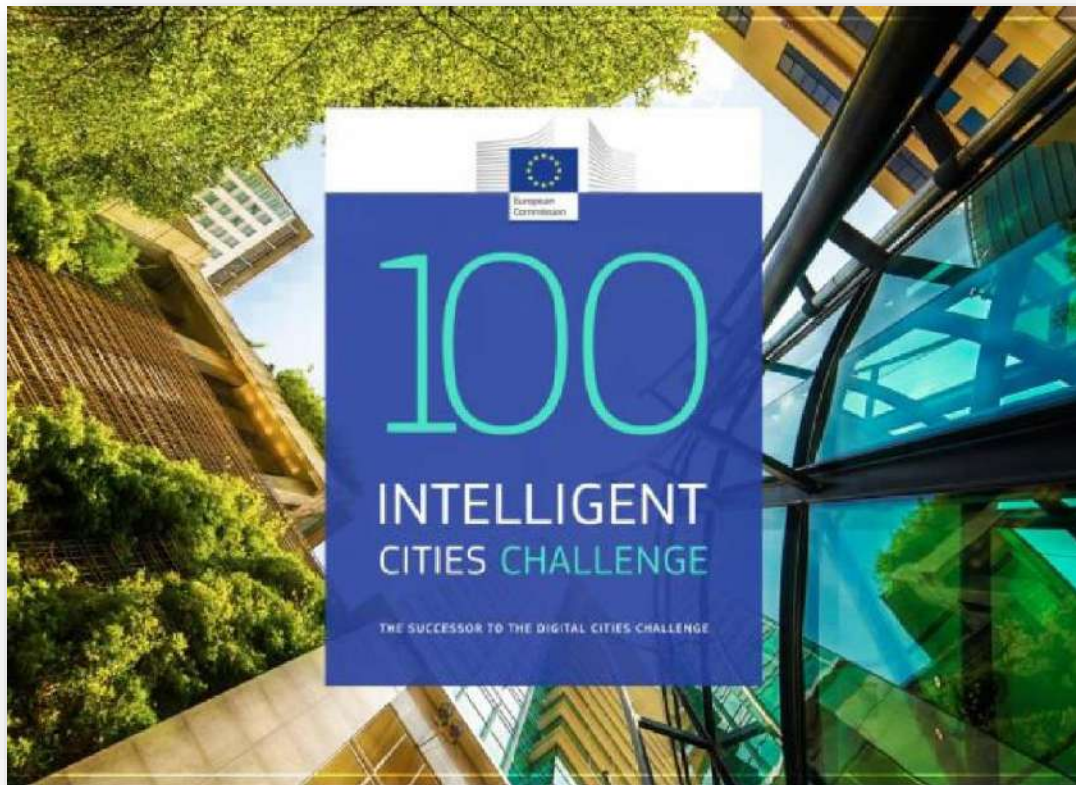




# Green initiatives for a climate neutral urban centre 2030 - examples from Trollhättan

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Johanna Berg Meneghini, Planning Architect

# ICC 2.0



- Consortium with Vänersborg, SERN, Cervia och Ravenna
- Stakeholder: Företagarna Thn
- Goal: to develop Local Green Deals (LGDs)
- Linking it to the City's work on sustainability

## Trollhättan's LGD

- ▶ Signing ceremony on Nov 13th
- ▶ Objectives:
  - (1) Increase access to sustainable energy and
  - (2) "effect efficiency" for businesses in the areas Stallbacka and Skogstorpa
- ▶ Site visits from the City's energy-and climate advisor
- ▶ Support from an EU-funded thematic expert
- ▶ Opens the door for future projects



# Green Urban Award



- Annual award
- 10 000 SEK
- The Urban Planning Committee
- To individuals, businesses or associations who have made a difference for a greener Trollhättan
- A way to inspire and engage the local community

# Broad collaboration...

- June 2021 – Political decision to prioritize biodiversity (in the city strategy for Agenda 2030).
- April 2021 – State grant for a project in Trollhättan.
- Project goal – increase biodiversity on the ground owned by the state – and inspire others to follow
- Parts: Park management, forest management, housing company, real estate company, energy company, school administration, ecologists



## **...to promote biodiversity**

- Develop projects – seek funds. 8 project has granted funds
- Other stakes without funds.
- Education for city staff and politicians





# Sweden's first local biodiversity advisor in Trollhättan

- ▶ Property owners
- ▶ Companies
- ▶ Citizens
- ▶ Schools
- ▶ Etc.







# Greener residential areas

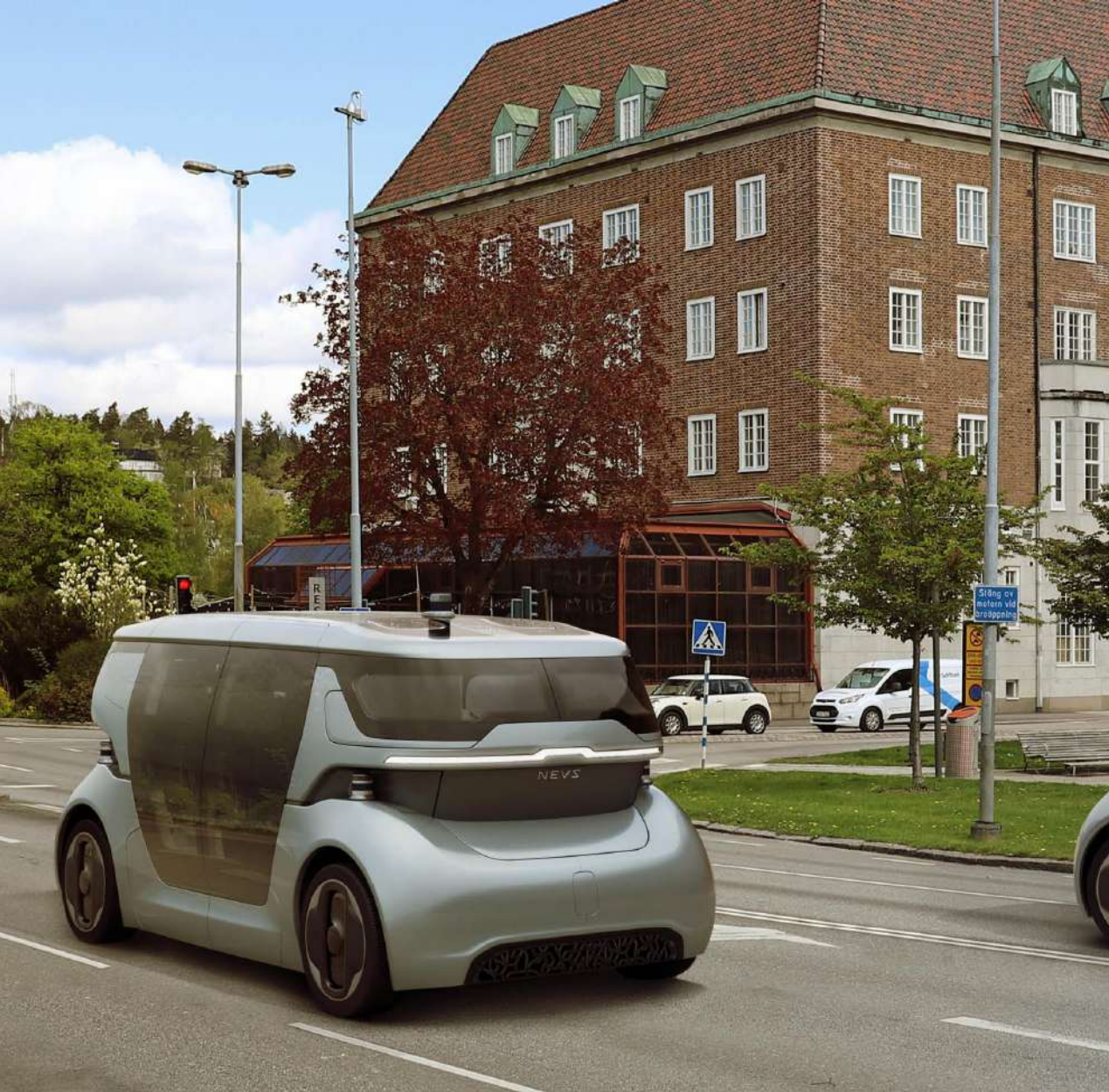


A photograph of a red wooden building with a green roof. The building has a prominent gable roof covered in a dense layer of green plants. A grey chimney is visible on the roof. The main wall is made of vertical red wooden planks. A large window with a bright yellow frame is on the right side. To the left, there is a grey metal mesh structure and a red and white bicycle parked on a concrete path. The ground in the foreground is sandy. The sky is blue with some light clouds.

**Green roofs**

A photograph of a field of white daisies with yellow centers. The daisies are in various stages of bloom, and a single tall, thin grass stem stands prominently in the foreground. The background is a soft-focus field of similar flowers and grasses.

# Conversion of lawns



# Preparation project for the use of Autonomous vehicles (AV)

- City of Trollhättan (lead), NEVS AstaZero and T-Engineering
- 2022-2023
- Goal: Create the basis for the permit process to go faster and for Trollhättan and Sweden to be at the forefront of fossil-free, shared mobility of the future.





# VÄR VIK

TROLLHÄTTAN

Urban renewal – from industrial area to a sustainable part of central Trollhättan



City centre



Train station

University



Illustration: Sweco Architects

- ▲ 1 600 apartments, offices, commercial services, school and elderly care
- ▲ 3 sustainability goals
  - ▲ 1. Support a sustainable lifestyle
    - ▲ A mobility hub with car sharing services
  - ▲ 2. Each construction project has a lower climate impact than an average project
    - ▲ Ex. Wooden constructions, reused materials



- ▲ 3. Variety of housing and public spaces that attract different groups
  - ▲ Public spaces are built in first phase
  - ▲ Mix of rental apartments and condominiums

Pictures: Trollhättan exploatering AB







# Methods used during the design process of new areas

- ▶ Ecosystem analysis
  - ▶ Biodiversity, compensation of green values that are lost
- ▶ Analysis of social impacts
  - ▶ Public spaces, availability for pedestrians and cyclists, public transportations
- ▶ Pilot study - tool for calculating the CO2 emissions



## ➤ Key factors

- Project group with urban planners, landscape architects, traffic planners, strategist in social and ecological sustainability
- Workshops early in the project, private developers are involved

## ➤ Challenges

- Conflicting interests in sustainability
- Too late in the process for major changes
- Connection with policy making and comprehensive planning

