

# Cologne's smart mobility approach in the Horizon 2020 Growsmarter Lighthouse project

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City of Rotterdam



# 2016

## ANNUAL POLIS CONFERENCE

1-2 December 2016, Rotterdam

Innovation in Transport for Sustainable Cities and Regions

A large, dense crowd of people walking in a city street, viewed from behind, illustrating the challenges of urban density. The crowd is diverse in age and clothing, with many people wearing winter coats. The text "CITIES FACE THE SAME CHALLENGES" is overlaid in the center in a large, white, sans-serif font.

# CITIES FACE THE SAME CHALLENGES



# Horizon 2020 - GrowSmarter

## Stockholm - Cologne - Barcelona



Total funding: 25 Mio EUR  
Per City: 7,3 Mio EUR

Follower Cities: Graz, Suceava, Valetta, Porto, Cork



12 smart solutions!



# GrowSmarter Movie Cologne



Film\_RheinEnergie\_englisch\_angepasst - Verknüpfung.lnk

# Cologne - Sustainable Urban Mobility

## Mobility Approach - GrowSmarter





# Cologne - Sustainable Urban Mobility

## Current situation in Cologne

- City Centers and residential areas blocked with parked cars
- Commuters and urban logistics feed traffic jams in and around Cologne
- Noise and noxious fumes limit quality of life



# Cologne - Sustainable Urban Mobility

## Current situation in Cologne

**Objective: Reduction of CO2 emission by 60 %**

- 1.Reduce traffic search  
for parking spaces
- 2.Reduce privately owned cars
- 3.Supply E-Mobility
- 4.Initialize behavioural change



less traffic, noise and emissions



more public space

# Cologne - Sustainable Urban Mobility

## Industrial Partners Cologne - Mobility



Public Transport & Bike Sharing



Carsharing



Parking App

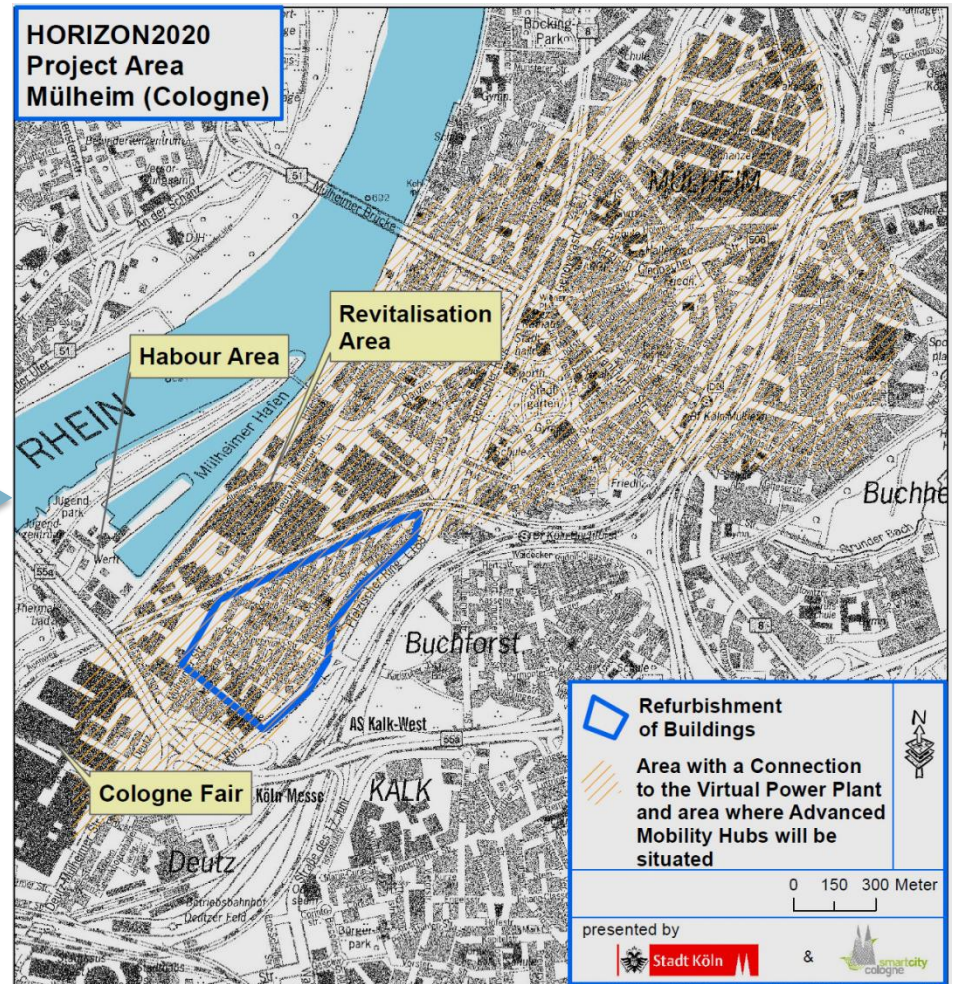


Local Energy Provider



# Cologne - Sustainable Urban Mobility

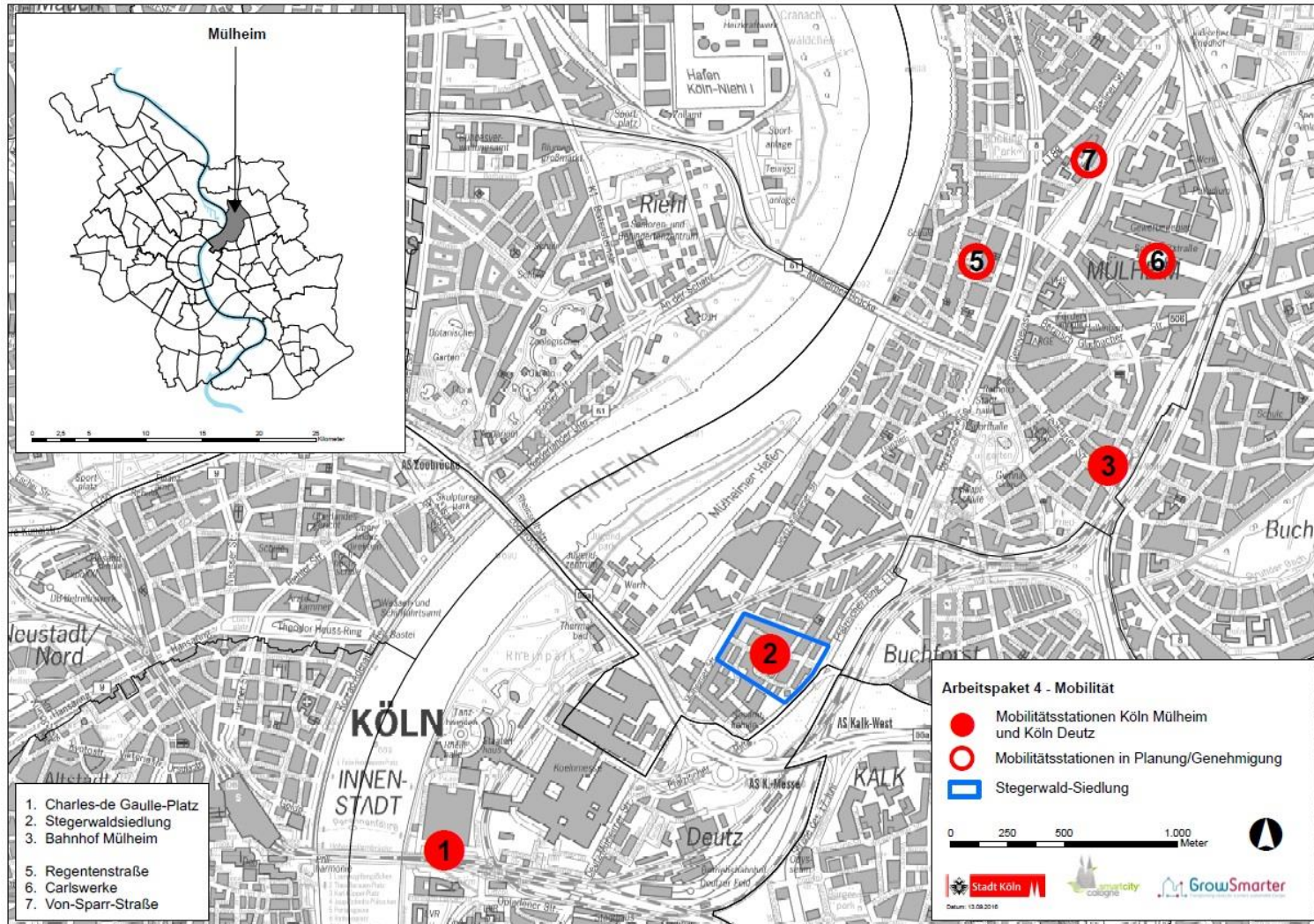
## Mobility Station - Cambio, Ampido, KVB





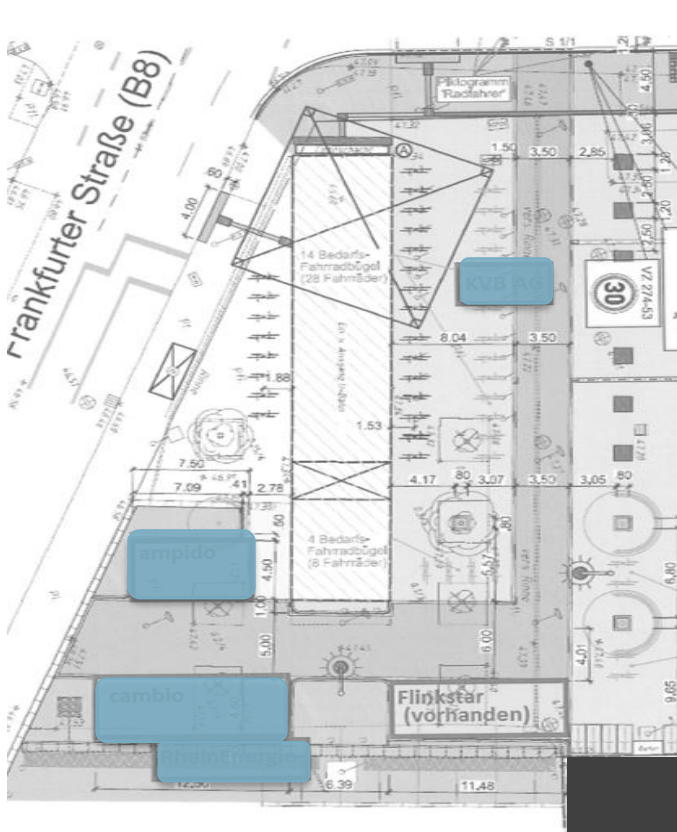
# Cologne - Sustainable Urban Mobility

## Mobility Station - Cambio, Ampido, KVB



# Cologne - Sustainable Urban Mobility

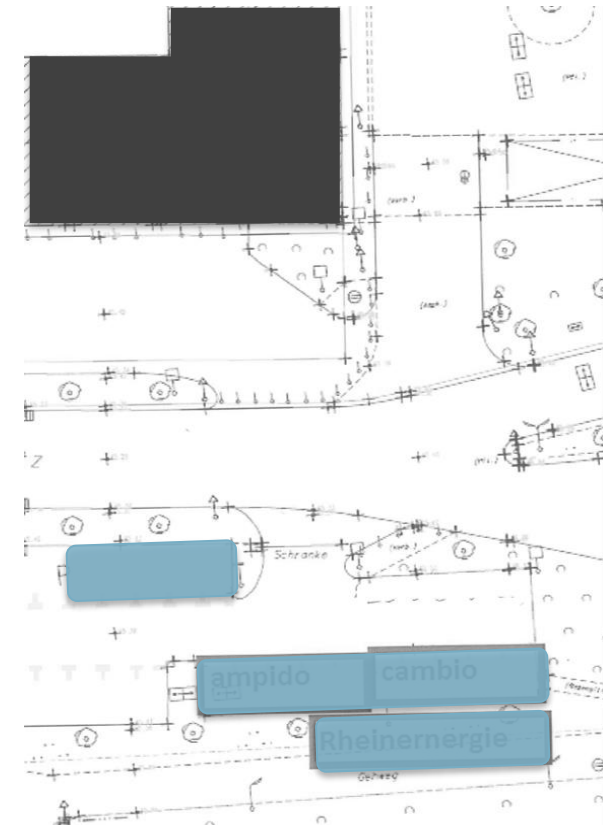
## Mobility Station - 3 prototypes



Mülheim Train Station



Stegerwaldsiedlung



Charles-de-Gaulle-Platz



# Cologne - Sustainable Urban Mobility

## Mobility Station - Mülheim Station

rheinenergie  
cambio ampido kvb



# Cologne - Sustainable Urban Mobility

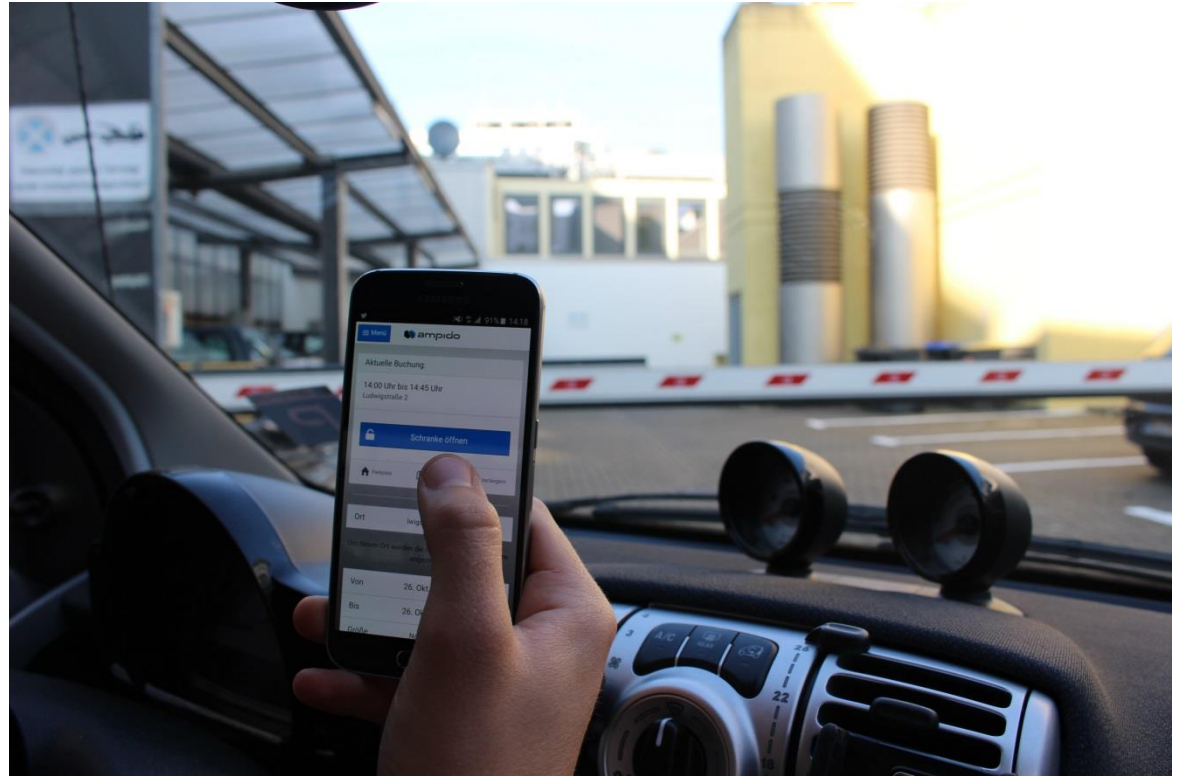
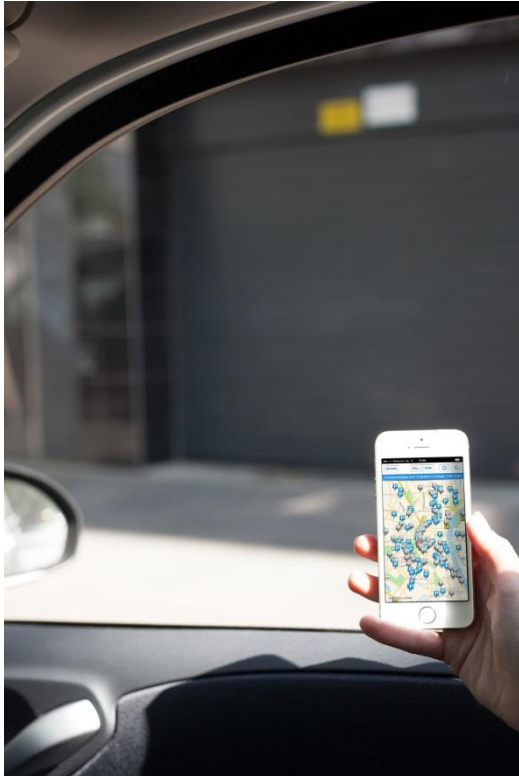
## Electrical and conventional car sharing - Cambio





# Cologne - Sustainable Urban Mobility

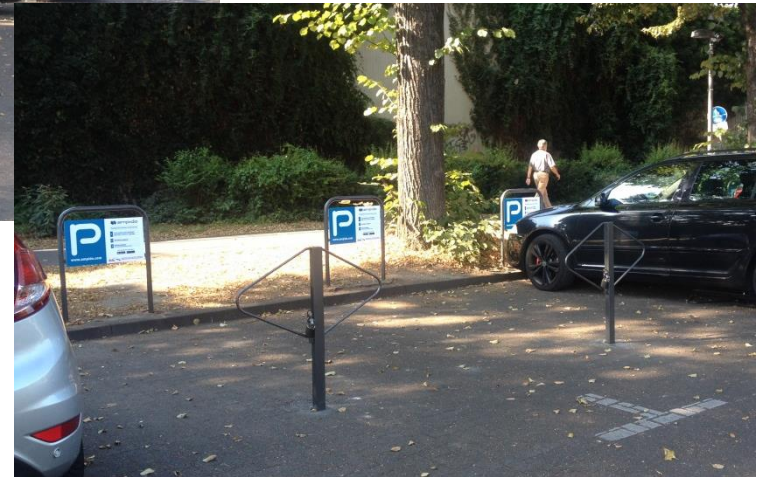
## Parking App - Ampido





# Cologne - Sustainable Urban Mobility

## Mobility Station - Charles-de-Gaulle-Platz





# Cologne - Sustainable Urban Mobility

## Mobility Station Design - Charles-de-Gaulle-Platz



# Cologne - Sustainable Urban Mobility

## Mobility Station - Design



Design cp compartner



# Cologne - Sustainable Urban Mobility

## Mobility Station - Design



Design cp compartner

# Cologne - Sustainable Urban Mobility

Impact for residents: Effects in traffic and space

## Carsharing

- Users drive 40% less
- 1 CS-car substitutes 11 privately owned cars - users abolish their cars when starting CS



## Bikesharing/ Public Transport

- PT-Ticket enables people to use PT and bikes all over the city on their way to work for a fair price - all in one ticket



# Cologne - Sustainable Urban Mobility

Impact for residents: Effects in traffic and space

## Parking App

- Due to reservation possibilities of public parking space, residents can always find confirmed parking spaces
- Additionally residents can share their privately owned parking space



less noise, pollution, CO2 emissions  
and cost reduction



# Cologne - Sustainable Urban Mobility

## Impact for commuters: Interconnected Mobility Services

### Parking App

- Commuters can plan their parking
- Due to dynamic pricing, commuters start to rethink their mobility behaviour

### Bikesharing/E-Carsharing

- After arriving by train, commuters use interconnected mobility possibilities to travel the last mile with bikes or E-Cars (e.g. in bad weather)



**less time pressure, cost savings,  
relaxed arrival at work**

# Cologne - Sustainable Urban Mobility

## Electrical Vehicles - Deutsche Post DHL



- Clean parcel delivery in Cologne (after Bochum and Bonn)
- 66 specifically developed electric StreetScooters will be used until the end of 2016
- Scooters are charged at night with certified „Grünstrom“ / green electricity
- This change to exclusively using electric vehicles, cuts down approx. 200 tons of CO2
- Through the purchase of carbon credits, Deutsche Post DHL Group supports climate protection projects around the world.





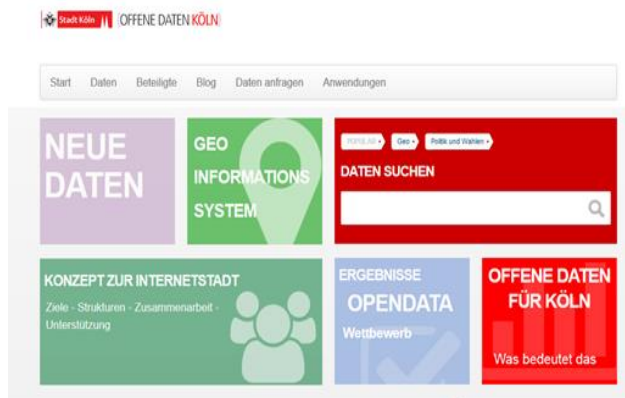
# Cologne - Integrated Infrastructure

## The Cloud



# Cologne - Integrated Infrastructure

## Data management and information processing as connector



[www.offenedaten-koeln.de](http://www.offenedaten-koeln.de)

Pushing data  
as soon as it is  
available

[ui!]TRAFFIC: <https://cockpit-koeln.urbanpulse.de/>



Providing data  
as soon as it is  
available

Traffic Management  
System – City of  
Cologne



# Cologne - Dissemination

## Tenant Event Stegerwaldsiedlung



# Cologne - Dissemination

## Stegerwaldcafe



# Cologne - Dissemination

## Award - Federal Ministry for Economic Affairs and Energy

- Winner in special category „Cross-sectoral“ in the competition called „Intelligent Regions in Germany“, initiated by the "Federal Ministry for Economic Affairs and Energy" and the "Initiative for Intelligent Integration".
- More than 100 projects were submitted.
- The Jury finds:

*„The Projekt GrowSmarter is a paradigm example, showing how the fields of mobility and energy can be combined intelligently in order to create a cross-sectoral master plan for sustainable solutions in urban development.“*  
(Quote: Thilo Zelt)



# Cologne - Dissemination

## SmartCity Cologne Conference 2016

2017 incl.  
Study Visits



THANK YOU!





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# Q & A

## Thank you from Cologne!

