



MICRO-VETT
veicoli elettrici

Micro-Vett Spa Electric Vehicles

Barcelona, May 25th 2010

Summary

- **Micro-Vett history and general information**
- **Products Range**
- **Sales and European Network**
- **Production Strategies**
- **Main projects in Europe**
- **Next technological developments**

History

1986 1990 1995 2000 2005 2008 2009 2010

1986 Micro-Vett
Foundation

1990 Electric Rascal

1993 Electric Porter

1997 Na-NiCl₂ Batteries

2001 ISO 9001
Certification

2002 Electric Daily

2004 Electric 35Q

2005 Bi-Fuel Daily

2006 Lithium Batteries
& BMS Certified

2007 Electric Doblò

2008 Electric Fiorino

2008 Electric Ducato

2009 Prototype Electric
500

2010 EdyOne



ISO
9001



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 CO-FINANCED BY
EUROPEAN REGIONAL
DEVELOPMENT FUND



 **Regione Emilia-Romagna**

 **INTERREG IVC**
INNOVATION & STRATEGIC
REGIONS OF EUROPE SHARING SOLUTIONS

Made possible by the INTERREG IVC programme

Imola Production site

53 Employees
2500 M²

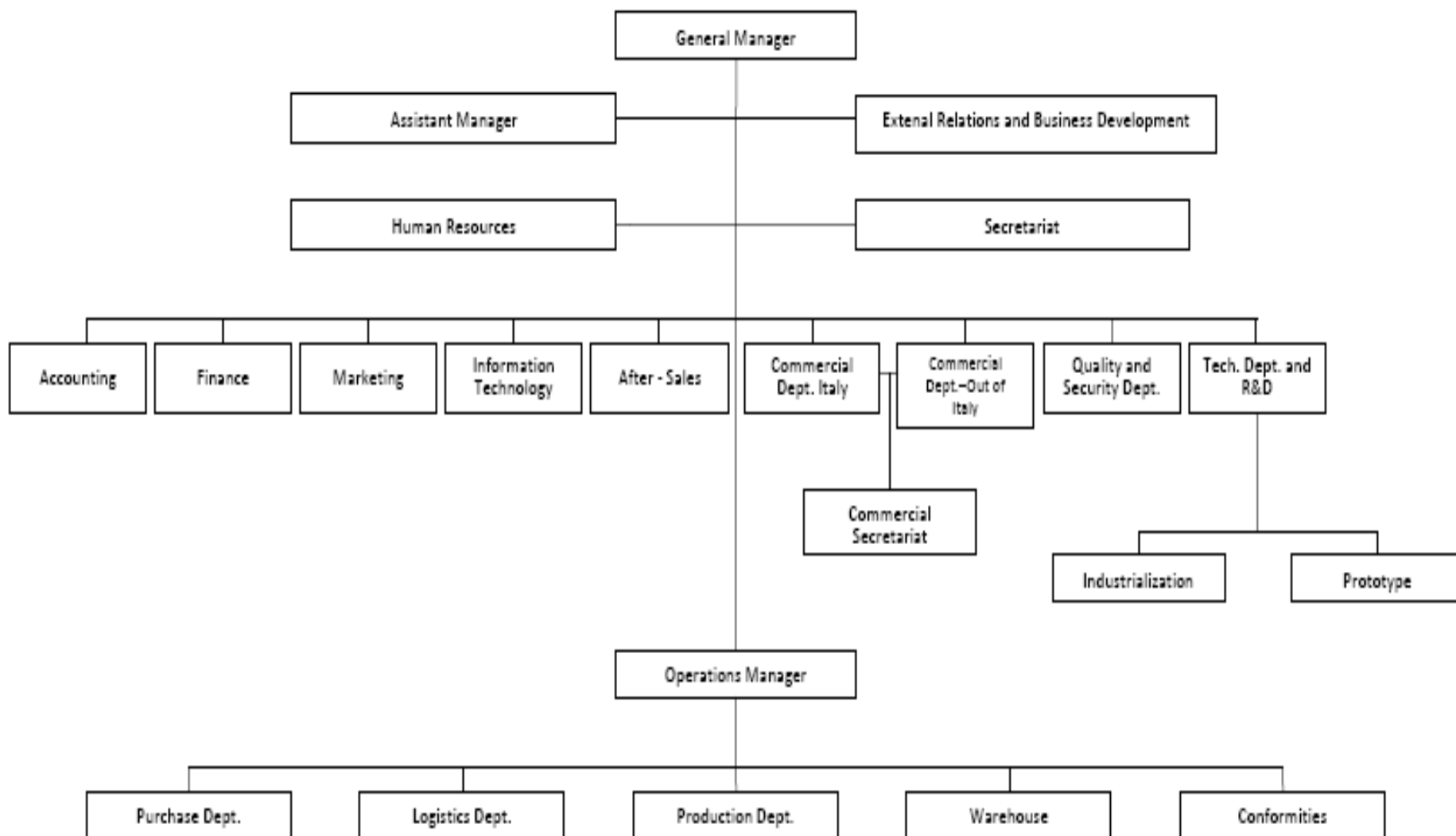
OEM



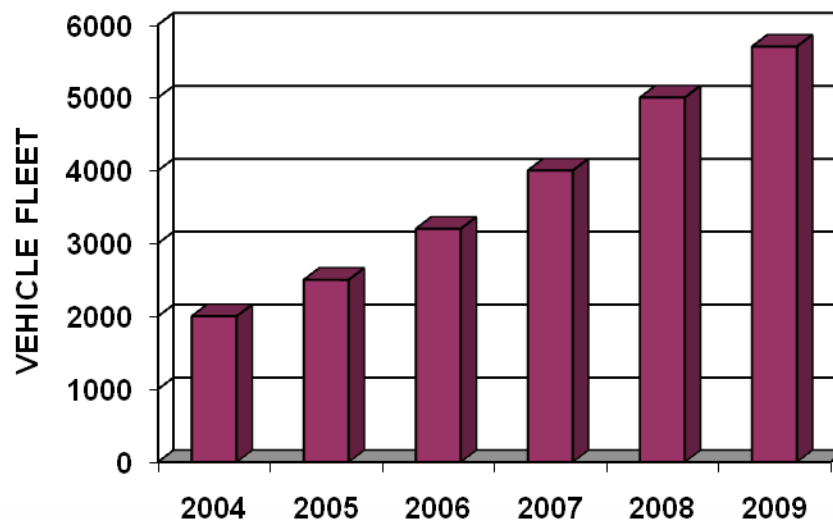
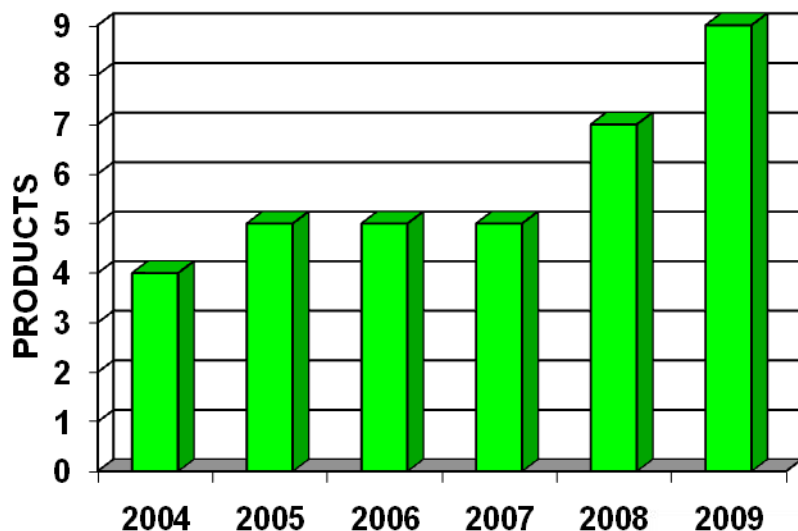
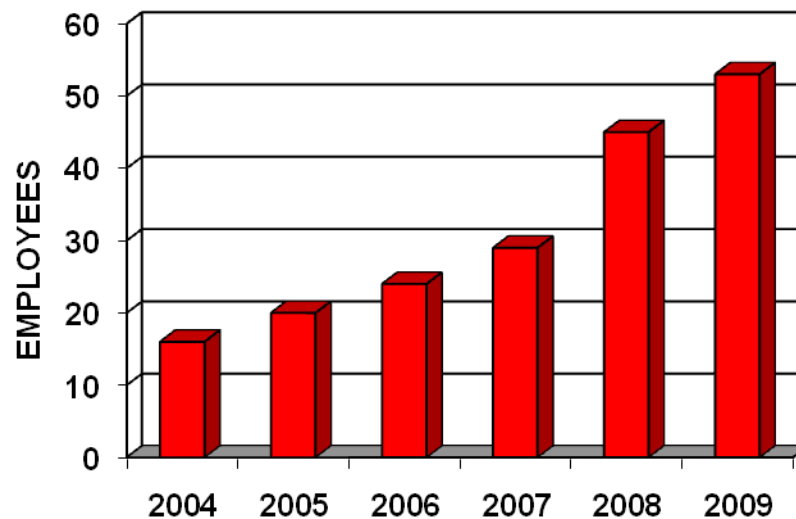
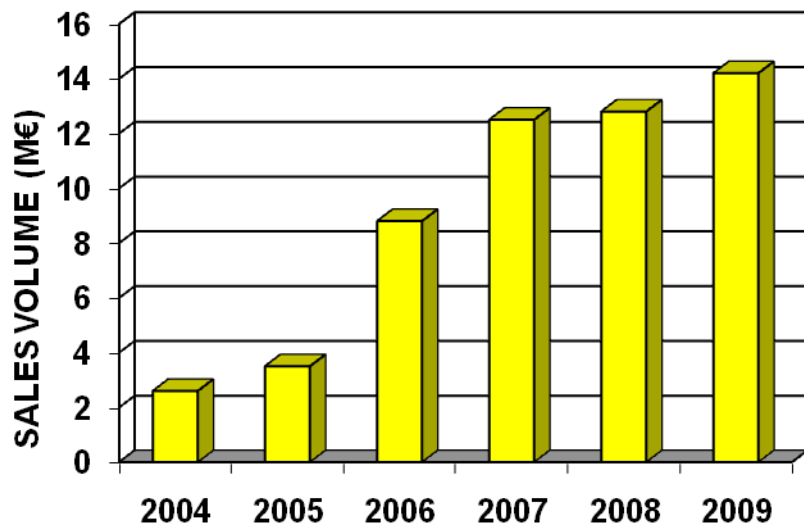
Market



Micro-Vett: a structured company



Micro-Vett Numbers



Micro-Vett: a certified company



UNI EN ISO 9001 :
2008

Partnership with Main Manufacturers

Advantages: Marketing and Commercial agreement

INTERNATIONAL EXHIBITIONS

COMMERCIAL NETWORK IN
EUROPE

COMMON SERVICE NETWORK

INSTITUTIONAL TENDERS

WARRANTY

FORMULA "FULL-SERVICE"

Products Range

EDY 1



Van



Tipper

DAILY
PHEV



Combi 9 seats



Van



Chassis Cab



Schoolbus

DOBLO'



Passenger 5



Van

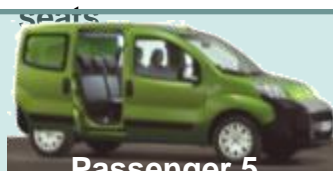


LWB



High-Roof

FIORINO



Passenger 5



Van



Qubo

DUCATO



Van



Chassis Cab



Passenger 9
seats

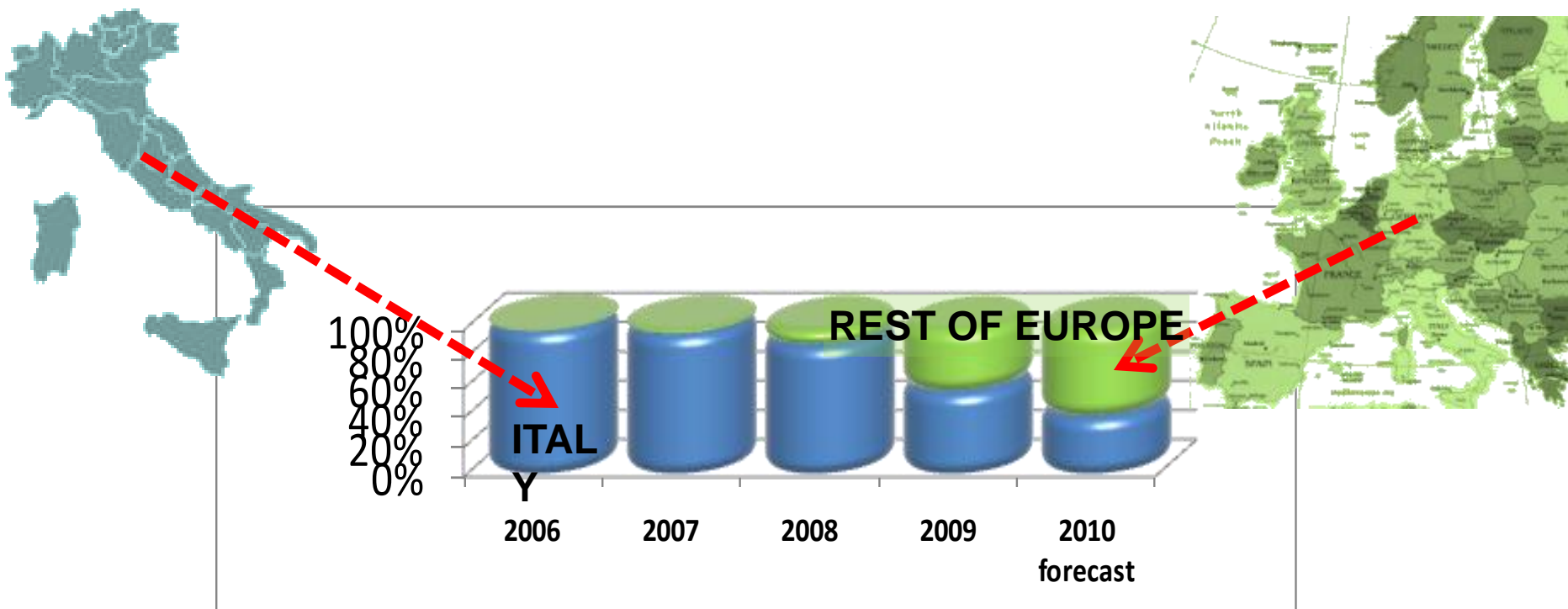


Minibus 17
seats

Prototype
500 E



Sales by geographical area



Micro-Vett Market penetration in Europe

- AUSTRIA
- BELGIUM
- CZECH REPUBLIC
- DENMARK
- FINLAND
- FRANCE
- GERMANY
- IRELAND
- ITALY
- NETHERLANDS
- NORWAY
- RUSSIA
- SPAN & PORTUGAL
- SLOVAK REPUBLIC
- SWEDEN
- SWITZERLAND
- UNITED KINGDOM



Main projects

SUSTAINABLE MOBILITY EUROPEAN MAIN PROJECTS



EU Projects



Inis Oírr goes a shade greener



Photo courtesy by ACCIONA Energy



Reggio Emilia (ITA)



REGGIO EMILIA



Long Beach (USA) – Nov.2003
WEVA (World Electric Vehicle Association)

GLOBAL E-VISIONARY AWARD

1st City in EUROPE

USE and DIFFUSION of ELECTRIC
VEHICLES IN AN URBAN ENVIRONMENT



Monaco (MONTECARLO) – Apr.2005
IEA (International Electric & Hybrid Vehicle
Agency)

BEST PRACTICE AWARD

1st City in EUROPE

PROJECT for SUSTAINABLE MOBILITY ACHIEVED
with ELECTRIC VEHICLES

MICRO-VETT
veicoli elettrici



Regione Emilia-Romagna



Made possible by the INTERREG IVC programme

Reggio Emilia (ITA)



CONCRETE ACTIONS:



CONCRETE RESULTS:

- RENT OF VEHICLES
- GUARANTEED RELIABLE SERVICE
- EXAMPLE FROM PUBLIC COMPANIES
- 24h ACCESS TO RESTRICTED TRAFFIC ZONE
- FREE PARKING IN CITY CENTER

• RUNNING VEHICLES	250
• KM DRIVEN	10.049.101
• CO2 REDUCTION (kg)	1.004.910
• CO REDUCTION (kg)	36.579
• NOX REDUCTION (kg)	2.110
• PM10 REDUCTION (kg)	553

Reggio Emilia

PHASES OF THE PROJECT

2000-2008

250 Porter Electric

2009

60 Daily Bi-power

50 Fiorino Electric

2010

100 City car ev

50 Phev Vav

50 Phev Minibus

150 Passenger Car

TOTAL:

710 EV-PHEV



Vicenza Eco-Logistic Center

Vicenza Eco-Logistic Center has been founded with the aim to deliver goods in an ecologic way in Vicenza citycentre.

The public-private Company Veloce counts among its associates Vicenza Municipality, Professional, Craftsmen and Transport Unions; goods delivery is made only with Micro-Vett electric vectors.



TRAMBUS: ROME CITY TRANSPORT COMPANY

Largest EV fleet in service in the
WORLD



SERVICES WITH EVs:

- Electric Buses
- Tourist Services
- Schoolbuses
- Disabled / Elderly Services
- Rent

Largest Italian surface transport
Company

8.862 EMPLOYEES
133.000.000 KM/YEAR
534.000.000 € TURNOVER
2.000.000 PASSENGERS/DAY
51 ELECTRIC BUSES
150 ELECTRIC MINIBUS AND
CARS



Roma

trambus

ROMA



TENDER 2007:

USE:

- TAXI
- DISABLED PEOPLE MOVER
- INTERNAL SERVICES
- RENT TO PRIVATE

130 Evs:

- 75 DOBLO' ELECTRIC
- 55 SCUDO



Moscow (Russia)

2008:

- 3 Porter Chassis
- 1 Doblò passenger
- 2 Isuzu Chassis
- 2 Daily passenger
- 2 Daily Chassis

2009:

- 12 Daily Chassis
- 12 Ducato Chassis



**TOTAL: 34
EV+PHEV**

Yuri Luzhkov (*Mayor of Moscow*)
"Electric transport is needed to
improve moscow's air quality"



LONG TERM RENTAL OF ELECTRIC AND BI-POWER (Plug-In Hybrid) VEHICLES



MAIN CUSTOMERS

CURRENT FLEET:
200 VEHICLES

DAILY BI-POWER PHEV
PORTER ELECTRIC

+ **120** EV+PHEV IN ORDER
+ EV CAR-SHARING

PUBLIC ENTITIES:

- LUMBARDY REGIONAL AUTHORITY
- OVER 50 MUNICIPALITIES

HEALTH & HUMAN SERVICES:

- NIGUARDA HOSPITAL (MILAN)
- SAN GERARDO HOSPITAL (MONZA)
- 8 OTHER HOSPITALS IN THE REGION

COMMUNITY SERVICES:

- NEW EXHIBITION CENTER IN MILAN
- MILAN AREA RAILWAYS
- MILAN UNDERGROUND
- MANY OTHER LOCAL SERVICES



Main Future

EUROPEAN PARLIAMENT(LUX):

Delivered Doblò Cargo

HERA (Italy):

Delivered electric Vans

MOVING CITY (Norway):

Important project of sustainable mobility

CEZ a.s. (Czech Republic):

Important project of sustainable mobility

RWE a.g. (Germany):

Important project of sustainable mobility



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BATTERY LIMIT: IS STILL TRUE ?

TODAY

- Energetic density of the tank  Untill now the density has been improved of 4 times
- Charging time  With the last generation batteries and with a high power battery charger the charging times can be reduced up to 30 minutes

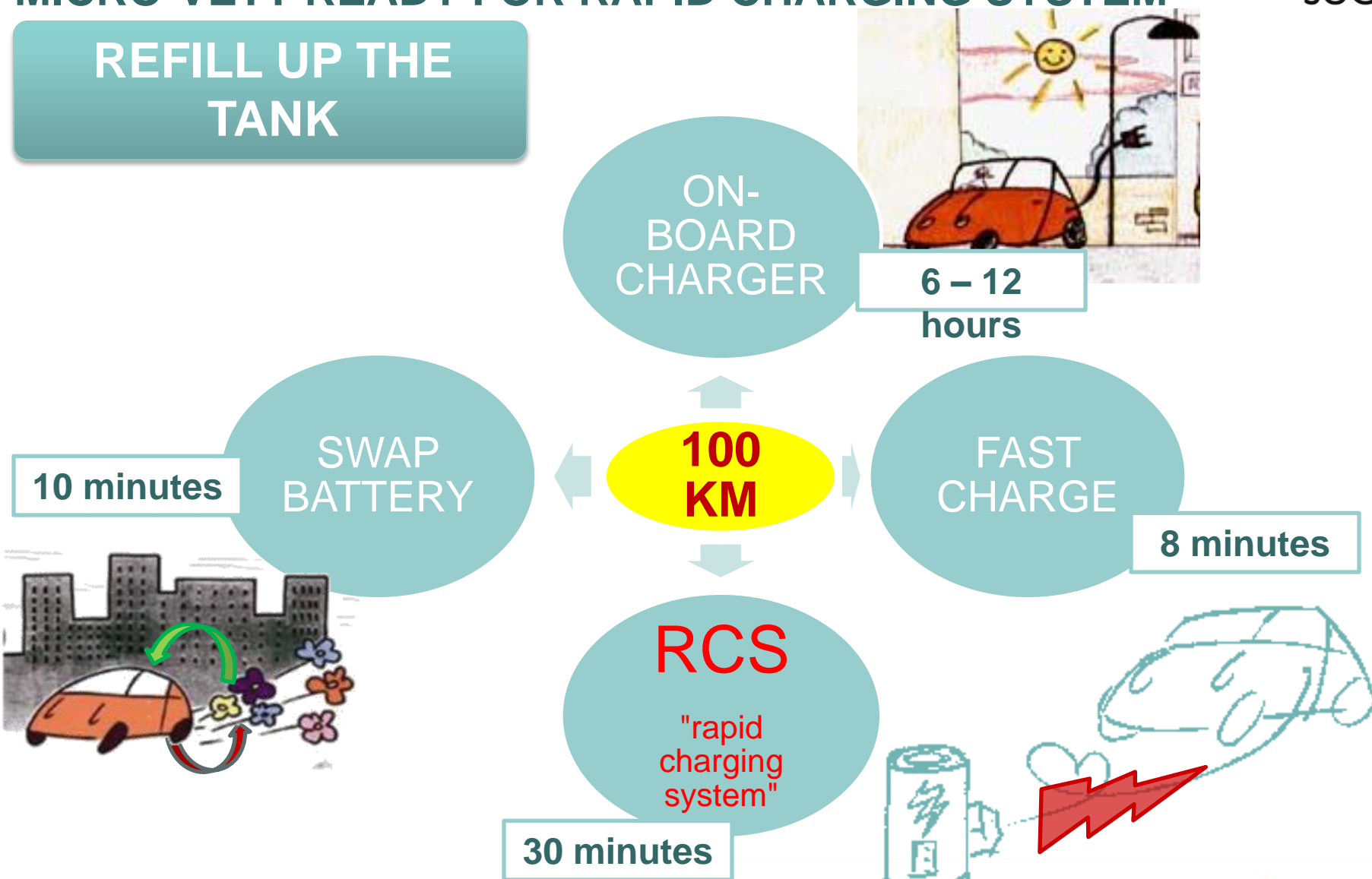


Technological Development for the batteries:

**Electric Vehicle with a Range of 7-800 km
and a Charging Time of 5 minutes.**

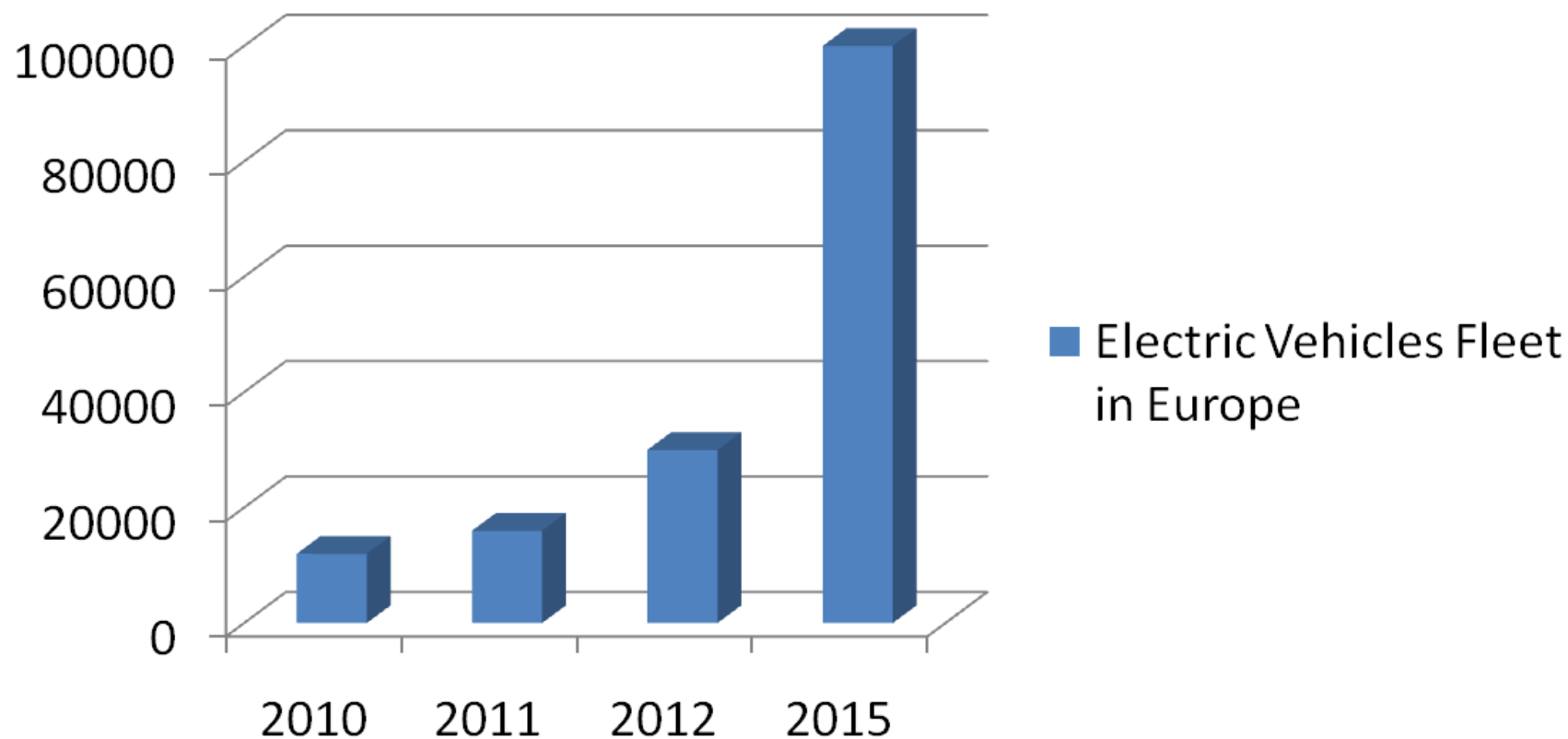
FUTURE TECHNOLOGY DEVELOPMENT: MICRO-VETT READY FOR RAPID CHARGING SYSTEM

REFILL UP THE
TANK



Pictures courtesy by CIVES

Electric Vehicles Fleet in Europe



Trend of European Markets

A2A Projects



Today: Milano/Brescia
Tomorrow: Como,

Bergamo, Monza ...



Deloitte Research

A new Era. Accelerating toward 2020 –
An automotive industry transformed

- Coordinated growth of the main Players
- Efficient power distribution network
- Charging station
- Energy storage system

**Key
factors for
growth
and
development**

It's possible assume that in 2020 European fleet of EV will be around 5% of the total and in 2030 will be not less than 20%

Technological Support: today and tomorrow



SMART GRID INVESTMENTS

USA: 2009 \$ 3.4 mil
 2010 \$ 7.1 mil

CINA: 2010 \$ 7.4 mil

For 20 years Europe invests to support technologies which allow development of EV.
This represents a very important advantage respect to other Countries throughout the world

Technological Support: today and tomorrow



CAR SHARING

An interesting aspect for Car sharing is represented by EV: researchers of Forst & Sullivan expect that after 2011 the sales of EV will increase significantly. Even by 2016 it is expected that a shared car on five will be a EV!

Moreover from 2007 to 2009 the use of car sharing has increased by 117% in North America: estimates for Europe in 2009 were talking about tripling the service!!

Technological Support: today and tomorrow



CAR RENTAL

The rental agency
SIXT has opened in
Germany
rental for Fiat 500 and
Fiorino.

The EV made by Micro-
Vett
will initially be available in
the
city of Essen and within
12 months the initiative
will be extended to Berlin,
Hamburg, Monaco and
Dresden

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Thank you!

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