



City of
Ljubljana



CIVITAS FORUM 2015

CIVITAS ANNUAL CONFERENCE | 7-9 OCTOBER 2015 | LJUBLJANA

Der Senator für Umwelt,
Bau und Verkehr



Freie
Hansestadt
Bremen



Michael Glotz-Richter, Hendrik Koch

City of Bremen

Senior Project Manager 'Sustainable Mobility'

Coordination ELIPTIC



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The Diesel problem



The Diesel problem



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Standing behind this bus could be more dangerous than standing in front of it.

Diesel fumes can kill. Demand clean-fuel buses. Call 1-800-NICE-RIDE.



Natural Resources
Defense Council

© 1993 Natural Resources Defense Council



NRDC Dump Dirty Diesels Bus Side Poster
Natural Resources Defense Council



The Diesel problem



Electric Mobility: Rethinking the Car



Siim Kallas

Vice-President of the European Commission

Electric mobility: the clean and competitive way ahead for European transport



MOBILITY AND TRANSPORT

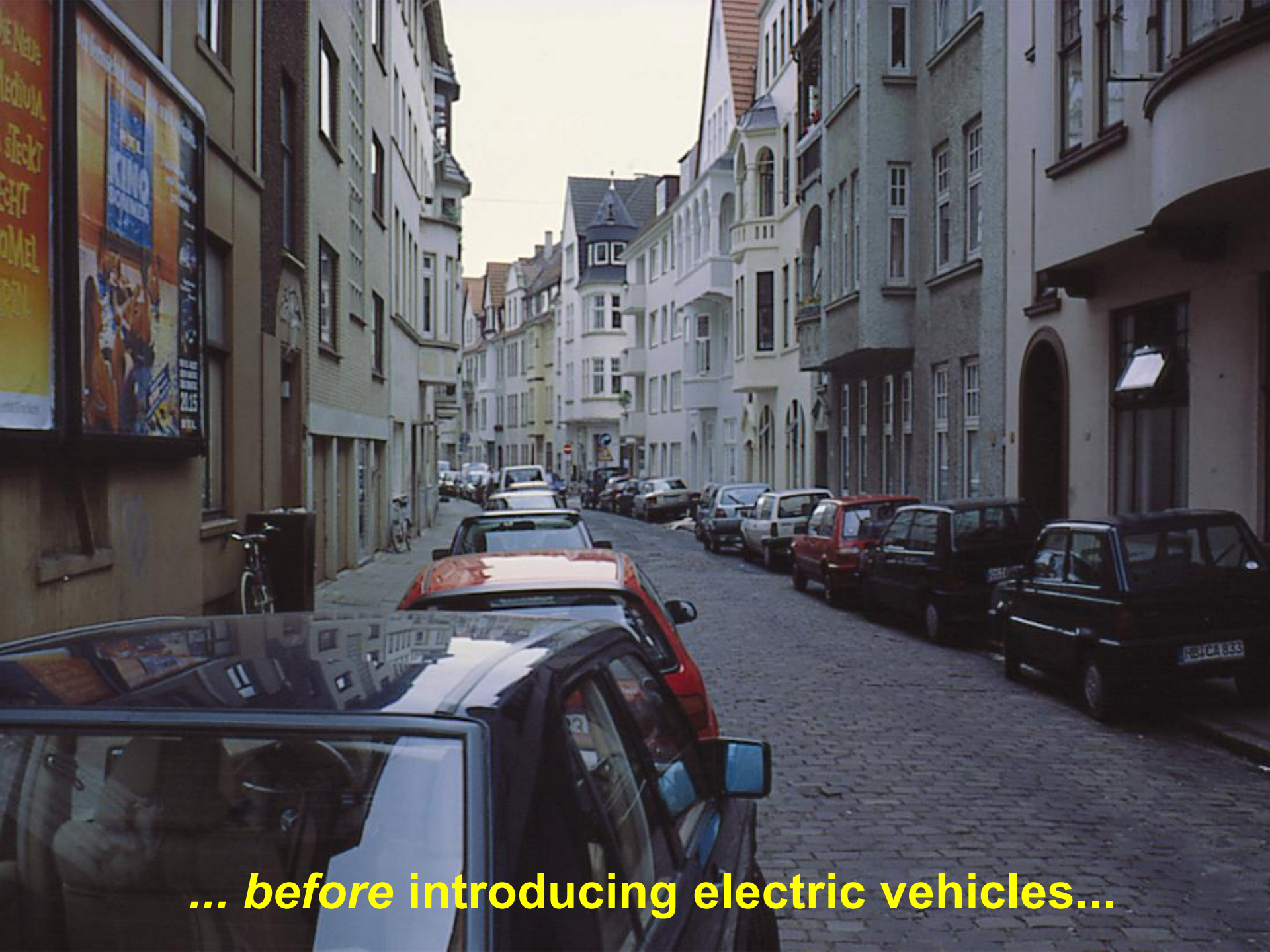
European Commission > Transport > Transport themes > ... > Clean and energy-efficient transport

White Paper Transport:
„Halve the use of ‘conventionally fuelled’ cars in urban transport by 2030;
phase them out in cities by 2050;
achieve essentially CO2-free movement of goods in major urban centres by 2030’

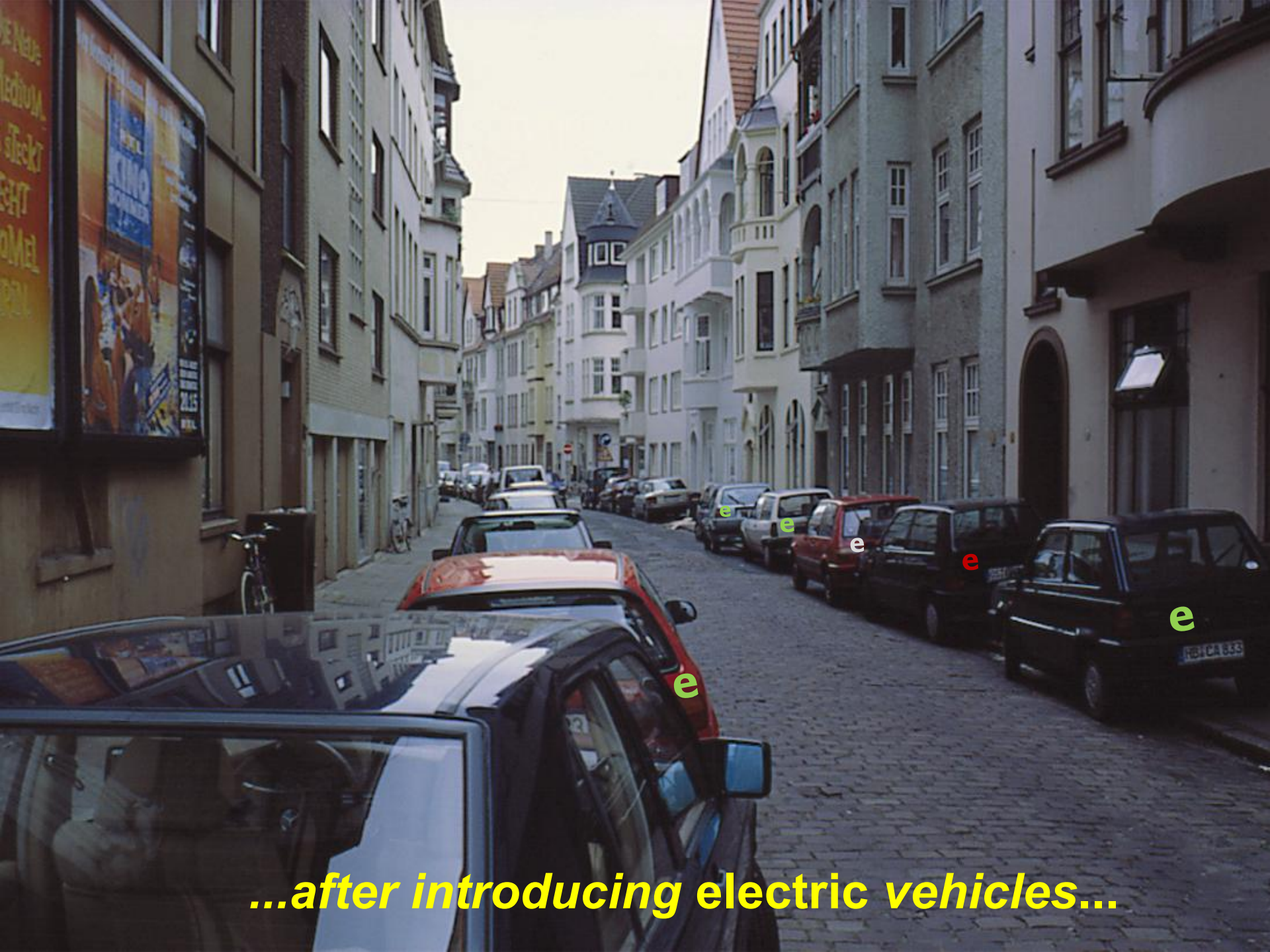
...missing: targets for public transport / buses !!!

e-mobility = electric cars ???





... before introducing electric vehicles...



...after introducing electric vehicles...





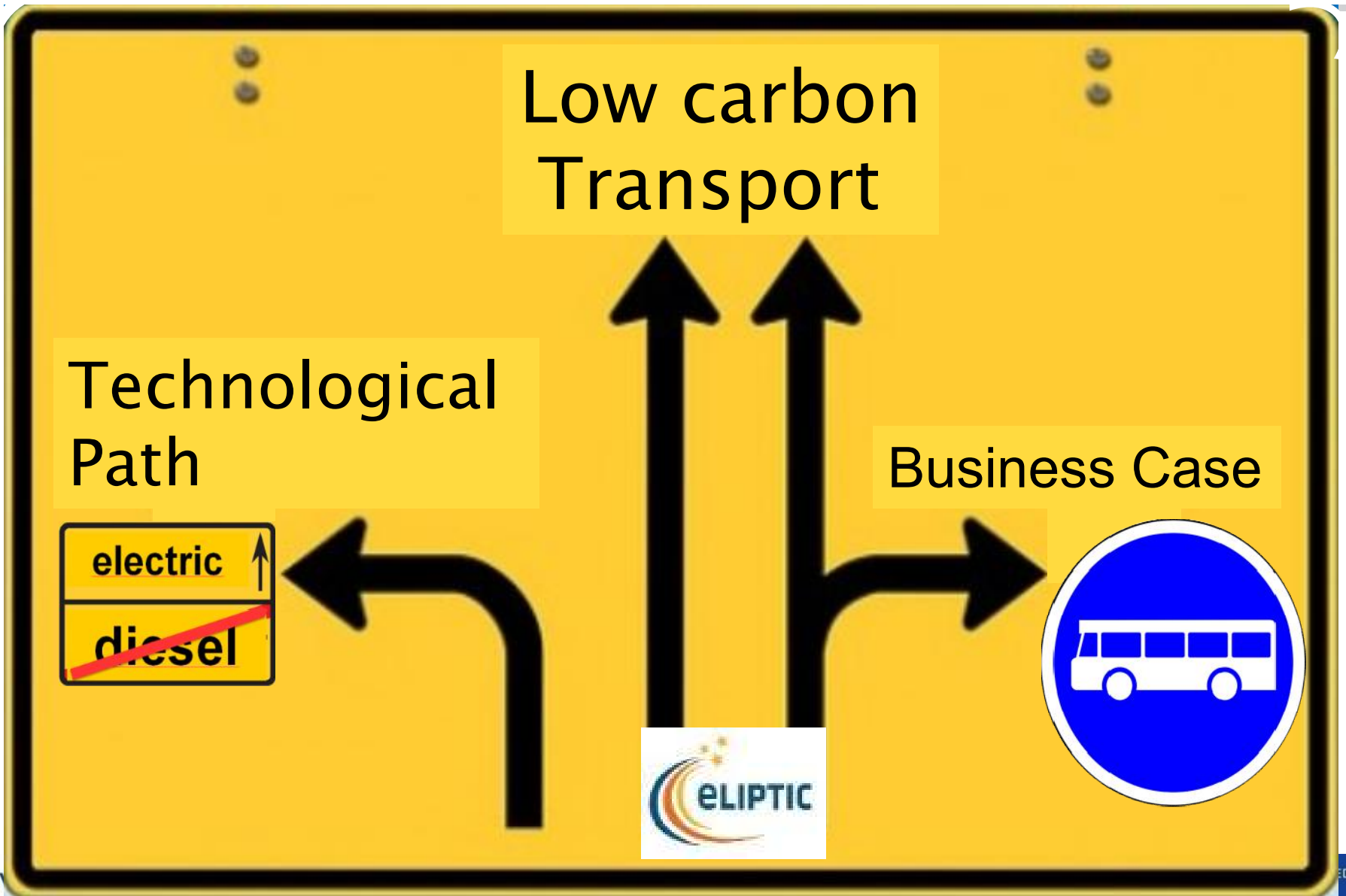
Uncertainty about technological paths

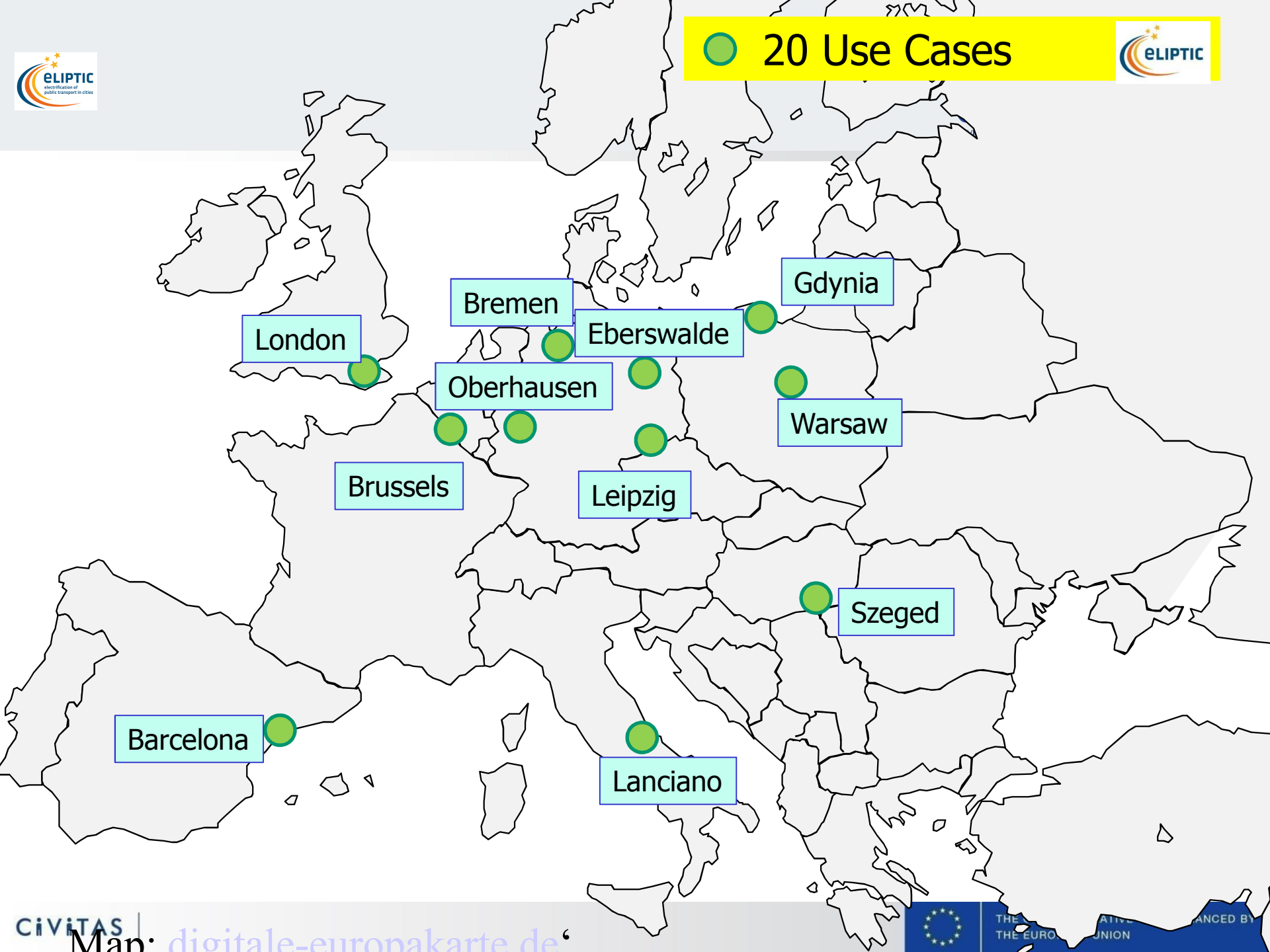




Interest.... But how to create a business case?

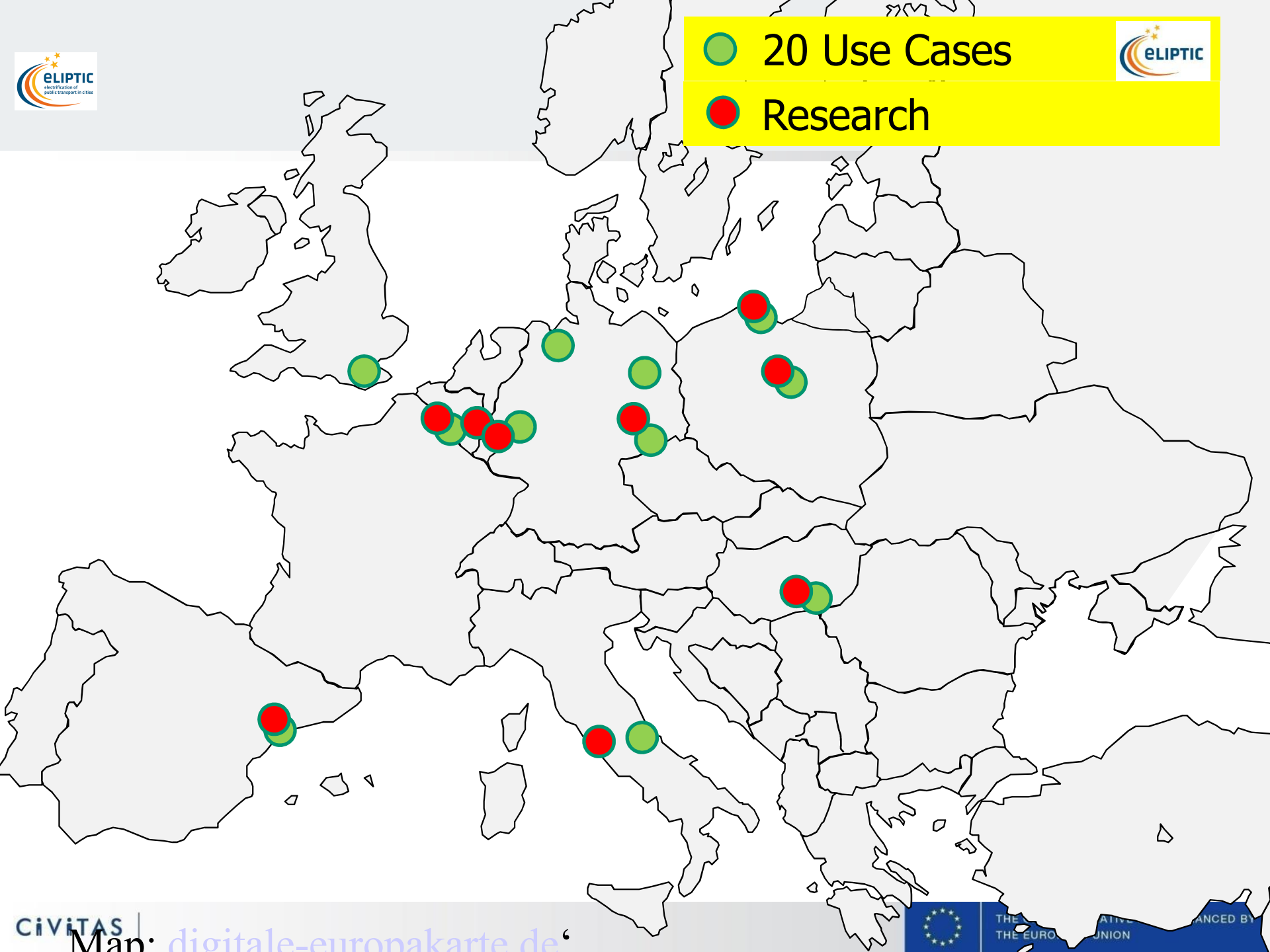
ELIPTIC project objectives





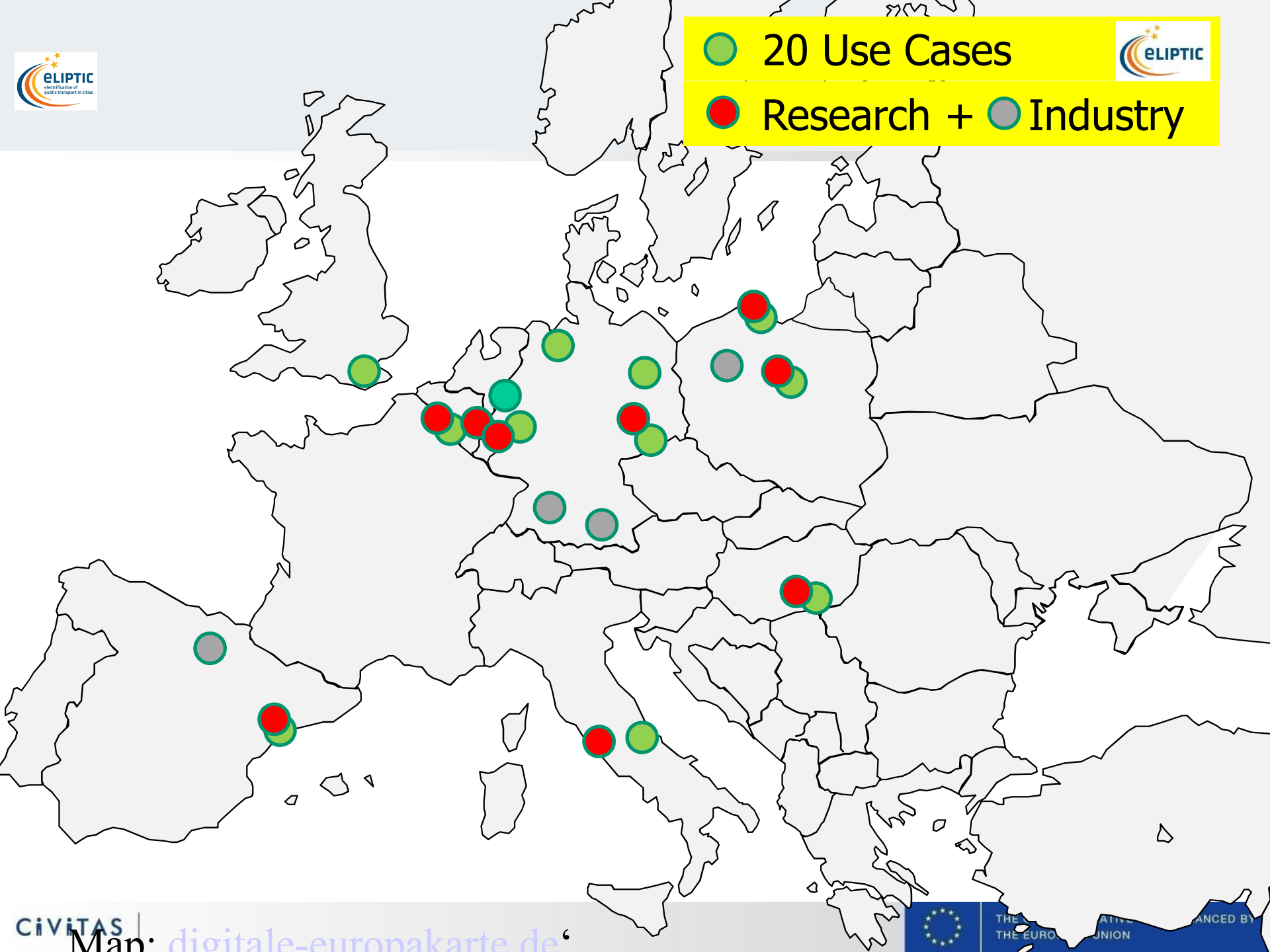
● 20 Use Cases

● Research

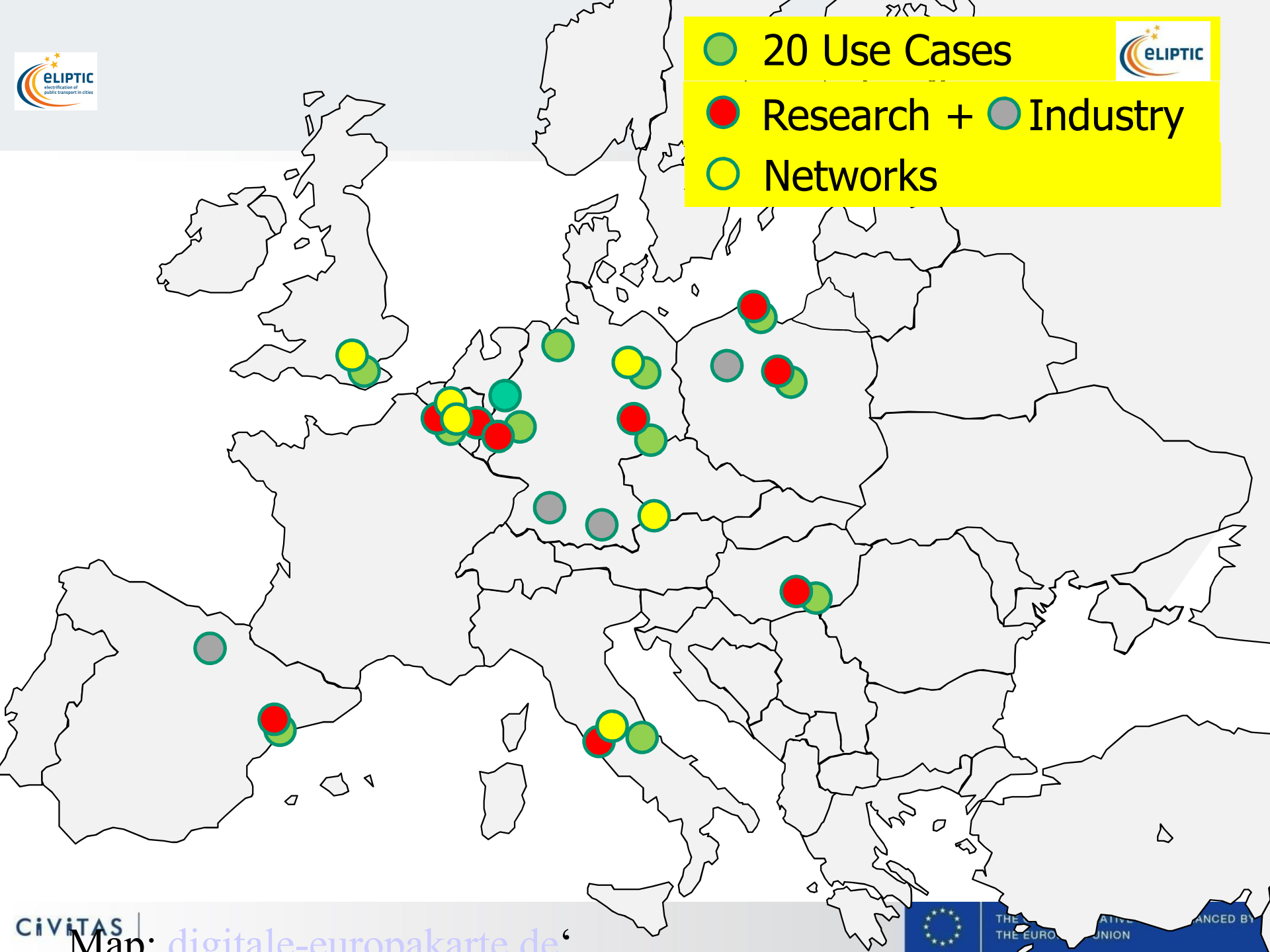


● 20 Use Cases

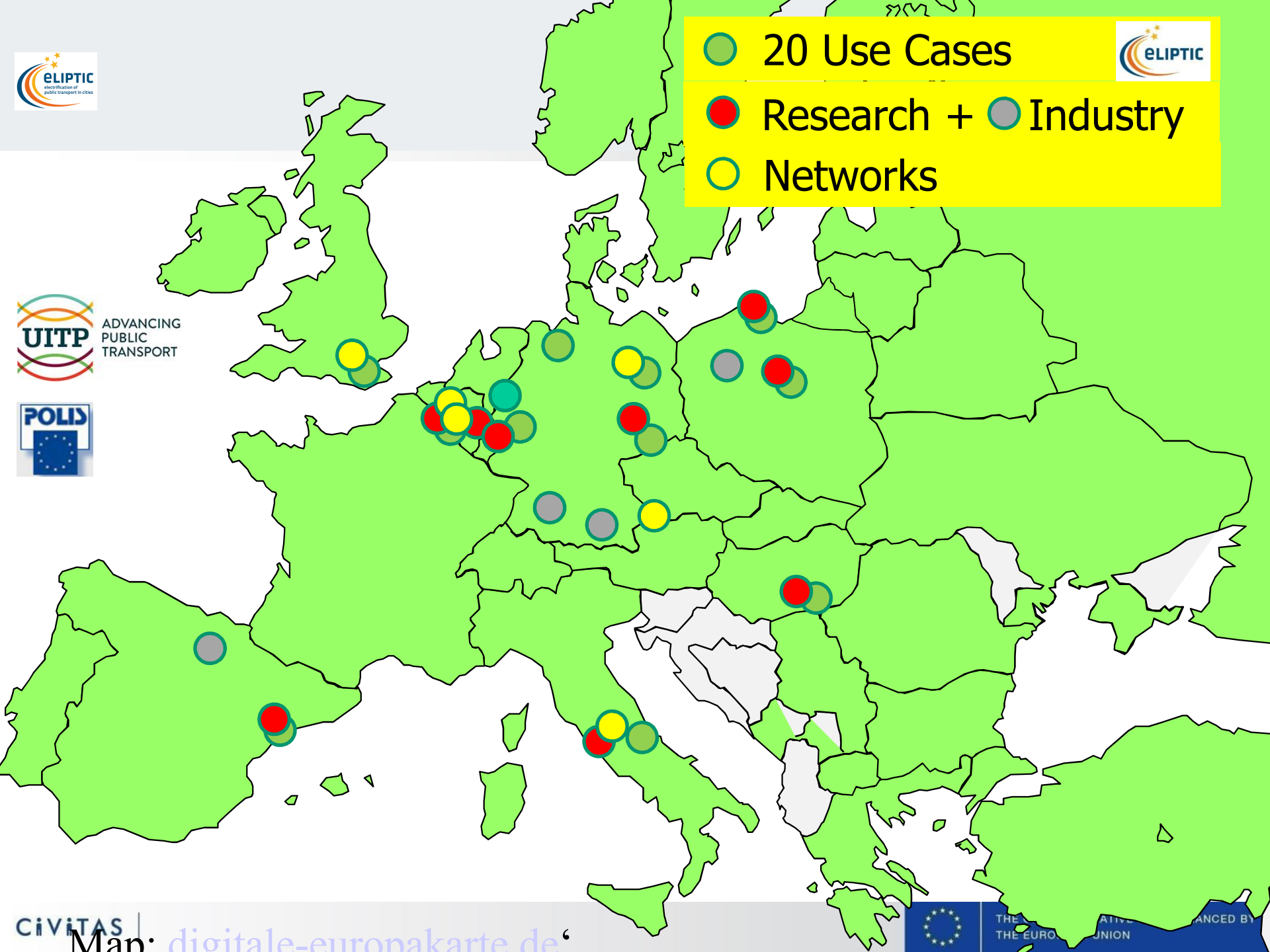
● Research + ● Industry



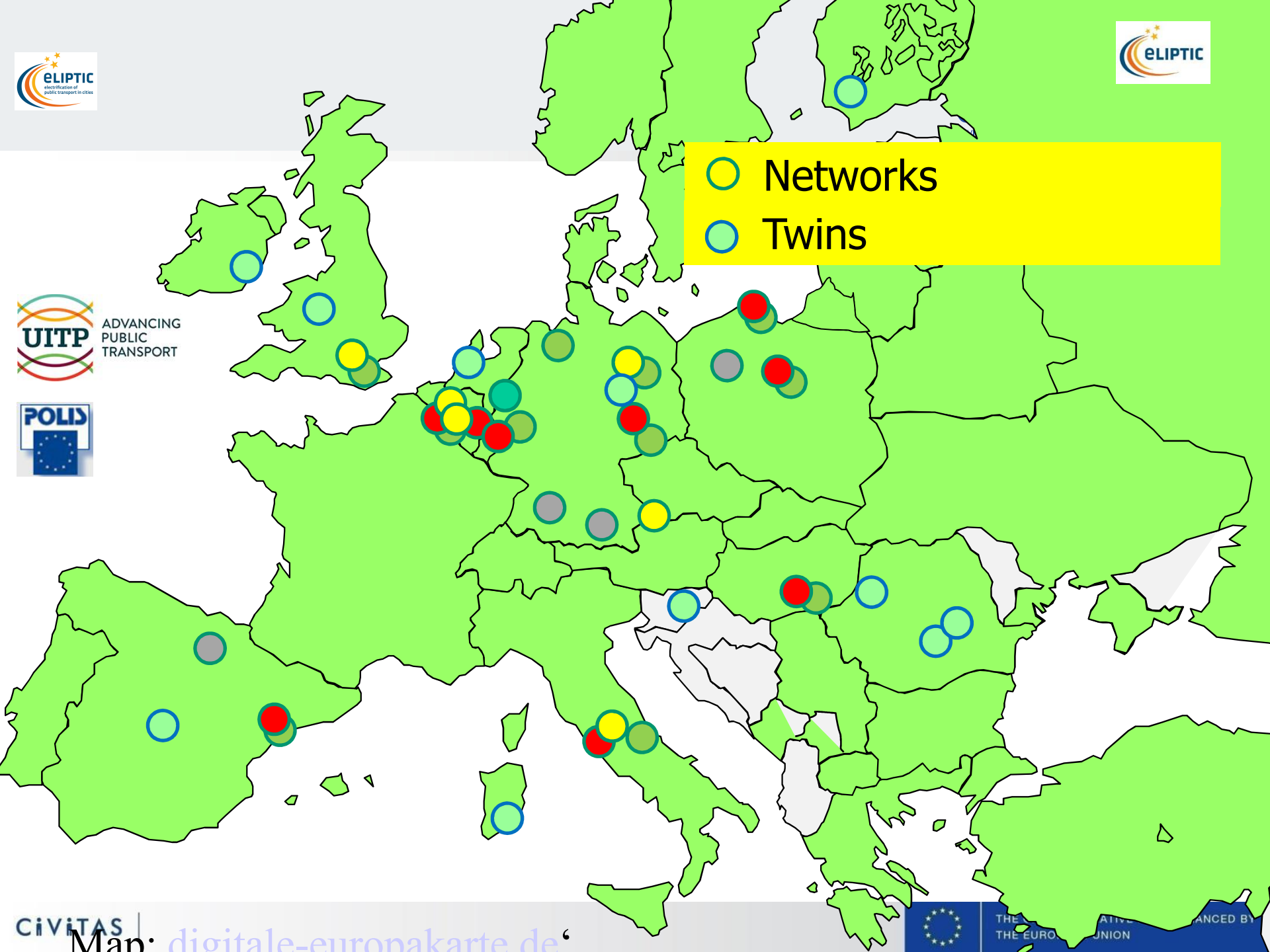
- 20 Use Cases
- Research + ● Industry
- Networks



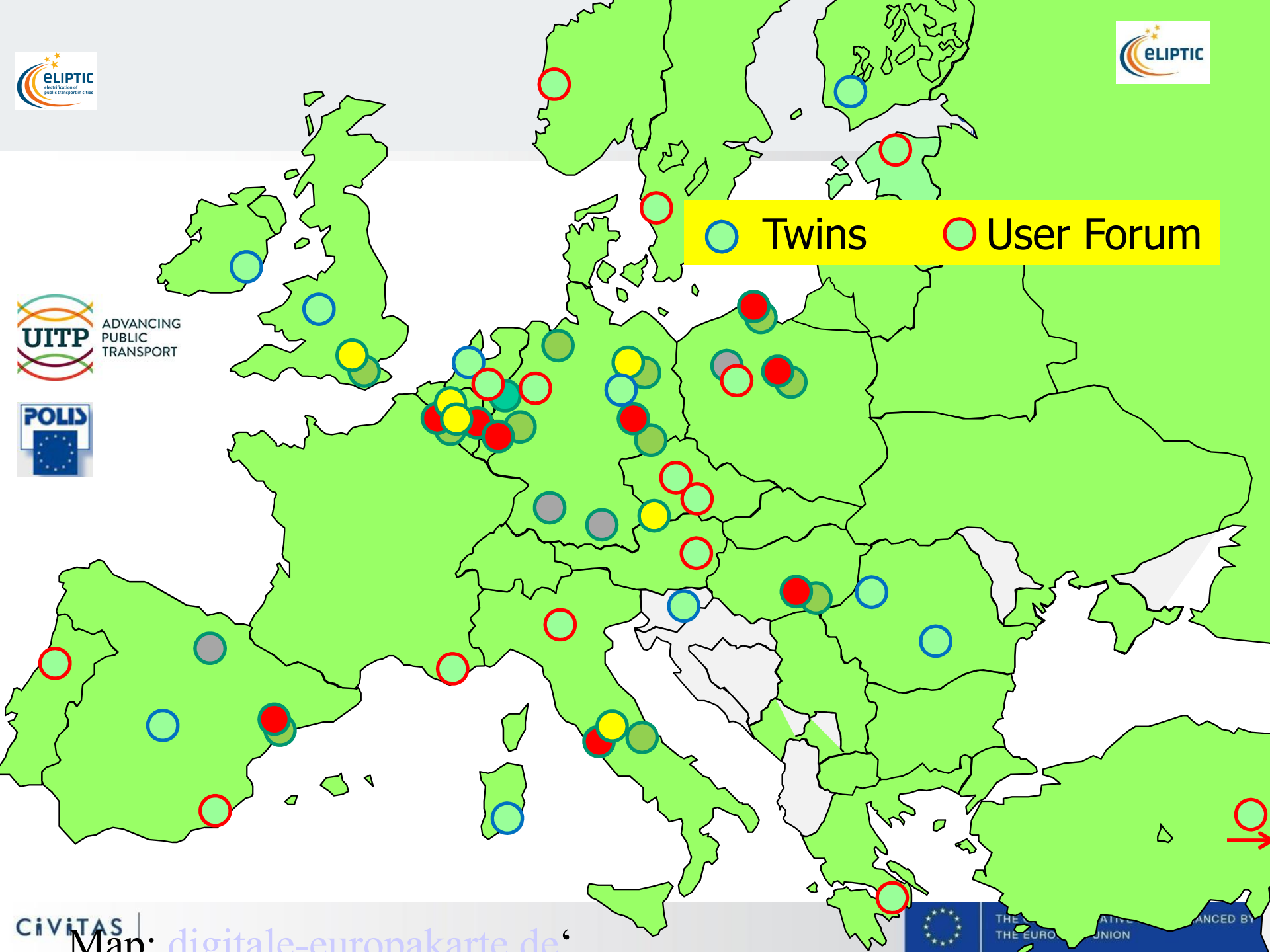
- 20 Use Cases
- Research + ● Industry
- Networks



○ Networks
○ Twins



Twins User Forum



Thematic Pillars

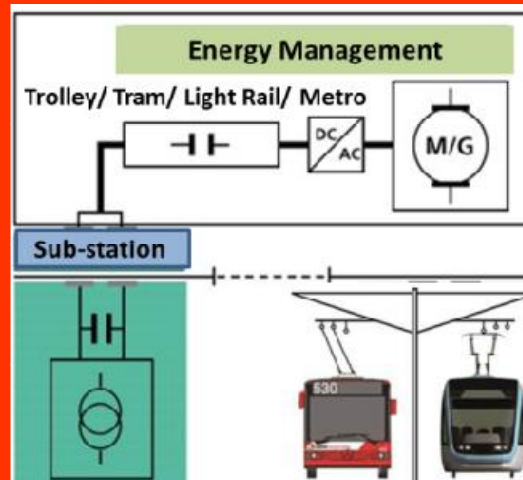
A

Electric buses (integration)



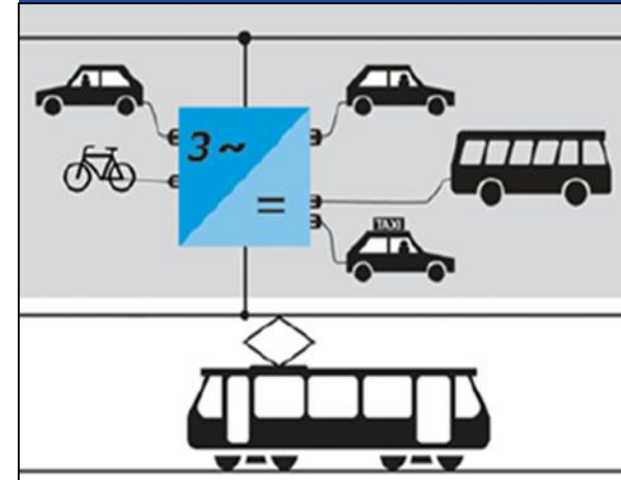
B

Energy storage



C

Multi-purpose use of infrastructure



Smart, green and integrated transport

Transport

Blue Growth

Road

Aviation

Horizon 2020 Transport research projects

BRIDGES - Development of glider environmental services

BRIDGES improves the unique European underwater glider SeaExplorer to adapt it to more diverse operations deeper in water - environmental monitoring in transport, oil spills, deep sea...

EU contribution: €7.8 million
Participants: CY, DE, ES, FR, IL, NL, NO, PT, UK



ELIPTIC - Integrated electric transport in cities

ELIPTIC creates fully integrated electric transport infrastructure in 12 European cities, including Bremen (DE), London (UK), Brussels (BE), Warsaw (PL), Barcelona (ES) and Szeged (HU)

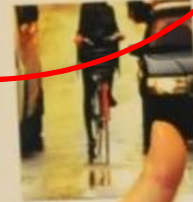
EU contribution: €6 million
Participants: AT, BE, DE, ES, HU, IT, PL, UK



XCYCLE - Improving cyclists' safety

XCYCLE aims to reduce the number of accidents involving cyclists by using new technologies for their detection in traffic

EU contribution: €5 million
Participants: DE, IT, NL, SE, UK



UFO - Ultra fast wind sensors

UFO improves wind sensors in air to reduce security distance between planes during take-off and landing. Ultimately increase the capacity of airports

EU contribution: €4.5 million
Participants: BE, DE, FR, NL



e-Ferry - 100% electric powered ferry

e-Ferry builds the first mid-size electric ferry to link Aegreø island mainland in Denmark. The wind powered ferry will carry 130 passengers and 40 vehicles saving 2000 CO2 per year

EU contribution: €16 million
Participants: DK, EL, NO



ITS Observatory

ITS Observatory creates a common ITS data base across Europe by comparing results from ITS pilots and deployment projects as develops a decision-making...

EU contribution: €1.3 million
Participants: AT, BE, DK, EL, IT



Impacts of electrification

Car		Bus (18m)	
< 1 hour	Daily operation time	12 - 16 hours	
Small (- medium)	engine size	large	
50 - 60% Diesel	fuel	95 - 98 % Diesel	
Diesel: PM10 + NO2 + Petrol: low	Related local pollution	Diesel: PM10 + NO2	
500 l fuel	Fuel consumption p.a.	40,000 l Diesel	
	Overall impacts	equivalent to 100 e-cars	

Factor 100



x 100



**...but not 100fold
financial or
political support !**



Thank you!

Michael Glotz-Richter, Hendrik Koch

City of Bremen / ELIPTIC project coordination

eliptic@umwelt.bremen.de

<http://www.eliptic-project.eu>



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