The Dresden Sustainable Urban Mobility Plan (SUMP)

photo: Frank Fiedler

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Topics

- **About Dresden**
- **The process** of Sustainable Urban Mobility Planning (SUMP)
- **Strategic analysing** instruments for SUMP
- **Subjects** of the Dresden SUMP

About the City of Dresden

About Dresden – general information

- Capital of Free State of Saxony
- Located in the valley and on the slopes of the River Elbe
- Dynamic, green city with a high quality of life
- Resident population 548,000 (growth of 1% per year)
- Area of the city 328 km^2,
  about 62% covered by forest and green space

About Dresden - transport system

- 1,470 km roads, 410 km bicycle ways
- 12 tram and 28 city bus lines
- 3 Suburban railway lines and 7 regional train lines
- Connected with Highspeed-Train-Network (ICE)
- 7 Highway-connections
- 9 Elbe bridges, 3 Elbe ferries, 2 mountain railways

About Dresden - mobility

- 1,95 million trips and 7 Million trip-kilometes per day
- 39% of all trips by car. 22% by Public Transport, 12% by bicycle, 27% by foot
- In average: 3,55 trips per person and day, average length 5,8 km
- 86,000 commuters inbound, 48,000 commuters outbound daily
- 153 million passengers of local public transport per year

The process of Sustainable Urban Mobility Planning (SUMP)

History

- Long term planning tradition and transformation from 1950 to 2014
- From infrastructure planning after WWII to Sustainable Urban Mobility Planning

1950

1967

1977

1989

1990

1994

2003

2014

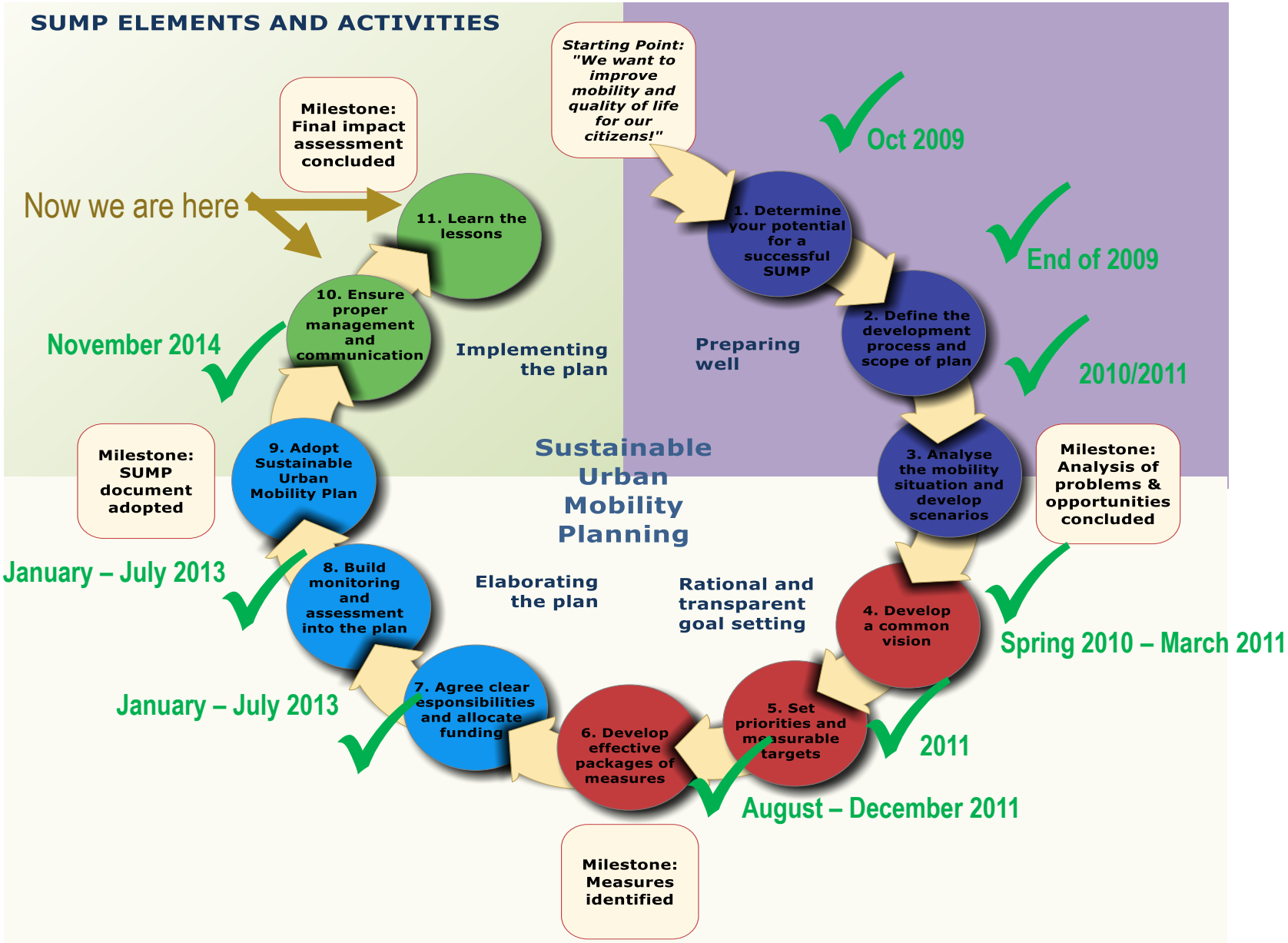
Objectives

- **Three main objectives for SUMP:**
  - an effective and ecological transport system …
  - that shall improve quality of live and economic growth …
  - in Dresden and the region for the next decades (year 2025 and further)

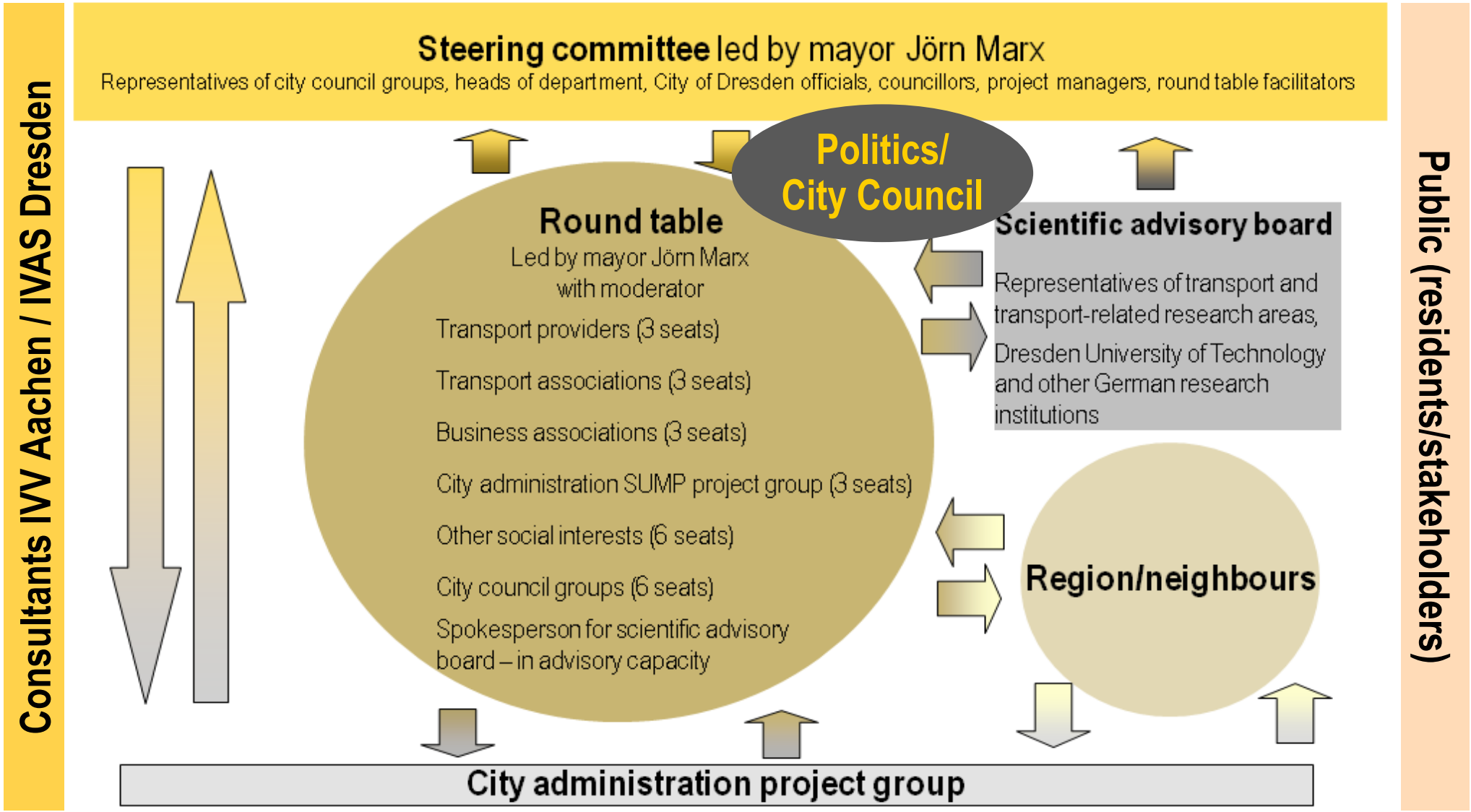
Challenges in SUMP process

- New common standards of cooperation, communication and partizipation
- Dynamic urban and economic development but demographic change,
- Energy prices and climate change
- Negative impacts from transport sector on life quality
  (e.g. air pollution, noise, barriers)
- Balance of investments and maintenance of infrastructure
- European and national legislation
  (e.g. barrier-free mobility, air pollution prevention
- New opportunities of mobile communication und mobility networks
  (options für multi-modal mobility, integrated mobility cards)
- **And – after the political decision – implementation und financing of the measures of the SUMP**

Steps to SUMP



Proceeding and management



The Dresden SUMP after the political decision…

- ... Includes the **mobility strategy and the action plan** for the configuration of the Dresden transport system (...and a plan for evaluation and monitoring too)
- ... Is **not a investment concept** but the basis for the selection of the **appropriate measures in the correct order and importance**
- ...Shows, which **expectations** of citizens or city council for the development of the transport system are realistic and **which can not be met**
- ... **Checks all traffic-related urban development measures** and measures with an impact on the transport networks in terms of **compliance with the agreed objectives and strategies**
- ... Contains **the measures** concerning urban transport system that must be considered **in land-use and urban development planning**

The Dresden SUMP after the political decision…

- ...Includes the **Basis for detailed transport planning,** e.g. Bicycle Concept, Public Transport Plan, Heavy Transport Concept...
- ... **Supports** the achievement of the mandatory traffic-related objectives of **environmental planning**, especially the Clean Air Plan, the Climate Action Plan and the Noise Reduction Plan
- ... Forms the **basis for updating the traffic forecast**/TDM (Horizon: 2030)

SUMP Dresden: „Public Participation”

- Official website *www.dresden.de/vep*
- Regular newsletter
- Local and regional “Round tables”
- Permanant availability of contact person for all stakeholders
- Articles in professional journals
- Public panel discussion in 2010 and 2012
- National SUMP colloquium October 2012
- “Dresden Debate” 2013 (info-container in public space) with about 1 000 comments
- Video documentation of process
- Application for SUMP-Award of European Union (2nd rank in spring 2015)

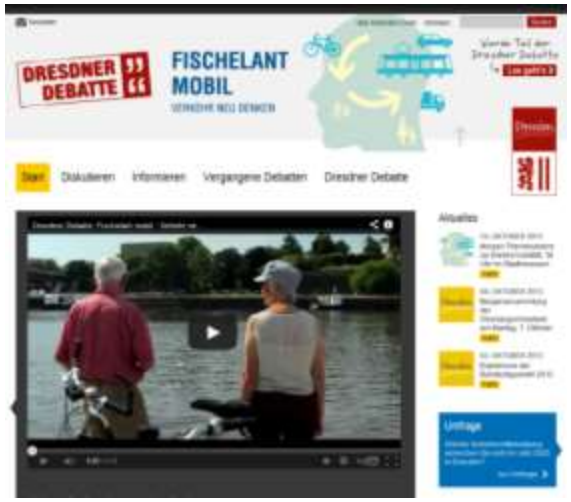


photo: Urban Planning Office Dresden

Costs

- About **1 € per inhabitant*** all over (560.000 €), thereof:
  - **7 cent** for European-wide tender „VOF“ (38.000 €)
  - **61 cent** for the „hard content“ (343.000 €)
    e.g. analysis, development of measures, assesment, modeling, projections…
  - **19 cent** for stakeholder-involvement (104.000 €)
  - **13 cent** for public participation (75.000 €)

* does not include internal costs of administrative work (estimated 30 - 36 person months in 6 years)

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Thank you very much for your attention!

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Strategic analysing instruments for SUMP

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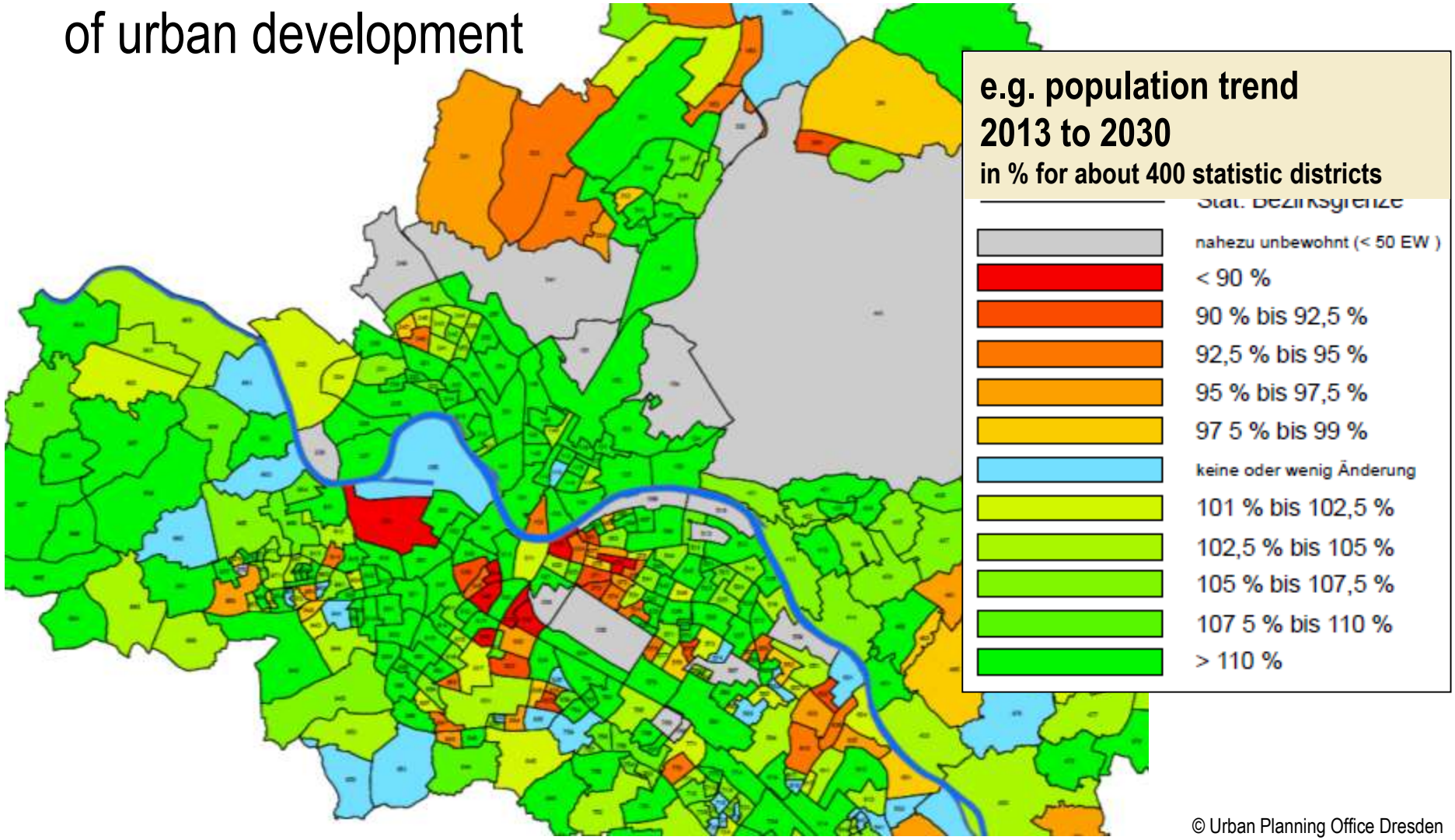
- Detailed GIS-based structural analysis and projections
- Correlation-analysis traffic volumes and structural development
- Extensive analysis of traffic volumes (car and public transport)
- Long-term monitoring of traffic quality
- Long-term household-survey about individual traffic behaviour
- Multi-modal traffic demand modelling with VISUM
- Traffic impact studies (routing, capacities, modal shift)
- All-modes real-time simulation for local „hot spots“ (e.g. bridges)

Strategic analysing instruments for SUMP

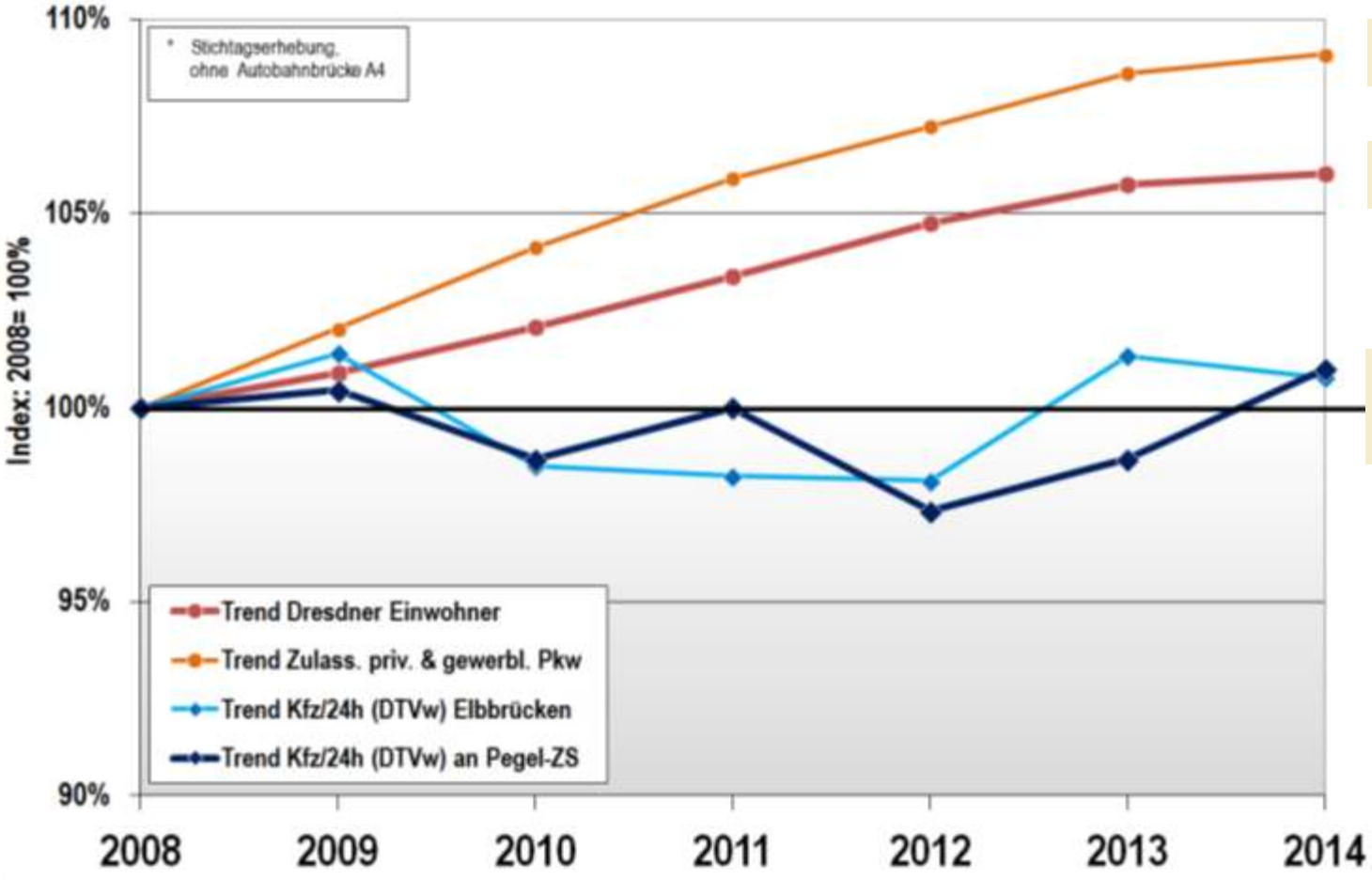
- Detailed GIS-based strucutural analysis and projections of urban development



Strategic analysing instruments for SUMP

- Correlation-analysis traffic volumes and structural development

Trends of car volumes on main roads and bridges compared to structural data (year 2008 to 2014)



trend car registrations (+9%)

trend residents (+6%)

trend car volume on main roads and bridges (+1%)

Strategic analysing instruments for SUMP

- Extensive analysis of traffic volumes (car and public transport)

Dresden traffic volume map 2014