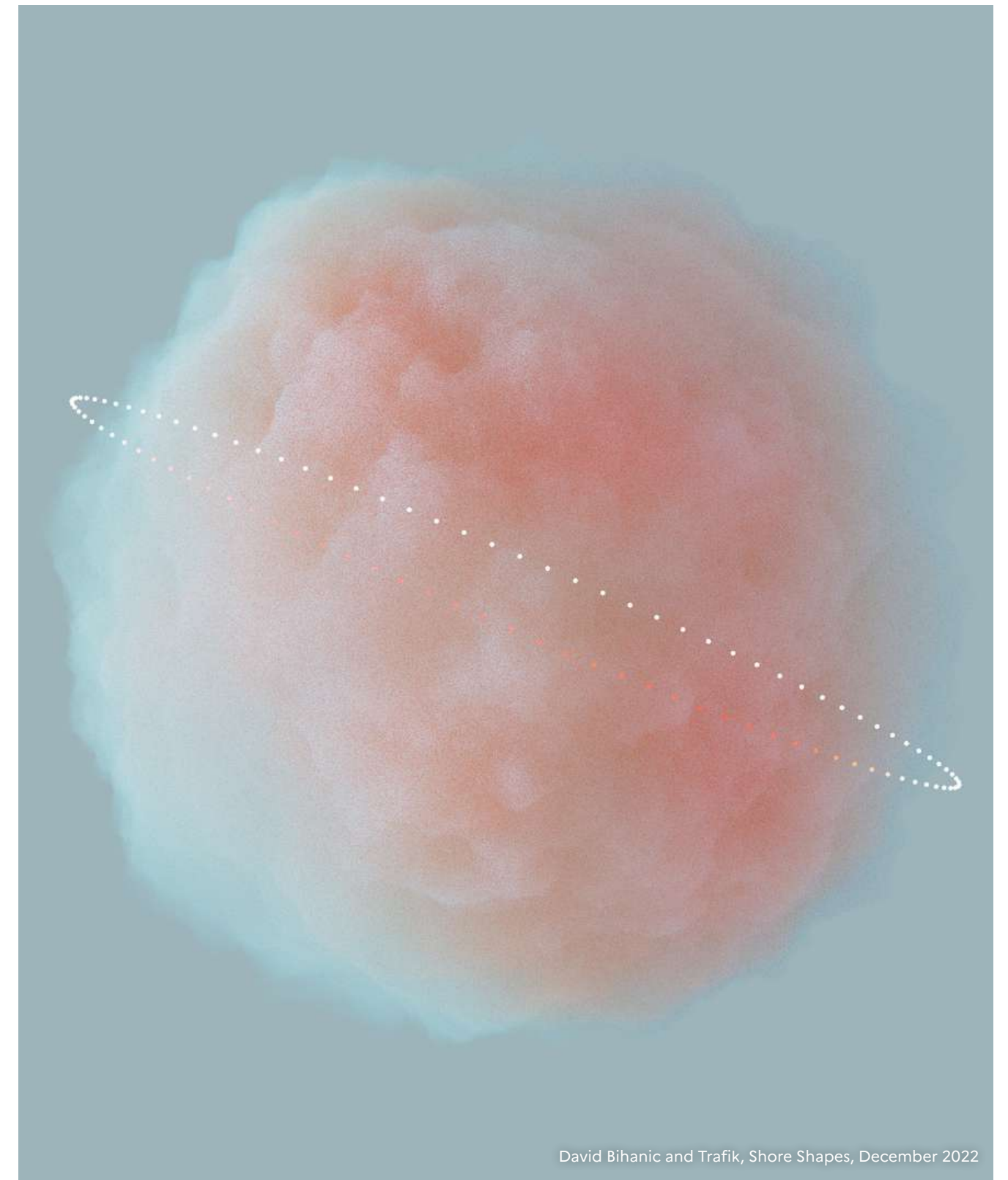




**MINISTRY
OF CULTURE**

*Liberté
Égalité
Fraternité*



David Bihanic and Trafik, Shore Shapes, December 2022

**ECOLOGICAL
TRANSITION
IN CULTURE**

**GUIDANCE AND
INSPIRATION DOCUMENT
DECEMBER 2023**

Table of contents

04	INTRODUCTION BY THE MINISTER
07	I – ECOLOGICAL TRANSITION IN CULTURE: WHAT EXACTLY IS IT?
17	II – THE MINISTRY OF CULTURE’S MAIN DRIVERS FOR ACTION
27	III – ENERGY EFFICIENCY: GUIDELINES AND BEST PRACTICE FOR CULTURAL ESTABLISHMENTS
39	IV – FIVE ACTION AREAS FOR MANAGING ECOLOGICAL TRANSITION IN ALL CULTURAL SECTORS
41	<i>1. Create differently: new sustainable practices</i>
45	<i>2. Develop an energy-efficient digital culture</i>
49	<i>3. Invent the architecture, territories and landscapes of tomorrow</i>
55	<i>4. Preserve, conserve and safeguard for the future</i>
59	<i>5. Rethink public mobility options to ensure that culture is always accessible</i>
63	List of useful resources and funding

Introduction by the Minister



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France has consistently affirmed its determination to meet the commitments made in the 2015 Paris Agreements, including the commitment to halve greenhouse gas emissions by 2030 compared to 1990 levels, and then to achieve carbon neutrality by 2050.

In this vast undertaking involving ecological transition, culture has its own responsibilities.

Our artists and cultural professionals have a role to play in this transition: to broaden our imaginations; to change the way we look at the world and its fragilities; and to promote the emergence of innovative solutions. They do so in a way that is profoundly consistent with their primary vocation: to create infinitely new and diverse works; to protect the masterpieces of humanity, so that we can pass on this heritage to our children; to uphold the freedom of creation and the media; and, of course, to enable everyone, everywhere in France, to have access to culture and participate in it.

All areas of culture are affected by this transition, from heritage and architecture to creation, cultural and creative industries and artistic and cultural training. This is why we have sought to design this guidance and inspiration document, with all the teams at the Ministry of Culture and in close collaboration with our operators and partners, whom I would like to thank.

We have identified five key areas for action as we seek to achieve ecological transition in culture.

Firstly, create differently, in order to encourage the emergence of new sustainable practices. From conception to distribution, French cultural production must systematically take the carbon-reduction objective into account.

Secondly, develop energy-efficient digital culture technology. In 2020, digital technology accounted for 2.5% of France's carbon footprint: given that it plays a growing role in the production and consumption of cultural offerings, its negative aspects must be limited wherever possible.

Thirdly, invent the architecture, territories and landscapes of tomorrow. Whether the issue at stake is one of managing historic heritage or the most modern urban planning concerns, low-carbon solutions need to be invented or developed in order to preserve biodiversity and contribute to the circular economy.

Fourthly, do an even better job of preserving, conserving and safeguarding for the future. By definition, heritage is all about sustainability. From our historic monuments to our digital archives, "green conservation" will be centrally important to the heritage issues of tomorrow.

Lastly, re-imagine mobility solutions for our stakeholders, and in so doing, make culture both accessible and environmentally friendly.

The design of this guide has benefited specifically from the ecological transition action plan of the General Directorate for Artistic Creation, and also from the work carried out by the Centre national du cinéma et de l'image animée and the Centre national de la musique. I would also like to mention the proposals put forward by the Conseil national de l'ordre des architectes, the discussions led by the Conseil national de l'enseignement supérieur et de la recherche artistiques et culturels, and the strategy presented by the Institut français.

I salute the many grassroots initiatives that many people are already implementing on a daily basis. These practical examples are intended to be reproduced, adapted and even improved. They form the basic core of this guide.

This guide sets out concrete measures and practical tools to ensure that culture can play a full part in our country's ecological transition. Although it is intended to be refined and clarified as it is rolled out, it reflects the commitments of the Ministry of Culture, its teams, its operators and its partners. It's a course we're setting together to ensure that the culture of tomorrow is more sustainable, more accessible and more respectful of the planet and its resources. Ensuring that it is, in short, more vibrant than ever.

Rachida Dati
Minister for Culture
— January 2024



I – ECOLOGICAL TRANSITION IN CULTURE: WHAT EXACTLY IS IT?

1. The weight of culture: a few figures

2%: the proportion of France's assessed greenhouse gas emissions caused by culture, or 12 million tonnes of CO2 equivalent (tCO2e).

However, this figure does not include mobility (transport) generated by culture, or audiovisual consumption (videos, social networks, applications, smartphones).

The data available to us for measuring the carbon footprint of the cultural sector as a whole is still patchy. **It is therefore essential that we pool our efforts and equip** ourselves with common tools and methods to **better measure the carbon footprint of our activities, so that we can reduce it effectively and consistently.**

2.2%

is the percentage of the working population employed in the cultural sector, which is characterised by many interactions with other activities, such as transport, tourism and the provision of services.

47.5

billion and 2.3% of GDP: that's the cost of culture in the French economy

4%

is the average amount of their budgets that French people spend on culture

3 hrs

is the average amount of time French people devote to culture every day

2. The carbon footprint of culture

In 2021, the "Shift Project" think tank produced a report on the environmental impact of the cultural sector. Entitled "Décarbonons la culture!"

("Let's Decarbonise Culture"), it established a system of orders of magnitude for measuring the carbon footprint of different types of event or cultural structure.

On average, before the Covid-19 pandemic, the estimated figures were as follows:

28,000 tCO2e

A major city festival

1,500 tCO2e

An entertainment venue on the outskirts of town

2,600 tCO2e

A cinema multiplex

2,600 tCO2e

A city centre bookshop




© Yiu Yu Hoi, 2020


SCIENCE FOCUS

What is a carbon footprint?

One tonne of carbon equivalent represents the same amount of emissions as


Travelling
423 729
by high-speed train


Producing
163
T-shirts


Making
32
smartphones

The tonne of CO₂ equivalent is the unit of measurement commonly used in publications on climate change. But what does it represent?

Some of the sun's rays are absorbed by the Earth's surface, which in turn sends back infrared rays. Some of this radiation is then trapped by greenhouse gases. These gases then re-emit this radiation towards space and the Earth. Although greenhouse gases exist naturally in the atmosphere, human activity significantly increases their concentration. These GHG emissions unbalance the greenhouse effect, and the global temperature rises.

However, not all GHGs have the same lifetime in the atmosphere, nor the same capacity for retaining different types of radiation. We must therefore use a unit of measurement that allows us not only to compare the impact of different greenhouse gases on the environment, but also to aggregate these impacts using a single index: the tonne of CO₂ equivalent.

For example, 1 tonne of CH₄ (methane) is equal to around 33 tCO₂e, because the global warming power of methane is much greater than that of CO₂. The tonne of CO₂ equivalent is therefore an essential unit for measuring greenhouse gas emissions and developing a strategy to reduce them.

3. The example of Ministry of Culture establishments

A/ ECO-RESPONSIBLE PUBLIC SERVICES

Since 2020, public authorities have been required to adopt an eco-responsible approach. The circular of 21 November 2023⁶ introduces 15 measures and 50 corresponding action plans in six areas⁷:

- Training and production of BEGES reports
- Better travel
- Better production and consumption
- Better eating
- Better management of government buildings
- Better protection and use of ecosystems

At the Ministry of Culture, these commitments apply not only to the administration, but also to the hundred or so Ministry of Culture operators⁸, from the smallest (around ten agents) to the largest (over 2,500 agents).

In 2022, an initial positive assessment of the initiatives implemented to promote ecological transition was made:

- 86% comply with waste sorting requirements
- 92% comply with the ban on the use of sanitary products
- Almost 100% use recycled paper
- 21 new electric charging points (giving a total of 72) installed in 2022
- 3 oil-fired boilers replaced
- 12 greenhouse gas emission assessments (BEGES) carried out and 10 in progress

There were, however, a number of areas where improvements were needed:

- 74% had eliminated single-use plastics, but there was still room for improvement
- 44% comply with the obligation to produce a certificate of recovery for 8-waste flow sorting⁹

- 44% offer their employees and customers a daily vegetarian menu
- 3 establishments have set up a partnership with a car-sharing platform for commuting journeys
- 6% of employees are using the sustainable mobility package (recent scheme)

B/ INITIAL ASSESSMENTS OF GREENHOUSE GAS EMISSIONS

The greenhouse gas emission assessments (BEGES) mechanism, governed by Article L. 229-25 of the Environment Code, requires an emissions assessment and a voluntary action plan to reduce emissions to be drawn up every three or four years for: private legal entities with more than 500 employees, the State, regional councils, departmental councils, public intercommunal cooperation establishments (EPCI) with more than 50,000 inhabitants, and other public legal entities with more than 250 employees (hospitals, etc.).¹⁰

Within the domain of culture, 17 of the 78 establishments of the Ministry of Culture (excluding services with national scope) are subject to the requirement to carry out a BEGES and to renew it every three years. All of them clearly comply with the obligation to carry out a BEGES¹¹: 12 have already been completed, and 5 are in progress.

In addition, 6 other establishments produce BEGESs without being required to do so: these are the OPPIC, the CNSAD-PSL, the Lyon CNSMD, the Centre national des arts du cirque, the Opéra Comique and the Paris-EstEcole nationale supérieure d'architecture (ENSA).

⁶ecologie.gouv.fr / ⁷ This circular replaces the one from 25 February 2020, which included 20 measures / ⁸ Public establishments and services with national competence / ⁹ Decree no. 2021-950 of 16 July 2021, on the sorting of waste paper, metal, plastic, glass, textiles, wood, mineral fractions and plaster / ¹⁰ Establishments of the Ministry of Culture subject to the obligation to produce a BEGES assessment: Centre des monuments nationaux – CMN; Centre national d'art et de culture Georges Pompidou – CNAC-GP; Conservatoire national supérieur de musique et de danse de Paris – CNSMD; Comédie Française; Etablissement public de la Cité de la musique-Philharmonie de Paris; Etablissement public du musée du Quai Branly-Jacques Chirac; Etablissement public du musée et du domaine national de Versailles; Etablissement public du Mobilier national; Institut national de recherches archéologiques préventives – INRAP; Musée d'Orsay and Musée de l'Orangerie; Musée du Louvre; Opéra national de Paris; Réunion des musées nationaux -Grand Palais – RMN-GP; Universcience; Bibliothèque nationale de France; Bibliothèque publique d'information; Centre national du cinéma et de l'image animée / ¹¹ Generally speaking, no cultural school is subject to the obligation to produce a BEGES; the legal obligation applies only to the Conservatoire national supérieur de musique et de danse de Paris – CNSMDP.

SCIENCE FOCUS

Carbon footprint audits: what is a scope?

The term "scope" refers to the process of recording the 6 main greenhouse gases (GHGs) in three different categories depending on their origin:

- Scope 1 covers direct GHG emissions linked to the combustion of fossil fuels by the organisation (heating, vehicles, etc.);
- Scope 2 includes indirect GHG emissions linked to energy, including emissions linked to the production of energy purchased and consumed by the organisation (electricity, heating, cooling or steam networks);
- Scope 3 covers other indirect GHG emissions, i.e. those not covered by scope 1 and 2. This category of emissions is linked to the organisation's activities, such as staff and visitor travel, purchasing, fixed assets (goods purchased by the organisation that are intended to be used on a long-term basis for the business beyond the accounting period), and waste.

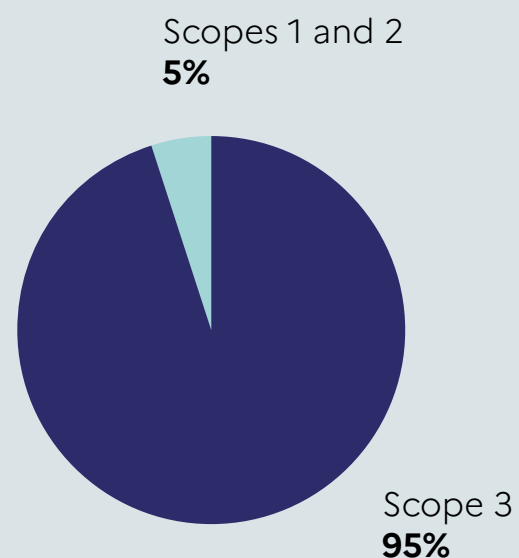
It was not until 1st January 2023 that all BEGESs were required to include Scope 3 emissions, which are the main emission factor in the cultural sector.

Here are a few examples illustrating the distribution of items in the carbon footprint audits for public establishments of the Ministry of Culture. These are given for illustration purposes and are obviously not comparable, as each audit is unique and subject to changes in knowledge, regulations and doctrine in the field:

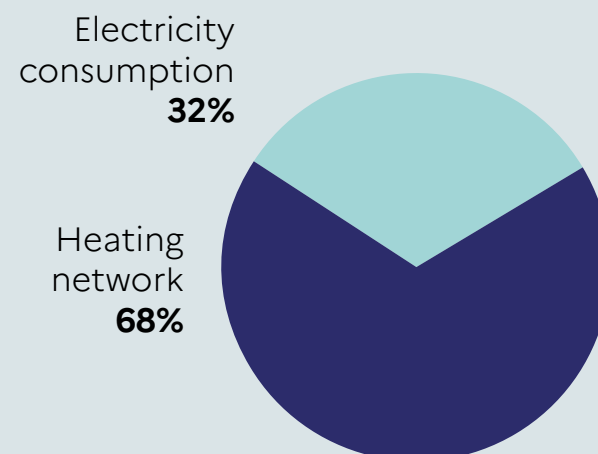


EXAMPLE OF THE OPÉRA NATIONAL DE PARIS (2022, 2019 DATA):

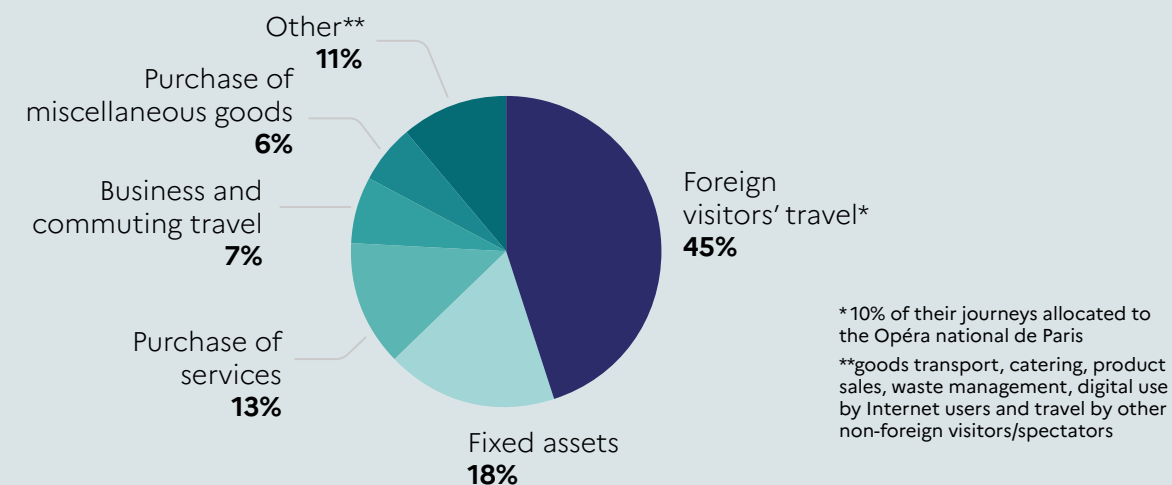
GHG emissions by the Opéra national de Paris (tCO₂e)



Opéra national de Paris scope 1&2 emissions (tCO₂e)

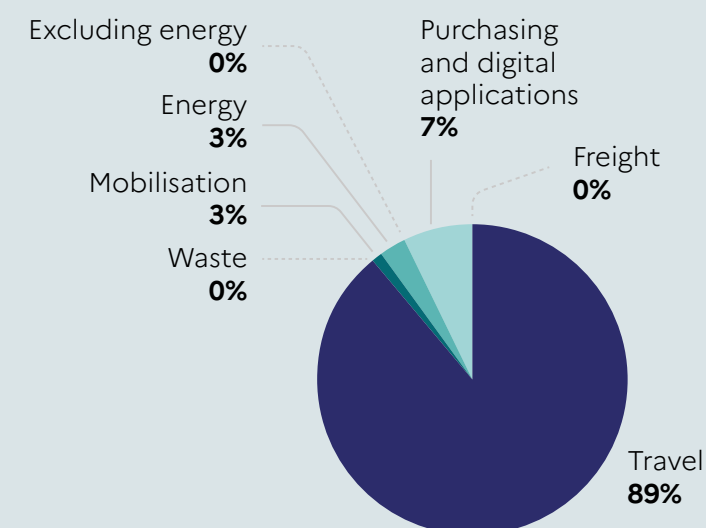


Opéra national de Paris Scope 3 emissions (tCO₂e)



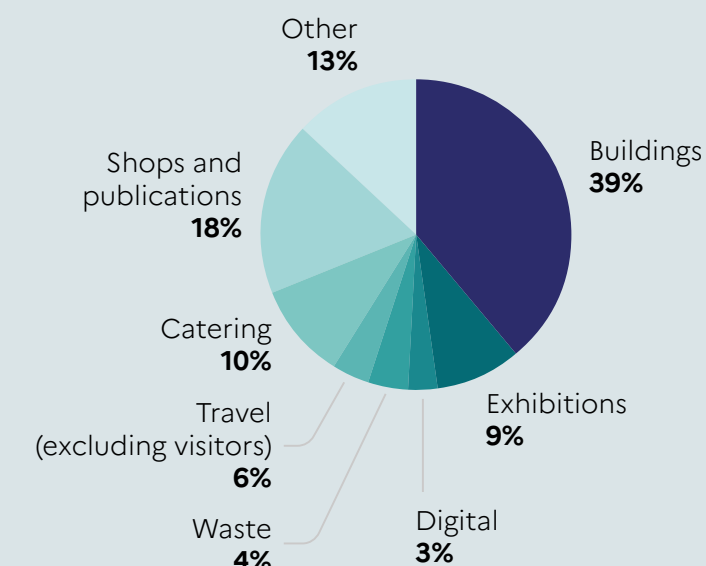
EXAMPLE OF THE CITÉ DES SCIENCES ET DE L'INDUSTRIE (2021, 2019 DATA)

Bilan Carbone® audit for the Cité des sciences et de l'industrie, emissions in tCO₂e



EXAMPLE OF THE MUSÉE D'ORSAY PUBLIC INSTITUTION (2023, 2019 DATA – EXCLUDING VISITOR TRAVEL)

EPMO's GHG emissions (tCO₂e)



Culture and the media: a force for raising environmental awareness

In addition to the tools for measuring and effectively transforming the cultural sector, all the interviews conducted as part of the preparation of this action plan, as well as the "Décarbonons la culture!" report by the "Shift Project" and the study conducted by ADEME¹² in 2017, testify to a phenomenon specific to the cultural sector.

Although culture is a sector in which – as in other sectors – transport, the energy performance of buildings and the use of digital technology all have a significant environmental footprint and need to be radically reformed...

...culture is also a force for inspiration: it forges imaginations and can inspire new narratives, which will be decisive in the way audiences take on board the issues linked to ecological transition.

For several years now, cultural professionals have been playing an important role in raising public awareness of climate and environmental issues:



L'éternité devant soi, sculpture, Glanum archaeological site (France) © Laurent Pernot – ADAGP Paris

¹² Des récits et des actes: la culture populaire au service de la transition écologique (ADEME, 2017)

- **At the cinema**, Green Tide (2023) by Pierre Jolivet has already won over hundreds of thousands of cinema-goers, while Acid (2023) by Just Philippot and Afire (2023) by Christian Petzold weave their narratives around or alongside environmental disasters.
- **Festivals** such as We Love Green and Le Cabaret Vert have encouraged millions of festival-goers to adopt more sustainable practices by offering eco-friendly transport, eco-responsible facilities and plant-based food.
- As part of the **Mondes nouveaux** commission programme, a number of artists have created works that question our relationship with nature, such as Sabine Mirlesse ("Crystalline Thresholds: les portes de givre," a land art work installed on the heights of the Puy-de-Dôme), or Dorian Etienne, whose "Pays'âges" testimonial tapestries offer an artistic snapshot of regions subject to climatic risks.
- **In bookshops**, the "Le monde sans fin" comic strip by Jean-Marc Jancovici and Christophe Blain, which explores society's relationship with the environment and energy and climate issues, was the best-selling book of 2022.
- The environmental crisis is also reflected **on stage**: the Halle aux Grains, the national stage in Blois, takes up the issue every year through its running of an arts festival called "Génération climat", in which debate, discovery and artistic exploration intermingle; at the Centre Pompidou, the "Quelle culture pour quel futur?" forum combines conferences and dance; on

Reunion Island, the Mobil Têat' has been built in an eco-responsible way, is energy self-sufficient and has the artistic ambition of creating works linked to the landscape...

- In 2023, many **museums** (Le Havre, Lille, Lyon, Marseille, Nantes, Paris, Rouen, Toulouse) presented exhibitions on the themes of ecological transition, climate or environmental protection.
- For the past several years, **Universcience** has been organising exhibitions that popularise scientific culture and raise awareness of the "Climate Emergency" – the title of their new permanent exhibition from 2023.
- **Public broadcasters** are also playing their part, with a remit to alert the French public to environmental issues and offer educational content such as La météo du climat (France Télévisions) and La Tête au carré (Radio France).
- This awareness-raising is not restricted to broadcasting educational content: it also includes the production of **dramas**, such as the series Abysses, and documentaries, such as Sur le front, by France Télévisions, and the 15% increase in advertising devoted to eco-responsible products and services implemented by Radio France.



Archie-Folies 2024, Models
© MC, Accorsini Jeanne, Sipa Presse



II – THE MINISTRY OF CULTURE'S MAIN DRIVERS FOR ACTION

To limit the ecological footprint of the cultural sector, the Ministry of Culture is initially implementing three types of action aimed not only at its own departments but also at all cultural players:

- Collecting data and carrying out carbon footprint audits
- Financing ecological transition
- Supplying training in the challenges of ecological transition

Such actions must become default practice for all players and in all sectors: the Ministry of Culture is therefore working to roll them out and adapt them as part of its 2023-2027 action plan.

1. Collecting data and carrying out carbon footprint audits

2023 – 2027 TARGETS FOR THE MINISTRY OF CULTURE

Target 1: By the end of 2025, 100% of Ministry of Culture establishments will have a carbon footprint audit that is less than 3 years old (individually, or by type of structure).

Target 2: From the end of 2025, carbon benchmarks will provide a means of measuring the major sources of greenhouse gas emissions for the various types of cultural structures.

Target 3: By 2027, 100% of cultural stakeholders will be measuring the impact of their events and productions

IN ORDER TO REDUCE THE CARBON FOOTPRINT OF ITS OPERATORS, ACCREDITED STRUCTURES AND ALL CULTURAL PLAYERS, THE MINISTRY OF CULTURE IS WORKING TO:

- **Gradually extend carbon footprint audits to cover all cultural sectors**
- Remind structures in the cultural sector with more than 250¹³ employees of the obligation to carry out greenhouse gas emission assessments (BEGES) and transition plans, and to renew them every three years.
- Encourage carbon footprint audits for major cultural events (festivals, exhibitions, shows, etc.) and large structures.
- In 2023, start to draw up "carbon benchmarks" based on BEGES assessments carried out on a sample of structures and for each cultural sector (within the categories and networks of artistic creation, libraries, archives, ministry schools, museums and certain heritage sites), in consultation with each one.
- At the beginning of 2024, set up a progressive timetable for discussing possible decarbonisation options based on carbon footprint audits, taking into account the degree of maturity and specific characteristics of each sector and progress already made.
- Evaluate strategies for reducing ecological impact using these measurement tools.
- » **Support the introduction of measurement tools specific to the cultural sector**
- On the website of the Ministry of Culture's ecological transition mission, set up an environmental self-diagnosis questionnaire for the entire cultural sector to enable even the smallest cultural structures and businesses to measure their degree of maturity and help them define an ecological transition action plan.
- In 2024, experiment with an environmental impact calculator for use in the restoration and renovation of buildings of heritage interest and in the Ministry's new construction projects; assess the benefits of introducing such a calculator for all architectural projects.

- Work with the industry to develop an "eco-score"¹⁴ for cultural goods and set design assets.
- Approve tools for analysing the carbon impact or life cycle of digital cultural products.
- Complement the data with a study of the waste generated by cultural structures, and set up an action plan.
- Test tools for measuring the impact on biodiversity in cultural structures, and support the deployment of such tools as they become standardised.
- » **Develop decision-making tools for adapting to climate change**
- By 2027, use research and innovation to develop decision-making tools for heritage threatened by climate change (e.g. eroded coastlines).
- By 2027, share advice with cultural stakeholders on how to adapt to, and even confront, the effects of climate change.

¹³ Article L 229-25 of the French Environment Code makes it compulsory for State departments, public establishments and other legal entities under public law with more than 250 employees to draw up a BEGES assessment every three years, and every four years for legal entities under private law with more than 500 employees in mainland France and 250 employees in France's overseas territories.

¹⁴ A mechanism for measuring the environmental impact of food products, which could serve as a model for the cultural sector.

GOOD PRACTICE

CNC-approved impact calculators

The Centre national du cinéma et de l'image animée (CNC) has approved calculators that meet precise audiovisual specifications, and references them for distribution to industry players. Since the beginning of 2023, this before-and-after assessment of filming shoots has been a prerequisite for any support from the CNC.

Sector-specific carbon calculators

An initial project, led by the three music publishers' unions and funded by Alternatives vertes, will measure the carbon footprint of record companies and labels. Meanwhile, the Arviva association, through the same call for projects, has created the [SEEDS tool](#) for live performance professionals.



Reuse of set design elements for *Roméo et Juliette* by Charles Gounod at the Opéra national de Paris, directed by Thomas Jolly
© Elena Bauer /OnP

2. Financing ecological transition

A. SUPPORTING INITIATIVES TO DECARBONISE CULTURE

2023 – 2027 TARGETS FOR THE MINISTRY OF CULTURE

Target 1: From 2024, €40 million of the interministerial funds dedicated to ecological transition will be earmarked for the cultural sector.

Target 2: By 2025, all of the €25 million for the second tranche of the Alternatives vertes programme (France 2030) will have been committed.

Target 3: By 2027, and as dictated by replacement schedules, all strategic documents (COM, COP, SPSI¹⁵, etc.) of operators, public broadcasting companies and multi-year agreements with approved structures (in decentralised and central services) will include appropriate environmental commitments.

Target 4: By 2027, support from the Ministry of Culture will be contingent upon compliance with sector-specific environmental commitments.

¹⁵ COMs: Contracts of Objectives and Means; COPs: Contracts of Objectives and Performance; SPSI: Multi-year Property Strategy Plan With its current strategic plan, the Institut du financement du cinéma et des industries culturelles is consistently incorporating

TO FACILITATE ECOLOGICAL TRANSITION THROUGHOUT THE CULTURAL SECTOR, THE MINISTRY OF CULTURE HAS DECIDED TO:

Run a second "Alternatives vertes" ("Green Alternatives") call for projects under the France 2030 initiative

In 2021-2022, the Ministry of Culture and the SGPI put out an initial call for projects, which awarded €9.3 million in aid to innovative ecological transition projects in the cultural sectors. 78 applications were submitted to the Caisse des Dépôts and 35 candidates were selected, including a project run by the CNM to measure the carbon impact of phonographic publishing, several sector-specific recycling projects, and a project covering the heating of temporary structures for live performances.

In 2023, the Ministry of Culture and the General Secretariat for Investment, responsible for the France 2030 Plan, launched the second "Alternatives vertes" call for projects.

This €25m scheme, implemented by the Banque des Territoires (Caisse des Dépôts group), aims to accelerate ecological transition in cultural structures. It encourages the emergence of replicable, formative innovations.

It also provides funding for environmental footprint measurement tools, and also training and skills development for professionals. "Alternatives vertes 2" is being rolled out in three waves up to December 2024:

- End of wave 1: 29th September 2023
- End of wave 2: 29th March 2024
- End of wave 3: 31st December 2024

In addition, France 2030's calls for projects dedicated to culture, such as "La Grande Fabrique de l'Image" or "Pôles territoriaux", ensure that the supported projects have environmental offsets.

Gradually make ecological impact indicators a criterion for granting aid

- In 2023, introduce ecological criteria into the review of projects supported by IFCIC¹⁶.
- By 2025, assess the benefits of this type of system and propose sector-specific adaptations.
- By 2027, have implemented an appropriate system to make Ministry of Culture grants contingent upon compliance with environmental commitments.
- Develop low-carbon labelling and meaningful environmental obligations for projects on heritage sites¹⁷.



© Dusan Stankovic, 2021

¹⁶ With its current strategic plan, the Institut du financement du cinéma et des industries culturelles is consistently incorporating an environment, social and governance (ESG) component into its assessment of projects applying for its funding.

¹⁷ Many heritage sites – forests, grassed areas, wetlands, etc. – have the potential to sequester carbon and/or help boost biodiversity. The Ministry will be working with its operators and other owners of historic buildings to help them adopt these best practices and obtain the low-carbon label.

2023 – 2027 TARGETS FOR THE MINISTRY OF CULTURE

Target 1: From 2024 onwards, investments to improve energy performance and consumption will be given a central place, or even priority, in the establishments' planning documents.

Target 2: In 2024, 16 of the 32 oil-fired boilers still in service in the Ministry of Culture's public establishments will be replaced.

Target 3: By 2026, 100% of the oil-fired boilers in the Ministry of Culture's public establishments will have been replaced.

IN ORDER TO ENABLE ECOLOGICAL TRANSITION THROUGHOUT THE CULTURAL SECTOR, THE MINISTRY OF CULTURE IS WORKING TO:

Mobilise green interdepartmental funding

In addition to the Ministry's budget, **culture will benefit from €40m earmarked within the Government's Fonds interministériels verts (Green Interministerial Funds)** to support energy renovation work by its operators and approved structures, jointly supported by the Ministry of Culture and local authorities (national venues, operas, modern music venues, drama centres, choreographic centres, art centres, regional contemporary art funds, circus centres, etc.).

Manage the Ministry of Culture's investments in line with ecological transition

As part of the State's "Budget Vert" ("Green Budget"), the Ministry of Culture is incorporating enhanced eco-design and eco-responsibility criteria. This will also involve reviewing, or even

revising, the multi-year property strategy plans for the Ministry's establishments in order to prioritise environmentally responsible investments.

Take advantage of the support of the Banque des Territoires for energy renovation in cultural venues

The Banque des Territoires is working to support the diagnosis of equipment and finance its energy renovation. Given the specific challenges faced by the many and varied cultural organisations that are sometimes ill-equipped to carry out renovation projects of this kind, a joint project is being carried out to coordinate and facilitate their efforts. In the first instance, it is being carried out for cinemas with the commitment of the CNC, the Fédération nationale des cinémas de France and the IFCIC.

In partnership with [Sites et Cités Remarquables de France](#), the Banque des Territoires has also [developed a comprehensive range of support services for the responsible, sustainable restoration and thermal improvement of outstanding buildings](#).

GOOD PRACTICE

Centre national du microfilm

The Espeyran Centre national du microfilm et de la numérisation is the first cultural institution to have signed a meaningful

environmental obligation policy, which constitutes a 50-year commitment to take account of the living world in all its work.

3. Training to meet the challenges of ecological transition

2023 – 2027 TARGETS FOR THE MINISTRY OF CULTURE

Target 1: By the end of 2024, all the supervisory staff at the central administration and 50% of the State's urban planning architects and heritage curators assigned to the Ministry of Culture's decentralised departments will have received professional training on the challenges of ecological transition.

Target 2: By the end of 2024, all senior civil servants will have received training in the challenges of ecological transition.

Target 3: By 2024, 100% of the Ministry of Culture's operators will have set targets for progress in terms of training their teams in ecological transition.

Target 4: By 2025, 100% of the presidents and directors of the Ministry's establishments and accredited structures will have been trained in the challenges of ecological transition.

Target 5: By 2026, 100% of the teaching syllabuses of schools in the higher education sector will have included ecological transition.

TO ENSURE THAT ALL PARTIES INVOLVED IN THE CULTURAL SECTOR ARE EQUIPPED TO MEET THE CHALLENGE OF ECOLOGICAL TRANSITION, THE MINISTRY OF CULTURE PLANS TO:

- **Make changes to initial training courses in higher cultural education (art, architecture and film schools, higher training courses in heritage issues):**
- Adapt teaching guidelines to make ecological transition a compulsory component of cultural higher education, in line with the unanimous opinion of the National Council for Higher Education and Research in the Arts and Culture (CNESERAC) in July 2023
- By 2024, complete the process of revising the regulations¹⁷ in architecture schools
- For other cultural higher education courses, initiate dialogue with the Ministry of Higher Education and local authorities from 2024 onwards

» Support the deployment of a range of continuing education courses for employees of the Ministry of Culture and its operators:

- From 2023, roll out awareness-raising modules for all employees
- From 2023, start making changes to vocational training for the professions most affected by ecological transition (real estate professions, supervisors, etc.)
- By the end of 2024, raise awareness of ecological transition among the Ministry's senior managers

¹⁷ Decree of 20 July 2005 relating to training cycles for architectural studies

» **Step up training in ecological transition for cultural professionals:**

- From 2023, open a dedicated dialogue with skills operators (OPCOs), starting with Afdas, to develop registered modules
- By the end of 2025, make it compulsory for all subsidised structures to train their managers in ecological transition
- Train managers in subsidised sectors, along the lines of what the CNC and CNM are doing
- Develop training for new cultural professions linked to ecological transition
- Approve training courses on energy-efficient digital technology, carbon impact assessment tools and the lifecycle of digital technologies in culture, etc.
- **Strengthen research and innovation in ecological transition in the schools and research establishments of the Ministry of Culture and its partner research laboratories, in order to:**
 - Step up research and ground-breaking innovation in support of ecological transition (for example, in connection with architecture and heritage)
 - Step up the use of expert assistance in support of public policies

» **Improving information on ecological transition in Culture**

- Set up dedicated resources on the Ministry's website in the last quarter of 2023
- Lead dedicated communities, according to needs, by profession or by sector, by the Ministry's teams (e.g. efficient use of energy and digital technology, ecological transition in conservation, sustainable transport, etc.)
- Make extensive use of Civic Services "Ambassadors for Ecological Transition" among the Ministry's operators

Each of these projects will systematically take the specific characteristics of ultra-marine institutions and businesses into account.

GOOD PRACTICE

ENSA-ECO

ENSA-ECO is a scientific and educational network dedicated to good practice in the field of ecological transition in architecture; it works to raise the profile of these issues in architecture and landscape schools.

Cinema and audiovisual training

The CNC is implementing the recommendations of the Jouzel report ("Awareness and training in the challenges of ecological transition and sustainable development in higher education", February 2022) for initial training. In terms of ongoing training, the social partners have agreed on an eco-responsible certification programme.

Centre national de la musique


The Centre national de la musique has a section on its website dedicated to ecological transition, featuring initiatives, guides, funding, resources and training on the subject.

Advice on energy efficiency in cultural establishments

In this "Guidance and inspiration document", the Ministry of Culture provides all cultural stakeholders with practical advice on energy efficiency to help them reduce their energy consumption and limit their environmental footprint.



CCN La Rochelle The Roots
© CCN La Rochelle Joao Garcia



III – ENERGY EFFICIENCY: GUIDELINES AND BEST PRACTICE FOR CULTURAL ESTABLISHMENTS

The climate crisis is a reality that demands an accelerated transition away from fossil fuels.

The energy crisis of the winter of 2022 prompted us to rethink our models for decarbonising our economy. The Government has therefore made a firm commitment to an ambitious energy efficiency plan¹⁸ aimed at achieving energy savings of 10% by 2024 compared with 2019.

Starting in 2022, cultural establishments became involved,

a. By adopting exemplary energy efficiency measures:

- A maximum heating temperature of 19 °C in winter
- A two-week adjustment to the start and end of the heating period

- Reductions in the use of hot water
- Air conditioning capped at 26 °C in summer
- Switching off ventilation when premises are unoccupied

b. By adopting symbolic measures; for example:

- Louvre pyramid not lit after 11 pm
- Reducing the number of light screens at the Opéra Bastille (a reduction of 1 hour 30 minutes)
- Facades of the Château de Versailles not lit after 10 pm

These efforts have resulted in a reduction of around 10% in energy consumption by winter 2023 in our establishments, in line with the 8 measures below:



Etienne Léopold Trouvelot, Direct electric spark, 1885
© Centre Pompidou, MNAM-CCI, dist. RMN-Grand Palais

¹⁸ Government energy efficiency plan: ecologie.gouv.fr

MEASURE — 1

ADJUST HEATING AND AIR-CONDITIONING LEVELS AND SCHEDULES

MEASURE — 2

REDUCE DOMESTIC HOT WATER

MEASURE — 3

A BETTER BALANCE BETWEEN AIR RENEWAL AND ENERGY SAVINGS

MEASURE — 4

USE LIGHTING ENERGY EFFICIENTLY

MEASURE — 5

REDUCE CONSUMPTION ASSOCIATED WITH DIGITAL USES

MEASURE — 6

FIND OUT MORE ABOUT YOUR PROPERTY'S POTENTIAL AND ITS ENERGY PERFORMANCE

MEASURE — 7

ENCOURAGE LOW-CARBON MOBILITY AND CAR-SHARING FOR TEAMS

MEASURE — 8

RAISE AWARENESS OF EVERYDAY ACTIONS IN SUPPORT OF THE ENVIRONMENT

MEASURE

— 1

ADJUST HEATING AND AIR-CONDITIONING LEVELS AND TIMETABLES

For work areas and public reception areas, the set point¹⁹ has been fixed at:

- 19° in cold weather
- 26° in hot weather

In accordance with articles R.241-26 and R.241-30 of the French Energy Code.

This means that heating or cooling is only triggered at these levels, which are the maximum and minimum temperature targets respectively.

By way of a reminder, these target values comply with the requirements of the French Labour Code²⁰. Some institutions will also be able to adjust their opening hours and days, where permitted by their business activity and for the part of their activity that does not involve dealing with the public.

IN PRACTICE:

FOR TEAMS:

Public teams have also benefited from a 15% increase in the fixed teleworking allowance to cover the increase in energy prices from the beginning of 2023.

DURING PERIODS OF VACANCY:

The temperature set points during the winter vacancy period are:

- a decrease of at least 2 °C if unoccupied at night on a daily basis
- maximum of 16 °C when unoccupied for 24 hours or more and less than 48 hours
- maximum of 8 °C when unoccupied for 48 hours or more.

IN ESTABLISHMENTS:

Where possible, the access system can be modified to optimise energy consumption:

- opening of certain doors only,
- relocating the area where security checks, etc., are carried out.

Such a modification may also involve a refurbishment that delivers significant savings. It is advisable to consider effective expenditure that will pay for itself over time, such as:

- Increased maintenance of boilers and heating circuits (including de-silting);
- installing, renovating or making better use of building management systems²¹ can generate significant savings, making a major contribution to the 10% target (examples: Opéra Comique, Château de Fontainebleau, Institut national d'histoire de l'art)
- connection to district heating and cooling networks where possible
- installation of geothermal energy (e.g. Versailles national estate)
- the installation of BACS ("Building Automation and Control Systems", which enable intelligent management of service buildings).

¹⁹ Prime Minister's circular of 25 July 2022

²⁰ The French Labour Code specifies that "enclosed workplaces must be heated during the cold season. Heating systems must be operated in such a way as to maintain a suitable temperature and not to give rise to any noxious fumes" (article R. 4223-13), although what constitutes a "suitable" level is not specified.

²¹ In 2022, the Government also announced that a consultation process will be launched with a view to extending the obligation to install building management systems to all commercial buildings equipped with heating or cooling systems with a capacity of more than 70 kW, ahead of the planned deadline of 2027.

MEASURE

— 2

REDUCE THE USE OF DOMESTIC HOT WATER

The Labour Code requires hot water to be supplied to washrooms and catering facilities provided for employees in organisations with more than 50 employees (articles R. 4228-7 and R. 4228-22 of the French Labour Code). However, it is not compulsory in toilets in public buildings open to the public, spectators, visitors or schoolchildren.

IN PRACTICE:

Where conditions allow, it is recommended that domestic hot water production is switched off for uses other than those for which hot water is essential (showers, water points for washing, etc.).

IN ESTABLISHMENTS:

For hot water distribution systems that are maintained, no domestic hot water production device should be set above a temperature of 55 °C.

Remember that installations which produce hot water are at risk from Legionella. Appropriate measures must be taken when the hot water system is restarted.

MEASURE

— 3

A BETTER BALANCE BETWEEN AIR RENEWAL AND ENERGY SAVINGS

The COVID pandemic created a preference for "100% fresh air" aeration and ventilation systems wherever possible. In the interests of energy efficiency, it is possible to partially renew ventilation with fresh air.

IN PRACTICE:

Monitoring CO² concentration is a good indicator of sufficient air renewal. In an enclosed space, 400 ppm more than the atmospheric value (for example, 820 ppm if the atmospheric value is 420 ppm) has been given as the recommended value.

MEASURE

— 4

ENSURING THE EFFICIENT USE OF LIGHTING ENERGY

Measures to reduce the hours of outdoor and indoor lighting (particularly in the evening and during lunch breaks) are modest energy-saving measures that many establishments are already taking.

They also have strong symbolic significance, and demonstrate the exemplary approach to which the State and certain local authorities are committed.

IN PRACTICE:

We recommend **reducing and shortening the use of outdoor and indoor lighting**, as well as advertising screens, which consume a lot of electricity.

FOR BUILDING MANAGERS:

One priority is to **switch to eco-lighting** (replacing incandescent lamps with LEDs, known as "relamping"²²). They are, for example, being introduced at sites managed by the Centre des monuments nationaux and at the Théâtre national de la Colline.



© Christophe Chavan, RMN - Grand Palais

²² This investment must, of course, be made with consideration of the end outcome for teams and users, minimising the risks to eyesight.

MEASURE

— 5

REDUCE CONSUMPTION ASSOCIATED WITH DIGITAL USES

Establishments are invited to reduce their digital consumption and adopt more eco-responsible digital practices.

IN PRACTICE:

IN ESTABLISHMENTS:

Effective investments should be considered, such as:

- switching from desktop computers to laptops, which saves energy (lower power consumption, no need to keep a desktop switched on when teleworking);
- multifunction copiers (printers/scanners/photocopiers) that consume less energy than individual office printers.

IN DATA CENTRES, RECOMMENDED PRACTICE IS TO:

- shut down virtual machines that are not in use (such as training or acceptance environments);
- carry out a detailed review of applications in order to identify any applications that are still in service even if they are no longer being used (in order to delete them and switch off the servers in use);
- identify servers that can be switched off in the evening and restarted in the morning;
- gradually increase the temperature of server rooms from 19° to 23° (for example, ENSAD plans to manage the air conditioning of its IT server room as closely as possible);
- check that the "energy saving" option on physical servers is activated.

IN ESTABLISHMENTS, WHERE PERMITTED BY THE IT SYSTEM, RECOMMENDED PRACTICE IS TO:

- shut down all multifunction copiers overnight
- set up a system for switching off all the computers on a site (as at the Opéra national de Paris).

FOR TEAMS:

At a more symbolic level, teams may be recommended to:

- switch off their 2nd monitor whenever they are away from their desk for more than 15 minutes, and in all cases during the lunch break;
- switch off their individual computer equipment during long breaks and every evening;
- charge laptops overnight and work using the battery as much as possible during the day.

MEASURE

— 6

FIND OUT MORE ABOUT YOUR PROPERTY'S POTENTIAL AND ITS ENERGY PERFORMANCE

In addition to all these short- and medium-term measures, each institution should **continue to actively increase its knowledge of its building stock and its energy performance** in order to identify the most beneficial work to be carried out.

IN PRACTICE:

We strongly recommend the use of thermal diagnostics and studies on buildings to identify what needs to be done to improve their energy performance.

In particular, these information must provide a means of:

- providing input for the school's multi-annual property strategy plan²³
- providing reliable data on existing and expected consumption, the timing of works and the necessary investment costs.
- Lastly, carbon footprint audits can be used to refine the diagnosis, including for real estate.

²³ For example, the Château de Fontainebleau public institution expects to reduce its consumption by more than 10% by 2024 via its master renovation plan (2015-2031)

MEASURE

— 7

ENCOURAGING LOW-CARBON MOBILITY AND CAR-SHARING FOR TEAMS

The development of soft mobility is a key driver for collectively reducing energy consumption. By way of a reminder, **transport accounts for around a third of greenhouse gas emissions in France, half of which come from cars with internal combustion engines.** Whether for business travel or public transport, encouraging low-carbon mobility is a vitally important issue.

IN PRACTICE:

FOR TEAMS:
As a reminder, all public services must now implement the **sustainable mobility package**. This is therefore a **compulsory minimum** measure.

IN ESTABLISHMENTS:
Establishments are invited to draw inspiration from the best practices and innovations of certain cultural institutions; for example, by offering options such as:

- a questionnaire on travel habits (e.g. Musée du Quai-Branly - Jacques-Chirac), a useful tool for planning adaptations;
- the purchase of loan bikes or a subscription to a "bike-sharing" service;
- the installation or extension of cycle parking areas;
- the installation of a small bicycle repair garage (e.g.: INHA and Universcience);
- strictly limiting business travel by plane or car in cases where a low-carbon alternative exists;
- the introduction of charging points for electric vehicles.

MEASURE

— 8

RAISING AWARENESS OF EVERYDAY ECO-MEASURES

In the cultural sector, all the establishments have already set up internal campaigns to promote environmentally friendly and energy-efficient practices.

IN PRACTICE:

Schools can also be encouraged to organise:

- campaigns to raise awareness of the need to switch off computer equipment and lighting;
- campaigns to raise awareness of the need to take the stairs rather than the lift whenever possible;
- the introduction of specific training courses (eco-driving, etc.).

In order to involve all employees and ensure that the energy-saving measures taken by each structure are properly implemented, the drafting of a charter of good practice tailored to the establishment, such as the charter drawn up by the Théâtre de la Colline, is also encouraged.



Commissioned by the French Ministry of Culture
for Christine Debray

²⁴ The sustainable mobility package enables employees to be reimbursed for "all or part of the costs incurred in travelling between their usual place of residence and their place of work on their personal cycle or pedal-assist cycle or as a driver or passenger in a car-sharing scheme" (decree no. 2020-543 of 9 May 2020).





IV – FIVE PRIORITIES FOR MANAGING ECOLOGICAL TRANSITION IN ALL CULTURE SECTORS

Area 1

Create differently:
new sustainable
practices.

Area 2

Develop an energy-
efficient digital
culture.

Area 3

Invent the
architecture,
territories and
landscapes of
tomorrow.

Area 4

Preserve, conserve
and safeguard
for the future.

Area 5

Rethink public
mobility options to
ensure that culture
is always accessible.

AREA 01

Create differently:
new sustainable practices

Cultural production has never been so abundant, so diverse, or so easy to access. Preserving this wealth, while at the same time meeting ecological imperatives, requires us to think about the entire life cycle of the works and the elements that surround them. Creating, designing, producing, distributing, hosting and promoting a work of art are all stages that need to be rethought in order to minimise the ecological impact of creative endeavours.

For several years now, the Ministry of Culture has been addressing these issues by funding experiments and encouraging good practice. Today, the Ministry wishes to strengthen this fundamental movement in order to align the challenges of ecological transition with the ambition of a rich and diverse French culture supported by more than 220 visual arts residencies, 127,000 musical events, more than 7,000 festivals, 1,200 museums in France, 43,000 cultural associations dedicated to performing arts, and 2,000 cinemas.

2023 – 2027 TARGETS FOR THE MINISTRY OF CULTURE

Target 1: In 2024, legal solutions will be provided to cultural players to facilitate the re-use of materials and productions.

Target 2: By 2025, 75% of cultural players supported by the Ministry of Culture will offer the public and/or their teams at least one vegetarian meal option per day.

Target 3: By 2027, all operators' strategic documents and the multi-year agreements signed with approved structures will include at least one environmental commitment.



Reuse of set design elements for Charles Gounod's *Roméo et Juliette* at the Opéra national de Paris, directed by Thomas Jolly © Vincent Pontet /OnP

2,256 TCO₂E*

According to the SHIFTProject, this is the estimated carbon footprint for the food – mainly meat – consumed by a large festival on the outskirts of a city, welcoming almost 280,000 visitors over four days. For the record, a French person produces an average of 9 tonnes of CO₂ equivalent in a year, with a target of around 2 tonnes to achieve carbon neutrality by 2050.

88%

of the professionals and students surveyed in 2021 as part of the Réveil Culture student study have not received any initial or ongoing training in energy and climate issues.

1,000 TCO₂E*

approximately are emitted by the transportation of the works for a 1,000-seat theatre for one year.

*tonne CO₂ equivalent



Reusable steel picture rails at the Musée d'Orsay
© Musée d'Orsay

1. MORE ENVIRONMENTALLY FRIENDLY PRODUCTION MODELS

A work of art, a cultural asset or a cultural event needs to be viewed across its entire life cycle: design, production, staging and set design, dismantling or conservation, use or circulation, reuse or even recycling.

At every stage, culture professionals need support to ensure that their practices are as energy-efficient as possible. The complexity of the issues, the need to improve their skills and legal constraints are all challenges that need to be met in order to change the model.

The aim is to remove obstacles and encourage people to take action. Works of art and cultural events all provide opportunities not only to limit environmental impacts, but also to help regenerate living organisms and ecosystems.

From 2023 to 2027, the Ministry of Culture will work with cultural players to:

- Support the eco-design of cultural works, goods and events
- Define production methods in various sectors
- Develop the "Mieux produire pour mieux diffuser" ("Better production for better distribution") plan as a laboratory for ecological transition
- Work within the ministry and across ministries to change the regulatory framework to make it possible to reuse and donate equipment in the cultural sector
- Initiate discussions with professionals with a view to establishing a tool for tracking book sales in real time ("booktracking")

GOOD PRACTICE

Second-hand shops

The "Alternatives vertes" ("Green Alternatives") call for projects supported a number of second-hand shops dedicated to cinema, the performing arts and the visual arts in the Île-de-France region, arts and crafts in Paris and Marseille, all cultural sectors in the Pays-de-la-Loire region, the performing arts and audiovisual sector in the Occitanie region, and the recycling of production "offcuts" at the Tours-Angers-Le Mans ESAD.

Opéra de Lyon

The Opéra de Lyon has organised a public sale of thousands of costumes used in its former shows. In addition, as part of Alternatives vertes, it is coordinating with the Festival d'Aix-en-Provence, the Opéra National de Paris, the Théâtre du Châtelet and the Théâtre royal de la Monnaie to experiment with standard set structures.

MUCEM

The MUCEM museum has conducted a study of all its waste and included a requirement to re-use picture rails and set design decors in some exhibition specifications.

Musée des Confluences, Lyon

The Musée des Confluences promotes its permanent collections (3.5 million objects) in order to maintain its appeal without depending exclusively on the turnover rate of its temporary exhibitions.

"The wool of tomorrow" competition

In 2022, the Campus des métiers d'art et du design, Paris – Manufactures des Gobelins, the Mobilier National and the Tricolor collective organised a "young creation" competition to promote the work of those involved in wool, whose goal is to strengthen the French wool industry and improve the traceability of the product.

2. MORE ENVIRONMENTALLY-FRIENDLY DISTRIBUTION OF WORKS AND ARTISTS

Ecological transition implies a profound paradigm shift away from a model based on accelerated rates of production and consumption of cultural content, towards a model that is sustainable, always desirable, and always open. The aim is to preserve creative diversity, change our relationship with production time and define new life cycles for works from creation to distribution: devising a different pace of scheduling, and designing cultural offerings differently. This requires re-examining the scales of time, territory, space and audience. It is the task of the professionals in each sector to work together to build a new balance between competition and shared effort, so as to achieve a greater degree of sustainability.

From 2023 to 2027, the Ministry of Culture will work with cultural players to:

- Encourage longer runs of shows in the performing arts sector, particularly for local tours, through the "Mieux produire pour mieux diffuser" plan.
- Facilitate the sharing of technical expertise and equipment within a region.
- Open a structured discussion with the entire book production chain on the future of distribution (modes of transport, network of depots, etc.) with the aim of reducing its ecological impact.
- Facilitate environmentally-friendly approaches to transporting works of art, cultural goods and artists.

GOOD PRACTICE

Environmental charter for book publishing

The Syndicat national de l'édition has designed and shared a guide that suggests areas for improvement (choice of inks, finishing, promotion methods, etc.) at every stage in the design, production and distribution of books.

MeMo

The publisher MeMo is promoting an anti-pulping policy for books by giving them a long-term lease of life, focusing on quality, not reprinting too quickly, and donating books with defects that retailers can no longer sell to charities or educational institutions.

Grand Ouest

The "Partenaires culturels du Grand Ouest" charter brings together 40 of the region's cultural venues, eliminating the territorial exclusivity clause and facilitating artist tours.

Opera productions

The Grand Théâtre d'Angers and the Théâtre Graslin in Nantes have joined forces to create the "Angers Nantes Opéra". Similarly, the national theatres of Besançon, Dunkerque, Quimper, Compiègne, Rennes and Tourcoing have joined forces in the Co[opéra]tive to pool the distribution of opera productions throughout the region.

Footprints

This project, coordinated by Le Périscope, a jazz and improvised music venue in Lyon, and funded by Alternatives vertes 1, aims to reduce the carbon footprint of local venues and festivals, particularly through travel by artists and audiences, by organising local tours instead of a single concert.

DECLIC

Led by the Syndicat des musiques actuelles (SMA) and the Fédération des lieux de musiques actuelles (Fedélina) with the Ekodev agency, Declic is a project whose aim is to "Decarbonise live events". Supported by France 2030 (Alternatives vertes) and the Centre national de la musique, the project aims to produce 18 diagnoses and standard assessments to help all types of live venue (small and large festivals, concert halls, in rural areas or urban centres) to control their emissions and reduce their carbon footprint.

AREA 02

Developing an energy-efficient digital culture

Digital transformation of the way we work, live recording and broadcasting of events, video on demand, computerised management of collections, assisted creation, and the creation of participative and immersive experiences, metaverses and virtual reality, non-fungible tokens (NFT): the possibilities offered by digital technology are immense, but their development raises questions in terms of their carbon impact.

According to the French Environment and Energy Management Agency (ADEME), the digital sector already accounts for 4% of the world's greenhouse gases, and this figure is set to rise to 8% by 2025. It also accounted for 2.5% of France's carbon footprint in 2020. Culture plays a key role in the content consumed, particularly streaming content.

How can we design digital projects that are as energy-efficient as possible? How can we support the growth of technologies in the cultural world to minimise negative externalities?

Mindful of these challenges, the Ministry of Culture is committed to combining the opportunities offered by digital technology with a reduction in the environmental impact of its use. Players in the culture sector will find that public institutions can provide them with measurement tools, benchmarks and guides to help them adapt to this technological acceleration and control its effects. Contrary to popular belief, we need to read at least 10 books a year on an e-reader before it becomes more energy-efficient than a new paper book that is read just once (ADEME study).

2023 – 2027 TARGET FOR THE MINISTRY OF CULTURE

Target: From 2024, the central administration of the Ministry of Culture will be stepping up engineering support for its operators to adopt appropriate plans for energy-efficient use of digital technology.



Commissioned by the French Ministry of Culture for Christine Debray

1-2%

of the world's greenhouse gases come from digital uses of culture – almost half of the total carbon impact of digital technology (4%). It is also apparent that this figure is constantly rising, which is why it is so important to think about a more energy-efficient digital future.

80%

of the carbon footprint of digital equipment is linked to the manufacture of the equipment.

100 GCO₂E

This is the estimated carbon impact of one hour of streaming video, equivalent to the emissions of a 75W fan used for 6 hours in Europe.



Visit to the Fortiche animation studios, which have worked with Quarnot (winners of Alternatives vertes 1) for their eco-responsible cloud solution
© El Orel Kichigai - Aurélie Blanche

1. BEST PRACTICES AND COMMON STANDARDS FOR A MORE RESPONSIBLE DIGITAL WORLD

From creation to distribution, via conservation and archiving media, digital technology is now an integral part of the cultural landscape, and its use is on the increase. To counter its growing environmental impact, the cultural sector must be capable of building on the advances made by the REEN law (Réduction de l'Empreinte Environnementale du Numérique en France - Reducing the Environmental Footprint of the Digital Sector in France) and introducing sector-specific strategies that take account of the specific characteristics of digital creation and heritage conservation.

In particular, the aim is to support ongoing technical developments. Behind the much-publicised words Web3, metaverse and non-fungible tokens (NFT), a third Internet revolution is on its way, based on increasingly immersive technologies and blockchain, the corollary of a desire for a decentralised web.

From 2023 to 2027, the Ministry of Culture will work with cultural players to:

- Document the impacts of digital creation and make the right choices in this area
- Implement registration of copyright and enable archiving by giving priority to open formats, while taking care to maintain data quality
- Promote the informed use of digital technologies in the cultural sector
- Open a discussion at European level on the energy efficiency of existing technologies (tailoring the resolution of music and video streaming to the terminal used, the carbon impact of platforms, interoperability of digital content).

GOOD PRACTICE

Qualway

The Quarnot Computing project, supported by Alternatives vertes, reuses the heat produced by production studio servers instead of wasting it. For example, the project is the service provider for the Fortiche animation studio.

"Numérique Responsable" label

The LUCIE Agency and the Institut du Numérique Responsable (INR) have developed the "Numérique Responsable" ("Responsible Digital") certification to identify organisations that are committed to reducing the impact of digital technology on their activities. The Cité des sciences et de l'industrie is the first of the Ministry of Culture establishments to be awarded "Numérique Responsable" certification.

General eco-design framework

Public players and civil society have joined forces to create a general reference framework for the eco-design of digital services, i.e. the deployment of more energy-efficient digital tools. Version 1 has been released, along with an assessment tool (NumEcoDiag) that is accessible to all.

Archifiltre

The social ministries' archives department, with the support of the Interministerial Service of the Archives of France, has developed a tool to help assess office automation and email systems, identifying which data and documents should be archived and which should be disposed of. The tool calculates the carbon impact of removing the identified information.

Working groups on digital technologies

The Ministry's digital department has organised working groups on the use of NFTs. A working group on the metaverse is also getting involved.

Good practice charter for music publishing

In 2020, the Chambre Syndicale de l'Edition Musicale (CSDM) published its good practice charter to inspire players in the music sector to embark on ecological transition, focusing on 4 areas including digital technology.

2. A DIGITAL ENERGY EFFICIENCY PLAN FOR THE MINISTRY OF CULTURE AND ITS ESTABLISHMENTS

Drawing on the dynamics and principles identified by the cultural sectors, the Ministry and its operators must digitally implement the key expectations of the government's strategy for eco-responsible public services, steered by DINUM (the interministerial digital directorate). The aim of reducing the carbon footprint of the digital sector involves measuring this footprint, extending the lifespan of IT and telephony equipment, a responsible digital purchasing strategy, the eco-design of digital services, principles for re-use, and appropriate governance.

From 2023 to 2027, the Ministry of Culture is therefore making commitments both internally and with its operators to:

- By 2023, introduce a digital energy efficiency action plan for the Ministry of Culture
- By the end of 2024, support the development of digital energy efficiency strategies for Ministry of Culture establishments



© Jametlene Reskp, Unsplash

GOOD PRACTICE

Virtual tours developed by the Centre des monuments nationaux

The CMN has developed a range of immersive virtual tours since the Covid lockdown, to complement the physical tours. This is a cultural offering that reaches out to people with mobility difficulties. This is a "virtuous" example of the use of digital technology.

Digital library of the Bibliothèque nationale de France

BnF has pooled the resources allocated to the development of Gallica, its digital library, and offers its partners the benefit of its know-how by providing a digital library for those who do not have one, built on the basis of the Gallica infrastructure but configured and personalised in the partner's colours: the "Gallica" white label offer.

AREA 03 Inventing the architecture, territories and landscapes of tomorrow

Architecture, landscape and urban planning have the potential to provide answers to ecological challenges: adaptation to global warming (energy transition, resilience to bad weather), decarbonisation, circular economy, reconstitution of biodiversity, etc. To achieve this, the design of buildings and landscapes must reinvent itself, with the aim of improving constantly.



La Villette - Transhumance 2023 © Joseph Banderet

In its management of cultural venues, heritage sites and training courses, the Ministry of Culture is taking ecological issues to heart, while offering new ways of connecting with others, with nature and with our common heritage.

Through the development of training courses, awards and certifications, the aim is to encourage the renovation, refurbishment and restoration of existing buildings, as well as energy-efficient projects that are properly sized and adapted to their intended use over their entire life cycle. This paradigm shift also means that environmental transition must be taken into account even more consistently in the training of architecture students, their teachers and practising professionals. France has also set itself ambitious energy transition targets: the share of renewable energies in final energy consumption must rise from 19% to 32% by 2030. The national low-carbon strategy is aiming for 370,000 complete, high-performance renovations per year from 2022, rising to 700,000 per year in the longer term.

The corollary of these two objectives is the rapid transformation of buildings and landscapes, which sometimes conflicts with the sovereign mission of preserving and protecting heritage, which forms the foundation of our cultural policies. Raising awareness and empowering all these players will therefore be essential if we are to respond to the climate emergency.

2023 – 2027 TARGETS FOR THE MINISTRY OF CULTURE

Target 1: From 2024, DPE diagnostics experts will receive training on the specific features of older buildings

Target 2: From 2024 onwards, all building and development projects managed by the Ministry of Culture will study and take appropriate account of greening and renaturing

Target 3: By 2027, 100% of risk prevention documents for the Ministry's establishments will address the risks arising from climate change

Target 4: From 2024, high environmental quality will be a major factor in the prioritisation of new investment

25%

This is the share of greenhouse gas emissions from buildings in France.

20,000

students studying at a school of architecture.

1. RECONCILE HERITAGE PROTECTION WITH ECOLOGICAL TRANSITION

Two fundamental responsibilities of public authorities often intersect: conserving our heritage – in all its diversity – for future generations, and implementing energy efficiency and introducing sustainable energy sources. In order to implement the two public policies in a meaningful way without contradiction, we need to walk a tightrope that does not involve giving up.

The State is playing its part by providing all stakeholders with a balanced, stabilised set of guidelines in advance of the project developer's decision, as was done in 2022 with the instruction for the development of photovoltaic energy, which will be supplemented in the last quarter of 2023 by a methodological illustrated guide to good practice. It can handle the pooling of expertise, training and methods between ministerial departments. It must ensure that practices are simple, predictable and consistent from one region to the next, and must be based – in the case of the Ministry of Culture – on heritage protection schemes that are already environmentally sound.

From 2023 to 2027, the Ministry of Culture will therefore be working at an inter-departmental level to:

- Continue to develop joint instructions between the Ministry of Culture, the Ministry of Ecological Transition and Territorial Cohesion and the Ministry of Energy Transition, as an extension of the actions initiated in 2022, to support heritage stakeholders at national level and clarify doctrine for project developers

On 9 December 2022, a joint instruction was issued by the Ministry of Culture, the Ministry of Ecological Transition and Territorial Cohesion and the Ministry of Energy Transition to contribute to the development of photovoltaic energy while ensuring that heritage is preserved.

- In coordination with the Ministry of Energy Transition, from 2024, train up diagnostics professionals to ensure that energy performance diagnoses (DPE) can take the specific features of older buildings into account
- Rely on preventive archaeology mechanisms (including INRAP, tools, aid, etc.) to promote ecological transition, and draw on knowledge in this field to inform our environmental thinking
- Identify, in UNESCO's national inventory of intangible cultural heritage (ICH), elements that contribute to sustainably managing natural resources and limiting the effects of climate change. These include the art of dry-stone construction, building skills in terracotta and the construction and restoration of timber-framed houses.

2. HISTORIC MONUMENTS AND NATURAL AREAS: PRESERVING RESOURCES AND BIODIVERSITY

Ecological transition requires more energy-efficient day-to-day management of buildings and greater attention to landscapes. The Ministry of Culture and its operators have a responsibility to protect biodiversity and use resources sparingly in heritage sites and cultural spaces.

From 2023 to 2027, the Ministry of Culture will therefore spearhead a dialogue with its partners to:

- Give tangible form to cultural venues' commitment to biodiversity, by obtaining dedicated public certifications (Ecojardin, Engagés pour la nature, Eco table, etc.)

- Take environmental objectives into account in management tools for outstanding heritage sites and buildings of heritage interest
- Factor the challenges of environmental transition, and also of renaturing and biodiversity, into all major long-term property projects.
- Support cultural organisations in implementing the "service sector decree" on reducing energy consumption²⁵
- Introduce public tools for biodiversity offsets (real-world environmental obligations) and carbon offsets (low-carbon certification), enabling cultural venues to benefit from new financial resources or to provide themselves with a framework for ecological progress

GOOD PRACTICE

Maintenance of the green spaces of French national monuments

In order to limit the use of plant health machinery or products, the CMN has introduced the use of sheep or goats to maintain green areas, which works very well when the species and areas are carefully selected.

LPO Guide

Published by the Ligue pour la Protection des Oiseaux in partnership with the Centre des Monuments Nationaux, the "Accueillir la biodiversité dans les bâtiments historiques" ("Welcoming Biodiversity in Historic Buildings") guide describes how to support wildlife in buildings through 22 technical sheets listing best practice.

"Jardin remarquable"

The criteria for awarding this Ministry of Culture certification include the existence of a management plan and care for the environment.

Extension of ENSAD

The new extension to the École nationale supérieure des Arts Décoratifs will partly re-use materials from the demolition of an old building in the courtyard.

"Les Etincelles" at Universcience

The renovation of the Palais de la Découverte led to the reuse of materials salvaged from the building site for the structure and interior fittings of the "Palais éphémère".

²⁵ Decree no. 2019-771 of 23 July 2019 on obligations to take action to reduce final energy consumption in service buildings



3. PROMOTE MORE ECO-RESPONSIBLE ARCHITECTURE

The energy efficiency and ecological contribution of a building, a neighbourhood or a landscape must be considered at the design stage. The Ministry of Culture, which is responsible for architecture and the quality of the living environment, and acts as a repository and pioneer of best practice, has a duty to put these professions at the forefront of ecological and cultural transition, as promoted by the New European Bauhaus. To meet environmental challenges, it is committed to an architectural philosophy of refurbishment and repair, in which professionals must be fully trained from their initial training onwards, and shares design and renovation methods, both old and new, that are better suited to the energy-efficient approach required in response to the climate emergency and the circular economy. The constructed environment must therefore be designed to take account of its life cycle and its ability to change and be reused at every stage.

From 2023 to 2027, the Ministry of Culture will therefore lead a dialogue with its partners to:

- Work with all stakeholders, including local authorities and developers, to ensure that renovation and redevelopment become the most common option
- Step up research and experimentation in the field of architecture and old buildings in relation to ecological transition
- Promote the most innovative end-of-study projects by ENSA students in terms of sustainable development, through the launch in 2023 of RESEDA, the first Student Residence for Sustainability in Architecture, which in 2024 will see the winning graduates gather for a week of collaboration at the Villa Medici in Rome
- Examine the option of extending the requirement to use an architect for the renovation or refurbishment of buildings above certain thresholds, by analogy with existing obligations in the area of construction (Law no. 77-2 on architecture)
- Mobilise local architectural sectors in support of environmental transition in the region



Forest garden - François-Mitterrand site © Emmanuel Nguyen Ngoc / BnF

GOOD PRACTICE

RESEDA: Student Residence for Sustainability in Architecture

To showcase the most innovative end-of-study projects by ENSA students in terms of sustainable development, the first Résidence Etudiante pour la Durabilité en Architecture (RESEDA) event will take place in 2024, bringing together the winning graduates for a collaborative residency at the Villa Medici in Rome.

The heritage city of tomorrow

The DRAC PACA, in partnership with the town of Arles and architecture students, has launched a series of full-size workshops on "the heritage town of the future", focusing in particular on the development of cool islands in protected areas.

Architects' manifesto for a happy and creative frugal approach

More than 15,000 signatories, including many architects, have signed this document, which calls for a sparing approach in terms of materials, energy, technology and the region.

"20th Century Architecture" research programme

The "20th century architecture" project material for the sustainable city of the 20th century" research programme, run jointly by the Ministries of Culture and Ecological Transition and Territorial Cohesion, aims to develop innovative intervention strategies. This study has prompted experiments in the rehabilitation of lightweight facades in 20th-century housing.

RéHAB XX^e

To demonstrate that it is possible to meet environmental requirements while preserving architectural and usage quality in buildings, the Ministry of Culture, in partnership with the Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement (Cerema), launched the "Palmarès de réhabilitations exemplaires de l'architecture de la seconde moitié du XX^e siècle" in 2023. The award recognises exemplary renovations of post-1948 buildings in response to the challenges of environmental transition, and highlights the role of architecture in addressing these challenges.

Culture et Climat

This project, supported by "Alternatives vertes" in La Réunion, will develop an open-source software package to improve the thermal comfort of buildings, taking people's behaviour and their resilience to discomfort into account.

"Engagés pour la qualité du logement de demain" programme

In 2022, the Ministry of Culture and the Ministry of Housing announced the 97 winners of the "Engagés pour la qualité du logement de demain" ("Committed to the quality of tomorrow's housing") call for expressions of interest. The aim of this call for expressions of interest was to identify projects that offer an architectural response to the social, urban and ecological challenges we face.

AREA 04

Preserve, conserve and safeguard for tomorrow

France has a rich heritage: 45,000 buildings and more than 280,000 objects protected as historic monuments, nearly 1,000 remarkable heritage sites, representing around 6% of the national geographical area, 1,200 museums in France, 620,000 cultural assets entrusted to the Louvre (to take one example), of which 35,000 are on display and more than 480,000 digitised, 377,715 linear metres conserved in the National Archives, 77 terabytes of natively digital archives and 14 million views of digitised paper or analogue archives, 500,000 archaeological entities, 26 items registered by France with UNESCO as intangible cultural heritage and 42 cultural assets as world heritage. These are all treasures that we must protect and promote.

In carrying out this mission, the Ministry of Culture is working with professionals to ensure that the conservation of works of art and heritage is compatible with the challenges of environmental transition and can cope with the vagaries of the climate.

Heritage, by definition, must involve sustainability and resilience. It is now being confronted in a particularly direct sense with the acute, rapid and multiple upheavals caused by climate change, collapsing biodiversity, pollution and wasted resources.

Whether we are talking about heritage collections, archives, monuments, heritage and archaeological sites, or elements of intangible cultural heritage, it is necessary – in the face of these challenges – to increase existing protection and preventive actions. At the same time, if we are to build an energy-efficient and resilient future, the conservation and restoration methods themselves must not generate negative environmental impacts.



Brise vue, Médiathèque du sud sauvage,
Cabinet Co-Architectes
© Herve Douris

2023 – 2027 TARGETS FOR THE MINISTRY OF CULTURE

Target 1: In 2024, the progress made in green conservation at national level will be the subject of negotiations at international level.

Target 2: By the end of 2025, 100% of the structures concerned will have implemented prevention plans (e.g. disaster recovery plans, plans for safeguarding cultural property, etc.) that take environmental risks into account.

45,000

buildings are currently protected as historic monuments.

60%

of carbon emissions (Scope 1 and 2) in the building sector are from heating systems.

x4

The annual frequency of "very serious" natural disasters has almost quadrupled in France in the space of two decades, which means that protection and conservation measures need to be tailored to address these increased risks.

1. DEVELOPING GREEN CONSERVATION

The heritage activities of the State, local authorities and private heritage stakeholders must increasingly combine the challenges of long-term conservation with ecological concerns: limiting the use of polluting substances, impacts on biodiversity, waste and greenhouse gas emissions. In particular, we can review conservation methods without jeopardising the works themselves, prioritise conservation and restoration operations, and reassess the role of archives.



From 2023 to 2027, the Ministry of Culture is committing its teams and conservation professionals to:

- Promoting research into conservation and restoration solutions to meet the challenges of environmental transition
- Promoting sustainable solutions in terms of resources needed for the conservation and enhancement of cultural assets
- Helping public archive services to develop, formalise and assess an ecologically sustainable collection policy
- Systematically including and favourably weighting environmental criteria in the Ministry's public contracts for conservation and restoration work, with the aim of encouraging the consideration of ecological issues in the selection of service providers
- Initiating discussions at international level on the green conservation of works of art (sustainable development of climate ranges for conservation, development of less harmful products or techniques for preserving and transporting works of art, revised loan and conveyance protocols) in order to harmonise conservation standards at international level while maintaining loan policies

GOOD PRACTICE

Extension of the National Archives at Pierrefitte-sur-Seine

The project to extend the National Archives at Pierrefitte-sur-Seine is an example of good practice in sustainable conservation. In construction terms, the architectural design of the tower preserves as many trees as possible and increases the surface area of the garden, while a planting strategy offers a diverse range of species and planting heights, thus enriching the palette of existing species. The building is also well insulated, and the layout of the various functions according to orientation is well suited to their uses. Energy consumption requirements are largely covered by district heating, and photovoltaic production will meet part of the energy needs. The use of certain re-used materials is also worthy of mention. With respect to HVAC, we are adopting wide temperature and humidity ranges in the storage areas, a minimum amount of fresh air is introduced, and very high-induction

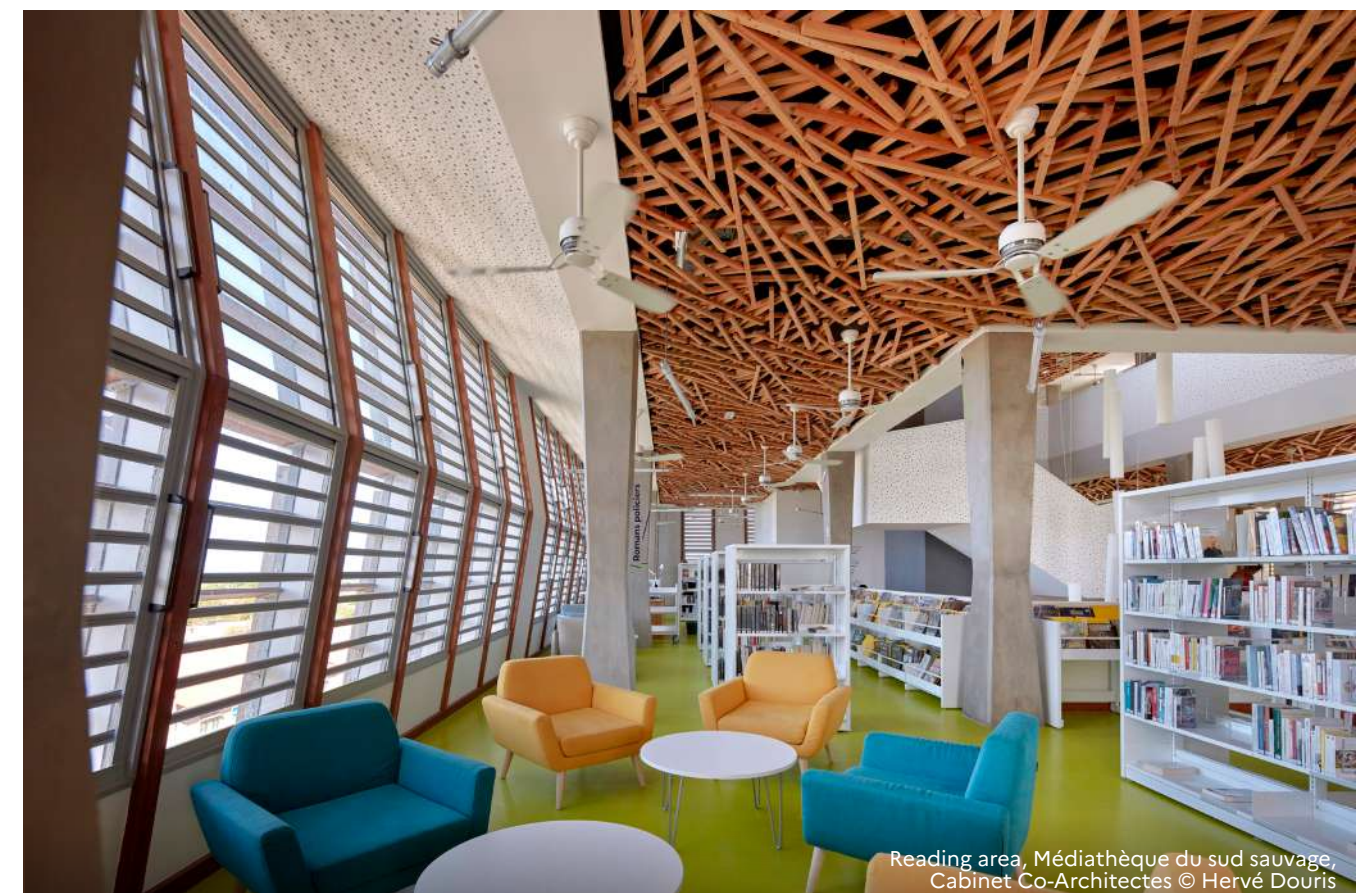
ducts are used, which means that the air can be circulated at a lower flow rate, while maintaining the same performance as with more conventional ducts. Two proposals are more novel: heating and cooling in other zones will be reduced in the evening, and fresh air will be supplied to offices and workshops only when they are in use (using CO2 sensors).

MUCEM

The MUCEM museum in Marseille has set the air-conditioning in its halls one degree higher in summer to save energy without compromising the works of art inside, and is also pursuing a policy of eco-design for its exhibitions.

Malakoff arts centre

Together with the Les Augures association, this contemporary art centre launched an experiment called "Couper les fluides" ("Cutting off fluids") between February and June 2023, during which it cut off almost all its energy supplies – water, gas and electricity.



2. ANTICIPATING CLIMATE RISKS

Climate change and the biodiversity crisis will have an increasingly significant impact, not only on human activities, including cultural activities such as open-air festivals and outdoor arts programmes, but also on our constructed and non-constructed heritage. More frequent hot weather, flooding and heavy rain, large-scale fires: the risks are multiplying, and the exposure of heritage and cultural players is increasing. The cultural sector needs to start preparing for these risks now, so that when the time comes, it will be able to manage the consequences as effectively as possible. Archaeological knowledge can help us to do exactly that.

From 2023 to 2027, the Ministry of Culture is working with conservation professionals to:

- Draw up and implement prevention plans that take climate risks into account
- Ensure the regular maintenance of the monumental heritage assigned to the Ministry of Culture
- During scientific acquisition commissions, better assess the conservation requirements for a cultural asset prior to its acquisition and the burden this represents
- Create a map of "cultural risks" based on a dialogue between the various cultural information systems (historical monuments, archives, museums) and the Ministry of the Interior's information system (Synapse project).

GOOD PRACTICE

Practical information from the Directorate-General for Heritage and Architecture (Ministry of Culture)

With the resurgence of natural hazards linked to climate change, the heritage department is producing practical information sheets (safety sheets, safety of cathedrals, help with drawing up plans for safeguarding cultural property), which are available on the Ministry of Culture website.

Training in safeguarding plans for cultural assets (PSBC plans) for archives

Against a backdrop of increasing climatic risks, the Service Interministériel des Archives de France is offering members of its network of departmental archives a training course consisting of several sessions of theoretical and practical exercises to help them draw up a plan for safeguarding cultural assets.

This plan should also make it possible to select the collections to be evacuated as a matter of priority when preparing rescue operations and safeguarding collections. In addition, the heritage department offers practical information sheets (safety sheets, help with drawing up plans for safeguarding cultural property), which are available on the Ministry's website.

Large-scale exercises (EGAs) in cathedrals

In the wake of the fire at Notre-Dame de Paris, the DRAC regional cultural affairs departments have stepped up the organisation of large-scale drills with the fire brigade (SDIS) in the 87 cathedrals owned by the State. These remarkable buildings, which present particular risks due to their great height and the sensitivity of their structures to fire, need to be better prepared for the increased risks associated with climate change.

AREA 05

Rethink public mobility options to ensure that culture is always accessible

Public mobility is a major source of greenhouse gas emissions. It is estimated that the proportion of the carbon footprint resulting from spectator travel is 45% for concert halls, up to 75% for festivals, and 90% for cinemas (Study on jazz festivals and medium-sized venues, Association Jazzé Croisé X Anova).

In response to this major challenge, the Ministry of Culture is working alongside all stakeholders to help them develop sustainable mobility strategies for optimal access to cultural activities, and to ensure that their actions are properly coordinated with those of local authorities and the ministries responsible for transport and tourism.

It is essential to give cultural players and local authorities the tools they need to respond to local situations and the circumstances of each area, so that the solution is tailored to the geographical and social needs of the audiences in question. Similarly, there is a need to ensure that access to culture through sustainable mobility does not come at the expense of accessibility, particularly for people with disabilities.



Further information: mucem.org

2023 – 2027 TARGETS FOR THE MINISTRY OF CULTURE

Target 1: In 2024, the Ministry is reviewing its business travel policy and further limiting the use of air transport

Target 2: By 2026, at least one contract per region will have been drawn up between the Ministry of Culture (at central and/or devolved level) and a mobility operator.

Target 3: By 2027, 75% of the relevant operators will have introduced or considered a pricing system linked to the public's choice of mobility (provided that the offer features multiple options).

13,000

parking spaces are planned on a 37-hectare site for the Hellfest festival. This makes it the second largest car park in France after Disneyland Paris.

65% TO 90%
ON AVERAGE

the share of audience mobility in greenhouse gas emissions from cultural organisations

TER REGIONAL
EXPRESS
TRAINS AT €1

running until 2am for Cabaret Vert festival-goers in 2023 (Grand-Est region)

1. A CULTURAL OFFERING WITH CLOSE PROXIMITY TO LOCAL RESIDENTS

France has a rich network of cultural venues throughout the country. In order to promote an artistic offering that is geographically close to the population and to limit the need for audiences to travel long distances, it is important that the support schemes and certification specifications promote local strategies (touring shows, off-premises shows, coordinated regional tours, exhibitions, etc.) that benefit both audiences and the environment.

From 2023 to 2027, the Ministry of Culture will commit its services to the following:

- In the live performance sector, using the "Mieux produire pour mieux diffuser" plan to promote sustainable and regional touring
- Encouraging on-site residencies
- Supporting the development of regional partnerships between the State, cultural players and local authorities with the aim of locally strengthening sustainable means of mobility for access to culture.



Promoting artistic practices in unconventional venues: that's the credo of Hormur, an innovative ticketing solution and winner of the France 2030 award. © Hormur

GOOD PRACTICE

The OpéraBus

Since 2015, this urban bus has been converted into a mobile, modular concert hall for bringing culture to rural areas. It is also a vehicle for cultural mediation, helping audiences rediscover their own local musical or artistic heritage.

The Manufacture des idées in Hurigny

The festival offers local residents an opportunity to welcome artists into their homes.

La chambre d'eau, Le Favril

At Favril in the Avesnois region, the Chambre d'eau is a place of residence for artists and cultural activities in rural areas. It has even devised a mobile workshop, pulled by two donkeys, that criss-crosses the region.

2. LOCAL DEPLOYMENT OF SUSTAINABLE MOBILITY IN CONJUNCTION WITH LOCAL AUTHORITIES

The Ministry of Culture cannot determine future changes in mobility on its own. These changes require greater dialogue between the various stakeholders (cultural sectors, local authorities, the State, the public) to strengthen infrastructures and diversify the range of soft or low-carbon mobility options, to promote them by means of information, pricing or by highlighting other nearby cultural venues, and also to raise the question of how to bring the public and the cultural offering closer together (both physically and symbolically).

From 2023 to 2027, the Ministry of Culture is partnering with local authorities to:

- Work with the bodies responsible for tourism policy to examine ways of improving mobility (networks, fare passes, etc.).
- Encourage partners to develop sustainable mobility solutions
- Take better account of sustainable mobility when examining applications for authorisation in the vicinity of monuments

GOOD PRACTICE

"Le Collectif des Festivals" association

The Association regularly conducts a survey of more than 100 festivals in Brittany to assess their impact on mobility and the progress they have made ("Alternatives vertes" support for work on decarbonising audience travel).

Le Cabaret Vert in Charleville-Mézières

This festival is particularly committed to the environment, and has developed a number of partnerships, including with the Conseil Régional, which has introduced €1 return travel on regional express trains until 2am for festival-goers from the Grand-Est region.

Trans Musicales

The city of Rennes has included major cultural events, such as the Trans Musicales, and their associated mobility needs (60,000 people over 5 days), in the public service delegation for its transport operator.

3. INFORMING THE PUBLIC ABOUT THE IMPACT OF THEIR TRAVEL AND THE SOFT AND SUSTAINABLE ALTERNATIVES THAT EXIST IS A MAJOR COMPONENT OF RAISING AWARENESS OF ENVIRONMENTAL TRANSITION.

To raise public awareness of ecological transition, it is important to inform people about the impact of their mobility and the sustainable alternatives that exist.

For this reason, the Ministry of Culture's action plan for environmental transition encourages cultural venues to:

- Promote existing accreditation systems linked to soft mobility in cultural venues, certifying that visitors are welcome to travel by bicycle (Label accueil vélo) or electric car.
- Experiment with green pricing systems, with a discount for those using soft mobility (if the venue is accessible).
- Encourage cultural structures and events to publicise the carbon footprint of their cultural travel.
- Initiate a consultation process to develop a mobility comparison tool available at online ticket offices to improve information for audiences on the carbon footprint of their cultural travel. Once in place, this project could apply for a France 2030 call for applications.
- Launch a consultation to develop a geolocation service for nearby cultural venues and the different modes of transport available for reaching them. Once in place, this project – supported by pilot cultural structures – could apply to the France 2030 "Alternatives vertes 2" call for projects.

GOOD PRACTICE

We Love Green

The festival's website informs spectators that 85% of the event's carbon footprint is generated by their transport, before going on to explain how they can access the festival by ecomobility.

Quelques p'Arts X Mobicoop

At Boulieu-lès-Annonay in the Ardèche, the national centre for street arts and public spaces is working with the Mobicoop free car-sharing platform to reduce its carbon footprint. Each show date is posted online so that drivers can record their journey and share the route with other spectators.

Espace AGREMOB

During the Francofolies festival in 2022, this space, in conjunction with "La Rochelle, Territoire Zéro Carbone", offered visitors scientific and fun games and experiments to help them understand the link between climate and mobility.

The "La Loire à vélo" brand

The marketing strategy around the brand, shared by both regions, encourages people to explore cultural sites as part of an inter-regional cycle itinerary.

Lille AERONEF

This concert hall is committed to encouraging its audiences to travel to concerts on public transport by offering a free individual return ticket.



Présentation of the Tous musiciens d'Orchestre Philharmonie de Paris plan
© Vincent Baillais