

# Road Asset Management – Needs and Benefits for Europe and Member States (Example from Germany)

*Stefan Gerwens (Pro Mobilität)*

## Life cycle of a road network

Life expectancy of certain elements of roads

- upper layer/ wearing course: 8 - 26 years
- bearing layer/ base course: 55 - 60 years
- bridge: 50 - 110 years
- tunnel: 90 - 130 years

It makes a difference to care for roads or not to care.

With the ageing of a road network

- the need for replacement and modernisation will increase,
- but the availability of roads should not decrease.

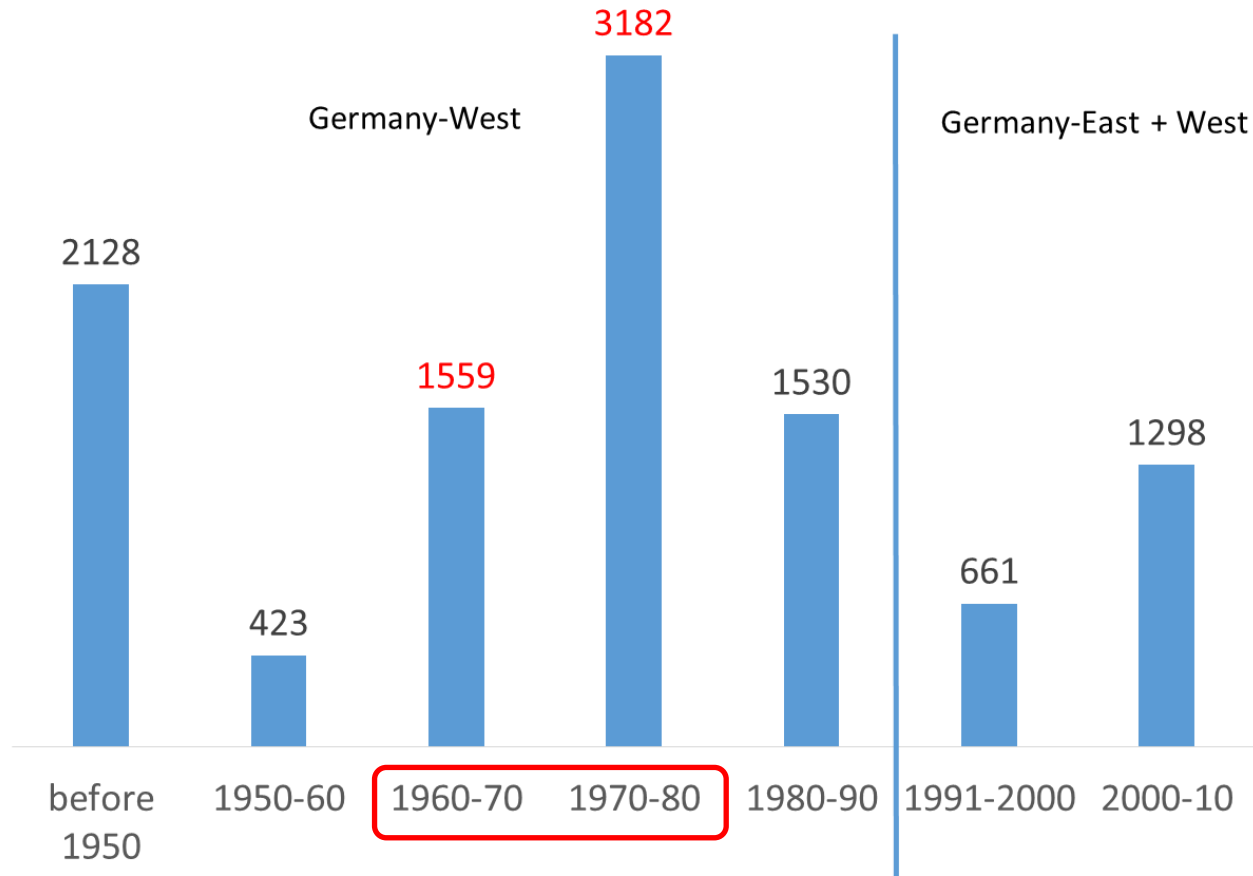


## Growing of the Federal Road Network in Germany km added to the network per decade

Motorway network in Germany-West is ageing.

Most of it was built 35 to 50 years ago.

50 % of bridges on motorways were built between 1965 and 1985, reaching end of life time soon.

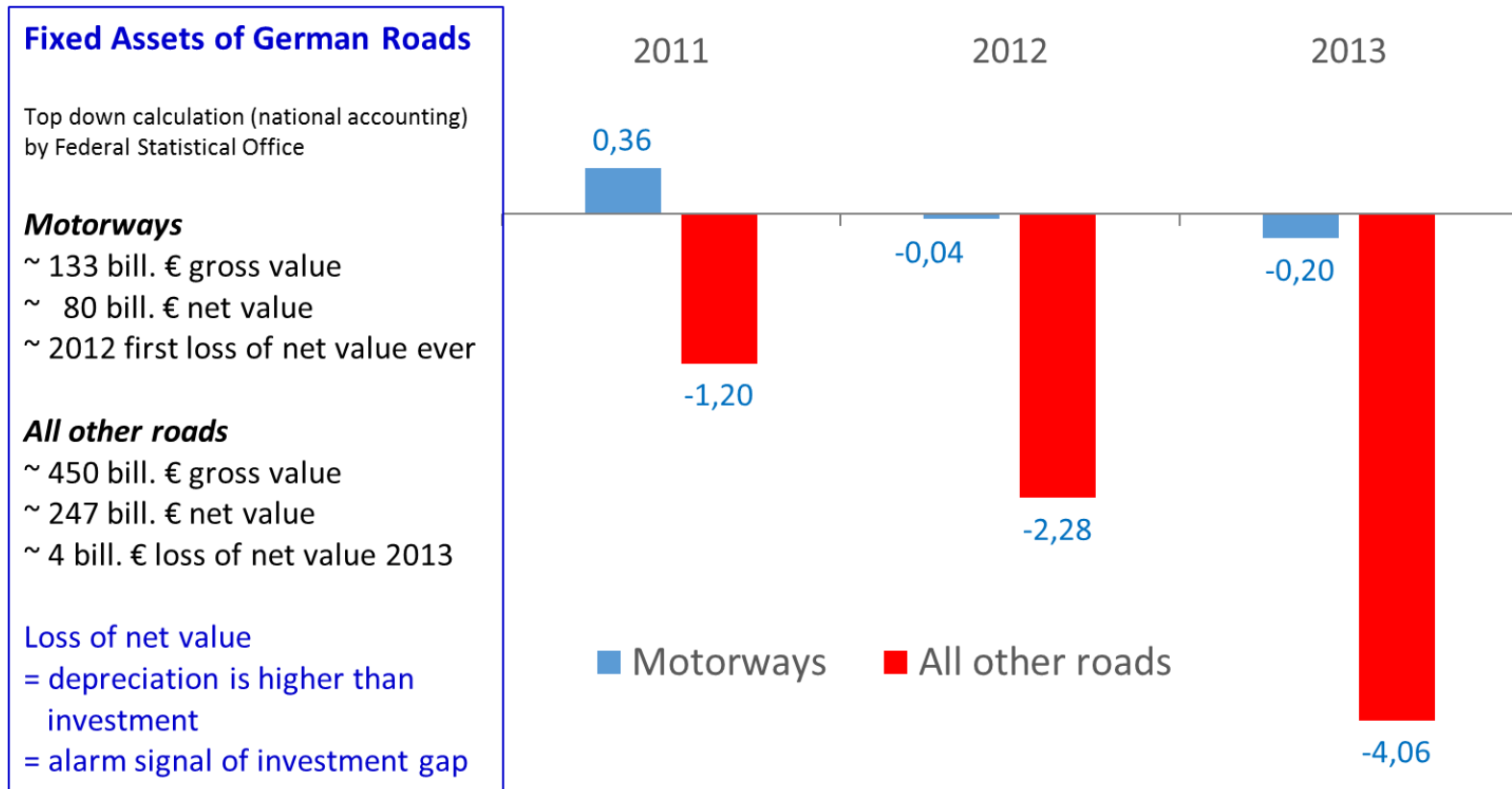


## Case of Motorway A1 Bridge Leverkusen (near Cologne)

- Built in 1965
  - Daily traffic volume 100.000 vehicles per day
  - Unplanned blocking for lorries for 92 days (2012/13)
    - All vehicles with more than 3,5 t (14.800)
    - Urgent action on maintenance
    - Additional 20 km to drive/ 40 minutes per trip
    - Costs for society around 60 – 80 million € for 92 days
  - Second blocking since June 2014 (planned until May)
  - Management target: keep it running until 2022 (new bridge, 500 mill. €)
- Reactive management causes high costs to business and society
- Risks to be identified at an early stage and eliminated in time



## Change of Net Value of Fixed Assets of German Road Network compared to previous year in bill. € (prices of 2010)



## Reasons

- Lack of information on needs for maintenance and modernisation
  - ❖ Availability of all relevant data and forecast of development
  - ❖ Short term decisions and other priorities
- Lack of understanding that roads are a public asset
  - ❖ Road Authorities
  - ❖ Decision makers (at all levels)
  - ❖ Road users, tax payers, voters
- Lack of knowledge that instruments are available (RAM) and coordination with objectives outside transport policy is needed
  - ❖ Expertise by some authorities and in business sector
  - ❖ Policy separated into disciplines/ sub-budgets

Need to implement RAM and to spread the principles!

## Approaches to Manage Roads

- *Traditional Approach*
  - Spending from year to year
  - Costs are not optimised over life time
  - No asset calculation
- *Preventive Approach*
  - Costs of preserving the infrastructure are calculated in the long run
  - Forecasts on basis of reliable data
- *Strategic approach (RAM)*
  - A systematic and permanent process of maintaining, upgrading and operating assets
  - Combining engineering, business principles, economic rationale

### *Common Approaches in Germany*

- *Federal level and laender*
  - data of condition of roads surface and bridges are collected regularly
  - usually fiscal accounting with yearly budgets
  - no calculation of assets bottom-up
  - lack of transparency
- *Municipalities*
  - many of cities collect data of condition of roads surface and bridges regularly
  - shift to double-bookkeeping and asset calculation (different level of details)
  - budgeting on year to year basis
  - little level of transparency

➤ *RAM not common*

## Benefits of a sustainable management of roads

Road Asset Management delivers high performance regarding

- mobility to all users (pedestrians, cyclists, users of cars, buses, lorries)
- safety
- noise protection
- environmental protection
- efficiency (construction, maintenance, operation, ..)
- Efficient spending and asset preservation

### *Advantages of RAM*

- *Improving decision making*
- *Ensuring mobility and its benefits to society in the long run*
- *Preserving a quality of roads contributing to all relevant objectives*
- *Managing your network in a highly efficient way*
- *Preservation of this huge financial asset for future generations*



## Demand for political support

- Be aware that modernization and maintenance of roads in time contributes positively to EU-Policy-Objectives
- Complement a EU-policy of closing gaps in TEN-T by an additional focus on modernizing the existing infrastructure
- Encourage to see infrastructure in its lifecycle from planning to the end of its usage (like in 315 bill.-program)
- Start initiatives aiming at improving road quality to contribute to other political objectives (safety, noise, environment, ..)
- Establish a European monitoring of road asset and give support to road authorities on all levels implementing RAM

Stefan Gerwens

Director

Pro Mobilitaet – Initiative fuer Verkehrsinfrastruktur e.V.

E-Mail: [gerwens@promobilitaet.de](mailto:gerwens@promobilitaet.de)

<http://www.promobilitaet.de>