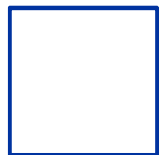


The Distribution Network for the Smart City

G. Michele Salaris
Head of Network Technology
Enel Distribuzione S.p.A.

Stresa, 27/08/2015





EXPO Milano 2015

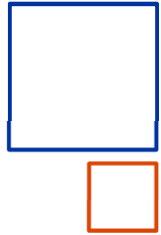
The Site



The Distribution Network for Smart City
Stresa, 27.08.2015

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EXPO Milano 2015

May 1 to October 31, 2015

1,1 Mln m2 between Milano and Rho

75 MW required

160 temporary buildings

2 office buildings + 1 EXPO operation

1 representative building (3500 m2 h 24 m height)

> 20.000 m2 of Greenhouse

340 flats + 14 service areas

30 electric people mover (range 100 km)

50 hybrid bus (range > 100 km)

10 electrical cars and 50 electrical freight transport

Media Center

Show case of worldwide and innovative technologies

The Distribution Network for Smart City
Stresa, 27.08.2015

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Enel Distribuzione for EXPO 2015

Expo Smart Grid



GRID TECHNOLOGIES

SMART
METERING
SOLUTIONS

ACTIVE
ENERGY
MANAGEMENT

100

**SMART
SUBSTATIONS**

ENERGY
STORAGE

OPERATION
CENTER

SMART LIGHTING

ARCHILEDE

SMART
OUTDOOR
SOLUTIONS

ARTISTIC
SOLUTIONS

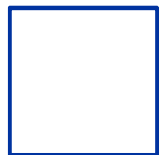
ELECTRIC MOBILITY

ELECTRO-
MOBILITY

The Distribution Network for Smart City
Siresa, 27.08.2015

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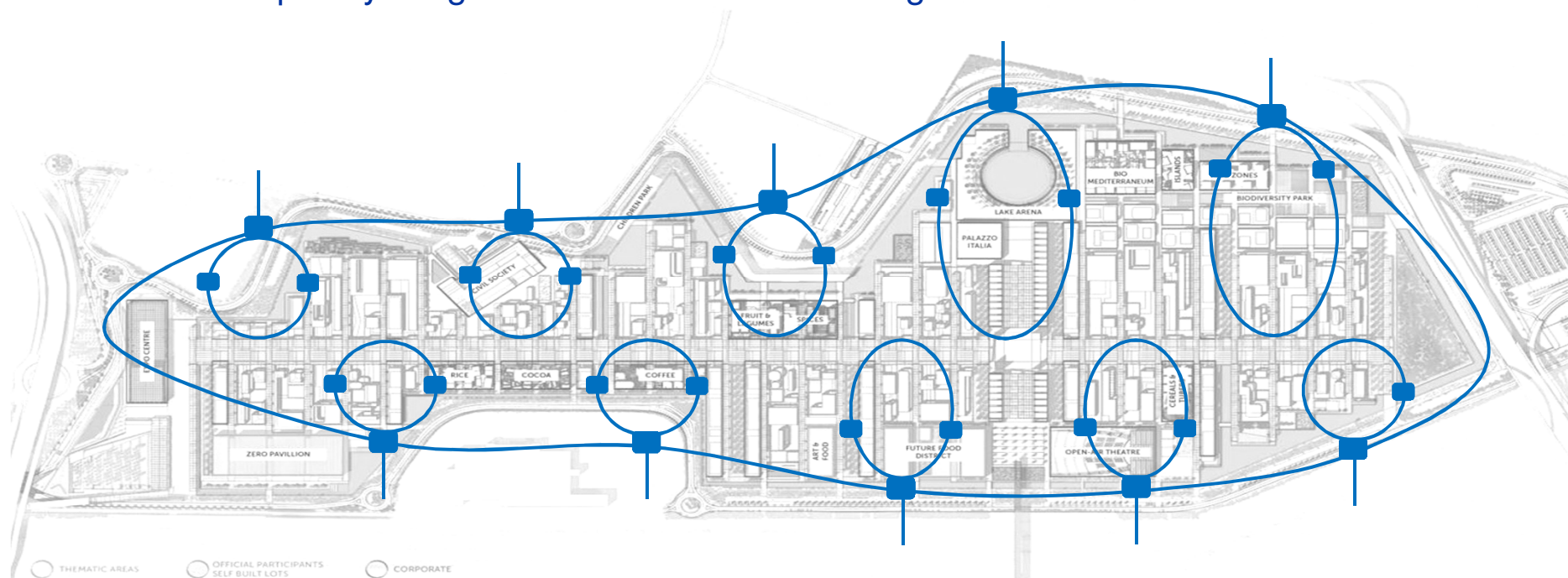
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Enel Distribuzione for EXPO 2015 Smart Grid



The services provided by Enel Distribuzione allow the Pavilions to be completely integrated with the meshed configuration of EXPO Smart Grid

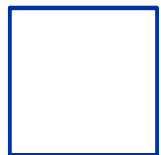


○ THEMATIC AREAS ○ OFFICIAL PARTICIPANTS
SELF BUILT LOTS ○ CORPORATE

The Distribution Network for Smart City
Stresa, 27.08.2015

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EXPO Milano 2015 Power equipment



MV Switchboards



Fault Recorders Directional and Measurement



Smart Termination

The Distribution Network for Smart City
Stresa, 27.08.2015

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Enel Distribuzione for EXPO 2015 Expo Smart Grid



**OPERATION
CENTER**

GRID TECHNOLOGIES

SMART
METERING
SOLUTIONS

ACTIVE
ENERGY
MANAGEMENT

SMART
SUBSTATIONS

ENERGY
STORAGE

SMART LIGHTING

ARCHILEDE

SMART
OUTDOOR
SOLUTIONS

ARTISTIC
SOLUTIONS

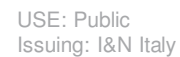
ELECTRIC MOBILITY

ELECTRO-
MOBILITY

The Distribution Network for Smart City
Cassa, 27.06.2015

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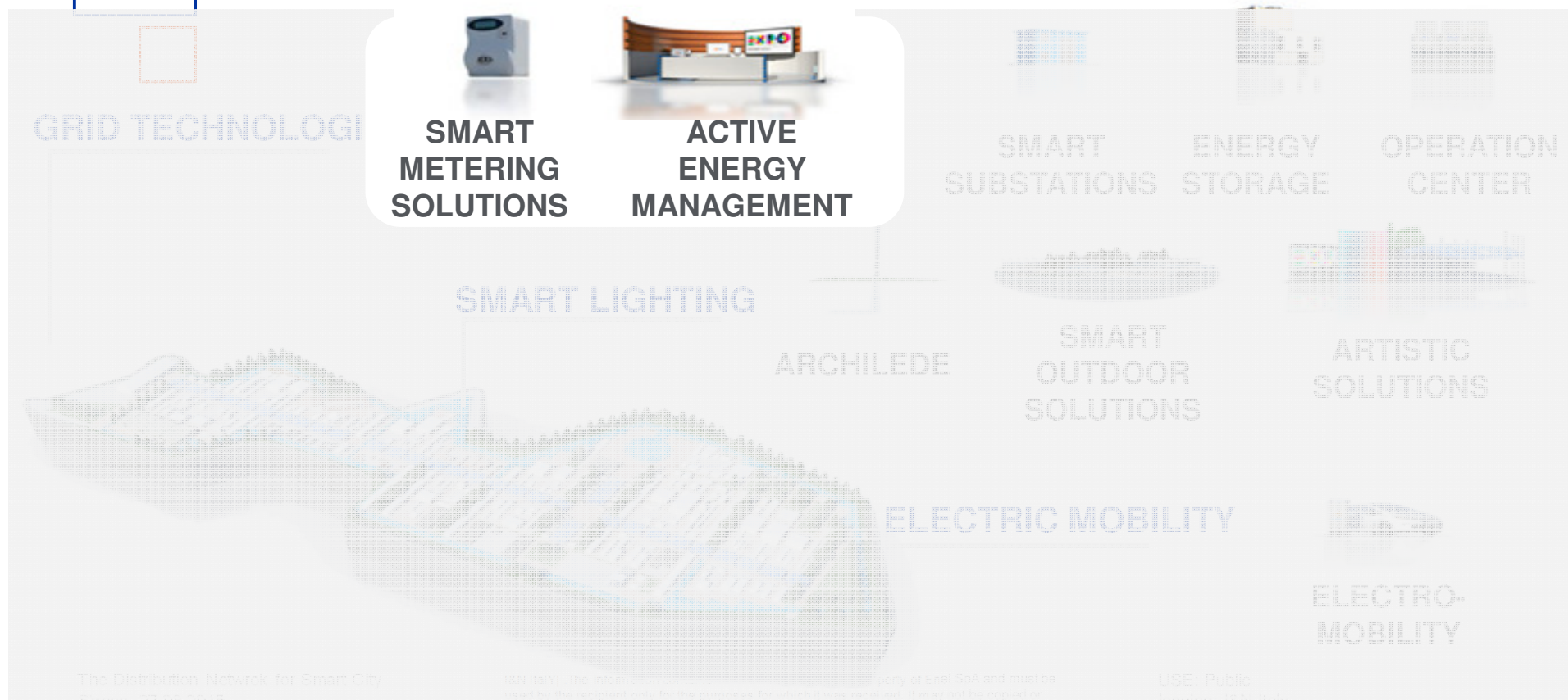
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Enel Distribuzione for EXPO 2015

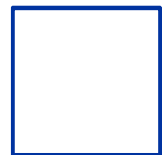
Expo Smart Grid



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Sireca, 27.06.2015

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Energy Management System Components



Enel Smart Meter



Enel Smart Info



Sensors & Actuators



Automation Station Controller



Digital multimeter for measure



Presence / Motion detector brightness sensor



Fan Coil Controller



Wireless and batteryless temperature sensor room

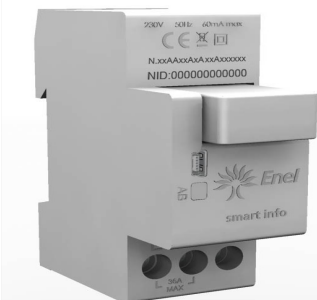
LV Monitoring Kit - WiFi connected to the Cloud of EMS

The Distribution Network for Smart City
Stresa, 27.08.2015

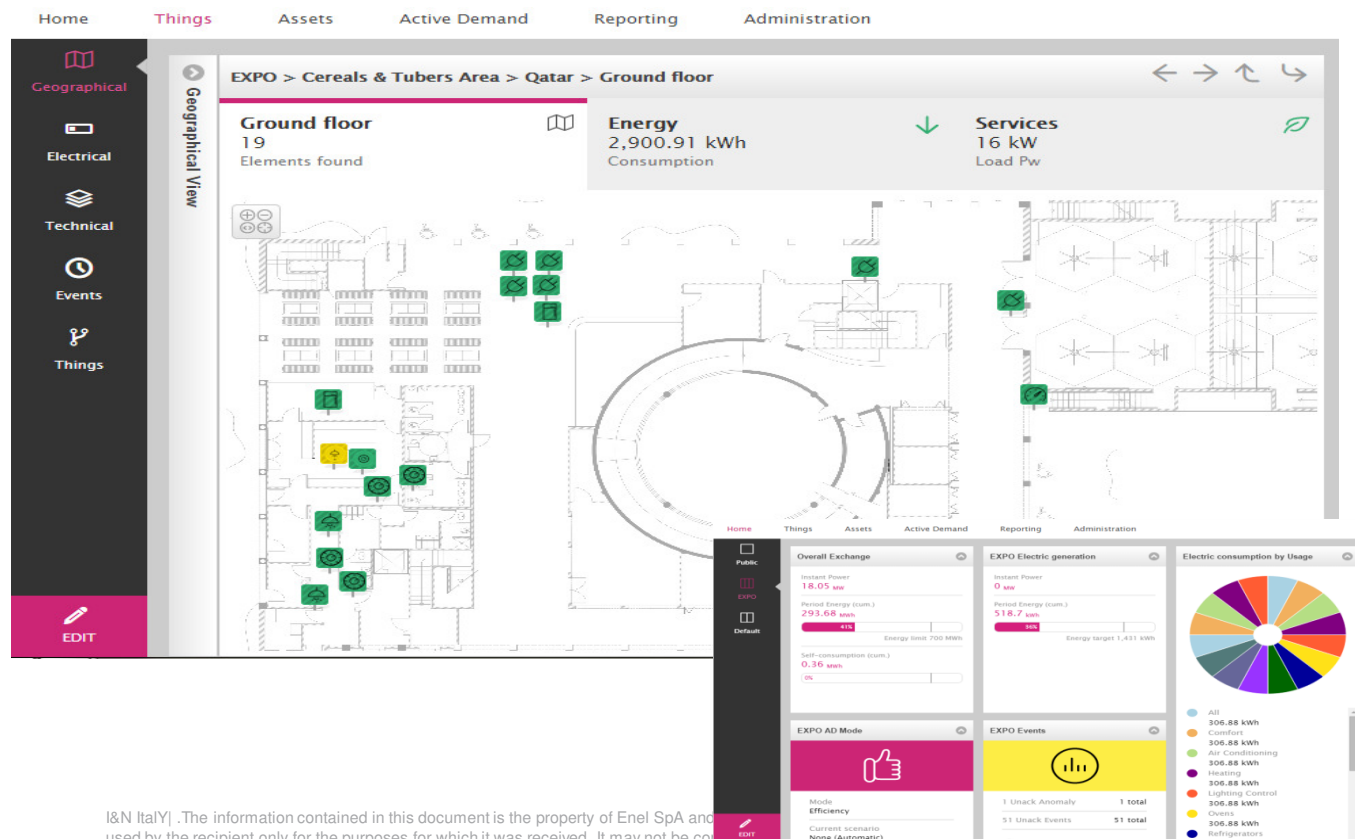
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Energy Management System



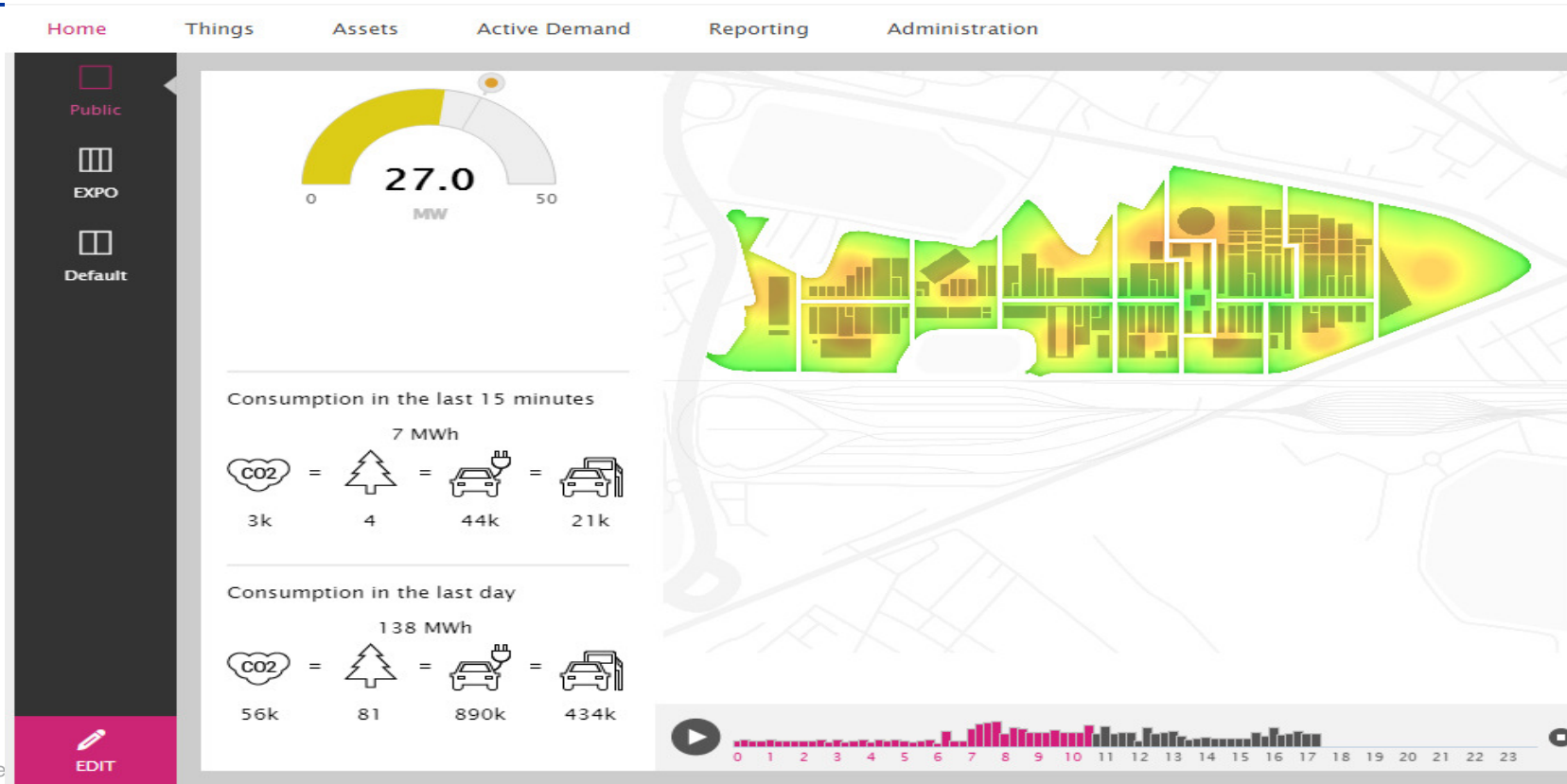
The
Stresa, 27.06.2015



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Energy Management System



The
Stresa, 27.06.2015

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Expo Smart Grid



GRID TECHNOLOGIES

SMART
METERING
SOLUTIONS

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ENERGY
MANAGEMENT

SMART
SUBSTATIONS

ENERGY
STORAGE

OPERATION
CENTER

SMART LIGHTING



ARCHILEDE

8,500



SMART
OUTDOOR
SOLUTIONS



ARTISTIC
SOLUTIONS

ELECTRIC
MOBILITY

The Distribution Network for Smart City
Stresa, 27.08.2015

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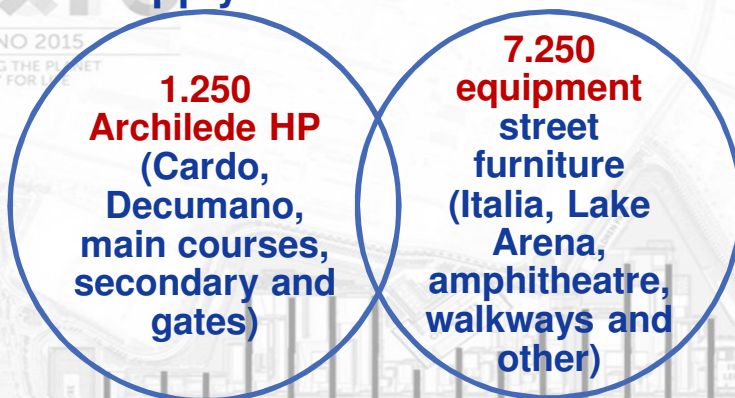
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EXPO Milano 2015 Smart Lighting



Design and supply of 8500 remote controlled lighting points

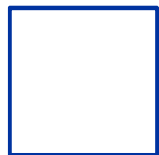


Significant energy saving and equipment management with high efficiency
(**LED**) and fine tuning (TLC)

The Distribution Network for Smart City
Gresca, 27.08.2015

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Smart Platform for Public Lighting



The screenshot displays the Archilede AC web interface, which is used for managing public lighting infrastructure. The interface includes a top navigation bar with a search icon, a home icon, a menu, and settings. The main content area is divided into two sections: a map view and a table view.

Map View: The map shows a street layout with numerous green circular icons representing lighting fixtures. The map is titled "Mappa" and includes a search bar and a "Satellite" button. Below the map, there is a section titled "Compleksi illuminanti" with buttons for "Registra...", "Associa a quadro IP...", "Aggiungi a gruppo...", and "Aggiungi a selezione".

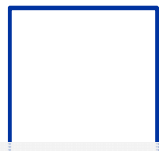
Table View: The table view shows a list of nodes with columns for "ID Target", "S/N", "Concentratore", "Quadro IP", "Compilatore Illuminante", "Piano luce", "Tipologia di lampada", "Stato attuale", and "Stato operativo".

ID Target	S/N	Concentratore	Quadro IP	Compilatore Illuminante	Piano luce	Tipologia di lampada	Stato attuale	Stato operativo
80062019	09032019	80000002	Q14H1	DECIP009	Profilo 9	ARCHILEDE HP (P1) 40	ON	ON
80062018	09032018	80000002	Q14H1	DECIP005	Profilo 9	ARCHILEDE HP (P1) 40	ON	ON
80064006	09034006	80000002	Q14H1	DECIP015	Profilo 9	ARCHILEDE HP (P1) 40	ON	ON

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Stresa, 27.08.2015

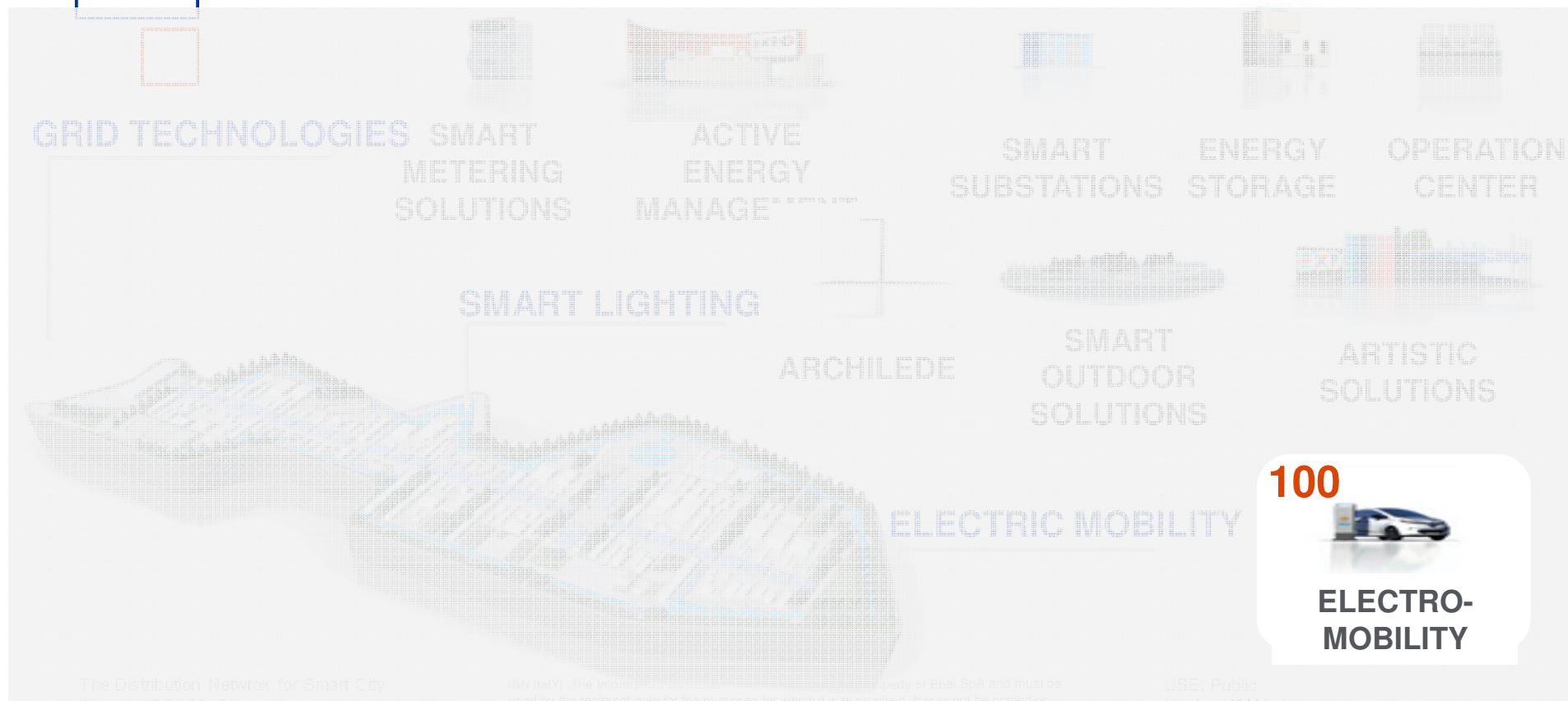
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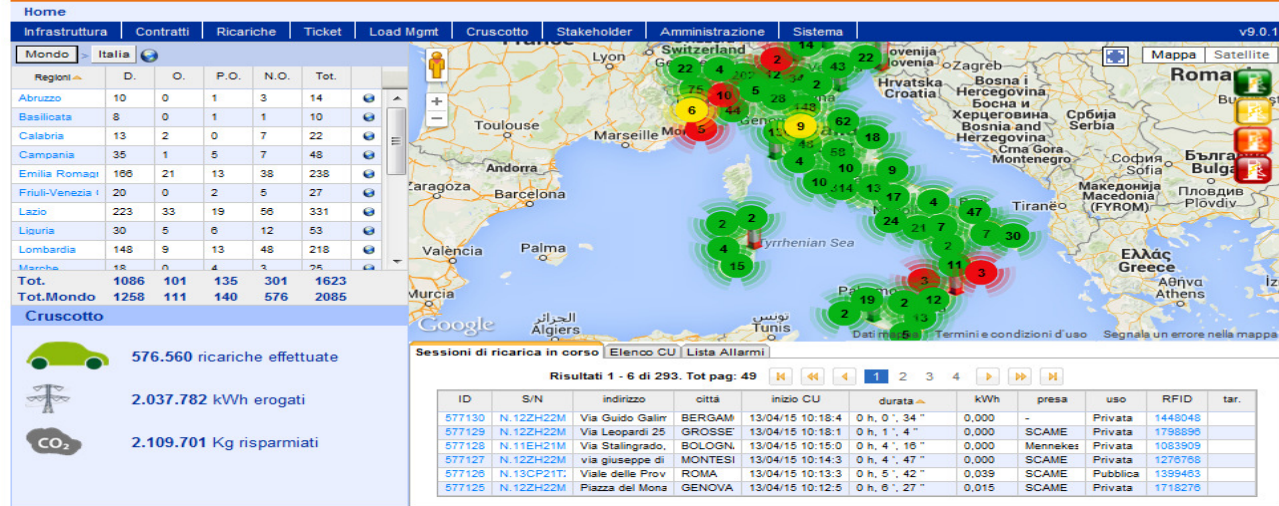


EXPO – Electric mobility EMM Platform Evolution



Distribuzione
Benvenuto A262123

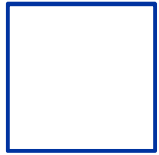
EMM Platform



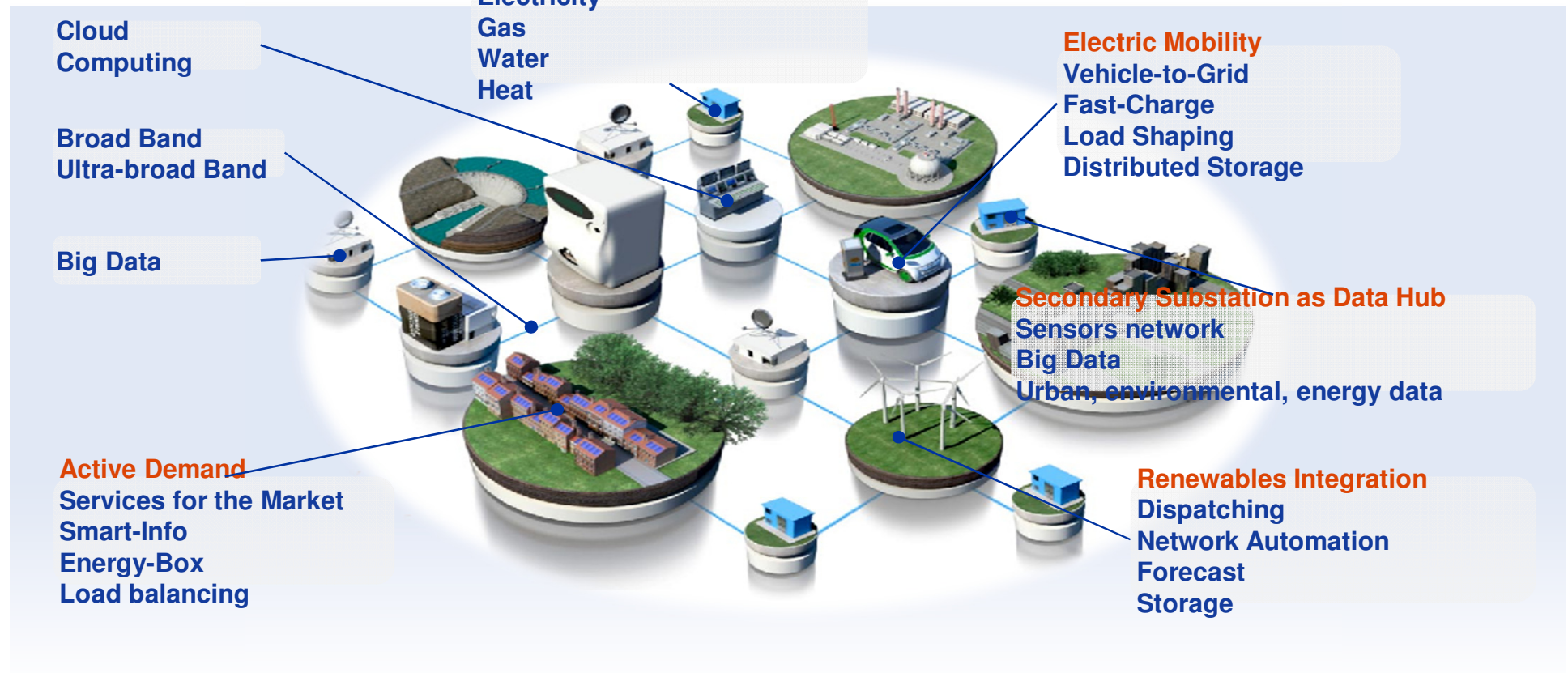
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Expo 2015



Thank you for your attention!

Enel's Pavillon

