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"Sustainable Territories 2030" Sustainable development foresight at territorial level

In a fast-evolving context – with the challenges of climate change, social cohesion, biodiversity and green growth, – foresight, considered at territorial level, driven primarily by the territorialisation principles of the Grenelle process and spatial planning (Regional Climate-Air-Energy Plans, Regional Ecological Coherence Plans), challenges existing beliefs and throws up new foresight approaches. The Ecology Ministry's (MEDDE) "Sustainable Territory 2030" programme has 3 objectives preparing territories for these long-term changes, sketch out a sustainable development vision for them and, through territorial foresight, make strategic recommendations to decision-makers.

Climate change and the exhaustion of non-renewable natural resources, the world's struggle to overcome the current economic crisis and public debt issues, concerns about the future of the young and not-so-young, are bringing considerable economic and social changes. Over the next 20 years, all of this will influence behaviour, business, forms development takes and public action at every territorial level.

Amongst the territories, major trends are emerging through so many uncertainties. It is the subject of considerable debate on strategy and policies required, how they are organised and how they will affect territories, against the backdrop of institutional reform and multi-level governance.

More particularly, the major challenges raised by Europe and France, brought to the fore by the "Environment Grenelle" initiative and think tanks on climate change and energy, urge the identification of the issues and long-term trends in France. These will help profile sustainable or non-sustainable visions for 20 years hence.

This is the objective of the "Sustainable Territory 2030" foresight approach of the MEDDE's Foresight Mission, exploring sustainable scenarios and action strategies. The hope is that these will lead the France towards a status of "sustainable territory" by 2030.

The MEDDTL foresight mission's "Sustainable Territory 2030" foresight programme

Initiated in 2010, further to previous foresight work on spatial planning, the "Sustainable Territory 2030" approach is a global exercise in territorial foresight, addressing all the economic, social, ecological, climate, energy and institutional angles. In particular, it aims to co-construct sustainable development scenarios for territories for 2030.

The programme comprises six reflection and action phases, drawn up under the auspices of a foresight group made up of technology assessment specialists, researchers, local authorities, bodies and institutions: in all, 30 or so actors from the field.

The first three phases involve debating the very notion of sustainable development applied to territories; identifying territories' challenges and major trends going forward towards 2030; and developing exploratory scenarios that are highly dependent on a shifting global geopolitical context.

Programme milestones

2010

- ➤ "Territories & Sustainable Development" seminar
- ➤ 10 foresight workshops

2011

- > Major challenges and trends
- > Development of contextual scenarios
- ➤ "CréActive Place" Symposium in Deauville

2012

- > Current and alternative scenari
- > Territorialisation of scenari
- ➤ Strategic recommendations

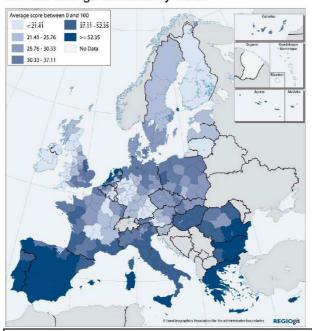
The next three stages, which bring a more strategic and practical angle to the scenarios, involve quantification of scenarios and their impact on the country in sustainability terms; the transposition of scenarios to experimental territories (territorialisation of scenarios); and finally, formulating strategic recommendations for decision-makers.

Preparing territories for these huge changes

the problem of sustainable Addressina development for territories is initially about dovetailing market issues - resulting globalisation and the inherent flows considerable quantities of material and energies and local resource protection and potential optimisation approaches. This concerns natural, heritage and resources, and goes beyond the traditional trade-off between "spatial planning" "environmental concerns". Elements of governance are of course at the heart of the debate at the different geopolitical levels - global, European and national.

The objective in a second phase would be to attempt to better organise territories so they can anticipate, plan and react to economic and climate change (cf: Fig. 1) under optimal conditions of safety for people and assets, and with a greater awareness and acceptance on the part of populations. It is for this reason the question of vulnerabilities and impacts that these changes will have on our territories is a major starting point for the "Sustainable Territory 2030" reflection process.

Climate change vulnerability index



NB: index based on the demographic development of populations affected by floods, and that of coastal zones at altitudes below 5 meters, concerning the risk of drought, vulnerability of agriculture, fishing and tourism, and taking temperature changes and rainfall changes into account.

The exercise has already spotlighted trends and challenges regarding the sustainability territories.

In terms of underlying trends, the realities of today's macroeconomic context (slow growth, the weight of debt) will structure all economic policies over the coming years. It will combine with an energy context characterised by price volatility and rarefaction of raw materials, imposing hard investment choices.

On the environment side, France will not escape European trends towards greater climatic fluctuations with real consequences in terms of ecosystems and agrosystems - which will have to both adapt and migrate, even by 2030 - and increased climate risks for coastlines (storms, submersion, erosion, sand silting).

From a societal point of view, the fundamental changes of recent decades will continue. "Everything growing at once": population, fertility rate, birth rate, aging, number of households, decohabitation, singleparent families and the draw of the sun and coastal resorts (4 million more people on the French coast by

Although polarisation around a number of major metropolises will continue, continuing the increasing ranking of towns (metropolises, medium-sized towns, small towns), demographic and economic rebalancing of territories will operate in favour of the "fertile crescent" - the western France / Southwest / Mediterranean / Rhône-Alpes. But this will be accompanied by an increase in inequalities and disparities between territories and within those territories. And individuals will increasingly play a role in sustainably changing the way we live, rediscovering values of sobriety and responsibility. This process is already under way.

On the other hand, some of the uncertainties observed today are linked to these major trends. Thus for climate change, our capacity to adapt to major, hitherto unseen, shifts in ecological systems, and the scale and effects of biotic migration (insects, diseases, etc.), but also socially, the implementation of factor 4 is producing responsible behaviour guided to a greater or lesser extent by new and more restrictive European and national legislation.

For others, and in particular in economic field, they could be tackled by shifting from our current system. What will our new primary, secondary, tertiary productive - and by extension, systems territorial systems be, in order to promote growth that respects sustainable development? How will the question of public and social transfers be addressed in a context of rapid, enforced resorption of public debt in Europe? What role should be given to public assets and the public interest in a competitive marketplace?

demographic factors, lifestyles institutional factors will of course influence territorial public policies between now and 2030. For instance: based on the INSEE forecast of a 4% increase in under20s by 2040, what will the national and local development implications be for the younger generation, if difficulties like access to employment (declassification), housing (living longer in the family home), health (health pauperisation), further jeopardised their integration and role in our evolving society?

How then can the new phenomena of social regulations such as the current resurgence of local citizenship and the development of social networks be taken into account?

Exploring long-term visions for evolving territories

The beginning of the 2010s is the starting point for these scenari, giving us a marker to make subsequent interpretation easier. The foresight group has accordingly considered that the exploratory contextual scenario based on this period represents a turning point, a switch of the whole of our economic and societal system against a background of crises and institutional, political citizenship reconfigurations, offering a general framing of foresight study to a 20-year timeline. Consequently, current and alternative scenarios start from the general exogenous framing - positively or negatively influencing the territory for a possible end to the crisis - and territorial determinates describing the form of "territorial configurations".

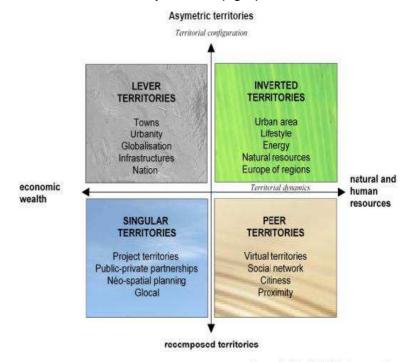
These "territorial configurations" correspond in reality to characteristics that are specific to each territory, which can be broken down according to suitable spatial scales, governance, citizen sensitivity (aspirations to an agreeable lifestyle), economic and social forms, natural and land resources, and public finance.

Combinations of possible outcomes (cf. Fig. 3, p4), give rise to **two families of scenarios, "asymmetric territories" and "recomposed territories"** (cf. Fig. 2), and both are dependent upon the level of wealth produced or already present in the territories (economic, natural and human wealth).

For the first family, the "lever territories" will require a cleaning up of public finances and economic and social regulations, assured by multi-scale territorial governance in order to return to growth. The territorial armature will be restructured around metropolises and regional infrastructures, and actors will continue their policies of innovation and international attractiveness (competitiveness clusters, etc..). Metropolitan areas will get bigger, and agriculture will remain dual, with negative impacts on the environment. With this scenario, France in 2030 will comprise territories that meet the globalisation

challenge, and others that fail. This could also be the trend scenario.

Four sustainable territory scenarios (Fig. 2):



Source: Nathalie Etahiri, Mission prospective

"Inverted territories" have their roots in a guest for a sustainable lifestyle beyond urban limits, in a context of growing social tensions. The quality of the environment will decline, and we will see an increase in nuisances. Households will evolve towards a desire for tranquillity, nature and peace that only rural life will allow. We will see a major urban exodus and relocation to the countryside, made possible by the growth in information and communications technologies, remote working and consumption models that prone short distribution circuits. These territories, previously seen as areas serving urban regions, will develop their own wealth, i.e., their energy potential (biomass, wind farms, etc.) and their green and blue resources, which they will control and develop sustainably. Nevertheless, conflicts of land and property use will increase, which will require a root-and-branch revamp of forms of governance and the earmarking of high-potential areas via a return to integrated planning.

The two other scenarios tend to prone territorial resilience. "Singular territories" will attempt to overcome the impacts of nature through intelligent cooperation between actors. The recommended form is "project mode", implicating the different actors according to their investment priorities. Thus, external costs will be internalised, encouraging territories to develop a circular economy at a relevant level, developing new forms of taxation and local pricing systems, making the territory less dependent upon exogenous influences. Public-private partnerships will prevail, whether for reasons of competitiveness or to protect each territory's public assets. In this scenario, although contributions and redistribution are more

equitable than in a single price system, the lack of coordination and heterogeneous nature of services may be non-negligible risks for assets and populations.

Finally, "peer territories" express the transformation under way between terroirs and virtual territories, to the extent that another form of territory seems to be emerging, drawing its strength from networks of affinities and various forms of territorial capital, in particular cultural, economic and environmental heritage. Governments and local authorities abandoning numerous missions will encourage households to develop highly creative forms of communication, exchange and services primarily to meet their own needs. These might include exchange communities, housing cooperatives and residents' communities, interacting on secondary markets using alternative currencies. Thus, the mobilisation of networks will not only produce social networks but also alliances between companies and between local authorities, working together to find the best solutions for their employees or populations.

And this is the domain of **virtual territories**, with alliances going beyond structures of proximity. Concerning energy, for example: the Energy-Cities Association brings together cities and regions from different European countries around the Covenant of Mayors to share energy efficiency and governance ideas. Innovation, imagination, creativity and knowledge are the leitmotiv behind this scenario.

Facilitating territorial buy-in through strategic foresight

But foresight reflection, if anchored in the key criteria of the globalised economy, demographics, urbanisation and spatial planning, is clearly an approach that really takes environmental issues on board.

UNESCO, the OECD and UNEP all emphasise the need to "invent new styles of development, save the planet, protect biodiversity", and people realize the extent to which complex themes such as water and biodiversity contribute to guaranteeing such a fragile balance between resources and consumption for our towns, our urban regions and our territories. The notion of ecosystem here is of particular interest, because the complexity of exchanges between raw materials, natural resources and various forms of capital (financial, human, etc.) is a key feature in the territories, much more than it is elsewhere. This means we have to consider interactions between the various economic, environmental and social mechanisms in the most appropriate way for a given local context.

Working to the same deadlines, the Foresight Mission's two other programmes, "Aqua 2030" and "Biodiversity 2030", confirm this vision of adapting territories to the conflicting uses of water and land.

Kev factors	Possibilities
Societal	Hyper-individualism (requlated by the market)
	Citizen renewal (Civil society, responsibilities)
	Communitarism (Culturally segmented society)
	Multiple social fractures)
Social	Mass pauperization/degradation
	Intergenerational crises
	Redistributive solidarities
	Decline in redistributive approaches
Economic	All the tertiary sector in the world economy
	All the tertiary sector in the residential economy
	Technological reindustrialization
	Heritage economy (agriculture, tourism, etc.)
Green economy	General greening of the economy (percolation)
	Coexistence of green/non-green sectors
	Marginal green economy
	Green niches (bio. renewables. etc.)
Environment Energy Resources	General degradation of the ecosystem (biodiversity, water, etc.)
	New ecological balances (resilience)
	New energy potential (renewables, raw materials, etc.)
	Heterogeneity of ecosystemic trajectories
Land	Low density recovery
	Increasing heterogeneity of land assets
	Overall verification of urbanisable and agricultural land
	Concentration of decision-making centres and residential locations
Taxation Public finance	Sudden adiustment in public finances
	Progressive cleaning up of public finances
	Further depletion of public finances
Governance	New devolution phase
	Control taken by the State
	European and federalism drive
	Inter-territorial networks

Source: Geystel & Stratys, 2011.

More practically speaking, the territorial foresight experiment "Aqua 2030: focus on Languedoc-Roussillon", piloted by Languedoc-Roussillon's Environment, Spatial Planning and Housing State Agency (DREAL), led in parallel to the national programme, contributes to the debate about the obstacles and levers linked to long-term hypotheses, so helping to make natural aquatic environment scenarios much more effective.

The scenarios, briefly outlined in this publication, are soon to be consolidated and quantified, with a view to understanding their sustainability. They will then be tested on experimental, regional territories chosen for their congruence with the characteristics of one or other of the scenarios, which will allow us to formulate public policy hypotheses, driven by territorial foresight. This approach seeks to construct a completely new approach that highlights the role of "strategic foresight" to achieve an optimal fit with short and medium-term public policies.

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