

# A BIOECONOMY STRATEGY FOR FRANCE

2018-2020 Action Plan



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The bioeconomy encompasses the whole range of activities linked to bioresource production, use and processing. The purpose of those activities is to provide a sustainable response to the need for food and to part of society's requirements for materials and energy, while at the same time preserving natural resources and guaranteeing the provision of high-quality environmental services.

The bioeconomy therefore brings with it major changes for our society with a transition in usage from fossil to biologically sourced products, transformation of the economic systems that supply the materials concerned, a focusing of activity on agricultural and forestry production and industrial processing methods aligned with a philosophy of sustainable management of water, soil and biodiversity based on cascaded and closed-loop types of exploitation.

In order to support the development of the bioeconomy, France has put in place a strategy tabled in the French Council of Ministers on 18 January 2017. It is the outcome of work done by the ministries responsible for agriculture, the environment, the economy and research, in addition to input from all stakeholders (upstream and downstream economic agents, public bodies, researchers, civil society, and so on).

The French bioeconomy strategy lays down a framework for sustainable development of the bioeconomy consistent with our national territory's resources and needs while avoiding excessive exploitation. The present action plan translates this strategy into distinct actions in order to ensure an operational roll-out of the bioeconomy across France in 2018, 2019 and 2020. The plan deliberately focuses on the non-food component of the bioeconomy in 2018. It does not address food-related exploitation of biomass, since this is covered by specific policies.

The French bioeconomy strategy is consistent with the other national strategies relating to the production of bioresources, their mobilisation, their use and environmental goals and issues: the plant protein plan, the agroecology project for France, the national low-carbon strategy, the national biomass mobilisation strategy and regional biomass schemes, the roadmap for a circular economy, the national biodiversity strategy, the multiyear energy programme, the "4 per 1000" programme, the national forest and wood programme,

the convention on biological diversity, the national strategy for the sea and coastal areas, and so on. The action plan deliberately does not cover topics already addressed in those documents. In particular, the action plan does not address anything relating to the circular economy such as biowaste recycling.

The bioeconomy will not develop without the involvement of local regions. The action plan is focused on the national framework and tools likely to encourage the deployment of the bioeconomy in the regions. Government can support the regions in implementing local policies for the benefit of the bioeconomy and ensure a satisfactory link-up between national and regional strategies.

The action plan represents the outcome of a broad-based consultation process involving government and stakeholders. It has benefited from input from reflection during the French National Food Conference, in particular the proceedings of Workshop no. 3 "Developing the bioeconomy and the circular economy", which was part of the conference work area on reinvigoration of the creation of value and ensuring its fair allocation. Some actions derive however from sector plans drawn up by interbranch bodies at the request of the President of the French Republic. Indeed, certain interbranch organisations promote the exploitation of agricultural, forest and agrifood co-products, notably for energy-related purposes, along with the development of new commercial applications – in bio-based industries, for example.

The action plan translates the overall bioeconomy strategy into operational actions under five broad headings:

- ▶ Extending knowledge;
- ▶ Promoting the bioeconomy and its products to the general public;
- ▶ Creating the conditions for matching supply with demand;
- ▶ Sustainable bioresource production, mobilisation and processing;
- ▶ Removing obstacles and providing funding

The actions defined are listed below. The table provides a description and specifies lead entities, deliverables (expected outcomes) and a due date for each action. Each action is then detailed in a datasheet describing its background, setting targets to be achieved, suggesting a timetable for implementation and specifying an indicator for its monitoring progress and/or results.

## FOCUS 1 Extending knowledge

ACTION	DESCRIPTIF	LEAD ENTITIES	DELIVERABLES	DUE DATE
<b>1</b> Hold a scientific conference every other year on the bioeconomy in order to stimulate the research community.	This conference will provide a basis for steering bioeconomy research.	<b>MESRI, MAA, MTES, INRA, IRSTEA</b>	Holding of a biannual scientific conference on the bioeconomy	2019
<b>2</b> Raise the profile of and strengthen the ONRB (national biomass resource observatory) by underpinning it with a Scientific and Technical Committee.	The ONRB is a major source of data for industry and regional authorities that make use of bioresources. Underpinning it with an STC is one of the actions planned in the national biomass mobilisation strategy.	<b>FAM, MAA, MTES</b>	Scientific and Technical Committee established	2018
<b>3</b> Conduct a survey of the existing situation and a foresight analysis of the environmental potential and impacts of using bioresources derived from aquatic, marine and freshwater environments (e.g. for fisheries, sustainable aquaculture, macro- and microalgae) for the bioeconomy.	Reflection on this will begin with a survey of the existing situation with regard to scientific research in the area and the products already available.	<b>MAA, MTES, Ifremer, IRD, Min. Defence, Brittany/Atlantic maritime centre</b>	Foresight analysis study of the "blue bioeconomy"	2019
<b>4</b> Enhance the methods for life cycle analysis of bioeconomy products and sectors, taking into account the environmental services rendered.	These life cycle analyses will be supplemented by work on the environmental, societal and economic impacts, with a comparison to non-bio-based solutions using the same methods. The regional level will be taken into consideration.	<b>ADEME, INRA, IRSTEA, INERIS, AFB, ANSES</b>	Completed life cycle analyses of bio-based products	2020
<b>5</b> Disseminate the bioeconomy concept in initial and continuous training courses and school programmes in partnership with the Ministry of Education and regional government.	Training programmes must include the bioeconomy both in school education and specialist vocational courses (schools of agronomy, chemistry and biology courses, INFOMA, IUTs, agricultural teaching, school education).	<b>MAA, MESRI, MEN, regional government authorities</b>	Inclusion of the bioeconomy in courses	2020
<b>6</b> Form multidisciplinary teaching and research organisations on the bioeconomy (e.g. a "convergence institute", professorships), including societal and economic issues.	Since the bioeconomy includes economic and social goals and issues, a multidisciplinary approach is vital.	<b>MAA, MTES, MESRI</b>	Multidisciplinary and combined organisations in place	2020
<b>7</b> Assess bioresource potential in French overseas territories (sustainable production and mobilisation), notably under regional biomass schemes. Identify endemic species with potential for biotechnology, especially marine	This assessment will provide a better grasp of the ways in which bioresources are used in order to reflect on new applications.	<b>Overseas territory authorities, MAA, MTES, MOM, FAM, INRA, CIRAD, IRD, ADEME</b>	Study of bioresources in French overseas territories	2020
<b>8</b> Assess the effect of the bioeconomy on value-added creation in the agricultural sector (farmers' income, competitiveness of agricultural sectors).	This assessment will provide an evaluation of the impact of new applications for bioresources, notably in non-food sectors, on income and the competitiveness of food-related sectors.	<b>MAA, MTES, ADEME</b>	Study of the effect of the bioeconomy on the agricultural sector	2020

## FOCUS 2 Promotion of the bioeconomy and its products to the general public

ACTION	DESCRIPTION	LEAD ENTITIES	DELIVERABLES	DUE DATE	
1	Launch a communication campaign to showcase bioeconomy products.	This campaign will be directed at the public as key actors in the bioeconomy – as consumers and citizens aware of environmental and regional goals and issues.	MAA, MTES, MEF, Trade federations	Completed communication campaign	2019
2	Implement an officially recognised “bio-based product” label at EU level, based on biologically sourced content.	The definition of biologically sourced content is based on EU standard CEN/TC/411. A minimum threshold will be set for each product family above which the product will be considered genuinely bio-based. Environmental performance will be taken into account.	MEF, MEAE, MAA, MTES, ADEME	Official approval for the “bio-based product” label	2019
3	Promote databases listing bio-based products.	The IAR competitive cluster has developed a database listing all available bio-based products. This information resource will receive input from trade federations and be shared with consumers.	IAR competitive-cluster, MAA, MTES, ADEME	“Agrobiobase” database completed and shared	2019
4	Set up a sustainable bioeconomy portal to gather together basic information, highlighting a large number of examples and listing R&D and R&I projects on marine biotechnologies and their applications.	The portal will take the form of a website intended for the general public and a trade audience. It will link up with other websites and applications on bioeconomy-related topics.	MAA, MEF, MTES, IAR competitive-cluster	Web portal on line	2020
5	Design a mobile exhibition to showcase the bioeconomy in day-to-day life.	This exhibition will take the form of a reconstructed habitat built with and supplied with energy exclusively from bioeconomy products.	MAA, IAR competitive-cluster	Presentation of the completed exhibition at the 2019 Paris International Agricultural Show	2019
6	Create a “Bioeconomy Trophy” to reward projects, regional schemes and private enterprise.	Designated projects will be presented on the bioeconomy portal (cf. Action 2-4). Government will support decentralised departments and agencies in identifying projects eligible for the trophy.	MAA, MTES, MEF, local government, non-profit associations, private companies, trade unions	Bioeconomy Trophy in place	2020
7	Set up discussion forums in the regions for a conversation with the general public on development of the bioeconomy	These forums will take the form of web platforms, physical meetings and bioeconomy conferences. They will allow the public to gain ownership of the bioeconomy and foster stakeholder convergence.	MAA, MTES, elected representatives, Prefects (MI), non-profit associations	Forums in operation	2020
8	Encourage the generalisation of regular “open days” in companies active in the bioeconomy.	By facilitating direct discussions between company managers and project promoters (agricultural holdings, processing firms, biorefineries, etc.) on the one hand, and the general public on the other, open days will also facilitate their acceptance by society. They can be grouped together under a “Bioeconomy Week” umbrella event.	MAA, MEF, trade actors, including unions	Completed Open Days	2019
9	Take advantage of the construction of the Olympic Village for the 2024 Games to make French excellence in the forest-wood and plant fibre sectors plus French construction industry expertise into a spearhead for promotion.	Construction of the Olympic Village in bio-based materials (wood, hemp concrete, flax and hemp fibre insulation, etc.) provides an opportunity to showcase these new materials and techniques.	MAA, MTES, MEF, MCT, Ministry of Sport, trade federations, interbranch trade bodies	Bio-based materials showcased in the Olympic Village	2020

## FOCUS 3 Creating the conditions for matching supply with demand

ACTION	DESCRIPTION	LEAD ENTITIES	DELIVERABLES	DUE DATE
1	<p>Conduct technical information campaigns for each broad family of bio-based products (e.g. hygiene, construction, clothing) for downstream actors in supply chains.</p>	<p>These campaigns will be backed by technical datasheets to highlight their functionalities, specific characteristics and environmental information.</p>	<p><b>Trade federations</b> for which bio-based materials are relevant (e.g. composites, plastics processing, chemicals, plant fibre insulation, construction lumber), IAR competitiveness cluster.</p>	<p>Completed campaigns 2020</p>
2	<p>Provide support to downstream industry for the use of bio-based products, notably based on the creation of industrial standards and ensuring their insurability.</p>	<p>Several tools can be used for this:</p> <ul style="list-style-type: none"> <li>• Tools of networked technological services (PTR) type as defined by Bpifrance.</li> <li>• Demonstration platforms.</li> <li>• Living laboratories.</li> <li>• The “European Technology Verification” programme under ADEME management in France, to highlight their environmental advantages.</li> </ul> <p>Feasibility studies can encourage industry to adopt bio-based products. The creation of industrial standards for these products fosters trust in companies throughout the value chain.</p>	<p><b>MEF, MAA, MTES, Bpifrance, insurers, AFNOR, IAR competitiveness cluster, ADEME</b></p>	<p>Support provided to companies 2020</p>
3	<p>Organise business conventions involving bioresource producers and industry.</p>	<p>Such upstream/downstream contacts will allow manufacturers to gain a better understanding of the resources they can use and producers to become more aware of the requirements for satisfactory use of their products.</p>	<p><b>IAR competitiveness cluster</b></p>	<p>Completed business conventions 2018</p>
4	<p>Implement collective action in the various sectors of the bioeconomy in order to define and disseminate good practice in upstream / downstream relations.</p>	<p>The aim here is to ensure the existence of knowledge of the resources on all sides (technical specifications, including sustainability) and to clarify upstream/downstream relations (for emerging biomass uses) based around the sectoral plans produced during the French National Food Conference.</p>	<p><b>MAA, MEF, MTES, agricultural professionals</b></p>	<p>Charter setting out the requirements and constraints of each party; model contract.e 2020</p>
5	<p>Initiate dialogue with the retail sector to ensure that it showcases bio-based products.</p>	<p>Raising the profile of bio-based products and their externalities with retail companies will enable them to offer more of them to consumers.</p>	<p><b>MEF, MAA, MTES, trade federations</b></p>	<p>Meeting held with retail sector 2019</p>
6	<p>Organise a supply chain for commercialisation of sheep wool and skins.</p>	<p>In its sector plan, the interbranch body for the sheep industry proposes to create a supply chain for the commercialisation of sheep wool and skins.</p>	<p><b>Sheep industry interbranch body, MAA, MEF</b></p>	<p>Sector relaunch 2020</p>
7	<p>Organise a supply chain for commercialisation of French calf leather..</p>	<p>As a first step, this requires improvement in the quality of calf leather and implementation of skin traceability.</p>	<p><b>Cattle industry interbranch body, leather manufacturers, MAA, MEFF</b></p>	<p>Sector relaunch 2020</p>

## FOCUS 3 ► Creating the conditions for matching supply with demand

ACTION	DESCRIPTION	LEAD ENTITIES	DELIVERABLES	DUE DATE
<b>8</b>	Strengthen the animal industry sectors involved in processing the “fifth quarter”.	Co-products from slaughtered livestock are a major source of usable biomass.	<b>Animal industry interbranch bodies,</b> MAA, MEF, MTES, Réséda	Arrival on market of new animal co-products  2018-2020
<b>9</b>	Expand and promote activities linked to the use of plant fibres and co-products.	Use of straw and flax/hemp fibre, most notably, will be increased.	<b>Plant interbranch bodies,</b> MAA, MEF, MTES, ADEME, companies, IAR competitive-ness cluster	Arrival on market and/ or increased market share for innovative products based on straw, plant fibre and other co-products  2020
<b>10</b>	Encourage the introduction of complete biomass supply chains in French overseas territories.	French overseas départements and territories possess major bioresource potential, but few manufacturers make any use of it.	<b>MAA, MTES, MOM, Overseas interbranch bodies</b>	New local applications for biomass produced in the overseas territories  2020



## FOCUS 4 Sustainable bioresource production, mobilisation and processing

ACTION	DESCRIPTION	LEAD ENTITIES	DELIVERABLES	DUE DATE
<b>1</b> Ensure that biomass production and mobilisation adhere to sustainability and biodiversity protection objectives.	Biomass production and mobilisation must be sustainable. Development of knowledge of the conditions required for sustainable primary production is necessary. This action will be conducted in adherence to the recommendations of the SNMB and the core focuses of the French National Research Strategy.	<b>MTES, MAA, MESRI, ADEME</b>	Guides for policymakers on assessment of the sustainability of projects and sectors	2020
<b>2</b> Support and guide innovation in the area of equipment for biomass production, harvesting and processing.	The Investment Programme for the Future (PIA 3) will cover innovation in equipment and systems, notably for management of the digital data produced by each sector actor and the adaptation of tools to match the conditions to be met for sustainability of primary production	<b>MAA, MESRI, MEF, MTEs, ADEME</b>	Support provided for innovation in equipment and systems in PIA3 3	2018
<b>3</b> Support the development of intercroops, including intermediate energy crops.	In addition to their advantages for soil cover, intercroops are an extra source of biomass that can be used for bio-based products or bioenergy. Technical pathways will take into account the economic performance and environmental impact of the crops concerned (agroecology methods, input limitation, etc.). The detailed arrangements for supporting these intercroops can be examined during consideration of the post-2020 CAP.0.	<b>MAA, MTEs, ADEME</b>	Increased production of intermediate energy crops in France	2019
<b>4</b> Promote the use of sustainable bioenergy.	Forms of bioenergy used in France must adhere to a European set of sustainability criteria (reduction in greenhouse gas emissions, soil preservation, etc.).	<b>MAA, MTEs, MEF, ADEME, AFB</b>	Suitable communication on bioenergy sustainability	2020

## FOCUS 5 Removing obstacles and providing funding

ACTION	DESCRIPTION	LEAD ENTITIES	DELIVERABLES	DUE DATE
<b>1</b> Establish national governance for the bioeconomy in order to coordinate and monitor its development and implementation of the action plan	<p>Bioeconomy governance will be based on the following bodies at national level:</p> <ul style="list-style-type: none"> <li>▶ A policy steering body bringing together concerned stakeholders, including representatives of civil society, to be tasked with monitoring bioeconomy development and coordinating implementation of the action plan.</li> <li>▶ Specific comitology hosted by FranceAgriMer and defined as part of the renewal of the agreement on targets and performance (COP). This will notably cover agricultural methanisation, biofuels and bio-based products. It will bring together upstream producers, downstream industrial actors and government.</li> <li>▶ Where applicable, thematic “bioeconomy” leadership in the CNI, the French national council for industry. Government can provide support to local regions wishing to drive local bioeconomy dynamics by building regional bioeconomy strategies, for example</li> </ul>	<b>MAA, MEF, MTES, MESRI</b>	Gouvernance instaurée	2018
<b>2</b> Embed bioeconomy strategy in law.	It is desirable to embed the bioeconomy in both legislation and regulations in order to guarantee recognition of the bioeconomy strategy and its application.	<b>MAA, MTES</b>	Suitable legislative or regulatory provisions in place	Depends on available vectors but no later than 2020
<b>3</b> Draft a partnership agreement between ADEME, AFB, MAA and MTES.	A framework partnership agreement was signed in 2009 between ADEME and the ministries of agriculture and the environment. This agreement will be renewed. It will define shared strategic targets, most notably where the bioeconomy is concerned.	<b>MAA, MTES, ADEME, AFB</b>	A signed partnership agreement	2018
<b>4</b> Issue an implementing decree for the law on ecological transition and green growth concerning the need to consider the bio-based character of products in connection with public procurement..	A decree of this kind will foster systematic use of bio-based products by official departments and agencies and in public-sector organisations, hospitals and schools. The decree will need to be supplemented by official orders laying down minimum percentages of biologically sourced content for each product family.	<b>MTES, MEF</b>	Published decree	2018
<b>5</b> Consider arrangements to enhance the competitiveness of bioeconomy products.	One of the obstacles to market penetration of bio-based products is their cost. A number of tools can be considered to highlight the bioeconomy’s positive externalities.	<b>MAA, MTES, MEF</b>	A completed foresight analysis report on consideration of the positive externalities of the bioeconomy by CGAAER, the French High Council for food, agriculture and rural areas.	2018



## FOCUS 5 ► Removing obstacles and providing funding

ACTION	DESCRIPTION	LEAD ENTITIES	DELIVERABLES	DUE DATE	
6	Support tools capable of benefiting the bioeconomy in the context of discussion of the post-2020 CAP.	A number of CAP schemes can be deployed to benefit increased sustainable use of biomass and development of innovative bioeconomy sectors (e.g. exploitation of intermediate crops, coupled support payments).	MAA, MTES, MEF	Inclusion of the bioeconomy in the 2020 CAP	2020
7	Raise awareness in industry of the need for end-of-life management of bio-based products and promote products that take this aspect into account.	Bio-based products are not necessarily suitable for recycling or composting. Manufacturers must look at the fate of these products at the end of their useful lives (e.g. recycling, return to the soil).	MTES, MAA, MEF, ADEME	Awareness-raising campaign for industry	2019
8	Remove regulatory obstacles to agricultural methanisation..	<p>The development of methanisation is being held back by the complexity of official procedures and difficulties relating to the spreading of farm digestate.</p> <p>A number of avenues to possible solutions have been identified:</p> <ul style="list-style-type: none"> <li>• small anaerobic digesters not subject to public enquiry requirements;</li> <li>• new mandatory specifications for digestates derived from methanisation, suitable for new methanisation processes, plus an expanded list of input materials;</li> <li>• inclusion of the digestate spreading issue in farm methanisation in the roadmap for the circular economy;</li> <li>• limitation of the period for appeals against official permits for on-farm anaerobic digesters.</li> </ul>	MAA, MTES	Removal of obstacles	2018
9	Facilitate investment in farm methanisation.	The cost of installing an anaerobic digester and access to bank loans are the main obstacles. Investment can be encouraged by financial tools such as zero-collateral loans for farmers.	MAA, Bpifrance, MEF, MTES, ADEME	Grand Investment Plan in place	2018
10	Raise investor awareness (e.g. banks, "business angels", insurers, pension funds, investment funds, crowdfunding schemes) of bioeconomy sectors in order to encourage the provision of finances.	It is vital to encourage investors to make bioeconomy goals and issues part of their investment strategies.	MAA, MTES, MEF	Holding of a meeting between government, banks, insurers, investment funds and Bpifrance	2018
11	Organise an annual seminar to present the EU "Bio-Based Industry" (BBI) funding assistance tool to research and industry actors with a view to encouraging them to make use of it.	BBI is a tool that provides funding for bioeconomy projects. Raising its profile will enable as many French actors as possible to benefit from it.	MAA, MESRI, MEF, MTES, Sully Club	Annual seminar held	2020

## FOCUS 5 ► Removing obstacles and providing funding

ACTION	DESCRIPTION	LEAD ENTITIES	DELIVERABLES	DUE DATE	
<b>12</b>	Promote the bioeconomy in innovation support schemes (the PIA and other tools for supporting industrial innovation) and research programmes..	Mapping these tools can guarantee their mutual complementarity and help energise project promoters. For each such tool, details will be provided of the ultimate technological maturity of the projects it targets..	MAA, MEF, MTES, CGI, ADEME, Bpifrance, CDC	Inclusion of the bioeconomy in the Investment Programme for the Future (PIA), research programmes by ANR and other lead entities, and formal agreements on targets and performance signed with organisations	2018
<b>13</b>	Support innovation and investment relating to advanced biofuels.	Grants, notably provided through the PIA, can be allocated to projects.	MAA, MEF, MTES, ADEME	Support provided for advanced biofuels in PIA3	2020
<b>14</b>	Facilitate the use of totally bio-based sustainable fuels in captive vehicle fleets.	Fuels containing no fossil carbon require special engines and are for that reason particularly well-suited to captive fleets.	MAA, MTES, MEF	Numbers of vehicles in the relevant captive fleets	2018
<b>15</b>	Support local government for programmes to develop the bioeconomy.	It is crucial to deploy the bioeconomy in local regions, especially with a view to making their economies more dynamic. Dialogue should help foster social acceptability (cf. action 2-7).	MAA, MTES, MEF, ADEME, competitiveness cluster, maritime competitiveness clusters	Support provided to local government	2020
<b>16</b>	Enhance collaboration with other Member States in order to drive new proposals on the European stage.	France will consult with other Member States with a view to promoting a common position in the context of the review of EU strategy on the bioeconomy.	MAA, MESRI, MEF, MTES	Collaboration established with other Member States	2018
<b>17</b>	Develop certification of usable bioresources in order to facilitate their exploitation by downstream processors.	The non-uniform nature of bioresources tends to hold back their utilisation. This can be resolved by appropriate certification.	MAA, MEF, ADEME, Trade federations	Bioresource certification in place	2020
<b>18</b>	Bring entrepreneurs, researchers and institutions together around sustainable bio-inspired approaches for R&D notably focused on bio-based materials.	This organisational effort will be conducted by the European centre for excellence in biomimetics (CEEBIOS) and will essentially involve raising the awareness of economic and institutional actors to biomimetics as a tool for sustainable innovation, the sharing of feedback from entities that have already adopted the approach, and jointly building a roadmap for concerted development of bio-inspired R&D.	MTES, CEEBIOS, local government, laboratories, private enterprise	A survey of the current status of biomimetics initiatives in the regions; a roadmap for bio-inspired research	2020

## ACRONYM INDEX

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**ADEME** : agence de l'environnement et de la maîtrise de l'énergie / [French environment and energy management agency](#)

**AFB** : agence française pour la biodiversité / [French biodiversity agency](#)

**AFNOR** : association française de normalisation / [French industrial standards agency](#)

**ANSES** : agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail / [National agency for food, environmental and occupational health & safety](#)

**CDC** : caisse des dépôts et consignations / [French public-sector financial institution](#)

**CEEBIOS** : centre européen d'excellence en biomimétisme de Senlis / [European centre for excellence in biomimetics](#)

**CGAAER** : conseil général de l'alimentation, de l'agriculture et des espaces ruraux / [High Council for food, agriculture and rural areas](#)

**CGI** : commissariat général à l'investissement / [National investment commission](#)

**CIRAD** : centre de coopération internationale en recherche agronomique pour le développement / [Centre for International cooperation in agronomical research for development](#)

**CIVE** : culture intermédiaire à vocation énergétique

**CNI** : conseil national de l'industrie / [National council for industry](#)

**COP** : contrat d'objectifs et de performance

**CST** : comité scientifique et technique / [Scientific and technical committee](#)

**FAM** : FranceAgriMer / [French agriculture and fisheries agency](#)

**IFREMER** : institut français de recherche pour l'exploitation de la mer / [French research institute for exploitation of the sea](#)

**INERIS** : institut national de l'environnement industriel et des risques / [National institute for industrial environment and risks](#)

**INFOMA** : institut national de formation des personnels du ministère en charge de l'agriculture / [National training institute for Ministry of Agriculture staff](#)

**INRA** : institut national de la recherche agronomique / [National institute for agricultural research](#)

**IRD** : institut de recherche pour le développement / [Institute of research for development](#)

**IRSTEA** : institut national de recherche en sciences et technologies pour l'environnement et l'agriculture / [National research institute of science and technology for environment and agriculture](#)

**IUT** : institut universitaire de technologie / [University institute of technology](#)

**MAA** : ministère de l'Agriculture et de l'Alimentation / [French ministry of agriculture and food](#)

**MCT** : ministère de la Cohésion des territoires / [French ministry for regional cohesion](#)

**MEAE** : ministère de l'Europe et des Affaires étrangères / [French ministry of foreign and European affairs](#)

**MEF** : ministère de l'Économie et des Finances / [French economy and finance ministry](#)

**MEN** : ministère de l'Éducation nationale / [French ministry of education](#)

**MESRI** : ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation / [French ministry of higher education, research and innovation](#)

**MI** : ministère de l'Intérieur / [French ministry of the interior](#)

**MOM** : ministère des Outre-mer / [French overseas territories ministry](#)

**MTES** : ministère de la Transition écologique et solidaire / [French ministry for the ecological and inclusive transition](#)

**ONRB** : observatoire national des ressources en biomasse / [National observatory of biomass resources](#)

**PAC** : politique agricole commune / [Common agricultural policy](#)

**PIA** : programme d'investissements d'avenir / [Investment programme for the future](#)

**Pôle de compétitivité IAR** : pôle de compétitivité Industrie et Agro-Ressources

**R&D** : recherche et développement / [Research and development](#)

**SNMB** : stratégie nationale de mobilisation de la biomasse / [French national biomass strategy](#)

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