



Template for the Executive Summary of the TRANSFORMATION AGENDA (D.2.2)

Béatrice Couturier - Grand Lyon

Sylvain Koch – Mathian - Hespul

March 18th, 2015

Status Quo & Vision :

- To whom is the TA addressed?**

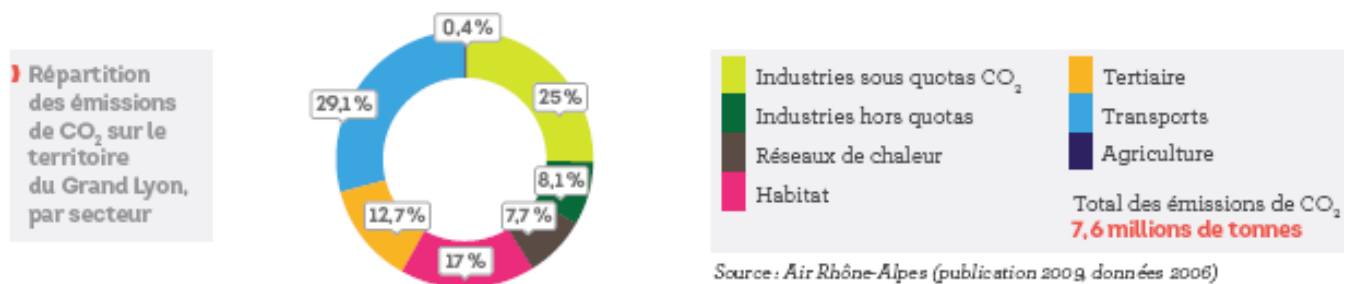
Le TA is both addressed to the political level (vice – president in charge of sustainable development and vice President in charge of Energy) and to the technical level (departments in charge of the Sustainable Energy Action Plan(SEAP) and the future Energy Master Plan).

It aims to assess the gap between the SEAP objectives and the actual trend and to propose a comprehensive action plan to develop new action to reach these goals as well as to give inputs to set-up the governance and objectives of the future Energy Master Plan.

- What is the City's overall energy/CO2 emissions situation (SEAP)?**

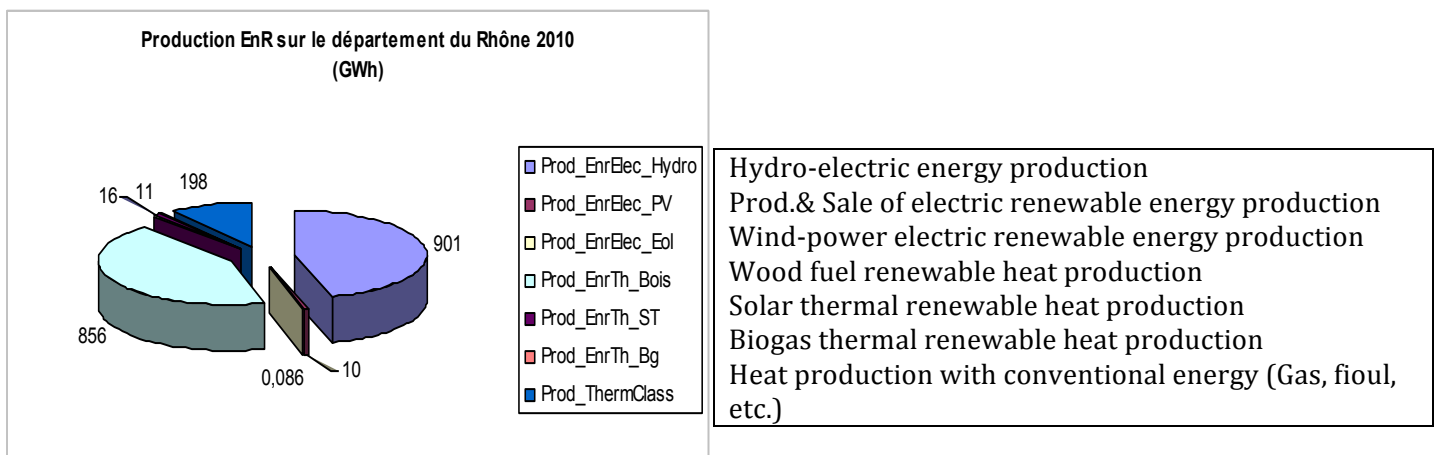
The territory's greenhouse gas emissions were evaluated at 7.6 million tonnes of CO₂ / year in 2000.

In the diagnosis carried out in 2009, the "emissions survey" of Grand Lyon's territory indicates that the CO₂ emissions come principally from industry (including energy production and waste management), transport, and the residential and tertiary sectors.



Moreover, the diagnosis also showed that Grand Lyon could only act directly on 5% of CO₂ emissions in the territory via its public utilities and could influence 20% of emissions via its local policies (residential, transport, urban planning, environment). In other words, 75% of the CO₂ emissions are not directly related to the actions and policies of the Grand Lyon. This shows the real value of the partnership action.

Renewable energy production in the *département* of the Rhône, 2010



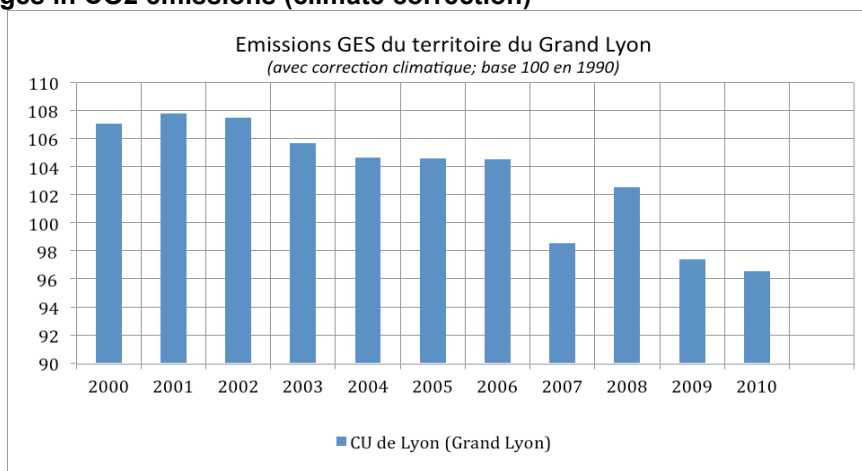
The part of the renewable energies amounts to 4,6 % of the total consumption.

- What are the energy/CO2 emissions challenges (SEAP / TA)? Mid-term? Long term**

Grand Lyon and 60 local stakeholders (municipalities, public organisations, private companies, universities, etc.) committed themselves to reduce of 20% by 2020 the overall CO2 emissions of the Grand Lyon compare to 1990, which corresponds to **1.5 million tonnes CO2 / year**. To achieve this objective, Grand Lyon and its local stakeholders have signed a collaborative Climate and Energy Action Plan that define a set of 26 actions (shared amongst 5 categories) .

During the period 2000-2010, greenhouse gas emissions in the territory fell by 10%.

Changes in CO2 emissions (climate correction)



Greenhouse gas emissions in the territory of Grand Lyon
(with climate correction; base of 100 in 1990)
Urban Community of Lyon ...

Since the start of 2012, the Climate and Energy Plan has been in its operational phase and a number of actions are starting to bear fruit. Thus, from a quantitative viewpoint, the actions of the Climate and Energy Action Plan undertaken to date have allowed a **CO2 reduction evaluated at 100,000 tonnes CO2 / year**.

The Cit'ergie® (2013-2014) certification process will allow more in-depth monitoring of the actions and the putting in place of indicators.

Does the context (political, financial, regulatory, ...) support them?

The Climate and Energy Plan is strongly supported politically and financially. Politically, a Steering Committee consisting of the Vice Presidents in charge of different aspects (mobility, housing, energy, health, economy ...) is responsible for monitoring the implementation of the 26 actions validated in 2012.

An innovative system of governance was set up: the Climate Energy Conference (CEC). The CEC brings together the key players in the following areas: industry/energy producers, buildings, transports, civil society, institutions and public and private research laboratories. The objectives of the CEC are to share the strategies and goals of the urban area's Territorial Climate Energy Plan, check the coherence of actions and verify the results obtained. An in-depth assessment is made every two years.

From a financial perspective, budgets have been affected or are being validated for actions led by the metropolis of Lyon.

Gap Analysis:

- What are the main lacks/challenges? How to meet the gaps?
- What are the main improvement points (strategy/operational)?

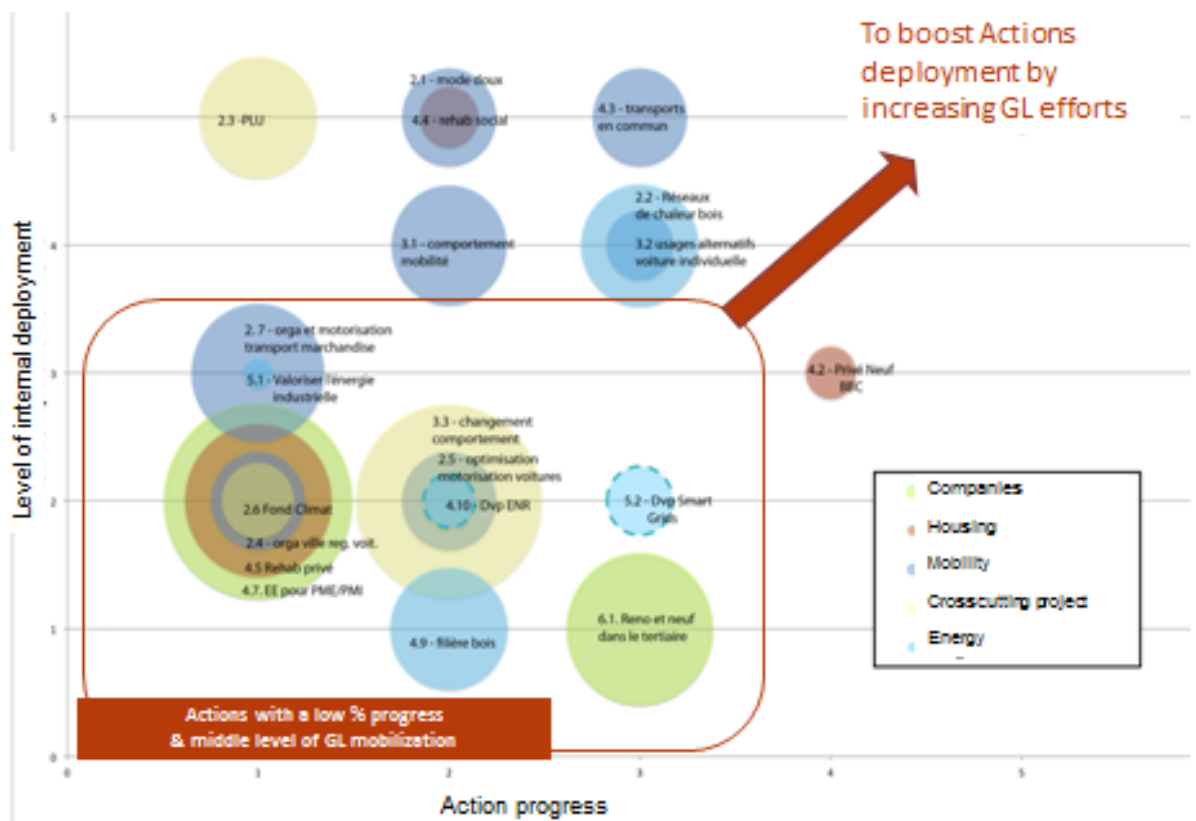
This analysis gave rise to a principal axis of federation centred on an integrated approach. The Transformation Agenda needs to focus on an improved integration of energy vectors, on the one hand, and the public policies implemented by Greater Lyon, on the other, especially as concerns energy, urban planning, housing, mobility, water and waste.

Two correlated topics were identified with respect to the analysis of the gap between ideal path and the current one:

- the governance of a future Transformation Agenda, with the main objective of associating the energy network managers and the various Greater Lyon services in shared discussions;
- a spatial approach that would aim toward a territorial and spatial adaptation of the Transformation Agenda. The idea would be to closely coordinate the future Transformation Agenda with the framework documents as concerns urban planning; these documents are the Territorial Coherence Plan (SCOT) and the Local Urban Planning and Housing Plan (PLUH).

After this first step (city concept assessment), the second step consisted in identifying the key themes the energy transformation process could focus on as a basis for improvement.

- **Cross analysis with different criterias**



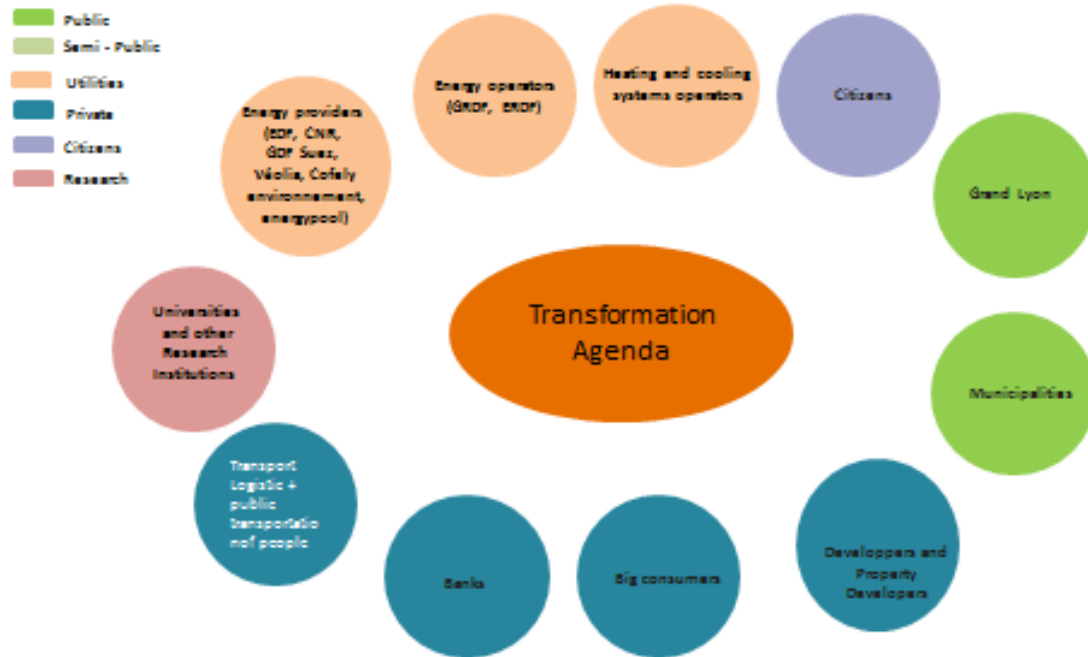
This analysis that has been done in collaborating with all the departments of Grand Lyon, has led to the identification of three themes that should be addressed in priority by the Transformation agenda:

- Prefiguration of the energy Master Plan

- A new function of “flexibility facilitator” in the development of smart grids
- Citizen investment and participation in renewable energy projects.

- What are the main stakeholders to involve?

Key Stakeholders to be considered in TA



Action plan:

- What is the core of the action plans?

The core of the action plan consists in the elaboration of an energy master plan that would be spread over four years, starting in late 2014. The main periods in this elaboration are the following:

- 2015 Period:
 - o assessment of the role of the energy stakeholders
 - o analysis of the financial mechanisms tied to the energy transition;
 - o evaluation of development potential for renewable energies;
 - o evaluation of the impact of public policy on the energy system by 2020, 2030 and 2050.

=> This will produce a vision for the Grand Lyon and local stakeholders regarding the evolution of the energy mix over 10 years, as well as the expected drop in emissions by 2030.
- 2016-2017 Period: elaboration, quantification and choice of organisation scenarios for the energy system with the help of an energy modelling and mapping tool developed during this period.

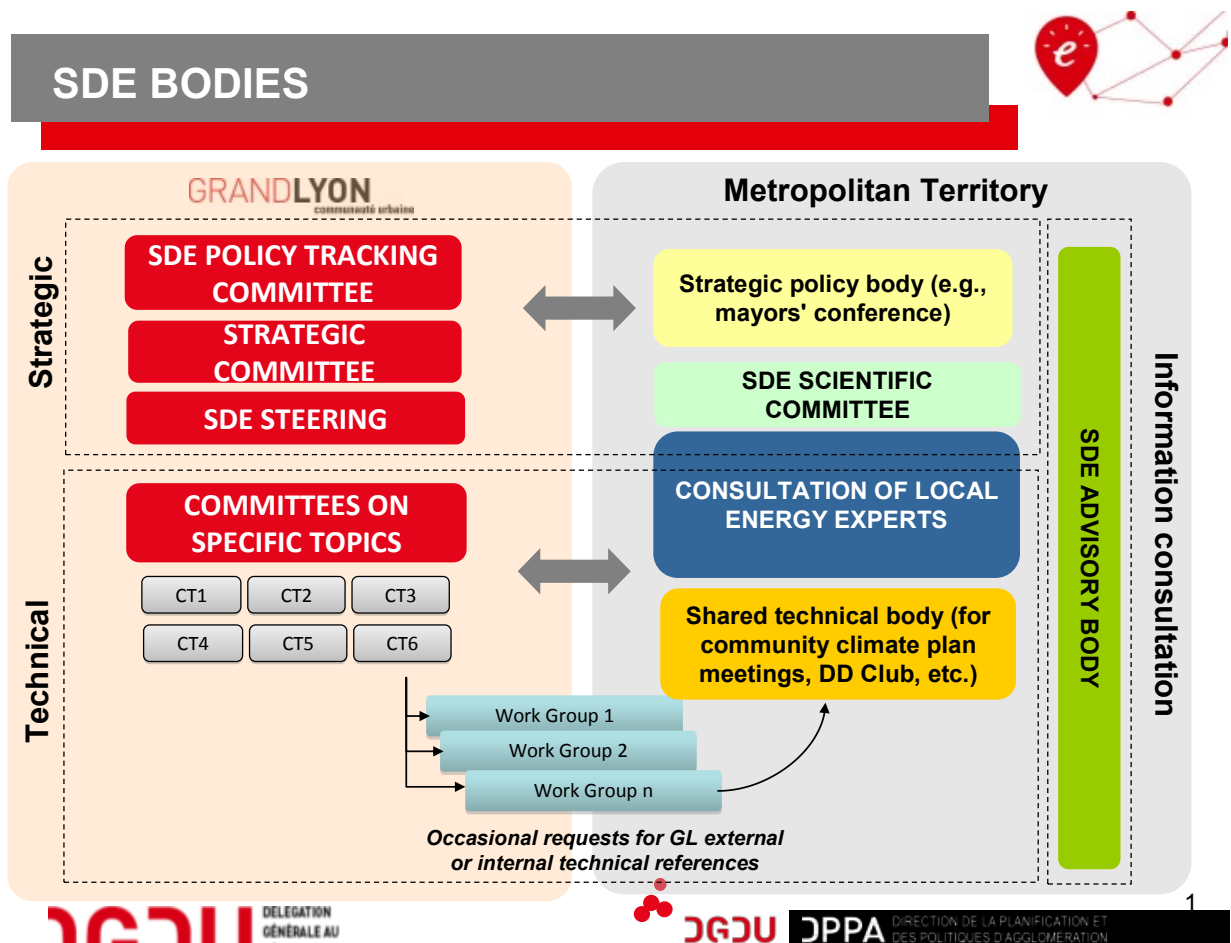
- 2017-2018 Period: identification of an energy strategy, as well as creation of an actions plan and the tools needed for its implementation.

In addition, Grand Lyon Transformation Agenda define a set of action to foster Citizen investments in local renewable energy projects as well as to improve existing practices to design the electrical grid by improving the identification and mobilisation of flexibility potentials in production and consumption over specific areas while reducing investments on the networks.

- How the action plans were define? With who?(SWOT & PESTLEGS)

The action plan has been done within the intake workshop process. The participation of all the departments of Grand Lyon concerned was required: Energy, Urban development, Water and Sanitation, Waste, Housing & urban social development, Mobility, Cityzen participation & public dialogue, Economic and International Development, etc.

- Process to implement the action plan (political governance, involvement of stakeholders).



Conclusions

- What was the added value of TRANSFORM to improve the TA discussed above? (State this in simple 3-5 bullet points)
 - Stakeholders' involvement: creation of a workshop of the actors of the energy and the urban planning, prefiguration of a governance of the actors for the future master plan of the energy.
 - Spatial approach: improve the knowledge about how to design an energy diagnosis at the district scale and to relate energy planning with urban planning
 - Modelisation tool: improve the knowledge about the way to use this kind of tool and the designing of scenarios, as well as on how to consolidate together data from several sources (urban, energy, social, etc.) and link them with the GIS tools of the municipality.
- What key lessons can be drawn from TRANSFORM for your city and for EC Smart Cities policies?
 - Necessity to make energy data of the DSO available to the municipality so as to allow designing energy scenarios and policies
 - SWOT analysis as a very useful methodology to analyse the SEAP and define the action plan.
 - Stakeholders' involvement is key: energy planning and transition agenda cannot be achieved successfully without a strong involvement of local stakeholders, but is quite time consuming and implies strong coordination and facilitations competences.