



EDICITNET GLOBAL LUNCH TALKS :
URBAN FOOD INNOVATION

Urban Beekeeping & the Benefits of Pollinators in Our Cities

With Martin Stelter from Stadtbiene and Steve
Rogenstein from The Ambeassadors

14th June 2023 | 13.00-14.00 CEST

www.edicitnet.com



This project has received funding from the European Union's Horizon 2020
research and innovation programme under grant agreement No. 776665



Photo: Lotte Stekelenburg



Edible Cities Network

Integrating Edible City Solutions
for social, resilient & sustainably productive Cities



EdiCitNet in a Nutshell

Edi Emilov

Humboldt Universität zu Berlin

Webinar

Urban Beekeeping & the Benefits of Pollinators
in Our Cities

14.06.2023



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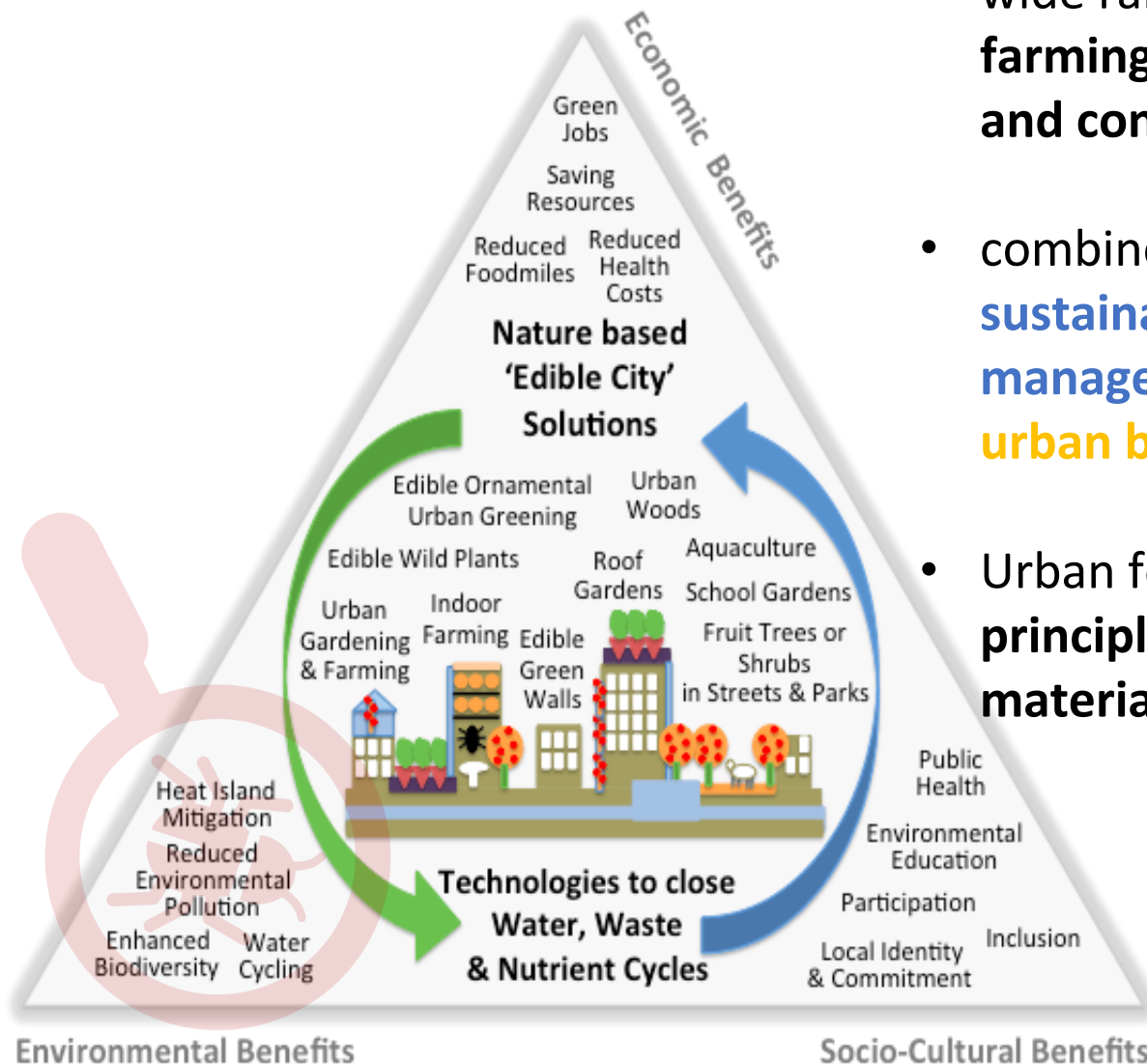
- **5-year project (2018-2023)**, funded by the EU
- Project extended until **Feb 2024**
- An “innovation action” not a normal research project
- **8 Work Packages “WP”** coordinate the work in the project
- **35 international partner organisations**, approx 100 individuals are funded by the project

The Project's Mission

**To mainstream Edible City Solutions for
more socially inclusive, sustainably
productive, biodiversity friendly, resilient
and healthy cities**



What are Edible City Solutions? (ECS)



- wide range of **different forms of urban farming, food production, distribution and consumption**
- combined with **closed loop systems** for **sustainable water, nutrient and waste management** and measures to **foster urban biodiversity**
- Urban food production use **innovative principles of ecological design, closed material and energy flows.**

Mission & Co-Creation Strategy



- **Edible City Solutions (ECS) overcome mismatch between NBS and citizens by deepening the social dimension of NBS.**
- Mainstream successful co-creation practice from ECS that are **socially inclusive, invite citizens to co-create** the sustainable development of their society, to proactively change the urban environment to their benefit & to induce a **paradigm shift of lifestyle.**
- ***Co-created Communities of Knowledge & Practice***

Co-created City Teams: Communities of knowledge and practice

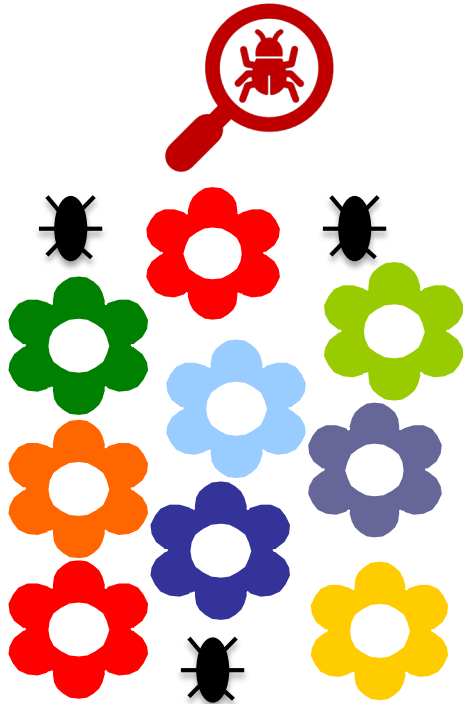
- **13 open and participatory City Teams** with actors of all levels (e.g. city administrators, planners, members of local NGOs and businesses).
- a **collective learning process**, that leads to a comprehensive and co-developed knowledge base, with contributions from theoretical and practical contexts.



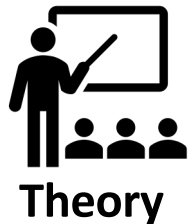
Rotterdam (NL), Oslo (NO), Havana (CU), Andernach & Berlin (DE), Montevideo (UY), Sant de Feliu de Llobregat (ES), Letchworth (UK), Carthage (TN), Sempeter pri Gorici (SI), Lomé (TG); Guangzhou (CN)



Why **biodiversity**-friendly & Edible Cities?



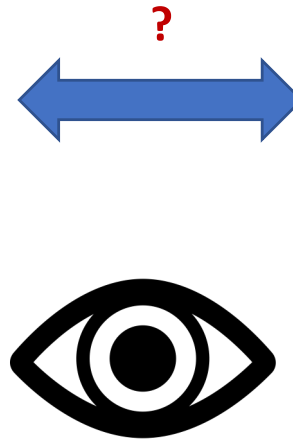
- Biodiversity supports provision of **ecosystem services!**
- Biodiversity makes **happy!**
- Biodiversity supports **public & planetary health!**
- Supporting biodiversity **where people live and work!**
- Biodiversity is **attractive!**



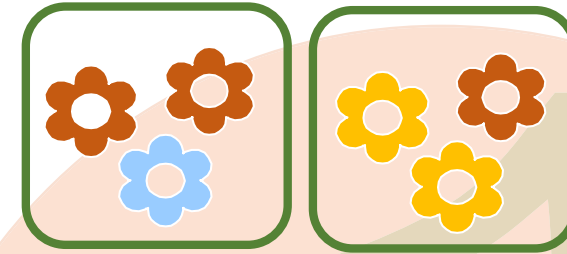
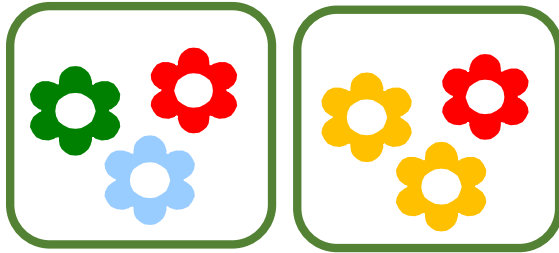
Check scientific evidence e.g. Miller & Hobbs 2002; Fuller et al. 2007; Weber et al. 2008; Weber et al. 2014; Battisti et al. 2019; Säumel et al. 2021; Mohr-Stockinger et al. 2023

Actual versus perceived **biodiversity** in Cities?

*Actual biodiversity
measured by various tools of
ecological research*



*Perceived biodiversity
measured by surveys, Eye-tracking,
participatory observations...*



Bundesministerium
für Bildung
und Forschung

New project just started (June 2023): ***Healthy and biodiverse Edible Cities***: A cluster randomized controlled trial to assess the effects of a biodiversity-focused community garden intervention on species richness and health in adults (University of Heidelberg, Humboldt University with Mundraub, Prinz, Juca)

Co-creating and *testing ECS in Living Labs*, Co-developing sustainable *Master Plans for Edible Cities* of the future





Geographies of Co-creation

EDIBLE CITY NETWORK: different existing practices of citizen participation

Join the network!

www.edicitnet.com

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BEEES & POLLINATORS IN THE CITY



STEVE ROGENSTEIN • EDICITNET • 14 JUNE 2023

THE AMBEESSADORS

Mission: To connect the bee community and to spread awareness of and appreciation for the importance of bees — and pollinators — through research, events, educational programs, the arts, advocacy, activism, and more.

www.ambeessadors.com



A group of bees is shown on a horizontal branch. One bee is flying above the branch, while several others are perched on it. Below the branch, the bees are reflected in a pool of water. The background is black. The text "IT'S NOT ABOUT BEES" is overlaid in white, bold, sans-serif font across the middle of the image.

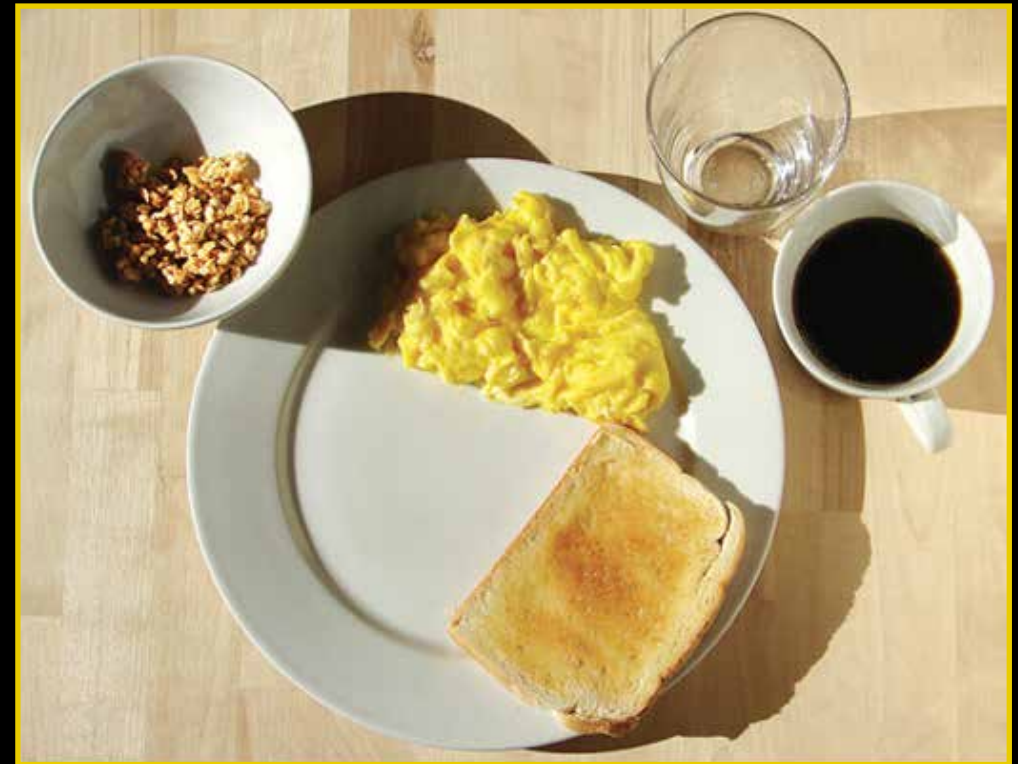
“IT’S NOT ABOUT BEES”

A monarch butterfly with orange and black wings is perched on a yellow flower. In the background, a bee is flying against a clear blue sky. The word "POLLINATORS" is written in large, white, bold letters across the center of the image.

POLLINATORS

POLLINATION

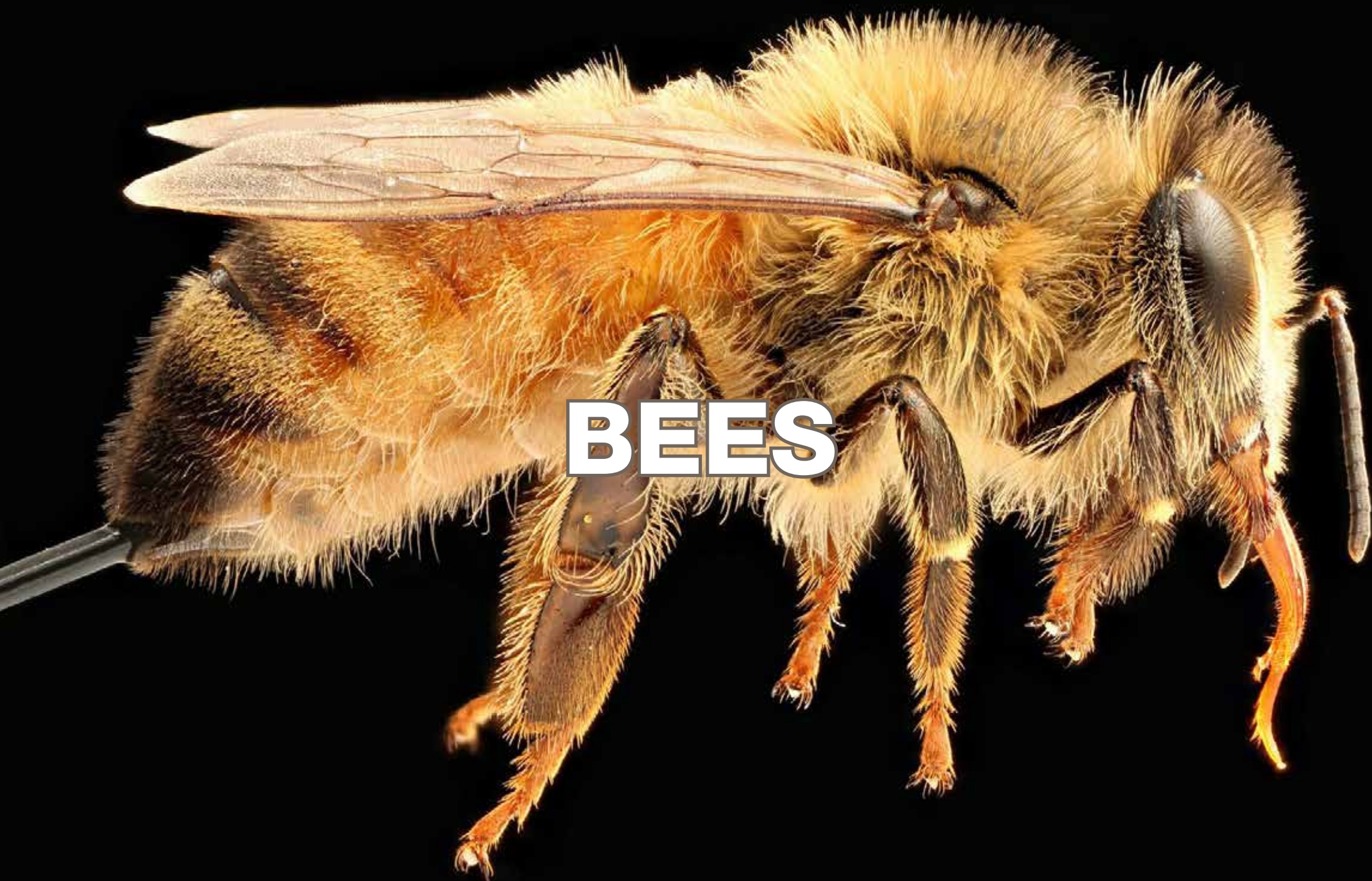
- 70 of 100 most-consumed foods depend on pollinators
- $\frac{1}{3}$ of every bite we eat has been pollinated by a bee
- Citrus, berries, squashes, almonds, sunflower, herbs, milk & meat



BIODIVERSITY

- 70% food crops
- 35% agricultural land
- 90% flowering plants
- Produce food for humans and animals
- Are food





BEEES

20,000 SPECIES OF BEES



POLLINATORS IN THE CITY



NEEDS

- Chemical-free environment
- Array of native flowers
- Safe nesting habitats
- Connectivity between habitats
- Water sources



INNOVATIONS

Habitat

- Insect hotels



INNOVATIONS

Habitat

- Insect hotels
- Bee bricks



INNOVATIONS

Habitat

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Forage

- Green roofs on bus stops



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Community Programs

- Bee City USA/Canada



INNOVATIONS

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Community Programs

- Bee City USA/Canada
- Citizen-science studies



PRINZESSINNENGÄRTEN KOLLEKTIV



MISSION

We **garden** in raised beds, **offer workshops on ecological DIY**, operate a large **environmental education area**...and are involved in the cultural program of Neukölln. We also house an **EdiCitNet Living Lab**.



PROGRAMS

- Environmental education
- Garden tours and advice
- Garden Café
- Farm store
- Raised-beds gardening
- Horticulture
- Park maintenance
- Studio Nagelneu
- Events
- Edible Cities Network
- Natural beekeeping



MELLIFERA BERLIN

Mission



MELLIFERA BERLIN

Mission

Educational programs



MELLIFERA BERLIN

Mission

Educational programs

Hive types

- Klotzbeute/loghive



MELLIFERA BERLIN

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Educational programs

Hive types

- Klotzbeute/loghive
- Einraumbeute/one-room
- Top-bar hive



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Educational programs

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- Klotzbeute/loghive
- Einraumbeute/one-room
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- Sunhive



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Mission

Educational programs

Hive types

- Klotzbeute/loghive
- Einraumbeute/one-room
- Top-bar hive
- Sunhive
- Warré hive



THANK YOU!

For more information, contact and follow us at:

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The Xerces Society

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Urban Beekeeping

a hobby with purpose

- non-profit organization founded in 2014
- team of 18 employees alongside 80+ freelance beekeepers
- Do good and teach about it!
- Was recognized by the UNESCO programme "Education for Sustainable Development: Implementing Global Sustainability Goals" (ESD for 2030) in March 2022



#BNE2030
#ESDfor2030

2022/2023
Nationale Auszeichnung
Bildung für nachhaltige
Entwicklung

as/Österreich vom

Bundesministerium
für Bildung
und Forschung

Bildung für
nachhaltige
Entwicklung

unesco
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UNESCO-Kommission







Healthy

Leave enough honey
in the hive for winter



Natural

Work with natural
bee propagation



Patient

Bees build their own
honeycomb

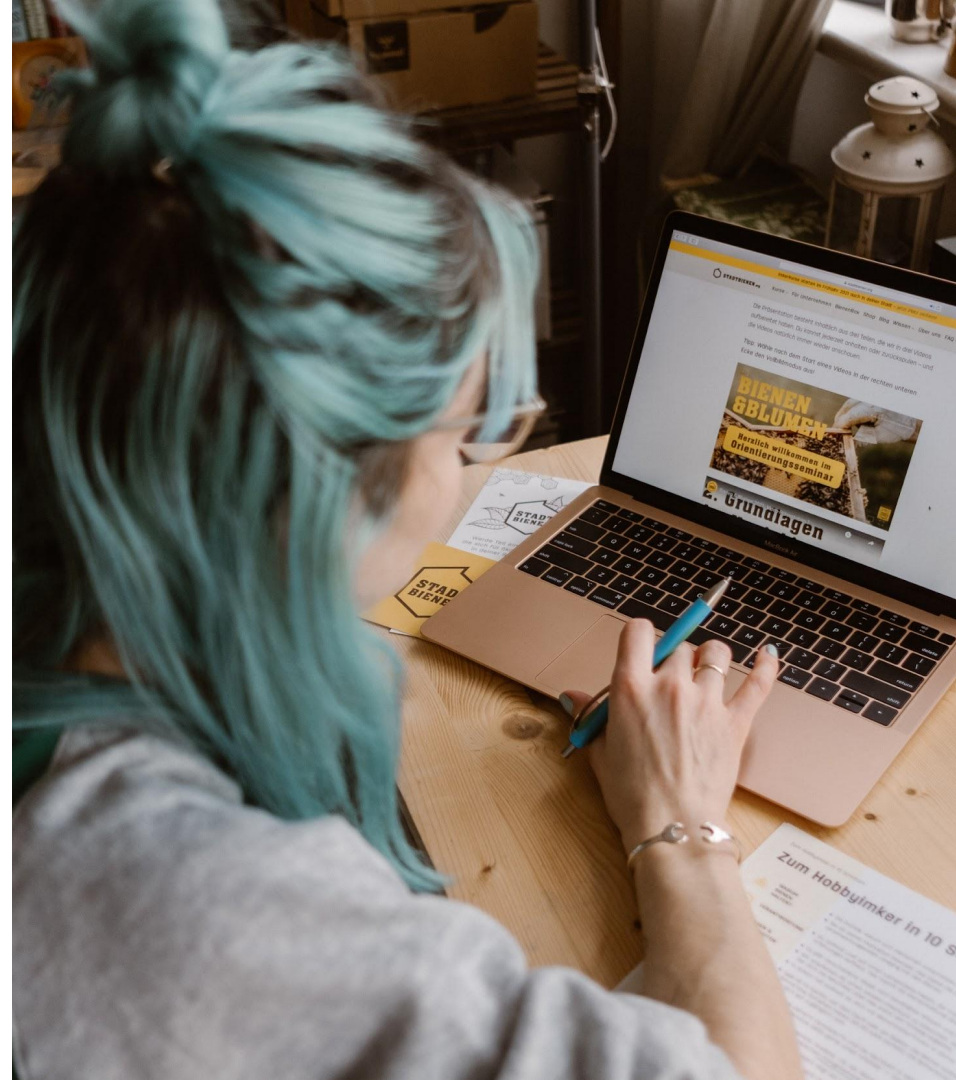


Urban beekeeping is a hobby with purpose

- ✓ A “pet” that is good for local biodiversity
- ✓ Zen time
- ✓ local honey helps with hay fever
- ✓ Have an indicator for local climate and biodiversity



**Let's look on the
bigger picture.**
Beyond wild bees or
honey bees.



Enough habitat for
every native
species.





Die meisten Bienenarten sind keine Honigbienen

Die meisten Bienen sind nicht Honigbienen. Sie sind kleiner, leben kürzer und sind weniger sozial. Sie sind oft in Gruppen von Tausenden bis Millionen von Individuen organisiert. Sie sind oft in Gruppen von Tausenden bis Millionen von Individuen organisiert.

Alle Bienen sammeln Pollen für ihre Brut. Honigbienen sammeln Nektar für ihren Honig und Pollen für die Fütterung ihrer Brut. Die meisten anderen Bienenarten sammeln nur Pollen für die Fütterung ihrer Brut. Die meisten anderen Bienenarten sammeln nur Pollen für die Fütterung ihrer Brut.

Wildebienen (außer Hummeln) stellen keinen Nektar her.

Vom Ei zur Wildbiene und zurück

Die meisten Wildbienen sind Einzelgänger. Sie legen ihre Eier einzeln in kleine Hohlräume in Erde, Sand oder Holz ab. Die meisten Wildbienen sind Einzelgänger. Sie legen ihre Eier einzeln in kleine Hohlräume in Erde, Sand oder Holz ab.

Die Entwicklung der Wildbiene:

- Ei:** Das Ei wird in einem Hohlraum abgelegt.
- Larve:** Die Larve frisst sich durch die Eihülle und fressen sich durch die Eihülle.
- Puppe:** Die Puppe verweilt in der Erde, bis sie fertig ist.
- Imago:** Die fertige Biene verlässt die Erde und sucht nach Nahrung.

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**Let's make cities
the best ecosystems!**



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