- improving **air quality**, reducing **urban warming** and enhancing urban **biodiversity**;
- contributing to **sustainable** water and natural resource **management**;
- setting up a **continuum** between urban and peri-urban territories;
- being a sustainable way to **produce, consume and do business.**

Agriculture drives
Bologna's growth
in sustainable
innovation!

Urban and Peri-
urban Agriculture
(UPA) as Nature
Based Solution





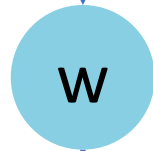
more than Environmental benefits





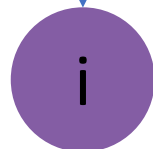
Metropolitan Agriculture & Urban Gardens can boost **co-creation processes** into the cities:

**Social Cohesion
& Relations**



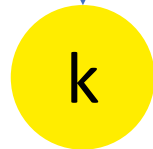
As “Green Square”, they become meeting places and can contribute to enhancing the quality of life in the neighbourhood and revitalizing the area.

**Citizen
Participation &
Cooperation**

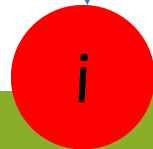


They can be collaborative spaces where private actors, public bodies and civil society successfully coexist. More, they have to implement innovative way to produce, distribute and purchase.

**Collective
Intelligence**



Green, safety and peacefully spaces allow and invite citizen to use different way to live the cities. This involves the concept of Sustainable Mobility System.





What have we learned by our NBS Best Practice





VEGETABLE GARDENS IN PILASTRO'S NEIGHBOURHOOD: NBS & social cohesion

The “Orti Salgari Association” manages 420 vegetable gardens, near council housing. It can:

- create a **close relationship** between citizens and nature and agriculture;
- facilitate and strengthen **social inclusion** of different cultures and generations; create a place with the condition for **recreational** activities for elderly;
- maintain the **integrity of land** and a proper balance between urbanization and rural areas; promote the value of rural territory.





VILLA GHIGI FUNDATION, GREEN PARK AND FARMERS AREA: NBS, social relations & nature education

The Foundation manage a garden in a peri-urban area. They offers:

- an **educational** environment;
- opportunities for **students**, they deal with publications on the topics related to the natural, historical, cultural and landscape aspects;
- **welfare activities** as tracking experiences and horticultural therapy;
- the garden's spaces are besides used for **marketplace**, strengthening the **relationship** with **local farms**.





ARVAIA, A ORGANIC AND BIODYNAMIC AGRICULTURE: NBS, citizens cooperation and proactivity

Arvaia promote sustainable agriculture through the **community** and to re-appropriate agriculture culture in the urban context.

- Involvement of **citizens** and **institutions** in the conservation of the rural culture and landscape.
- Innovative distribution organization and management structure, self-financed (3-years bonds remunerated at 2% rate).
- Experiments on organic farming with the University of Bologna.
- Enhance **voluntary activities** in agriculture, promote **social inclusion** and **regenerate spaces** respecting the quality of landscape membership.





LE SERRE DEI GIARDINI MARGHERITA: NBS & community participation

It is a **multi-functional space**, made of a 600 sqm community garden, which has organized 150 free cultural events and hosted more than 55,000 visitors.

- Collaborative public space for **developing new services** for the community.
- It hosts a natural eating **bistro**, a **solidarity purchasing group**, a **co-working space**, a **daycare centre** and **summer events**.
- Innovative management model, a mix of entrepreneurial spirit, social innovation and **community building**.





GREEN CORRIDORS: integration of urban agriculture, biodiversity and bike trails for a Smart City

The project is being implemented and aiming at **connecting** different urban areas separated by an abandoned railway yard.

- It is characterized by the presence of **rural/green areas** and **minor roads** to be recovered and targeted for **cycle paths** and **urban agriculture**.
- It represents a way to allow mobility, integrating **buildings** and **nature**.
- It preserves the **ecosystem**, facilitates the **flow** of citizen.





What we want to learn more





Community & Co-Creation

The shape of the co-creation to come

The agriculture is a **heritage**, is the reason why the firsts settlements of men were founded. Now as then, it molds people into **community**. ***How enforce and enrich communities.***

All stakeholders (consumers, producers and supply chain) have to be engaged in process and consumption model of **co-design**; ***How create a learning community.***

The metropolitan agriculture arouse social responsibility and motivation by a **co-working** process; **How stimulate cooperation and social cohesion for long periods.**

The Urban Gardens, through knowledge share and employability, support the vulnerable part of population, allow their **empowerment**. **How transform skills in capability.**





...and more:

Metropolitan agriculture represent a method for doing **social communication:**

- support **social behaviors**, allowing people to meet each other;
- are a model of **collective learning**, about importance of nature conservation and sustainable practice for climate mitigation;
- stimulate a **healthy lifestyle** for citizenship;
- affirm the commitment of public administration in **sustainable development**.

Working and **design with nature** involves reframing spaces; Nature Based Solution, which mix social, cultural and environment aspects, is a tool to **merge** different perspectives and visions of the metropolis.





What in the future?

The Metropolitan City of Bologna is:

- promoting **policy** in order to incentivize urban and peri-urban agriculture activities, until set up an Agriculture Mediterranean Cluster;
- committed to support the development of **Green** and **Circular Economy** initiatives;
- addressing to explore Nature-based Solution link to **nature, businesses** and **social** functions.





Thank you for the attention!

<http://www.connectingnature.eu>

 ConnectingNature

 @CONNECTINGNBS

 connectingnature

Metropolitan City of Bologna
marino.cavallo@cittametropolitana.bo.it

