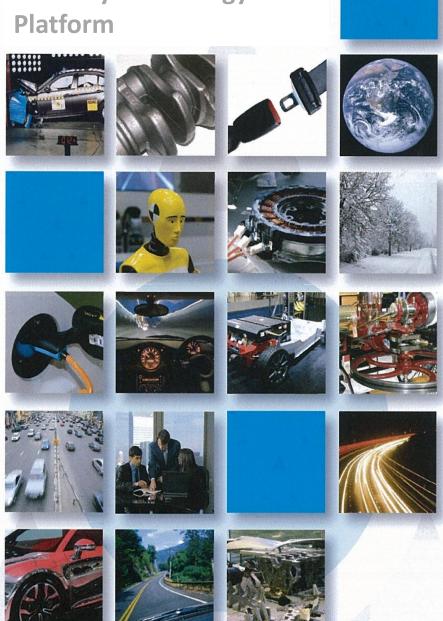
Spanish Automotive and Mobility Technology Platform





# **The Automotive Sector in Spain**

**2**<sup>nd</sup> largest car maker in Europe, largest producer of industrial vehicles in Europe and **9**<sup>th</sup> in **the world.** 90% exported to 130 countries in the world.

- 11 companies – 18 production plants

**Strong equipment and component manufacturers industry:** 29.530 M€ in 2011. 60% in the export market.

- 1000 companies from SMEs to large international groups
  - ▲ 6% GNP
  - ▲ 250,000 employees
  - ▲ R&D investment of about 3% turnover



# **Description and objectives**

### M2F, the Spanish Automotive and Mobility Technology Platform.

#### **Executive Board:**

**SERNAUTO:** Spanish Association of Automotive Equipment and Components Manufacturers, as main proposer and coordinator

**CIE AUTOMOTIVE:** Manufacturer of automotive components and sub-assemblies

**ANFAC:** Spanish Association of Vehicle and Truck Manufacturers

ITS Spain: Spanish Association of Intelligent Transport Systems

**TECNALIA Research & Innovation:** Spanish private applied research centre

FICOSA International: Manufacturer of automotive components and sub-assemblies

**LEAR Automotive (EEDS) Spain:** Manufacturer of automotive components and subassemblies

R. BOSCH España: Manufacturer of automotive components and sub-assemblies

**INSIA-UPM:** University institute for automobile research

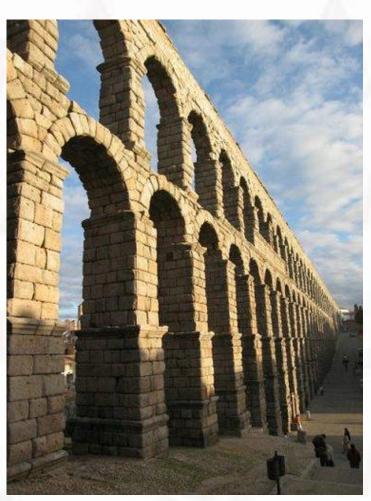
#### **Objectives:**

- ▲ Reinforcement of the R&D structure of the sector
- ▲ Communication and collaboration
- ▲ Projects

M2F

Activities

# Description and objectives Reinforcement of the R&D structure of the sector



- ▲ Joining the private sector, technology centers, public research organizations and universities to establish R&D&I priorities for the automobile sector in Spain and update them periodically
- ▲ Identifying strategic areas for platform members based on existing technological know-how and R&D potential in Spain
- ▲ Making contributions to the European

  Framework Programme, updating ERTRAC's strategic agenda, and creating the road map for the European Green Cars Initiative
- Advising the government on policy development
  - Reviewing of **specifications and legislation** related to automotive sector

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Activities

# Description and objectives Communication and collaboration



- ▲ Informing about any initiative, event, call, etc related with the sector
- ▲ Promoting knowledge among Platform members, their lines of work and their interests in the medium / long term to enhance the proposal and implementation of cooperation projects
- ▲ Collaborating with others technology platforms and transportation and logistics-related initiatives

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Activities

# **Description and objectives Projects**



- ▲ Fostering collaborative activities between companies and R&D agents
- ▲ Increasing the number of companies participating in projects and supporting the best projects and initiatives, both individual and cooperation, for implementation and achievement of its objectives

M2F

Activities

# **Working Groups**

| Car makers   | Suppliers of the automotive sector (from SMEs to large industrial groups) |  |  |  |  |
|--|---|--|--|--|--|
| Suppliers of ICT for transport and infrastructures | Engineering companies   |  |  |  |  |
| Technological Centres                              | Universities  |  |  |  |  |
| Related Spanish TPs                                | Representatives of Public Administrations                                 |  |  |  |  |
| Clusters   | Consultants   |  |  |  |  |





- ▲ WG1 Vehicle electrification, energy and resources
- ▲ WG2 Safety
- ▲ WG3 Materials, design and production systems
- **▲** WG4 Mobility in urban and interurban areas
- ▲ WG5 R&D&I promotion

M2I

**Activities** 

WG1 - Vehicle electrification, energy and resources

- ▲ **TF1:** Development of a plug-in rechargeable modular battery systems with a power rating between 10-15kWh with internal cooling system for homogeneous distribution of the cell temperature and external interface with the vehicle's cooling system
- ▲ **TF2:** Development of light electric motors of axial flow with integrated modular gearbox
- ▲ TF3: Development of a new range of highly efficient internal combustion engines (two ultra-compact cylinders) with integrated generator and inverter for using in electric vehicles

M<sub>2</sub>F

Activities

# WG2 - Safety

- ▲ **TF1:** Virtual tools applied to improve safety
- ▲ **TF2:** Protection of vulnerable road users
- ▲ TF3: Driver behavior monitoring

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**Activities** 

WG3 - Materials, design and production systems

- ▲ **TF1:** Structural composites and nanocomposites for mass production
- ▲ **TF2:** Design and simulation
- ▲ **TF3:** Technologies to improve competitiveness through total quality
- ▲ **TF4:** Environmental and recyclability standards compliance

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**Activities** 

WG4 - Mobility in urban and interurban areas

- ▲ **TF1:** Electromobility Living Labs
- ▲ TF3: ITS and connected vehicle
- ▲ **TF4:** Adaptation of the vehicle for the elderly and the disabled

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**Activities** 

# Working Groups Document

The third edition of the Strategic Research Agenda.

The aim is to:

- reflect of the values of the Spanish automotive industry
- nowadays
- ▲ be an outline that helps us prepare for the Strategic Plan for 2020

Private companies, technology centers and public research organizations will benefit from the present document. They can use it as a guide to establish their particular strategies and action plans. European, national and local governments will also find it very useful. It will assist them in defining and implementing tools to increase R&D&I in the sector. Likewise, it indicates how public resources can be used for existing demands and needs.

http://www.move2future.es/index.php? option=com\_jdownloads&Itemid=120&v iew=viewcategory&catid=55



M2F

Activities

# Support action to promote Spanish participation in the European Green Cars Initiative.



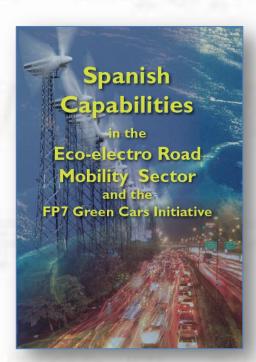
**Objective:** To strengthen the Spanish technological position in view of the opportunities of the European Green Cars Initiative.

#### **Activities:**

- ▲ Compile and disseminate the information about the EGCI and all its ongoing projects
- ▲ Inventory of Spanish stakeholders: within the automotive sector and new actors
- ▲ Identify the main RTD priorities and technological capabilities in Spain
- ▲ Promote and facilitate the participation of Spanish entities in the EGCI calls, up to a level in accordance with national capacities
- ▲ Foster the coordination and cooperation with other relevant sectors: utilities, infrastructures, logistics, hydrogen and fuel cells

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**Activities** 



Green Cars and Leadership Opportunities in Spain



"R&D Challenges and Opportunities in Electrical-powered Transport" (Saragossa, March 24, 2009) "Green Cars and Leadership Opportunities in Spain" (Valencia, April 15, 2010) "Green Cars Spain:
Ongoing Projects"
(Valladolid, October 5, 2011)

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**Activities** 

"GREEN CARS SPAIN – BUSINESS CHALLENGES AND GLOBAL OPPORTUNITIES" Vitoria – 3 October, 2012



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Activities

### www.fp7greencars.es (ES/EN)

#### Sections:

- ☐ Directory
- Events
- Documentation
- ☐ Links
- Projects

#### GREEN CARS ESPAÑA

Español # English

#### SECCIONES

DIRECTORIO ENTIDAI EVENTOS DOCUMENTACION ENLACES PROYECTOS

#### **CALENDARIO**

| 44  | 4  | Jul 2012 |    |    | •  | *   |  |  |
|-----|----|----------|----|----|----|-----|--|--|
| Lu  | Ma | Mi       | Ju | Vi | Sa | Do  |  |  |
| 25  | 26 | 27       | 28 | 29 | 30 | - 1 |  |  |
| 2   | 3  | 4        | 5  | 6  | 7  | 8   |  |  |
| 9   | 10 | 11       | 12 | 13 | 14 | 15  |  |  |
| 16  | 17 | 18       | 19 | 20 | 21 | 22  |  |  |
| 23  | 24 | 25       | 26 | 27 | 28 | 29  |  |  |
| 30  | 31 | 1        | 2  | 3  | 4  | 5   |  |  |
| Hov |    |          |    |    |    |     |  |  |



#### **Green Cars España**

La iniciativa europea de los vehículos verdes (**European Green Cars Initiative**) es una de las tres iniciativas puestas en marcha por la Comisión Europea como parte del Plan de Recuperación Económica anunciado y refrendado por los países miembros finales de 2008, para apoyar "inversiones inteligentes" en investigación en el sector de automoción, uno de los pilares básicos de la economía europea.

El objetivo del proyecto "Acción Complementaria de apoyo a la participación española en la iniciativa europea Green Cars" es afianzar la posición tecnológica española ante las oportunidades que representa dicha iniciativa y el apoyo e interés institucional europeo por la electromovilidad, con el fin de alcanzar una participación activa en la iniciativa europea acorde con las capacidades nacionales y potenciar la coordinación y cooperación tecnológica de los sectores de fabricantes de vehículos y componentes con otros sectores involucrados: eléctrico, infraestructuras, logistica, etc.

#### Entidades coordinadoras:









#### GREEN CARS 2012: RETOS DE NEGOCIO Y OPORTUNIDADES GLOBALES, VITORIA

Fecha Inicio: 03/10/2012

Fecha Fin: 03/10/2012

Enlace: http://www.tecnalia.com/greencars2012/

Jornada nacional anual Green Cars. Abierta la inscripción on-line. Cerrada la convocatoria de comunicaciones y directorio tecnológico. Mas información en info@fp7greencars.es

Proyecto subvencionado por CDTI en el marco de actuación del subprograma INTEREMPRESAS INTERNACIONAL, con el apoyo del Ministerio de Ciencia e Innovación

M2F

**Activities** 

## **SEINNOVA and M2F-Capacity Search Tool**



Is a demand-oriented innovation marketplace. Firms - in a anonymous and user-friendly environment - request solutions related to technology and innovation (e.g. new product development, R&D and Innovation Advising, Technological Forecast, etc.) to all solution providers regardless of providers' category, location and technological expertise. Firms find a solution to all sort faster, easier and confidentially while solution providers close a

of innovation requests faster, easier and confidentially while solution providers close a service contract.

#### www.seinnova.es

**M2F - Capacity Search Tool.** It is a user-friendly directory where the own M2F members identify their work areas and technology fields. With a simple search, it can be found the list of entities involve in a determined area.

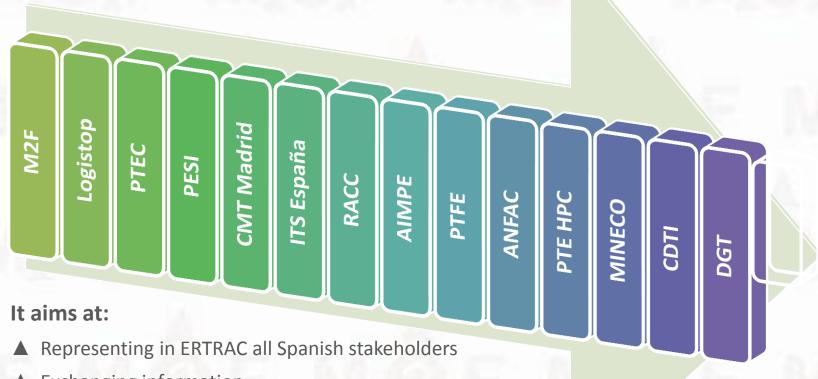
http://www.move2future.es/index.php?option=com\_sobi2&sobi2Task=search&Itemid=0

M2F

**Activities** 

## **Spanish ERTRAC Forum**

Coordination of the Spanish ERTRAC Forum. Set up in the beginning of 2009, it involves all national road transport stakeholders.



**Activities** 

**Exchanging information** 

### **Others**

Unit of International Innovation to promote participation in international programmes, support the preparation of high quality proposals and collect and integrate the areas of interest of the Spanish industry in the definition of the priorities of EU FP work-programmes

▲ Participation in **national and international events** 

Organization of workshops and Plenary Meetings (annually), open to all road transport stakeholders

▲ Dissemination: email, SERNAUTO Informa magazine, www.move2future.es



Activities

## List of participant

- ▲ ACUSTTEL
- ▲ AEDIVE
- **AENA**
- ▲ AIICA
- **AIMEN**
- **AIMME**
- ▲ AIMPLÁS
- **AIN**
- **AMES**
- ▲ AMETIC
- ▲ ANÁLISIS-DSC
- ANDALTEC
- **ANFAC**
- ARIES INGENIERÍA y SISTEMAS
- ARRÁN AUTOMOCIÓN
- ▲ ASCAMM
- ▲ AT4 WIRELESS
- ▲ AVELE
- ▲ AYUNTAMIENTO DE GRANOLLERS
- **AYUNTAMIENTO DE HOSPITALET**
- AZTERLAN

- **▲** BAYSYSTEMS IBERIA
- ▲ BESEL
- ▲ CALMELL
- ▲ CEIT
- ▲ CEMUSA
- ▲ CENTRO TECNOLÓGICO DE COMPONENTES
- ▲ CENTRO TECN. DE TELECOMUNICACIONES

  DE CATALUÑA CTTC
- ▲ CENTRO ZARAGOZA
- ▲ CETEMMSA
- ▲ CIDAUT
- CIE AUTOMOTIVE
- ▲ COMARTH
- ▲ COTEPSY
- ▲ CT INGENIEROS
- ▲ CTAG
- ▲ CTAG-IDIADA
- ▲ CTM CENTRE TECNOLOGIC
- ▲ DGT
- ▲ DOGA
- ▲ ECO-MOTION
- ▲ EDERTEK S COOP

M2F

Activities

# **New technologies: HIRIKO**

### CIE Automotive takes part in the HIRIKO project.

image by William Lark Jr. Smartcities MIT







M2F

Activities

### **Characteristics:**

- ✓ Innovative navigation systems
- √ 120 km autonomy
- ✓ Maximum speed of 90 km/h
- ✓ Can be limited to 50 km/h in the city



## List of participant

- ▲ ESM
- ▲ ETRA
- ▲ EUVE
- **EXIDE TECHNOLOGIES**
- FAURECIA INTERIOR SYSTEMS
- ▲ FEMP
- ▲ FICOSA INTERNATIONAL
- ▲ FITSA
- ▲ FRANCISCO ALBERO
- **▲ FUNDACIÓN CETENA**
- ▲ FUNDACIÓN CSIC
- ▲ FUNIBER
- ▲ GESTAMP
- ▲ GH ELECTROTERMIA
- ▲ GMV SISTEMAS
- ▲ GOMAVIAL
- ▲ GREEN POWER TECHNOLOGIES
- ▲ GRUPO ANTOLÍN
- ▲ GRUPO CEGASA
- ▲ GRUPO COPO
- ▲ GUARDIA CIVIL

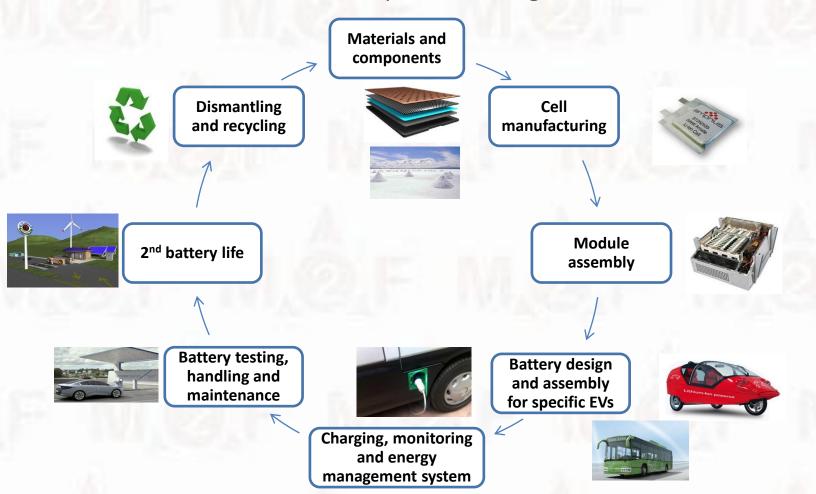
- ▲ HI-IBERIA
- ▲ HOSPITAL UNIV. 12 DE OCTUBRE
- ▲ IBV
- ▲ IDEKO
- ▲ IDIADA
- ▲ IKERLAN
- ▲ iMAUT
- ▲ INABENSA
- **INASMET**
- ▲ INDUSTRIAS PUIGJANER
- ▲ INGFINNOVA
- ▲ INSTITUTO TECNOLÓGICO DE ARAGÓN
- ▲ INTA
- ▲ ITS ESPAÑA
- **KLARIUS**
- ▲ KONIKER
- ▲ LEAR
- LEITAT
- ▲ LITEC
- ▲ LORTEK
- **▲** LUREDERRA

M2I

Activities

## New technologies: SEAT - FICOSA - SANYO Agreement

**SEAT, Ficosa and Sanyo** have signed an agreement to promote the development of batteries for electric vehicles in Spain and Portugal.



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Activities

## List of participant

- ▲ MAIER TECHNOLOGY CENTRE S COOP
- **▲** MINETUR
- ▲ MMM
- ▲ MONDRAGÓN AUTOMOCIÓN S. COOP.
- **▲** MOVIQUITY
- ▲ MP TUBOS DE GOMA
- ▲ NIT
- ▲ NÚCLEO
- ▲ POLICÍA LOCAL DE ZARAGOZA
- ▲ PRODINTEC
- ▲ PROMETEO
- ▲ RACC
- A ROBERT BOSCH
- A RODAL INGENIERÍA
- ▲ SAFT
- ▲ SAINT GOBAIN CRISTALERÍA
- ▲ SEAT
- ▲ SERNAUTO
- ▲ SICE
- ▲ SIDENOR I+D
- ▲ SIEMENS

- ▲ TECHNET
- **▲ TECNALIA**
- ▲ TECNOLÓGICO FUNDACIÓN DEUSTO
- ▲ TEKIA
- ▲ TEKNIA
- ▲ TEKNIKER
- ▲ TELEFÓNICA I+D
- **TELVENT**
- **TENNECO**
- ▲ UNIV. POLITÉCNICA DE CATALUÑA
- ▲ UNIV. POLITÉCNICA DE CATALUÑA CENIT
- ▲ UNIV. POLITÉCNICA DE CATALUÑA CITCEA
- ▲ UNIV. POLITÉCNICA DE CATALUÑA CSIC
- UNIV. POLITÉCNICA DE MADRID
- ▲ UNIV. POLITÉCNICA DE MADRID GATV
- ▲ UNIV. POLITÉCNICA DE MADRID- INSIA
- UNIV. POLITÉCNICA DE VALENCIA CMT
- Motores Térmicos
- ▲ UNIV. POLITÉCNICA DE VALENCIA CRIA
- ▲ UNIV. POLITÉCNICA DE VALENCIA Instituto ITEAM
- UNIVERSIDAD CARLOS III
- ▲ UNIVERSIDAD CARLOS III ISVA

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Activities

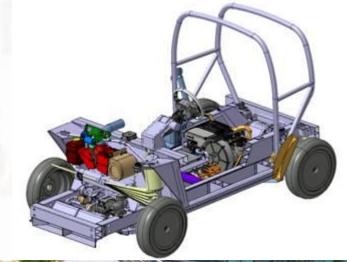
# New technologies: Mondragón City CAR/VAN

The main strategic project of **Mondragón Automoción** is Mondragon city

CAR/VAN electric car.

### Three important <u>tasks</u>:

- 1) Conduct a complete vehicle experience with a European engineering partner (Lotus)
- 2) Develop strategies for Mondragon automotive companies
- Creating a new company for the design and development of electric cars





M2F

Activities

## List of participant

- ▲ UNIVERSIDAD DE ALCALÁ Dpto. Electrónica
- ▲ UNIVERSIDAD DE BARCELONA Fundación Bosch Gimpera
- ▲ UNIVERSIDAD DE BURGOS
- ▲ UNIVERSIDAD DE MÁLAGA-ESCUELA INGENIEROS INDUSTRIALES
- ▲ UNIVERSIDAD DE MÁLAGA-GRUPO DE INGENIERÍA MECÁNICA
- ▲ UNIVERSIDAD DE MONDRAGÓN
- ▲ UNIVERSIDAD DE SEVILLA Ingeniería e Infraestructura de Transportes
- ▲ UNIVERSIDAD DE VALENCIA INTRAS
- ▲ UNIVERSIDAD DE VALLADOLID
- ▲ UNIVERSIDAD DE ZARAGOZA
- ▲ UNIVERSIDAD DE ZARAGOZA CIRCE
- ▲ UNIVERSIDAD DE ZARAGOZA OTRI
- ▲ UNIVERSIDAD JAUME I
- UNIVERSIDAD REY JUAN CARLOS
- UNIVERSIDAD ROVIRA I VIRGILI
- ▲ YOHKON

M2I

Activities



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