



**TRAM**  
Interreg Europe



European Union  
European Regional  
Development Fund

# Development of local public transport in Oradea

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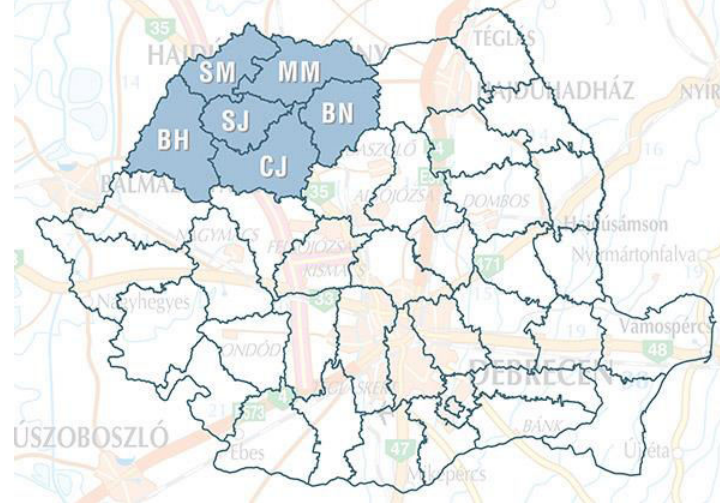
7 October, 2016 | Kick-off meeting in Ancona

# North West Regional Development Agency and The Municipality of Oradea

## North West Regional Development Agency

- the executive body of the Regional Development Board of the North-West Development Region
- Located in Cluj-Napoca, the capital of the region

Județele din Regiunea de Dezvoltare NORD-VEST



## City of Oradea

- 200.000 inhabitants
- Area – 116 sqkm
- located at 8 km from the Hungarian border



# Present conditions

## Number of daily passengers

- estimated up to 155.000 passengers / day
- over 25.000 rural workers come daily in Oradea from the villages around the city
- over 17.000 students learn at 5 universities (more than 7.000 from other cities)

## Change of behaviour

- the habitants trend to move to the peripheral residence (dormitory communes),
- the new investments (hypermarkets, business parks, cultural target, new jobs and metropolitan extension/urban sprawl) are shifting the attraction point to the public transport

## Traffic management

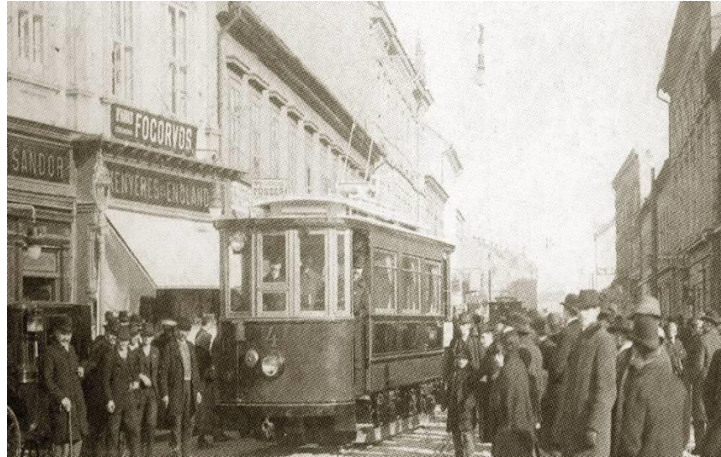
- the growing number of cars which leads to congestion in the city center,
- the parking place are not enough
- the rules of parking are not respected

## Intermodal connection

- the necessity to connect the local transport with other modalities by intermodal change points (transfer stations) is essential

# The evolution of trams in Oradea

The first tram in Oradea  
25-th April 1906



After 1920 the park was composed  
by 22 motors with SSW engine and  
10 wagons, that operated until 1981



In 90's, second-hand trams were  
procured from Germany



The newest Tram in Oradea from 2008.  
Oradea, the first municipality who  
bought new trams in Romania!



# Lower emissions by sustainable public transport

## MEASURES

- Modernization of existing trams
  - New trams
  - Electric buses
- New buses with lower emissions
- Increasing the use of public transportation

## MEASURES

- Building new tram lines
- Special lines for buses and trams
- Pedestrian areas
- Car-sharing

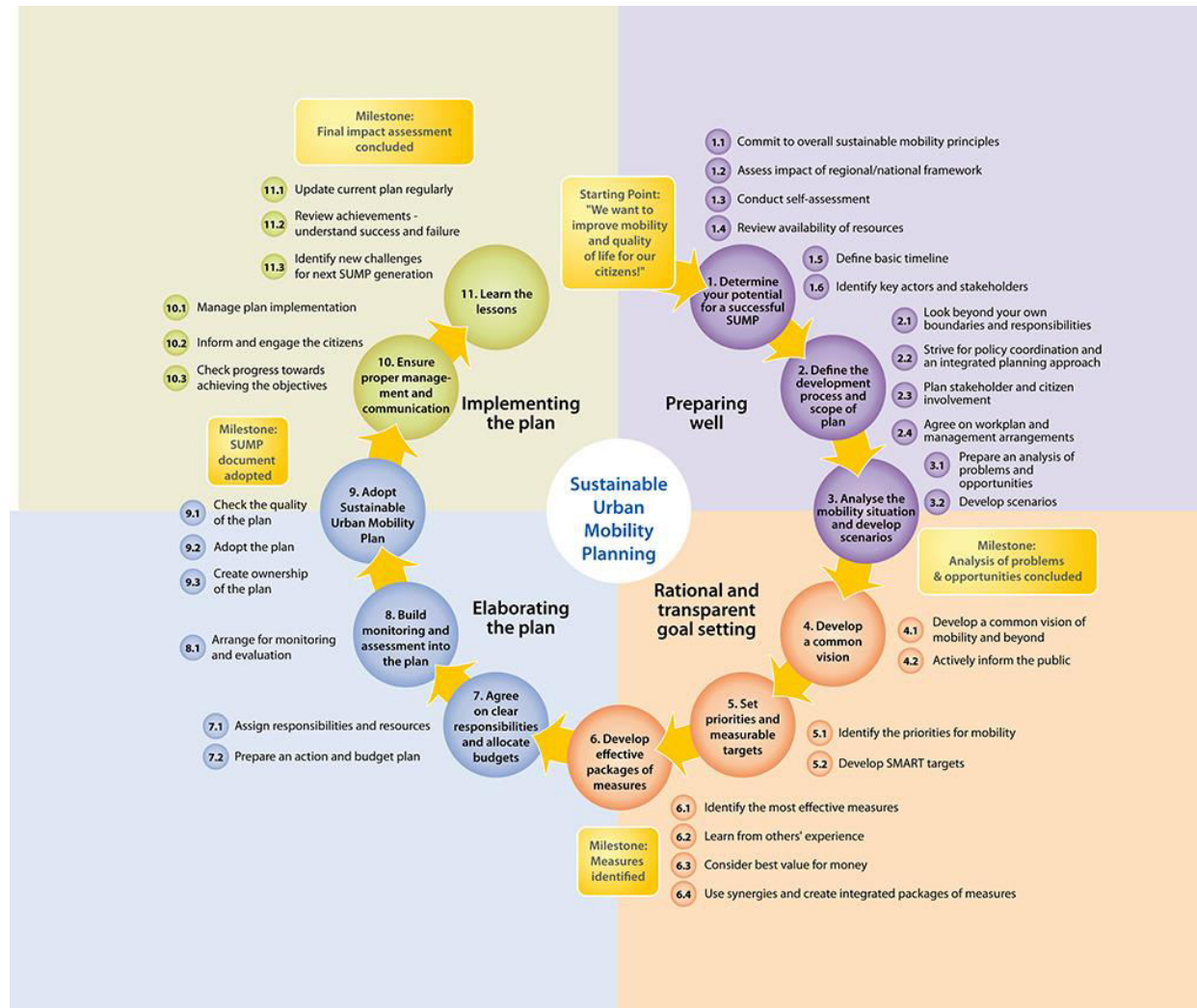
## RESULTS

- Air pollution reduction
- Noise pollution minimized
- Traffic jams reduced

# Sustainable Urban Mobility Plan



- Awareness and behavior changing
- Better using of urban public space
- Developing the Public Transport



# CURRENT LOCAL PUBLIC TRANSPORT NETWORK

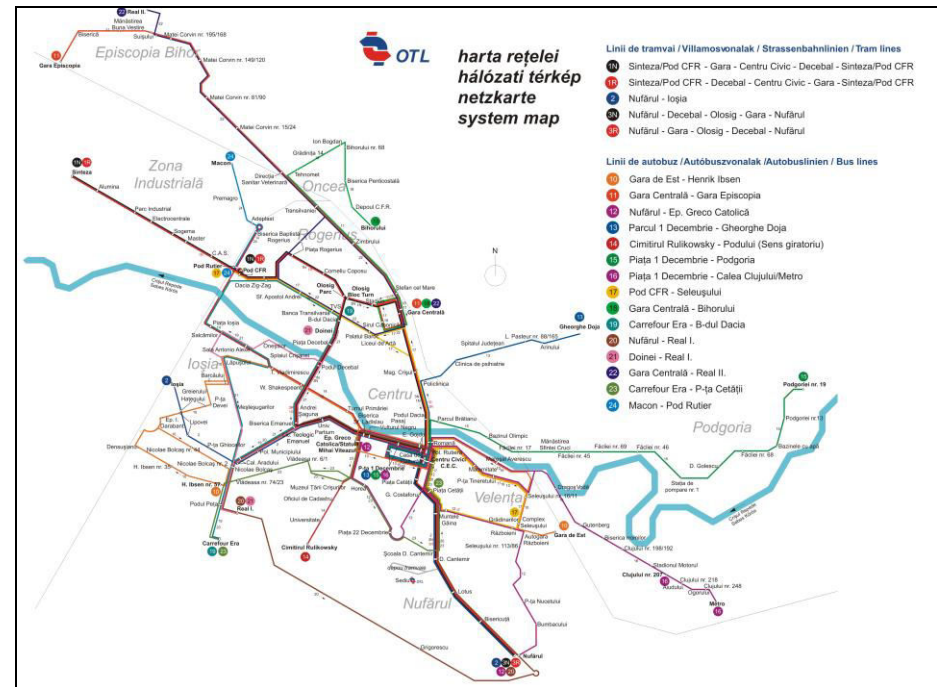


## Current tram network

Number of Lines: 5 (37,14 km)

Number of Stations: 76

## CURRENT LOCAL PUBLIC TRANSPORT NETWORK



# Major investments in tram infrastructure in the last 10 years



Year	Areas	Tram networks rebuilt / rehabilitated	Cost
2003-2006	“Republicii” and “Decebal” areas	9.65 km	5.6 million euro
2005	“Oradea train station – Olosig” areas	1.67 km	0,32 million euro
2004-2008	“Magheru” and “Cantemir” areas	6.7 km	1.1 million euro
2008	modernization of tram stations		0.9 million euro
2009	“Aradului” and “Iosia” areas	1 km	0.25 million euro
2010	The biggest intersection in Oradea	1.24 km	2 million euro



# Examples of good practice in Oradea. Tram network investments



# Results of the traffic flow study in Oradea

**Total travels/day: 174.027**

**Total travels/month: 5.220.810**

**Tram travels/day: 127.544**

**Bus travels/day: 46.483**

**Total operating cost/year: 9.850.000 Euro**

**Total operational incomes/year: 9.950.000 Euro**

**Sustainability – operational incomes are greater than operating cost**

# Examples of good practice in Oradea. Improvements in pedestrian mobility

## Public square in 2014

- A lot of vehicles

## Public square in 2016

- A lot of pedestrians
- No vehicles
- Tram lines and tram station



# Good practices from Oradea. Cycling facilities



- Over 30 km of cycling tracks in Oradea
- Bike sharing in Oradea





# Development of cycling tracks in Oradea

We aim to have continuous cycling tracks until 2020 which will be connected with public transport stations in order to increase the sustainability of public urban transport.

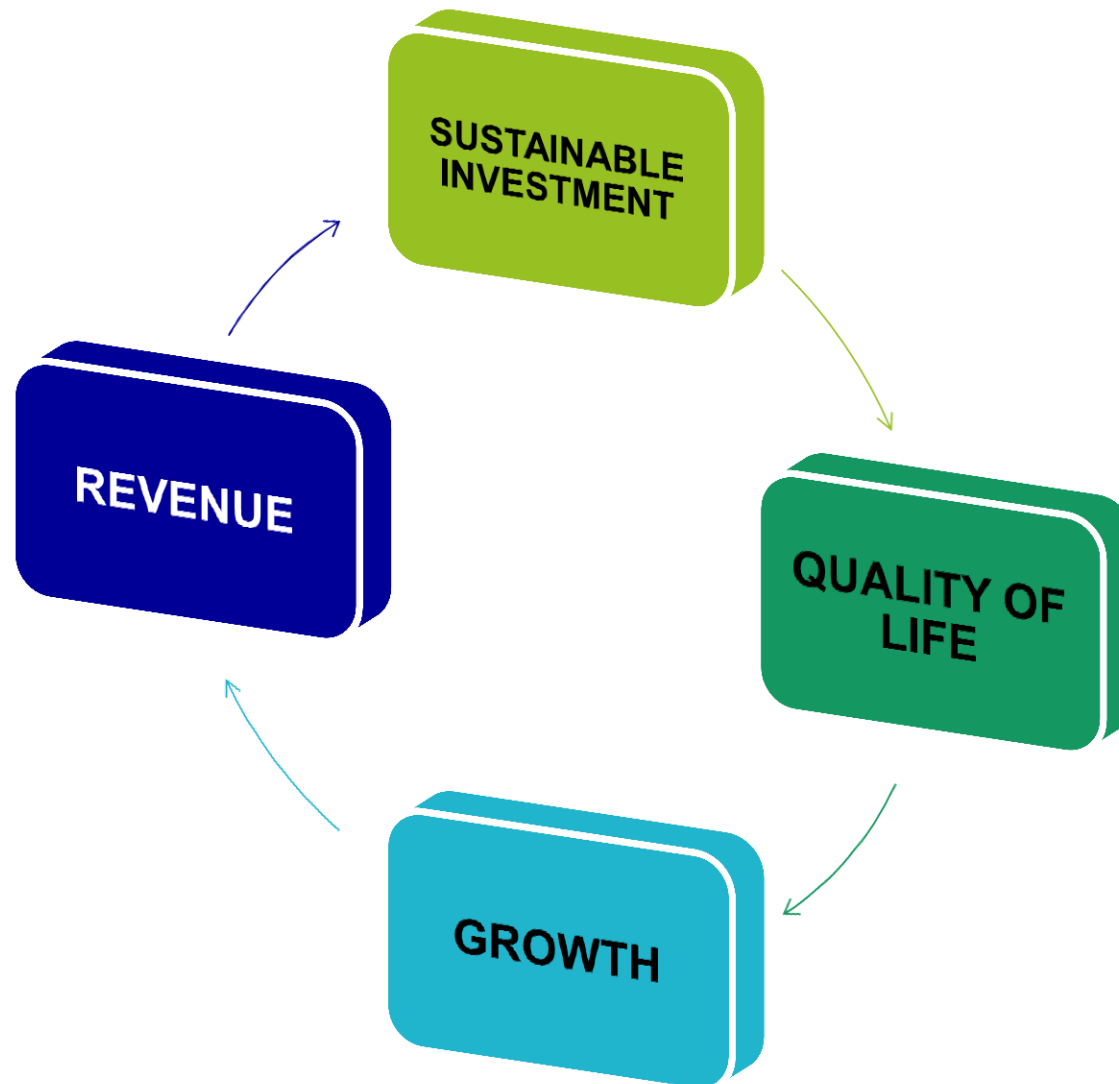
2016



2020



# SUSTAINABLE DEVELOPMENT CYCLE FOR LOCAL PUBLIC TRANSPORT



# Examples of good practice.

## District heating system with lower emissions



### Investments in renewable energy

- Oradea has a geothermal reservoir and a part of the city is heated by geothermal energy.
- We have in progress some geothermal projects in order to improve the sustainability of the reservoir utilization.

### Investments in new power plant

#### New power plant (2016)

- reduction of air pollution
- high cogeneration rate
- the biggest investment of the Municipality after 1990



#### Old power plant

- very polluting
- it used coal
- significant financial and heating losses registered





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# Thank you!



Questions welcome!



*Project smedia*