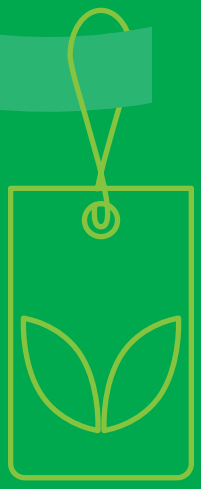
Circular economy and voluntary standard

6 organizations recount their experience!



afnor
STANDARDIZATION

The circular economy: a challenge where everyone has their place

For the first time, a voluntary standard helps companies grasp the topic and implement projects that cover all its dimensions. Its name: XP X30-901. Developed 100% by professionals, and 100% French.

This voluntary standard proposes a 3 x 7 matrix covering the three dimensions of sustainable development (environment, economy, society) and the seven areas of action of the circular economy: sustainable procurement, ecodesign, industrial symbiosis, functional economy, responsible consumption, extension of service life, and the effective management of materials and products at the end of their life cycle. When you launch a circular economy project, you have to consider all these questions.

The standardization commission, which you can join, brings together about fifty players: associations, industrialists, service companies, local authorities, institutions, including the Ministry for the Ecological and Inclusive Transition, in implementation of its circular economy roadmap of April 2018.

THE VOLUNTARY STANDARD AND THE CIRCULAR ECONOMY: FEEDBACK FROM SIX PLAYERS

Today, six members of the standardization commission are sharing their feedback. The CERIB, Italpollina, Flex'ink, Gestnord, Suez and Tarkett use concrete examples to show how they use the voluntary standard. Like other management system standards (ISO 9001, ISO 14001, etc.), it is based on the principle of continual improvement and comes across like a set of instructions for project managers, sustainable development managers or directors of entities themselves, including in regional authorities, so as to give them the guarantee that their project will respect circular economy principles.

You will discover how an organization, whatever its structure, plans, implements, evaluates and improves its circular economy project, by referring to the guidelines of the XP X30-901 standard.

AN INTERNATIONAL STANDARD

The countries that are members of the International Organization for Standardization (ISO) have approved the creation of a technical committee on the subject (ISO TC 323), under French leadership, to bring together professionals wishing to develop the international standard, on the basis of the French-developed text. France is thus taking the lead on this strategic issue, and with it all the economic players who saw it as an opportunity to revisit their model in the light of the climatic and ecological crisis.

Flex’ink

100% Usable collaborative printing

The less you print the bigger the margin!!

THE PROJECT

Flex’ink offers an innovative, economical and responsible printing solution. No need to store your documents in advance; Flex’ink offers you its virtual stock. With Flex’ink, you only print what you need. Your documents are always up-to-date as they can be changed every time you print. Thanks to Flex’ink credits, your documents are always relevant. You can diversify your media according to your news (important appointment, trade show, new service / product, etc.).

THE CONDITIONS FOR IMPLEMENTING THIS PROJECT

- From an equipment standpoint, Flex’ink had to change very high volume printers for smaller and more flexible ones.
- Printing paper providers still use a “Volume & Price” model. The more you order, the lower the price.
- Customers have to be educated about a new model: the less you print; the greater your efficiency.

CONCRETE RESULTS OBTAINED MAKING IT POSSIBLE TO

1. **Decrease the environmental impact**: less ink & paper to recycle.
2. **Increase efficiency in the use of resources**: less ink, less paper, less transportation.
3. **Improve the well-being of internal and external stakeholders:** on-demand printing.

THE PROSPECTS FOR EXPANSION OF THE ACTION

The concrete results obtained making it possible to:

- Decrease the environmental impact: less ink & paper to recycle.
- Increase efficiency in the use of resources: less ink, less paper, less transportation.
- Improve the well-being of internal and external stakeholders: on-demand printing.

THE VALUE OF A NORMATIVE PROCESS OF PROJECT MANAGEMENT

EC and EFC standards will help Flex’ink to take an EFC integrated solution further with a cooperative ecosystem.

Flex’ink will also make a difference with renting or subscription models that have no sustainable development goals.

“With the Flex’ink solution, I ask myself the right questions in terms of communication strategy and document dissemination while acting for the planet and the preservation of its resources.”

Communication agency CEO - France

Printers for 15 years, we decided to create Flex’ink to offer our customers a new way to print out documents and use them. We are convinced that the paper document is still useful and effective as long as it is relevant. That’s why we are offering you a new experience with FLEXY printing.

_450 customers

_Hundreds of thousands of paper sheets printed with no waste

DISCOVER SUSTAINABLE PRINTING

Thanks to the virtual stock, Flex’ink only prints the necessary documents. STOP waste and disposal of unused media. Flex’ink allows you to consume your documents as time goes by. Only use your credits when you need them. You overestimated your stock and still have unused credits? Flex’ink reimburses you half of their value. Thanks to this operation, you don’t end up over-consuming your printed documents and your budget is optimized. Why not give it a try?

MEMBER OF →

Gesnord

A call centre at the service of health practitioners!!

Match patient requests with practitioners' availability


© DR

Gesnord is a call centre which makes medical appointments for patients.

_205 medical Offices
_16 employees
_Open 6/7 days
_5,000 calls per day
_900,000 calls per year

THE PROJECT

Faced with competition from emerging countries, it was looking at having to reduce its costs, step up the work rate of operators by monitoring call times or else relocate. Instead, Gesnord preferred to analyze the information it had at its disposal from its activity and the value of use that could be derived from it (vis-à-vis territories, patients and doctors).

THE CONDITIONS FOR IMPLEMENTING THIS PROJECT

- Training of operators to detect the first signs of "medical deserts" or overbooked doctors.
- Implementation of an on-call system agreed with doctors (slots left free to accommodate medical emergencies in the region).
- Agreement with doctors concerning their admissible Load Plan.
- Operators' assessment of the quality of their intervention and not on the time spent.

CONCRETE RESULTS OBTAINED MAKING IT POSSIBLE TO

1. **Fight against the creation of so-called "medical deserts".**
2. **Prevent burnout by doctors.**
3. **Provide patients with a medical service tailored to their needs.**

THE PROSPECTS FOR EXPANSION OF THE ACTION

- From a societal stand point: Provide a health service affordable for patients AND for doctors.
- From an economic standpoint: Keep call centres in France thanks to a cooperative system embedded in the Functional Economy.
- From an environmental standpoint: Prevent burnout by doctors.

The integrated solution: A service co-developed with doctors interested in this approach (implicit renunciation to have as many doctors as possible as clients - no race to increase the volume of clients).

THE VALUE OF A NORMATIVE PROCESS OF PROJECT MANAGEMENT

By dealing with such a large number of calls, Gesnord employees pick up the first signs concerning the medical activity of the region and examine the volumes processed. For example, they are able to identify the work overload experienced by certain doctors, or the risk of seeing a "medical desert" emerge when several practitioners announce their upcoming retirement in the same area and at the same time.

So much aggregated information that could be useful to local authorities or to actors like the ARS or the order of physicians, at a time when patients want better access to care, doctors are seeking a better work-life balance and hospitals are looking to decrease congestion in A&E departments.

MEMBER OF →

The LE ONZE demonstration project in Chartres

Construction of a 12-unit residence

THE PROJECT

On the basis of the LE ONZE operation, 12 housing units are under construction in Chartres with the aim of achieving a **"Demonstration Project"** covering **3 topical themes**:

- **The circular economy**.
- **The E+C- experiment**.
- **Use of digital technology and BIM in the works phase under the GPA (Guarantee of Completion) as well as that of the duration of the building in the so-called operating phase**.

To this end, more than 80 players are working together: Project Owners, Prime Contractors, microbusinesses and SMEs, Suppliers, Experts, Professional Organizations and Partners.

The feedback will be widely shared once it becomes available at end 2019.

THE CONDITIONS FOR IMPLEMENTING THE PROJECT

Regulatory obligations apply to suppliers of construction products and the usual conditions of insurability require compliance with the standards in force.

Meetings of the Steering Committee for the LE ONZE project allowed the various players to discuss the status of industry standards and techniques.

Actions aimed at preserving local natural resources necessitated the sharing of information on the techniques envisaged to meet the various requirements.

The mobilization of project stakeholders, their regional economic presence and the support of experts made a significant contribution to the feasibility of the project.

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Pierres & Territoires Eure-et-Loir is a subsidiary of the PROCIVIS Eure-et-Loir property group, which is itself part of the PROCIVIS IMMOBILIER national network. They bring together property expertise with the particular speciality of investing a portion of dividends in the "Social Missions" activity.

For more than 50 years, the group has been acting locally to achieve regional cohesion, social mix and housing diversity for the greatest number.

_12 units in an apartment block

_850 sq.m of land (509 sq.m in ES)

_25% recycled concrete for the operation

_More than 360 tons of CO_2 saved or 20% less than a conventional operation

_Delivery expected in February 2020

CONCRETE RESULTS

In view of the aims of the XP X30-901 circular economy project management standard, the actions carried out under the "LE ONZE demonstration project" will make it possible to:

1. Reduce the environmental impact of the project, particularly through application of the E+C- experiment.
2. Preserve natural resources by using recycled concrete aggregates from demolition as a substitute for natural aggregates via the intervention of players with a regional presence, so limiting transport distances.
3. Optimize site management through the use of digital tools, employee training and production, at the end of construction, of a DOE (as-built documentation), stock of works and materials as built.

THE PROSPECTS FOR EXPANSION OF THE ACTION

The LE ONZE demonstration project, which is underpinned by the XP30-901 standard, with the participation of all the local players concerned by the building operation, has shown that it is possible to develop a circular economy approach, an environmental strategy and the use of digital technology and BIM by microbusinesses and SMEs on a routine project.

The feedback will be widely disseminated and shared, particularly by national organizations in charge of the environment and associated with the project in a bid to pass on lessons learned and broaden experience.

Other actions of the same type may be developed on other projects.

THE VALUE OF A NORMATIVE PROCESS OF PROJECT MANAGEMENT

Some insights into future key elements:

- **The XP X30-901 circular economy project management standard is a fully-fledged tool to be widely deployed in the construction industry.**
- **Its principle permits easy identification of a whole host of improvements aimed at accelerating the transition to a circular economy.**

"To allow the project's stakeholders to seize the opportunities available in terms of preservation of natural resources, the CERIB, which contributed to the development of the XP30-901 standard, supported the players throughout the project and, in particular, provided a summary note on the normative context surrounding the use of recycled aggregates in concrete.

It was therefore possible for suppliers of concrete building solutions to better identify opportunities and engage in a process to replace natural resources with raw materials resulting from the demolition of buildings in Chartres and to call on digital technology and BIM".

Philippe Francisco, Deputy Director Materials and the Circular Economy at the CERIB (French concrete industry research centre)

Italpollina

A circular economic model in the agricultural environment, created by an italian family

From poultry manures to organic fertilizers allowed in organic farming worldwide

THE PROJECT

In the 1970s, Cav. Licinio Bonini, poultry breeder, founded Italpollina, by anticipating the increasing need of sustainable agriculture solutions. His approach was to produce fertilizers that would increase the chemical, physical and biological fertility of soil while fully respecting human and environmental health.

Recycling poultry manure became an evidence. Licinio's dream came true when the first manufacturing facility opened in 1973 in Rivoli Veronese, Italy, to produce organic fertilizers. The **new technology**, developed with engineers in Veneto, met with rapid success across Europe, and in the 1980s, Eng. Nello Bonini expanded Italpollina's product offering and worked to make Italpollina **an international SME**.

Today, this plant is always a reference by **improving its process as part of a circular vision** and has obtained ISO certification (**ISO 9001 and 14001**).

THE CONDITIONS FOR IMPLEMENTING THIS PROJECT

The conditions for implementing this project come down to a whole series of innovations and a continuous process of improvement and flexibility as well as the responsiveness of the engineers and R&D team.

In fact, the owners created this plant by developing or adapting processes never before used in this kind of industry: dehydration of manures, the production chain, the energy management, waste management, etc.

The contracting of supplies was key to the success of this project. In fact, manures in enough quantities and with a minimum agronomic quality is necessary to this success.

Among the obstacles encountered and overcome, difficulties related to the Italian situation and energy costs were overcome by developing electric co-generation and reducing heat lost during the process.

CONCRETE RESULTS:

1 Sustainable supply
Local supply of livestock producers and agro-food industries, preference for organic (renewable) instead of mineral (non-renewable) supply, GMO free, proximity of the production units in relation to the deposits, etc.

2 Eco-design
Electric co-generation, dehydration to limit the amount of water to be transported, low-impact raw material (manure), formulated fertilizers to concentrate nutrients, compaction to avoid dust, etc.

3 Industrial symbiosis
Partnership with local farmers, recycling of all the by-products of poultry farming, safeguarding of jobs in rural areas, pooling of transport (chartering and groupage).

ITALPOLLINA
HELLO NATURE!

Quality, passion, innovation and respect for nature have always been Italpollina's core values. Currently operating in more than 80 countries worldwide, with four production sites and 13 sales offices, Italpollina offers a wide range of biotechnological and certified solutions for a more sustainable, circular and modern agriculture.
Every day, HELLO NATURE!

_Creation of 130 jobs
_A global SME in under 50 years
_Replacement of mineral fertilizers by a renewable source
_Better management of manures
_European leader in organic fertilizers

4 Responsible consumption
Communication with customers to inform their choice ("sustainable fertilizer" label, organic farming, etc.), scientific information, "multi-purpose" fertilizers (reduction of transport, storage, number of spreadings, etc.).

5 Longer use time
Product development to preserve the product during storage and maintain its efficiency.

6 Effective management of products at the end of life
Collection and recovery of empty packaging, review of recyclability and prevention, closed loop recycling of sorting differences or manufacturing defects, treatment of wastewater and fumes, etc.

"The United Nations Food and Agriculture Organization – FAO has stated that the world will witness a 50% increase in demand for food by 2050. Today, we are wasting 30% of agricultural production. To achieve this objective, it is therefore important to develop "circular" fertilizers, while ensuring a high level of health and environmental safety and not neglecting efficiency. I'm proud of the vision of my grandfather, and excited to follow the road for a more sustainable agriculture!".

Luca Bonini, CEO Italpollina, 3rd generation

THE PROSPECTS FOR EXPANSION OF THE ACTION

Today, the Italpollina plant covers most of the perspectives in relation to the 3 main objectives of the XP X30-901 standard. Thanks to the approach to management adopted by the owner and the ISO certifications, the circular economy has been integrated into the development strategy and marketing. This means that circular economy principles are evaluated for each modification of the process/ products.

As leader, the current objectives are to focus more on responsible consumption:

- Better knowledge of this kind of fertilizer.
- Its integration into private production rules for food.
- Encouraging its use by replacing mineral fertilizers.

THE VALUE OF A NORMATIVE PROCESS OF PROJECT MANAGEMENT

If the XP X30-901 standard had existed 50 years ago, we could have evaluated, adapted and implemented our project more quickly in the context of the circular economy. This standard is invaluable for managing a circular economy project and harmonizing the requirements and guidelines between the different stakeholders.

It now seems likely that this standard could serve as the basis for certification to promote products and projects, which fulfil the goals of the circular economy.

ORGANIC FERTILIZERS AND THE CIRCULAR ECONOMY

- Return to the soil of livestock effluents, with optimization of the efficiency (Limitation of NP leaching, C sequestration).
- Reduced use of mineral fertilizers (non-renewable), for almost comparable efficiency.
- Using organic fertilizers avoids other disposal routes (spread, landfill, combustion, etc.) and the generation of environmental pollution (water, soil, air).

MEMBER OF

AISEC ASSOCIAZIONE ITALIANA per lo SVILUPPO dell' ECONOMIA CIRCOLARE

Institut national de l'économie circulaire

Suez

Waste recycling and recovery in Meknes - Morocco

Sorting, waste management centre and workers' integration

With a track record in the water and waste sectors stretching back over 160 years, SUEZ is working on all 5 continents at the service of efficient and sustainable management of resources.

SUEZ supports its clients in the transition from a linear model that consumes resources to a circular economy that recycles and values them.

- **56.6-hectare site**
- **Up to 330,000 tons of waste managed per year**
- **Lixiviates treatment to produce irrigation water**
- **3,000 sq.m sorting centre**
- **Set-up of cooperative for 170 sorters**
- **7,000 sq.m to produce compost for agricultural use**
- **Previous landfill biogas recovery**

THE PROJECT

Waste management in Meknes

- **Stakeholders:** the Meknes municipal authority, local waste pickers becoming sorters, Morocco national government (ministry of energy and environment, national office for cooperatives), SUEZ.
- Considering social issues, SUEZ supported the creation of a cooperative to improve waste pickers' working conditions (safety and security). Workers' economic conditions have been taken into account to facilitate individual integration into society.

OPERATIONAL RESULTS

1. 20 years' involvement to revamp and create a waste management centre considering Morocco's sustainable development goals.

2. Domestic and industrial waste management.

3. From the informal to the formal economy: creation of "Attadamoun", a cooperative to integrate 170 waste pickers becoming stakeholders as sorters.

4. A new wastewater treatment plant to treat lixiviates: water reuse for irrigation.

5. A new composting platform for organic waste to benefit local agriculture.

6. Sanitary landfill creation for non-recoverable waste.

PROJECT IMPLEMENTATION

Cooperative creation is the main social, environmental and economic benefit of the project: a long process to switch from informal to formal waste management, not more waste pickers but now "sorters".

TO GO FORWARD

Energy production:

- CH_4 collected from the current and previous landfill, up to 3.5 to 12 millons m^3/year to be recovered. This will reduce the impact of climate change.
- 27,000 to 24,500 MW/year of bio energy.

VALUE OF A NORMATIVE PROJECT MANAGEMENT APPROACH

SUEZ	Economic	Environment	Social
Sustainable sourcing	Income generation for sorters	Bio energy production through biogas collection	Sustainable employment for sorters
Eco design	Biogas collection on previous and current landfill	New design of sanitary landfill	Facilitation of sorters' integration into society
Industrial symbiosis	Support for set-up of a sorters' cooperative	Lixiviates treatment to produce irrigation water	Facilitate local agriculture with compost production*
Functional economy practices	Cooperative as a business model for sorters		Social network reinforced through cooperative creation
Responsible consumption	Bio energy production to dry concentrate	Stabilization and previous waste containment	
Life time extension	Site optimization by grouping old deposits	Material reuse and recycling*	Support the development of recycling channels*
Product/material end-life management	Sorters' long-lasting remuneration	New wastewater treatment plant to manage lixiviates production	

** Topics to be reinforced in the coming project steps.*

Tarkett

Transitioning from the linear to the circular economy

Embedding the circular economy in the Tarkett group strategy

THE PROJECT

Committed to "Doing Good. Together", the Group has implemented an eco-innovation strategy based on Cradle to Cradle® principles and promotes the circular economy, with the ultimate goal of contributing to people's health and well-being, and preserving the natural capital.

Tarkett's sustainability strategy underpins the Group's transition towards a circular economy, through:

- Eco-design of products.
- More recycled material content.
- Thorough risk-based assessment for the selection of the products' materials, is performed by a third-party assessor.
- Collaboration for enhanced material transparency throughout the Tarkett supply chain.
- Development of post-use and post-installation product collection schemes and recycling technologies, as part of Tarkett's ReStart®. programmes

- Exploring and further developing circular business model pilots.

CONDITIONS FOR A SUCCESSFUL SHIFT TOWARDS A HEALTHY AND CIRCULAR ECONOMY: MATERIAL TRANSPARENCY

Transparency as to the chemical content of materials and traceability of substances throughout the material lifecycle are key to control exposure to substances of concern and to deliver safer and more circular products.

Tarkett believes that material and product passports are effective tools to communicate information on the composition of materials and products and, to that end, Tarkett has introduced a Material Health Statement (MHS).

The MHS is an independently verified declaration that provides detailed information on the health and sustainability profile and risks of materials in a particular product.

Material transparency is needed to develop customers confidence in products with recycled content. As such, material transparency is a key enabler for making the circular economy a reality.

Tarkett recommends that authorities encourage the development and use of these kind of transparency tools to increase information on substances contained in materials and products.

Tarkett

With 135 years of history, Tarkett is a worldwide leader in innovative flooring and sports surface solutions. Offering a wide range of products including vinyl, linoleum, carpet, rubber, wood, laminate, synthetic turf and running tracks, the Group serves customers in more than 100 countries worldwide.

Tarkett sells 1.3 million square metres of flooring every day, for hospitals, schools, housing, hotels, offices, stores and sports fields.

_Net sales of more than 2.8 billion in 2018

_13,000 employees worldwide

_1.3 million sq.m of flooring sold every day

_Sales and operations in more than 100 countries

_36 industrial sites

_4 design centres

_24 research and development laboratories

_7 recycling centres

TARKETT RESULTS ARE TANGIBLE AND MEASURABLE

1 98% of our raw materials - representing more than 3,000 materials - are third-party assessed (by EPEA) for their impact on people's health and the environment based on Cradle to Cradle® criteria.

2 In 2018, Tarkett had 22 Cradle to Cradle® certifications, covering a wide range of product categories, including carpet, linoleum, rubber, wood, artificial turfs and adhesives.

3 More than 102,000 tons of post-installation and post-consumer flooring: vinyl, linoleum and carpet were collected from 2010 to 2018 by the Tarkett ReStart® programme in Europe and North America.

4 134,000 tons of recycled materials are used as raw materials, representing 10% of the volume of purchased raw materials.

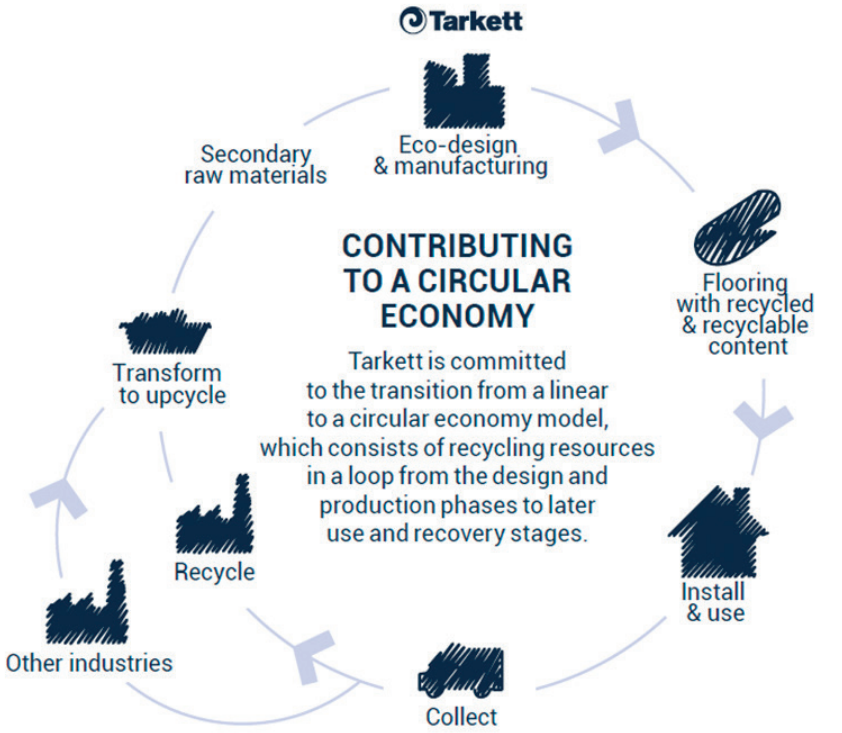
TESTING THE AFNOR XP X30-901 STANDARD

Testing the standard, while developing it, was an opportunity for Tarkett to review the system of questioning provided by the standard annex, and to apply it to Tarkett existing practices on the circular economy.

Confronting each of the 7 circular economy aspects with the economic, social and environmental pillars of sustainable development, confirmed Tarkett's strength in product eco design, collection and recycling, as well as material health and transparency.
For example, the benefits of transparency feed through to social benefits for sustainable consumption and informed customer choices, environmental impact control and economic value creation.

It allowed us to identify Tarkett's areas for improvement such as the need for a technological collaborative platform to enhance the identification of quality secondary raw materials, developing further collaborative systems in open or closed loops and new business models, which are, in fact, already part of our sustainability roadmap.

Our collaborative approach towards eco-design and a circular economy



"We are committed to serving our customers through our innovation capabilities and longstanding sustainability dedication and achievements. We are deeply convinced that there is an urgency to shift models to preserve the world's finite natural resources and capital. We invite our stakeholders to join our efforts to develop a circular economy. All together."
FABRICE BARTHÉLEMY, CEO OF TARKETT

THE VALUE OF A NORMATIVE APPROACH TO THE CIRCULAR ECONOMY

With more than 135 years of history, Tarkett has always been involved in developing industry standards in its field of expertise. Today, the circular economy is emerging as a means of addressing the many challenges our society is facing regarding resource scarcity, climate change and growing population and urbanization. It is time to establish a common understanding and tools for designing and implementing operational business strategies as well as defining common sets of performance indicators. The AFNOR XP X30-901 standard on circular economy project management, followed by the creation of ISO TC 323 on the circular economy, paves the way for accelerating the shift of our societies towards a truly circular economy matching the need for social and economic sustainability while protecting the environment.

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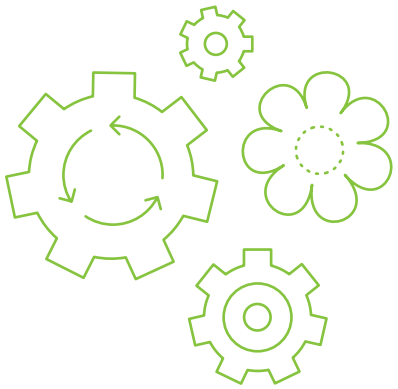
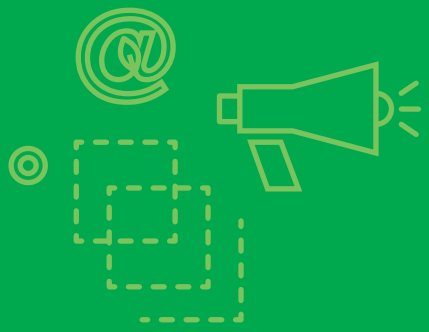
Voluntary standards and AFNOR

AFNOR is the benchmark French body for voluntary standards. It manages the collection of existing documents and coordinates the work of those engaged in the creation and revision of voluntary standards, as well as the conduct of preparatory work in areas likely to give rise to the development of new standards

Market stakeholders drive the creation of voluntary standards. These standards provide a reference framework that sets out to offer guidelines, technical or quality specifications for products and services, and best practices serving the general interest. Everyone can take part in their development, and any organization can elect to use and refer to the standard. They are voluntary, after all.

As the coordinator of standardization in France, recognized by the public authorities (Ministry of Economy and Finance), AFNOR has a goal: contribute to the dissemination of good practices and effective solutions for the benefit of all stakeholders.
normalisation.afnor.org





To participate in the standardization commission:
norminfo.afnor.org

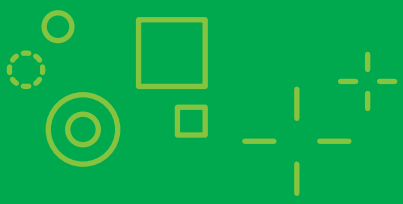
or contact Ekaterina Loginova: ekaterina.loginova@afnor.org

To obtain the XP X30-901 standard: www.boutique.afnor.org

Discover, understand and act:
AFNOR Group solutions in terms of the circular economy

AFNOR and its subsidiaries offer solutions tailored to the level of maturity of your approach.

To find out more, log onto www.afnor.org/environnement



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