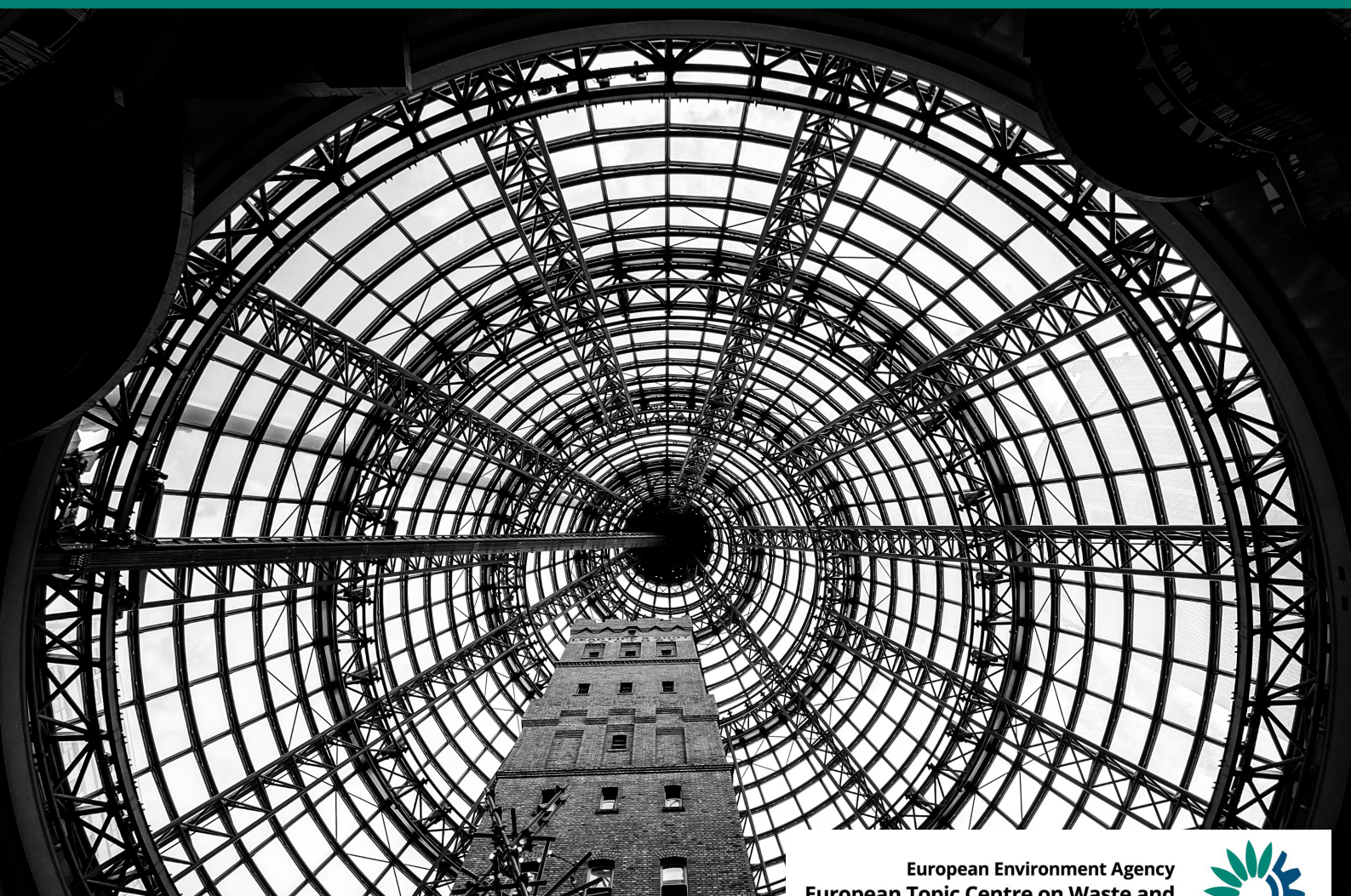


# Resource efficiency and circular economy in Europe – even more from less

An overview of policies, approaches and targets of France in 2018



European Environment Agency  
European Topic Centre on Waste and  
Materials in a Green Economy



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European Topic Centre on Waste and Materials  
in a Green Economy

Boeretang 200

BE-2400 Mol

Tel.: +14 33 59 83

Web: [wmge.eionet.europa.eu](http://wmge.eionet.europa.eu)

Email: [etcwmge@vito.be](mailto:etcwmge@vito.be)

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## Acknowledgements

This country profile is based on information reported by the Eionet network and, in particular, the National Reference Centres on Resource Efficiency and Circular Economy. The information is current as of March 2019, when members of Eionet verified the content of this profile.



This country profile was prepared as part of the 2019 EEA review of material resource efficiency, circular economy and raw material supply policies, which aimed to collect, analyse, and disseminate information about experience with the development and implementation of these policies in EEA member and cooperating countries.

At the time of writing, a summary report is being finalised. The report reflects on trends, similarities and differences in policy responses, showcases selected policy initiatives from member countries and identifies possible considerations for the development of future policies.

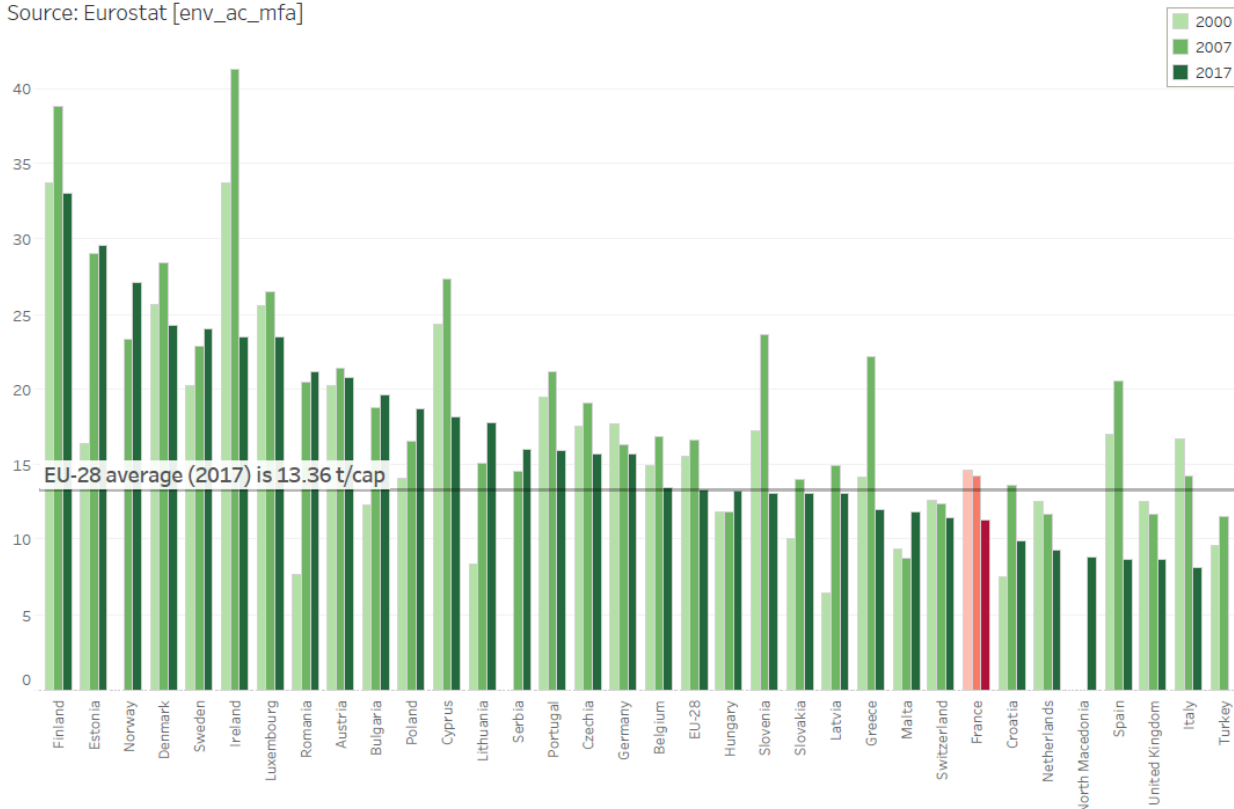
These country profiles were compiled and finalised by members from the European Topic Centre on Waste and Materials in a Green Economy, namely Bart Ullstein, Bettina-Bahn Walkowiak, Jeroen Gillabel, Margareta Wahlström, Jutta-Laine Ylijoki, Dirk Nelen, Theo Geerken, Veronique Van Hoof and Evelien Dils. The responsible EEA project managers for the work were Pawel Kazmierczyk and Daniel Montalvo.

## France, facts and figures

Note: data in this section was sourced from Eurostat databases, except where noted otherwise

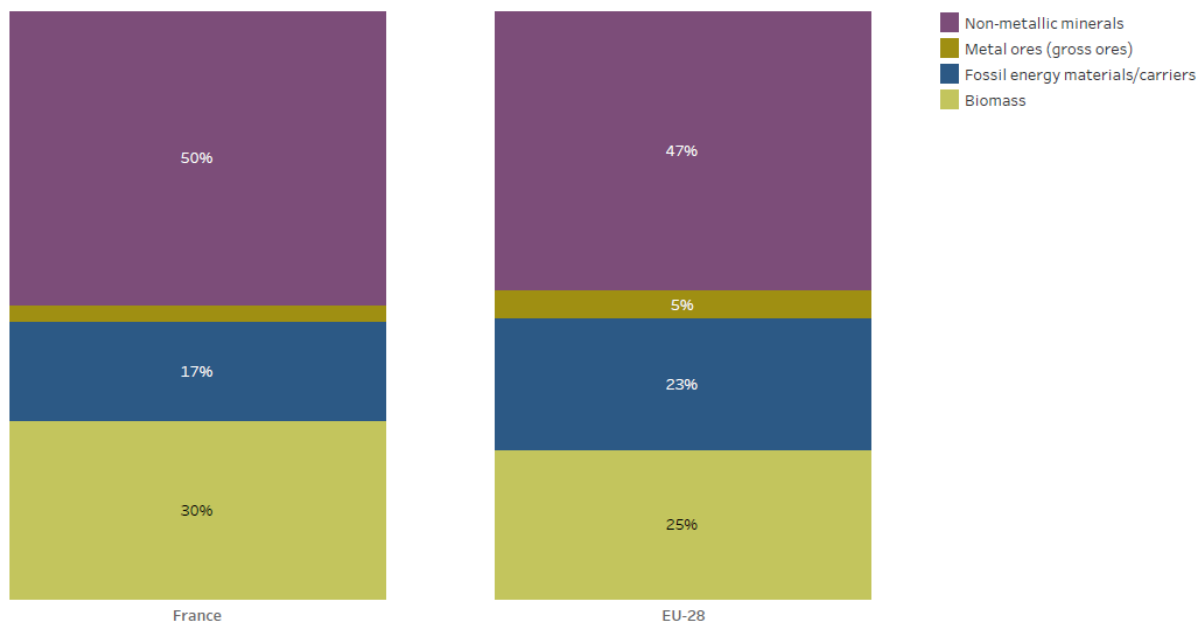
	<p><b>GDP:</b> EUR 2,291.7 billion (14.4 % of total EU28 in 2017)</p> <p><b>GDP per capita:</b> EUR 34,300 Euro (purchasing power standard) (114.1 % of EU28 average per capita figure in 2017)</p> <p><b>Use of materials (domestic material consumption (DMC))</b>  755.4 million tonnes DMC (11.0 % of EU28 total in 2017)  11.3 tonnes DMC/capita (84.6 % of EU28 average per capita in 2017)</p> <p><b>Structure of the economy:</b>  agriculture: 1.7 %  industry: 19.5 %  services: 78.8 %</p> <p><b>Surface area:</b> 632.8 thousand square kilometres (km<sup>2</sup>) (14.2 % of total EU28)</p> <p><b>Population:</b> 66.8 million (13.1 % of EU28 total in 2017)</p>
	

Use of materials (DMC) per person in Europe, 2000, 2007 and 2017, tonnes DMC per capita.  
Source: Eurostat [env\_ac\_mfa]



## France & EU-28. Domestic Material Consumption by material category, 2017.

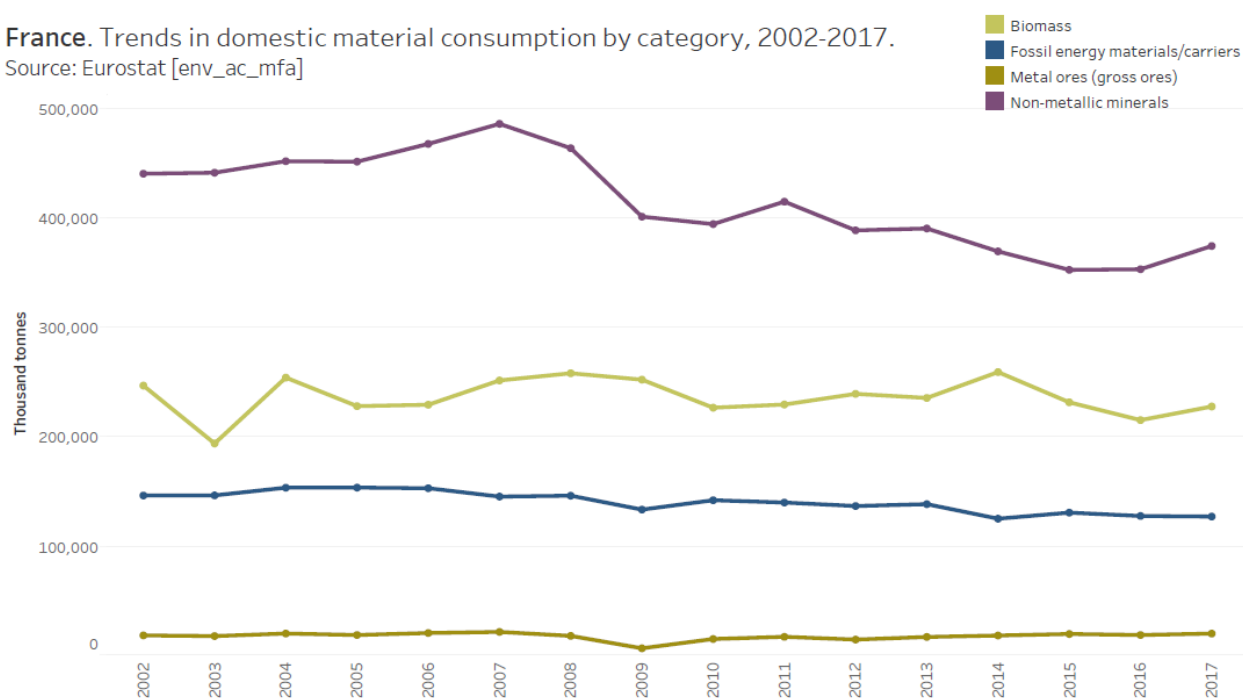
Source: Eurostat [env\_ac\_mfa]



Note: The domestic material consumption categories 'other products' and 'waste for final treatment and disposal' are excluded from the figure.

## France. Trends in domestic material consumption by category, 2002-2017.

Source: Eurostat [env\_ac\_mfa]

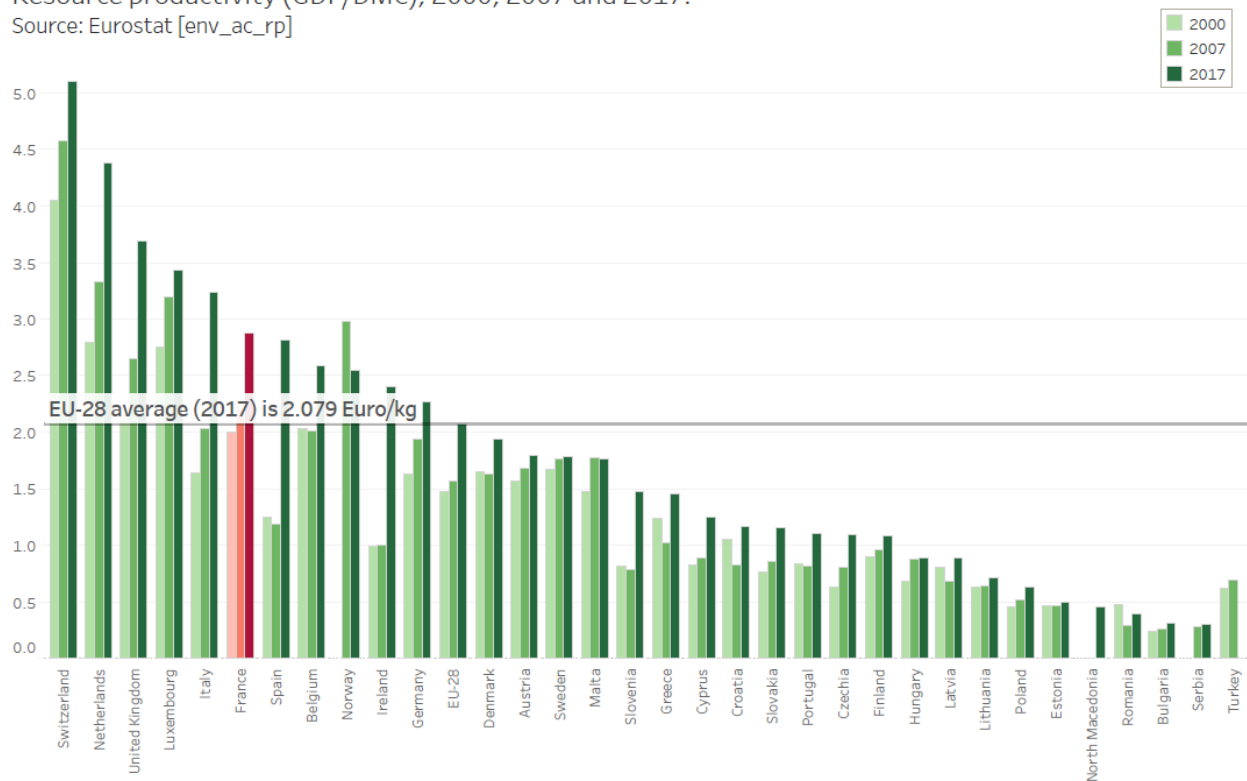


Note: The domestic material consumption categories 'other products' and 'waste for final treatment and disposal' are excluded from the figure.



## Resource productivity (GDP/DMC), 2000, 2007 and 2017.

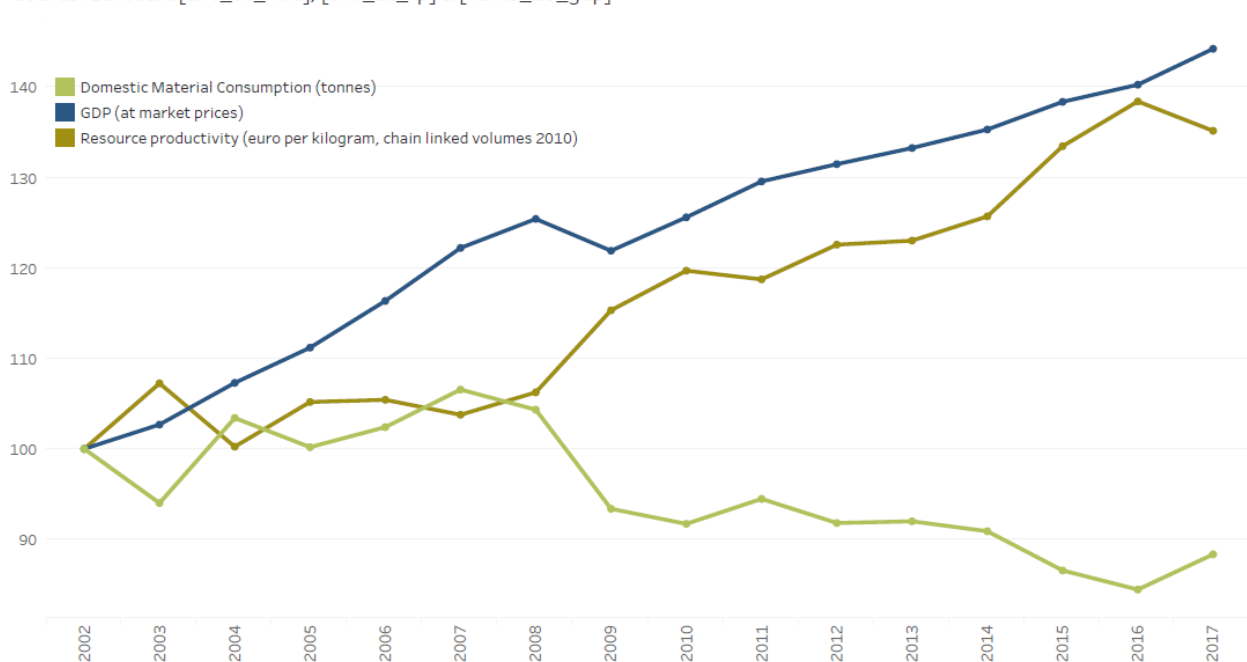
Source: Eurostat [env\_ac\_rp]



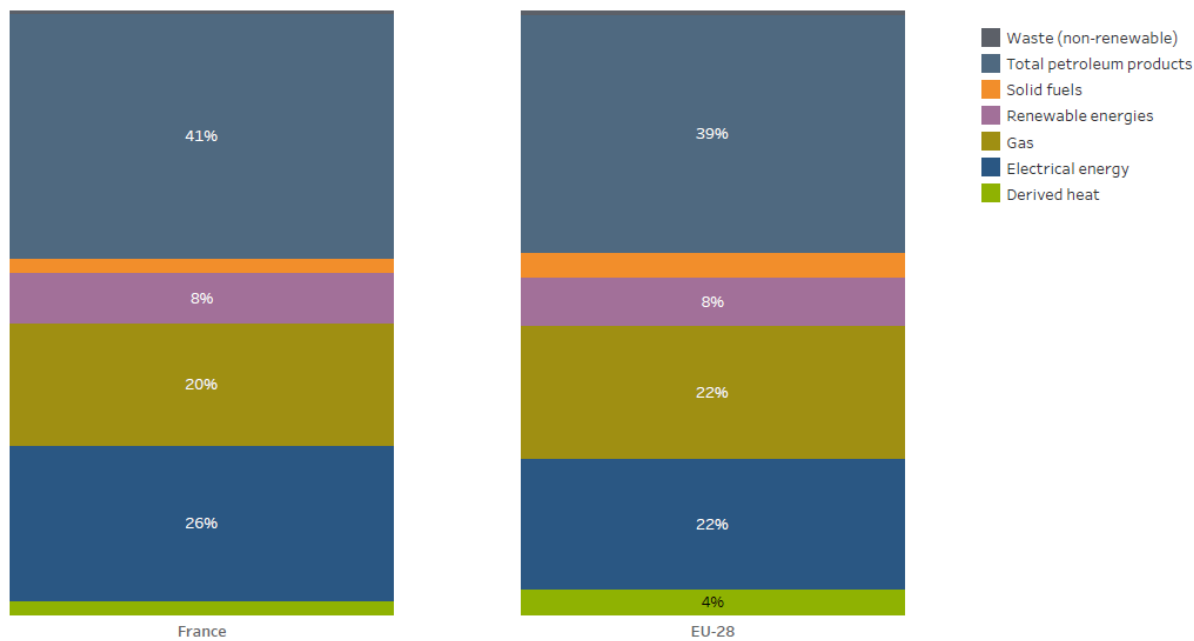
Note: GDP expressed in chain linked volumes 2010.

## France. GDP, DMC and resource productivity trends, 2002-2017, index 2002=100.

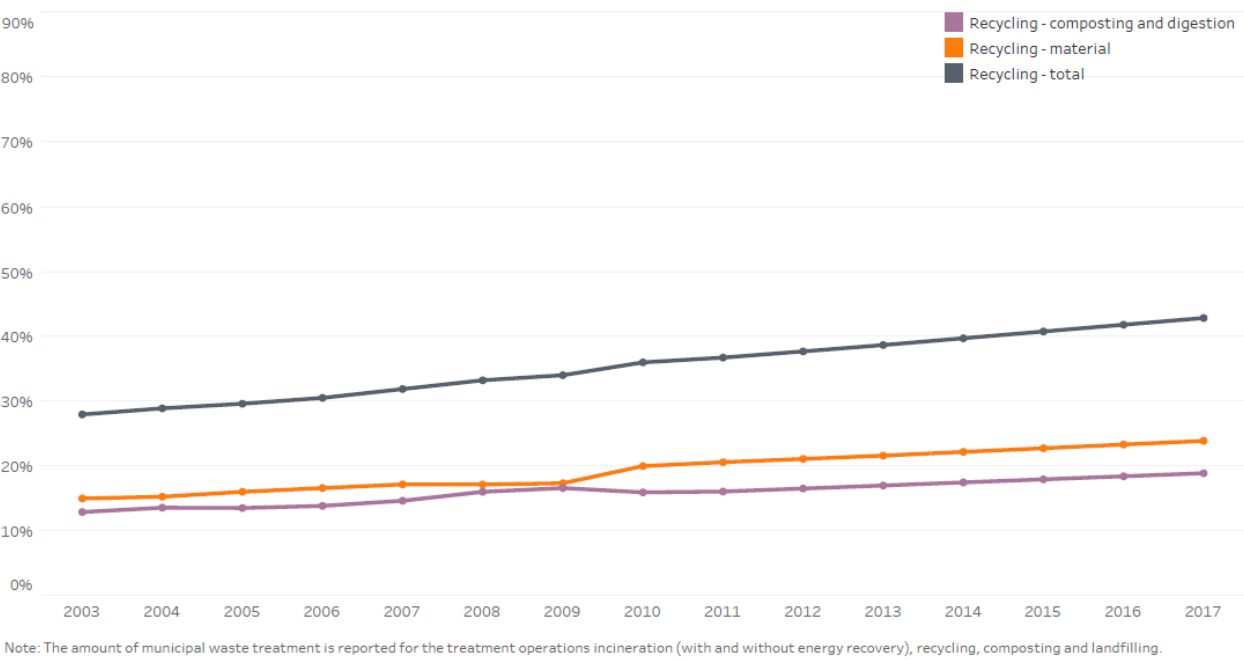
Source: Eurostat [env\_ac\_mfa], [env\_ac\_rp] & [nama\_10\_gdp]



**France & EU-28. Primary energy consumption by energy product, 2016.**  
 Source: Eurostat [nrg\_100a]



**France. Recycling of municipal waste, 2003-2017, as share of total waste treatment.**  
 Source: Eurostat [env\_wasmun]





## Policy framework

### Driving forces for material resource efficiency and a circular economy

In France, the driving forces are a mix of economic, environmental and societal factors:

- Government policy agenda, oriented by the Energy Transition for Green Growth Act of 2015 (see section 'Policies which include elements of material resource efficiency');
- Security of supply and reduction of dependence on imports, particularly for strategic metals;
- Civil society: since the 2013 French environmental conference, civil society has been paying increasing attention to the circular economy;
- Potential synergies between environmental protection (especially the reduction of greenhouse gas emissions) and economic and inclusive growth: creation of non-relocatable jobs in the area of, for example, repair and waste management; positioning of French companies in promising markets; creation of new markets; improvement of the competitiveness of enterprises. The circular economy is also a source of social innovation and job opportunities for the most vulnerable people in the society.

### Dedicated national strategies or roadmaps for material resource efficiency and a circular economy

France has not adopted a dedicated national resource efficiency strategy.

The **Plan for Natural Resources** provided by the Energy Transition for Green Growth Act, and published in July 2018, contains many actions to make the French economy more resource efficient. The plan highlights the need to improve resource efficiency and security of supply. Thus, its main aim is to identify the strategic resources needed for the economy and to identify action to tackle the related issues.

The Energy Transition for Green Growth Act expects that the Natural Resources Plan will be reviewed every five years. It is a strategic document and several proposed courses of action were operationalised in the Road Map for the Circular Economy, published in April 2018 (see next paragraphs)

France published a **Road Map for the Circular Economy** on 23 April 2018. It is the result of five months of work involving all stakeholders and the public through on-line consultations and many workshops. It presents a structuring package that will allow all the actors to 'enter the loop'. It also aims to enable France to achieve some of the UN Sustainable Development Goals (SDGs) targets, in particular those related to sustainable consumption and production.

The main objectives of the Roadmap are :

- to reduce the material intensity of French consumption – domestic material consumption (DMC)/gross domestic product (GDP) by 30 per cent by 2030 compared to 2010;
- to reduce the quantities of non-hazardous waste landfilled in 2025 by 50 per cent compared to 2010;
- to progress towards 100 per cent recycled plastics in 2025;
- to reduce greenhouse gas emissions: saving the emission of 8 million tonnes of additional carbon dioxide each year through the recycling of plastic;
- to create 300,000 additional jobs.

The first priority of this Roadmap is to mobilise all actors around the circular economy (citizens, local authorities, companies, non-governmental organisations (NGOs) and administrations) in all territories. Indeed, a change of scale is indispensable for an effective transition to the circular economy.

The 50 measures of the Roadmap on the Circular Economy revolve around four themes: better production, better consumption, better management of waste, mobilising all actors.

In its better production chapter, the Roadmap includes action to promote the use of secondary raw materials and bio-materials, to promote resource savings especially by small and medium-sized enterprises (SMEs), and to promote high environmental and social standards for the production of primary raw materials.

The instruments needed to reach these goals already exist: they have to be strengthened and made more oriented to the circular economy. Thus, the Roadmap for the Circular Economy expects to:

- mobilise voluntary agreements to improve the use of secondary raw materials in the packaging, building, automotive, electrical and electronic equipment sectors;
- mobilise research and development structures and funds to support innovative circular economy projects;
- mobilise available public financial tools as well as private financing through green finance tools such as green funds and green bonds;
- mobilise extended producer responsibility (EPR) schemes;
- develop and disseminate tools to facilitate the realisation of material flow analyses at business and regional levels;
- mobilise vocational training tools to adapt skills to the jobs required in a circular economy.

In the better consumption chapter, the Roadmap includes many measures to extend the life of products by promoting reuse, repair and eco-design. Many of these actions mobilise EPR schemes, widely developed in France.

The Roadmap also includes action to improve recycling – for example, the deployment, by the local authorities, of a common deposit arrangement to encourage the return of bottles to suppliers (each new collected bottle could contribute to the financing of a great environmental, health or community cause), scope expansion of some EPR schemes, and a waste tax more favourable to the development of recycling. Because of the large amount of waste they represent packaging, bio- and construction waste receive particular attention in the Roadmap on the Circular Economy.

#### Overview of dedicated national or sectoral strategies for raw materials

France has various strategies relevant to raw materials.

- A **National Strategy for the Mobilisation of Biomass**, provided for in Article 175 of the Energy Transition for Green Growth Act. Its objective at a national level is to develop biomass energy in particular and to supply the best possible energy production facilities in economic and environmental terms. It considers scenarios of evolving supply, in line with future energy needs, including the Energy Transition for Green Growth Act objectives of reducing energy consumption, and provides for a series of such actions so that the national offer addresses this as much as possible.
- A **National Strategy on the Sustainable Management of Land and Marine Aggregates, Quarry Materials and Substances** (developed in 2012). The objective of this strategy is to provide a framework for security of supply and effective access to deposits, in the context of increasing difficulties in accessing mineral resources, while responding to all development issues of the territory and following a sustainable development approach.

This Strategy therefore aims to meet needs and support the matching between, on one side, the use and quality of materials and on the other the needs and authorised reserves. The Strategy also allows for local supply and aims to reconcile the environmental, social and economic issues related to the extraction of materials and the associated supply chain. It involves all stakeholders, including those involved in the marine environment. It aims also to develop recycling and the use of recycled materials, increasing them from 6 per cent to 10 per cent of national production in 10 to 15 years and to guide the development of the use of marine aggregates by defining and implementing an integrated maritime policy.

- **A Resource Strategy:** the plan for natural resources as specified at Article 69 of the Energy Transition for Green Growth Act of 2015. This act provides that a plan for natural resources will be transmitted to the parliament every five years. The first plan for natural resources, called France's Resource Plan, was published in July 2018 (see Dedicated national strategies or roadmaps for material resource efficiency and a circular economy section). A provisional version, not including the results of the public consultation, is available<sup>1</sup>.
- The Energy Transition for Green Growth Act expects that **the Natural Resources Plan** will be reviewed every five years.

As a strategic document, France's Resource Plan aims to better adapt the supply of and demand for natural resources within the framework of energy transition. It focuses on three categories of natural resources: biomass for non-food use, particularly energy; soil; and non-energy mineral resources. Several proposed courses of action were operationalised in the Road Map for the Circular Economy, published in April 2018 (see Dedicated national strategies or roadmaps for material resource efficiency and a circular economy section)

For biomass for non-food use, the Plan reiterates the main findings of the Mobilisation of the Biomass Strategy by emphasising the points to be kept in mind to ensure that this increased mobilisation of biomass is sustainable. The Plan also highlights sustainable development and the potential contradictory character of different public policies.

The Plan offers a number of strategic directions in:

- improving and disseminating knowledge in particular on the resource requirements associated with energy and ecological transitions, and more generally on the flow of materials as well as on the availability and potential for the development of the national supply;
  - support for research, development and innovation in the circular economy –improvement of aids for innovation, strengthening of research into incorporation of recycled and bio-based materials in construction, and improvements in recycling;
  - integrated soil management;
  - alignment of public policies for the preservation of natural resources;
  - roll-out, by resource, of criteria to ensure sustainable production of resources;
  - raising awareness among stakeholders of the challenges in natural resources;
  - saving of materials and developing recycling potential.
- France has a **committee for strategic metals, Comité des métaux stratégiques (COMES)**<sup>2</sup>, which provides a forum for exchanges between manufacturers, administrations and research laboratories. Its objective is to direct research, particularly with regard to the circular economy, to bring stakeholders together, share information on strategic metals (markets, innovations, etc.), and to help industry anticipate risks related to their procurement.

Work has recently been undertaken to develop a matrix of around 40 substances that are critical for the French economy. The last one dates back to 2018<sup>3</sup>, and it will be regularly updated. Nevertheless, France has not yet adopted a list of critical materials.

<sup>1</sup> <https://www.ecologique-solidaire.gouv.fr/sites/default/files/FREC%20-%20Plan%20Ressources%20pour%20la%20France%202018.pdf> (French)

<sup>2</sup> <http://www.mineralinfo.fr/page/comite-metiaux-strategiques> (French)

<sup>3</sup> <http://www.mineralinfo.fr/page/matieres-premieres-critiques#ensavoirplus> (French)

COMES has published a technical paper on what the French recycling priorities should be for strategic metals with regard to French waste flows, industrial knowledge and market opportunities<sup>4</sup>.

#### Policies which include elements of material resource efficiency

France has a number of policies that cover material resource efficiency, the circular economy and raw material supply in part, as one topic among various other things. A list of initiatives with related key objectives and planned actions is given in the following paragraphs.

**The Energy Transition for Green Growth Act (ETGGA)**<sup>5</sup>: a complete section is dedicated to the circular economy (section IV).

The aim of the Title IV on Circular Economy is to break away from the linear economy model and accelerate the transition to a circular economy. In particular, it aims to:

- decouple economic growth from the consumption of raw materials;
- reduce household and similar waste by 10 per cent in 2020 relative to 2010;
- recycle 55 % of non-hazardous waste by 2020 and 65 % by 2025;
- recover 60 % of construction and demolition waste by 2020;
- halve the amount of landfilled waste by 2025.

The Title IV includes legal provisions and financial support to reduce waste production and increase recycling. It mobilises a wide range of tools and measures: EPR schemes, green public procurement, waste pricing (pay-as-you-throw), reform of waste management plan, etc. A major part of Title IV is given to waste prevention – the fight against food waste, creation of a planned obsolescence offence, etc. It makes local authorities privileged actors in the implementation of the circular economy at the local level, for example, through calls for projects on the Territories Zero Waste – Zero Gaspi.

The law also provides for the development of a national strategy for transition to the circular economy (Roadmap on the Circular Economy) and a Plan for Natural Resources as a component of this strategy (Article 69 of the Energy Transition for Green Growth Act).

**Industrial policy:** The Directorate General for Business (Direction Générale des Entreprises) has led a review of its actions for companies under the umbrella of resource management.

This work has led to the drafting of an action plan aimed, inter alia, at promoting eco-design at the heart of industry of the future and supporting technological change.

The ambition is to encourage the strategic committees of the sectors of the National Industry Council to draw up strategies on eco-design and to support them through regulatory standards.

For the record, the strategic sector committees (CSFs – Comités), of which there are 14<sup>6</sup>, each corresponds to a strategic sector in French industry. Their mission is to identify, through sectoral contracts<sup>7</sup>, the key issues of each sector and the reciprocal commitments of the State and industry, to issue proposals for

<sup>4</sup> <http://www.mineralinfo.fr/actualites/recommandations-comite-metiaux-strategiques-comes-developpement-competences-industrielles> (French)

<sup>5</sup> [https://www.ecologique-solidaire.gouv.fr/sites/default/files/Energy%20Transition%20for%20Green%20Growth%20Act%20in%20action%20-%20Regions,%20citizens,%20business%20\(%2032%20pages%20-%20juillet%202016%20-%20Versions%20anglaise\).pdf](https://www.ecologique-solidaire.gouv.fr/sites/default/files/Energy%20Transition%20for%20Green%20Growth%20Act%20in%20action%20-%20Regions,%20citizens,%20business%20(%2032%20pages%20-%20juillet%202016%20-%20Versions%20anglaise).pdf) (English)

<sup>6</sup> Aeronautics, food, automotive, consumer goods, wood, chemicals and materials, eco-industries, railways, mining and primary industries, health industries and technologies, fashion and luxury, naval, nuclear, digital.

<sup>7</sup> some of the sectoral contracts are available at: <https://www.economie.gouv.fr/nouvelle-strategie-de-filieres-industrielles> (French)

concrete action and to monitor implementation. Each CSF brings together representatives of the sector's stakeholders, representatives of professional organisations, the administrations involved in the industry, and experts under the guidance of a manufacturer.

The development of industrial recycling sectors is another aspect of industrial policy aimed at a more efficient use of resources. The objective is threefold: to preserve the environment, to create added value by recovering waste, and to secure supply. For example, the Agence de l'environnement et de la Maîtrise de l'énergie (ADEME) finances research and development projects on metal recycling and has become a shareholder in the first European production unit for the recycling of titanium scrap to aeronautical quality.

**Research and innovation policies:** inclusion of the circular economy in the priorities financed by the various funds dedicated to research and innovation, launching several calls for expression of interest, etc. This is how the investment programme for the future dedicates a significant amount of subsidy to circular economy projects<sup>8</sup>. ADEME is the most important funding structure for the circular economy. Between 2010 and 2017, EUR 214 million have been devoted to circular economy projects, of which EUR 96 million are specifically for SMEs.

**Waste policy:** one of its objectives is to reduce the amount of waste produced both at household level (prevention targets on household waste) and at industry level (a non-quantified target for decoupling waste production from economic activity) (see Targets for resource efficiency and circular economy section).

Another of its objectives is to increase the recycling of waste and the incorporation of recycled raw materials in products. This policy is particularly reflected in the waste plan and the waste prevention programme.

The French waste policy is also characterised by a large number of EPR schemes which play an important role, particularly in waste recycling.

The differentiated fees introduced gradually in all EPR schemes are intended to reinforce efficiency in terms of prevention, and therefore management, of materials. Thus, all EPR schemes must define differentiated fees rewarding pioneers (producers abiding by eco-design criteria who pay lower fees) or punishing laggards (higher fees for, for example, products that disrupt sorting processes). The Road Map on the Circular Economy expects to increase the differentiation of fees to act as an incentive<sup>9</sup>.

**Agricultural and food policy:** publication of a new national Agreement to combat food waste in April 2017, covering the period 2017–2025. It is based on the principles of exchange and interaction reinforced by all the stakeholders and favours cross-disciplinary and partnership action. It is part of the target for reducing food waste by 50 per cent by 2025 relative to 2013. Among the six working groups set up, one concerns the efficiency, innovation and partnerships throughout the chain, led by the Ministry for the Economy and Finance.

**The bio-economy strategy**<sup>10</sup>: published in 2017, this describes the challenges of the bio-economy and will be complemented by a plan describing the concrete action to be taken. The substitution of non-renewable

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<sup>8</sup> <http://www.ademe.fr/sites/default/files/assets/documents/recherche-innovation-bilan-pia-ademe-010224.pdf> (French)

<sup>9</sup> For more information about waste prevention and management in France see: [https://www.ecologique-solidaire.gouv.fr/sites/default/files/9-1-17\\_PLAN\\_DECHET\\_2016-2025\\_pour\\_BAT.pdf](https://www.ecologique-solidaire.gouv.fr/sites/default/files/9-1-17_PLAN_DECHET_2016-2025_pour_BAT.pdf) (French)

<sup>10</sup> <http://agriculture.gouv.fr/telecharger/84625?token=e13f5ba7a8d26a552c8509c3c551418f> (English)

resources by renewable ones is one of the components of a transition to the circular economy as it reduces the dependence of the economy on finite non-renewable resources.

**The consumer law 2014<sup>11</sup>:** from a consumer protection perspective, this includes various measures related to the lifetime of consumer goods. The 2014 Act on Consumption is enabling some progress in product durability. While having a broader scope, this law covers consumption in general, including services, and is primarily intended to enhance consumer protection, it comprises several articles related to the lifespan of consumer goods.

- To combat planned obsolescence, sanctions are considerably strengthened in the case of deliberate deception on quality. In addition, the law introduces a class-action procedure that allows consumers to bring lawsuits collectively.
- The seller must inform the consumer for how long product spare parts will remain available (if some are).
- The duration of legal product guarantees has been extended from six to 24 months.

**The National Strategy for Ecological Transition to Sustainable Development 2015–2020:** one of the nine priorities of this Strategy focuses on a circular and low carbon economy. This Strategy does not define new action but identifies the main elements that have to be put in place for the transition to a circular and low-carbon economy.

It draws, on the basis of recommendations, a strategic framework favourable to the development of a circular and low-carbon economy, stresses the need to promote a culture of abstemiousness, to increase the resource productivity and to reduce the environmental impacts of French production and consumption patterns. It highlights the need to involve all countries in limiting or avoiding transfers of environmental impacts and distortions of competition. The development of international methodologies and standards, such as sustainability criteria for raw materials, is fundamental.

#### Institutional setup and stakeholder engagement

Traditionally, and particularly since the 2007 Grenelle Environment Forum, stakeholders in France are heavily involved in the development and implementation of environmental policy, whether through national councils for waste policy, water policy, ecological transition, etc., local advisory committees for development and monitoring of regional waste plans, or committees to debate and jointly define the main strands of the policy on the management of water resources and protection of natural aquatic environments in catchment basins, etc.

The **National Council for Ecological Transition** is consulted on proposed legislation addressing environmental or energy issues, as well as on national strategies related to sustainable development, biodiversity and corporate social responsibility, which includes topics related to material resource efficiency. The Council is chaired by the minister in charge of environment, and its members are representative of all societal stakeholders – local authorities, representative bodies of management, environmental protection associations, representatives of civil society and parliamentarians. The Council is kept informed about changes in the national sustainable development performance indicators that measure progress towards ecological transition.

#### The French Committee on Strategic Metals (COMES)<sup>12</sup>

This is a forum addressing issues on strategic metals such as supply security, recycling and integrated management. COMES was established in 2011 in recognition of the fact that that French businesses might

<sup>11</sup> <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000028738036&dateTexte=20180516> (French) and <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000029881868&categorieLien=id> (French)

<sup>12</sup> <http://www.mineralinfo.fr/page/comite-metaux-strategiques> (French)



experience severe difficulties procuring some raw metals; it brings together relevant businesses and public authorities, and cooperates with other bodies at the national and European levels.

The **National Council of Industry**<sup>13</sup> has integrated the topic of resource efficiency into its work. It is a kind of parliament of industry, including industrial and labour organisations and chaired by the Prime Minister. The work of the Council is carried out by strategic committees of industry, which propose action, at national and international levels, to support the competitiveness and development of industries, jobs and related skills. The National Council of Industry also includes a thematic section on the circular economy. It is a cross-sectoral working group. Indeed, it includes a representative of each strategic committees of industry. Such organisation should help broad integration of the circular economy in industry.

The **National Waste Council**, with its working groups, brings all stakeholders together – including businesses, consumer associations, environmental organisations, public authorities, communities, parliamentarians, experts and employees. The Roadmap on the Circular Economy (Action 48) plans to transform the National Waste Council into a National Circular Economy Council.

The **Circular Economy Institute**<sup>14</sup> is a multi-actor body that aims to promote the circular economy and to accelerate its development by bringing together relevant stakeholders. It consists of private and public bodies: business, confederations, associations, NGOs and academics.

The Circular Economy Institute organises discussions groups, sets up studies, organises events related to circular economy, shares best practice, proposes training courses, etc. Its important networks enable a broad dissemination of topics related to the circular economy.

#### Approaches to resource efficiency and circular economy policy evaluation

In regard to *ex-ante* analyses of policies and measures for a resource efficient circular economy, France is currently developing a macro-economic model on the circular economy. Its objective is to evaluate the economic impacts – GDP, jobs and trade balances – and environmental impacts – material productivity, carbon emissions, etc. – of various measures aimed at improving the efficient use of resources. Results are not yet available. The French work carried out within this framework is enhanced by that carried out by the Organisation for Economic Co-operation and Development (OECD)<sup>15</sup>, which is developing a macro-economic model in which France is an active participant.

To date, France does not have assessments of *ex-post* impacts of policies and measures for a resource efficient circular economy.

## Monitoring and targets

#### Targets for resource efficiency and circular economy

France has a number of new targets in place.

The **Energy Transition Act for Green Growth** has set several targets related to resource efficiency:

- an increase of 30 per cent in resource productivity – relating DMC to GDP –between 2010 and 2030, measured by GDP/DMC as well as a decrease in DMC per person over the same period;
- a decrease of 10 per cent in household and similar waste and per inhabitant and a reduction in the quantity of waste from economic activities per unit of value in 2020, compared with 2010;
- a 30 per cent decrease in office paper consumption by 2020;

<sup>13</sup> <http://www.entreprises.gouv.fr/conseil-national-industrie/cni> (French)

<sup>14</sup> <https://institut-economie-circulaire.fr/> (French)

<sup>15</sup> <http://www.oecd.org/environment/waste/recircle.htm> (English)



- a 25 per cent use of recycled paper (defined as paper containing more than 50 per cent recycled fibres) by 2017 and 40 per cent by 2020, with the remaining part coming from sustainably managed forests;
- a 50 per cent share of reused or recycled building waste materials in road construction materials purchased by national and local authorities in 2017, rising to 60 per cent in 2020;
- a recycling rate of non-hazardous, non-inert waste of 55 per cent in 2020, and 65 per cent in 2025;
- a reduction by 50 per cent of the quantities of non-hazardous waste landfilled in 2025 compared to 2010.

In addition, **the Road Map for the Circular Economy** aims:

- to reduce the material intensity of the French economy (DMC/GDP) by 30 per cent by 2030, compared to 2010; this target is very similar to the resource productivity target set by the Energy Transition Act for Green Growth and seems to be more in line with the French circular economy approach;
- to progress towards 100 per cent recycled plastics in 2025.

In addition, **some EPR schemes** have led to ambitious specific prevention and recycling targets for related materials and products<sup>16</sup>.

Waste tyres (formal EPR scheme):

- implicit collection and recovery rate: 100 per cent.

Waste household packaging (beyond European waste packaging targets):

- no collection target;
- recycling target: 75 per cent in 2012.

Waste household graphic and similar paper (formal EPR scheme):

- recycling target: 60 per cent in 2018.

Waste clothing, household textiles and shoes (formal EPR scheme):

- collection target: 50 per cent of the quantities placed on the market by 2019;
- recovery target: 95 per cent reuse and recycling, with a maximum of 2 per cent disposed of.

Waste furnishing:

- an upstream prevention target by eco-design taking into account the end of life: 3 per cent of the quantity put on the market;
- a collection target (territorial coverage): 50 million inhabitants by the end of 2015 (household waste furnishing) and 60 per cent of business areas (professional waste furnishing);
- a reuse target: a 50 per cent rise in output (volume) of the related social and community economy;
- a reuse and recycling targets: 45 per cent of collected household waste and 75 per cent of collected professional waste by end of 2015;
- a reuse, recycling and other recovery target: 80 per cent by end of 2017.

Waste packaging and plastic products for agricultural supplies (voluntary EPR scheme):

- collection target of 35–90 per cent in 2020;
- recycling target of 83 per cent in 2015 for the existing programmes and 47 per cent for the programmes initiated after 2011.

Printer cartridges (voluntary EPR scheme):

For manufacturers :

<sup>16</sup> [http://www.ademe.fr/sites/default/files/assets/documents/8817\\_rep\\_memo-edition\\_2016\\_pap.pdf](http://www.ademe.fr/sites/default/files/assets/documents/8817_rep_memo-edition_2016_pap.pdf) (French)

- reuse/recycling target by 2017: 85 per cent of printer cartridge waste collected by manufacturers;
- recovery target: 95 per cent of waste printer cartridges collected separately by the manufacturers.

For all actors

- reuse/recycling rate of 80 per cent of waste collected separately;
- recovery rate of 95 per cent of waste collected separately by end 2017.

Mobile homes (voluntary EPR scheme)

- no collection target;
- 75 per cent reuse target of in 2012.

The substitution of non-renewable resources by biomass is one element of more efficient resource use in France. The challenge is to produce biomass by limiting the transfer of environmental impacts to other resources. Several action plans are aimed at improving efficiency in the use of resources in food production and forestry. The main objectives are:

- a decrease in the use of phytosanitary products (pesticides, fungicides and herbicides) of 25 per cent by 2020 and 50 per cent by 2050 relative to 2015;
- a decrease in the use of antibiotics in livestock: by 25 per cent in the next five years (2012–2017);
- improved nitrate management (no quantified target);
- a 50 per cent reduction in food waste between 2013 and 2025.

#### Indicators to monitor progress towards a resource-efficient circular economy

To monitor progress towards a circular economy, France uses **10 key indicators** and the first version has just been put online<sup>17</sup>.

These 10 indicators were chosen:

- to inform the main fields of the circular economy, namely sustainable production, sustainable consumption and waste;
- taking into account the indicators already produced and the data availability for their production;
- on the basis of consultation with the stakeholders.

The 10 key indicators are:

for sustainable production:

- domestic material consumption per person;
- resource productivity;
- number of ecolabel holders;
- number of industrial symbiosis projects.

for sustainable consumption:

- car-sharing;
- food waste;
- household spending on product repairs and maintenance;

For waste management:

- quantities of waste sent to landfill;
- use of recycled raw materials in production processes;

The tenth indicator, employment in the circular economy, is a cross-cutting theme.

<sup>17</sup> <https://www.statistiques.developpement-durable.gouv.fr/10-indicateurs-cles-pour-le-suivi-de-leconomie-circulaire-edition-2017> (French and English version)

**Domestic material consumption** in absolute terms and per person, and its breakdown by resource type (biomass, fossil fuels, non-metallic minerals and metal ores) and material productivity (GDP/DMC) are part of the National Strategy of Ecological Transition towards Sustainable Development 2015–2020.

France has recently assessed its **raw material consumption** (RMC)<sup>18</sup>.

#### Resource efficiency, circular economy and the 2030 Sustainable Development Goals

The SDGs constitute an excellent international agenda for backing-up and confirming policies at the national level.

France has taken many initiatives since 2015 that will contribute to the implementation of SDG Targets 8.4 and 12.2, the main ones being the Law for Energy Transition and Green Growth (2015) and subsequent action: the National Roadmap for the Circular Economy (April 2018) and the upcoming National Resources Plan (June 2018) (see sections on Driving forces for material resource efficiency and a circular economy and Dedicated national strategies or roadmaps for material resource efficiency and a circular economy).

### Examples of innovative approaches and good practice

#### Examples of good practice and innovative approaches

France implements a number of initiatives that support a resource efficiency and/or circular economy. Examples of good practices include:

##### **The National Agreement against food waste and related initiatives.**

France adopted a National Agreement against Food Waste in 2013. This programme, led by the Ministry of Agriculture, brings together five ministries, of agriculture, environment, higher education (enseignement supérieur), economy and health and some 50 stakeholders in the food chain, aims to reduce losses and waste by half by 2025 relative to 2013. It includes voluntary individual commitments and working groups that bring together stakeholders on issues such as measuring waste, communication with consumers or improving food aid for the poor.

Article 102 of the National Agreement states that, ‘the State and its public bodies, together with local and regional authorities, will put into place before 1st September 2016, a procedure to combat food waste in the catering services which they manage’.

In this context, a guide, based on the work carried out within the framework of the Network for Avoiding Food Waste (Régal – Réseau pour Eviter le Gaspillage Alimentaire) in Normandy, has been published to help administrations to implement this procedure<sup>19</sup>.

The public authorities, through ADEME, provide technical and financial support to the collective structures that wish to implement such measures. It has launched the 1,000 schools operation for local communities which support their schools in reducing food waste, and the civic service operation, which finances 250 civic services focused on efforts to combat food waste in mass catering. These initiatives complement the many voluntary actions already undertaken at a local level.

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<sup>18</sup> <https://www.statistiques.developpement-durable.gouv.fr/lempreinte-matieres-un-indicateur-revelant-notre-consommation-reelle-de-matieres-premieres> (French and English version)

<sup>19</sup> <https://www.ademe.fr/sites/default/files/assets/documents/guide-waste-food-restaurant-collective-8598.pdf> (French)

Additionally, ADEME is assisting 20 food production test sites to measure their food losses and implement tailor-made reduction measures, with the aim of demonstrating that this sector can reduce its food losses and waste while making financial savings.

France has also established a specific framework to combat food waste by retailers in the food sector. Article L. 230-6 of the French Rural and Maritime Fishing Act defines food aid and which categories of associations can receive this<sup>20</sup>.

Households are also targeted especially through awareness-raising measures<sup>21</sup>.

Article L541-15-4, 5 and 6 of the Environment Code defines the general rules for preventing food waste and prohibits food retailers from deliberately making their unsold food items unsuitable for consumption or undertaking any recovery operation of any form. It obliges food retailers exceeding a certain threshold to establish a contract with other associations to redistribute their unsold food to needy people. Food aid is eligible as a tax reduction equal to 60 per cent of the value of their food donations and limited to 0.5 per cent of their turnover.

In addition to the fight against food waste, France has taken initiatives to promote sustainable food through, for example, support for the development of French sustainable food projects. As foreseen in the Law for Agriculture, Food and Forestry of 13 October 2014 (Art. 39), French food projects are based on an analysis of local agricultural and food production, the nutritional needs of an area and identifying the socio-economic and environmental assets and local constraints. In particular, they enable the development of the consumption of local, quality products; the promotion of a new mode of agro-ecological production, including organic production, water and landscape management, and the fight against food waste while maintaining an area's added value

### **Commitments for Green Growth (ECVs)**

Inspired by the Dutch green deals, ECVs, the official name of these kind of voluntary agreements, lay down the reciprocal commitments between the state and companies. The objective of these agreements, based on the needs expressed by companies, is to put the state in a position to work on the obstacles encountered by companies by developing a project approach between companies with pioneering initiatives and ministerial departments. Project leaders commit to leading their innovation with the aim of creating examples for others to follow by disseminating results. For its part, the state commits to undertake facilitation action which may become more generalised. Current ECVs concern recycling of plaster waste, recovery and recycling of inert demolition and construction waste, the structuring of the reuse and industrial recycling sector for occupational clothing, the implementation of an acrylic glass recycling sector, the development of rethreading to extend the life time of heavy-duty tyres, the recycling of flat glass from renovation and deconstruction, the implementation of an aeronautic sustainable biofuels sector, and the recovery of building wood waste in cement.

### **The national programme for inter-business synergy (PNSI)<sup>22</sup>**

This is an experimental programme in industrial and territorial ecology, a concept that can also be referred to as industrial symbiosis, initiated by the Institute of the Circular Economy in June 2015 for a period of two years. The PNSI has been rolled out in four regions, Auvergne-Rhône-Alpes, Brittany, Normandy and New Aquitaine, and its aim is to put businesses in direct contact using workshops. Seventeen workshops have been organised since the programme's launch, allowing 550 businesses to meet to identify potential synergies before implementing them.

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<sup>20</sup> <http://agriculture.gouv.fr/mise-en-oeuvre-de-laide-alimentaire-la-liste-des-structures-habilitees> (French)

<sup>21</sup> <http://www.casuffitlegachis.fr/particuliers> (French)

<sup>22</sup> <https://institut-economie-circulaire.fr/synthese-du-programme-national-de-synergies-interentreprises/> (French)

### **The International Platform on the Circular Economy<sup>23</sup>**

The platform is totally open and allows project leaders to share their experiences and access all the existing tools on the subject. It is aimed at everyone, the public, entrepreneurs, communities, large companies, etc., and facilitates networking through collaborative spaces. Linked to 5 territorial platforms so far and there are more to come:

- in Auvergne-Rhône-Alpes, [eclaira.org](http://eclaira.org) (French and English);
- in the Canton of Geneva, [genie.ch](http://genie.ch) (French and English);
- in New Aquitaine, [recita.org](http://recita.org) (French and English);
- in Normandy, <https://neci.normandie.fr/> (French)
- in Paris, <https://www.grandpariscirculaire.org/> (French)

### **The portal for circular economy aid<sup>24</sup>**

Developed in partnership with the network of eco-enterprises (PEXE), this portal lists all the available sources for financing circular economy projects at European, National and Regional levels, how to access the funding and the points to watch. This interactive portal allows users to access various funding solutions using different criteria (theme, geographic scale, kind of aid, etc.) and provide feedback to other users, both seekers and providers of aid.

### **Public Procurement**

France seeks to use public procurement to develop the demand for more resource-efficient products with lower environmental impacts over their entire life cycles. In this context, it has identified several levers.

- Favouring recycled products, for example, a guide to help the drafting of public contracts is being drawn up as part of the ECVs in relation to the recovery and recycling of inert construction waste. It was signed on 27 April 2016.
- Favouring sustainable bio-based products: a decree is currently being drafted within the framework of the implementation of the government's Climate Plan (Strand 7) published on 6 July 2017. The scheme, as envisaged, will allow the taking into account of environmental performance and in particular of bio-based products in public procurement and will include a tool to assist public procurement with the creation of a database of sustainable bio-based products.
- Favouring office furniture and cleaning services with the lowest life-cycle cost.

### **Environmental labelling project**

This consists of giving consumers, through any suitable medium – the product itself, shelving, electronic media, etc. – quantified information on the main environmental impacts of products, calculated over their entire life cycles. It aims to provide the consumer with relevant, objective and comparable information to inform purchasing decisions. It is also aimed at producers and retailers to encourage and add value to their efforts in eco-design. Methodological work is being carried out in line with the European Commission, within the context of the product environmental footprint pilot, in order to produce robust evaluations and to highlight products with the least environmental impact.

### **The extended producer responsibility (EPR) scheme for agricultural supply waste management**

Since 2002, France has been supporting an EPR scheme for the waste management of agricultural supplies, waste packaging, etc., A.D.I.VALOR. Although under a voluntary initiative set up by the agricultural profession, this has a framework agreement, the latest covering 2016–2020, which sets progressive targets for the collection and recycling of agricultural supplies' waste. At present, A.D.I.VALOR aims to achieve an average collection rate of 78 per cent and a recycling rate of 74 per cent by 2020.

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<sup>23</sup> <https://www.economiecirculaire.org/index.en.html> (French and English)

<sup>24</sup> [www.aides-publiques-entreprises.eco-circulaire.fr](http://www.aides-publiques-entreprises.eco-circulaire.fr) (only for European subsidies) (French and English)

## Exchange of best practices : Les assises et les rencontres sur l'économie circulaire

- Les assises de l'économie circulaire<sup>25</sup>

Every two years, in partnership with the Institute of Circular Economy, ADEME organises a large national conference on the circular economy that brings several hundred people together for two days. Local authorities, companies and associations are invited to present examples of best practice in the area of circular economy.

- Les Rencontres Franciliennes de l'économie circulaire

These meetings are organized by the Ile de France region as part of the development of its waste prevention and management plan, with an emphasis on the exchange of good practice on circular economy.

Other regions, including Normandy, have put these kinds of initiatives in place<sup>26</sup>.

## Assessment of the benefits of recycling

The Federation of Recycling Industries (FEDEREC), in partnership with ADEME, has carried out a study to assess the environmental benefits of recycling in France. It shows that 22.5 million tonnes of carbon dioxide emissions are avoided per year, and that recycling saves 124 terawatt hours (TWh) of energy, a quarter of French electricity production, and 250 million cubic metres of water per year. A calculation tool has been developed on the basis of this study.

## Seeking synergies with other policy areas

France has put some initiatives in place that deliberately seek to create synergies and co-benefits between resource efficiency, the circular economy, and other policy areas. The initiatives mentioned below deal respectively with consumer policy, the fight against climate change, industrial and economic policy and some actions that seek to make imports of materials and products more sustainable.

### Consumer policy/circular economy

France relies on consumer policies to advance the circular economy. Thus, the law of 17 March 2014 on consumer protection has shifted the default period of legal product guarantees from 6 to 24 months. If a product fails within two years the consumer does not have to prove that the breakdown is due to a product fault, rather the producer has to prove that the breakdown is due to misuse by the consumer.

This law obliges the producer to make information available to the consumer on the availability of spare parts

### Circular economy – the fight against climate change

The circular economy is an integral part of policies to combat greenhouse gas emissions. Thus, an entire section dedicated to the circular economy is included in the Energy Transition for Green Growth Act. It is an integral part of the climate plan.

### Industrial and economic policy/circular economy

Industrial policy also uses the circular economy to improve the competitiveness of businesses, generate innovation and create new activities. A strategic Roadmap on the Efficient Use of Resources is being implemented (non-public document).

<sup>25</sup> <http://www.assises-economie-circulaire.ademe.fr> (French)

<sup>26</sup> <https://www.normandie.fr/premieres-assises-normandes-de-leconomie-circulaire-gruchet-le-valasse-76> (French)

The issue of **the transfer of environmental impacts through imports** necessary to satisfy material need, raw materials, semi-finished or finished products, is a subject that has begun to emerge, fuelled by the regular calculation of footprint indicators, notably the carbon footprint.

As noted, France has set an objective of using 25 per cent recycled paper, defined as paper containing more than 50 per cent recycled fibres, by 2017 and 40 per cent by 2020, and all other paper to be sourced from sustainably managed forests. As France imports a significant proportion of timber products, the implementation of this objective will **reduce the environmental impact of these imports**.

France is carrying out a study to limit the impact of public procurement on global deforestation. The objective is to stimulate reflection to complement sustainable public purchasing schemes for food products and timber products which do not cause deforestation. This involves identifying public purchases linked directly or indirectly to deforestation and proposing recommendations to limit the impact of public procurement on deforestation. In the long term, it is planned to develop an educational and operational guide for public procurers to limit the negative impact of public procurement on deforestation.

#### Resource efficiency and circular economy policy initiatives from subnational to local level

In France, regions and other local authorities are encouraged to undertake circular economy initiatives in several contexts.

- Within the framework of the Regional Plan for Waste Prevention and Management<sup>27</sup>: this should include a regional action plan for the circular economy (Law no. 2015-991 of 7 August 2015 on the new territorial organisation of the Republic (NOTRe law)). The Regulation does not contain any requirements about the contents of the Regional Action Plan on the Circular Economy. To help local authorities develop this plan, ADEME has drawn up a methodological document to help local authorities to develop their circular economy plan, and more generally, the plan for waste prevention and management. It describes the means of integrating the circular economy into the waste prevention and management plans – resource flow diagnoses, governance, targets including resource efficiency targets, etc. The regional plan for waste prevention and management, and thereby the regional circular economy action plan, are under development. They should be finalised between mid-2018 (for the most advanced) and mid-2019.
- As part of the Zero waste zero wastage initiative (2014/2015), the winners of these calls for proposals can sign a Waste and Circular Economy (CODEC) contract if they so wish. The aim of this project is to support voluntary communities in an exemplary and participative approaches to promote the circular economy, through the mobilisation of local stakeholders (associations, companies, the public, administration and businesses).
- One hundred and fifty-three territories have been designated as winners through two call projects – 58 territories by the end of 2014 and a further 95 by the end of 2015, representing 33.7 million inhabitants. Short presentations of the winning projects are available online<sup>28</sup>.

For example, the town of Roubaix, mobilises 101 families to reduce annual waste production by 50 per cent: those families who reach this target will obtain the reimbursement of 50 per cent of their waste disposal tax.

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<sup>27</sup> <http://www.ademe.fr/sites/default/files/assets/documents/fiche-plan-regional-prevention-gestion-dechets.pdf> (French)

<sup>28</sup> <http://www.optigede.ademe.fr/territoires-zero-dechet-zero-gaspillage> (French)



This regulatory environment and the growing interest in the circular economy as a perceived source of added value and employment is encouraging an increasing number of regions to integrate the circular economy into other strategic focus documents, in particular the regional schemes for the economic development of innovation and internationalisation. This is the case of the Aquitaine Region which has made the circular economy one of the strategic focus of this scheme<sup>29</sup>.

For example, the Aquitaine Circular Economy Strategy aims to encourage businesses to juggle their supply chains so that they become more sustainable; support the development of short circuits, including for energy supplies; reinforce business awareness of the economic benefits of eco-design; support those who want to engage in such approaches. especially in the construction sector; develop industrial symbiosis; identify the economic activities that have a high potential to develop product system services; stimulate research and development; and develop responsible consumption and cross-compliance criteria in regional public procurement.

Several other French regions have set up circular economy initiatives with various governance schemes : they are summarised in the report *L'économie circulaire : quelle gouvernance en région ?*

Sustainable territorial food project: the approach of the village of Mouans Sarthou

This approach concerns the establishment of new territorial food governance favouring organic food in mass catering, based on proximity channels, seasonality and the reduction of food waste<sup>30</sup>.

Régions de France has undertaken, through the Rennes Declaration of 4 July 2014, to promote regional food systems to meet a sustainable food objective encompassing the notions of food safety and sustainability in the use of natural and human resources.

In France, eight local authorities are engaged in the Milan Urban Food Policy Pact<sup>31</sup>, launched in October 2015 in Milan, Italy. They committed to set up local actions around 6 strands:

- local food governance – ensuring an environment conducive to effective action;
- promoting sustainable food and good nutrition;
- ensuring social and economic equality;
- supporting local food production (rural–urban links);
- food supply and distribution;
- preventing food waste.

## Other resources

### Examples of policies which go beyond 'material resources'

The Resource Plan for France (see Overview of dedicated national or sectoral strategies for raw materials section) includes soils, in addition to materials – biomass for non-food use, in particular energy and mineral resources. In the context of increased mobilisation of biomass, the uses of which are increasing especially because of climate issues, soil resources play an essential role. A more efficient use of this resource, both quantitative and qualitative, is essential.

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<sup>29</sup> [https://www.nouvelle-aquitaine.fr/sites/alpc/files/alpc\\_downloads\\_prg/field\\_alpc\\_downloads\\_prg\\_file/SRDEII%20Integral.pdf](https://www.nouvelle-aquitaine.fr/sites/alpc/files/alpc_downloads_prg/field_alpc_downloads_prg_file/SRDEII%20Integral.pdf) (French) (Pages 170–172)

<sup>30</sup> <http://restauration-bio-durable-mouans-sartoux.fr/> (French)

<sup>31</sup> <http://www.milanurbanfoodpolicypact.org/> (English)



European Topic Centre on Waste and Materials  
in a Green Economy  
Boeretang 200  
BE-2400 Mol  
Tel.: +14 33 59 83  
Web: [wmge.eionet.europa.eu](http://wmge.eionet.europa.eu)  
Email: [etcmwge@vito.be](mailto:etcmwge@vito.be)

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