# Automobile 2.0 – employment · e-mobility · environment

A joint project of the Ford European Works Council and Ford of Europe



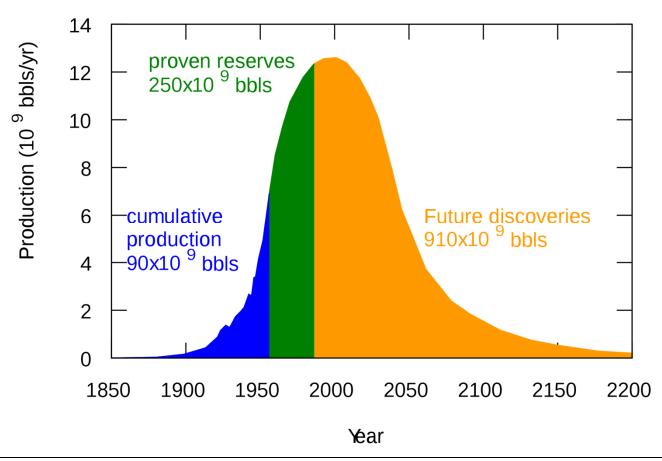
# The set-up of the project

- Time frame: Nov 15<sup>th</sup>, 2010 Nov 15<sup>th</sup>, 2011
- Three steps:
  - Nov 2010, Cologne: Initiation of the project and FoE update on Company's plans in the field of electric mobility and alternative powertrain concepts
  - May 2011, Brussels: In-depth seminar with internal and external experts on all aspects of future mobility concepts
  - September 2011, Cologne: Joint discussions on future requirements and investments in order to make European Ford plants fit for the expected technological change

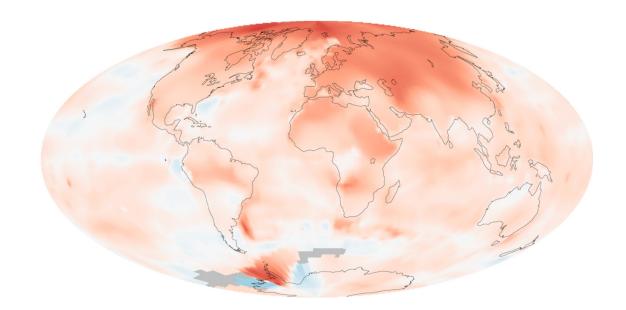
# The set-up of the project

- Participants
  - FoE management
  - Entire FEWC
  - HR management
  - Internal and external experts
- Funding
  - Total costs: € 170,228.81
  - EU grant: € 127,853.08
  - FoE contribution: € 42,375.73\*

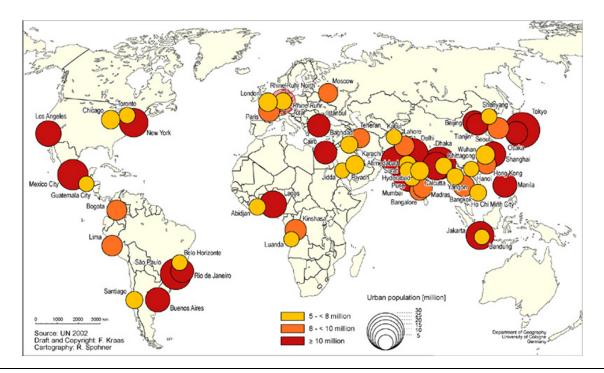
World oil reserves are limited



 There is a wide political consensus to limit the future increase in global mean temperature to below 2 °C. This requires <u>drastic</u> CO<sub>2</sub> reductions.

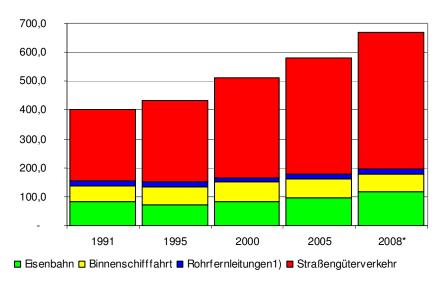


 World population is growing and there is a continuous trend towards urbanisation and the creation of mega cities. This and other factors will require new concepts of mobility.

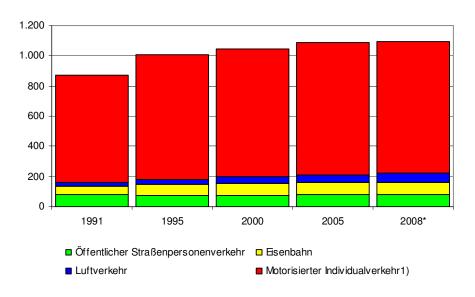


Globalisation leads to increase of trade and traffic

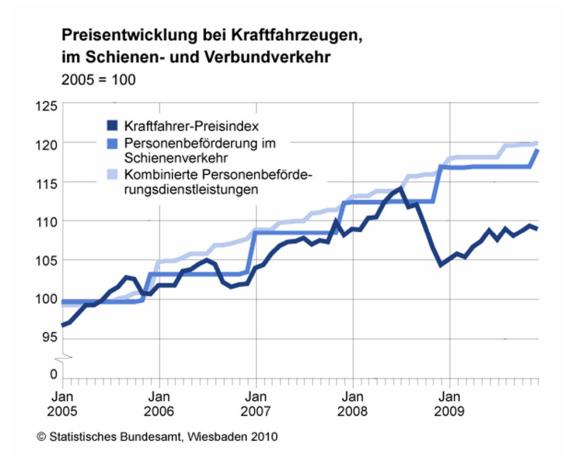
Germany: Share of major freight carriers (bn. tkm)



Germany: Share of major passenger (bn. Pkm)



Mobility costs increase



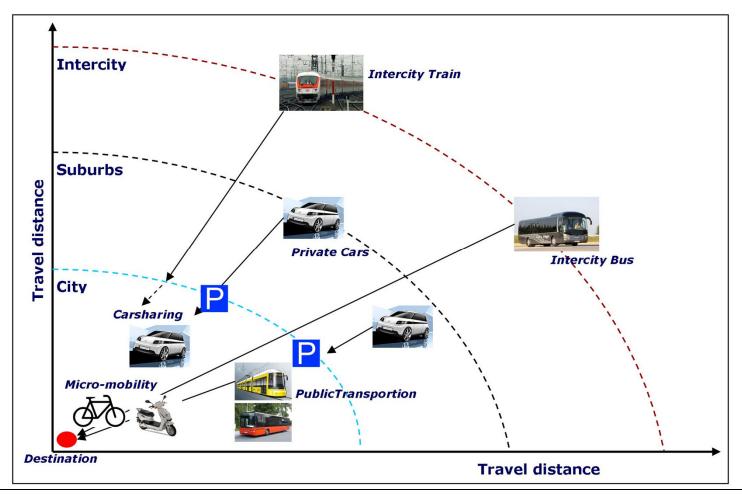
#### <u>Germany</u>

- Share of mobility costs amounted to 13% in 2005
- Mobility costs increased by 8.3% in four years Road: + 8%

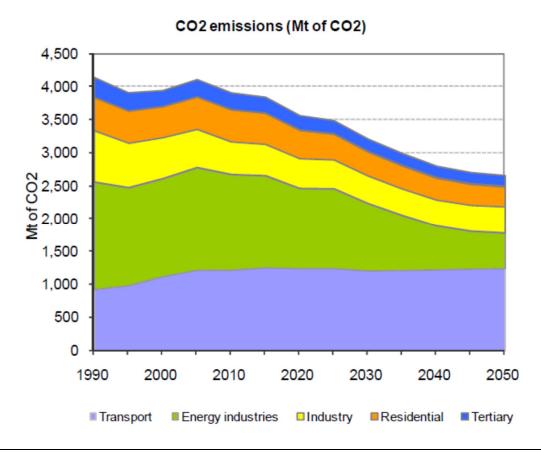
Trains: + 17%

Combined: +19%

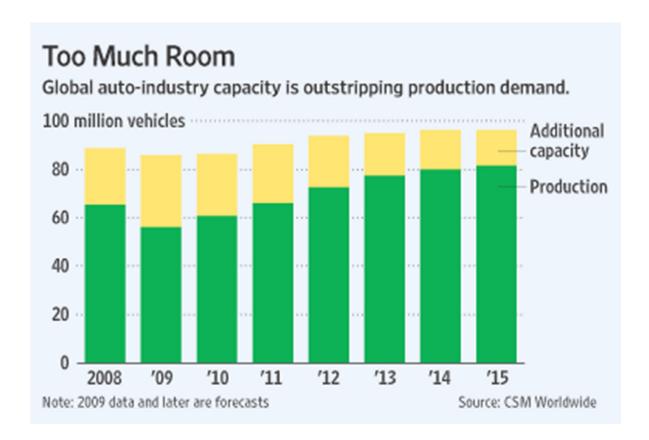
Future Mobility Concepts



# Share of CO2 emissions attributable to transport will even grow in the future



 The automotive industry is characterised by high competition due to overcapacity.



 The automotive industry is characterised by high competition due to new market entrants based in Asia.























ord European Works Council

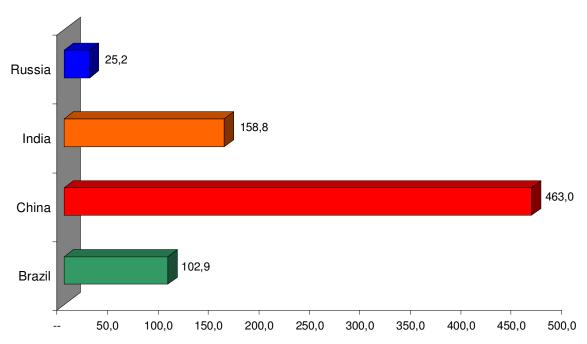






The automotive industry is characterised by mature and growth markets. There is a clear shift in emphasis to the growth markets (BRIC).





- The car of the future will look different
  - How does the car of the future look like?
  - Will we just electrify our current car concepts or will we develop new concepts, in particular for inner-city use?



Nissan Land Glider



TH!NK City



BMW megacity vehicle







 Modern society is characterised by a multitude of means of communication. Owning a car is considered less important than in the past.















- Our ability to
  - survive
  - be competitive
  - safeguard decent wages and working conditions
  - safeguard plants and jobs
- will depend on
  - an excellent management of change
  - an anticipatory policy
  - early information and consultation
  - a joint vision and agreement on future requirements and investments.

## **Our expectations**

### Technology

- Information related to Ford's future technological strategy

#### Products

Information related to Ford's future product strategy

#### Market forecast

 Information related to Ford's assessment of future markets and customer demand

### Competitors

 Information related to the assessment of Ford's strategy compared to the strategies of our main competitors

#### • Investment in facilities

- Information related to Ford's investment plan regarding the introduction of alternative vehicles and powertrain concepts, e.g.
  - Production of batteries, electric engines etc.
  - Ford has started to create a centre of excellence for electric vehicles in Michigan => how about Europe?

## **Our expectations**

#### Investment in people

 Information related to new skill requirements and related training measures

#### Partnership

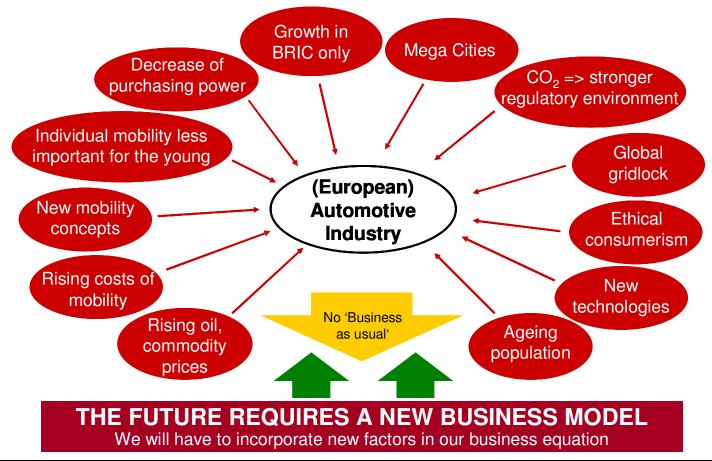
- Information related to Ford's strategic approach regarding relations to suppliers, technology providers, research centres, energy suppliers etc.
- Will we create new joint ventures in this context?

## Private Public Partnership

- Information related to Ford's PPP strategy

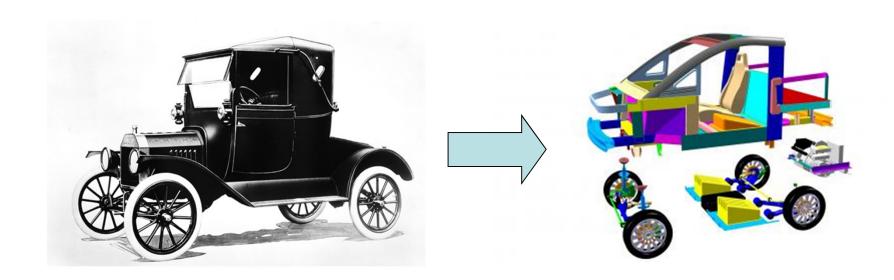
## **Conclusions**

 The automotive industry is/will be confronted with a new set of market conditions



## **Conclusions**

May be it is all about one question: Who will build the 'Model T' of the 21st century?



## Conclusion

## Seminar

- Urban traffic => city car
- Mega cities => combined transport
- Assumptions of White Paper are difficult to refute
- Asia is a thread
- General conditions for e-mob in Europe better than in NA
- 'Model T': affordable and less equipped
- E-vehicles need new concepts and architectures

## Request for additional information

## By the Company

- Measures and strategies in the field of training and education
- Overview on the actions Ford is taking in the US regarding EVs and strategies for FoE
- Definition of our future core business (in particular in relation to EVs) => consequences for employment?
- Possible acquisitions, JVs and partnerships in relation to EVs
- Strategy towards a new business model

## Request for additional information

## By others

- Deeper insight into strategies of Chinese (and Indian) OEMs regarding EVs
- Visit the Technical University in Aachen to get a deeper insight into the StreetScooter project
- Get in contact with experts who could help to initiate a wider debate on the future of the European car industry with the European Institutions (e.g. MEPs, former commissioners)

## Memorandum of Understanding

- 1) The management of FoE shall continue to inform and consult the FEWC on a regular basis (at least once a year) regarding latest global developments across the Company, including Ford of Europe, that are associated with the topics that had been dealt with in the course of this project.
- 2) The objective of the ongoing information and consultation process and the continued cooperation on the topics of the project is to ensure timely discussion on potential impacts, opportunities and risks to the European manufacturing locations.

## Memorandum of Understanding

- 3) Both parties will work together in order to implement appropriate measures in the field of training and education that will make sure skills and qualifications will be developed inside the Company that are required to maintain the competitiveness of the European operations.
- 4) The information and consultation process will also include specific needs required by the European market in association with new mobility, vehicle and powertrain concepts.