

THE ESSENTIAL 2022



CNR

CNR, A VIRTUOUS MODEL

Founded in 1933, the **Compagnie Nationale du Rhône** — now called **CNR** — was entrusted with the concession of the River Rhone in 1934. Its DNA from the Rhone Valley is impregnated with knowledge of the territories and its actors and the environmental and societal fibre to build a more sustainable world.

A REDISTRIBUTIVE MODEL

CNR was born from a visionary idea, that of entrusting to a single operator three indis-sociable missions for the community in the management of the Rhone:

- produce electricity,
- develop river transport,
- irrigate farmland.



Thus, energy production finances the development of the river to the benefit of its multiple users and the preservation of ecosystems. As CNR exploits a natural resource that belongs to all, the territories are associated in its capital and governance and in sharing the value generated. Atypical, its status reflects this industrial and redistributive model unique in France, a joint stock company in the general interest.

A PURPOSE FOR BEING

Following the PACTE law of 22 May 2019 relating to the growth and transformation of companies, intended in particular to resituate their place in society and assert their social and environmental role, CNR included its purpose for being in its articles of association in 2021. It therefore devoted its commitment to the long-term, expressed in just a few words, demonstrating its singularity and wealth and providing it with its collective impetus:

**The Rhone as origin,
The territories for partners,
Renewable energies for the future.**

The producer of 100% renewable energy generated from water, wind and sun, CNR is positioned as a major actor in territorial development, adaptation to climate change, and ecological transition.

BALANCED GOVERNANCE

A mostly publicly owned company – Groupe Caisse des Dépôts and 183 local authorities – CNR's main industrial shareholder is ENGIE. Thus, it combines a strong industrial identity with strong attachment to the values of public service and the general interest.

CNR is managed by a Management Board and administered by a Supervisory Board. With an industrial group, a public investor, local elected representatives, government representatives and employees' representatives in its Supervisory Board, it benefits from collective intelligence, with each member providing their vision and expertise.

Management Board

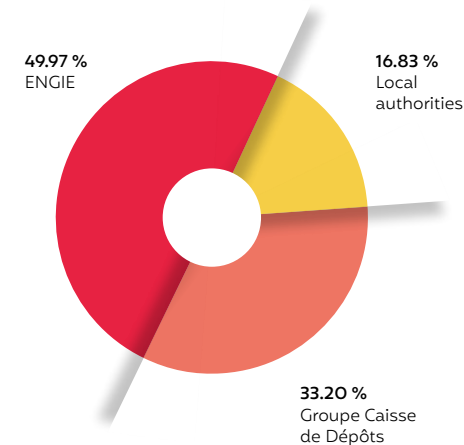
Laurence Borie-Bancel: Chairwoman.
Didier Lhuillier: Managing Director.
Julien Français: Managing Director.

Supervisory Board

An oversight body, the Supervisory Board validates the company's strategy and watches over the good management of CNR. It is chaired by Serge Bergamelli and is composed of 18 members:

- 13 shareholders' representatives,
- 2 government representatives,
- and 3 employees' representatives.

Distribution of capital



Laurence Borie-Bancel
CHAIRWOMAN



Julien Français
MANAGING DIRECTOR



Didier Lhuillier
MANAGING DIRECTOR

EXTENSION OF THE CONCESSION

Unanimously adopted by the French Parliament, the “Rhône Development” law of 28 February 2022 extends CNR’s concession until 2041. It takes into account the expectations of the stakeholders and incorporates an investment programme in excess of €1 billion, situating the three community missions of CNR in the trajectory of achieving territorial ecological transition and carbon neutrality for France by 2050.

EXTENSION OF THE DOMAIN UNDER CONCESSION

Portions of the River Rhône up to now managed by VNF and the government are transferred to CNR in order to unify and further secure the management of the navigable waterway. The domain under concession is thus increased to 30,000 hectares that include 550 km of river.



DEVELOPMENT OF THE RIVER RHÔNE

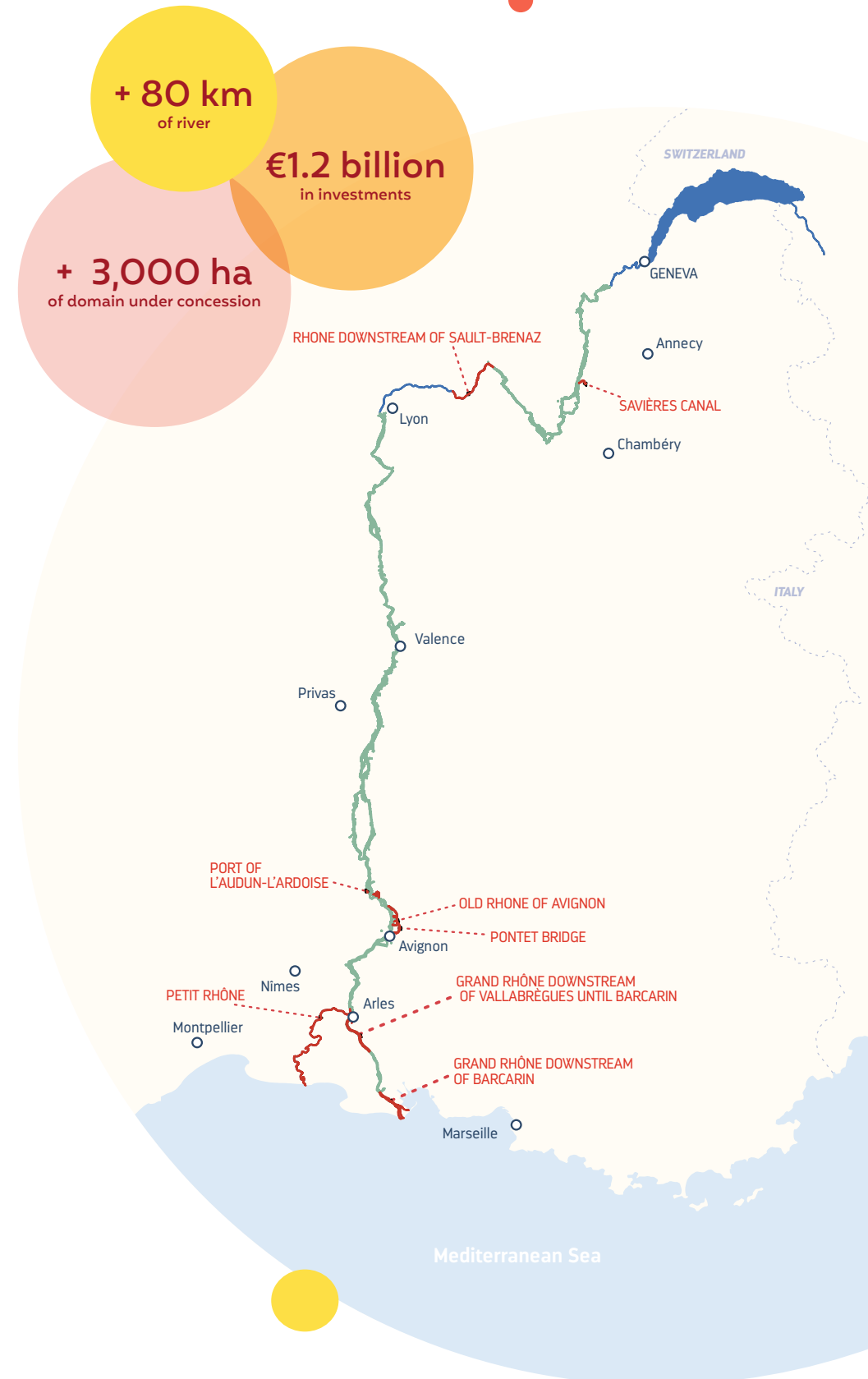
CNR will invest €500 M over 15 years to build or optimise structures on the Rhône: the feasibility and acceptability study of a project to build a hydropower plant at Saint-Romain-de-Jalionas, the construction of six small hydropower plants and six fish passes, increasing the production capacities of the hydropower plant of Montélimar and doubling the downstream lock gates of Châteauneuf-du-Rhône and Bollène.

DEVELOPMENT OF THE RHÔNE VALLEY

In the extension of its missions in the general interest, CNR has committed to spending €165 M every five years in the framework of its 5Rhône Plans, long-term five-year plans formulated and monitored with its stakeholders. The projects driven or supported will contribute to make the Rhône Valley one of green energies, a leading European-scale transport corridor, a resource for sustainable agriculture, a living and biodiversity friendly river and living space shared with the territories. The goal is to develop the river and the territories on both the socioeconomic and environmental levels.

HYDRAULIC FEE CORRELATED TO THE PRICE OF ELECTRICITY

The share of the hydraulic fee linked to the receipts generated by electricity sales is henceforth fixed at a progressive rate established as a function of the price of electricity registered on the wholesale market.



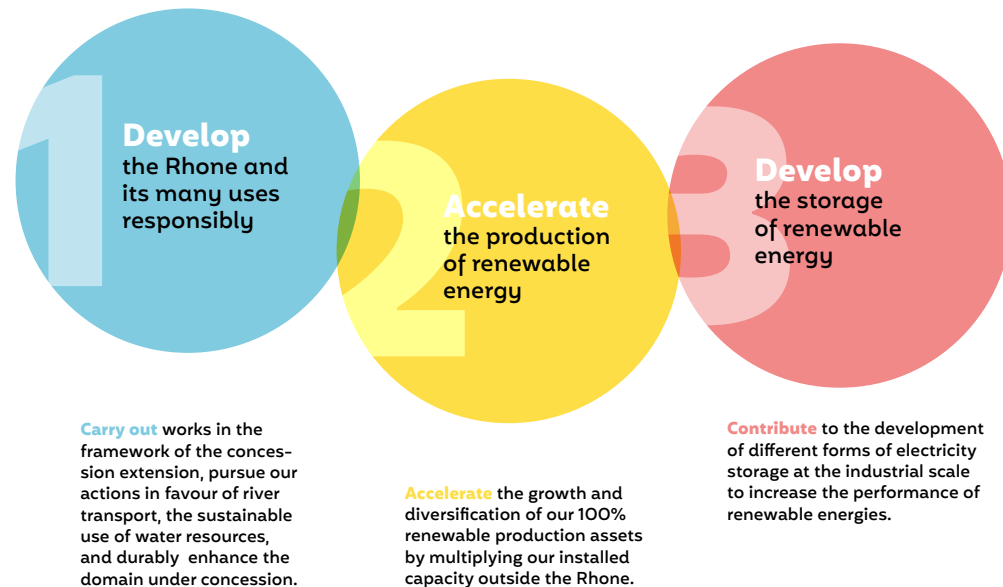
ROAD MAP

Closely interwoven with each other, CNR's strategy for 2030 and its corporate social responsibility (CSR) transform its purpose for being into lines of action. Both have a value of commitment in the service of energy, ecological transition and sustainable development.

6 STRATEGIC GOALS FOR 2030

By setting itself six strategic goals, CNR is giving itself the means of being a reactive company, capable of foreseeing and assisting the future by proposing concrete solutions for environmental, economic, societal and regulatory challenges.

Re-assessed every year to ensure their consistency with a world of energy undergoing constant change, the ten-year objectives of its strategy are adapted operationally in the form of two-year plans. Adopted in 2021, the first two-year plan has already been subject to a progress assessment. CNR's strategic reflection has been extended to produce an industrial project for the Rhone aimed at increasing the performance of its production assets.

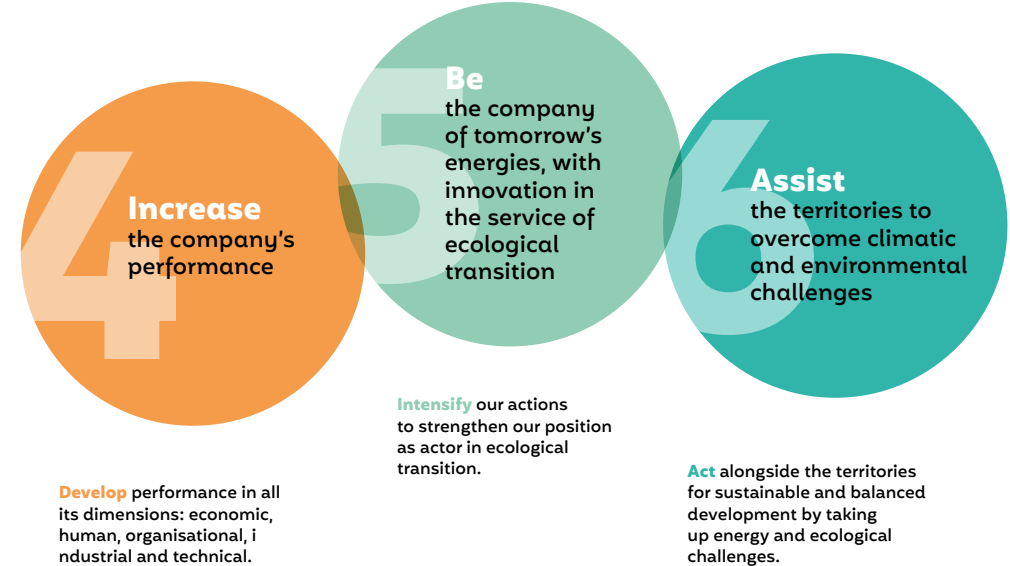


GOALS FOR 2030

7,000 MW
of installed capacity

Multiplication by 4
of the installed capacity of renewable energies

5,000 MW
aggregated for third parties



4 CSR ORIENTATIONS FOR A GAIN IN PERFORMANCE AND CITIZENSHIP

The basis of CNR's 2030 strategy, CSR is integrated at every level and every trade of the company. By exercising its societal responsibility, CNR acts as a corporate citizen in the service of the general interest. Faithful to its productive and redistributive model, it plays a role in economically viable, socially faire and environmentally friendly development, and contributes to reaching the 17 sustainable development goals (SDG) set by the UN.

In a context of climatic crisis, the decline of biodiversity, environmental pollutions, the depletion of natural resources and the aspiration for peace and social justice, sustainable development is the only path capable of "satisfying the needs of existing generations without jeopardising the capacity of future generations to satisfy their own". CNR's CSR policy is organised into 4 paths and 19 commitments.



PRESERVING THE ENVIRONMENT

- Act for biodiversity.
- Confront the rarefaction of water resources.
- Optimise the environmental performance of our industrial processes.
- Reduce our carbon footprint.
- Eco-manage our waste.



ACT FOR ECOLOGICAL TRANSITION

- Accelerate our renewable energy production.
- Innovate to respond to the challenges of ecological transition.
- Promote the consumption of green energy.
- Encourage alternative modes of transport.
- Communicate on the stakes of ecological transition.



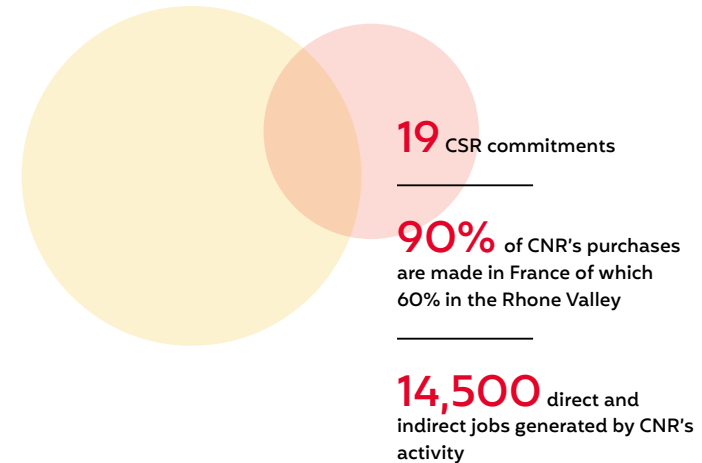
ASSIST TERRITORIAL DEVELOPMENT

- Build sustainable projects with our partners.
- Support changes in agricultural practices.
- Favour local employment.
- Act as a responsible purchaser.



PLACE HUMAN BEINGS AT THE HEART OF THE COMPANY

- Maintain the priority given to health and safety at work.
- Strengthen the development of our employees' skills.
- Act for diversity, professional equality and the quality of life at work.
- Support quality labour relations.
- Respect business ethics and human rights.





FRANCE'S LEADING PRODUCER OF 100% RENEWABLE ELECTRICITY

In 2021, CNR reached 4,000 MW of installed capacity. By accelerating the development of its "hydro-wind-solar" mix, it plays an active role in energy transition and contributes to taking up the challenge of energy independence.

AN INTEGRATED INDUSTRIAL MODEL

An expert in green electricity for almost 90 years, CNR gathers all the industrial skills linked to the production and management of weather-dependent energies: studies, designs, the operation of installations, selling production, prospecting, and developing assets. It therefore controls all the knowhow needed for its performance and its developments.

Thanks to its expertise in meteorology and its knowhow in the wholesale market, it manages the green electricity of other producers. In 2021, it aggregated the production of 168 installations, i.e. a capacity of 959 MW.

DEVELOPMENT IN FRANCE

In the framework of French and European policies to combat climate change, CNR and its subsidiary Vensolair are pursuing their developments in the heart of the Rhone Valley and beyond in partnership with the territories, in view to reaching "zero greenhouse gas emissions". The growth of its hydro-wind-solar assets is crucial to provide flexibility to its production management and reduce its exposure to meteorological and climatic risks in particular. In 2021, more than an additional 80 MW was commissioned in wind and solar power and the recent creation of Solarhona will lead to the construction of small solar power installations in the Rhone Valley. In the next decade, CNR aims to develop an additional 3,000 MW, i.e. the equivalent of the power installed on the Rhone in 40 years.



THE RATIONALE OF "DO TOGETHER"

Faithful to its model of sharing, CNR brings the territories to participate closely in the creation of new green electricity production facilities. Since 2017, it has made ten offers to the public and local authorities to invest in one of its projects via crowdfunding initiatives. In 2021, it innovated by proposing to the territories to participate in the capital of project companies: the company "Parc éolien de Souilly d'Air" was founded to develop, build and operate four wind turbines and Solarhona Invest is being set up to provide solar power to the Rhone Valley.

Solar power plant of Le Pouzin 2



15.3 TWh
produced 2021

25%
of French hydroelectricity
comes from the Rhone

49 hydropower
plants

57 wind farms

49 solar power
plants

FRANCE'S LEADING PRODUCER
OF 100% RENEWABLE ELECTRICITY

RESPECTING THE ENVIRONMENT

By applying the principle of "avoid, reduce, compensate", CNR integrates care for the environment in its hydro-, wind and solar power projects. It implements a range of measures to limit the impact of its new installations on all the elements of the environment: the population and human health, biodiversity, land, soil, water, air, the climate, material property, cultural heritage and the landscape. In addition to impact studies and regulatory monitoring, it carries out biodiversity monitoring adapted to the challenges of each site and rebuilds habitats favourable to amphibians, reptiles and flying fauna.



HYDRAULIC SAFETY UNDER STRICT SURVEILLANCE

CNR monitors and maintains the bed of the Rhone throughout the year to preserve its unimpeded flow. In synergy with the maintenance of industrial and river assets, visual observations, measures and sediment management are vital for limiting risks linked



The hydrographic vessel, Frédéric Mistral

to floods, securing navigation, favouring the ecological balance of the river, and avoiding damage to dams and locks. A large number of sensors are installed along the Rhone and its tributaries and a network of 220 stations transmit data on the level of the Rhone, its discharge, rainfall, etc. A fleet of bathymetric boats regularly survey changes to the bed. They include the Frédéric Mistral, equipped with 48 depth sounders. For reasons of prevention, CNR carries out dredging in the framework of sediment management plans and manages the vegetation around the river.

MANAGEMENT OF INDUSTRIAL AND RIVER ASSETS

CNR carries out daily monitoring and maintenance of all its installations on the Rhone: dams, hydropower plants, locks and levees. It spent €68 M on maintenance, electromechanical and civil engineering operations in 2021.



Drawing most of its income from its hydropower installations on the Rhone, CNR constantly seeks to improve its yields and lower its costs, while complying with the imperatives of hydraulic safety and ensuring navigation. The probable lowering and greater variability of the discharges of the Rhone caused by climate change makes this challenge especially crucial. The goal is to optimise the use of every cubic meter of water that flows in the river as well as the costs of monitoring and maintaining the installations. To increase its performance, CNR strengthens its capacities to forecast, improve its reactivity to natural hazards, and target its interventions more precisely to optimise the rate of availability of its structures. It relies on a quality management system for which it has been awarded ISO 9001 certification.

€127 M invested
in 2021 to maintain the river
and the industrial assets

1,000 employees
work along the Rhone to
produce energy and maintain
the installations in the river
and its tributaries.



Inspection of
Villebois dam

BOTH FEET IN THE FUTURE

At CNR, innovation is achieved both on a daily basis and through R&D programmes carried out in partnership with research institutions to optimise its operating and maintenance procedures, explore breakthrough technologies and assist changes in agricultural practices.

INNOVATIVE PHOTOVOLTAICS

Besides the floating photovoltaics with which it is experimenting on the La Madone lake near Mornant (Rhône), CNR is testing with CEA¹ the technical-economic viability of vertical and bifacial photovoltaics, in view to deploying them along rivers, highways and railways. The first demonstrator was commissioned on the levee of Sablons (Isère) and two other projects are under study: a solar canopy of 1.5 km (1 MWc) and an industrial scale pilot installation from 10 to 20 km (20 MWp).

1. Atomic Energy and Alternative Energies Commission.

With a power of 104 kWp and a length of 350 m, the photovoltaic demonstrator of the Sablons levee commissioned in 2021, in partnership with the CEA-INES 2S and the Supergrid Institute.



Jupiter 1000 at Fos-sur-Mer

THE GREEN HYDROGEN SECTOR

Since 2014, CNR has explored the potential of renewable hydrogen production to both store its electricity production and decarbonise transport and industry. It is a partner of Jupiter 1000, a demonstrator that converts part of the electricity of the CNR wind farm of Fos-sur-Mer into hydrogen to then injects it into the gas network. It also develops projects for local uses. At Port de Lyon, land vehicles can fill-up with hydrogen at the Quai des énergies (multi-green energies station) and another electrolyser is under study for the needs of the port. A hydrogen production plant intended for the chemical industry is also planned at Pierre-Bénite.

ASSET MANAGEMENT

CNR works on its information systems to optimise the energy management chain. It is developing an automated energy management system that incorporates its assets and those it aggregates for third parties. This tool will be adaptable at the scale of smart micro-networks for local energy management linked to territorial projects such as the pilot site of Saint-Julien en Quint (Drôme), now undergoing experimentation in the framework of the European partnership Alpgriids.

6,000 m²
of agrivoltaics experiments
at the horticultural school
of Dardilly (Rhône)

20 ha dedicated to
alternative and organic techniques
at Étoile-sur-Rhône.

AGRICULTURAL TRANSITION

CNR is carrying out R&D with the agricultural sector to assist it to adapt to climate change. In the quest to develop synergies between renewable energy and agriculture, it is investing in agrivoltaics with the horticultural school of Dardilly (Rhône), with priority given to providing added value to farmers and reducing the hydric stress of plants. For several years, it has tested smart irrigation networks to reduce water consumption and the energy expended for its conveyance. It also encourages agroecological practices that combine environmental and economic performances.



The first agrivoltaics installation launched by CNR at the horticultural school of Écully-Lyon-Dardilly. The aim is to reproduce it on farms in the Rhone Valley in the framework of pilot projects in the service of agriculture.

PROMOTING RIVER TRANSPORT

In its role as a waterway developer and manager of locks and the activities of port sites, CNR supports the growth of river transport in the service of ecological transition and territorial industrial development.

AN ALTERNATIVE TO ROAD TRANSPORT

In comparison to road transport, river transport emits only a quarter of the CO₂ per tonne transported, and is one of the alternative modes of mobility for combating climate change. It contributes to reducing the number of heavy goods trucks on the road and its development decreases the ecological footprint of logistics, road congestion and sound nuisances. Taking this development into account is all the more important since the navigation infrastructures of the River Rhone could handle four times more traffic a year without requiring a single additional euro of investment. In partnership with SNCF Réseau and VNF, CNR therefore endeavours to increase the synergy between rail and river on the Rhone-Saone corridor to build intermodal low carbon supply chains. It also supports the greening of the river fleet and is committed to making inland waterway use a reference in terms of ecological transport.



The installation of Pradier (demolition waste recycling) in Lyon and Mondragon and QCP Arles (plastics recycling) shows the attractiveness of the river for the circular economy.

THE OFFER OF PORTS WITHIN EASY REACH

CNR manages and develops 19 industrial and port sites situated only 20 kilometres apart, all the way from Lyon to the Mediterranean Sea. Logistics providers are installed alongside industrial and construction companies interested in setting up at sites linked to the waterway and railways for their supplies and shipments of products. Port de Lyon is the bridgehead of this network that accommodates 172 companies and 5,200 jobs on 930 hectares. CNR's available land is rich with potential for participating in the reindustrialisation of the Rhone-Saone corridor while remaining environmentally friendly.

HIGH QUALITY SERVICE TO SKIPPERS

CNR's Navigation Management Centre installed at Châteauneuf-du-Rhône (Drôme) has monitored and remotely controlled the 14 wide gauge locks on the Rhone 24/7 since 2012. It therefore contributes to the safety of the river, optimises the passage through locks and provides skippers with real-time information on traffic.

GREEN URBAN LOGISTICS

Begun with a nomad waterborne waste collection vessel, then with the removal via the river of incinerated waste residues, the urban services supplied by Port de Lyon to contribute to a sustainable city are undergoing considerable development. In 2022, a green delivery service combining river transport and electric bicycles fitted with trailers will be installed by Urban Logistic Solutions (ULS). It will strengthen the supply of services for the Urban Logistics Hotel scheduled to open in 2023.

19
industrial and port sites



Port de Lyon captures 90% of the container traffic on the Rhone. A doorway to the Mediterranean Sea and the world, it is linked to Fos-sur-Mer by an oil pipeline and connected to the railway network and major European highways.

1
tow-push convoy
of 2 barges (4,400 t)
replaces
220 trucks
on the roads

FAVOURING THE ECOLOGICAL TRANSITION OF THE TERRITORIES

In the framework of extending the Rhone concession, in 2021 CNR launched the first 5Rhône Plans, designed to assist territorial projects in favour of ecological and industrial transition. These new long-term five-year plans are in line with the missions in the general interest carried out since 2004 to develop the Rhone Valley. They demonstrate the efficiency of CNR's redistributive model, based on sharing part of the income generated by harnessing the river with the territories through which it flows.

5 AREAS OF ACTION IN THE SERVICE OF THE RHONE VALLEY

Developing renewable energies with the construction of small hydropower plants and green hydrogen production plants.

Strengthening river transport with the development of multimodal logistics activities and industrial and port sites, including Port de Lyon.

Contributing to more sustainable and healthier agriculture by optimising irrigation networks to save water by reducing the electricity consumption of farms and supporting agroecological transition.

Favouring a corridor of living and dynamic biodiversity with the continued restoration of the bypassed sections of the Rhone, winning back terrestrial and aquatic biodiversity, and partnerships with the scientific community.

Assisting territorial projects linked to the river by favouring the economic development of the Rhone Valley through industrial and tourism activities, and those linked to its heritage.

Rh5ne
Le fleuve investit pour sa vallée **CNR**

CO-CONSTRUCTION AND TRANSPARENCY

The 5Rhône Plans are established in the framework of dynamic co-construction with the government and CNR's stakeholders. The concession works monitoring committee is associated with drawing them up and carrying out the yearly monitoring of their implementation. The government guarantees the good utilisation of the funds made available to them. To ensure transparency, an investment charter sets out the principles of CBR's financial action and the project selection criteria.

In 2021, CNR and VNF initiated a Cruising Club that brought together local authorities and professionals to develop sustainable tourism on the Rhone-Saone corridor, a source of economic wealth for the territories.



The study managed jointly by CNR and the DREAL made it possible to build a database on withdrawals made by farms from the Rhone — withdrawal points and the volumes withdrawn by type of crop and the surface areas cultivated.

A family on the Via Rhôna



817 km of ViaRhôna between Lake Geneva and the Mediterranean

70% of water in France is consumed by agriculture

€496 M invested by CNR in the missions in the general interest since 2004

€165 M every 5 years for the 5Rhône plans

COMMITTED TO BIODIVERSITY

The Rhone is not only a waterway, it interacts with all its surrounding ecosystems which participate in renewing it and keeping it alive. CNR works to preserve these natural habitats essential for our lives.

THE ENVIRONMENT MANAGEMENT PLAN

To reconcile the preservation of biodiversity with hydraulic safety, the safety of the surrounding population, electricity production and economic development, in 2016 CNR established a management plan for the domain under concession of which 92% is located in preserved areas. As early as 2007, it began maintaining the river banks sustainably, according to a zero-phytosanitary product policy. Moreover, it implements natural innovative processes to combat invasive exotic species.



Oxbow of Géronton

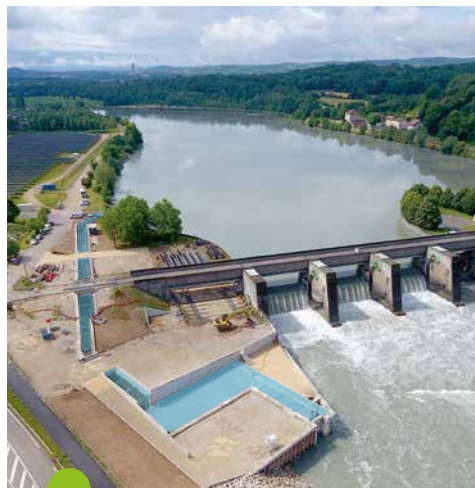
RESTORATION OF THE BYPASSED SECTIONS OF THE RHONE

Since 1999, CNR has restored the hydraulic and ecological balance of the Rhone along nearly a quarter of its length. It pursues its actions to give space back to the river, reinvigorate its sediment dynamics and favour the life of the fauna and flora in natural habitats. In 2021, in the area of Baix-Le-Logis-Neuf, a former dried-up branch of the river was re-opened along 1.8 km and the restoration of the alluvial plains downstream of Le Pouzin dam completed. CNR planted trees typical of alluvial forests during its bank rewilding works (willows,

poplars, tamarisks, etc.) taken from its plant grafting nursery at Soyons (Ardèche), thereby following an approach using local plants.

RE-ESTABLISHING THE MIGRATION HIGHWAY

Allowing migrating fish to swim up and downstream of the Rhone, between its confluence with the Drôme and the Eyrieux on the one hand, and the Mediterranean Sea on the other, is a major objective of CNR's environmental strategy. Improving knowledge of the different species, in particular through the Vigilife programme which uses the environmental DNA technique, the construction of fish passes and the specific management of the locks are some of the actions it carries out to restore the Rhone as a migration route. In 2021, the fish pass of Villebois was filled with water. It is the first structure of its type to be built on the main channel of the Upper Rhone in France.



Fish pass of Villebois

PRESERVING FLYING FAUNA

CNR pays particular attention to birds and bats when developing its wind farms. It has sometimes abandoned projects if they are too close to the vital space of protected species such as Bonelli's eagle, the red kite and the black stork. It experiments with detection and production regulation systems to preserve flying fauna during migrations. Buzzards are also monitored by drones to improve knowledge of this species.



+ than 80
species benefit from
habitat preservation
actions

€82 M invested
since 2004 in favour of
the environment

+ than 120 km of river
restored in 20 years

69 fishways on
the Rhone and
its tributaries



Oxbow of Servio
at Champagneux (73)

EXPLOITING INDUSTRIAL EXPERTISE

As a designer, builder and operator of hydropower and river installations, CNR provides its multifaceted engineering knowhow accumulated from more than 85 years of managing the Rhone concession to its clients in France and abroad. Its integrated engineering office operates in thirty countries on hydraulic and environmental projects to assist project owners and design and construction managers, in partnership with other French and local engineering offices.

PHYSICAL AND NUMERICAL MODELLING

CNR's engineering relies on its Hydraulic Structure Behaviour Analysis Centre (CACOH), specialised in physical and numerical modelling. CACOH is capable of reproducing small scale models and mock-ups of flows, changes of riverbed morphology, the behaviour of structures, etc., as well as coupling physical and numerical models. Alone, it covers more than 25% of CNR's R&D activities. An integrated unit providing expertise and advice, CACOH ensures that CNR can guarantee the highest levels of safety and security.

RECOGNISED AND CONSOLIDATED EXPERTISE

On the one hand CNR exploits its global experience acquired from the Rhone to the benefit of its many clients in France and abroad, while on the other its operations continue to reinforce its expertise in hydropower and river engineering. Solidly rooted in a project-based culture, CNR's knowhow is fuelled by a very wide range of geographical, technical and sociocultural contexts that allow it to incorporate new methods, stay abreast of the most innovative techniques, and maintain the level of skills used by its teams to take on the projects linked to the extension of the concession with confidence.

FLAGSHIP PROJECTS 2021

Among its flagship projects, CNR is active in the design and construction of navigation structures on the delta of the Red River in Vietnam, a lock for the future Seine-Nord Europe canal, and a hydro-environmental measurement network in the Mekong basin. It also participates in installing the remote-control system for the locks of the Nord-Pas-de-Calais and Seine-Nord Europe canal network, and in optimising the management of a hydroelectric development on the Mekong. It is also responsible for modelling the sediment management of the Manival torrent (Isère). In addition, it is upgrading and renovating the hydroelectric facility of Chancy-Pougny (Rhône).



In Vietnam, after several years of studies, with Egis and its Vietnamese partner VIPO, CNR is supervising works to build a canal to link two branches of the Red River, equipped with a wide gauge lock and a road viaduct.



CNR uses a physical model to assess the operation and possible adaptations of the sediment regulation structure of the Manival (Isère), one of the most active and developed torrents of the Alps.

More than **85 years**
of expertise in designing
and operating river structures

References from more than
40 countries

HUMAN BEINGS PLACED AT THE HEART OF THE COMPANY

At CNR, everyone counts as a person. Priority is given to the safety and physical and mental health of the employees and to their professional fulfilment. CNR acts in favour of diversity, professional equality and wellbeing at work. Moreover, it promotes quality labour relations and complies with business ethics and human rights.

TRAINING FOR TODAY AND TOMORROW

CNR pursues a sustained training policy to assist its employees to follow their career paths, favour their employability and inculcate a culture of sustainable development. It guarantees the adaptation of their skills to the medium and long-term progression of its trades and strengthens in-house procedures for handing on knowhow, apprenticeship and mentoring. In 2021, particular emphasis was placed on safety, which represents 45% of training, managerial skills and project management. Since the induction of young employees features among its priorities, CNR received 95 following work-study programmes and Tech'Avenir, a new work-study training programme on industrial maintenance established in partnership with the AFPI¹ of Lyon. Trade benchmarking committees have also been set up to build training programmes in the framework of forward planning.



THE QUALITY-OF-LIFE AT WORK

Generalised at the collective scale at CNR due to the health crisis, teleworking was appreciated according to a survey carried out on its employees. In 2021, an agreement was signed with all the social partners to allow its implementation while maintaining labour relations and collective dynamism. CNR was awarded the "Work of the future prize" in the framework of the "Labour Dialogue in Action" event organized jointly by the DDTE² and the newspaper Le Progrès.

1. Professional industrial Training Association.
2. Departmental Division of Labour, Employment and Solidarity.

811 risk inspections
in 2021

95 work-training
apprentices in 2021

185 trades

1 week of training a year
on average per employee

PREVENTING SEXISM

To prevent and act against sexism, CNR has conceived a programme of dedicated actions, shared with the social partners, based on training, awareness and communication as well as care for potential victims. A whistleblowing system has been set up that comprises two reference contacts to whom employees can turn.





THE CULTURE OF PERFORMANCE

In a more competitive and uncertain environment, CNR seeks performance at every level of the company to give it the means for its development. It relies on the levers of digitisation to modernise its processes and trades.

ECONOMIC PERFORMANCE

CNR is committed to an approach of continuous improvement to increase the creation of value. It is strengthening project management and purchasing, deploying asset management, generalising cost control, simplifying processes, upgrading its information system and disseminating good practices inside the company. Since 2020, the number of maintenance ope-

erations supervised by project managers has increased by 40%. The drafting of a risk guide and the replacement of equipment inside the company's network of plants and data centres feature among the advances made in 2021.

TEAM PERFORMANCE

CNR performance relies in that of the motivation and professional pride of its employees and their belief in the company. In 2021, despite a working environment impeded by the health crisis and degraded due to incomplete teams, CNR's employees showed great resilience in facing an increase in the number of maintenance operations, operating hazards, and the extreme volatility of electricity prices, while successfully concluding the project to extend the Rhone concession. In addition, the team succeeded in managing strained supply chains to build wind farm and solar power plant construction projects within the lead-times and budgets fixed.

TECHNICAL AND INDUSTRIAL PERFORMANCE

Climate change makes the profile of production charts increasingly unpredictable, causing CNR to constantly seek to improve its production units and operating and maintenance modes to draw advantage from water when present. This is done through several approaches: the standardisation of practices within the company, the implementation of solutions to increase the capacity and yield of the assets, and the flexibility and productivity of maintenance operations. In 2021, the cost of maintenance works nearly doubled in comparison to each of the two previous years. The technical condition of 92% of CNR's 25,500 electromechanical assets was analysed and a process planning department set up.

ENVIRONMENTAL PERFORMANCE

CNR performed an energy audit and assessed its greenhouse gas emissions based on a sample representative of its activity. Thus, it launched a Lifecycle Analysis on a wind farm and on a solar power plant.

25%
of French hydroelectricity
comes from
the River Rhone



€68 M invested
in electromechanical
maintenance

650 maintenance
projects including 350
priority heavy maintenance
operations

68 actions carried out
to improve risk management
between 2018 and 2021

KEY FIGURES 2021

ECOLOGICAL TRANSITION ASSETS

The assets

-
- 49 hydropower plants
- 19 dams
- 57 wind farms
- 49 solar power plants

Total production of green electricity

-
- 15.3 TWh including:
- 13.6 TWh hydroelectricity (Rhône and outside Rhône)
- 1.4 TWh wind power
- 0.18 TWh solar power

Total installed capacity

-
- 4,001 MW including:
- 3,105 MW hydropower (Rhône and outside Rhône)
- 720 MW wind power
- 156 MWC solar power

FINANCIAL

- €1.818 billion in gross turnover
- €178 M hydraulic fees

SOCIAL

- 1,414 full-time employees
- 95 work-study contracts, 6% of the total workforce

ENVIRONMENT

- €82 M invested since 2004 in favour of the environment
- + 120 km of river restored in 20 years
- 69 fishways on the Rhône and its tributaries
- + than 80 animal species benefit from CNR's actions and the preservation of their habitats
- 12 ha of reed beds rewilded in 8,872 hectares of wetlands

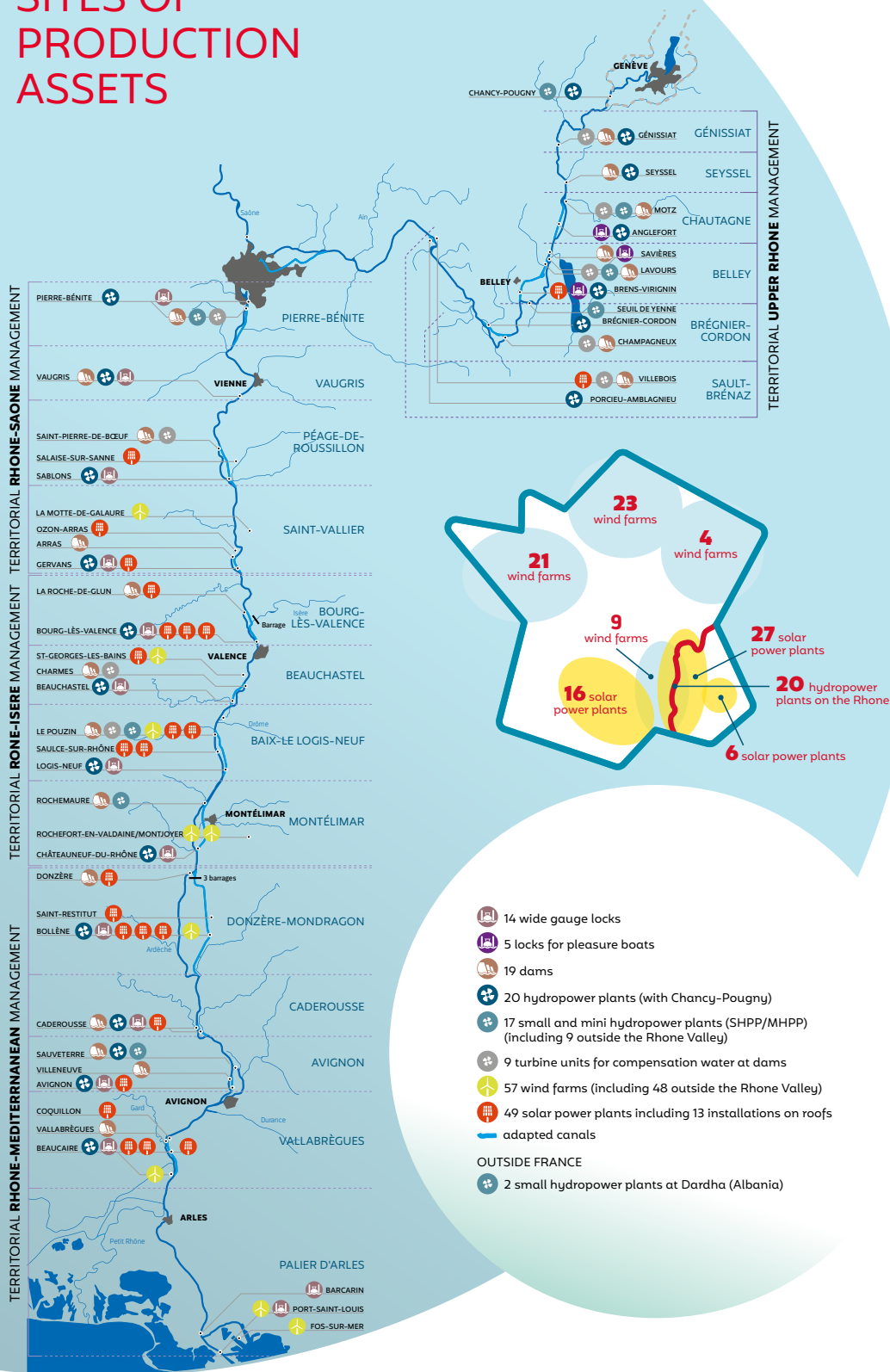
RIVER

- 330 km of wide gauge waterway
- 3.83 M tonnes transported on the Rhône
- 73,587 TEU containers (Twenty Foot Equivalent) transported on the Rhône
- 19 industrial and port sites

TERRITORIES

- 30,000 ha of domain under concession
- 14,500 direct and indirect jobs generated by CNR's activity
- €21 M to assist the territories
- 90% of CNR's purchases are made in France including 60% in the Rhône Valley
- 500 km of ViaRhôna co-financed by CNR

SITES OF PRODUCTION ASSETS





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TERRITORIAL MANAGEMENTS

Haut-Rhône

Chemin des soupirs
01300 Belley

Rhône-Saône

ZA de Verenay
BP 77 Ampuis
69420 Condrieu

Rhône-Isère

91 Route de La Roche de Glun
26500 Bourg-lès-Valence

Rhône-Méditerranée

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