

# Fostering the implementation of **green solutions** through a **Living Lab** approach

Experiences from the **LiLa4Green** project



**Tanja Tötzer | AIT Austrian Institute of Technology GmbH**

Katrin Hagen, Beatrix Gasienica-Wawrytko | *Technical University of Vienna*

Erik Meinharder, Johannes Brossmann, Vicki Matejk | *PlanSinn*

Susanne Formanek | *GRÜNSTATTTGRAU*

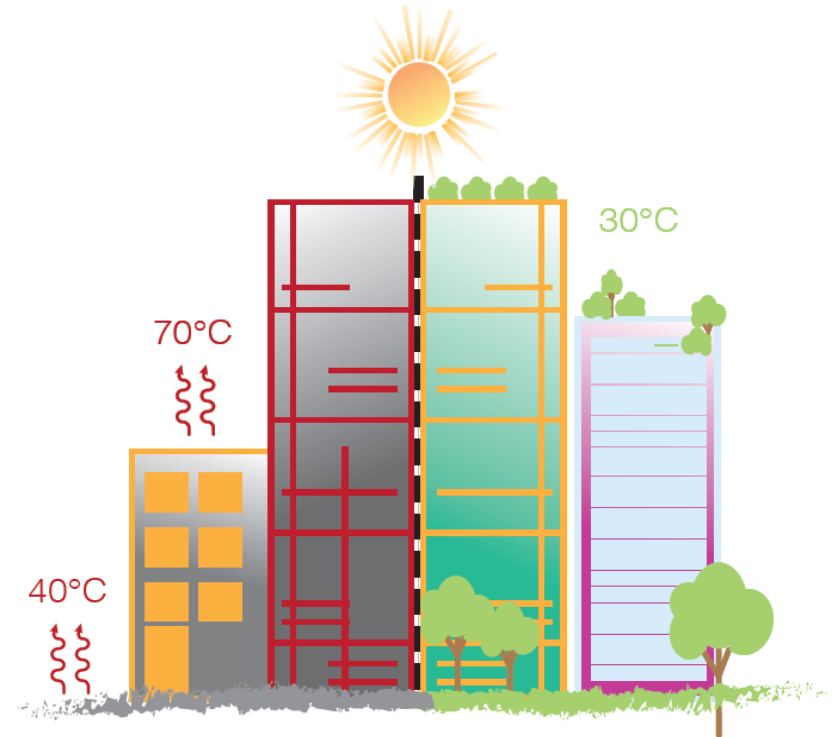
Matthias Ratheiser, Wolfgang Gepp | *Weatherpark*

Dietmar Millinger | *Grexit*



# WHY DO WE NEED GREEN SOLUTIONS FOR CITIES?

- Even “green cities” like Vienna show an **uneven distribution** of green
- High **building density** and **surface sealing** within city structures
- Climate change: particularly in summer, cities face **rising temperatures** and peak periods of extreme heat
- Benefits of green: **balancing** the urban microclimate



[https://smartcities.klimafonds.gv.at/wp-content/uploads/sites/3/Plakat\\_Hitze-in-der-Stadt\\_neu.pdf](https://smartcities.klimafonds.gv.at/wp-content/uploads/sites/3/Plakat_Hitze-in-der-Stadt_neu.pdf)

## LILA4GREEN - KEY FACTS

Accompanying **Living Lab** for the implementation of **green-blue** infrastructure measures in the Smart City Vienna

- **Duration:** 03/18-02/21 (3 years)
- **Funding scheme:** Smart Cities Demo
- **Coordinator:**  
AIT (Austrian Institute of Technology)
- **Project partners:**  
TU WIEN - Landscape, GrünStadtGrau,  
PlanSinn, WeatherPark, GREX IT Professional Makers



[www.lila4green.at](http://www.lila4green.at)

Project Website





# LILA4GREEN: GOAL 1



<https://afasiaarchzine.com/2012/02/tredje-natur/>

Create **green urban oasis** in existing built-up areas despite high density and pressure (10<sup>th</sup>&14<sup>th</sup> district)



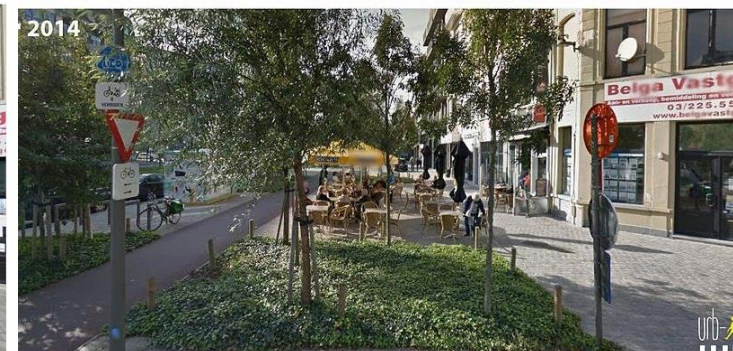
Ein Beispiel wie die Goldschlagstraße begrünt und umgestaltet aussehen könnte. © Michael Sohm

Green urban oasis = network of parks, open space, green space, green streets and green facades&roofs

→ **focus on streetscape**



2009 Antwerp, Belgium



2014

## LILA4GREEN: GOAL 2

LL and **smart user participation**  
(Apps, augmented reality, crowdsourcing)

- Raise awareness for **CC**
- Assess the **needs**
- Monitor and assess the **social effects** (quality of life, wellbeing, appreciation of open&green space)
- Raise the willingness to **implement and invest**



<https://www.ofdesign.net/interior-design/patrick-blanc-wide-facade-greening-promotes-environmental-protection-3342>



App „New Trees for a CO2-neutral Hamburg“ from SMARTICIPATE

Quelle: [https://www.smarticipate.eu/wp-content/uploads/2016/10/03\\_Hamburg\\_Urban-Story\\_Strassenbaumkataster\\_GERMAN.pdf](https://www.smarticipate.eu/wp-content/uploads/2016/10/03_Hamburg_Urban-Story_Strassenbaumkataster_GERMAN.pdf)



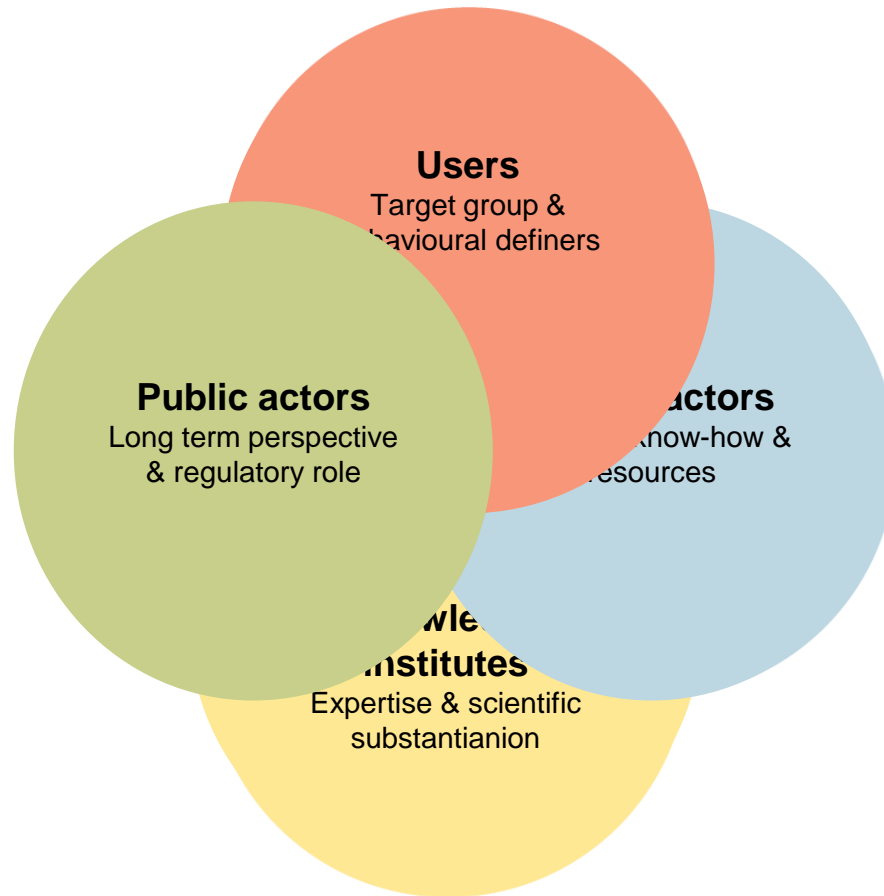
## WHY A LIVING LAB?

- Implementing green solutions is only partly a technical, but much more a social and administrative issue
- Green solutions need local people - decision makers AND citizens
  - **local embeddedness and context**
  - **guarantee continuity, legacy**
- Important to give impulses and set actions
  - **management of expectations**
- Applying new approaches and tools for reaching more people
  - **openness to experimentations**

*If you want to build a ship,  
don't drum up people to collect  
wood and don't assign them tasks  
and work,  
but rather teach them to long for  
the endless immensity of the sea.*  
*Antoine de Saint-Exupery*

Living Lab is a good approach for integrating all these essential topics

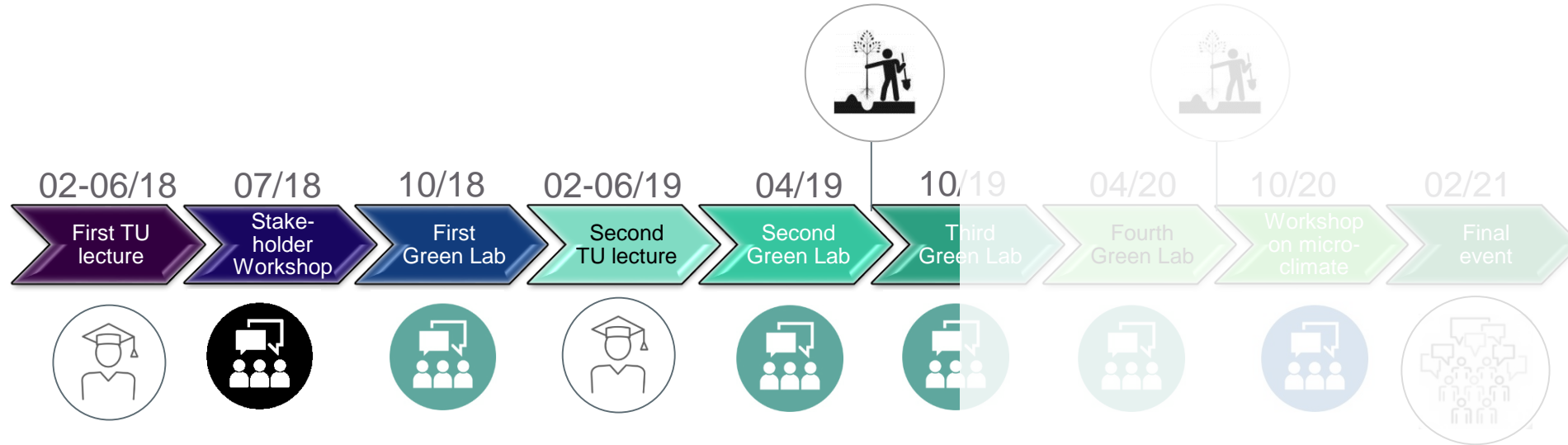
# WHICH ACTORS ARE NEEDED IN A LIVING LAB?



Kris Steen & Ellen van Bueren 2017



# THE LILA4GREEN LIVING LAB PROCESS



GL1 Exchange of expert and local knowledge



GL2 Co-creation of first intervention and testing of AR tool



# PARTICIPATORY APPROACHES APPLIED

Beteiligungsformat	Intensität		Dauer		Zahl/TM		Art der Teilnehmenden		Beschreibung	Anmerkung	Ermittlung Urfolge
	Erkennung	Partizipation	Partizipation	Partizipation	in	an	gruppen	individuell			
Activence Bar									eigenen sinnlichen und räumlichen Erleben vor Ort. Die Diskussionen sind dialogisch und zielgerichtet.		
Word Cafe											
Zukunftswelt (Mundform)											
Hands On Participation											
Stadtbegehung											
Placemat											
Planning for free											



On-the-street activation



1st Green Lab, Oct 2018



Collection & discussion on suitable methods



2nd Green Lab, May 2019



Experimental approach:

- ✓ Design proposals from TU students
- ✓ Decisions taken by citizens



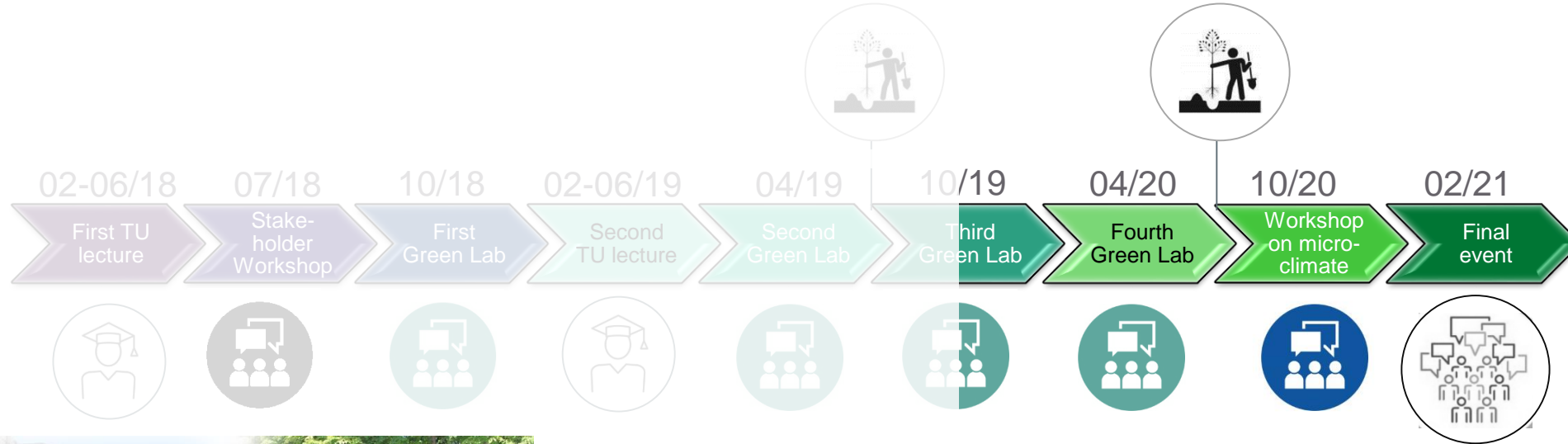
Augmented Reality





# ON-SITE INTERVENTION: PARKLET



# OUTLOOK



-  GL3 Shared reflection, vision for implementation, tool testing
-  GL4 Co-creation of final implementation



## CONCLUSIONS

- **Continuity, co-decision-making and setting concrete actions** is essential for successful participation
- Participation needs a **professional accompanying process**.
- It is crucial to create a **low-threshold level** for participating in a Living Lab process.
- For mobilizing and obtaining the local knowledge of the heterogeneous population in the test area **different approaches and sources** are needed.



Grüne Stadt, Friedensreich Hundertwasser



# THANK YOU!

Dr. Tanja Tötzer, 13th September 2019

