


A NEW Cerema for a world IN UPHEAVAL





**THE HEALTH CRISIS AND
LOCKDOWNS HAVE ACCELERATED
THE REALISATION
THAT OUR SOCIETY IS VULNERABLE.
THEY ARE IN RESONANCE WITH
THE CRISES THAT CLIMATE CHANGE
IS CAUSING TODAY AND WILL
CONTINUE TO CAUSE TOMORROW.**

Because tomorrow's regions are being imagined today, more than ever Cerema stands as the central link in the policy enabling regions to adapt to climate change. This is a necessary and virtuous transformation for the sake of people who live in these regions.

Cerema is transforming itself by capitalising on its strengths, to make them available to regions who have adopted a resilient approach. It is in a better position to tackle the grass-roots issues faced by local authorities and planners who work in these regions every day, and takes a clear stance as a

TRUSTED THIRD PARTY COMMITTED OVER THE LONG TERM

to increasing effectiveness when confronting challenges today and tomorrow. This modern vision is led by top management, well aware of the environmental challenges on the planetary scale, and also on the most basic local scale. This transformation also brings with it a new visual identity and coincides with the arrival of a new president, Marie-Claude Jarrot, a politician anchored in reality for whom regional resilience is a concrete and vital issue.

In particular, concerning mobility, adaptation of buildings to climate change, redevelopment of indus-

trial wastelands and management of coastal risks, **Cerema supports regions to help them manage the unavoidable and avoid the unmanageable.**

Cerema is an expert body specialising in issues to do with the environment, infrastructure, climate and energy. It is participating actively in the Recovery Plan launched by the government, supporting regions at every stage of their transition towards a future that they fully control.

In order to clarify its action, Cerema is active in six major areas of expertise, all linked to climate change adaptation. It offers tailored solutions to local authorities, contracting authorities, businesses and vectors of public policies. Thanks to its cross-sectoral "end-to-end" approach it is a key partner for all these regional entities. **Its new Carnot Clim'adapt institute strengthens the support Cerema provides to local authorities engaged in a transition to a resource-efficient, carbon-free, environment-friendly economy.**

Today Cerema is preparing its strategic projects and its Objectives and performance contract for the next ten years. It is also opening up to local economic players and innovation vectors through the CeremaLab mechanism.

To be more efficient, responsive and provide financial support that is more easily available to local authorities, it is considering setting up an organisation controlled jointly by the government and the local authorities.

As a partner for the regions, more than ever Cerema is striving to adapt to their needs in order to support them in their transition.



ADAPTATION TO CLIMATE CHANGE: THE LODESTAR FOR CEREMA'S ACTIVITIES

**AS THE HEIR TO VISIONARY
PLANNERS, CEREMA IS THE PUBLIC
SECTOR EXPERT ORGANISATION
CAPABLE OF OPENING UP
HORIZONS FOR OUR REGIONS**

Cerema and its experts benefit from the legacy of great engineers and visionary planners. Cerema's task today is to rethink and plan for France, enabling the vision and skills to progress in order to meet the challenge of climate change. It has given itself the means to champion the values of this legacy and adapt it to the issues of the 21st century.

**THOUGH ANCHORED IN HISTORY,
CEREMA IS LOOKING
TO THE FUTURE**

Cerema is anchored in the history of development, but is adapting to

its times and to changes in society, the environment and technology. Its research and development teams cover every area in which the organisation takes action. On the strength of its diverse areas of expertise, Cerema can offer specific or general support to satisfy the exact need. In addition to its internal resources, the organisation works with a network of leading scientific partners.

From the first Roman road to our era, the history of French land use planning is inextricably linked to the development of trade and technical progress. From Colbert, who created the profession of civil engineering commissioner, to the prefect Haussmann, who laid the foundations for modern ur-

ban planning, France underwent a complete transformation of its physiognomy. The industrial revolution permanently modified our way of life: frugality was no longer inevitable. Nobody could have imagined that a century later this frugality would become a necessity in order for humanity to survive.

The areas of expertise of the different planning organisations such as Ponts et Chaussées, CERTU⁽¹⁾ and CETE⁽²⁾ were merged together within Cerema, consolidating the organisation's expertise and skills in order to achieve a common goal: support regions on a daily basis and also look to the challenges of the future.

(1) Certu Centre for studies on networks, transport, urban planning and public construction

(2) Centres for technical equipment studies

AN OVERALL APPROACH TO LAND USE PLANNING FOR A RESILIENT FUTURE

France in 2015, today the challenge for public policies is to

RETHINK THE FUTURE

by devising an overall project that incorporates the challenges of housing, urban development, mobility, work, leisure into the central ambition of ecological transition, protection of biodiversity and adaptation to climate change. Thanks to its unique systemic approach, Cerema is a facilitator for public and private players to take action, participating in a process of ecological transition.

Cerema has developed an original systemic approach to support regions faced with the challenge of climate change, for the benefit of inhabitants today and tomorrow. Its areas of expertise are combined to propose solutions that take account of issues to do with land use planning and development, the morphology and insulation of buildings, mobility, transport and resilience. Cerema tackles complex issues in a cross-sectoral manner in order to find integrated solutions for the challenges of regions tomorrow.

Rising temperatures, urban heat zones, rise in sea level, forest fires, exposure of population to climate risks, etc.

Local authorities are confronted by climate change which raises questions to do with health and public safety, social justice and also affects the functioning of economic activities and local public services. These phenomena are already having direct impacts. They are clearly complex, and systemic. Yet the necessary skills are not available internally to all local authorities, in terms of expertise and engineering. To meet their needs, Cerema therefore offers an integrated approach on the scale of a region, and comprehensive subject-based approaches. It provides "end-to-end" solutions, starting with awareness and consideration of the challenges; leading on to choosing the most appropriate solutions by carrying out a diagnosis and implementing action plans.

The aim of Cerema's work is to enlighten the choices made by policy makers and to support them in the implementation of their projects for the purposes of development, cohesion and regional balance.

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During the health crisis local authorities have proven their capacity to adapt. Now **they must bounce back and imagine** the regions and daily life with the people who live, work and travel in these territories.

The challenge of the future for our regions will be won by mobilising all their players, by our capacity to imagine and support innovative solutions, and also thanks to the determination of public authorities to support them in their sustainable projects.

It will be vital to pool expertise in engineering, from local authorities, and from the Government by means of its operators. This is the foundation for common and shared regional intelligence which is drawing the map of tomorrow's regions. ”



Pascal BERTEAUD

Director General of Cerema



A NEW STRUCTURE FOR OUR SERVICE OFFER TO BETTER MEET THE NEEDS OF OUR PARTNERS

CEREMA IS RESTRUCTURING ITS SERVICE OFFER TO PROVIDE MORE EFFICIENT SUPPORT IN THE FIELD TO ITS PUBLIC AND PRIVATE SECTOR PARTNERS IN THEIR TRANSITION.

It is adjusting its activities in the light of adaptation to climate change which has become the cornerstone of its action. To make its service offer clearer, it is now organised in themes linked to adaptation to climate change. Climate change is modifying the physiognomy of the regions. It is creating new difficulties affecting health, safety, social justice and also the functioning of economic activities

and local public services that the territories are not always able to manage and anticipate alone. Cerema supports them throughout their work.

LEVERAGING THE UNIQUE ASSET OF CEREMA'S CROSS-SECTORAL APPROACH

In order to clarify its action today Cerema is asserting its expertise in **6 major skill areas.**

ITS OBJECTIVE :

To provide **TAILORED SOLUTIONS** not only for local authorities but also for contracting authorities, companies and vectors of public policies.

**Expertise
& territorial
engineering**



Integrate climate change as early as possible into territorial strategies

The key to enabling territories to structure their development in order to find solutions for the ecological and energy transition and to adapt to climate change is to develop a territorial strategy. On this subject, the answers are above all local. They must be adapted to specific needs and contexts.

The first tools are strategic documents making it possible to take account of all the issues (mobility, risks, planning, environment, etc.) and co-build a true strategy.



Make buildings greener and smarter

Buildings represent 30% of final energy consumption and 20% of worldwide emissions. Today, local authorities who are managing building stock are seeking to reduce energy consumption, and to minimise maintenance costs. Cerema is working closely with territories on

both of these subjects, not only to disseminate knowledge but also to provide operational support.

Promoting sustainable mobility

In a context of climate change, the modification of mobility raises many questions: autonomous, sustainable mobility in regions with low population density located between urban centres. There is also the question of technological modifications, digital, etc. These are all daily concerns for local authorities. In addition, the challenges of adaptation are not

the same in mountainous areas, on the coast, in cities, in rural areas, or in the North and South of France. Cerema was a very active participant in the preparatory work leading to the creation of the French framework law on mobility (LOM), and is supporting regions as they adapt the different mobility modes.



Adapting infrastructure to climate change

Transport infrastructure is dimensioned according to climate parameters to minimise its impact. These parameters are changing as the climate changes despite our efforts to limit greenhouse gas emissions. The short and medium-term vulnerabilities of infrastructure are therefore changing too: road surfaces crack because of freeze/thaw cycles, roads and engineering structures are destroyed by flash floods, journey times are made longer due to snow and risks are heightened for pedestrians and cyclists in particular. If transport networks are paralysed this has an impact on the social and economic life of the region.

By adapting networks to today's contingencies, we can anticipate crises and enable users to travel in good conditions as quickly as possible. Is it better to reinforce and

protect a road that is vulnerable to extreme events that could become more frequent, or to warn users and provide alternative routes? Is it preferable to reinforce an infrastructure that could be impacted in the future by more serious events than in the past, or should we monitor the worsening of its condition and reinforce in a few years time instead? Cerema has developed a specific methodology to support mobility managers when they define and set up their hierarchy of adaptation strategies impacting maintenance and investment budgets, quality of service, user travel and safety and more generally the economic health of regions.



Environment & risk

Prevent and face up to natural risks

In 2019, France had to deal with many natural disasters, representing a considerable financial burden. Drought affected a third of the country, representing 400 million euros. After that there was flooding in Occitanie, "Cévenol" events in the South-East, followed by flash floods in the South-West, not forgetting an earthquake at Le Teil. In all this represented more than 700 million euros (data from central reinsurance fund - CCR).

Due to climate change, regions are increasingly threatened by natural risks such as inland and coastal flooding, erosion, and ground movements. Cerema specialises in knowledge about natural risks

and how to manage them. It produces tools and methods enabling the regions to anticipate and take decisions in order to prevent different risks, which makes it possible to reduce costs.

Cerema also works with the Government to define public policies and supports local authorities in acquiring knowledge about the different risks and how to manage them

Understand, anticipate and support the development of coastal regions

France has the second largest maritime zone in the world. It boasts an extremely precious natural heritage which must be protected against the impacts of climate change. Thanks to Cerema's maritime and coastal knowledge, its expertise in coastal maritime phenomena combined with its work observing shifts in the coastline (boundary between the sea and land), it is able to support coastal communities in their strategy for planning and integrated management of their coast, taking account of their own specificities in order to respond to adaptation challenges, faced with erosion and coastal flooding risks in particular. To reinforce protection of the coastal and marine environment and development of the maritime economy, Cerema supports local authority and state ports in their ecological transition. Thanks to port management and modernisation programmes it works closely with operators to help adapt

their port assets to new types of use, and also to limit the impact of dredging and disposal of pollutants at sea. Through its studies and research it contributes to the greening of ports and waterway transport, and helps to reduce their carbon impact. Its unique maritime safety expertise helps to limit conflicts of use and major accidents harmful to the environment and the maritime economy. As a resource centre, Cerema capitalises on its knowledge, disseminates methods and tools to the regions, and contributes to training of maritime and coastal organisations, faced with the challenges of future transformations.

Sea & coast

CLIM'ADAPT, FIRST CARNOT INSTITUTE DEDICATED SOLELY TO THE CLIMAT



Cerema is a leading research player, and in February 2020 it was awarded the Carnot institute label with the Clim'adapt institute project. It aims to help enterprises and local authorities meet the needs of regions to enable them to transition to a resource-efficient, carbon-free and environment-friendly economy. Clim'adapt will lead to the development of partnership projects meeting the current and

future needs of regions. The research and development projects will focus on design of infrastructure and buildings, maintenance, integration into the regions, adaptation to new mobility systems and climate challenges, etc. **This is the first time the label has been awarded to a project that concerns adaptation to climate change.**

MARIE-CLAUDE JARROT,

a new chair of the board of directors to embody and convey the message from tomorrow's Cerema

On 3 December 2020, the Board of Directors of Cerema elected Marie-Claude Jarrot President of the organisation's Board of Directors. Marie-Claude Jarrot has been Mayor of Montceau-les-Mines since 2014. She is also the president of the Association of Saône- et-Loire Mayors, regional councillor and representative of the Association of French Mayors at the coordinating body of regional employers.

As the elected representative of a region going through a period of post-industrial transformation and renewal, Marie-Claude Jarrot is a politician anchored in the local reality, especially on the question of industrial wastelands. She will give a new boost to the organisation by embodying the need for regions looking to face up to the future to be resilient.

Under the leadership of Marie-Claude Jarrot, it will be the task of the Board of Directors to guide the organisation through this new stage in its development.

Calling for more efficiency and visibility, aligned with the expectations of customers and partners, she is committed to increasing the influence of Cerema to serve the

“ The local authorities have shown their capacity for adaptation and resilience during the Covid-19 health crisis. Cerema supports them, advises them, facilitates the work of those who sustain the regions by helping them to succeed and **face up to the challenges that arise, especially the ecological and climate challenges.** **”**



Marie-Claude JARROT

President of the Board of Directors



INTERNAL OPTIMISATION TO INCREASE EFFICIENCY AND RESPONSIVENES

This transformation represents a strategic objective for Cerema. The organisation is thereby reasserting its identity as a public body embodying

MISSIONS, VALUES, and a spirit OF PUBLIC SERVICE

Cerema reasserts its unity. Cerema brings together multiple areas of expertise, knowledge and skills within a single common organisation. To increase agility and efficiency, a new organisational structure in preparation since 2018 was implemented in January 2021. It introduces a new relationship between the regional departments and technical departments.



CEREMA, ACTIVELY IMPLEMENTING THE 2021-2022 RECOVERY PLAN

Cerema is actively participating in the Recovery Plan launched in September 2020. Endowed with a budget of 100 billion euros including 40 billion euros from European coffers, this major project of the decade is relying on the regions to play an important role.

“We must rearm our regions, we must invest in our regions, we must rely on our regions. This is the purpose of this recovery.”

asserted Emmanuel Macron when he launched the Recovery Plan.

In matters to do with energy, mobility, digital, the environment and planning, Cerema will support the regions participating in this Recovery Plan.

The projects developed within the framework of the “France Relance” recovery plan will enable regions to be stronger when dealing with the challenges that will arise, in particular the climate modifications that are emerging. There are many different projects in the Recovery Plan: energy renovation of buildings, risk prevention and strengthening of resilience,

recycling of wastelands, decarbonisation of industry, development of the circular economy, etc. As a public sector operator, Cerema will play a major role in the implementation of several recovery plan projects. Below are some of the flagship projects that will be part of the Recovery Plan.

FRANCE VUE-SUR-MER:

accelerate the opening up of coastal paths and promote them

The government has chosen Cerema to lead the "France Vue-sur-Mer" coastal paths operation, as part of the "France Relance" recovery plan. One of the key success factors is the partnership with public contracting authorities, first and foremost amongst which are local authorities. The main objectives to achieve are to open up new freely accessible portions, guarantee continuity of the routes, find alternatives for those destroyed by erosion, promote them and make them attractive as well as their surroundings in the public interest, so that citizens collectively adhere to the project.

Led by the Ministry for the Sea, the Ministry for the Ecological Transition and the Ministry for Territorial Cohesion and Relations with Local Authorities, this operation will be implemented over a period of two years with a ring-fenced budget of 5 million euros, and will be delegated to Cerema for appraisal of the projects.

On the strength of its expertise and experience in these environments on the Land/Sea border, Cerema will be responsible for supporting the regions involved in this programme covering the whole of the French coast.

NATIONAL BRIDGES PROGRAMME:

support local authorities on the road to improving knowledge and maintenance of bridges

Transport networks provide access to jobs, education, healthcare and rescue services, culture, goods transport, social inclusion, etc. and guarantee the economic stability of a region while fulfilling social and environmental needs as well. If these networks fail, the region becomes paralysed, and inhabitants' daily lives are disrupted. The smallest municipalities are particularly powerless in terms of knowledge about their engineering works and maintenance procedures.

and finally to protect and enhance all of these assets..

The national Bridges programme was launched within the framework of the "France Relance" recovery plan in December 2020. It is led by Cerema as part of the scheme providing engineering support put in place by the national territorial cohesion agency (ANCT).

It includes a programme to make an inventory of bridges and assess them, available to 28,000 municipalities eligible on the basis of fiscal potential. They will benefit free of charge from an inventory of their assets, and an initial diagnosis of bridges in a state of disrepair.

THE 90,000 TO 100,000 MUNICIPAL BRIDGES,

estimated to have a value between 30 and 40 billion euros, represent an important part of the national economic assets.

The ageing of these assets, accelerated by climate change, means that we must approach their management and maintenance in a different way, to ensure safety for users, to maintain each bridge in operational condition, to guarantee the required level of service on a particular route,

It is backed up by an innovation support scheme, launching a call for projects entitled "Connected bridges". The latest innovations in instrumentation offer municipalities new possibilities, as they are more practical, deliver better performance and are less expensive. The aim of this scheme is to support research centres and companies working to create innovative solutions for monitoring and managing bridges using instrumentation.

FRICHES:

guide local authorities in their reversion

This summer, Cerema developed an initial version of an online tool for the ministry responsible for the environment, called

CARTOFRICHES, to map and create an identity sheet for wastelands in mainland France.

More than 7,000 of these wastelands have already been listed based on the data in the BASOL national inventory and local inventories. Data is also added to the database by local authorities such as the Lorraine public land management agency (EPF Lorraine) whose data is currently being incorporated. The application is currently a beta version, and will be gradually enhanced thanks to user feedback.

In parallel to this action, at the end of September 2020 the government launched the UrbanVitaliz start-up, targeting in particular wasteland reversion operations that are "off the map", to support local authorities in the zones where demand is low.

The tool will guide local authorities through the procedure for launching wasteland reversion projects:

supporting the project leader by clarifying the steps in the procedure, and by suggesting useful contacts and tools as well as possibilities for financing, depending on the context and the intended final purpose of the site.

The UrbanVitaliz service is currently being developed in three pilot regions: Aveyron, Somme and Côtes-d'Armor.

This project is part and parcel of the Recovery Plan. To achieve the objective of **Zero Net Artificialization** set by the public authorities, renewal of commercial, industrial and railway wastelands in particular appears to be a useful lever. By facilitating the identification of sites and the launching of projects respectively, the Cartofriches and UrbanVitaliz tools aim to encourage local authorities to re-use these wastelands.

STRENGTHEN THE FOUNDING PILLAR OF CEREMA:

Regional anchoring and proximity

Cerema is a unique organisation because of its territorial coverage with its offices located throughout the national territory. As a result it is able to offer solutions adapted to each type of territory, to geographical, topographical, climatic and even social specificities.

Because it is divided into regional departments, Cerema is capable of carrying out precise assessments and interventions that are very instructive and can be extrapolated to other


regions. This capitalisation on feedback represents real added value. The creation of a delegation dedicated to Occitanie will complete Cerema's territorial coverage and strengthen its capacity for action in the region.

The physical proximity of the departments located in each region is also a guarantee of operational proximity. This commitment to provide the same level of service to all is an integral part of Cerema's DNA. It is inseparable from its public service mission. Cerema asserts itself therefore to be a

TRUSTED THIRD PARTY

acting in the general interest for the immediate benefit of specific regional interests





IN 2021, CEREMA
WILL TAKE CONCRETE
STEPS TO INCREASE
ITS PRESENCE
IN OVERSEAS TERRITORIES.

Household mobility survey in Guadeloupe in 2020, ecological neighbourhood appraisal in Guyana, technical assistance for national highways in Mayotte, technical assistance for road safety in Reunion Island. These different types of intervention carried out recently by Cerema in the overseas territories will increase over the next few months. **Cerema should be opening permanent offices in Guyana, Reunion Island and Mayotte in 2021, and will create a delegated department dedicated to Overseas Territories.**

Cerema's openness and knowledge of all the territories, combined with unparalleled multidisciplinary expertise, enable it to deploy a cross-sectoral approach that is unique in France.

— INTERNATIONAL ACTIVITIES —

Beyond French borders, Cerema is capable of

DEPLOYING ITS EXPERTS IN EUROPE AND AROUND THE WORLD.

In every country it is a preferred partner for institutions and companies to implement sustainable development of regions for the sake of populations' well-being.

For instance, in March 2020, Cerema and the Montreal Metropolitan Community signed a cooperation agreement to characterise flooding risk. Cerema provided its expertise in analysing the risk and the region's vulnerabilities, in order to develop a methodology applicable to the whole of the Montreal metropolis.

A GRAPHIC IDENTITY CHANGING TO BECOME MORE LEGIBLE FOR OUR PARTNERS



The purpose of the new graphic identity is to renew Cerema's image and reveal its central position in the French context when it comes to the environment, development, and support for transitions, particularly in the areas of energy and ecology.

To go with this change of direction, Cerema has decided to adopt a new redesigned logo. Via the hexagonal shape, Cerema formally asserts that it is focused on the regions. Via the multi-coloured intertwined branches, **Cerema underlines its systemic approach and its different areas of expertise, each of which is represented by one of five colours** (orange for mobility, dark green for the environment and risks, yellow for buildings, blue for the sea and coast,

light green for transport infrastructure.) A sixth colour, dark blue, is also present, completing the graphic identity. It represents regional expertise and engineering, a field of activity cutting across the five others. This new logo is accompanied by a new slogan that is of its time and looks to the future:

“Tomorrow's climate and regions.”

It clearly expresses the organisation's intention to work with the regions to face up to the challenge of adapting to climate change.

INTEGRATION OF THE STATE SYMBOL TO REINFORCE CEREMA'S IDENTIFY AS A PUBLIC SECTOR OPERATOR

This logo is combined with the Marianne logo associated with all public sector organisations in France. This logo gives visibility to all the actions supported by public authorities.

With the State symbol next to its logo Cerema fully reasserts its role

AS A PUBLIC SECTOR OPERATOR

This will make Cerema's position clearer for all of our partners whether they are in the public or private sector.

Eventually, all public sector bodies will include the State symbol in their visual identity. This homogenisation of graphic communication **will fully anchor Cerema in its role as an active participant in public sector action.**



**RÉPUBLIQUE
FRANÇAISE**

*Liberté
Égalité
Fraternité*



A PUBLIC SECTOR OPERATOR SUPPORTING THE TRANSFORMATION OF PUBLIC SECTOR ACTION

Today Cerema is preparing its strategic project for 2021-2024 and its Objectives and Performance Contract, enabling the organisation to plan for how to deal with the challenges of the future, and in particular

CLIMATE CHANGE

The aim is give the actions of the organisation a clear direction and purpose for the next 5 years.

This contract with the Government will formally set out for the next 4 years the new orientations and actions to undertake, and will define the units of measurement necessary to manage them.

In this way Cerema takes up a position as an essential player in public sector engineering for the next 10 to 20 years.

CHANGES TO THE LEGAL AND COMMERCIAL CONTEXT

For example a modification of Cerema's status, moving towards a quasi state-controlled system, should simplify public procurement procedures, while providing greater security for orders placed by local authorities, enabling Cerema to work in closer collaboration with the regions.

This will provide greater security for interventions, and will also allow shared governance between the local authorities and the Government, as well as facilitating access to financial support.



OPEN UP TO LOCAL ECONOMIC PLAYERS AND VECTORS OF INNOVATION: THE CEREMALAB SOLUTION



CeremaLab is a branch of Cerema dedicated to innovative SMEs and to start-ups, to accelerate their projects and increase their impact on regions in terms of innovation as well as jobs

Cerema makes its expertise, research and development capabilities, technological platforms and experimentation capacities available to start-ups, innovative VSEs and SMEs who want to develop products and

services linked to Cerema's areas of activity. Depending on their needs, CeremaLab gives them technical expertise, assistance with technological development, availability of scientific equipment, and can even offer to co-develop an innovation with them.

CeremaLab is part of the network of Greentech incubators run

by the Ministry for Ecological Transition which enables young companies, incubators and innovative ecosystems to emerge and develop, creating new products and services for green and blue growth. The objectives of the programme are to develop the green growth community, to mobilise start-ups and SMEs and to create a stimulating ecosystem.



Cerema
CLIMATE & REGIONS : THE FUTURE

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