



**PERMANENT REPRESENTATION OF ROMANIA TO THE EU**  
**EUROPEAN AUTOMOBILE MANUFACTURERS ASSOCIATION - ACEA**



***SEMINAR on the AUTOMOTIVE INDUSTRY***

***“COMPETITIVENESS AND ENVIRONMENT  
MAJOR CHALLENGES OF EQUAL PRIORITY”***

***INNOVATION & SUSTAINABLE MOBILITY***

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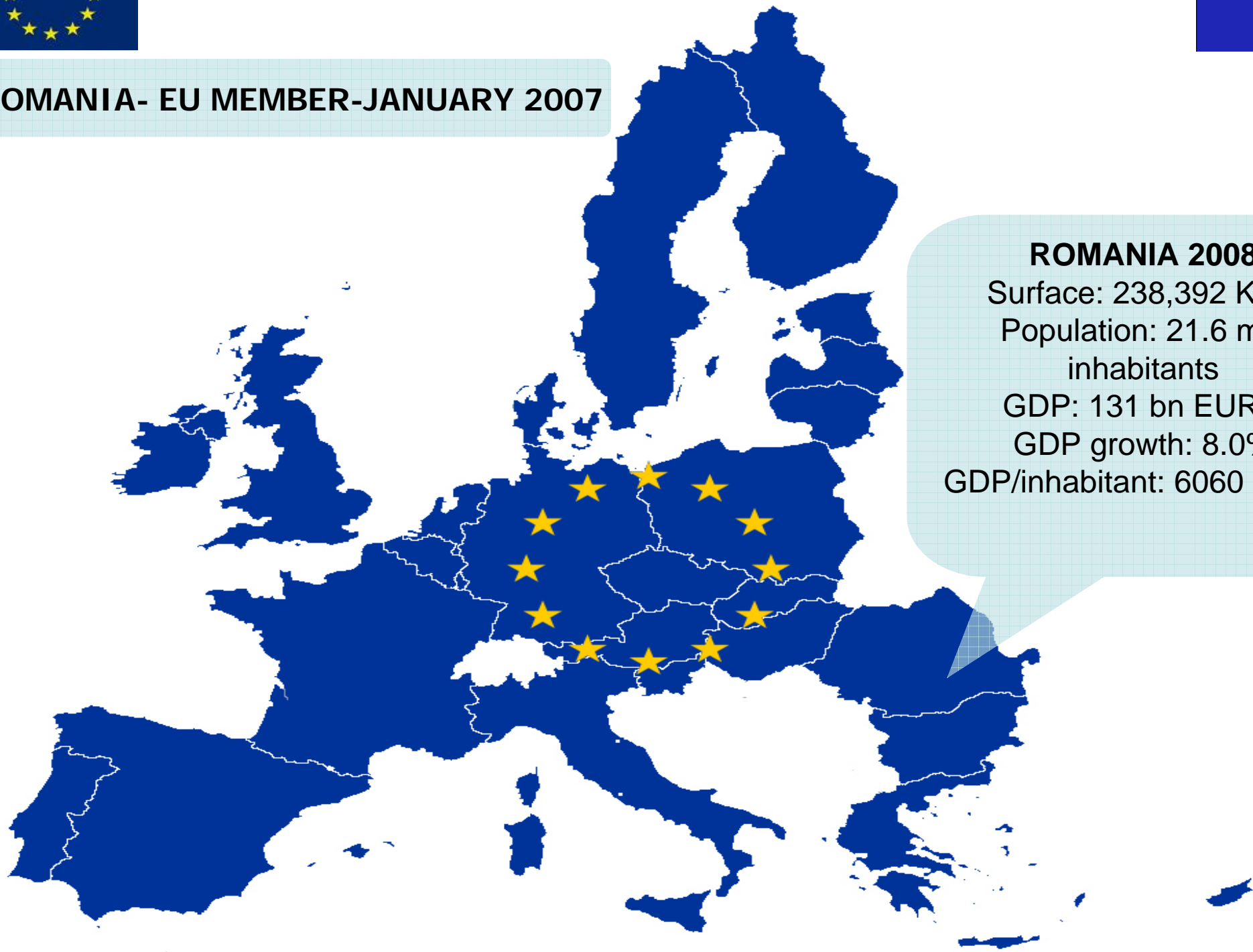
**BRUSSELS 04.11. 2008**



# INNOVATION & SUSTAINABLE MOBILITY



ROMANIA- EU MEMBER-JANUARY 2007



**ROMANIA 2008**  
Surface: 238,392 Km<sup>2</sup>  
Population: 21.6 mio inhabitants  
GDP: 131 bn EURO  
GDP growth: 8.0%  
GDP/inhabitant: 6060 EURO



## **MAIN PRIORITIES OF ROMANIA**

- Strengthening a fast, equal and sustainable economic growth;
- Coherent legislative system;
- **Increased role of research-development-innovation; strengthening of connection between industry and high education environment;**
- Promotion of sustainable management in the field of resources' and environment protection;
- Improvement of training for high skills and raise employment level.
- Intensify international co-operation and promotion of opportunities for businesses;
- Regional development by promoting industrial clusters and increase of SMEs weight;
- Facilitate the access to financing (national and community level) of economic actors





# INNOVATION & SUSTAINABLE MOBILITY

## CAR PRODUCERS IN ROMANIA



**Total investment linked with LOGAN project: over 2.5 bn €**

**SUPPLIERS NETWORK**  
Major part of suppliers grouped in ACAROM

**FORD GROUP CRAIOVA**

**DACIA GROUP RENAULT PITESTI**

2010-2011 = 300,000 CARS

2010-2011 350,000 CARS

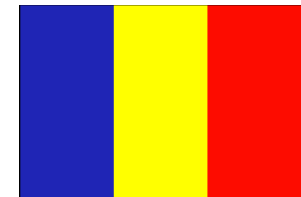




## VECTORS OF EVOLUTION INSIDE SECTOR

- REVISED LISBON STRATEGY FOR ENLARGED EUROPE (2007-2013)
- ACTION PLAN REGARDING SUSTAINABLE CONSUMPTION AND PRODUCTION AND SUSTAINABLE INDUSTRIAL POLICY (July 2008)
- CARS 21 – SECTORAL AND TRANS-SECTORAL INITIATIVE CONCERNING THE CAR INDUSTRY FUTURE IN EUROPE FOR JOB SECURITY AND GREEN AND AFFORDABLE CARS





## EVOLUTION OF TECHNICAL SOLUTIONS IN THE NEXT DECADE

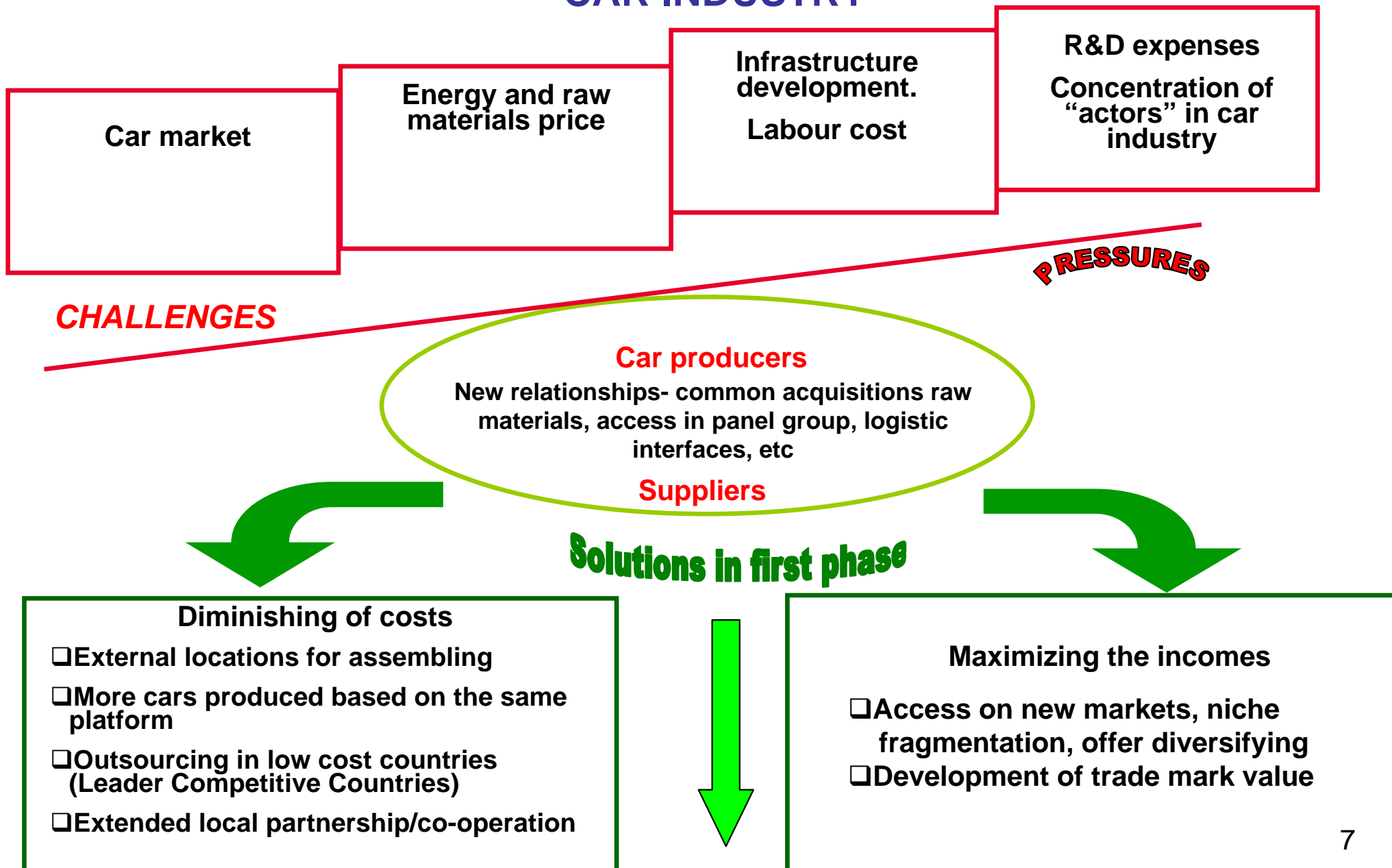
### DIRECTIONS

- **New EU & world regulation:**
  - as concerns the environment ;
    - Diminishing CO<sub>2</sub> emissions to 120 g/km (2012) and below 90-100 g/km from 2020; Romania considers that the European Parliament and European Council Regulation regarding the reduction of CO<sub>2</sub> emissions for light cars must satisfy all the actors
    - Euro 5 (from 1.09.2009 – R/1.01.2001-PI) and Euro 6 (from 1.09.2014 – R/1.09.2015 PI)
    - Fluorides elimination (2011)
    - Lower outside noise (2013)
    - Recycling: 95% of the car mass (2015)
    - Biofuels: increase their weight in cars fuels;
  - As concerns the safety of roads – Romania supports « Proposal for a directive of the EP and of the Council facilitating cross – border enforcement in the field of road safety
    - Brake operation, ABS, AFU, ECS = compulsory
    - Foot / passenger protection
    - More restrictive conditions for all impact tests
- **Accommodation to available resources, sustainable production and consumption**
- **Evolution of technologies,**
- **Global competition**



# INNOVATION AND SUSTAINABLE MOBILITY

## CHALLENGES AND SOLUTIONS IN THE WORLD CAR INDUSTRY





## R&D IN HORIZONTAL CAR INDUSTRY (following 2000) an integrated process - Constructors-Suppliers

Applied research

R&D centres of constructor or group



### Basic principles

- Trade mark identity
- Product to customer
- Virtual, strong design
- Partnership win/win C&F
- Shared R&D effort between C and F
- Optimal QCDP
- Entrance « ticket » = minimal
- Responsibility of results and piloting of development: constructor
- Eco-design, MCV

### Co-operation pillars CONSTRUCTOR-SUPPLIER

- Trust in success of final product
- « Tuned » system of concepts, working procedures, managerial procedures...
- Transparency
- Capital of experience=cumulated (building solutions, development technologies, norms...)
- Compatible/ interoperable IT supports
- Base for product validation=cumulated



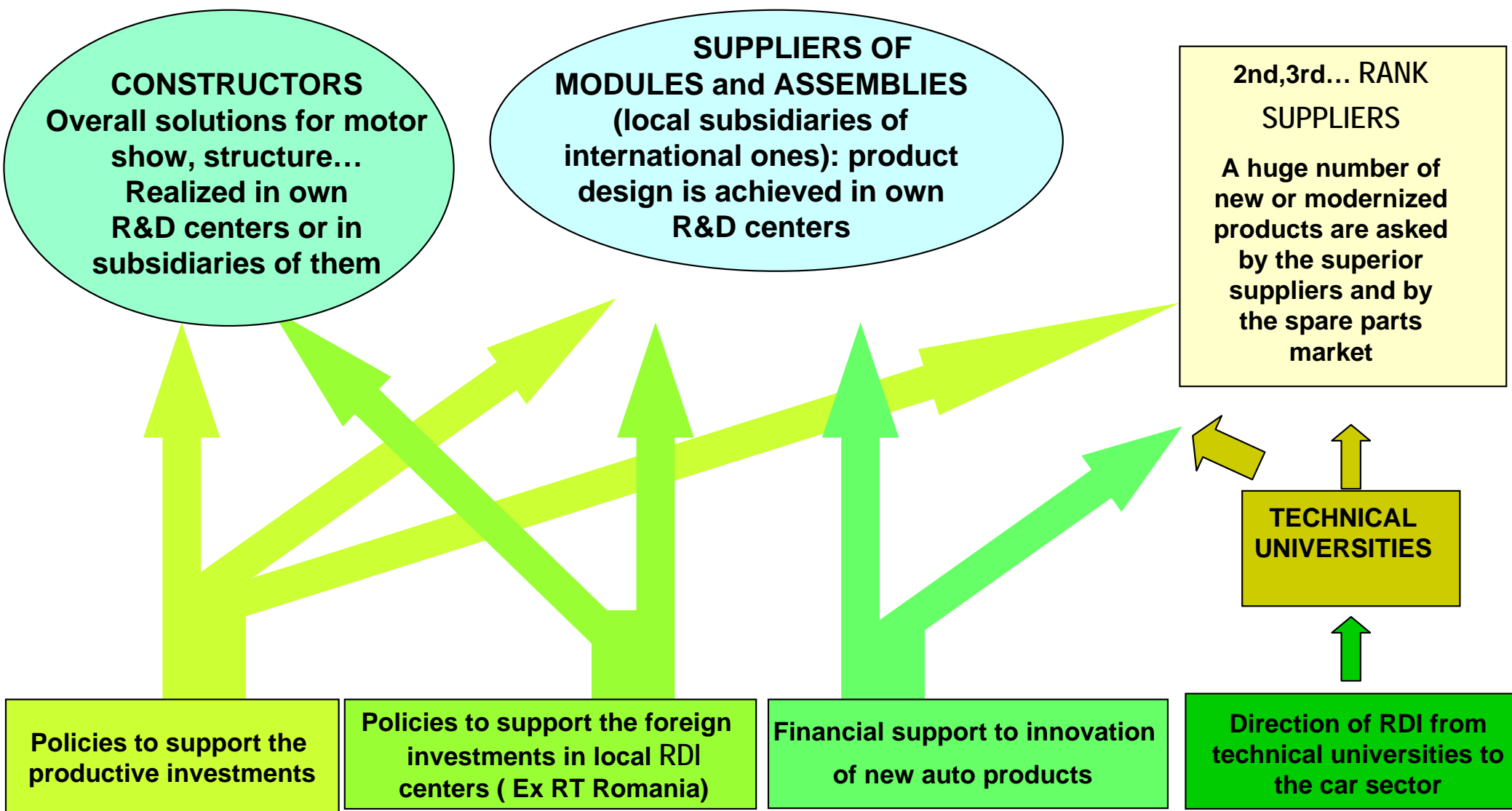


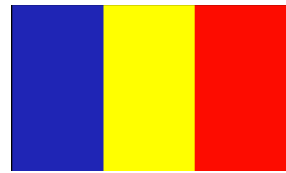


# INNOVATION & SUSTAINABLE MOBILITY



## Innovation and investment in Romanian car industry *specific characteristics*





## ALIGNMENT TO AVAILABLE RESOURCES

### WHAT THE CONSTRUCTORS DO !

- Improvement of burning and of actual engines management: High Pinj, structured injection characteristic, poor mixtures, GDI, reduction of capacity, 100% variable distribution, starter/alternator, U=42V, electro-mechanical gears etc.
- Relative reduction of car mass + higher aero-dynamics + reduction of running resistance;
- Flexible engines allowing LPG weight increase, GN of bio-fuels in car consumption;
- Electric cars (hybrid);
- Fuel cells
- Engines compatible with alternative fuels (Hydrogen)
- Shortening of period to satisfy the requirements of regulations and of the market.





## **TECHNOLOGICAL DEVELOPMENT**

### ***WHAT THE SUPPLIERS DO!***

- Enhance the use of high resistance steels for car body (HSS) + heat treatment during painting (bake hardening)
- New materials and new alternative fuels
- Use of metallic foams
- Increase of weight for Al and Mg alloys in the car mass
- Super-electronic operation & hyper-computer use
- Extend the use of media-equipment on the board



## LEGAL FRAMEWORK, APPROPRIATE TO SECTOR DEVELOPMENT

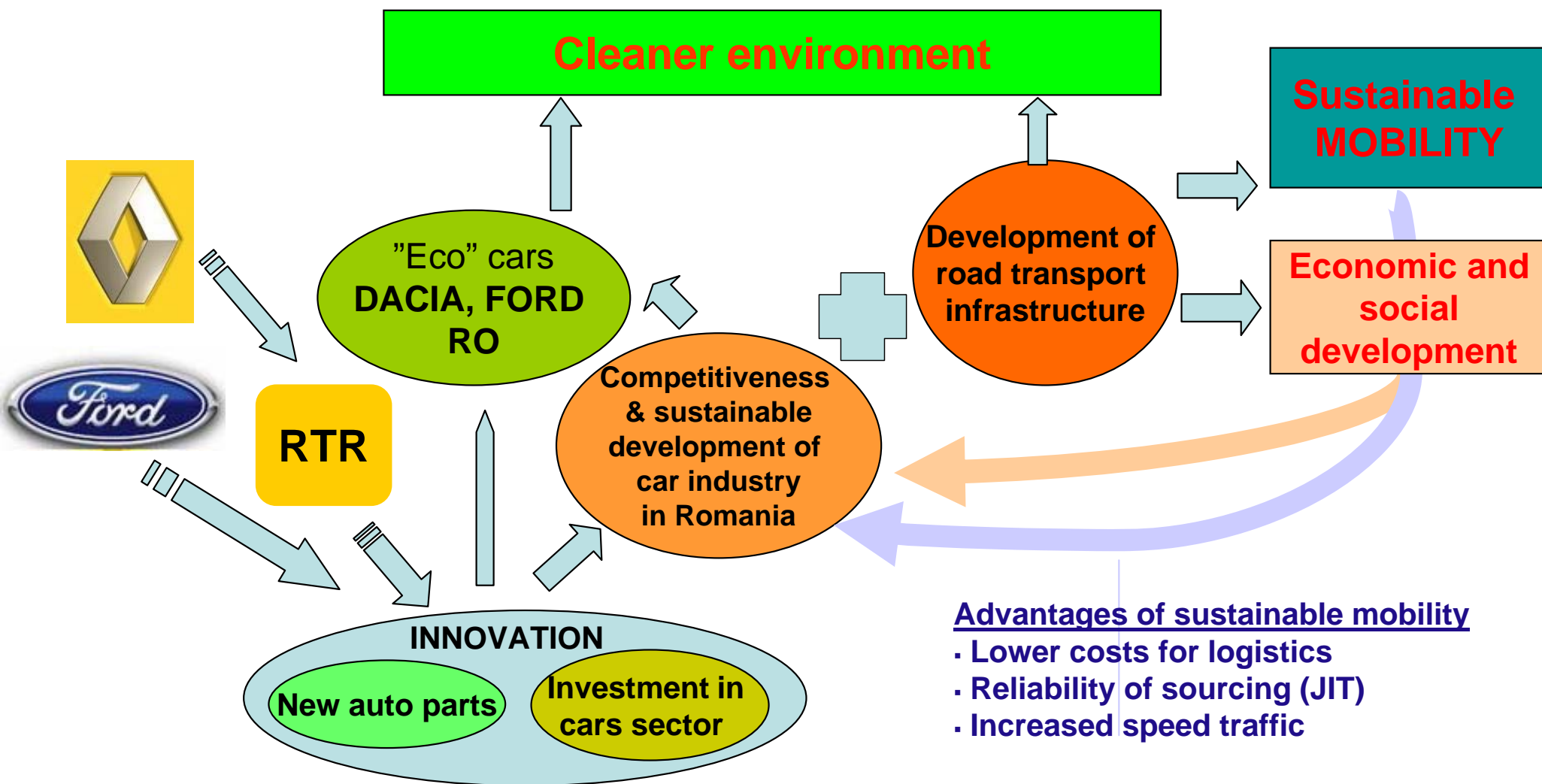
### ***WHERE DOES THE ADMINISTRATION ACT?***

- Improvement of road mobility in Romania
  - 2007
    - 4.105 mil. cars with a high age average
    - 523 the national motor show
    - 80,893 km public road network, out of which 281 km highways, 5983 km European roads
- “Integrated” approach and with reasonable deadlines for new European regulations (EP, authorities), visibility on targets and on the mechanisms to release in accordance;
- Protection of designs and of industrial models;
- More severe norms of market protection against counterfeit spare parts;
- Promotion of innovative activities – driver of industrial development



# INNOVATION & SUSTAINABLE MOBILITY

Sustainable development of car industry through innovation & investments need an integrated approach



**A "KEY" ISSUE  
DEVELOPMENT OF TRANSPORT  
INFRASTRUCTURE**

=

- National program of highways, with multi-annual budget allocation up to 6% of GDP
- Express roads
- Loop roads + urban streets





## **CONCLUSIONS (1)**

**THE NATIONAL STRATEGY PROVIDES THAT THROUGH INNOVATION AND SUPPORT OF INVESTORS IN THE AUTOMOTIVE SECTOR, THE CHALLENGES WILL BE TRANSFORMED INTO DEVELOPMENT OPPORTUNITIES**

- **The automotive industry is an « engine » and, consequently a strategic priority of economy;**
- **The car sector has a growing potential based on the global trends of automotive industry, on market and geo-economical opportunities;**
- **We support the location and development of foreign direct investments or domestic investments in Romanian cars sector, through a legal framework for investments and a system of incentives compatible with the European legislation;**
- **We encourage the location in Romania of R&D&I centres of the constructors and of international automotive suppliers, which will operate as «safe and long term anchors» for the car sector; an example being “*Renault Techologie Romania*”;**
- **We allocate European funds for projects of new and modernised products through the Operational Programme for Competitiveness and Regional Operational Programmes, which can be used for automotive industry too;**



## **CONCLUSIONS (2)**

- **We stimulate the local/regional research and innovation in the automotive field in the National Plan for Research, Development and Innovation and we direct the potential from technical universities towards applications in the automotive sector;**
- **We support the creation of financial tools to co-finance development projects, especially for SMEs;**
- **We encourage the development of infrastructure for local production of bio-fuels;**
- **We introduced a system for pollution taxation of cars at the first registration, based on the CO2 emissions and pollutant particles; the actual one will be improved based on the experience acquired;**
- **We will continue the Programme for car fleet renewal (34 mil. EURO from State budget, 40,000 cars in 2008, the 4th year of application).**



## **CONCLUSIONS (3)**



**The national priorities for the development of automotive industry are coherent with the European ones which result from the environment and road safety Regulations**

**The national development priorities follow the Lisbon Strategy objectives**

**The policies and programs of Romanian authorities are based on an integrated approach for sector development**

**Innovation and mobility represent essential flagpoles**



***Thank you for your kind attention!***