



The Smart Grid Côte d'Azur Initiative

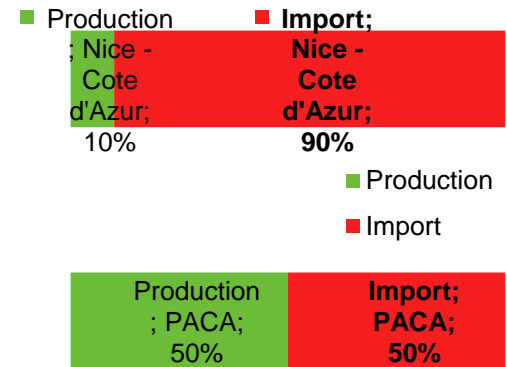
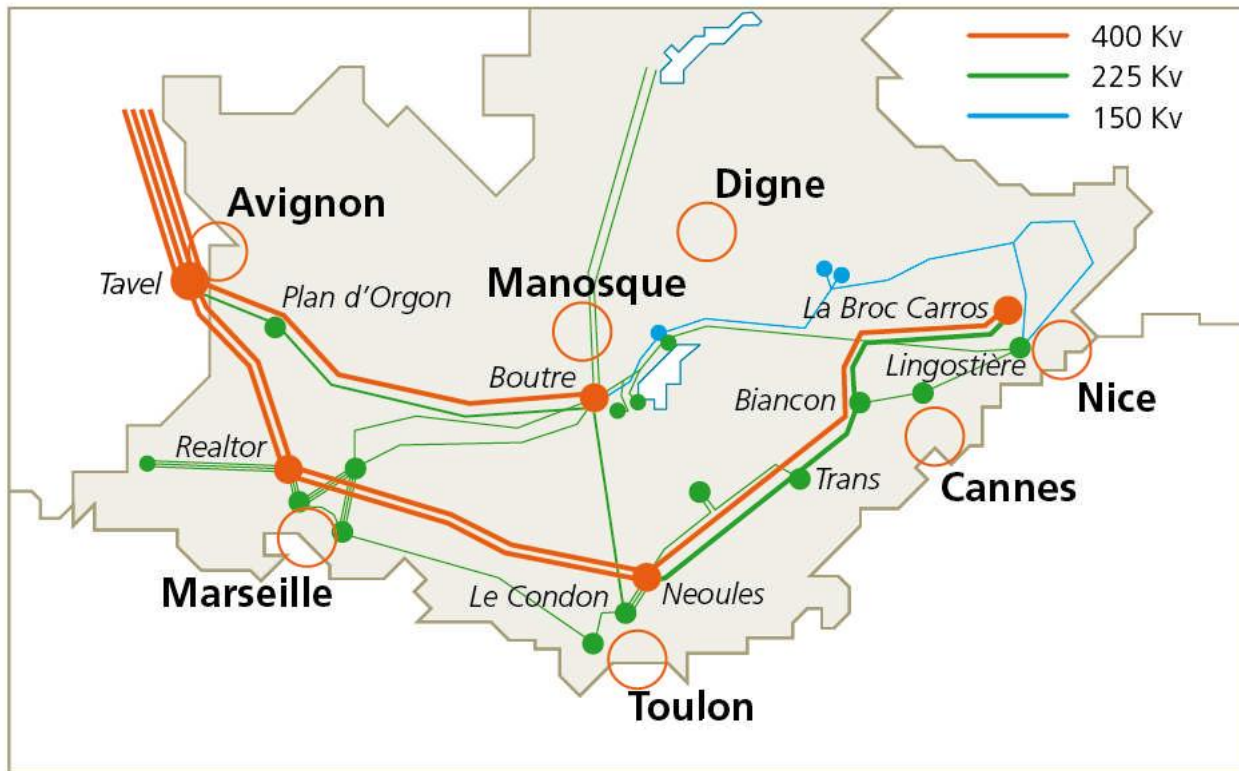
**Green City Energy Forum
Genova, 10th november 2011**

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The French Riviera Electric power transmission situation



Main power supply incidents of the last two years



➤ The French Riviera is in strong weakness of power transmission network

Smarter Grids are estimated to be a market value of more than 100 billion \$ per year and the Côte d'Azur is willing to transform it's power transmission weakness in a strong opportunity of economical growth of its compagnies...

We are at the begging of a revolution in the electricity business :

- Renewable and distributed energy generation will increase, bringing unprecedented volatility to the electrical networks – Current networks were not designed for this
- New tariffs are being considered as a mechanism to change consumer behavior, in particular reducing peak load to drive down production cost.
- Energy will increasingly become « sheddable » under contracted conditions. In conjunction with the emerging energy storage products, load will become more manageable
- As part of this wave of changes, heating and electrical appliances in the home will be able to be controlled remotely



The Côte d'Azur Cleantech Cluster

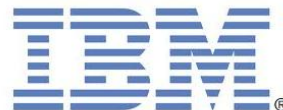
Côte d'Azur cleantech cluster
500 companies
870 M€ turn-over
3,700 jobs

Our companies:

- Start-ups and SMEs mostly in smart grids

Accent • Augier • Cristopia • Demtech • Dune Solutions • Enoleo • Grid Pocket • M2M Solution • Qualisteo • Sophia Antipolis Energie Développement • Ubinode • Watteco • Wit...

- national and international groups mostly in ICT (applied to green business)



The Context of the French Riviera

Constraints and opportunities of a territory at the end of the line:

STRENGTHS

Companies: IBM, SAP, CISCO, ST, Schneider Electric, Orange, Veolia...
+ many SMEs specialised in Energy Management

Main Projects at international level:
PREMIO, Reflex, Nice Grid
+ Gridteams, Ticelec, Smart Immo...

ETSI, ENSMP, ADEME, CSTB, Telecom Valley, CNRS, Competitiveness Clusters Capénergies et SCS

OIN Eco-Vallée : French largest sustainable development program, 25.000 acres in front of Nice Internat.l Airport
Sophia Antipolis : Largest technology parc in europe for ITC (30.000 jobs)

WEAKNESSES

Region well known for ICT but not yet for Smart Grids.

Many headquarters of French companies, but few international ones

OPPORTUNITIES

A real need of a secure power transmission network
(high cost of black outs)

A strong high tech international economy in the French Riviera

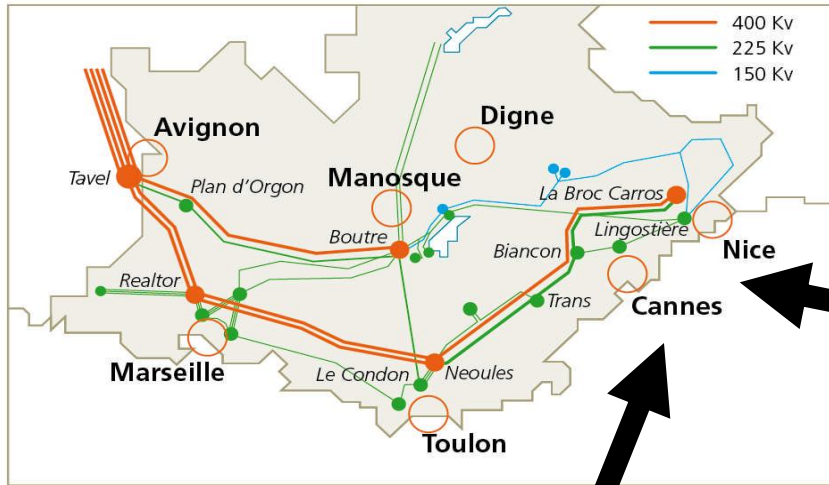
Important Events already established:
Workshops ESTI, Battery Events, ICT 4 Sustainable Homes & CSTB + IBC, NCA+Telecom Valley, ENSMP/OSE

Potential for conferences / congresses

Proximity of Monaco (SMEG) and Italia (ENEL)

Strong penetration of electric heating + hydro storage: high potential of load regulation / shadding.

Smart Grids activities on the Cote D'Azur – The projects



NATIONAL LEVEL PROJECTS

AMI ADEME/CGI PROJECTS : 2 projects (40 M€)

Nice Grid (ERDF) : Résident./Tertiaire/Industrie

Reflexe (Véolia) : Tertiaire

PREMIO: 1st FRENCH DEMO PROJECT

of Smart Grid in a small city in South France. A part of the project is located on the Côte d'Azur.

ECOCITÉ VILLE DE DEMAIN : NCA is answering this national call and developing smarter energy solutions because of its natural energy constraints.

OIN ECO-VALLEE COTE D'AZUR :

10 000 Ha 'stratégiques' in development

55 000 jobs created until 2050 / green economy

IBM 'SMARTER CITY' LABEL OBTAINED

Seule ville en France, l'une des 4 villes en Europe et des 24 au monde.

PILOT PROJECTS AT REGIONAL LEVEL:

GRID TEAMS: Residential

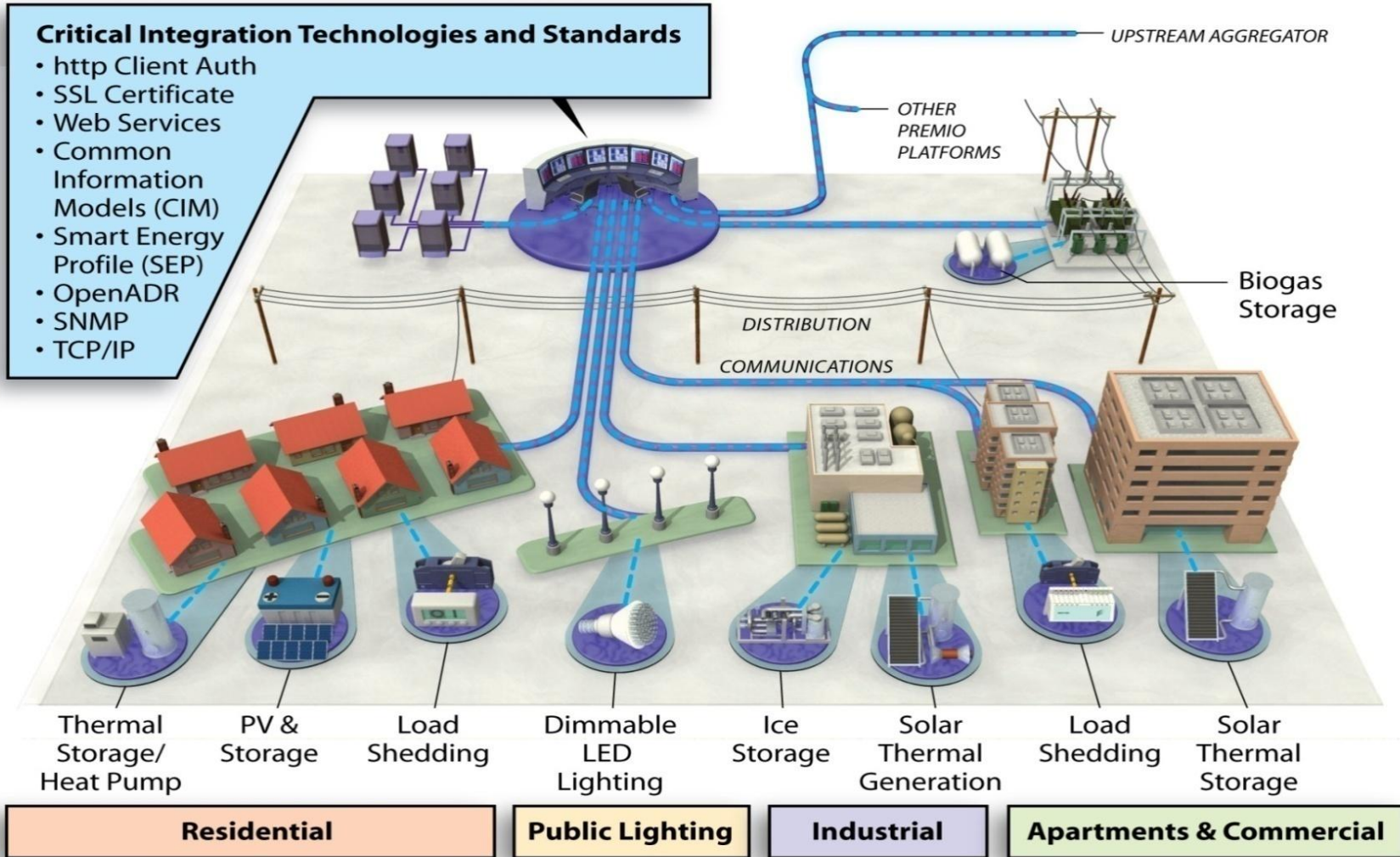
TIC ELEC: Residential

PUBLIC LIGHTENING/ Estéron Valley

SMART Immo / Bâtiments Publics of Valbonne

SMART City Cagnes sur Mer: energy and utilities

A changing vision of energy management...



The " Smart Grids Cote D'Azur Initiative" activities : The Action Plan

More than 70 companies, professionals, and public stakeholders participating in 4 working groups to encourage Smart Grids activity on the French Riviera:

1/ Encourage the manufacturers to come to implement their solutions and innovations – Team Cote d'Azur Action

- Cartography of the Côte d'Azur players (public & private) on going
- Several Smart Grid companies already located in the Côte d'Azur

2/ Be a reference place to develop standards

- Working group focused on how to make a standardised development for further projects on the Côte d'Azur, starting from the 8 projects already on going

3/ Document and encourage sharing of Best Practices

- 8 Smart Grids projects are in the process of creation of "description and REX sheets"
- Several ways of publication (CRE web site, B2B Smart Grid web site...) in implementation

4/ Encourage an animation plan: conferences, smart grid breakfasts, web conferencing...

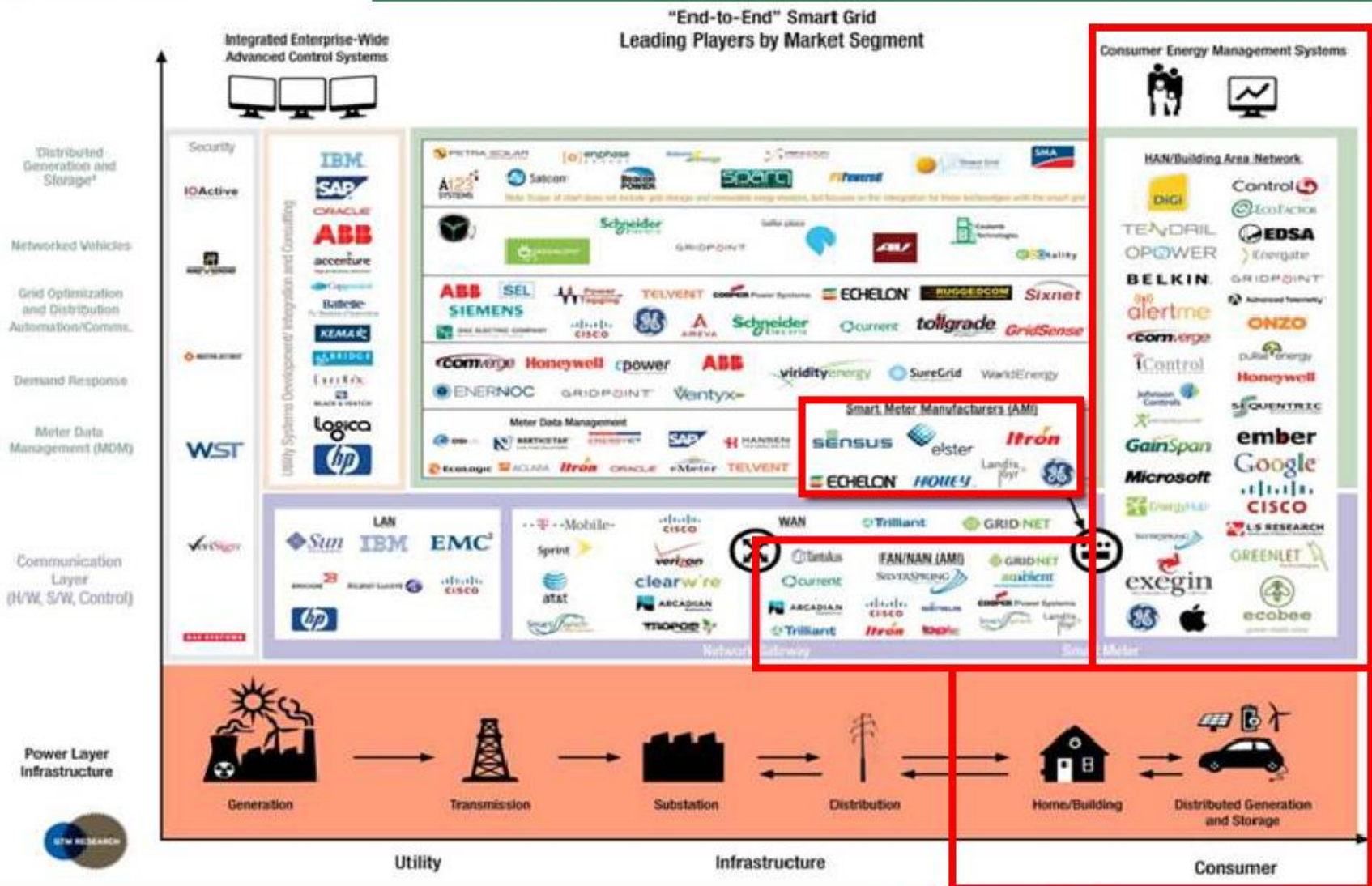
- Speaker, exhibitor and/or co-organiser of 8 smart grid events in 2010-2011.
- Working on a major event in 2012-2013

1 / Encourage the manufacturers to come in the French Riviera



Approach with smartgrid players

11



2/ Be a reference place to develop standards

Why developing standards on Smart Grid Projects?

Many projects all around Europe

- For exemple, on the Côte d'Azur :
 - Nice Grid Project, consisting in a massive PV penetration with multiple storage solution
 - Reflexe Project, demand side oriented building energy management
 - Plus six other projects...
- In Europe, the JRC report just listed more than 80 projects...

One day, all these projects will be integrated in a single Smart Grid to allow the control level needed to pilot the entire grid... but how to do if all these Smart Grid projects are stand alone, as today...

Standards are needed to:

- Optimise the investments on futur Smart Grids projects
- Optimise the sharing of experience
- Facilitate new projets – e.g. Nice Smart City

2/ Be a reference place to develop standards



Nice Côte d'Azur Smart City Program: 25 000 acres will be developed on the Côte d'Azur in the next 20 years, and energy efficient management is seen as a key part of the development to:

- Find a solution to the weakness of the power transmission network
- Attract new industries and businesses (total 50 000 jobs in 2050)

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SMART GRIDS



Merci de votre attention !

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French Riviera Industry and Commerce Chamber