

Interim Report – Part A.4

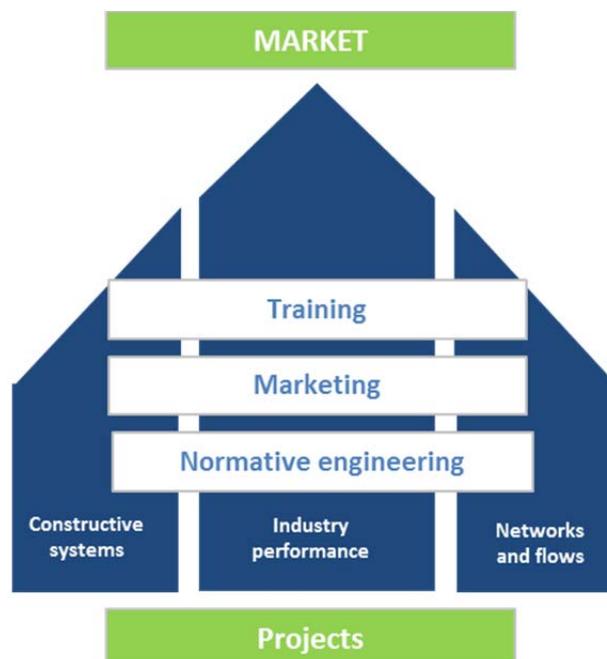
Study on promoting multi-level governance in support of Europe 2020

(contract number CCI 2013CE16BAT019)

Alsace:

ENERGIVIE Programme and Cluster fostering and supporting the emergence of innovative energy products and services

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List of abbreviations

ADEME	French Environment and Energy Agency
ASPA	Association surveying the pollution in the air in the Alsace
CREA	Regional Conference on Energy and Air quality of the Alsace
CIADT	Inter-ministerial committee of territorial development and planning
CPER	State-Region contract
DATAR	Inter-ministerial working group for land development and regional attractiveness
ERDF	European Regional Development Fund
GDP	Gross Domestic Product
GHG	Greenhouse gas
GTEA	Working group Alsace Energy
Ktoe	Thousands of oil equivalent
Mtoe	Millions of oil equivalent
POPE	National law fixing the energy policy orientation (2005)
R&D	Research and Development
SRCAE	Regional Scheme on Climate, Energy and Air Quality of the Alsace
SSCE	Collective Energy Services Policy Schemes
TRION	The energy network of the Trinational Metropolitan Region of the Upper Rhine.



Disclaimer: The information and views set out in this study are those of the authors and do not necessarily reflect the opinion of the Commission

1 Introduction

Many regions and cities in Europe contribute directly or indirectly to achieving the aims and objectives of the Europe 2020 Strategy. To gain more insights on the governance mechanisms at play when cities and regions deliver contributions to Europe 2020 objectives, DG Regio launched a study on “promoting multi-level governance in support of Europe 2020”. This study aims to document case studies, test the possibility to transfer learning on governance and to generate lessons from policy experiences.

The study focuses on two specific policy fields linked to the Europe 2020 Strategy, namely Energy Efficiency measures with a special focus on the existing building stock and Social Inclusion in urban areas.

The present case study is one of eight reports detailing examples of how policy actors pursue their objectives, explicitly or tacitly in support of Europe 2020, in the context of the different multi-level governance frameworks they find themselves. The reflections and lessons presented in this and the other reports form an important input to the conclusions of the overall study and for a series of networking and transfer meetings between local and regional representatives from various parts of Europe. The final results of the study, will highlight the processes and success factors leading to strong, high quality political and administrative partnerships across levels of governance and the lesson to be drawn on testing the transfer of experience in good governance.

This study on promoting multi-level governance in support of Europe 2020 is led by Spatial Foresight GmbH and carried out in support of a wide range of collaboration partners.

Further details on the study and the progress made are available at <http://www.spatialforesight.eu/mlg.html>

2 Summary

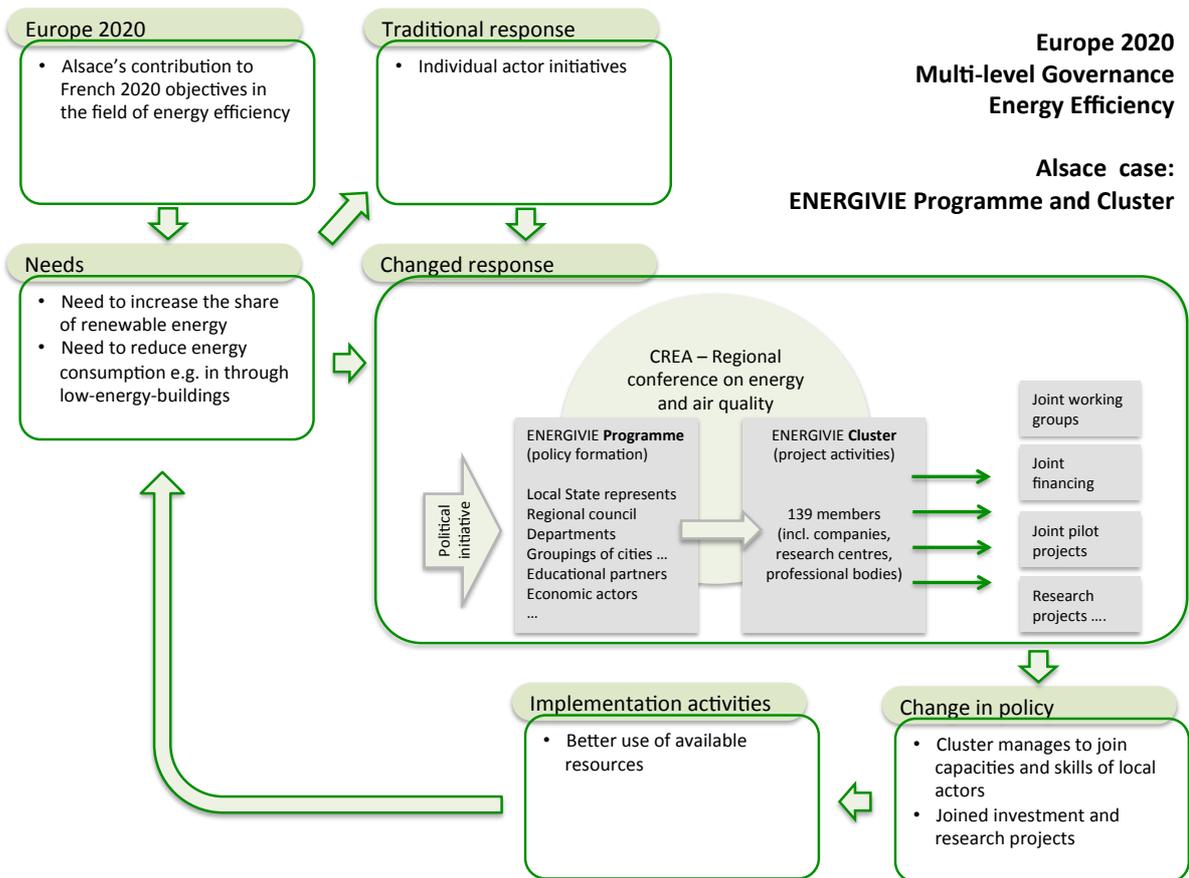
Alsace is a French region in the northeast of France. With the introduction of the ENERGIVIE Programme and Cluster the region support the French contribution towards achieving the Europe 2020 targets. There is a need to increase the share of renewable energy and to reduce the energy consumption of buildings. A special focus is on increasing the numbers of low-energy buildings as buildings account for about 43% of the energy consumption and 22% of the greenhouse gas emissions. Furthermore, rising energy prices put an increasing number of households at risk for energy poverty.

The traditional response to these challenges was mainly based on initiatives of individual stakeholders, as can be seen in the graph below.

French national energy and environmental objectives have gradually and incrementally evolved in today's existence of ENERGIVIE Programme and Cluster. The governance arrangements build on the CREA, a regional assembly on energy and air quality of the Alsace, which translated national and international obligation in the Alsace context. The Alsace regional energy policy is ambitious and may be described as an integrated and coordinated approach, uniting the public (region, departments, agglomerations, regional state representatives), educational (universities, professional education), and private players linked to the energy sector (regional and local energy and construction companies, and their representatives, such as the chamber of commerce).

As can be seen in the graph has the ENERGIVIE **Programme** been developed in the context of the CREA. This is embedded in the 'State-Region' contract, committing the region to programming and multi-year funding of major projects or support for promising niches as energy efficiency. The ENERGIVIE Programme has been the first step towards more integrated and coordinated action in the field of energy. The focus of this programme was initially on renewable energy, but slowly changed to energy efficiency in buildings. The programme entails the first change in governance arrangements. A participatory approach is used to combine actors from different levels of the state, private parties and research institutes for a more effective delivery of the policy objectives.

In 2010 the ENERGIVIE **Cluster** was initiated as part of the ENERGIVIE Programme to foster and support the emergence of innovative energy products and services in the Alsace region. The Cluster connects economic players, companies, professional education and research and their networks; it identifies and supports collaborative and innovative projects and financing opportunities. The establishment of the ENERGIVIE Cluster is an incremental step and can be seen as manifestation of an increased and strengthened participatory approach. Based on the initiative of the president of the Alsace region and the Prefet a regional competitiveness cluster has been developed, which also fitted in the French national idea of creating regionally specialised clusters. The ENERGIVIE Cluster is a logical spin-off of the Programme and focuses more on R&D and new tools and techniques to increase energy efficiency in buildings. The ENERGIVIE Programme and Cluster co-exist and run and the same time.



In this regard, acts the Alsace ENERGIVIE Cluster as a catalyst. It brings together different legislation, competences, funding, human resources, economic activities and initiatives that help the Alsace energy and climate efforts reach the objectives for 2020 and beyond. The cluster's objective is to foster and support the emergence of innovative products and services on the market:

- by fostering exchanges and experimental projects between its members;
- by setting up programmes to support and highlight innovation;
- by finding and supporting collaborative R&D projects between companies and academic laboratories.

Through the various participatory processes and projects, the Programme and Cluster managed to improve organisational capacity in the region for energy and the possibility to pursue energy policy and regional economic development objectives at the same time. The main success factors, which form the input for the transferable options, can be defined as

- co-governance structure of the cluster between the academic / educational sector and the private sector and
- establishment of a management team with communication and awareness raising capacity.

More concrete elements are mentioned in the table below.

Key aspects of the participatory approach in the Alsace strengthening multi-level governance towards improved energy efficiency in buildings

Key ideas	Concrete methods and techniques
Initiate Programme and Cluster for innovative strategies also functioning as a front desk for funding instruments.	The Programme and Cluster teams combine all financing and funding programmes and help all stakeholders to find the right schemes.
Focus on innovative solutions to differentiate from others.	The Cluster brings together the right partners for innovation programmes beyond the individual innovation activities.
Bring together a wide range of development stakeholders in a cluster.	Combination of Programme with a Cluster bringing together capacities and skills in the region.
Combine research, investment activities and stakeholders.	Large participative consultation of players, a clear performance contract with the financiers, and a well-balanced governance structure to get involvement and commitment of many stakeholders.
A shared vision beyond the own territory, i.e. the Alsace Region.	Initiate a widespread communication campaign to involve all players.
	Clear objectives and goals, with clear commitment between levels of governance as expressed in the 'State-Region' contract.

3 Methodology

The text on Alsace ENERGIVIE Programme and Cluster is primarily based on qualitative data compiled from desk research and interviews. Firstly an extensive desktop research has been performed, reviewing public publications at:

- the national level, to understand the different national frameworks, legislation and regulation in which the Alsace case study is embedded, i.e. national territorial schemes on energy, energy efficiency, renewables and air quality; Legislation "Grenelle I and II";¹ different ministries, committees, inter-ministerial working groups and agencies;
- the regional level, to understand existing and pre-existing regional structures, planning cycles, competences and different policy objectives;
- the ENERGIVIE² Programme and Cluster level to understand the initial function, organisational structures, planning, policy definition, important decisions taken, involved players and structures.

Secondly, ENERGIVIE stakeholders were interviewed, including both intense discussions with specifically one key stakeholder and in depth exchange during of experiences the twinning meetings.

¹ The Grenelle I and II laws are French legislation on energy and environment that were the result of the multi-stakeholder debate that took place in 2007 with the aim to draw up a plan of action of concrete measures to tackle the environmental issues related to climate change.

² ENERGIVIE is a competitiveness cluster and program completely dedicated to energy efficiency in buildings, naturally geared towards the objective of positive energy buildings.

4 Situation prior to the governance change

A new approach to fostering and supporting the emergence of innovative energy products and services in buildings in the Alsace region has been implemented through the ENERGIVIE Cluster. Its development is deeply rooted in the needs and governance structures of the Alsace region for both energy policies and regional economic development policies.

The Alsace ENERGIVIE in a nutshell

Population	1.8 Million inhabitants
Area	8 280 km ²
ERDF Programme funding	€ 76 million (for 2007-2013)

Europe 2020 targets at national level

- 38% decrease of final energy consumption in existing buildings
- 20% reduction of greenhouse gasses in the transport sector
- Reduction in final energy intensity of 2% p.a. from 2015, and of 2.5% from 2030.

The French 'Grenelle' laws set the objective to cut greenhouse gas emission by four between 1990 and 2050, which is nationally called 'factor 4'

Europe 2020 targets related to climate change and energy efficiency for the Alsace region

Energy consumption (to 2030)	Reduction of 20% in final energy consumption between 2003 and 2020
Renewable energy (to 2030)	26,5% renewable energy by 2020

Key governance stakeholders for energy policies

National level	DATAR (<i>Délégation interministérielle à l'aménagement du territoire et à l'attractivité régionale</i> / Inter-ministerial delegation of territorial development and regional attractiveness) part of the Ministry of rural territory and spatial planning, applying decisions of the interministerial committee of spatial planning and development (Comité interministériel d'aménagement et de développement du territoire/ CIADT) and the French environment and energy agency (Agence de l'environnement et de la maîtrise de l'énergie/ Ademe)
Regional level	The Alsace Region
Local level	Cities like Strasbourg, Mulhouse, Colmar their agglomerations ³ , and all other local authorities and involved parties in the cluster.

³An agglomeration in France is a metropolitan government structure.

Figure 1: The Alsace region



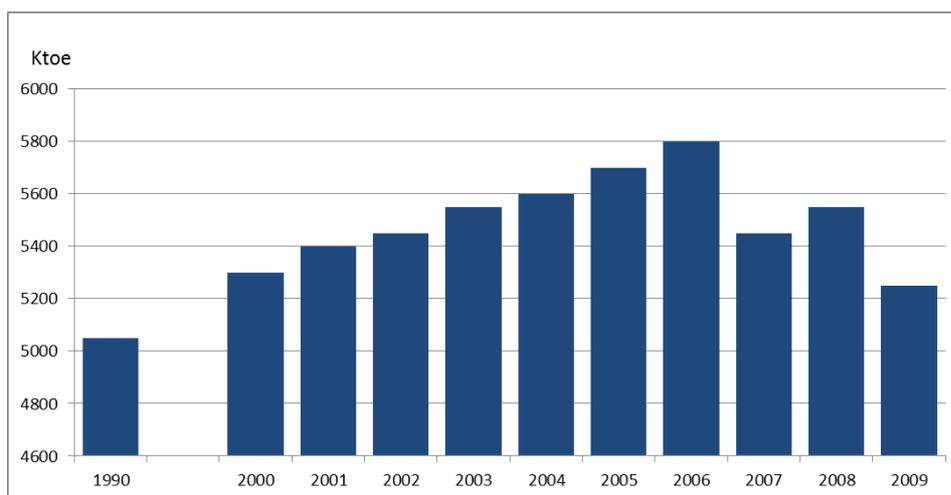
Source: www.tourisme-alsace.com

4.1 Socio-economic development context and challenges

A background of the population, economy and principle settlement as well as specific needs in relation to environmental issues and climate change and energy are important describing the context in which the ENERGIVIE Programme and Cluster have been developed.

The Alsace Region is on the east side of France and has a border with both Germany and Switzerland. The Rhine runs through the region. It has about 1.8 million inhabitants, with a density of 220 people/ square km. It has two departments 'Haut Rhine' and 'Bas Rhine', and its largest city is Strasbourg, the regional capital. Two other large cities are Mulhouse and Colmar. It is the second region in terms of GDP per capita (about 25 000 euro) in France, with 68% of the population working in the service sector and 25% in industry, which makes it one of the most industrialised regions in France.

Figure 2: Decreasing total energy consumption (Ktoe/annually)



Source: Alsace Ademe

Energy consumption in Alsace increased between 1990 and 2006 and stabilised thereafter (see Figure 2). It is currently around 5400 ktoe per year. A downward trend seems underway. A further reduction in energy consumption is needed both with regard to climate change and the effect of energy prices on the competitiveness of firms and the wealth of citizens in the region. Key challenges in this respect are:

- the rising cost of energy creating a very worrying phenomenon of energy poverty;
- greenhouse gas (GHG) emissions having a direct impact on climate change;
- the price of energy nearly doubling in 7 - 10 years with this pace accelerating;
- in France, buildings accounting for 43% of energy consumption and 22% of GHG emissions.

In order to meet these challenges, policies in the Alsace region address in particular housing and buildings:

- With 752 166 units, the housing stock has an overall consumption of 1.3 Mtoe, representing 25% of final energy consumption in the Alsace Region.
- The service sector and its buildings account for 13% of final energy consumption in Alsace. In 2009 ASPA estimated the final energy consumption of tertiary activity at 749 ktoe in Alsace.

The other main sectors are industry and transport. Uniting the energy efficiency businesses, renewable energy and in particular the building sector could help to face the above challenges and create a reinforced sustainable regional economy.

4.2 Link to Europe 2020 Strategy

Energy efficiency in the Alsace region evolves in the context of French national and European strategies. There are, however, regional differences in targets set. The Alsace region is, for example, more ambitious with regard to renewable energy, as is shown in the table. In Alsace, the Regional Scheme on Climate, Energy and Air Quality (SRCAE) plays an important role in approaching national and European objectives for climate and energy.

Table 1: Climate and energy objectives at European, French national and Alsace level

Objective	European / international level	National	SRCAE Alsace
Greenhouse gas emissions	Kyoto engagement: Reducing by a factor 4 the greenhouse gas emissions between 1990 and 2050 (So-called factor 4)	Reduction of 20% in GHG emissions between 1990 and 2020 Reduction of 20% in primary energy consumption	Dividing by 4 GHG emissions between 1990 and 2050 (So-called factor 4) with a first cap of 20% reduction by 2020 and a reduction of 20% in final energy consumption between 2003 and 2020
Renewable energy	20% from renewable energy by 2020	23% from renewable energy by 2020	Objective of 26.5% from renewable energy by 2020
Air quality	Respect for air quality norms of the European directives	Reduction of 30% for PM2.5 particles between 2010 and 2015	Respect the air quality norms of the EU directives. PM10: 40µg/M3 on average annually PM10 > 40µg/M3 for less than 35 days/year PM2.5: reduction of 30% between 2010 and 2015 NO ₂ : 40µg/M3 annual average

The French energy programming law POPE (*Loi de programme fixant les orientations de sa politique énergétique*) of 2005 and the Grenelle I and II laws play an important role in the implementation of international commitments such as the Kyoto Protocol and the Europe 2020 Strategy. Complementing the targets in above table, the following targets have been set at national level:

- 38% decrease of final energy consumption in existing buildings;
- 20% reduction of GHGs in the transport sector;
- reduction of final energy intensity by 2% per year from 2015 on, and by 2.5% from 2030 on.

4.3 Governance context

Traditionally, energy initiatives in the Alsace region consisted of individual actions of actors of the state, private firms and research institutes. However, related to environmental and energy policy there was a need for more integrated and coordinated actions between different levels of governance and actors in the region. The Alsace region functions in this regard between the national and EU levels and the departments within the region, the metropolitan areas and communes. Influenced by French national law and strategies the CREA has been established as first step towards more integrated actions.

In 1999, DATAR (Délégation Interministérielle à l'Aménagement du Territoire et à l'Attractivité Régionale) formed working groups in development and regional attractiveness, as well as on the development of a regional contribution to the Collective Energy Services Policy Schemes (SSCE). In the Alsace the group consists of many energy sector players, regional representatives of national services, local communities, agglomeration, consumer associations and consular entities. This top-down initiative from the French national board for spatial planning was a first step towards more integrated and coordinated energy policy at the regional level.

This resulted in 2001 in the establishment of the working group Alsace Energy (GTEA). This was based on a study of ADEME, the French national environmental and energy agency together with a proposal of the president of the Alsace Region. The GTEA initially focused more energy related issues, mostly on renewable energy. In 2006 the scope was broadened and the CREA was established.

The CREA (Regional Conference on Energy and Air quality of the Alsace (*'Conférence Régionale de l'Énergie et de l'Atmosphère en Alsace'* Regional Conference on Energy and Air quality) is an assembly whose mission is to observe, inform, facilitate trade and make specific recommendations for decision-making and guidance for the region concerning climate change, energy and the promotion of renewable energy.

In general, CREA guides regional policies and the actions of the different regional energy players in Alsace. In doing so, it enables regional players to respond better to the need for new policy schemes regarding climate, air quality and energy.

CREA is the result of a long process of mobilising regional players to become active in energy and climate policies. As a result public-private partnerships are established in the region, uniting the public (region, departments, agglomerations, regional state representatives), educational (universities, professional education), and private players linked to the energy sector (regional and local energy and construction companies, and their representatives, such as the chamber of commerce).

Today governance arrangements build on two elements: (a) The CREA, which forms the framework for (b) the ENERGIVIE Programme and Cluster, which is embedded in the Territorial Schemes of Renewable Energy (*Schéma Régional Énergies Renouvelables*). These aspects will be more discussed in the next sections.

5 A new approach to integrated structures of the ENERGIVIE Programme and Cluster

Within the framework of the CREA, the ENERGIVIE Programme and cluster have been developed, incrementally leading to more integrated structures in relation to energy policy and energy efficiency in buildings. This entails uniting actors from the state, private sector and research. The ENERGIVIE Programme was a first step in this direction, the establishment of the cluster manifested the change.

5.1 The ENERGIVIE Programme

Today the ENERGIVIE Programme fits within the framework of the CREA, but links to other French national policies as well. In 1998 the Alsace Region implemented a policy supporting the development of renewable energy.

The work and financing of CREA and the ENERGIVIE Programme is linked to the so-called 'State-Region' contract, more detailed information on this contract can be found in the textbox. In 2000 the French State and the Alsace region signed an agreement for the period from 2000 to 2006 that set the first goals and a budget of € 3.6 million for the development of renewable energy initiatives in the region.⁴ The focus slowly shifted to other topics like energy efficiency, low consumption buildings, and energy positive housing.

'State-Region' contract

The State-Region contract (Contrat de Projets État-région/ CPER) is a document by which the state and region commit themselves to programming and multi-year funding of major projects such as infrastructure development or support for promising niches, like renewable energy and energy efficiency as foreseen by the ENERGIVIE. The government, through the Secretary General for Regional Affairs (SGAR) agrees with the region on projects relating to regional planning and the share of each entity in funding. Other authorities, e.g. councils, urban communities can join a CPER to help to finance projects that affect them.

The first ENERGIVIE Programme was included in the CPER 2000-2006. Together with an agreement between the Region and ADEME, € 3.6 million was made available. The ENERGIVIE programme was developed between 2003 and 2005, funded by € 5.5 million, half of which was from Europe funding.

In November 2005, a framework agreement with the government was signed. Alsace officially became a pilot region for renewable energy and low-consumption buildings, for the period 2006-2008.

In 2004 the integrated programme of innovative actions in relation to renewable energy, called 'ENERGIVIE' was launched. In 2005 ENERGIVIE's first meeting took place with 300 participants in Colmar. In the same year a call for proposals was launched directed at regional business and industrial players to present projects involving renewable energy and on the stimulation of low energy buildings and renovation. In 2006, the French government selected Alsace as a pilot region for renewable energy and low-consumption 'passive houses', following a call for proposals directed at regional business and industrial players to present projects involving renewable energy. In addition, the state and the region signed a framework agreement for a pilot programme on renewable energy and energy efficiency for the period for 2006 – 2008. This agreement has a section on energy efficient buildings.

In general, the programme proved to be successful in promoting the use of renewable energy in the region and sped up regional policy for promoting renewable energy. It received the 'Sustainable Energy Europe 2005-2008' prize for its exemplary action on renewable energy. The ENERGIVIE Programme was awarded the RegioStars 2008 prize by the European Commission for being the best European regional programme promoting

⁴ Other agreements involve, for example, the participation of the Region in the National 'Sun' plan in partnership with the ADEME. The objective of the regional plan is to have solar powered water heaters for 10 000 M2 of floor space by 2006, with a subsidy for individuals. In 2003 there was a set of innovative actions related to renewable energy with a budget of € 5.5 million of which € 2.7 million comes from ERDF funding.

energy efficiency and renewable energy. In 2011 the name of the Programme Alsace ENERGIVIE became Energivie.info.

The ENERGIVIE Programme

The ENERGIVIE regional programme develops regional innovative strategies for sustainable development through the promotion of renewable energy and low energy buildings in Alsace, co-financed by the ERDF, the Alsace region, the French state and the ADEME (French Environmental and Energy Efficiency Agency). The ENERGIVIE Programme promotes the use of renewable energy, develops a strategy to encourage demand for renewable energies and develops renewable energies as an economic development tool. Whereas the regional policy scheme for renewable energy is developed under CREA, the ENERGIVIE info programme has four main actions:

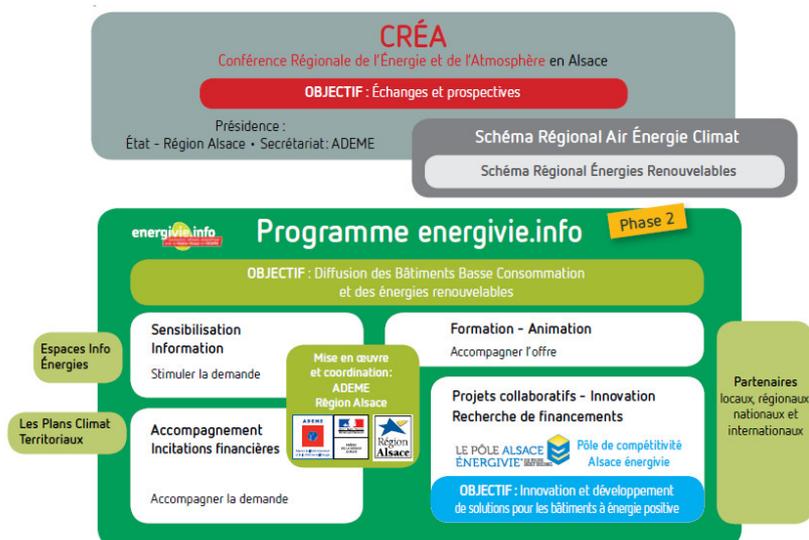
- a) creating awareness and providing information on energy in Alsace to the different players, including individuals, elected officials and technicians of local government, housing and building professionals, carried out through organising communication activities, e.g. technical and educational publications, internet sites, participation in fairs, open days, publicity and press communications;
- b) providing financial incentives for improved energy efficiency and support to building developers to construct low energy buildings and to integrate renewable energy;
- c) Coordinating discussions with professionals and other players in the field of building development, assistance in the development of education, and actions to promote professional education for energy efficiency and renewable energy;
- d) connecting economic players, companies, professional education and research, and their networks, identifying and supporting collaborative and innovative projects and identifying financing opportunities.

5.2 The Alsace ENERGIVIE Cluster

The ENERGIVIE Cluster is today's manifestation of the integrated approach towards improved energy efficiency in buildings in the Alsace. It entails a participatory approach, uniting all key stakeholders in the region. The ENERGIVIE Cluster was initiated as part of the Energivie.info programme to foster and support the emergence of innovative energy products and services in the Alsace region. The links between the CREA, ENERGIVIE Programme and Cluster are visualised in Figure 3. The CREA is the overarching framework, where the programme and cluster represent the integrated approach. The cluster is part of the ENERGIVIE Programme and is complementary to the objectives of the programme by giving support to innovative tools, techniques and approaches towards energy efficient buildings.

The ENERGIVIE Cluster started in 2010. The initiative came from the president of the Alsace Region and the Prefet to establish a cluster in line with the national proposal for regional clusters.

Figure 3: Organisational context of ENERGIVIE Programme (Green) and ENERGIVIE Cluster (Light blue)



Source: ENERGIVIE Presentation

Besides supporting the general objectives of the ENERGIVIE Programme, in 2010 the ENERGIVIE Cluster has become a 'Pole de Compétitivité', within the French national framework of regional competitiveness clusters. In France several regional competitive clusters are established to strengthen the partnerships of actors in the same sector and enhance its international competitiveness. ENERGIVIE became therewith officially a competitiveness cluster dedicated to energy efficient buildings. More precisely, it is one of six nationally recognised and certified eco-technology competitiveness clusters. In this context, it is the only competitiveness cluster completely dedicated to energy efficiency in buildings, naturally geared towards the objective of net energy producing buildings.

The ENERGIVIE Cluster

The Cluster's objective is to foster and support the emergence of innovative products and services on the market:

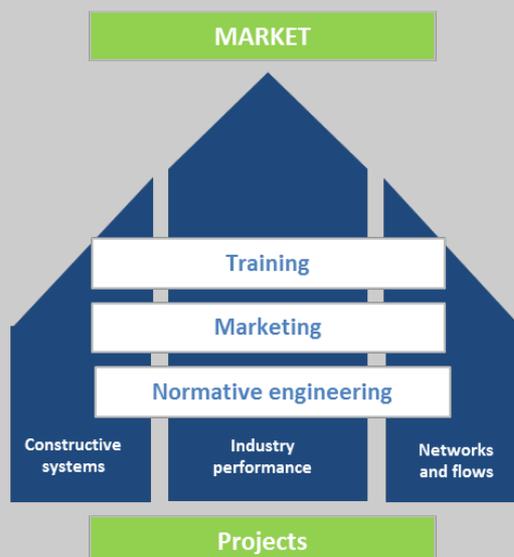
- by fostering exchanges and experimental projects between its members;
- by setting up programmes to support and highlight innovation;
- by finding and supporting collaborative R&D projects between companies and academic laboratories.

The Cluster's strategy is structured around six themes:

- three specific themes: building systems, networks and flows, and sector performance;
- three cross-cutting themes: standards, marketing and training.

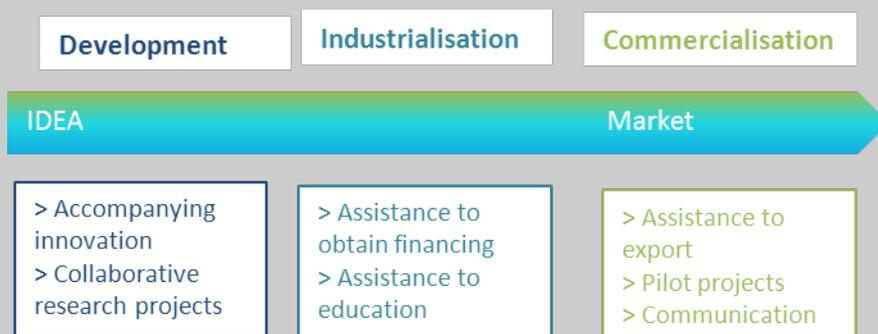
In addition, some objectives have been established that are complementary to the ENERGIVIE programme's objectives. They focus more on incentives towards more energy efficient housing, whereas the Cluster's objectives relate more to research and development regarding new products for low energy buildings. These new products could accelerate the actions under the ENERGIVIE Programme towards more sustainable buildings..

Figure 4: ENERGIVIE cluster strategy themes



Source: ENERGIVIE website

Figure 5: Objectives of the ENERGIVIE cluster



Source: ENERGIVIE cluster website

In relation to the ENERGIVIE Programme, the cluster strengthened the participation of stakeholders in the region regarding energy efficient buildings. It carries out the programme's objectives, which are:

- connecting economic players, companies, professional education and research, and their networks;
- identifying and supporting collaborative and innovative projects.
- identifying financing opportunities.

Going further into detail, the Alsace ENERGIVIE Cluster acts as a catalyst. It brings together different legislation, competences, funding, human resources, economic activities and initiatives that help the Alsace energy and climate efforts reach the objectives for 2020 and beyond.

In concrete terms, the cluster has awareness-raising activities, helps to obtain funding & export-assistance, and conducts, through its working groups, studies on customer perception. They help to make the topic of energy efficiency in construction professional, introduce related quality norms, and identify the renovation potential in the upper Rhine part

of the Alsace. ENERGIVIE Cluster contacts are maintained with the Network of Eco-companies in the Alsace, the Mulhouse Agglomeration's competence centre on low energy consuming buildings; the energy efficiency and renewable energy group of Cernay Communes, the rural renewable energy group of the Pays d'Alsace du Nord, and Prébat, a research programme on energy use in buildings.

The idea is to assist the sector from initial research up to sale of the resulting products. A cluster label is used as tool to show their work, the textbox contains more detailed information on the cluster label.

Meaning of the cluster label

The label 'cluster' was assigned by CIADT (Comité interministériel d'aménagement et de développement du territoire). To be certified, a cluster project must meet government specifications. Four criteria are relevant:

- a coherent development strategy with the economic development plan of the territory at its centre;
- sufficient international visibility on industrial and / or technological plans;
- a partnership between players and structured operations and governance;
- ability to create synergies in research and development, bringing new wealth with high added value.

A competitiveness cluster unites small and large companies, research laboratories and training institutions. Its purpose is to support innovation and further the development of particularly innovative collaborative R&D projects. In this way it contributes to growth and employment.

The challenge is to use the synergy and trust created between players through concrete cooperation, in collaborative, innovative projects. The goal is to enable companies to lead in their fields in France and worldwide.

The cluster has different functions related to increased integrative structure in the Alsace region. Due to national recognition of this regional competitive cluster, links and partnership beyond the region can be established as well. Through its partnerships with other clusters, the ENERGIVIE Cluster provides its members with supplementary resources and skills.

Due to its geographical location, Alsace enjoys special relationships with its Swiss and German neighbours. Often pioneers in the field of sustainable housing and energy efficiency, they are natural partners for:

- running innovative joint projects on a European level;
- running joint collective action to have greater influence on European authorities.

Under the authority of the TRION⁵ cross-border programme, the Alsace ENERGIVIE Cluster has signed a cross-border cooperation agreement with four other clusters in the Upper Rhine region: the Energieforum in Karlsruhe, the Freiburg Green City Cluster, the Fribourg strategic climate partnership, and the I-net Basel Greentech programme.

⁵ The energy network of the Trinational Metropolitan Region of the Upper Rhine.

The Cluster's international partnership aims to:

- increase the efficiency of the Cluster's actions by pooling resources and skills;
- identify partners in France and Europe with complementary skills or specific needs, in order to engage in collaborative projects at national or European level;
- contribute to the influence of the cluster in France and Europe.

Its partners in France and abroad enable it to identify and initiate projects at both national and European level.

5.3 Key players and their motivation

The ENERGIVIE Programme and Cluster focus on a broad participatory approach including many key stakeholders in the Alsace region. The Programme is organised through the Steering Committee. The President of the Region chairs the Programme's Steering committee. This represents all the programme's partners, coordinates and takes care of all decision-making. Members are from both public and private sector. The latter are, for example, representatives of companies working in the energy and housing sectors, tourism and agriculture. The public bodies include the State services, research and training partners and other experts in the field of energy. They were carefully selected to represent all sectors involved in the development of renewable energy in the Alsace region. Out of their climate and energy legislative obligations the public players have large interest in the different actions and trainings initiated. The private partners recognise the opportunities for the regional economy that ENERGIVIE create. Operational management is through employees of the Alsace Region. They enable strong partnerships with the region's cities and other local authorities.

The public sector participants bring their institutional competence in terms of environment and energy efficiency, yet also aim to foster the economic position of the region and regional industry.

For private participants, the cluster provides the possibility to join forces and work together on innovation in the region's energy efficiency sector, creating products, new employment and strengthening the Alsace Region as a frontrunner.

The initiative for this came from the regional level, more precisely from the President of the Alsace Region, Philippe Richer, in collaboration with the main local players and structures, i.e. regional ADEME, Chamber of commerce, agglomerations, educational players, etc. Particularly noteworthy are Mr. Bindschedler of the SOPREMA Group, representing the private players, and Mr. Jeltsch, Vice-Président of the University of Strasbourg.

In June 2010, more than 200 people came together to define the strategic axes of the cluster. This group included representatives of member companies, institutional partners, training institutes, research centres, and professional organisations. They identified the different issues, challenges, obstacles, and what should then be the priorities of the cluster. These reflections were supplemented by contributions from the of experts that is part of the cluster's governance structure.

Today, the Alsace ENERGIVIE Cluster has 139 members, including 110 companies, 15 research and training centres and eight professional bodies. They all have different motivations for participating in the cluster.

5.4 Detailed governance structures

The ENERGIVIE Cluster is governed within the frame of different legislations, directives and funding schemes from the National and European levels. The state is involved mainly through financing and provides financial incentives in return for regional action. The cluster is financed with funds from the French state, the Alsace region, European funds, the Greater Strasbourg agglomeration, and the Greater Mulhouse agglomeration.

Overall the cluster is self-governing on the basis of self-motivated action. The individual members both private and public play their own role, e.g. obtaining information, participating training, elaborating projects, etc. The overall governing structure of the Cluster is represented in the figure below:

Figure 6: Governance structure of the cluster



Source: ENERGIVIE presentation

The general assembly has one meeting per year in which it elects the administrators. It also validates the strategy, and approves the activity report and the accounts. The management board has six meetings annually and its main responsibility is to steer the cluster's activities.

At the strategic level there are three committees. The strategic orientation committee, which has one meeting annually, provides recommendations on the cluster's strategy. Its members are external experts that provide an insight into major innovations expected in the coming five to 10 years.

The finance committee meets six times a year. Its members are representatives of financiers from the cluster, the State and local authorities. The partnerships committee meets once a year. This is responsible for scientific and technical cooperation with other partner clusters.

At the operational level there are three committees. These have expert members and respectively study and label R&D projects and cluster members, as well as education and courses provided by its members. The latter two labelling committees and the strategic partnership committee were instituted in 2012.

Finally at the operational management level is the Board of Directors which meets every other month. This decision-making body runs the cluster's activities and provides its broad policy guidelines. It has 12 members, half of whom are from the world of business and half from academia. Daily management of the cluster is divided into:

- o project managers, whose goals are supporting, setting up, certifying and financing R&D projects; and
- o development managers, who visit the members are in charge of prospecting and broadening the knowledge of the member companies.

Each member of the team leads working groups to identify and facilitate projects. Of specific interest is the co-governance structure between the academic/ educational sector and the private sector in the Board of Directors. This mix of public and private stakeholders is present throughout the entire management structure of the cluster, manifesting the participatory approach. Figure 7 shows an example of this approach.

Figure 7: List of ENERGIVIE cluster administrators

Chairman	Monsieur Pierre-Étienne BINDSCHIEDLER	Chairman of SOPREMA
Vice-Chairman	Monsieur Jean-Marc JELTSCH	Vice-President of the University of Strasbourg
Treasurer	Monsieur Bernard SCHOTT	Technology and Partnership Manager of Hager Controls SAS
Secretary	Monsieur Philippe BACH	Directeur de l'École Nationale Supérieure d'Architecture de Strasbourg
	Monsieur Jean COPREAUX	Director of the EIFER Institute
	Monsieur Bertrand FRITSCH	Member of the Regional Council of the Alsace Association of Architects
	Monsieur Bruno FYOT	CEO of ÉS, Regional Representative of EDF
	Monsieur Dominique HENNERESSE	Chairman of the Management Board of SUPRA
	Monsieur Étienne LEROI	CEO of NSC Group
	Monsieur Frank MATHIS	Chairman of MATHIS S.A.
	Monsieur Marc RENNER	Director of the National Institute of Applied Sciences of Strasbourg (INSA)
	Monsieur Jean-Pierre TALAMONA	President of the French Building Federation Alsace
	Monsieur Emmanuel BALLOT	Manager of GEST'ENERGIE
	Monsieur Yvan STEYERT	Chairman and CEO of SOCOMEC
	Monsieur Eric BUBENDORFF	Chairman and CEO of BUBENDORFF

Source: ENERGIVIE website

In addition there is a strategic committee of external experts that helps to identify strategic objectives. The work following the identification of six identified priorities is characteristic for the functioning of the internal structures of the cluster: Each of these priorities was the topic of a set of three meetings in order to further define the roadmap. The roadmap was approved by the Board of Directors on 8 November 2010 and validated by the Interdepartmental Working Group of the French government in March 2011. It served as a basis for negotiation with the financiers of the ENERGIVIE Cluster and a three-year cluster performance contract was signed in October 2011.

Thirty Operational Groups were then defined to work on the operational parts of the strategic axes. They included members and partners of the cluster. Their objectives gave birth to a number of collaborative projects, R&D and other joint actions. In mid-2012 a first assessment of these operational groups analyzed their relevance and the pertinence of their reflections and actions.

Modes of governance at play within the ENERGIVIE Cluster

The most important modes of governance in the case of the Alsace are governance through enabling and governance by authority. The ENERGIVIE Programme and Cluster facilitate the regional actors and unite them towards improved energy efficiency in buildings. At the same time this is embedded in French national regulations, the region has to comply with French and international strategies related to environmental issues and energy and the cluster is one of France's competitiveness poles

Governance through enabling – the cluster organisation and the ENERGIVIE Programme facilitate the process of cooperation between state actors, private companies and research centres, in order to improve the energy efficiency of buildings in the region and generate valuable knowledge to be applied outside the region

Governance by authority - the cluster is embedded in French national law, complying with the state-region contract and is related to the strategies concerning energy and environmental objectives

In addition, governing by provision and self-governing are also at play. They are, however, not as important for the changes in governance as the modes of governance discussed above.

Governing by provision – the Programme and Cluster makes use and combines various forms of funding including ERDF. In particular the ENERGIVIE Programme provides incentives towards more energy efficient buildings.

Self-governing – the organisations of the programme and cluster act independently and on the basis of self-motivated action'.

6 Governance reflections – general overview

The approach of the Alsace region towards more energy efficient buildings entails a broad participatory approach. This evolved in the context of the CREA and has been visible in the development of the ENERGIVIE Programme, but the cooperation between actors from different governmental levels, private stakeholder and research institutes has been manifested with the recognition and establishment of the cluster in 2010.

Since its start in 2010, the ENERGIVIE Cluster has carried out 37 R&D projects. It obtained external funding for 23 R&D projects totalling € 130 million, of which € 50 million was public support. The projects included studies, workshops and common innovation projects on energy efficient buildings.

6.1 Change of organisational capacity

Through the various participatory processes and projects, the Programme and Cluster managed to improve organisational capacity in the region for energy and the possibility to pursue energy policy and regional economic development objectives at the same time.

In particular the Cluster unites multiple players, e.g. public, private and educational. It manages to bring together the capacities and skills of local players, and steer this to joint investment and research projects. This variety of stakeholders and their expectations is sometimes contradictory or conflicting, but the cluster is also characterised by its strong territorial roots, which gives it great strength in linking local governance with economic structures and policies.

The cluster's governance structure has brought three main advantages for organisational capacity in the region:

- **Bringing together different policy sectors.** Whereas before, policies and governance were more individual, or limited to a group, the cluster manages to bring them all together.
- **Promoting good practices in the region.** Communication and awareness raising activities promote good practises. Clear objectives allow participants to be result oriented, e.g. square meters of space heated with alternative energy, or a certain amount of research projects financed.
- **Increasing knowledge and capacities.** The cluster works with educational and training institutes to develop knowledge and to promote employees of the different regional players to invest in their capacities in energy efficiency, new construction methods, and renewables.

6.2 Main results of the governance changes

The Alsace ENERGIVIE Cluster brought together the individual objectives for energy efficiency, renewable energy and low energy consumption in buildings. The governance structure in Alsace has been better integrated since 2005. Private players in the regions, together with knowledge institutes, encourage homeowners to improve the energy efficiency of their buildings and use more renewable energy. The cluster provided a structure to many existing or new relationships and collaborations between businesses, the world of research, whether public or private, and educational institutes. The cluster and underlying governance structure use governing through enabling to achieve energy targets. Thus above all, the cluster integrated objectives to promote a coherent energy policy and strategy for the region. It allows resources to be better used and strengthens the results and outcomes.

6.3 Major obstacles

Conflicting policy objectives and the plans of individual players are serious obstacles to the work of the cluster. Whereas public players might have a strong focus on the legislative, regulatory, yet also socio-economic side in terms of climate change, air quality and energy use, private players also have to keep a strong view on the economic aspect of the cooperation; profitable business activity has to take place to provide work for the employees. Research also has a stronger focus on practice. Legislative planning, funding and related funding schedules might also conflict with investment, research and business cycles.

The main challenge in the organisation of the cluster lies in uniting the different objectives and interests of the diverse group of stakeholders.

Strong governance structures with clear decision structures help to manage this challenge. So far, the cluster managed to overcome this challenge by establishing, based on a broad consultation, a clear performance contract with the financiers, and a well-balanced governance structure to steer this challenge. In partnerships with all public, private,

research and educational partners, six priorities have been defined. A vision beyond the region was assured by the creation of a strategic committee of experts.

This allowed all regional and national planning instruments to be used and the best use made of existing and new funding programmes.

At the operational level, again, the different strategic axes are divided into operational actions and activities by mixed working groups. Joint policy developments are set. The research and training institutes as well as the private sector are evenly represented in the clusters' management board.

6.4 Durability

Despite the obstacles and the constant need to acquire funding, it is expected that the work will continue and improve over the next years.

It is clear that the cluster depends on its funding resources, yet it is expected that its success demonstrates its relevance. Looking at the wide diversity of actions and activities taking place, the increasing interest and activity in relation to energy efficiency, renewable energy and low energy building, and the large, ever-growing number of members and participants, a sustainable future for the Clusters seems assured.

In the summer of 2013, the new roadmap for the ENERGIVIE Cluster was finalised. The aim is to be a major player in low energy buildings at the European level by 2015 and among the 10 largest global networks of energy efficient buildings by 2018.

7 Lessons learned - successes and pitfalls

This section goes more in depth on the lessons to be learned from changed governance arrangements. These lessons will be discussed for three stages of the policy cycle – policy formulation, implementation and accountability as these represent the crucial policy stages of the ENERGIVIE Programme and Cluster. This gives a structured overview of the successes and pitfalls of the Alsace's approach of more integrated and participatory structure towards improved energy efficient buildings as it evolved over time.

Identification of specific regional needs evolve from national contextual policies. In this regard the identification of local and regional needs of the policy cycle is integrated to a large extent in the policy formulation. The national cluster concept and in particular the creation of the ENERGIVIE Cluster allowed companies, training centres and research units in the Alsace region to engage in a partnership process. Using their synergies, they could create innovative projects to boost the competitiveness of the French economy in general and the energy efficiency and renewable energy sector in the Alsace region. It brings together the aspects of a network and a territory. Initially the competitiveness clusters, like the Alsace ENERGIVIE cluster, are the result of a call for proposals from the State. Thus, they are the result of national public policy even if in the case of ENERGIVIE Cluster, a structure already existed. The strength of the ENERGIVIE Cluster is that it managed to combine public policy needs with a real understanding of the regional development needs of a group of players, including research, education and the private sector. For the **formulation** of policies, the lessons learned focus is on keeping the diverse partnership

alive and all partners on-board. Key lessons to be learned in this respect relate to needs and merits of:

- using mixed working groups with a balanced representation of different types of stakeholders,
- a well-balanced governance structure,
- a clear performance contract with the financiers, and
- a shared vision.

The main lessons learned regarding policy identification and formulation are the clearly defined regional needs and challenges; the involvement of external experts is in this sense of relevance to avoid a narrowed regional focus. Broad partnership should be used to define strategic objectives to foster integration of policies and 'points of view'.

KEY SUCCESS FACTOR: Co-governance structure of the cluster between the academic/educational sector and the private sector.

POSSIBLE PITFALLS: Result of public policy even if in the case of the ENERGIVIE cluster a structure already existed. There is a danger that as a consequence the identification of needs, potential and challenges will also be public policy-oriented.

When it comes to **implementation**, a key lesson is that it is essential to establish a central entity that is responsible for coordination and structuring and that has communication and awareness raising capacities, like the management team of the Cluster. Furthermore, the maintenance of several working groups and committees that meet regularly help to maintain the policy implementation cycle and realise the roadmap and action plan.

With regard to the implementation phase of the policy cycle lesson learned from the Alsace case are the creation of a clear decision structure to allow policies, roadmaps, projects etc. to be well embedded in the region; making use of multiple funds available at national and European level and use the competence of all actors and unite them to strengthen regional capacities.

KEY SUCCESS FACTOR: Establishment of a core management team with communication and awareness raising capacity.

POSSIBLE PITFALLS: Discontinuities in the meeting cycle of working groups and committees can challenge the momentum needed for successful implementation. Monitoring and evaluation of outcomes is done annually but could be done more continuously.

In terms of accountability, a national assessment was carried out in 2012 giving recommendations for the cluster's future. This study identified the main strengths and the focus that had to return in the new strategy. It was recognised that the cluster was well embedded in the region, and extensively made use of all the resources available. The structure of the team, the main players involved and their capacities in terms of cluster management, and coordination was coherent with the goal and objective of the cluster.

Some recommendations were provided that were also focal-points in the development of the 2013 Roadmap. These were to:

- a) develop a training component;
- b) build on the support tools for businesses / small and medium enterprises;

- c) give priority to economic intelligence actions, assistance, and Intellectual property rights;
- d) continue the collaborative efforts across the Rhine, in order to establish the cluster as a leading international centre'
- e) exploit more opportunities for pooling resources and inter-cluster collaboration with other players near Alsace;
- f) actively explore the opportunities of the Cluster's structuring projects.

Main lesson learned in terms of accountability is the use of national assessment of the cluster. This enables comparisons with other clusters in France. Furthermore, the use of roadmaps at the beginning of a new programming period entails reflection of the actions. It represents a continuing method, reviews the selected strategy and may define additional needs.

KEY SUCCESS FACTOR: monitoring at a broader scale; making use of national initiatives

POSSIBLE PITFALLS: no specific information of the policy effectiveness between the different stakeholders

8 References

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