

LIVE:

Logística per a la Implementació del Vehicle Electric

Pla Estratègic del Vehicle Elèctric a Barcelona

Jornada Tècnica. Col·legi d'Enginyers Industrials de Catalunya
Barcelona Maig, 2011

AGENDA

1 Escenaris Internacionals

2 LIVE Barcelona

3 Iniciatives i Projectes

1

Escenaris Internacionals



Escenaris Internacionals

Revolució Tecnològica. Sector Estratègic



Escenaris Internacionals

Marc fonamental i impacte en la Cadena de Valor



Quatre vectors convivint i madurant conjuntament amb el Sector

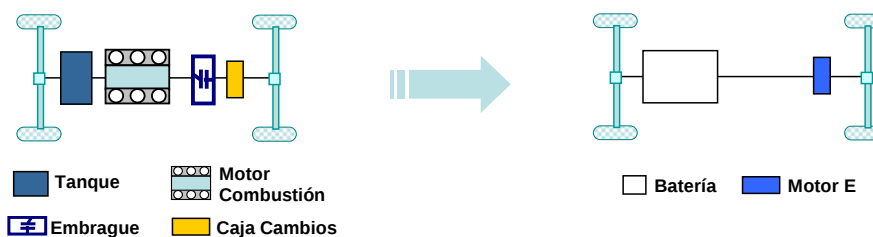
ACEPTACIÓ
USUARIS

RECOLZAMENT
PÚBLIC

TECNOLOGIA
FABRICANTS

MODELS DE
NEGOCI

Concepto de
Vehículo



La Electrificación de la Movilidad cambia cada paso de la Cadena de Valor

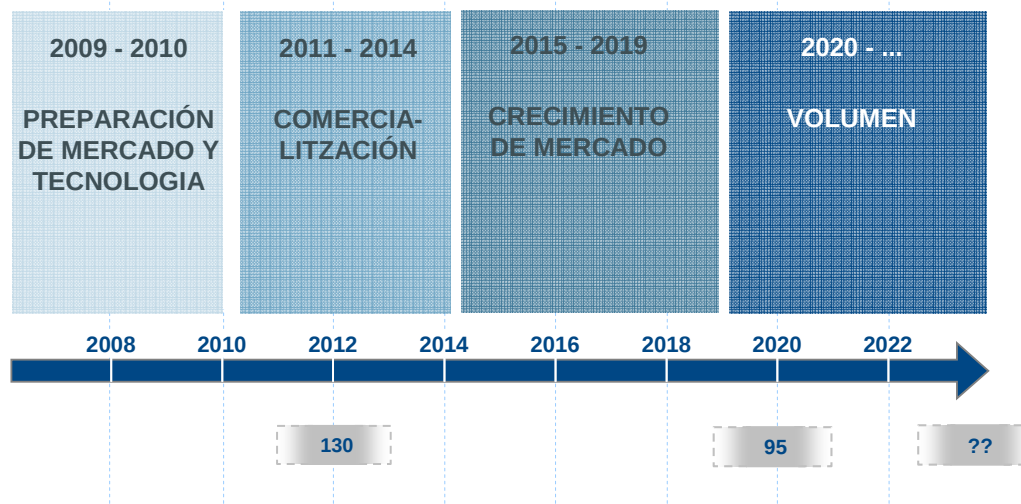
Cadena de
Valor de la
Movilidad



Escenario →

Año →

Objetivos
Europeus de
emissions de
CO2 [g/km]

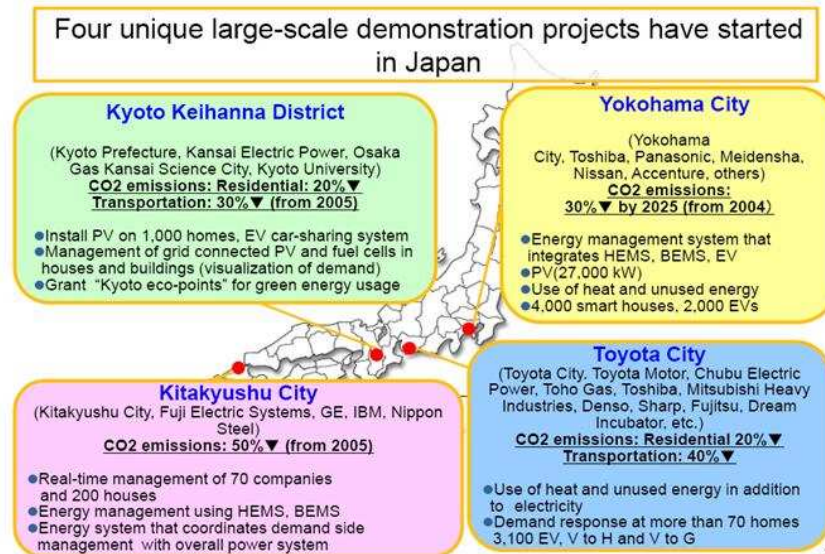


Escenaris Internacionals

Implementació i desplegament a escala Mundial



Japan Smart Community Alliance (JSCA) Japan Smart Community Alliance



Obama announces \$2.4B in stimulus funds for U.S. batteries and EVs: "I don't want to just reduce our dependence on foreign oil and then end up being dependent on their foreign innovations."

August 5, 2009

President Obama announced 48 new advanced battery and electric drive projects that will receive \$2.4 billion in stimulus funds. You can read details [here](#). The awards cover:

Shanghai Municipal Government:

-**EXPO** Shanghai: Zero emissions en els 5,8 km². EV Taxis i Autobusos. 12 MM de passatgers, 6 MM de kilòmetres, 3 avaries per milió de km.

-Programa a escala Nacional: 6 regions. Han definit els seus estàndards. 20.000 EV endollables al 2012. Mercat nacional de fabricants.

globalasia 环球亚洲 | Sábado, 13 Noviembre 2010

ECONOMÍA, EM
Puente de conoci

INICIO ACTUALIDAD ARTÍCULOS REVISTA GLOBAL TV COMUNIDAD GLOBAL SERVICIOS G

Es Noticia Noticias Empresa Actualidad Legal IberoNews Homenaje Samaranch

China toma a Barcelona como ejemplo a seguir en el vehículo eléctrico

Escrito por Redacción
Jueves, 11 de Noviembre de 2010 18:15

El Ayuntamiento de Barcelona ha presentado a China la plataforma Live Barcelona, el modelo de implantación y promoción del vehículo eléctrico que se está llevando a cabo en la ciudad condal. Live Barcelona es una iniciativa que suma esfuerzos públicos y privados para promocionar la movilidad eléctrica por la ciudad, además de articular acciones de implantación de este automóvil y apoyar al sector industrial que los produce.

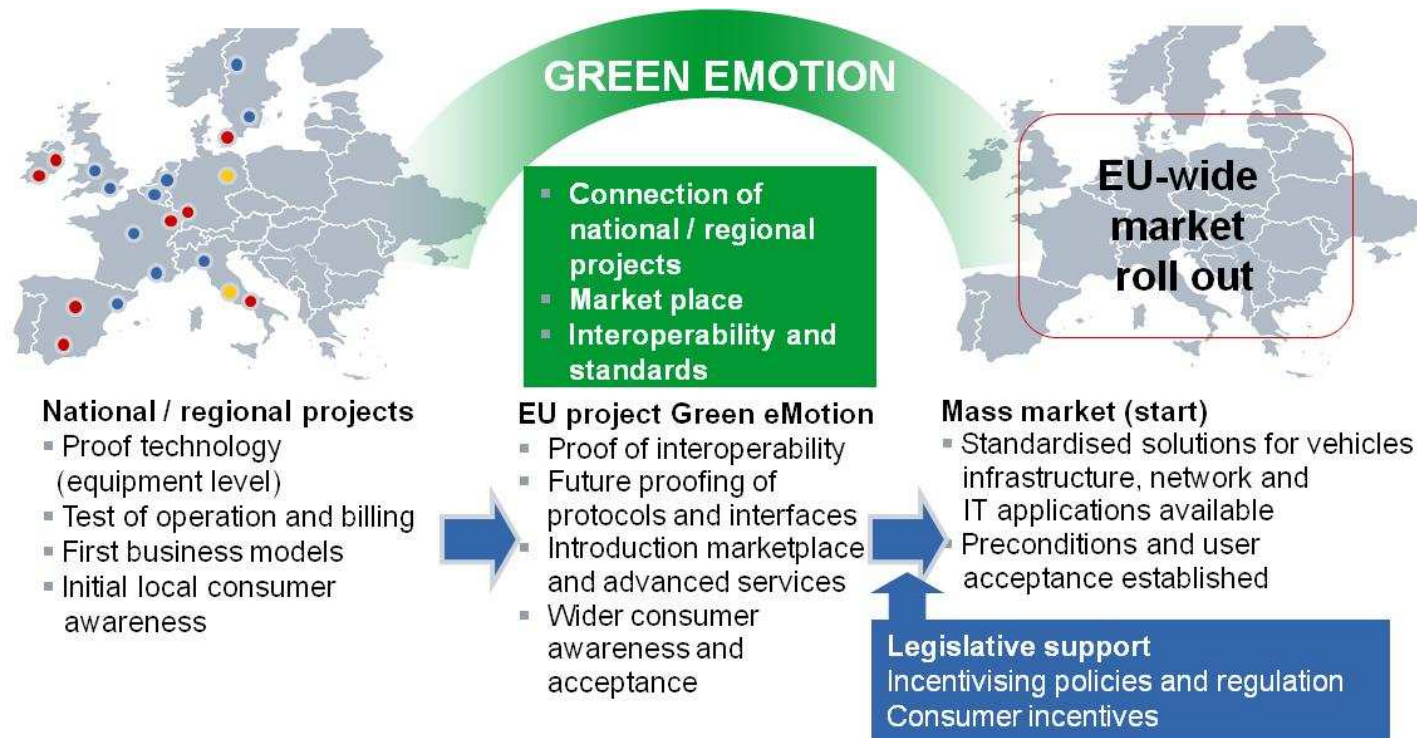
Escenaris Internacionals

Implementació i desplegament a escala Mundial



Escenaris Internacionals

Implementació i desplegament a escala Mundial



2 **LIVE Barcelona**



LIVE Platform

Open Public-Private Partnership (PPP) for impulse, coordination, monitoring and communication of the electro-mobility in Barcelona

PPP (Executive members)



Ajuntament
de Barcelona



Generalitat de Catalunya
Institut Català d'Energia



SIEMENS

Initiative promoted by **Barcelona City Council** departments: **Mobility, Environment & Economic Promotion.**

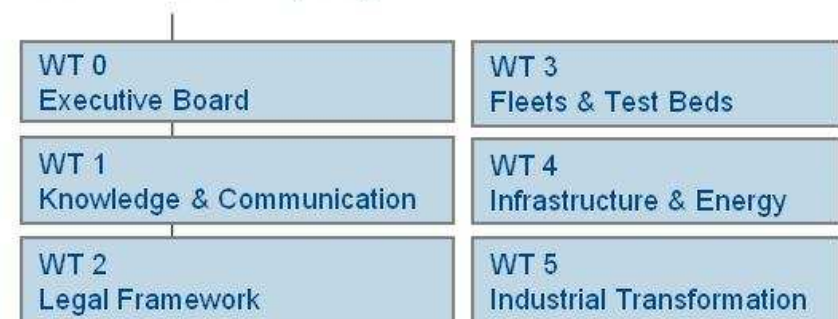
With the support of **more than twenty other entities** comprising:

OEMs, Technological Centres, Energy companies, Utilities, Grid operators, Associations, Universities.

Functions

- Identification, Incubation, Coordination and Planning of initiatives towards the development of electrical mobility.
- Define and coordinate the Strategic Plan for the deployment of EV.
- Centre of attention for citizens and companies (centralised communication point).
- Communicate, Promote, Develop Benchmarking and Gather knowledge.
- Promote local participation in Consortiums of European projects and events.
- Facilitate economic and industrial transformation.

WORK TEAMS (WT)



Articulated through:

- Living Labs (Demonstration Projects)
- Work Teams & Committees

3 **Iniciatives i Projectes**



WT1: Coneixement i Comunicació



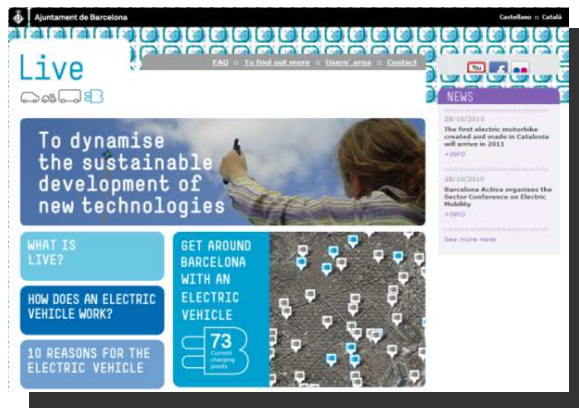
MOTOSELETRICAS.NET



WT1: Coneixement i Comunicació



Communication Channels with Consumers / Users:



www.livebarcelona.cat



- 1- Range anxiety
- 2- EV purchase cost
- 3- Infrastructure
- 4- Limited Market
- 5- About Batteries

Live Magazine:

<http://w41.bcn.cat/web/guest/revista>



Social Networks Participation & office (EV Help Desk) to attend users



National Level

- **Strategic National Plan (2010-2014):** 590M€ for EV development and increasing demand.
- **IDAE initiative MOVELE (2009-2011):** 10 M€ for electromobility promotion and subsidy of 500 charging points.
- **IVECAT (2010-2015) in Catalonia:** Objective of 76.000 EV and 91.200 charging points (2015).

Local Level

ORDINANCES & ACTIONS UNDER IMPLEMENTATION:

- On-street paid parking free for EVs.
- Ordinance for new off-street parking construction (2% of parking places equipped with plug-in stations).
- 75% reduction in vehicle registration tax.
- Subvention of 15% of electric vehicle acquisition cost.

ORDINANCES & ACTIONS UNDER APPROVAL:

- Toll reductions.
- Incentives promoting Park & Ride.
- Preferential Access to restricted zones (Green Zone).
- Use of BUS/HOV (High Occupancy Vehicle) lanes.
- Territorial integration & standardisation (Signing).



WT 3 - 4: Flotes i Banc de Proves - Infraestructura

PILOT Project: Operability open to all EV infrastructure developers/suppliers (testing different technologies and business models)

Interoperability among them through a unique Municipality Control Centre.

Currently creating a National Control Centre.

Summary:

- Promoting Normal charge (basically mono-phase) and Fast charge (DC)
- Deployment of Public Normal Charge Stations (Fast Charge is deployed by private operators)
- On-Street infrastructure is SMART and focused on E-PTW
- Working with private stakeholders to deploy private charge (> 50 EVs in Hotels, Shopping Centre, etc). Deploying EVs in private community parking (residential buildings) becomes a challenge
- Subsidies of 2,000€/plug On-Street and 1,000€/plug Off-Street.
Energy is delivered for free from On-Street stations until the end of 2012

Off-street



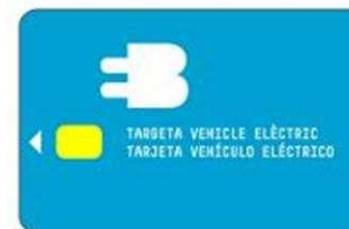
On-street on-road



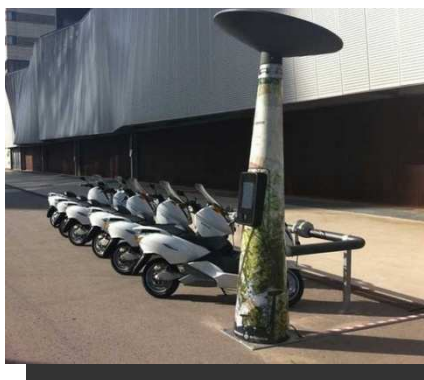
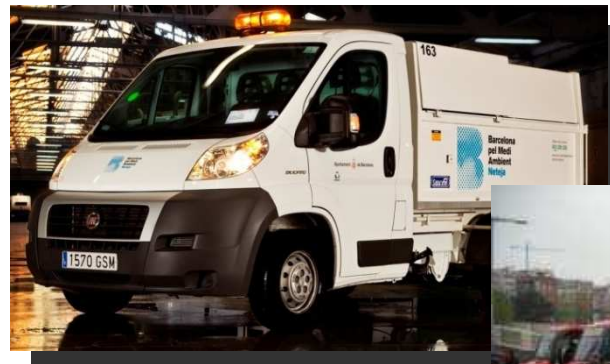
On-street off-road



Exclusive to E-Moto



WT 3 - 4: Flotes i Banc de Proves - Infraestructura



EV Fleet in Barcelona City:

- There are currently >250 EV&PHEV in the Public Fleet and > 150 EV Private Fleet
- Forecast: 2012 → 8,000 EV
2014 → 22,000 EV



BUS EV&PHEV

COMMERCIAL
VEHICLES



E-PTW

Public - Private Recharge Infrastructure

- Currently more than 190 EV Public Recharge Stations



- Private Infrastructure Deployment



- First Fast Charge Station in Spain



WT 5: Transformació Industrial

Support to Innovation & Entrepreneurs



ECO EmprendedorXXI



Barcelon **a**ctiva

ESADEC **RE**APOLIS

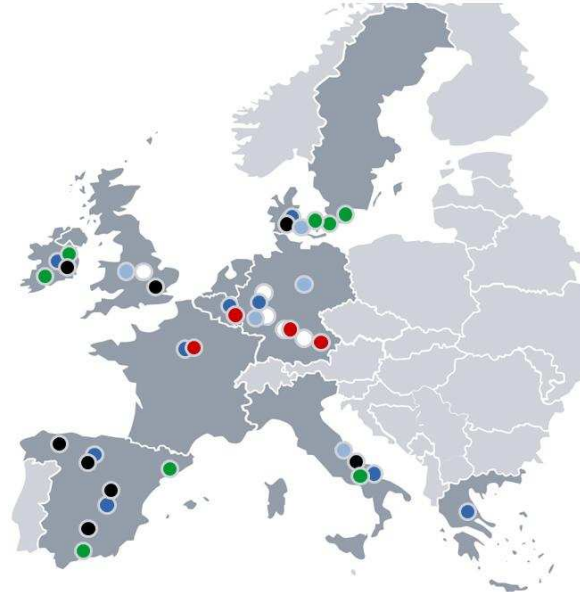


Consortiums, Industrial Transformation & Network Events

BARCELONA DEMO REGION in Green e-Motion Consortium

FP7 call TRANSPORT – 2010 TREN-1: 23 Mio. € EC funding, ~ 40 partners, project start January 2011

**status October 2010*



- **Industries:** Siemens, Bosch, SAP, AREVA T&D, IBM, Better Place
- **Utilities:** ESB, Dansk Energy, EDF, Endesa, Enel, Iberdrola, Eurelectric, RWE, PPC
- **OEM:** BMW, Daimler, Renault, Nissan
- **Municipalities:** Dublin, Cork, Copenhagen, Bornholm, Malmö, Malaga, Rome, Barcelona
- **Research institutions and universities:** Imperial, Cidaut, ECN, LABEIN, TCD, ERSE, DTU, IREC, Cartif
- **EV technology institutions:** Micro-Vett, DTI, TÜV Nord, FKA

EVS27
Barcelona 2013



WT 5: Transformació Industrial

Consortiums, Technical Centre and Universities



Barriers / Looking for information

- Better communication of the status of the market (not mature yet).
- Mindsets, specially for young generations, need to be changed.
- New mobility systems and business models are needed (Barcelona is an example where demonstration pilot projects are currently being tested).
- Integrate e-mobility at all levels in the URBAN MOBILITY PLANS.
- Introduce Charging Infrastructure in residential buildings.
- Include policies for sustainable mobility and electric vehicles in the standard municipality processes.
- We need to be more realistic about future scenarios regarding the next EV & PHEV market introduction . We are looking forward to seeing OEM's offer in the market.
- Standardization becomes an urgency, not only for the European market but also for the rest of the world. New trainings in the mobility value chain are needed (Road Assistance, Mechanics, etc).
- Improve battery specifications and reduce costs.
- Share information on the grand-scale demonstration projects among most important pilot cities in the world, in order to learn about Best Practices and anticipate Challenges.

Thank you for your attention,



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