

#tomorrowliving

„Reflection: The engine for sustainable market and jobs growth in Austria and Europe: **Green infrastructure and nature based solutions on buildings**“

stand-up  
innovation

#5

TOMORROW  
LIVING



powered by  
  
alchemia  
nova



GREENER CITIES  
IN EUROPE



Speaking:  
**Vera Enzi**



**Vice-President**  
**European Federation of**  
**Green Roofs and Walls**

CEO of the Innovation Laboratory for greening cities Austria:



# Understanding the Market..

How is the current market size development and value chain behind green infrastructure implementation on buildings in Austria?



# Market Volume

## New installations 2018

1.000.000 m<sup>2</sup> Green roofs

40.000 m<sup>2</sup> Green walls

2.000 m<sup>2</sup> Indoor green walls

## Turnover and growth

Market	turnover 2018	growth 2014 - 2018
Green roofs	74,5 Mio €	9,21%
Green walls	13,3 Mio €	8,88%
Indoor green walls	2,7 Mio €	37,59%



nachte geschätzt.

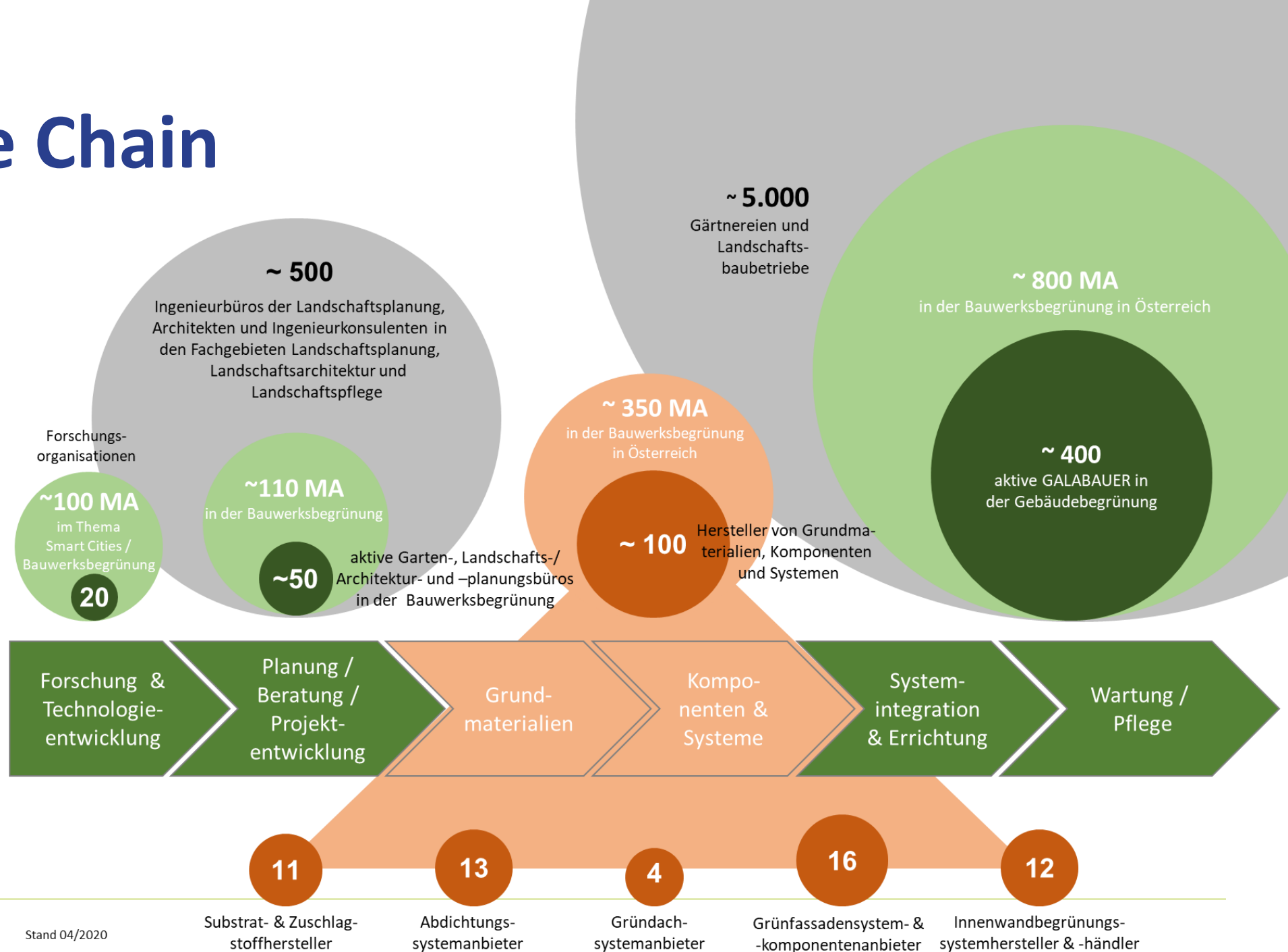
In Österreich werden jährlich rund  
**40.000 m<sup>2</sup>**  
**Fassaden begrünt**





# The Value Chain

- Strong **research competence**
- Regional net products in **materials and components, planning and installation**
- Strong group of **green roof system providers**
- Continuous **growth of new joining SME's** in the field



# Understanding public Clients..

How are cities and towns as stakeholders currently dealing with the topic?



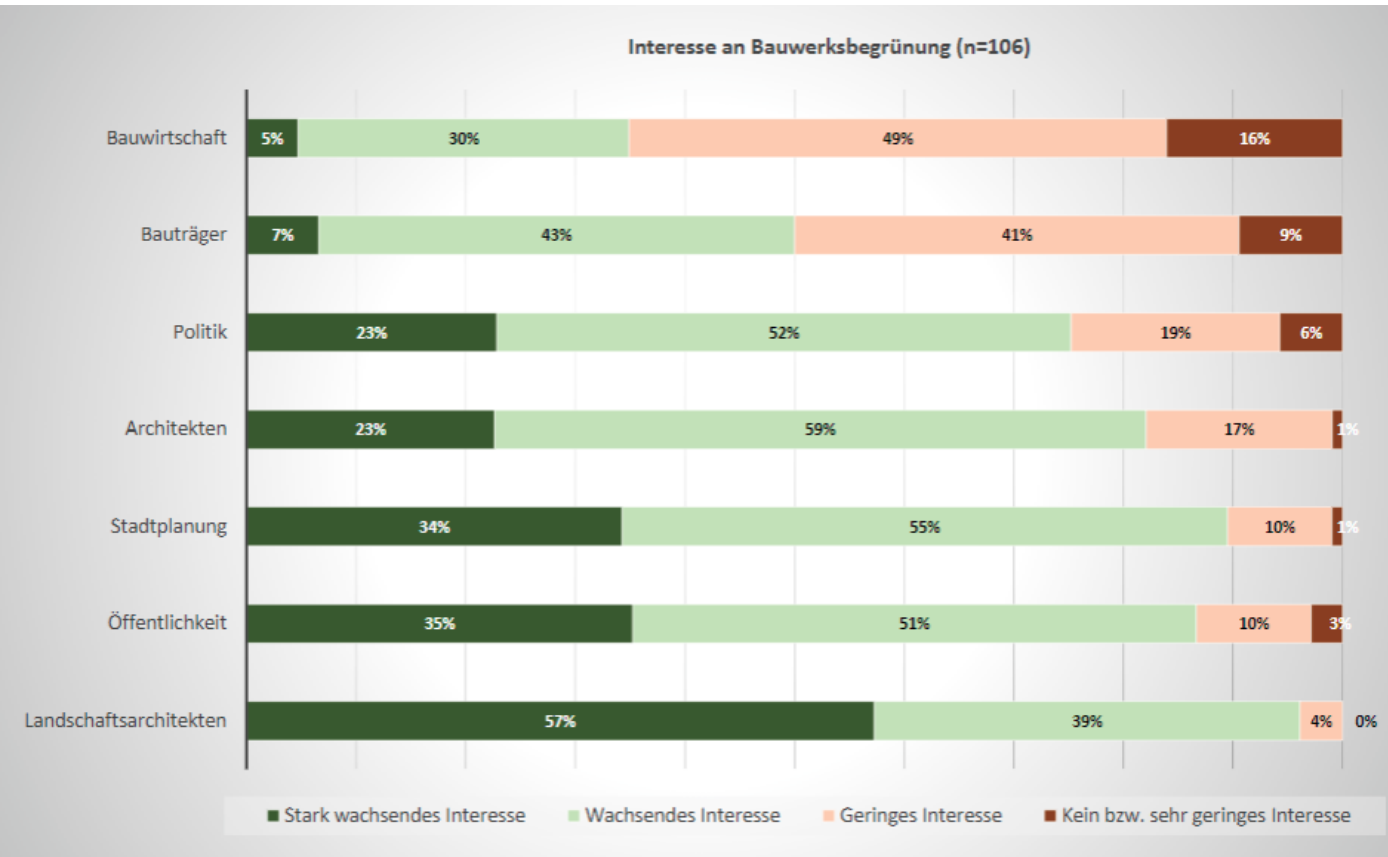
# Cities in Austria and Climate Change Adaptation & Mitigation

- ✓ Challenge **ACCEPTED**
- ✓ **Significance** of green infrastructure and nature based solutions **recognized**
- ✓ **Large Diversity** of strategies and measures currently in place
- ✓ **Need for best practise sharing and monitoring of implementation status**





# Raising Interest across Stakeholder groups





Where to go from now on..

What about the Potential and  
future perspective of the market  
sector?



# Future Perspectives

- Dynamic development of the market sector
- Established value chains
- Market with large growth potential





# What needs to change..

Are there necessary actions on different levels, such as policy making, political commitment, regulations and incentives?





# Push NBS on buildings in new construction and refurbishment

- Mandatory targets to agree on: by 2030 every **2nd newly built flat roof is a GREEN ROOF**
- Start Refurbishment offensive green roofs: until **2023**, **1000 refurbished flat roofs are greened** (size from 1000m<sup>2</sup>)
- Start Refurbishment offensive green walls: until **2025**, **1000 refurbished walls are greened** (size from 100m<sup>2</sup>)





# Incentives and Control

- NBS on buildings as an integrated part of the **planning process**
- Mandatory introduction of a **green infrastructure indicator**
- Introduction of NBS on buildings into the building's **energy billing, direct financial incentive**
- **Mandatory combination of green infrastructure and renewable energy technologies**
- Introduction of green roof and wall **cadastre systems** to support **monitoring of implementation progress**
- **Evaluation** of green infrastructure unsealing and depaving process in light of the current **government program from 44 km<sup>2</sup> to 9 km<sup>2</sup>/year until 2030**





# Integrated Rainwatermanagement

---

- **Tax incentives** for decentralized rainwatermanagement and storage in green infrastructure
- **Alignment of laws and policies related to rainwatermanagement, storage and ground water protection** regarding green infrastructure
- Introduction of **positive incentives** by cities and towns, countries and federal state:  
**Depaving award austria**





## Changes by law

- Reception of green roofs and walls in the list of useful improvements for buildings (**§20 law of tenancy**)
- Reception of green roofs and walls as measure of the ordinary administration (**§ 28 and 29 condominium act**)



What the bigger scope  
brings..

What about the European  
situation in terms of market and  
Jobs?





# Market Estimation 2015

## Examples Europe

Target Country	Green Roof Stock total m <sup>2</sup> (2014)	Green Roofs new/year m <sup>2</sup>	ratio extensive %	ratio intensive %	Yearly sales figures €
Austria	4.500.000	500.000	73 %	27 %	27.350.000
Germany	86.000.000	8.000.000	85 %	15 %	254.000.000
Hungary	1.250.000	100.000	35 %	65 %	5.662.500
Scandinavia (S, N, DK)		600.000	85 %	15 %	16.050.000
Switzerland		1.800.000	95 %	5 %	51.300.000
UK	3.700.000	250.000	80 %	20 %	28.000.000
	<b>95.450.000</b>	<b>11.250.000</b>			<b>382.362.500</b>





# European Green Market Report

---

<https://greenmarketreport.eu/en/green-market-report/>

**..SUSTAINABLE  
GROWTH WITH GREEN  
INFRASTRUCTURE**

Towards a pan-european Research initiative.



**VIENNA 2020**

**unic**

**Green  
Infrastructure  
Future  
Summit**

**Der zweite  
Wiener  
Kongress**

**24.+25. Sept. '20  
BOKU Wien**

GREENER CITIES  
IN EUROPE



EUROPEAN  
FEDERATION  
GREEN ROOFS  
& WALLS

**See you there!**



**GRÜN  
STATT  
GRAU**