

# International Green Roof City Network

## Case Study Linz, Austria



### 1) City Data

#### Location

State capital of Upper Austria, elevation 266 m  
Linz lies on the Danube between Vienna and Salzburg.

#### Area

96.06 km<sup>2</sup>

#### Population

193.814

#### Other Information

Linz's climate is both sub-oceanic and sub-continental. Average monthly temperatures range from -2.2 °C in January and 18.4 °C in July. Precipitation averages 50 mm from September through April and rises to about 90 mm in the summer months of June, July and August. Annual precipitation averages about 800 mm.

Linz offers more jobs than it has inhabitants. Car commuters cause rush hour traffic peaks. City tolls and emissions standards / green zones traffic restrictions are currently not in force. The subterranean motorway A26 Linzer West Ring is in planning to reduce traffic congestion.

## 2) Description of the local Green Roof Policy Initiative

### 2.1 Start

Year 1985: Land-Use Plans

Year 1989: Financial Incentives

### 2.2 Expected environmental benefits

- Stormwater management
- Biodiversity
- Urban Heat Island Effect
- Air Quality
- Climate Change
- Energy Savings
- Beautification of the City

### 2.3 Environmental benefit that is the carrier of the green roof initiative

Linz's predominately heavy industry (steel and chemical plants) economy experienced a huge boom in the '60s and '70s which led to an all time low in air quality. This boom brought about a dramatic reduction in rural areas and green spaces as new industrial property, residential areas and roads were developed. As a result, the Linz urban planning office started green space research back as early as 1965. The 1st Linzer green space plan was adopted in 1985 and still forms the basis for legally binding land-use plans. City specific greening measures (including green roofs) are stipulated in land-use plans. The green space plan was revised between 1991 and 2001 (initially digitally) and then again in 2012.

## 2.4 Support instruments that are used by the municipality to promote green roofs

- Building, landscape, energy, or other code or policy (e.g. land-use plan, green roof bylaw, zoning code, green factor, design regulations, etc.)
- Reduced stormwater fee
- Financial Incentives
- Tax Credits
- Favourable Credit Terms
- Density Bonus
- Demonstration Projects
- Ecological Labels
- Press, Internet
- Education and Information (e.g. seminars, conferences, green roof tours, etc.)
- Research
- Local Green Roof Guidelines
- Consultancy offer for constructors, investors, building owner
- Other instruments

### Description of support instruments

**Building, landscape, energy, or other code or policy:** Application of legally binding land-use plans with city specific greening regulations (including green roofs) since 1985

**Financial Incentives:** Starting in 1989, the financial support programme offered a maximum of 30% of the eligible green roof costs with no financial limit (cap). Every builder could receive the financial support for including a green roof (regardless of whether it was stipulated in the land-use plan or not). The current financial support is now a maximum of 5 % of the eligible costs per green roof with an upper limit (cap) of 7,500 Euro.

**Education and Information:** Information and excursions with an urban planner.



**Consultancy offer for constructors, investors, building owner:** Every builder, planner, investor and citizen has the right to request free and neutral information on green roofing through the town planning office.

### 3) Number and area of green roofs

490 green roofs, approx. 500,000 m<sup>2</sup>

### 4) Challenges and future prospects

- Most green roofs constructed in the early '80s and '90s used a single layer green roof system and are now often not optimally maintained. Approximately 80 % of green roofs are extensive so that residents are not really aware of them.
- In 2009 Linz received the first prize from the Austrian Green Roof Association as the countries leading green roof city. This position is still being defended.
- Future revisions of the green spaces plan will be based on aerial pictures using special analysis software.

### 5) Contact persons

Stadtplanung Linz, Abt. Stadtentwicklung  
Mr. Ing. Edmund Maurer  
Hauptstr. 1-5  
4041 Linz / Austria  
Phone: ++43 732 7070 3142  
E-Mail: [edmund.maurer@mag.linz.at](mailto:edmund.maurer@mag.linz.at)

### 6) Internet resources

<http://portal.linz.gv.at/Serviceguide/viewChapter.html?chapterid=121934#Foederungsrichtlinien>  
(German language)