

#### **€2.4** BILLION IN TURNOVER

#### **30**% OWNED BY EMPLOYEES



SAGEMCOM DESIGNS, MANUFACTURES AND SHIPS MORE THAN

40 MILLION TERMINALS WORLDWIDE EVERY YEAR

5,000 EMPLOYEES INMORE THAI

MORE THAN €75 MILLION INVESTED IN R&D

# THE SAGEMCOM GROUP



N **50** COUNTRIES

Sagemcom is a French group and European leader on the high added-value smart terminals market (set-top boxes, internet boxes, multi-energy smart meters, etc.), meeting the essential needs of the world that surrounds us.

Group turnover totals €2.4 billion and has a headcount of 5,000 employees working in more than 50 countries, some 30% of whom work in France, such that the Group has been profitable ever since it was created. We operate on three major markets: broadband, Smart Cities and the Internet of Things. Sagemcom designs, manufactures and ships more than 40 million terminals worldwide every year.

The employees hold a 30% stake in the Group, which is headed by a stable management team whose members have been present in the Group for more than 20 years and have been managing Sagemcom since it left the Safran group in 2008.

In 2016, Sagemcom's majority shareholder changed as part of a third LBO. Charterhouse becomes the Group's majority shareholder, the remaining 30% still being held by employees (including 60% of French employees).

The head office of Sagemcom is located in Rueil-Malmaison (92), the Group's nerve centre and home to its R&D operations, manned by more than 500 dedicated employees.

Sagemcom is also present in Tunisia, where it operates a manufacturing site dedicated to the production of set-top boxes, internet boxes and smart meters in Ben Arous (2,000 employees), and a 400-strong R&D centre in Mégrine.

Sagemcom pays close attention to the economic, societal and environmental issues related to its activities on a daily basis, and for many years has been implementing concrete action plans to take these issues into account. Quality, ethics, safety and protection of the environment are at the heart of our fundamental values



# **OUR VALUES**

Sagemcom's ambition is to remain a world leader in high added-value smart terminals by addressing dynamic markets: broadband, Smart Cities and the Internet of Things. We achieve this by remaining faithful to our brand image: to be the first to offer our customers personalised products featuring the latest technological breakthroughs.

We protect our competitive edge by calling on our know-how to respond to the expectations and needs of our customers, thanks to a common culture of innovation, technological breakthroughs, high added value and time-to-market.

#### DIALOGUE ALL ALONG OUR VALUE CHAIN

Sagemcom meets the demands of its markets by establishing permanent dialogue with the stakeholders who form its ecosystem: customers, suppliers and subcontractors, employees, trade unions, NGOs and charities. The Group is engaged in permanent dialogue with all of these stakeholders, all along its value chain.

### EMPLOYEE SHARE OWNERSHIP AT THE VERY CORE OF OUR DNA

Employee share ownership is a core value of the Sagemcom Group. Since its creation in 2008, the Group's capital has always been based on an employee ownership scheme of around 30%. Further to its third LBO, more than 60% of its French employees are now Sagemcom shareholders.

#### **OUR VALUES**

"At the start of every project there is an idea. Ingenious, insightful, brilliant, but also sometimes offbeat, incongruous or bizarre. Next the idea is tested, enhanced, crafted, modified, formalized, translated into technical knowhow, distilled into the very essence of its existence: its manifestation in a product. At Sagemcom, it's thanks to the creativity of our people that ideas are born. And it's thanks to the agility and performance of our teams that these ideas become products, created for high performance and to anticipate what our clients need.

European leaders on the market for smart terminals with extra added value, Sagemcom's people continue to reinvent themselves and to push back the limits of invention in order to discover, today, the ideas that will make the products of tomorrow.

To accompany our customers toward the future.

To make the finest innovations possible.

To invent the connected home of tomorrow."

Sagemcom - Ideas & More



EFFICIENCY





TEAM POWER

#### SUPPORT SAGEMCOM'S GROWTH

- Continue to grow our international income
- Conquer new customers and secure our existing portfolio
- Boost products and related services innovation

#### **CUSTOMER SATISFACTION**

- Anticipate the needs and meet the expectations of our customers
- Capitalize the experience on the resolution of customer complaints

#### CONTROL OF PRODUCTS AND SERVICES

- Strengthen the projects' control notably by the risk analysis
- Take greater account of customers' requirements by all functions
- Secure the suppliers' quality in a dynamic context
- Continue DFM (design for manufacturing) actions
- Strengthen the traceability of hazardous substances

#### **DEVELOP OUR SKILLS**

- Match the skills of teams to our current and future needs
- Continue to professionalize the integration process for new employees
- Promote multicultural operations
- Extend the principles of international mobility and career development
- Manage and capitalise on knowledge

# **2018 POLICY**

- Develop services offerings (financing, after-sales, logistics, industrial...)
- Strengthen the industrial strategy : internal and with ODM/EMS
- Intensify "Fast Quality Loops" with our customers and after-sales service partners
- Strengthen the formalization of regulatory and social requirements evidences

#### **INFORMATION SECURITY**

- Continue the ISO27001 certification
- Strengthen the safety of our products and solutions
- Continue to secure our infrastructures and our sensitive data
- Deploy the GDPR both in our organization and in our solutions

### **CORPORATE SOCIAL RESPONSIBILITY**

- Safeguard the health and safety of our employees
- Extend ethical monitoring and support our partners and suppliers
- Continue the deploy our ethical practices
- Promote our ecodesign approach with our customers

## SAGEMCOM'S COMMITMENTS TO SUSTAINABLE DEVELOPMENT

We aim to satisfy our customers by anticipating their needs and protecting their interests, while securing our competitive edge through accelerated growth and profitability.

We call on our management systems over five aspects of continual improvement:

#### • Ensuring the efficiency of our processes, ISO 9001 being our guide to:

- Offering the very best of Sagemcom to our customers, through innovative products that produce growth and profitability for all,
- Developing our capacity to adapt, through an effective and customer-oriented organisation,
- Guaranteeing business continuity.

#### • Securing our information system, in accordance with ISO 27 001, by:

- Supplying solutions to our customers that meet the very highest standards of security and protection of their investments,
- Providing protection against all deliberate or accidental threats, from inside or outside the Group, And also the information assets managed by Sagemcom, its personnel, its customers, its partners and suppliers,
- Defining criteria to assess and manage the risks inherent to our activities.

#### • Managing environmental issues to:

- Limit and control the impacts of our sites on the environment, by preventing pollution and pursuing continuous improvement through an ISO 14001-certified environmental management policy,
- Designing and distributing products and services with a reduced environmental impact, through the universal adoption of ecodesign practices and the acquisition of eco-labels,
- Extending best environmental practices to our suppliers,
- Obeying ethical rules, with the United Nations' Global Compact programme that guides the deployment of our Sustainable Development initiative both internally and with our partners,
- Protecting the health and safety of our employees through the OHSAS 18001 occupational health and safety initiative, in order to guarantee the safety of our facilities and protect the health of the men and women who contribute to our activities.

# SAGEMCOM IS ACTIVELY ENGAGED IN THE UNITED NATIONS' GLOBAL COMPACT INITIATIVE

Sagemcom signed up to the United Nations Global Compact Initiative in January 2011, confirming its commitment to ethical standards, the promotion of Human Rights and obeying the rules of the International Labour Organisation, both in the Group and with its suppliers.

The United Nations Global Compact is part of a strategic policy initiative aimed at businesses, inciting them to commit to respect ten universal principles related to: human rights, labour rights, and environmental law as well as the fight against corruption.

As a signatory to the Global Compact, the Sagemcom Group is committed to respecting and encouraging these principles. The Group also invites its suppliers, partners and subcontractors



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to adopt, support and apply these fundamental values in their respective fields of action.

PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT	
HUMAN RIGHTS	Support and respect the protection of internationally proclaimed human rights
	Make sure they are not complicit in human rights abuses
LABOUR	Uphold the freedom of association and the effective recognition of the right to collective bargaining
	Uphold the elimination of all forms of forced and compulsory labour
	Uphold the effective abolition of child labour
	Uphold the elimination of discrimination in respect of employment and occupation
ENVIRONMENT	Support a precautionary approach to environmental challenges
	Undertake initiatives to promote greater environmental responsibility
	Encourage the development and diffusion of environmentally friendly technologies
ANTI-CORRUPTION	Work against corruption in all its forms, including extortion and bribery



#### CERTIFICATIONS

Sagemcom pursues an active certification policy for all of its activities and sites.



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In this sense, 2017 and 2018 were pivotal years for Sagemcom in terms of certifications, with the 2015 versions of ISO 9001 and 14 001. Today, Sagemcom holds the following certifications:

- ISO 9001: 2015, which ensures quality management
- ISO 14 001: 2015, which concerns the environmental management of the R&D sites in Rueil-Malmaison (France) and Mégrine (Tunisia), as well as for 75% of our production sites (under preparation in Italy) and the ecodesign of products.
- OHSAS 18 001: 2007, which applies occupational health and safety management systems for production staff.

- ISO 27 001: 2013, which guarantees that our management system for information security is reliable. Obtained in June 2014, it concerns R&D activities and support services (under preparation in Italy).
- ISO 50 001: 2011, for energy management in our production centre in Tunisia

In addition, certain specialised functions within Sagemcom are certified for their scope of activity:

- Sagemcom's internal laboratory is ISO 17025 certified (both in France and Tunisia).
- Our factories are MID (metrology) and ATEX certified as part of the production of electricity and gas meters.

Sagemcom again
Obtained Gold
Certification from
ECOVadis in 2017
and 2018

#### **EXTERNAL RECOGNITION**

The Sagemcom Group is regularly assessed by independent organisations mandated by our customers. Sagemcom again obtained Gold certification from EcoVadis in 2017 and 2018. In the AFNOR ACESIA assessment, we scored 94/100, compared with 81/100 in 2016. Significant progress in terms of the consideration of CSR-related subjects.

# SAGEMCOM RECEIVES "GOLD" RATING FROM ECOVADIS

EcoVadis manages the leading collaborative platform for the measurement of the sustainable development performance of suppliers in worldwide supply chains.



Sagemcom is in the 98th percentile, which means that our score is higher than 98% of the companies assessed by EcoVadis.





#### THE ACESIA SUMMARY REPORT

ACESIA is a genuine operational tool that allows our customers to control our assessment and, consequently, to gain tighter control of the associated risks.

Regulatory compliance, financial situation, environmental performance, business practices, CSR commitments, business performance, etc. ACESIA measures our performance and compares it with other companies in the same sector, enabling our customers to choose us on the basis of indicators that are relevant to their sector.

This assessment enables us to:

- Demonstrate that we take measures specific to our duty of diligence.
- Help our customers to justify their decisions on the basis of an objective and expert assessment.
- Demonstrate our performance and become more competitive.
- Promote this achievement to our customers and commissioning authorities.
- Establish, durable, transparent and reliable relations with our customers, based on trust and progress.

ACESIA assesses us according to the following criteria:

- Risks related to our sector(s) of activity and locations
- · Indicators of financial health
- Regulatory compliance
- $\bullet$  The degree of commitment to CSR, according to a questionnaire based on ISO 26000
- Performance by activity or theme (safety, risks, quality, etc.)

In addition to our self-declared assessments, our responses are remotely checked by an expert. This verification produces a "controlled" score that measures the relevance of our responses and our justificatory documents.

This result is supplemented by an inspection report and a complete benchmark.

For 2018, Sagemcom achieved the following scores:



#### A RISK ASSESSMENT AND MANAGEMENT SYSTEM

Managing risks and opportunities is an integral part of Sagemcom's strategy. It enables us to anticipate possible risks that could impact the Group's results, strategy and image. Sagemcom has drawn up its own risk management strategy that enables the Group to better anticipate and manage the risks incurred by its activities and international ambitions.

The Group has drawn up its own risk map that tangibly identifies, monitors and controls risks. The associated crisis management tools enable the Group to react pragmatically in the event of a crisis.

#### The risks incurred by Sagemcom's activities

Right from the start, Sagemcom implemented a "strategy review" process. This annual process is continuous, and allows business plans and maps of the potential risks affecting the Group's commercial activities to be drawn up. It is



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strategy

also an opportunity for the Group to structure its strategy for new business and new market segments, as well as its industrial strategy. As part of this process, regular meetings are held to analyse risks as closely as possible to the reality of the Group's activity.

More than 100 employees attend the strategy reviews to actively take part in the definition of the Group's strategy.

#### The risks to Sagemcom's image

The Group has written a "crisis communications manual" that defines all the processes to be implemented in the event of a crisis, and a step-by-step methodology, from the formation of the crisis team, to the end of the crisis. Risks to Sagemcom's image are managed by Communications and Marketing.

#### **Environmental risks**

Sagemcom is exposed to environmental risks by its industrial activities and the ecological footprint of its different sites. Preventive measures are taken on the sites to minimise the occurrence of these risks: thermal views of electrical facilities (fire prevention), limited stocks of raw materials, multiple platforms or "just-in-time processes".

Third parties (APAVE, CEP, infrastructure maintenance) also conduct regular inspections.

Finally, Sagemcom meets the ISO 9001 – Quality (global) and ISO 14001 – Environment standards.

#### Risks related to products

The Group continually takes product-oriented preventive measures. The compliance certification processes (CE, RoHS, REACH, etc.) include systematic and periodic testing to make sure that no non-compliant products reach the market.

#### Risks related to suppliers

Supplier-related risks are managed by Group Purchasing. Measures are applied to assess suppliers and to monitor all of these risks, whether they are related to ethics, manufacturing, logistics, quality or the solvency of suppliers.

In addition to the preventive policy implemented before establishing relations with a supplier, inspection, monitoring and audit procedures have also been developed.

#### Risks related to information technology and information security

Sagemcom Information Systems (DSI) manages the risks related to information technology. The risks are identified and action plans are developed to guarantee the continuity of the Group's activity.

Sagemcom continued to extend its ISO 27001 certification between 2016 and 2018. All of the Group's employees regularly receive information in order to avoid the risks related to cyber-security.

#### Industrial risks

Sagemcom's industrial sites are established in accordance with its markets and customers, while taking any possible risks of instability into consideration and including such risks in a global industrial approach. In 2014 and 2015, Sagemcom's main production site was the Ben Arous factory, which benefits from a business continuity plan. This plan includes different scenarios, including the total/partial loss of the site, the shut-down of infrastructures, the shut-down of the IT system, the failure of the means of production, etc. In 2018, the decision was taken to mitigate the risks on this site by building a new site, just a few kilometres away.

A crisis team has been formed and prepared for each scenario. This team documents and manages the operational management conditions (operations base, contacts, etc.), the measures, the owners and deadlines to solve the crisis, and

MORE THAN 100

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the possibility of transferring production to industrial partners if the site is completely lost.

Sagemcom has entered industrial partnership agreements with various subcontractors that are in a position to manufacture its components or certain products, in the event of a major problem.

#### Monetary and financial risks

As an industrial group, a high proportion of Sagemcom sales are made on export markets. Consequently, the group is exposed to exchange rate risks. This risk is centralised and monitored by Group Administration and Finance.

The Sagemcom Group covers most of the risks of non-payment for its international business activities with two preferred types of coverage: letters of credit and bank guarantees, confirmed by reputable banks, and credit insurance guarantees. Customer and/or country risks that are not covered are regularly monitored by Administration and Finance.

#### Health and working conditions risks

Just like every other field of activity, Sagemcom is exposed to the risk of accidents. Sagemcom implements processes to manage health and safety at work in order to optimally prevent the risks to which the Group may be exposed.

In order to better understand the risks related to working conditions, Sagemcom has set up an "Industrial Protection and Health & Safety at Work" unit that is tasked with helping the business lines to take preventive measures and steps to improve working conditions. This unit also keeps an eye on the obligations applying to health and safety at work.

Sagemcom has also launched a Health and Safety at Work initiative, based on OHSAS 18001, on the Group's manufacturing sites.

In addition to meeting these obligations, Sagemcom has also opted to offer every employee coverage for the reimbursement of medical costs, so that they can remain in a good state of health, irrespective of their geographical location. In addition to the initiatives and the training in our activities and the associated risks, preventive measures are also regularly taken every year.



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# ETHICS AND ECONOMY



Sagemcom's purchasing policy is driven by five fundamental principles and is shared by the Group's suppliers and subcontractors. These are: quality, price, lead-times, innovation and ethics. These fundamental principles determine all the measures taken by Group Purchasing in accordance with its policy.

"Our suppliers have been involved in Sagemcom's CSR initiative for several years. On the highly competitive markets where we operate, these are essential differentiating factors of Sagemcom's global performance in the eyes of our customers. The people who work in Purchasing, and who are responsible for our relations with our suppliers, are naturally closely involved in this initiative through our processes" - Thibault Decoudun, Group Director, Purchasing

SUPPLIERS MUSE

agree to accept

audits scheduled

by sagemcom

of the proper

application of the

ethical charter



#### A LONG-TERM APPROACH

In 2006, Purchasing launched the Suppliers Ethics initiative, which is applicable to all our suppliers and is formally defined in an ethical charter, as part of a long-term drive for progress.

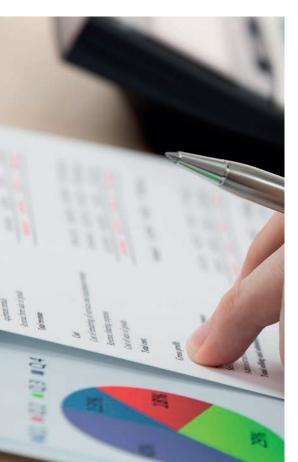
Our suppliers are selected according to a clearly defined procedure that is deployed using three tools:



Every new supplier must adopt this approach. Before joining our supplier portfolio, every new supplier must sign Sagemcom's ethical charter and complete a self-assessment questionnaire. The supplier's integration is approved, or, where appropriate, an approval plan is deployed for the supplier that includes on-site audits if necessary, depending on the score of the self-assessment questionnaire.

#### **ETHICAL CHARTER**

The Sagemcom Group's ethical charter is based, among others, on the international labour conventions of the International Labour Organisation (ILO), the universal declaration of human rights and the UN convention on the rights of the child.



Sagemcom's ethical charter is based on 11 key principles:

- The prohibition of child labour under the legal age in force in the country, unless authorised by the ILO.
- The prohibition of all forms of compulsory or forced labour.
- The elimination of all forms of labour that, by their nature or conditions, represent an immediate danger or could compromise health and safety.
- The promotion and respect of the protection of human rights recognised on an international scale.
- The refusal of any complicity in violations of human rights.
- Respect for the freedom of association and the effective recognition of the right to collective bargaining.
- The elimination of all forms of employment or professional discrimination.
- The application of a precautionary approach to problems affecting the environment.
- Initiatives that promote increased responsibility with regard to the environment.
- Favouring the development and spread of environmentally-friendly technologies.
- Acting against all forms of corruption, including extortion and bribery. By signing this charter, suppliers agree to promote and respect the above principles, and to incite their own subcontractors and suppliers to do likewise.

The ethical charter favours even greater transparency between Sagemcom and its suppliers by explaining the conditions of audits that may be carried out on the supplier's premises, or those of its own subcontractors.

Suppliers must agree to accept audits scheduled by Sagemcom of the proper application of the ethical charter.



The questionnaire covers the 60 points of the ethical charter and enables suppliers to illustrate the processes that they implement.

The goal is to assess their maturity and to identify points that can be improved immediately. It is also a valuable tool for CSR auditors when they intervene on site.

#### **ON-SITE AUDITS**

Audits are organised every year, on the basis of a complete risk analysis that covers the manufacturing plant, the technologies used and the processes, to verify the status of our suppliers and to support them in their improvement process. Some 200 audits have been conducted in the last two years. Certain points demand closer attention and guide our conduct towards our suppliers:

- All that is prohibitive
- Child labour
- Forced labour
- Fatal risks
- Incomplete data
- Refusal to collaborate
- All that is unacceptable to be corrected immediately
- Uncontrolled chemicals
- Dormitories that are locked / do not have an emergency exit
- Discrimination
- Corporal punishment, physical or mental harassment
- No authorisation to operate (Env)
- · All that is critical: to be corrected as a priority
- Unsafe working conditions
- Poor living conditions (insalubrious dormitories, etc.)
- Excessive working hours
- Failure to pay the minimum wage
- Absence of anti-corruption processes



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Once the audit has been completed, the auditors draw up a comprehensive report for the supplier. In the event of non-compliance, Sagemcom demands a corrective action plan and proceeds with the necessary follow-up audits. If the supplier does not respond within three months, a follow-up audit is systematically conducted. If the corrective measures are deemed to be insufficient, another audit takes place. If the instances of non-compliance are prohibited (child labour, forced labour or working conditions that put the lives of employees in danger), and no corrective measures are taken immediately, Sagemcom puts an end to all its business dealings with the supplier. The latter is then de-listed and "black listed" within Sagemcom.

EVELA AEST,

more than 700

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Days Which

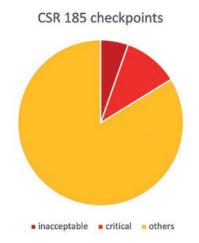
have become a

cornerstone of

durable relations

With every one of

them!



2017
103 audits of 58 suppliers
2018
102 audits of 52 suppliers
3
suppliers excluded in 2 years

We have observed a real change amongst our main suppliers, which have made significant progress, especially in the protection of the health and safety of their employees.

FIEV and Quality audits, which also include inspections of environment aspects, health and safety, and ethics, are also conducted to detect any high-risk suppliers and to trigger additional control audits.

#### **FOCUS ON SUPPLIERS' "PURCHASE DAYS"**

Once a year, in France and China, Sagemcom invites all its suppliers to a presentation of the Group strategy, its results and its outlook, in terms of business and technological developments. These discussions offer an opportunity for suppliers to become involved at the earliest possible stage and to be informed of the Group's strategy. Every year, more than 700 people attend the Suppliers' Days in Rueil-Malmaison and Shenzen, which have become a cornerstone of durable relations with every one of them!





# INVENTORY AND TRACEABILITY OF THE CHEMICALS USED IN OUR COMPONENTS

We have set up a very thorough chemicals management system in order to guarantee the compliance of our products with European Directives, and in particular



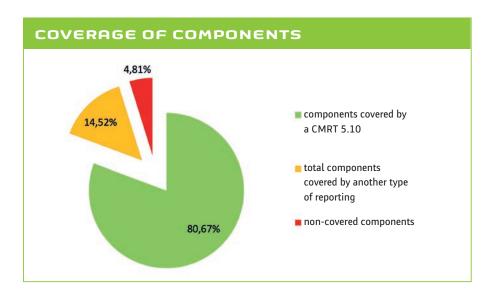
with the REACH directive (1907/2006) and the RoHS directive (2011/65/EU). Our action starts with a global inventory of all the substances used in our manufacturing plants and in the components that we use.

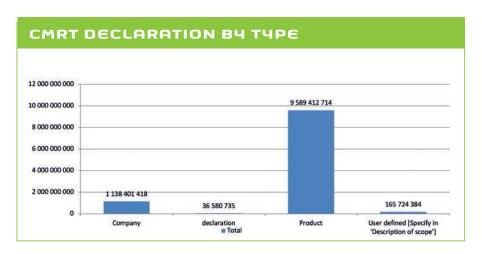
A dedicated traceability system has been introduced to determine the content of SVHCs (Substances of Very High Concern) in our products. Sagemcom uses this tool to ask its suppliers to provide information on the SVHC content of the materials they use. Since the list of SVHCs is updated every six months by the ECHA (European Chemicals Agency), our suppliers are questioned on a regular basis. We ask them to send us complete physical-chemical descriptions that contain all the substances present in the components. This information is then compiled in a database. In this way, we can know the status of each product. These research measures cover our entire supply chain, which is made up of hundreds of suppliers and tens of thousands of components.

In line with the RMI (Responsible Minerals Initiative), Sagemcom also seeks to establish the traceability of four sensitive minerals ("3TG"): tin, tungsten, tantalum and gold. We demand that our suppliers complete the CFSI reporting template, which must be provided before the launch of the mass production of chipsets, tantalum capacitors, printed circuits, plastics and welds. In particular, this measure improves our knowledge of the supply chain of every type of mineral.

Although at this stage the Group cannot commit to products with 0% raw materials from conflict zones, it guarantees to give all the information in its possession to its customers when requested.

The supply chain is represented below. At the end of 2018, more than 95% of purchased components, or more than ten billion components, were covered by a supplier reporting process.







our suppliers are questioned on a regular basis, we ask them to send us complete physical-chemical descriptions that contain all the substances present in the components



# DIVERSITY AND EQUAL OPPORTUNITIES



Central to our ethical principles, openness provides the focus for our HR policy and the measures taken in favour of diversity, inclusiveness and equal opportunities. Our aim is to ensure friendliness within teams, encourage individual development and innovation, while ensuring respect for personal differences.

#### BUILDING ON OUR CULTURAL DIVERSITY

The mixing of origins and experiences is an integral part of the Sagemcom corporate culture. Whatever the country, our subsidiaries aim to have their teams reflect the diversity of the societies in which they work.

Sagemcom has nearly 5,000 employees in some 50 countries the world over, all with different cultures. The multiculturalism of the Group's workforce is a real lever for the diversity of talents, innovation, cooperation and competitiveness on which Sagemcom can capitalise. Although we share the Group's common values, we strive to continue to support our employees by setting up special training courses to pass on the keys for mutual understanding and the ways to optimise cooperation between the members of our multicultural teams. Support for internationalisation is one of the priorities of our training plan. Consequently, numerous employees have taken part in multicultural training courses, applied according to the main countries in which the Group operates (Brazil, China, Germany, Tunisia and Hungary).

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#### NURTURING AND ENCOURAGING DIVERSITY

The diversity of our employees is a source of innovation, enrichment and efficiency. For our employees, working in an environment that encourages diversity and inclusion allows everyone to realise their full potential while actively contributing to the Group's performance.

One of our main challenges in diversity is professional equality between men and women. In our traditionally male sector (the rate of feminisation in the scientific or technical sectors that we need is generally no greater than 20%), the purpose is to make diversity a reality at every level in the company. Even though the rate of feminisation of our international workforce has increased and now stands at 44%, it is essential that the share of women, especially in our more technically advanced or managerial jobs, improves and balances with that of men, especially in the subsidiaries and professions where this imbalance is the most pressing.

Considering that professional equality between women and men is a vector for collective performance, Sagemcom continued its awareness-raising measures designed to change the attitude and behaviour of all our male and female employees, students, trainers, partners, etc.

For several years, the Group has implemented a proactive policy for professional equality between women and men. This policy is based in particular on dialogue between management and labour and the signing of company agreements, such as the 2016-2018 three-year agreement on the promotion of professional equality between women and men. It covers five types of measures: the sustainable integration of professional equality in the culture of the Sagemcom Group, access to employment (hiring and internal mobility), remuneration policy and equal pay, careers (training, professional promotion) and the search for a balance between professional activity and personal life.

Good practices in favour of professional equality are not limited to the commitments made in this agreement, since our R&D site in Tunisia is closely involved in this issue by supporting the FACE\* programme that promotes gender equality in Tunisia. Our site won the FACE award in 2016. Every year, the proportion of female graduates recruited by our R&D centre in Tunisia increases (36% of women hired in 2017 and 41% in 2018).

\* The FACE\* programme: A programme that aims to improve companies' understanding of the question of professional equality and to encourage concrete actions in businesses in favour of this equality.

Internal communication is also a means for promoting professional equality and making it a part of the Group's culture in the long term. For example, each ComIn, the magazine distributed quarterly by the Group, contains portraits of



female employees. Some issues are also written from the point of view of professional equality by developing themes such as job desegregation and diversity.

Sagemcom also believes that a policy of promoting diversity must also help to prevent and fight against all forms of discrimination, to make diversity one of the levers of its performance. This policy includes the objectification of human resource management processes (recruitment, training, career, etc.). It also involves promoting positive measures designed to ensure similar working and career conditions for all.

Since the fight against all forms of direct and indirect discrimination and exclusion is central to the promotion of diversity and equal opportunities, a company agreement on this theme was signed in 2018.

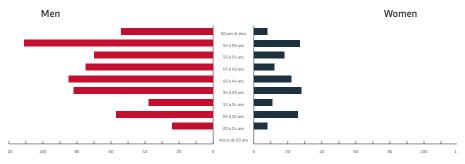


Moreover, Sagemcom confirmed its commitment to the fight against discrimination by joining "A compétence égale". This organisation, which is engaged in the fight against all forms of discrimination in recruitment and in the promotion of diversity in the work

place, helps us to audit our recruitment tools and processes, to train our recruitment staff and to provide resources and tools, as part of a process to achieve continual improvement. Sagemcom has also signed the "A compétence égale" charter and clearly confirmed its commitment to combating all forms of discrimination in every stage of the recruitment process.

The age mix within the Group is also a major issue. With 26% of senior staff in French companies, we must prepare for employment and generational changes. This being said, the challenge will not be met to the detriment of older employees, since Sagemcom intends to continue its policy of maintaining and developing the jobs of these employees. This commitment has been formally made in the 5-year "Contrat de génération" company agreement for 2017-2021, through which Sagemcom intends to actively pursue a policy to keep senior employees in work by taking measures that maintain their engagement and their motivation in their professional activity during the final years of their career. For example, almost 20% of training hours were allocated to senior employees in France in 2018.

At the same time, our talent identification and knowledge and skills transfer systems are based on our "Experts" pathway, which includes 24% of senior employees.



Age pyramid 31/12/2018 (scope: Economic and Social Policy Unit)

Integrating the disabled and keeping them in work represents another major challenge for Sagemcom. Our failure to achieve our ambitions and the shortfall of our actions on the question of disability, especially in France, reflects the lack of qualified personnel and professional training on a national scale. Nevertheless, Sagemcom intends to confirm its ambition to welcome every talent and to provide appropriate support for employees with special needs by taking actions to support the integration of the disabled into the world of work and to



sagemcom has
also signed the
"A compétence
égale" charter and
clearly confirmed
its commitment
to combating
all forms of
discrimination in
every stage of
the recruitment

keep them there. An agreement signed in 2018 highlighted the measures taken in favour of the durable integration of disabled employees, working conditions that support their career development and allow them to stay in work, the development of subcontracting with companies that employ the disabled and support for employees who take care of a disabled person.

This commitment also takes the form of local initiatives, including Sagemcom's support for the "Regards Croisés" festival, which screens short films on the theme of "Jobs and Disability: disability does not prevent talent". Our R&D centre in Dallas supports Adaptive Spirit, which brings together all the cable operators in the United States with a view to funding the American paralympic skiing team.

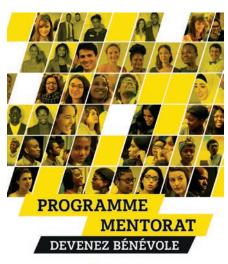
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Festival



## SPARKING VOCATIONS AND SUPPORTING EQUAL OPPORTUNITIES

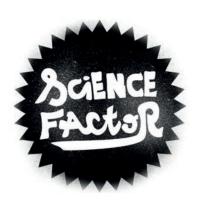
A large number of initiatives are being taken locally to forge links between the world of education and work, in order to promote diversity and equal opportunities and to expand the age mix within the Group.

For example, for nearly 10 years, Sagemcom has supported Article 1, an NGO that promotes the occupational integration of young people from underprivileged backgrounds. It promotes employment abroad and provides support to fund studies and integration through employment. Sagemcom is one of the organisation's main partners, alongside SFR, Orange, Alcatel Lucent and Nokia.



Article1

In 2018 in France, some twelve mentors coached young people in their studies to facilitate their academic success and integration through employment. This regular support is supplemented by occasional special events, including company visits, the participation of the mentors in mock juries for students preparing their entrance exams to top universities, "live my life" days at Sagemcom, active recruitment campaigns to attract new volunteer mentors, etc.



Sagemcom has also been actively involved in a partnership with Science Factor to promote scientific studies for girls in secondary school and college. In this competition, the candidates must present as a team an innovative scientific or technical project, an invention with a clearly demonstrated positive impact in social, economic or environmental terms. Not only does this competition reflect our values of creativity, performance and team power while respecting the environment, but it also makes it possible to

act in favour of raising the awareness of young girls about scientific studies, a population group that is under-represented in the engineering schools we covet to attract the best skills and promote diversity.

As well as taking part in this competition, Sagemcom also organised a company visit in 2018 as part of the national Science Factor day. It was an opportunity for some thirty high school students to visit the campus in Rueil-Malmaison, where they were introduced to our activities and products and discovered our scientific and technical professions.



Finally, Sagemcom intends to continue its commitment to facilitate the integration of young people into the professional world by recruiting International Volunteers in Business (IVB). Rich and individualised career paths wherever the Group is present are offered to young people by implementing a policy suitable for their integration and support. The IVB scheme is also a means of attracting and developing the best skills.

In 2018, seven youngsters from the IVB scheme, or 30% of the total number, were hired in China, the United States and France.

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through



# EMPLOYEE SUPPORT



Caring for our employees and supporting them in their professional development throughout their careers within the Group means ensuring their motivation and professionalism in support of the growth of our activities.

#### **ATTRACTING AND RETAINING**

We strive to increase our ability to attract, develop and retain the best skills to meet the needs of our business and contribute to our growth.

To do so, we have adopted an initiative to renew the employer brand in order to encourage the best profiles, particularly among young people, to join the Group. We take part in a large number of trade fairs and forums in schools and universities to support the sustainable integration of young people into employment.

Convinced that work-study courses and internships are appropriate and effective means of preparation for working life and integration into the business world, the Sagemcom Group is resolutely committed to a policy of integrating young people into employment through these systems as well. The "responsible" policy for work-study courses and internships is therefore a two-way street:

- On the one hand, based on training and integration into working life, it gives young people the opportunity to obtain a diploma and a first professional experience that will improve their employability;
- And on the other, based on pre-recruitment, particularly for "core business" jobs, in line with the Group's needs.

In 2018, the French subsidiaries of Sagemcom welcomed almost 80 people on work-study programmes and interns. 10% of them were hired after their work-study programme or internship.

In 2018, our R&D centre in Tunisia opened the "SST Campus". This campus initiates and trains young graduates in science and technology in our professions (onboard IT development techniques and soft skills). The campus has two goals: to encourage the integration of young people into employment and to enable Sagemcom to acquire competent resources that are directly operational. Three school years have already been trained.

We also take care to offer all employees who join our Group, regardless of their status, an integration pathway that is broken down into various structuring and personalised measures, based on existing good practices within the Group's companies (welcome booklet, special intranet section, integration workshop, etc.). Every subsidiary takes actions adapted to the local circumstances in favour of the long-term integration of new recruits.

Every quarter, our production plant in Tunisia organises an integration dinner to celebrate the arrival of new employees and to share our values and strategic priorities. It is also an opportunity to look back at their integration as part of the continual improvement process.

On the R&D front, the Tunisian subsidiary invites new employees to take part in an induction day that is an opportunity to present the Sagemcom Group and SST, to explain our values in workshops, to discover our activities and to take part in bonding activities.

The Wel'com integration programme in France enables new recruits to become durably integrated into the Group. All



Integration session in Brazil



Integration dinner at Ben Arous



Integration at RMM

sagemcom takes

part in a targe

number of trade

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the contributors to the integration process (manager, work team, HR, etc.) are involved and made aware of the importance of offering the best possible integration. Also, an annual "Promo" event is organised in honour of the employees who arrived in the course of the preceding year. In 2018, an escape game was organised for new employees and the Management Committee, offering an informal opportunity to talk, challenge and show a team spirit.

#### **DEVELOPING AND CULTIVATING SKILLS**

Individual development and progress interviews held each year in all of the Group's subsidiaries is one of the fundamental cornerstones of our human resources policy. The manager, the employee and the company have a shared interest in this interview, because it helps to achieve four major objectives with the common goal of making individual and collective progress.

Conducting these interviews allows us to control the Group's individual and collective skills through the implementation of concrete measures that support the professional development of our employees (training, individual action plan, professional development, etc.). In France, all of our employees also benefit from a biannual career plan interview, focusing on their prospects for professional development in order to enable them to actively take part in our own development.

Sagemcom sees training as an investment for the future, improving economic performance and addressing social issues. In addition, the ability to identify the skills needed to anticipate development and meet market and customer requirements is a key factor in competitiveness. Training is therefore a real lever for optimising the potential and performance of our employees. Every year, we devote a major effort to adapt, maintain and develop the skills of our employees. Every year, 3% of payroll is set aside for professional training in France and at STC. In 2018, 75% of employees followed a training course.

We strive to ensure that our employees have access to fair and non-discriminatory training. We also pay special attention to employees who have not received training for three years, to support the employability and development of all our employees throughout their careers.

Local initiatives have been multiplied in recent years, to strengthen our measures in favour of vocational training through the development of new learning systems and methods.

One example is the "Sagemcom Smart Academy", an e-learning platform that provides flexible access to an offer of computer-based training courses. After being deployed in R&D and manufacturing in Tunisia, the platform was introduced in France in 2017 and has gradually been made available to all the Group subsidiaries. This platform offers a number of advantages by broadening the training offer, optimising training resources, building individual skills development programmes, offering easier access to training, etc.

Sagemcom's investment in skills development is also illustrated by other initiatives.



Leadership School in Brazil

In Brazil, a "Leadership School" supports the professional development of managers through various training programmes.

In France and at SST, the "Responsible Management" training course was designed and made to measure to support the adoption of more professional managerial practices in response to the challenges we face: attracting and



sagemcom sees

training as an

investment

For the Future,

improving

economic

performance and
addressing sociat

issues

retaining young talents, maintaining commitment and motivation, sharing and promoting a global vision, giving meaning, managing different generations, etc. This long-term modular programme allows every manager to personalise their course of training by choosing the modules that best meet their needs.

### ENCOURAGING AND DIVERSIFYING CAREERS IN THE GROUP

To retain our employees, we support them throughout their career within the Group, by offering them rich and rewarding careers, a policy has encouraged our employees' attachment to Sagemcom.

The publication of a job mobility charter has made it possible to define the policy targeted by the Group in this area. Mobility promotes creativity and greater dynamism in our business, opens up business units and mixes professional experiences and backgrounds conducive to the development of our organisation and the women and men within it. Now, all vacancies are open to internal candidates and are published on our vacancies site, which can be accessed by every employee.

This publication was completed by the setting up of a recruitment / mobility committee to facilitate and supervise the careers of our employees within the Group. France has set itself the target of filling one third of its vacancies through internal mobility. In 2018, this target was comfortably reached, with a rate of 44%.

In addition, employees can indicate their wish to change jobs, be it cross-company, vertically or geographically, during their individual assessment and progress interviews and/or, for employees working in France, their professional interviews.

Sagemcom also supports the diversity of professional careers by promoting its "Experts" career path, in parallel to the managerial path. It allows us to recognise the expertise and acquisition by certain employees of specific skills in a key area for the Group. Our Experts benefit from the recognition of their skills through the transmission of their knowledge and their role as company representatives and, in return, the Group capitalises and invests in areas of strategic expertise which contribute to its performance.

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#### **SHARING AND UNITING**

Sagemcom's human resources policy is also reflected in awareness-raising, sharing and cohesive measures designed to bring employees together.

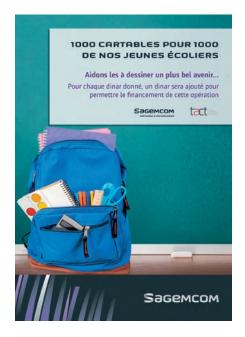
For example, a certain number of measures are implemented throughout the year to promote the understanding of the Group's strategy by all of our employees, support Sagemcom's values and foster the collective dynamic. These actions encourage everyone to engage in the implementation of our strategy and support the growth of the Group.

Corporate headquarters holds six-monthly meetings to present the results and strategic directions to all the employees. Elsewhere, numerous federating events are organised in the subsidiaries.

Every year, SST invites its employees to take part in a family day. Employees and their families come together to share a pleasant moment with their colleagues, partners, parents and children.

2018 also saw the celebration of Sagemcom's tenth anniversary. Numerous events were organised in France, bringing all our employees together in a festive atmosphere at the Group headquarters in Rueil-Malmaison and on our manufacturing site in Taden. The anniversary was also celebrated on our main site in Tunisia, and communications materials were distributed to every employee to mark the occasion.





We also take charitable actions that reflect our commitment and our values, and we incite our employees to become involved too. Every year, many employees in France enter an inter-company run for charity in Rueil-Malmaison for the disabled. Our R&D centre in Tunisia has been supporting "100 couffins pour 100 familles" and "1000 cartables pour 1000 écoliers" for many years in order to help the poor.

SST also supports women living in rural regions of Tunisia, in an effort to improve their working conditions and their economic independence. In 2017 and 2018, the women of Sejnane were invited to the R&D centre to exhibit their pottery, which is part of the UNESCO immaterial heritage.



# DIALOGUE BETWEEN MANAGEMENT AND LABOUR AS A VECTOR OF SUSTAINABLE SOCIAL SUPPORT

Through that social dialogue, the Group strives to find the best balance between the needs of the company and the interests of employees, in order to better support the development of its activities and the people who contribute to it.

Dialogue between management and labour was particularly eventful in 2017 and 2018.

At the corporate level, 2018 saw the creation of new staff representative bodies that are now organised around a Social and Economic Committee (CSE). The configuration and modus operandi of this new body are set forth in a company agreement to organise dialogue between management and labour in a centralised manner that is better adapted to the structure of Sagemcom. Numerous agreements and major action plans were approved and deployed. Examples include the generation contract, the right to disconnect, the fight against discrimination, the integration of the disabled, effective wages and working hours, plans to prevent psycho-social risks, etc. These agreements and action plans are published in the "Social dialogue" section of the intranet site, where employees can access them at all times. They are reviewed annual in order to consider possible adjustments and take stock of the progress made in a monitoring commission.

Our Taden manufacturing site introduced a single staff delegation that combines the various instances (staff representatives, health and safety committee, works council). In 2017, this single staff delegation worked with management on the deployment of an action plan to prevent psycho-social risks that was adapted to the local situation. The results of the plan are assessed every year by a monitoring commission.

DiaLogue between

management

and Labour Was

Particularly

eventful in 2017



# HEALTH, SAFETY AND WELL-BEING AT WORK



The labour policy carried out in 2017-2018 extends the positive and effective initiatives already underway, and also introduced a new trend of increased investment in prevention, both to improve working conditions and to promote an environment conducive to the development of our employees and our business activities.

Our responsibility and our commitment are to create the conditions that guarantee the physical integrity and health of all those present at our sites, and beyond that, a framework that promotes quality of life at work.

The labour policy carried out in 2017 and 2018 extends the positive and effective initiatives already under way, and also introduced a new trend of increased investment in prevention, both to improve working conditions and to promote an environment conducive to the development of our employees and our business activities.

Reducing risks, occupational diseases, serious accidents and the most frequent accidents, all have top priority.

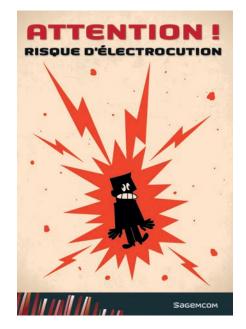
Our goal is to reach the "O accident". While this objective represents a challenge, it remains the only one that is feasible with regard to the issues at stake and requires the involvement and concerted effort of everyone at every level.

The safety of our employees is subject to a risk analysis for each business line

#### TAKING ACTION TO ENSURE SAFETY AT WORK

The safety of our employees is subject to a risk analysis for each business line. This allows us to anticipate risks as much as possible through preventive and protective measures, both individual and collective. This analysis is reviewed and updated each year but also every time a new activity or process is created. At the heart of our concerns, fire safety and protection against exposure to chemicals. Various procedures have been established to manage the risks to the health and safety of employees:

- · Risk assessment
- Legal requirements
- Validation of equipment
- Accident recording
- Preventive and/or corrective measures
- Management of dangerous products
- Treatment of dangerous products
- etc.



All of our employees are trained in occupational safety from the recruitment process onwards, and throughout their career within the Group. In order to minimise the risks, personal protection equipment is made available to everyone, in order to supplement the collective preventive actions.

In addition, employees are also involved in the definition of safety instructions: this is essential to ensure that the instructions and the associated equipment (gloves, glasses, etc.) are compatible with their daily lives!

We also take into account the technological developments affecting our production tools (for example the integration of automated lines) in the mapping and management of new risks. Safety analyses in every situation (including maintenance) are carried out, and specific rules are laid down. They are complemented by operator training sessions, and of course by the provision of suitable equipment.

The Group has therefore set up all the necessary means and equipment to detect and deal with emergency situations. These situations are tested annually or more frequently, depending on their impacts.

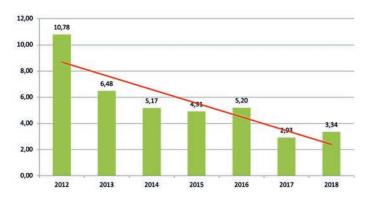
#### OHSAS 18001 CERTIFICATION

Sagemcom's safety policy is based on OHSAS 18001 certification, particularly for production sites. For example, our Tunisian production site, where the vast majority of our manufacturing is located, has been OHSAS 18001 certified by AFNOR since 2008...



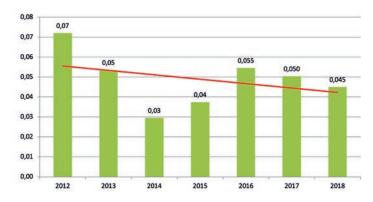
The results are then reported each month by the local management. An overview is held mid-year to verify that the actual results are in line with the objectives. Corrective measures are set up if this is not the case. The annual results are finally presented and analysed by the Executive Management.

Our results for 2018 are presented below:



#### Frequency:

• number of accidents per days worked \* 1,000,000 / number of hours worked



#### Severity rate:

number of days worked \* 1,000 / number of hours worked

Frequency, 3.3% compared with an annual target of 4.8%

Severity rate, 0.04% compared with an annual target of 0.03%

Finally, in addition to the measures taken for production, processes have also been set up for teams handling electrical or gas products: as a result, even without certification, the same rules are applied to them. For example, every employee who works near an electrical product or machine must take training to become a qualified electrical worker. At the end of this training, and subject to passing the final exam, an electrical qualification certificate is then given. Protective measures against electric shocks, fires and explosions have also been implemented in our laboratories, for example, with the ATEX standard for gas meters.

#### TAKING CARE OF OUR EMPLOYEES

Sagemcom does not intend to limit its commitment to safety, but wishes to apply it to health as well by involving the right people at the right levels in an accident prevention initiative: occupational medicine, health services, ergonomists, but also the employees themselves, the first people concerned...

With this objective in mind, in 2017 and 2018 the Group maintained its action plans along several lines:

# WORK POSTURE CHECK LIST



sagemcom does
not intend to
Limit its
Commitment to
Safety, but
Wishes to
apply it

Particular
attention is
Given to Job
organisation and
workloads as well
as their potential
impact on
employees, Lives

- Develop preventive and ergonomic procedures in the design of new tools and premises or the preparation before taking over a workstation and thus reducing the risks including the onset of Musculoskeletal Disorders (MSD). An e-learning module adapted to the group's activities was introduced to prevent the onset of MSDs, for example by addressing work on screens or handling operations. In Manaus, Brazil, the first 20 minutes of the working day are devoted to flexibility exercises before starting a job, to prevent MSDs. The success of this initiative resulted in its extension to our site in Taden, where staff members now do exercises to warm up their muscles before each shift. In 2018, the SST site also deployed a major project to prevent MSDs, supplemented by a communication campaign designed to promote best practices, especially in terms of posture. A safety day was organised on the Taden site, inviting employees to take part in a range of workshops (prevention of accidents at work, use of the rest room, etc.).
- Involve Occupational Health and Occupational Health Services, beyond medical surveillance, by providing advice designed to have employees participate in the process of preventing occupational risks (hardship, travel, etc.) but more generally to encourage employees to adopt healthy lifestyles. The advice is given either individually or during collective information and awareness sessions, as in France or China, as part of information campaigns or visits to workshops and offices, or organising specific information and prevention campaigns, along the lines of the "Pink October" campaign on the SST site, intended to raise employee awareness of the risks of cancer and the means of preventing it.
- Promote access to a high level of healthcare and welfare coverage for every employee: regardless of their geographical location, Sagemcom provides its employees with reimbursement coverage for medical care, thus enabling them to preserve their health and, if necessary, that of their family.

## WELL-BEING AT WORK, ONE OF OUR CENTRAL CONCERNS

We pay close attention to the quality of life at work and we are developing initiatives to offer employees a working environment conducive to their development and the reconciliation of their professional and personal lives, which also helps to develop our corporate performance.

The well-being of employees is dependent on the organisation of the company, its mode of operation, its management and dimensions such as the quality of interpersonal relations and personal quidance.

Sagemcom implemented several initiatives on these themes in 2018:

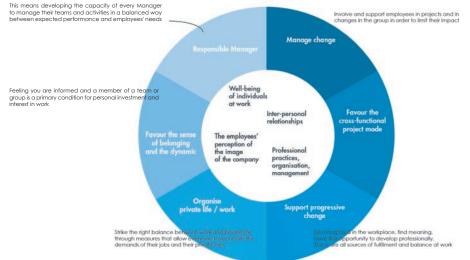
- Particular attention is given to job organisation and workloads as well as their potential impact on employees' lives. In 2018, the annual interview system that allows every employee to indicate their feelings about the workload, organisation and the balance between work and personal life, irrespective of the employee's work mode (counted in hours, days or with no reference to working hours) or their geographical location came under closer scrutiny, and 100% of the escalated professional difficulties were addressed.
- Seeking to optimise the quality of life at work is also part of a process to prevent psychosocial risks. In France, a 3-year prevention plan was deployed in 2016 as a framework for our preventive approach and strives first and foremost to reduce the risks at the source in order to obtain deep and lasting improvements. The effects of the implementation of this policy are assessed every year, and the measures, if necessary, are updated within the framework of a Monitoring Committee in conjunction with the Staff Representatives and Occupational Medicine. The success of this method of prevention, confirmed by the Occupational Health Services, will continue in 2019, with the deployment of a third action plan. In parallel, other measures are being taken in other countries, such



as China, to provide time and space for employees to decompress after the working day, with the organisation of daily sports sessions (tennis, basketball, etc.).

• The question of the balance between the different times of life is addressed through a number of specific measures. Numerous actions were taken in this field in France in 2018, in particular following the signing of an agreement on employees' right to disconnect in an attempt to regulate the use of digital tools. In addition to the existing outreach services at the Rueil-Malmaison site (concierge service, transport shuttle, etc.), Sagemcom is helping to meet the demands of work and private life by addressing the demands of every aspect of parenthood by publishing a 360 guide to being a parent. The improved integration of the issues related to parenthood has also been extended to other countries, such as China, where further measures to organise working time have been taken to help new parents.

But over and above these aspects, Sagemcom is committed to saving time for all its employees, whatever their personal situation. For example, in France, Sagemcom has committed to take specific measures concerning frequent and long-distance business trips and time management.





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management



# ENVIRONMENT



At Sagemcom, acting to protect the environment firstly means designing products and services that help preserve the planet's ecological balance. But it also means limiting the impact of its activities on local ecosystems by taking the environmental and economic situations of different markets into consideration.

As part of the ISO 14001 certification, Sagemcom's sites reduce the impact of their everyday operations on the environment. We focus closely on energy consumption, which represents the most significant aspect of the impacts of our sites. In 2016, the overall impact of electricity on Sagemcom's sites dropped by 14% in relation to revenue, with a particular emphasis on our plant in Tunisia, which was ISO 50001-certified for energy management in 2015-2016.

However, while it is important to address the impact of our sites, much of the Group's efforts are focused on the ecodesign of our products. Indeed, their impact throughout their life cycle represents 99% of the impact of the Sagemcom group.

# REDUCING CONSUMPTION AND EMISSIONS ON OUR SITES

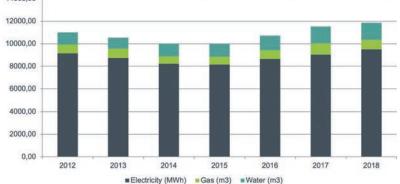
## Our site environmental management system

Sagemcom established a policy to obtain ISO 14001 certification for its main operational sites over 10 years ago. In accordance with the regulations, and those applying to classified facilities in particular, we are determined to control environmental aspects, such as pollution of the air, water and soil, noise nuisances, waste production, consumption (water, energy, etc.) and the management of hazardous substances.

These measures are taken in our establishments under the responsibility of the Site Manager, in close collaboration with the environmental officers and according to continual improvement processes.

In comparison with the preceding years, an analysis of the 2018 water / gas / electricity consumption demonstrates the importance of the energy efficiency of our sites, relative to other forms of consumption.

# Annual impact by consumption type (tonnes of CO2eq)



Our production plant in Tunisia is particularly close to the heart of our environmental concerns and benefits from specific energy controls in the form of an ISO 50001-certified management system.

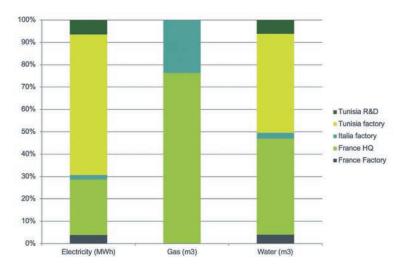




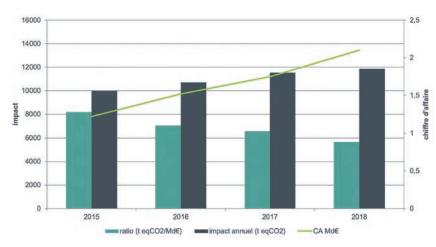
sagemcom
established
a policy to
obtain Iso 14001
certification
for its main
operational sites



# Breakdown of 2018 consumptions per site



# Ration of CO2 emission / turnover (perimeter site, water / gaz / electricity consumption)



Overall, the improvement of our processes has resulted in a 31% reduction of the impact relative to turnover between 2015 and 2018!

#### A CONCRETE CASE

Our site in Rueil-Malmaison hosts the group's head office and the Sagemcom Energy & Telecom subsidiary, including its R&D activity. Our site in Rueil-Malmaison accounts for about 25% of the group's electricity consumption and 75% of its gas consumption. Therefore, it is quite legitimate to promote the environmental approach of this site, which is primarily dedicated to intellectual activities. Three main priorities has been identified.

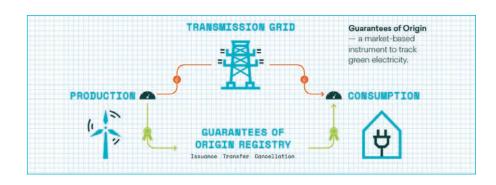
# Electricity consumption: electricity from renewable sources

As part of its ISO 14001 management, Sagemcom has opted, not only to take steps to reduce its energy consumption, but also to contribute to the development of renewable energy by signing a contract on 1 July 2017 for the supply of electricity that is certified as coming from renewable sources equivalent to the consumption of our sites in Rueil-Malmaison (head office) and Taden (production of smart meters), or 100% of its consumption in France. This promise is materialised by the production of Guarantees of Origin.

This means that our electricity supplier agrees to inject renewably produced electricity into the grid.



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the employees

OF SAGEMCOM

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OPERATION PLANTED

320 TREES OVER

TWO YEARS AS PACE

OF THE EFFORTS

TO SUPPORT

TUNISIA

A Guarantee of Origin represents 1 megawatt hour of electricity produced in a given month and contains all the relevant information about the power plant. At the end of each month, the producers receive Guarantees of Origin indicating the net electricity that is actually injected into the grid. This is the issuing process. These certificates can be electronically transferred and used to confirm the renewable nature of the energy consumer by the end users.

Our utility injected about 10,500 MWh into the grid on Sagemcom's behalf from sustainable sources of production in France. This operation reduced emissions by an estimated 1,371 tonnes CO2 equivalent between July 2017 and December 2018.

## Gas consumption

In December 2018, a carbon-neutral option was added to our gas supply contract, meaning that every MWh of gas consumed is compensated. Sagemcom has gone even further by promising to inject the equivalent of 30% of our consumption in biomethane produced in waste-to-energy units in France By December 2018, 180 MWh of biogas has been injected into the grid on our behalf.

## Waste management

We work with several service providers to optimise our recycling circuits that go beyond our regulatory obligations. We entered our first partnership in 2018 with Cèdre Recyclage. This enterprise aims to actively participate in the protection of the environment and to help disabled people to find work. In 2018, Cèdre collected 11.3 tonnes of waste:

- 4.4 tonnes of wood from pallets
- 5.4 tonnes of used furniture
- 1.2 tonnes of paper
- 0.3 tonnes of other waste

The enterprise achieved significant environmental gains:



# **SAGEMCOM SOFTWARE ET TECHNOLOGIES**

Even if its impact is small compared with that of the group's production sites, our R&D centre in Mégrine, Tunisia deploys responsible action plans designed to protect the environment in particular.

In 2017 and 2018, the employees of Sagemcom S&T took part in the Green Boots operation, organised by the TACT NGO. The operation planted 320 trees over two years as part of the efforts to support reforestation in Tunisia.

Gains are estimated at 570 tonnes CO2 eq. .







# ECODESIGN

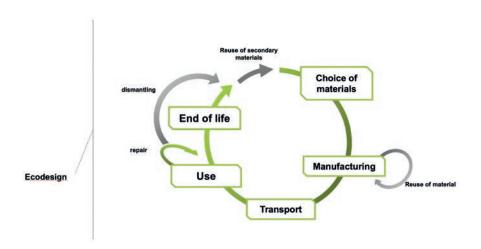


Ecodesign is a process in its own right that is described in Sagem-com's project management documents. Every phase of a project, from launch to qualification and the start of production, is subject to a series of checks that examine the product's ecodesign.

For more than 10 years, Sagemcom has also been developing the capacity to conduct internal life cycle analyses, in line with the protocols in ISO 14044 and the GHG protocol. Any analyses that have to be released outside the company are verified by an independent third party in order to guarantee that the results are accurate. These measurements allow us, and our customers, to direct our design options for our future product generations.

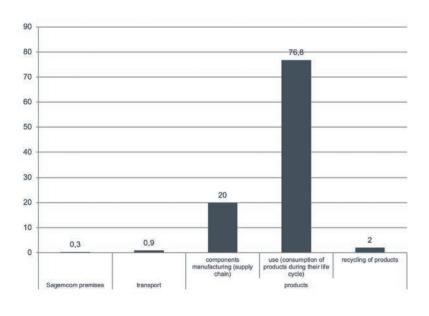
In these ways, throughout the product life cycle, Sagemcom undertakes a number of measures.

These ecodesign measures are at the heart of our environmentat initiative



These ecodesign measures are at the heart of our environmental initiative, because the impact of our products is far greater than the impact of our sites, if we consider their entire life cycle. This gap is illustrated opposite. The operation of our sites accounts for just 0.3% of our impact, the manufacturing of our products represents 20%, the use of our products represents 76.8% and their end of life 2%.

## Repartition of Sagemcom Carbon footprint (%)





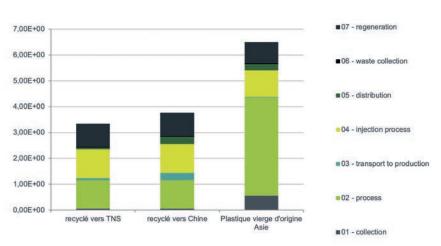
# **USING ALTERNATIVE MATERIALS**

The Sagemcom group considers the use of alternative materials as a permanent source of progress. In the same way that we strive to characterise the environmental impact of our materials, we make sure to qualify our products on the basis of plastics with high potential for recycling (end-of-life management). The materials we use are evaluated according to two criteria: their environmental impact, but also their "technical" practicality. The Group cannot use materials that may have a positive environmental impact,

but whose technical properties are insufficient to meet the quality requirements of our customers.

After several years of studies, in 2018 we introduced a 100% recycled plastic reference in our non-cosmetic plastic parts. The low impact of this secondary material, made in Europe from electronic waste produced on the old continent, also enables us to use it in our partner production plants in Asia. The global impact remains below that of the equivalent virgin plastic. Several hundred tonnes will be used in the years to come, as the initiative is gradually deployed.

# Comparison of impact - virgin material compared to recycled plastic according to the link of use (Kg CO2eq / kilo of plastic)





# **Packaging**

In addition to meeting its obligations, Sagemcom constantly strives to reduce quantities of packaging. Individual packaging is optimised to reduce transportation at equivalent quantities. We also prefer packaging made of recycled or PEFC cardboard, printed with vegetable-based inks.

The replacement of our pallets with a lighter structure, guaranteeing the same performance during transportation, has reduced the environmental impact of every pallet.

## **Batteries**

Batteries can represent a danger to the environment when they are disposed of, due to the hazardous substances they contain. We abide by the European Directive 2006/66/EC, which banned the most polluting batteries (limits on lead, mercury and cadmium).

## Transport

Transport is a major source of greenhouse gas emissions. And for urgent deliveries, the transportation of our finished products by air weighs heavily in the carbon balance. While aircraft only represent about 12% of the tonne-kilometres transported, they are responsible for 98% of the logistical carbon footprint. We try to avoid these situations by improving our forecasting processes and the corresponding manufacturing schedules. We pay close attention to local deliveries using reusable packaging materials. This avoids wasting pallets and cardboard boxes. We also try to optimise the packaging of components in partnership with our suppliers.

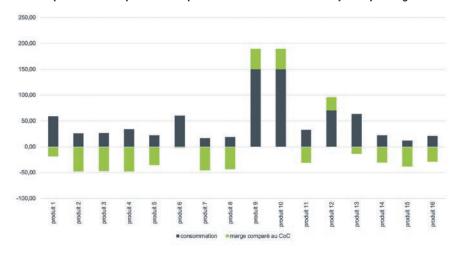
# **Consumption of products**

Sagemcom is a member of the voluntary European agreement on the consumption of STBs that obliges manufacturers to remain within consumption limits applying to at least 90% of the products marketed in Europe.

During the 2017-2018 reporting period, 91% of Sagemcom's products sold in Europe followed this code of conduct with a comfortable margin.

We Pay CLOSE
attention to Local
deliveries using
reusable packaging
materials. This
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## Consumption of set-top boxes compared to the limits of voluntary European agreement



The First Step

affecting the

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build them

On the basis of the code of conduct, the complete installed base of Sagemcom STBs represents a consumption of 224 GWh (224,000,374 kWh). We have reduced this consumption by about 20% to 180.8 GWh (180,795,337 kWh) by optimising our STBs.

# FACILITATING THE RECYCLING OF OUR PRODUCTS RIGHT FROM THE DESIGN PHASE

The first step affecting the recycling of our products is the choice of the materials used to build them. Combinations of different types of materials can impact the capacity of the product to be recycled. We take care to choose materials that are compatible in the recycling phases. Our products are then assembled in a way that facilitates their deconstruction and the separation of the various components.

## Calculating product recyclability

We have built on our experience in design and our partnerships with recycling operators to introduce the measurement of the recyclability of our products in order to evaluate the benefits of our end-of-life oriented design methods.

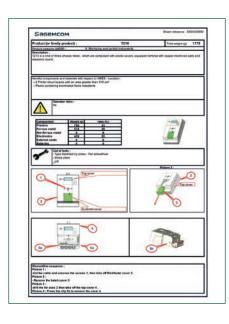
This evaluation takes account of several parameters:

- The materials used
- The assembly techniques
- The known results of the WEEE processing channels

The evaluation attempts to be realistic, with three possible processing scenarios, ranging from refurbishing to direct destruction.







# Dismantling guides for easier recycling

On request, Sagemcom provides recycling operators with dismantling guides in a bid to encourage the recycling of its old products. These guides contain all the information required to optimally recycle and reuse the machines:

- a bill of materials (metals, plastics, electronic circuit boards, etc.)
- the location of the components to be separated (as per the WEEE directive)
- the dismantling steps
- the potential risks for recycling operators (sharp metal edges, etc.)



# LIFE CYCLE ANALYSIS

To identify opportunities for improvement, we analyse our legacy products from both a qualitative (means of assembly, etc.) and a quantitative perspective, by modelling the product lines with a simplified life cycle analysis tool: EIME software, developed by CODDE Bureau Veritas. These analyses guide our strategic development options in order to reduce energy consumption, because it is the phase when the product is in use that has the greatest impact on our products' life cycles, no matter where they are used.



This expert knowledge also enables us to make preliminary life cycle analyses in an advanced operation conducted during the call for tender phases. The goal is to estimate the environmental impact of a product, in order to help our customers to choose between several possible scenarios, particularly regarding the logistical phase and the choice of materials. It also enables us to decide on the communications mechanisms between products and networks in advance, in order to anticipate cases where one of them would prevent the other one from switching to standby mode.

Major projects are all analysed to assess their impact and the associated gains. Analyses can be customised when requested by customers as of the product design stage. Every product family has a specific approach to the reduction of its environmental impact.

Our internal life cycle analyses are conducted in accordance with the ISO 14044 stan-

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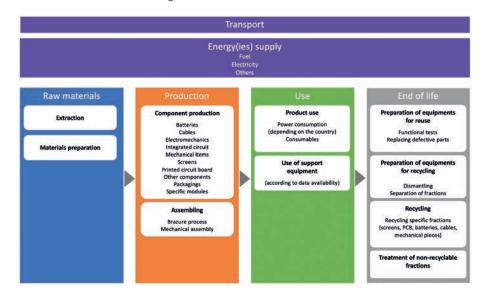
to help our

customers to

choose between

several possible

dard and within the following boundaries:



OUR INTERNAL LIFE
CYCLE ANALYSES
ARE CONDUCTED
IN ACCORDANCE
WITH THE ISO 14044
STANDARD

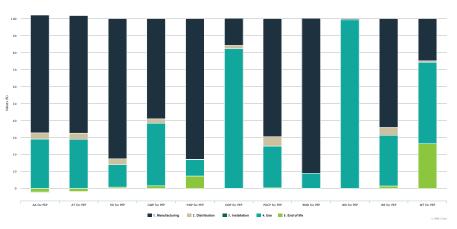
These analyses are described in detail in reports specific to each product model. The reports illustrate the main impacts during the different phases of the product's life cycle using several indicators.

Short name		
AA	Air acidification	kg H+ eq.
AT	Air Toxicity	m³
ED	Energy Depletion	MJ
GW	Global Warming Potential	kg CO₂ eq.
HWP	Hazardous Wastes Production	kg
OD	Ozone Depletion	kg CFC-11 eq
POC	Photochemical ozone creation	kg C₂H₄ eq.
RMD	Raw Material Depletion	Y-1
WD	Water Depletion	dm3
WE	Water Eutrophication	kg PO4 eq.
WT	Water Toxicity	<u>m</u> 3
ADPe for EN15804	Abiotic depletion (elements, ultimate reserves)	Kg Sb eq.
ADPf for EN15804	Abiotic depletion (fossil fuels)	МЈ
AP for DHUP	Air Pollution	m³
AP for EN15804	Acidification (including fate, average Europe total, A&B)	Kg SO₂ eq
EP for EN15804	Eutrophication (fate not included)	Kg PO <sub>4</sub> eq.
GWP for EN15804	Global Warming (GWP100)	kgCO₂ eq.
ODP for EN15804	Ozone layer Depletion ODP Steady state	kg CFC-11 eq
POCP for EN15804	Photochemical oxidation (high NOx)	kg C₂H₄ eq.
WP for DHUP	Water Pollution	m³

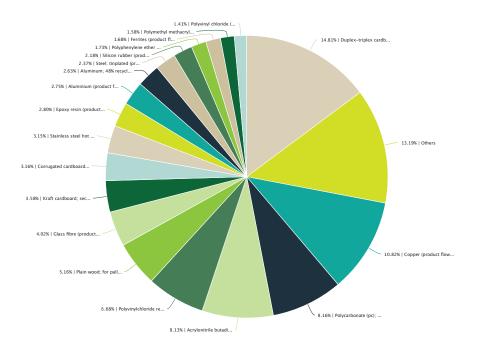
Example of data from a life cycle analysis report on the DCIW385 STB:



# Global impacts by life cycle phase

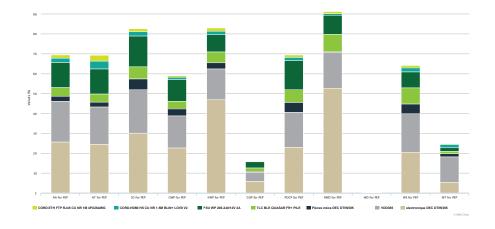


# Material balance based on the database using modelled components





# Details of the impacts of manufacturing



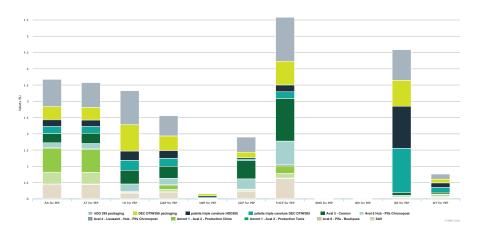
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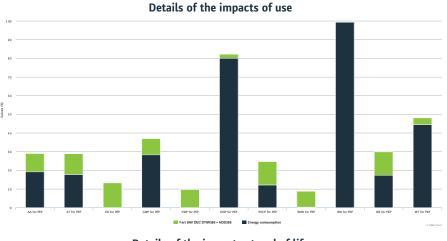
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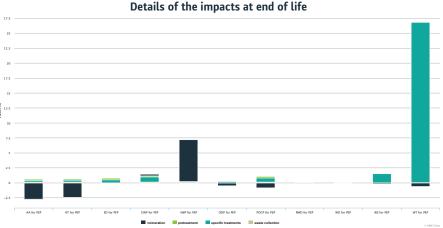
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# Details of the impacts of transport





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These analyses can also be used to compare several scenarios, in particular to measure the gains of a refurbishing system that extends the product lifespan, and to make comparisons with the preceding generation of products.

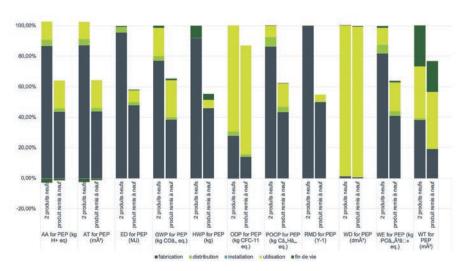
# Comparison of the impact of a product with and without a refurbishing system

In most cases, our products can be refurbished at the end of a rental contract, because they are still fully functional. This is made possible by a design that makes it easy to separate the components of the product, so that only what needs to be replaced can be replaced (cosmetic parts, accessories, etc.) and the operation is made economically and environmentally viable by significantly extending the product's lifespan.

The environmental gains of this option are measured by comparing two scenarios:

- without refurbishing. Only new products are supplied, for an average rental period of two and a half years. Therefore, two products are used for five years.
- with refurbishing at the end of the rental contract. One product is rented for two and a half years, then refurbished and rented again for the same period.

These two scenarios are compared in terms of their environmental impacts in the visual below.



Refurbishing achieves an environmental gain of 35% of the product's GWP impact, in comparison with systematic replacement with a new product.

Gain produced by refurbishing by phase:

- · Manufacturing: 50% (15.6 kg CO2 eq)
- Transport: 46% (0.57 kg CO2 eq)
- Use: -30% (-2.28 kg CO2 eq)
- End of life: 47% (0.23 kg CO2 eg)

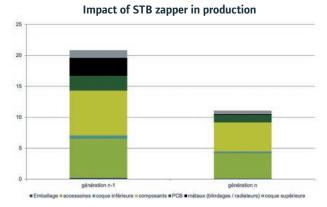
The additional environmental costs due to the use of spare parts by Customer Service explains the rise in the impact during the use phase, which is more than offset by the gains achieved in the manufacturing, transport and end-of-life phases.

The benefits are even greater if more than one refurbishment cycle is considered during the product's lifespan.

## **CONCRETE CASE: STBS**

The finalisation of our latest 4K STB platform enabled us to make some extremely significant gains.

With like-for-like functionality, the impact of the product in the manufacturing phase was slashed by 47% by miniaturising the PCB.

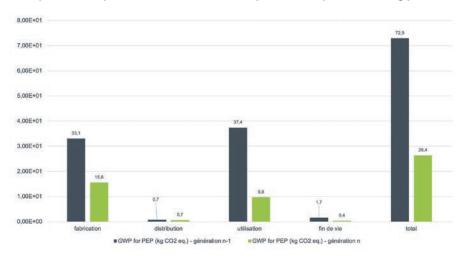


In 2018, about 900,000 products based on this new platform were deployed.

The largest customer deployment (720,000 products in 2018) replaced an even older model. The savings were evaluated by conducting a complete life cycle analysis, followed by a critical review by an independent third party. A gain of 46.5 kg CO2 eq. was achieved for every product replaced, thanks to the reduced impact in manufacturing, but also to the optimisation of energy consumption.

The Finalisation of our latest 4K STB platform enabled us to make some extremely significant gains

## Comparison of impacts - roll out of the new STB platform compared to existing products

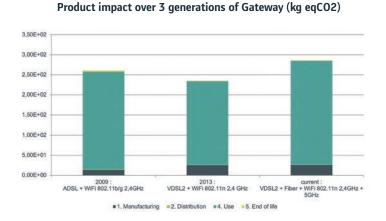


#### **CONCRETE CASE: BROADBAND PRODUCTS**

Internet gateways are becoming ever more powerful, with more functions and greater connectivity. This means that the impact increases from one generation to the next. However, this impact can be rationalised and stabilised thanks to new technologies and an ambitious ecodesign strategy. The visual opposite illustrates the changes in the environmental impact of three generations of boxes, according to the technological development of the market.

# By their very essence, the smart meters must have the smallest

POSSIBLE IMPACE



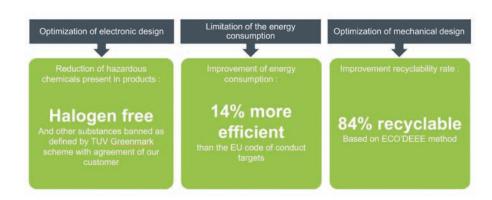
#### **CONCRETE CASE: SMART METERS**

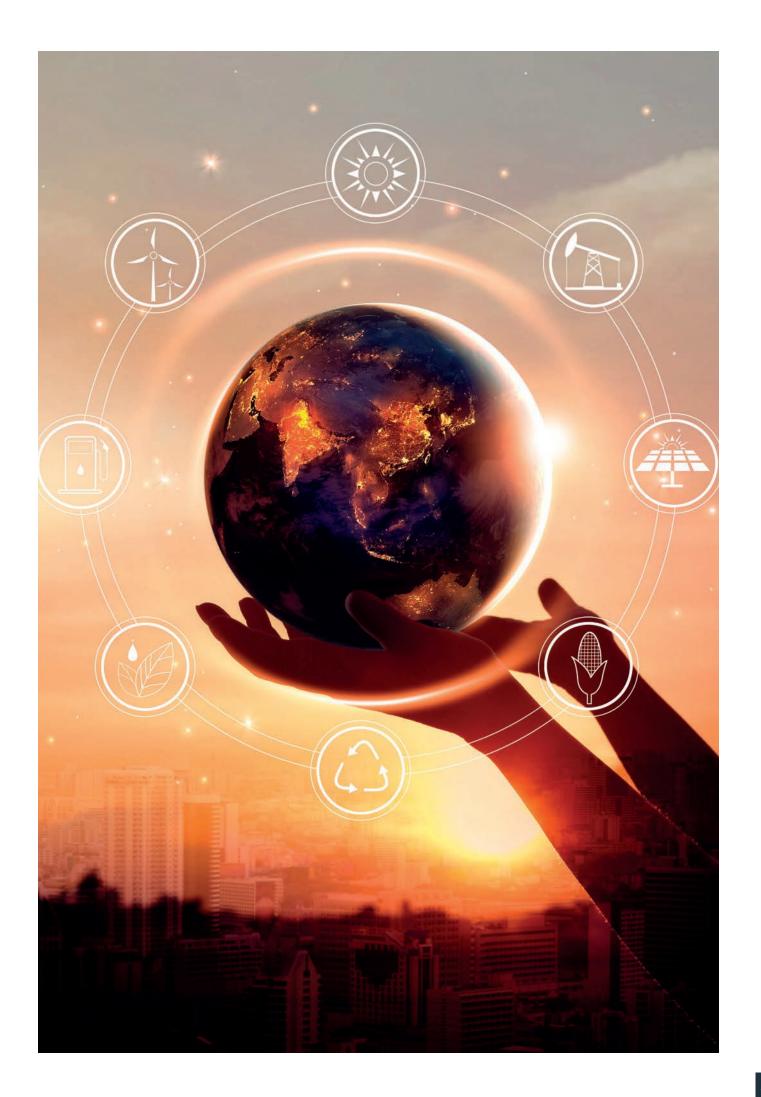
Smart meters are remarkable tools that enable energy utilities to control their energy production more efficiently. They also enable users to track and reduce their consumption more easily.

By their very essence, these products must have the smallest possible impact and they are optimised whenever possible in order to reduce their environmental impact.



To reduce the impact and to improve the sustainability of our products even more, we pursue three lines of work as part of our eco-efficiency approach:







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