Orange’s seventh integrated annual report was prepared within the framework of the International Integrated Reporting Council (IIRC). It integrates the Orange group’s social, ethical, environmental and economic data within its business model and strategy. The purpose of the report is to demonstrate the sustainable value that Orange creates for all its stakeholders. It does so by presenting the strategic vision of the Group and its financial and non-financial performance, which includes environmental, social and governance performance indicators.

The report is sponsored by three members of the Executive Committee—Ramon Fernandez (Delegate Chief Executive Officer and Executive Vice-President Finance, Performance and Development), Béatrice Mandine (Executive Vice-President Communication, Brand and Engagement) and Élizabeth Tchoungui (Executive Vice-President CSR, Diversity and Philanthropy for the Group). The Shareholder Relations Department is responsible for drafting and publishing the Integrated Annual Report, a collaborative report that brings together information and contributions from the Group’s main operating countries and departments. The steering committee involves representatives from Shareholder Relations, CSR, Legal, Strategy, Brand and Risk Management Departments.
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Orange has been heavily investing in new-generation digital infrastructure for many years. This ground-breaking expansion enables us to fulfill our role as an essential operator, providing connectivity to as many people as possible.

Our networks are the foundation for developing innovative and responsible digital services. This multi-service strategy has proven to be successful in Africa, the Middle East and Europe.

To achieve net zero carbon emissions by 2040, the Group relies on a threefold strategy—reducing its carbon emissions, increasing its use of renewable energies and expanding its circular economy program.

As a telecommunications operator, we have a prominent social role to play when it comes to all our stakeholders and at the heart of the regions where we operate. Orange supports the significant digital transformations shaping online and offline environments.

Orange’s governance team develops and implements a long-term growth strategy that ensures operational performance, ethical requirements and optimal risk management are taken into consideration.
Orange has now separated the roles of Chair and Chief Executive Officer. Stéphane Richard, you will continue to serve as Chairman until the Shareholders’ Meeting on 19 May. Christel Heydemann, you took over as Chief Executive Officer on 4 April. How do you feel about this new chapter for the Group?

**Stéphane Richard:** First, I’d like to thank everyone in the Group for all their hard work over the past 12 years. Their commitment to our customers and flair for innovation have contributed to strong Group performance. Together, we took chances to drive our growth and strengthen our network leadership—and they paid off. I am delighted to welcome my successor as Orange CEO, Christel Heydemann, and wish her every success in her new role. I got to see her strategic vision, in-depth knowledge of industry challenges and numerous personal qualities for myself during her five-year term on the Board of Directors and firmly believe they will stand her in good stead as she and all our teams rise to future challenges.

**Christel Heydemann:** In recent years, Orange teams have shown their strong work ethic, excellence and ability to adapt through our infrastructure.
“The acceleration of companies’ digital transformation presents a major opportunity. Our rich expertise enables us to seize this opportunity.”

Christel Heydemann, Chief Executive Officer

“Investing in high-performance, intelligent, secure and energy-efficient networks ensures our industrial strategy is sustainable while connecting growing numbers of people worldwide.”

Stéphane Richard, Chairman
I am honored to join the company as CEO and contribute to its development by responding to the many challenges that lie ahead. I would like to thank the Board for putting their trust in me. Ready to give this position my all, I feel motivated and determined and fully appreciate the responsibilities I am undertaking. Furthermore, I know that I can count on our strong, committed teams to help steer the company to success.

**What challenges lie ahead and how will the Group overcome them?**

**C.H.:** The acceleration of companies’ digital transformation presents a major opportunity. Our rich expertise as an operator and a digital service integrator enables us to seize this opportunity and act as a strategic partner to our customers in terms of cybersecurity, cloud computing, artificial intelligence and so on. The Group also needs to restore its growth in Spain, a highly difficult market where we face intense competition from low-cost brands. That’s why we

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"Digital technology is key to reconciling energy performance with economic performance. As an industry leader, we have a twofold responsibility."

**Christel Heydemann,** Chief Executive Officer
have entered into exclusive negotiations with MásMóvil with a view to merging our operations and creating a super operator in the Spanish market. The primary challenge in France will be supporting copper-to-fiber migration nationwide to offer everybody the best connectivity possible. That’s why we teamed up with long-term investors in November 2021 to launch Orange Concessions, which aims to operate 4.5 million FTTH connections in 6,500 communities by 2025. Orange’s powerful Purpose can help us rise to these challenges and turn them into shared successes.

How can the Group reduce its carbon emissions in line with its ambitions?

**C.H.**: Digital technology is key to reconciling energy performance with economic performance. As an industry leader, we have a twofold responsibility—we need to proactively reduce our carbon emissions and help our customers improve their energy performance. To achieve net zero carbon emissions by 2040, we must make unprecedented strides in terms of boosting energy efficiency, using low-carbon energy sources and working with all our partners. Demand for more modern networks presents a wonderful opportunity for us to support the transition from copper to fiber and decommission 2G and 3G networks. Furthermore, the Group has made progress in applying eco-design principles to equipment design, as well as in recycling, collecting and reconditioning equipment every year since it launched its extensive circular economy program. Just as a circular economy requires changes in behavior and production methods, it also helps identify new opportunities for innovation and growth. What’s exciting about building a circular economy is that it’s a team effort.

The Group has heavily invested in deploying new-generation digital infrastructure—has this strategy paid off?

**S.R.**: Definitely. Investing in high-performance, intelligent, secure and energy-efficient networks ensures our industrial strategy is sustainable while connecting growing numbers of people worldwide. We made an ambitious decision in the 2010s to become one of the first large investors in fiber optics
and are now the European fiber leader, with over 56 million connectable homes and almost 12 million customers. We have also deployed 5G networks in six European countries. Although the 5G story has only just begun, this new technology will give companies a decisive edge over their competitors in the coming years. We also hold a leadership position in the European convergence market, with 11.5 million customers. These outstanding levels of commercial performance are complemented by higher levels of customer satisfaction and provide a solid foundation to build on in the future.

What growth areas has the Group identified?

C.H.: More digital societies bring new threats, notably in the form of cyberattacks, which increased fourfold between 2019 and 2020 in France. The Group’s cybersecurity arm, Orange Cyberdefense, enjoyed double-digit growth in 2021 and our experts continue to develop solutions designed to better

“The 5G will give companies a decisive edge over their competitors in the coming years.”

Stéphane Richard, Chairman
protect customer data and IT systems. Our growth in Africa and the Middle East is particularly strong, with mobile data revenues up 25.2% and fixed broadband revenues up 23.5%. Lastly, diversification into a broad range of services including finance, connected homes and energy is another growth area.

How is the Group affected by the current international geopolitical tensions?

S.R.: Our number one priority everywhere is ensuring our teams are safe and showing solidarity with the populations affected. Our employees are actively involved in supporting Ukrainian refugees in former Orange training centers that have been turned into shelters, primarily in countries bordering Ukraine. The Orange Foundation donated €1 million in aid. Additionally, in our operating countries in Europe, calls to Ukraine are now free or cost 80% less than our standard rates. As well as having immediate effects, the current conflict is a reminder that we need to better protect our data and strengthen digital sovereignty across Europe. That’s why Orange is involved in the Gaia-X initiative and the Bleu project, which aims to provide a reliable cloud platform.

Christel Heydemann, what will be your guiding principles over the coming months?

C.H.: First, I want to reach out and listen to the Group’s teams and shareholders to ensure full transparency and confirm our strategy is effective. I’ll be making the time to travel and meet people on the ground over the next few months. Second, I will show how my own values dovetail with those of Orange in relation to topics that are important to me, such as climate change mitigation and diversity. During my career, I saw the positive impact proactive workplace gender diversity policies can have. These are topics to which Orange has been committed for several years now, and in which I will invest all my energy.
Orange at a glance

€42.5 bn in revenues
140,000 employees
271 million customers

26 countries and a global presence with Orange Business Services

Europe
Belgium, France, Luxembourg, Moldova, Poland, Romania, Slovakia, Spain

Africa and the Middle East
Botswana, Burkina Faso, Cameroon, Central African Republic, Côte d’Ivoire, Democratic Republic of the Congo, Egypt, Guinea, Guinea-Bissau, Jordan, Liberia, Madagascar, Mali, Mauritius, Morocco, Senegal, Sierra Leone, Tunisia

5 business activities
Enhanced connectivity (retail and business customers)
IT services for businesses
Wholesale services
Cybersecurity
Financial services

224.3 million mobile customers
23.5 million broadband internet customers, including 11.8 million FTTH customers
The Action Committee is chaired by Ebba Kalondo and includes the following members:

- Jadwiga Czartoryska
  Director of Polish foundations and former Director of the Orange Poland Foundation
- Axel Dauchez
  CEO of Make.org
- Alan Fustec
  CEO of Goodwill Management and President of Agence Lucie
- Nicolas Glady
  Managing Director of Télécom Paris
- Ebba Kalondo
  Spokesperson in the Chairperson’s Office, African Union Commission
- Philippe Lemoine
  Honorary Chairman of the Fondation Internet Nouvelle Génération
- Béatrice Mandine
  Executive Vice-President Communication, Brand and Engagement at Orange
- Élizabeth Tchoungui
  Executive Vice-President of CSR, Diversity and Philanthropy at Orange
- Hélène Valade
  Environmental Development Director at LVMH and President of L’Observatoire de la Responsabilité Sociétale des Entreprises (ORSE)

Our purpose

As a trusted partner, Orange gives everyone the keys to a responsible digital world.

— In 2019, we worked closely with our employees and stakeholders to define our purpose, which expresses who we are and what our corporate vision means. Incorporated into our company’s bylaws following a near-unanimous vote at the 2020 Shareholders’ Meeting, it articulates why our company exists and why this is meaningful for the world at large. Bringing our purpose to life is a long-term project we must constantly revisit. To maximize Orange’s positive impact on society over the next two years, we have enlisted the help of seven external people, whose areas of expertise include the environment, digital trust, responsible capitalism and assessments of the economic impact of companies. They all epitomize what true engagement means both in their personal and professional lives.

In fulfilling its role, the Action Committee critically and meticulously reviews our actions as a leading digital company that is committed to improving the lives of as many people as possible. Supported by two of Orange’s executive vice-presidents, the seven external committee members have a broad scope to organize their work as they see fit, make recommendations and respond to requests for advice from the Group’s governance team. To ensure its commitments are met, Orange has also set out objectives with associated indicators that will be provided to the Action Committee. At its first two meetings, the committee asked to be briefed on alternative ways of ensuring the company would achieve net zero carbon emissions by 2040, as well as the steps taken to protect children’s rights in an increasingly virtual world.

“Supporting a leading global digital stakeholder determined to play a multi-faceted and essential role in society is a rewarding responsibility. The aspiration of our Purpose is central to our Action Committee and the meticulous members who advise and support Orange.”

Ebba Kalondo, Chair of the Action Committee
Trends

Increasing demand for connectivity

— Economic activity, remote working, as well as a desire to access information, public services and education have contributed to the unprecedentedly high demand for connectivity. The number of internet users around the world grew 17% between 2019 and 2021. However, in the current global geopolitical, economic and social context, inequalities are widening and society is expecting more and more of telecommunication services. Operators must address major challenges such as guaranteeing privacy and data protection, developing inclusive and accessible digital solutions, enabling freedom of expression, as well as listening and responding to people who are wary of some aspects of technological progress. In addition to inequalities in terms of coverage, differing needs and skills gaps mean that many people still cannot access information or education.

Markets showing solid growth in an increasingly competitive environment

— Growing demand for digital services and connectivity worldwide, particularly in the healthcare and financial sectors, also means greater competition. Conflict and shortages of materials also compel companies to rethink their products and supply chains. Tech-based service providers—including large digital content platforms and telecommunications operators—continue to deploy infrastructure, expand their range of affordable products and services for retail customers, and develop new content and services. The proportion of internet users in Africa stands at a third of the population, having risen 23% between 2019 and 2021. The number of developers is rising sharply across the continent, which is also attracting more and more investment funds to create an ecosystem of top start-ups. Finally, the concentration of key suppliers and the uncertainty of regulatory and fiscal developments remain critical factors for the sector’s economy.

3.4 billion people living in areas with coverage don’t go online

615 million mobile phone users in sub-Saharan Africa in 2025

Opportunities for Orange

- Deployment and expansion of fixed and mobile network coverage
- Access to education, information, healthcare and work
- Maintenance of economic activity, social ties and public services
- Development of inclusive and accessible solutions
- Support for responsible use

Increasing demand for connectivity

Markets showing solid growth in an increasingly competitive environment

- Increasing demand for connectivity
- Growth in impactful digital services (financial services, healthcare, energy, etc.)
- Dynamic growth in Africa and the Middle East
- Network mutualization
- Collaborative innovation and development of solutions and offers
While certain technological solutions are being adopted at an even faster pace than before, development has also sped up to meet growing connectivity demands. Artificial intelligence, the Internet of Things, 5G, cloud infrastructure and quantum internet developments offer businesses and individuals considerable opportunities to improve their overall performance. Ethics must be taken into account when developing solutions to ensure they are inclusive.

Companies are forging ahead with their digital transformations, with most of them incorporating these developments into their strategy. Changing uses and ever-increasing data traffic require increasingly powerful and secure networks.

**Accelerated technological progress**

Climate change is accelerating. Extreme weather events are becoming more frequent and the knock-on effects are an increasing concern for people and organizations. Digital technologies are said to account for 3.5% of greenhouse gas emissions worldwide. Telecommunications operators are committed to providing innovative solutions that accelerate the energy transition and help a wide range of businesses to reduce their carbon footprint while making their products more eco-efficient. Other stakeholders within the digital ecosystem need to match the sector’s sustained efforts—by measuring the impact of their digital services on the environment, for instance.

**A fivefold increase in the share of 5G mobile connections worldwide between 2021 and 2025**

**Required reduction in greenhouse gas emissions**

Digital technologies could deliver 40% of the carbon emission reductions needed to meet the Paris Agreement by 2030

**Key figures: GSMA, 2021.**
Our strategy

Underpinned by on a firm social and environmental commitment and structured around four ambitions, the Engage 2025 strategic plan, launched in 2019, focuses on growth and responsibility to enable the Group to expand while contributing to a more inclusive and sustainable world.

Committed to digital inclusion and the environment

— Orange strives to ensure that everyone benefits from the digital revolution and is committed to reducing inequalities exacerbated by ongoing geopolitical, economic and health crises. The Group notably offers special tariffs to low-income households and designs devices that meet the needs of both sustainability and inclusion. We also promote digital inclusion by providing user support and encouraging skills development, including through the nine Orange Digital Centers open in Africa and the Middle East and the programs run by the Orange Foundation (see pages 47 and 79).

In the fight against climate change, Orange aims to achieve net zero carbon emissions by 2040, 10 years earlier than the 2050 objective set by the Global System for Mobile Communications Association (GSMA), the industry organization representing telecommunications operators. The Group has embarked on an unprecedented effort to improve energy efficiency to curb its own emissions and those of its customers. The Group has reduced its CO\textsubscript{2} emissions by 12.1\% since 2015 (on a comparable basis) and is targeting a 30\% reduction by end-2025 (see pages 62-63). Orange has also stepped up its use of the circular economy and plans to source 50\% of its electricity from renewable sources (see pages 64-67). In December 2021, the Group set up Orange Nature, an innovative €50 million carbon fund to finance natural carbon sinks to offset some of our residual emissions (see page 81).

Reinventing our operator model

— Orange continues to expand its core business as an operator by developing more open, higher-value infrastructure. We invest in enhancing connectivity across our footprint, providing higher speeds and new related services (see pages 26 and 39). The Group continues to expand very high-speed fixed and mobile network coverage and aims to offer fiber-to-the-home (FTTH) packages to over 65 million homes in Europe by 2023 (see pages 30-31). Orange also optimizes and enhances its infrastructure by developing FiberCos and TowerCos. Set up in February 2021, our TowerCo TOTEM has already established a leadership position in the passive mobile infrastructure market in Europe (see pages 39-41).
Accelerating in growth areas

— Twenty years ago, Orange pioneered a strategic decision to extend operations to Africa and the Middle East (see pages 46-47). Today, the Group is aiming to become the leading digital operator in the region. In 2021, thanks to its mobile data activities, the deployment of 4G and the success of Orange Money, the Group’s revenues grew by more than 10% (see pages 50-51). We are also pursuing our multi-service strategy centered around content, e-health and energy, and broadening our portfolio of financial services across all our operating countries. Orange Bank has also capitalized on the success of its cross-banking and telecom offerings and is currently ranked among the top five neobanks in France (see pages 48-49). Through its subsidiary Orange Business Services, the Group is accelerating the development of its IT services to help BtoB customers with their digitalization and migration to the cloud (see pages 54-55). Orange Cyberdefense—the Group’s cybersecurity arm—also works with business customers (see pages 56-57). The entity grew 14% between 2020 and 2021 (on a comparable basis), strengthening Orange’s ambition of securing a leadership position in the European cybersecurity market by 2023.

Placing data and AI at the heart of our innovation model

— By combining the best of digital and human, we use new technologies to offer a simple, high-quality and responsible customer experience, both in stores and on digital channels. Artificial intelligence (AI) and data enable us to harness virtual assistance, predictive analytics and smart targeting solutions to offer increasingly personalized offers (see pages 46 and 77). Through smoother pathways and better customer insight, the Group aims to have 9 out of 10 customers recommend Orange in all operating countries by 2025. At the end of 2021, this figure stood at 8.8 out of 10.

Orange also uses AI and data to improve its networks and optimize the deployment of its fiber network and new mobile sites (see pages 36-39). These technologies also facilitate day-to-day network maintenance, helping to reduce costs and improve quality of service. Furthermore, in 2021, Orange set up a Data and AI Ethics Council to build greater trust with its customers, employees and stakeholders, in line with its Purpose.

Collectively building the company of tomorrow

— As a digital and caring employer, Orange is tackling the skills challenge to support its international expansion and the growth of its B2B services and new technologies. To this end, it is implementing an ambitious upskilling and reskilling program for all employees (see page 75). We have also demonstrated our commitment to diversity and gender equality in the workplace in recent years, which has resulted in an almost 36% female workforce (see page 76). To foster a greater sense of belonging among its employees, Orange involves them ever more closely in its development and prospects. In November 2021, 64,000 employees and former employees across 37 countries bought shares under Together 2021, our largest employee share ownership plan to date. Moreover, our growth ambition is underpinned by an operational efficiency program, Scale Up.
Our business model

Rolling out digital infrastructure
- Fiber networks
- Mutualized solutions (TowerCos & FiberCos)

Connecting as many people as possible
- Mobile networks
- Individuals
- Businesses
- Operators

Developing new, trustworthy services
- Financial services
- IT services for businesses
- Cybersecurity

Our purpose
As a trusted partner, Orange gives everyone the keys to a responsible digital world.
Value created

A major employer
9,200 recruitments on unlimited contracts in 2021
91% of employees say they are proud to work at Orange
92% of employees completed at least one training program in 2021

Providing an essential service
No.1 for mobile network quality in France for the 11th year running (Arcep)
Leadership position in the European fiber and convergence markets (with 11.8 m and 11.5 m customers respectively)
25.1 m Orange Money active customers
1.7 m Orange Bank customers in Europe
200 malicious websites shut down every day

Inclusive and open innovation
A portfolio of more than 9,000 patents
Awarded the GEEIS-AI label for inclusive artificial intelligence
9 Orange 5G Labs in Europe
18 start-ups backed by Orange Ventures

Solid financial performance
EBITDAaL: €12.6 bn
Operating income: €2.5 bn
Organic cash flow from telecoms activities: €2.4 bn

A reduced environmental impact
12.1% reduction in CO₂ emissions between 2015 and 2021*
20.4%: collection rate of unwanted mobiles in Europe

Progress towards digital equality
Almost 140,000 new beneficiaries of programs run by the Orange Foundation
16 countries offering affordable smartphones with internet access
9 Orange Digital Centers in Africa and the Middle East

Responsible and ethical working relationships
402 corrective action plans carried out after CSR audits conducted under the JAC**
€17.6 m spent on goods and services from companies in the sheltered employment sector

Value sharing

Customers
Revenues
€42.5 bn
€42.3 bn

Suppliers and partners
External purchases and leases
€19.6 bn
€19.1 bn

Employees
Wages and employee benefits
€9.9 bn
€8.5 bn

Regions
Network investments
€5.0 bn
€4.7 bn

Public sector
Licenses and taxes
€3.8 bn
€3.7 bn

Shareholders
Dividends paid
€2.3 bn
€1.8 bn

Lenders and financial investors
Finance costs
€1.1 bn
€1.4 bn

* On a comparable basis
** Joint Alliance for CSR (JAC): An association of telecoms operators that seeks to audit, assess and develop the implementation of CSR principles.

2021 data
See the methodology note in the 2021 Universal Registration Document for calculation methods and definitions.

Assets

People
140,000 employees
8,000 working in research and innovation, including 720 as researchers
2,500 cybersecurity experts
31.6% of women in management networks

Industrial assets
40,000 mobile towers in Europe and 450,000 km of submarine cables owned or co-owned
Fiber: Europe’s leading provider in the market with 56.5 m connectable homes
4G coverage reaching an average of nearly 99% of the population in Orange’s 8 operating countries in Europe and 17 countries in Africa and the Middle East
5G rolled out in 6 European countries
32 cyber threat detection centers worldwide

Commercial assets
USD 20 bn: Orange’s brand value in 2021 (BrandZ ranking)
4,900 stores across the world and 900,000 resellers in Africa and the Middle East
44,500 employees in customer-facing roles 18% of sales through digital channels in Europe

Financial assets
€35.4 bn in equity
7.38% of shareholder base made up of employees and former employees
1.91x: satisfactory debt ratio
€50 m: the investment capacity of the Orange Nature carbon fund

Suppliers and partners
36.3% of the Group’s electricity comes from renewable sources
92.4% of suppliers committed to complying with the Code of Conduct (ESG)
BuyIn, a joint venture between Orange and Deutsche Telekom to optimize strategic and sustainable procurement activities

*2021 data
See the methodology note in the 2021 Universal Registration Document for calculation methods and definitions.
Our business model

“As a trusted partner, Orange gives everyone the keys to a responsible digital world.” Such is our purpose, which frames everything we do and runs through our entire business model, enabling us to continuously create value we can share.

Rolling out digital infrastructure

— Orange is one of the world’s leading telecommunications operators. We design, deploy and operate the infrastructure that’s essential for today’s digital world. Our priority is to develop high-performance, secure, intelligent networks that are also energy efficient to ensure our industrial strategy is sustainable, in line with our climate commitments.

The fixed and mobile access networks we operate reach individuals in 26 countries in Europe, Africa and the Middle East, and businesses in almost 220 countries and regions. We own a total of 40,000 mobile towers in Europe and own or co-own 450,000 km of submarine cables. Our customers—including people living in remote areas—can access very high-speed broadband using satellite technology.

Committed to continuing to deploy fiber, Orange teamed up with long-term investors to create two FiberCos in Europe. In 2021, the Group also launched TOTEM, its European TowerCo, providing mutualized solutions for operators to facilitate passive mobile infrastructure sharing, derive higher value from mobile towers and optimize the way in which they are managed.

Connecting as many people as possible

— The trends accelerated by the pandemic—the growth in the number of internet users, progress made in terms of enhancing regional coverage, digital transformations within companies and widespread use of online services—signal a growing need for reliable, inclusive and secure connectivity everywhere.

Our response involves continuing to roll out fiber, 4G and 5G, greatly increasing the capacity of our infrastructure. Our infrastructure provides enhanced connectivity for our entire customer base, comprising retail, business and wholesale customers (operators in France and abroad, content and internet service providers, etc.).
Developing new, trustworthy services

— Our networks are the foundation for developing innovative services relating to finance, business IT support, cybersecurity, content, e-health, remote surveillance, energy, and more. The trust people place in our brand and a strong regional network help Orange Bank to develop in-house banking services that are mobile-native and work in synergy with our broader telecom activities. Over 25 million active Orange Money customers in Africa and the Middle East use the service to complete financial transactions quickly and easily on the move.

Through Orange Business Services, our unique expertise as both a network operator and digital services integrator means we combine the full range of skills required to support businesses all along the digital value chain, with on-demand networks, multi-cloud services, data analysis, artificial intelligence and smart mobility services. We are constantly developing innovative services to help businesses leverage new uses and face major changes in their sectors. Our solutions can also help them reduce their environmental footprint.

What’s more, through Orange Cyberdefense, we provide cybersecurity services across all stages of the threat life cycle.

Sharing the value we create

— In line with our purpose and Engage 2025 strategic plan, our aim is to create value for our shareholders, employees, customers and, ultimately, society as a whole. The strong level of engagement among our employees is our biggest asset when it comes to our role as an essential operator. Orange invests in skills development, supports the introduction of new ways of working and promotes gender diversity in all areas of the business.

In 2021, Orange continued to invest in upgrading its networks to bring more and more customers the best possible connectivity. Furthermore, the Group complies with exacting responsible procurement criteria and fosters entrepreneurship in all its operating regions. As a network operator and digital services integrator, we ensure digital technology plays a key part in transforming businesses. Our financial solidity enables us to maintain the trust of our lenders, investors and shareholders, reaching nearly 7.5% employee share ownership through our Together 2021 internal shareholding plan.

We firmly believe that digital technology can facilitate inclusion, which is why we support a growing number of people through nine Orange Digital Centers, dedicated learning hubs to develop people’s digital skills. We have pledged to achieve net zero carbon emissions by 2040—10 years earlier than the objectives set by the GSMA global telecoms industry body—by making our networks, buildings and transportation systems more energy efficient, making greater use of electricity from renewable sources and engaging with the circular economy.
## Key performance indicators

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>271 m</strong></td>
<td><strong>€42.5 bn</strong></td>
</tr>
<tr>
<td>2021</td>
<td>271 m</td>
</tr>
<tr>
<td>2020</td>
<td>259 m</td>
</tr>
<tr>
<td>2019</td>
<td>253 m</td>
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<table>
<thead>
<tr>
<th>Operating income</th>
<th>Cash flow from telecoms activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>€2.5 bn</strong></td>
<td><strong>€2.4 bn</strong></td>
</tr>
<tr>
<td>2021</td>
<td>€2.5 bn</td>
</tr>
<tr>
<td>2020</td>
<td>€5.5 bn</td>
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<td>€5.9 bn</td>
</tr>
<tr>
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<td>2021</td>
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</tr>
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<td></td>
<td>2019</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Number of homes connectable to FTTH (Fiber to the home)</th>
<th>Number of 4G customers in Africa and the Middle East</th>
</tr>
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<tbody>
<tr>
<td><strong>56.5 m</strong></td>
<td><strong>44.4 m</strong></td>
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<td>2021</td>
<td>56.5 m</td>
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<tr>
<td>2020</td>
<td>47.2 m</td>
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<td>2019</td>
<td>38.2 m</td>
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<tr>
<td></td>
<td>2021</td>
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<tr>
<td></td>
<td>2020</td>
</tr>
<tr>
<td></td>
<td>2019</td>
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</table>

* On a comparable basis  
** On a historical basis  
*** See page 114 for definition.
Number of Orange Bank customers in Europe

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1.7 m</td>
<td>1.2 m</td>
<td>0.5 m</td>
</tr>
</tbody>
</table>

Number of active Orange Money customers

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>25.1 m</td>
<td>21.9 m</td>
<td>18.2 m</td>
</tr>
</tbody>
</table>

Number of Orange Bank customers in Europe

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1.7 m</td>
<td>1.2 m</td>
<td>0.5 m</td>
</tr>
</tbody>
</table>

Share of IT services in the Orange Business Services revenue mix

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>41.2%</td>
<td>39.5%</td>
<td>37.2%</td>
</tr>
</tbody>
</table>

Scope 1 and 2 CO₂ emissions (in metric megatons)

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1.30 Mt</td>
<td>1.32 Mt *</td>
<td>1.30 Mt **</td>
</tr>
</tbody>
</table>

Percentage of electricity from renewable sources

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>36.3%</td>
<td>31.3% *</td>
<td>26% **</td>
</tr>
</tbody>
</table>

Collection rate for unwanted mobile phones in Europe

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>20.4%</td>
<td>10.2%</td>
<td>11.7%</td>
</tr>
</tbody>
</table>

Percentage of management network*** roles held by women (Group)

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>31.6%</td>
<td>31.1%</td>
<td>31.1%</td>
</tr>
</tbody>
</table>

Orange brand value (BrandZ Top 100 Most Valuable Global Brands)

<table>
<thead>
<tr>
<th>Year</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>USD 20.2 bn</td>
<td>USD 19.4 bn</td>
<td>USD 20.7 bn</td>
</tr>
</tbody>
</table>
## Our contribution to the UN 2030 Agenda for Sustainable Development

<table>
<thead>
<tr>
<th>SDG</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. We develop telecommunications networks and invest in research to provide regions, businesses, operators and individuals with connectivity (fixed and mobile networks) and innovative services (IT services, cybersecurity and mobile financial services).</td>
</tr>
<tr>
<td>10</td>
<td>Reduce inequality within and among countries. We give as many people as possible access to technology and knowledge and therefore support the integration and empowerment of all members of society. We constantly work to reduce digital inequality and strive to promote diversity and equal opportunities within our company.</td>
</tr>
<tr>
<td>12</td>
<td>Ensure sustainable consumption and production patterns. We are introducing more circular economy thinking into our production processes and industries by applying an eco-design approach to our products, devices and services, prolonging their lifespan, improving end-of-life management and reducing our environmental impact (by providing collection and recycling solutions).</td>
</tr>
<tr>
<td>13</td>
<td>Take urgent action to combat climate change and its impacts. We are working to combat climate breakdown by improving the energy efficiency of our infrastructure, using more renewable energy and developing solutions to bring about the low-carbon transition. We strive to achieve net zero carbon emissions by 2040.</td>
</tr>
<tr>
<td>16</td>
<td>Promote peaceful and inclusive societies. We pledge to defend fundamental rights and freedoms and protect privacy. We have adopted an ethical approach through our responsible purchasing policy and efforts to combat corruption.</td>
</tr>
<tr>
<td>17</td>
<td>Strengthen the means of implementation and revitalize the global partnership for sustainable development. We support the social and economic development of regions and form partnerships with institutions, development agencies, NGOs, social entrepreneurs, innovative SMEs, etc. to fulfill the SDGs, including for essential services (mobile money, education, agriculture, health, etc.).</td>
</tr>
</tbody>
</table>
In line with our Purpose and strategy, we have identified the six UN Sustainable Development Goals (SDGs) where we can make the greatest contribution, along with five complementary SDGs.

1. The 4G network, on average, covers nearly 99% of the population in eight European countries where Orange operates
2. 17 countries in Africa and the Middle East have commercial 4G coverage
3. Operator with the most patents filed in Europe
4. 25.1 million active Orange Money customers
5. 56.5 million homes connectable to fiber (FTTH)
6. 16 of Orange’s operating countries in Africa and the Middle East offer affordable smartphones with internet access
7. Member of the Valuable 500 initiative and the ILO Global Business and Disability Network (GBDN)
8. Employees with a disability make up 6.5% of Orange SA
9. Launch of the Hello Women program to promote a gender-balanced workplace
10. Signature of a 6th intergenerational agreement, covering the period from 2022 to 2024
11. Nearly 140,000 new beneficiaries of programs run by the Orange Foundation in 2021
12. 9 Orange Digital Centers in Africa and the Middle East—110,000 beneficiaries by the end of 2021
13. Goal of ensuring all products sold under the Orange brand will be developed in line with an eco-design approach by 2025
14. Orange Sustainable and Circular Ambition for Recertification (OSCAR) program to increase the use of refurbished IT and network equipment
15. Campaigns to share eco-friendly tips
16. 20.4%: the percentage of mobiles collected as a proportion of the number sold in Europe
17. 36.3% of the Group’s electricity comes from renewable sources, with some sites benefiting from solar energy
18. The Green ITN program to reduce energy consumption across our networks and IT systems
20. Use of digital tools to protect biodiversity
21. A 12.1% decrease in CO₂ emissions (across scopes 1 and 2) since 2015
22. Member of the Global Network Initiative*
23. Code of Ethics
24. International Charter for Inclusive Artificial Intelligence launched with the Arborus endowment fund; holder of the GEEIS-AI label
25. 200 malicious websites shut down every day by Orange Cyberdefense
26. 82,000 UN-Orange anti-corruption certificates issued to employees
27. 92.4% of suppliers committed to complying with the Code of Conduct (ESG)
28. 402 corrective action plans carried out after CSR audits conducted under the JAC Partnership agreement with the Global Fund to Fight AIDS, Tuberculosis and Malaria in four African countries
29. 90 research contracts with leading university laboratories worldwide to advance knowledge and build bridges between science and industry
30. €350 m allocated to Orange Ventures, with €30 m earmarked for start-ups positively impacting the environment, inclusion or care through the Orange Ventures Impact fund

* An NGO that seeks to safeguard freedom of expression and personal privacy against government restrictions.
The meaning behind what we do

Orange is helping to build a society where technology drives human development. We firmly believe that today’s digital world needs to be more inclusive and sustainable.

— Incorporated into our bylaws in 2020, our Purpose describes the role we want to play in society, both as a business, in terms of how we create value for our entire ecosystem, and as a key digital partner, and how our operations and investments can have a positive environmental and social impact. The enormity of the social, economic, technological and environmental challenges facing the world today compels us to make the right choices. Being a trusted partner in a responsible digital world is the cornerstone of our long-term growth strategy. It’s why we exist and will continue to exist.

Our Purpose is built around four commitments, two of which are principles that have guided us for many years already, while the other two are central to our Engage 2025 strategic plan. We pledge to ensure our operations contribute to an inclusive, ethical and sustainable economy that creates value for all our stakeholders, notably the 140,000 employees within our Group. In a technologically driven world, we seek to project optimism and inspire trust. We therefore pledge to use digital technology to build a more open, fairer and safer society where individual freedoms and rights are protected and help people use technology responsibly. We combat inequality with respect to access, equipment, uses and understanding of digital technology, which we believe to be essential to progress and equal opportunities. Furthermore, we strongly believe that digital technology can offer solutions to combat the climate breakdown. We have pledged to reduce our environmental footprint in an ambitious bid to achieve net zero carbon emissions by 2040, and help our customers reduce their own greenhouse gas emissions. These commitments guide us in what we do and tie in with the 2030 Agenda for Sustainable Development adopted by the United Nations, particularly the six Sustainable Development Goals (SDGs) where we can make the greatest contribution.
Our mission is to ensure that digital services are well thought-out, made available and used in a more caring, inclusive and sustainable way in all areas of our business. Through the engagement and expertise of the Group’s teams, Orange is intelligent, optimistic and resolute in its deployment of reliable, innovative infrastructure and services everywhere and for everyone.
Infrastructure

- Key performance indicators
- Fiber, the crowning glory of our trailblazing investment approach
- Submarine cables linking regions
- Digital sovereignty, a growing priority for France and the rest of Europe
- Our mobile networks are undergoing a revolution
- What are TowerCos?
Key performance indicators

Orange has been heavily investing in new-generation digital infrastructure for many years. Ground-breaking deployments enable us to fulfill our role as an essential operator committed to providing connectivity to as many people as possible and accelerating regional development.

**Number of households connectable to FTTH**
- Objective: 69.0 m in 2023
- 56.5 m in 2021
- 47.2 m in 2020

**248,000 km**
of fiber-optic submarine cables installed by Orange Marine in oceans around the world

**Nearly 99%**
of the population in our 8 operating countries in Europe covered by the 4G network

**6**
European countries covered by our 5G networks: France, Luxembourg, Poland, Romania, Slovakia and Spain
Mobile customers
224.3 m
214.1 m in 2020
60.4% Africa and the Middle East
23.8% Europe
15.8% France (incl. business customers)

Broadband internet customers
23.5 m
21.7 m in 2020
53.3% France (incl. business customers)
38% Europe
8.7% Africa and the Middle East

No.1
for mobile network quality in France for the 11th year running (Arcep)

4.5 m
fiber-optic lines deployed by Orange Concessions, our French FiberCo, by 2025

18,500 sites in France
7,900 sites in Spain

Data at 31.12.2021
* Data at 01.11.2021
Fiber, the crowning glory of our trailblazing investment approach

Digital activities are growing rapidly, which is why reliable connectivity is vital to daily life, the economy and society as a whole. Orange has been investing in bringing fiber-optic internet to homes and businesses for almost 10 years. This large-scale industrial project involves deploying fiber-optic equipment that provides much higher speeds than ADSL—up to 2 Gb/s in France and 10 Gb/s in Spain. With 11.8 million FTTH customers (22.1% more than in 2020) and 56.5 million households connectable to FTTH (19.7% more than in 2020), Orange is a leading provider in the European fiber market.

Fiber, a powerful customer acquisition tool

— A total of 56.5 million households in Europe are now connectable to FTTH to the home (FTTH) and we aim to increase this figure to 69 million by 2023.

Having deployed 66% of the country’s FTTH lines, we’re No.1 for fiber in France. As a result, France has the largest fiber footprint in Europe, where our fiber deployment continued its record-breaking pace in 2021, with 5.9 million new sockets. Having gained 1.4 million new FTTH customers in 2021, we reached 6 million fiber customers in France in early 2022. Over half of our new fiber customers were completely new customers, proving that fiber boosts our growth.

In Poland in 2021, the Group set up a FiberCo—a 50:50 joint venture with Dutch pension investment company APG—which will enable Orange Poland to accelerate fiber deployment across the country by sharing investment costs. This FiberCo will deploy an additional 1.7 million FTTH connections in the next five years, primarily in areas with limited or no access to very high-speed broadband, bringing the total number up to 2.4 million.
In Spain, almost 800,000 homes have been connected to fiber since January 2021, including a significant number in cities with fewer than 25,000 people. Having made nearly 16 million homes fiber ready, Orange is in second place in the Spanish market. In 2021, we also launched 10 Gb/s fiber broadband for retail customers.

A key contributor to regional connectivity

— Closing the digital divide is central to our commitment to digital equality, which is why increasing digital coverage across our operating regions is a priority for us. We must act in an inclusive and responsible manner by deploying the networks of the future while supporting households that are disconnected from digital services. Our efforts to expand our fiber network reflect our commitment to being a key partner of local authorities throughout their digital development projects. The Group supports the French government’s “France THD” plan, which aims to ensure all parts of the country can access superfast broadband (offering speeds of at least 30 Mb/s) by 2022. This deployment will enhance access to digital services and modernize public services, including in rural and mountainous areas.

70% of France is covered by fiber connectivity, provided primarily by Orange

11.8 m Orange fiber customers in Europe

Copper decommissioning, a two-step process

Our legacy copper network—used for telephony and ADSL services for over 50 years—will be phased out, marking the end of an era. This two-step process involves discontinuing our copper-based services in areas with fiber, then gradually dismantling the network by 2030. Our existing copper network customers will, once their area is connected to fiber, have to sign up to a fiber package or find an alternative solution (e.g. 4G fixed/satellite broadband). We are currently conducting trial migrations in a number of towns.
Submarine cables linking regions

Submarine telecommunications infrastructure is vital to the global economy. Today, 1.3 million km of submarine cables carry 99% of the world’s internet traffic, making transoceanic communication possible in an instant. The world’s great powers and tech giants are vying for ascendancy, as those who control these cables also control the data they carry. These cables are therefore key to French and European economic and information sovereignty. The Group’s subsidiary Orange Marine—one of the world’s leading experts in this strategic sector—helps guarantee full and open internet access.

A key contributor to the global market

— Orange Marine, a wholly owned subsidiary of the Group, specializes in laying and repairing submarine cables for all types of customers around the world. It has been connecting continents for over 100 years by deploying a high-quality global telecommunications network and, in more recent years, shifting from traditional copper cables to fiber optics. Orange Marine has six cable ships, a vessel (the “Urbano Monti”) that conducts submarine cable route surveys and four marine bases (the Atlantic, the Mediterranean, Catania in Italy and South Africa). It also has a subsidiary in Fuveau, south-east France, which designs, manufactures and operates submarine equipment used when carrying out work on cables. Its ships have installed over 278,000 km of cables since the 19th century and repaired more than
670 submarine connections up to 6,000 m below the surface of the water. Our expertise—which ranges from project engineering to installation and maintenance of submarine cables—is recognized around the world. This enables us to play a significant strategic role in the deployment of faster, new-generation cables around the world.

In 2021, Orange Marine also: laid a new cable across the English Channel, several cables (including a deep-sea cable) in the Pacific, the first fiber-optic transpacific cable between Japan and Canada, the first cable between the island of Saint Helena and the rest of the world, and a section of the PEACE cable between France and Pakistan; and helped install three cables in Africa. Orange Marine also repaired over 50 cables, including in the Atlantic Ocean, the Mediterranean Sea, the Indian Ocean, the Pacific Ocean and Asia.

A pivotal year

— Orange landed a new transatlantic submarine cable called “Amitié” in 2021. This 6,800 km long, new-generation cable will link the US, France and the UK. We are responsible for operating and carrying out maintenance at the cable landing station in France. Orange will benefit from two fiber pairs, each with a capacity of up to 23 Tb/s. Following on from the Dunant cable commissioned in 2020, Amitié is another opportunity to showcase our expertise and further enhance our leadership position in the transatlantic market. The demand for greater bandwidth is growing, with internet traffic across the Atlantic doubling every two years on average. These cables allow us to offer our retail, business and wholesale customers a range of increasingly efficient and resilient France-US connectivity solutions. Amitié places France at the heart of the European hub, linking different international networks to America, Africa and Asia.

Making our fleet more eco-friendly

Having obtained the Green Marine Europe label and signed the Sustainable Actions for Innovative and Low-impact Shipping (SAILS) charter, Orange Marine has undertaken 10 key eco-friendly initiatives to strengthen its position as a sustainable shipowner while reducing its fleet’s environmental footprint. For instance, it is building a new cable ship—the “Sophie Germain”—which will replace the oldest ship in the fleet and reduce CO₂ emissions by 20% and nitrogen oxide emissions by 80%.

278,000 km of cables installed, including 248,000 km of fiber-optic cables
Digital sovereignty, a growing priority for France and the rest of Europe

All over the world, increasingly frequent cyberattacks and extraterritorial effects of other nations’ legislation pose a threat to the integrity of citizen data and European business operations. Even though cybersecurity solutions can provide effective protection, mass data fragmentation—when data is scattered across different cloud environments subject to different legal constraints—remains a significant obstacle to building digital trust. The rising geopolitical tension has compelled Europe to have its own sovereign data hosting infrastructure on European soil. As a leading European company, Orange has a responsibility to help the continent achieve digital independence.

Need for sovereign infrastructure

— EU Member States adopted the General Data Protection Regulation (GDPR) in 2016. The next step is to design suitable technological infrastructure, including cloud infrastructure physically located in Europe. The French government is taking a similar approach with its “cloud at the center” policy, which sets out high national standards for data management. This policy is focused on the data sovereignty needs of the government, public administrations and organizations with critical infrastructure subject to special confidentiality, security and resilience requirements. It primarily affects companies in the manufacturing and financial sectors, critical network operators and essential service operators.

65% of executives and directors in France view digital sovereignty as a top priority

Source: HPE study
BLEU, a reliable cloud platform like no other

— As a key partner to private- and public-sector customers looking to implement multi-cloud strategies, Orange provides cybersecurity and digital sovereignty assurances for critical data. In May 2021, the Group teamed up with Capgemini to create, in partnership with Microsoft, a cloud services platform to meet France's data sovereignty needs. BLEU—the largest project of its kind—is the first cloud platform to quickly accommodate an increased demand for computing resources (i.e., a hyperscale cloud) under French and European jurisdictions.

In concrete terms, BLEU will ensure critical network operators, essential service operators, the French government, the public service, hospitals and regional authorities can access Microsoft 365 collaboration and productivity tools, as well as all Microsoft Azure services. The platform will provide assurances in terms of transferring data and controlling cloud applications exclusively from isolated infrastructure, based on data centers located in France. These data centers are strictly separate from Microsoft's data centers, guaranteeing full operational autonomy. BLEU also provides immunity from all extraterritorial legislation and economic independence. Ensuring the services provided by the platform comply with the criteria of the “SecNumCloud” certification delivered by France's national agency for IT security (ANSSI) is a stepping stone to obtaining the “Cloud de Confiance” certification. Ultimately, BLEU will join the European Gaia-X initiative to help create sovereign solutions at a European level.

Gaia-X

Towards a European data ecosystem

Orange is a founding member of Gaia-X, a European initiative to create cloud infrastructure connecting European data producers and consumers in an environment built on trust. This project requires common standards for cloud service providers and standardized hosting practices. Gaia-X aims to boost European competitiveness regarding data processing and enhance the visibility and consistency of existing cloud solutions in Europe.
Our mobile networks are undergoing a revolution

Offering speeds three to four times faster than 4G, the fifth generation of mobile networks promises to revolutionize uses by keeping pace with growing consumer and corporate connectivity demands. While some Orange teams are responsible for gradually deploying this new network and continuing to improve 4G coverage to reach greater numbers of people across our geographies, others are working to ensure everyone understands the new use cases made possible by the 5G revolution.

5G: targeted, responsible development

— Orange started by deploying 5G networks in places where they would be most beneficial to its customers, including areas that are busy and built-up (such as towns, cities and economic hubs), have the greatest connectivity needs and are therefore at risk of network saturation. The fact that our 4G and 5G mobile networks work in tandem means we can provide high levels of connectivity everywhere we operate. Having won the largest portfolio of 3.5 GHz frequencies in France in 2020, Orange has its sights set on speeds that enhance the user experience on the move. We are deploying 5G masts at existing 4G sites, minimizing the land area and installation works required.

For mobile users to take advantage of these 5G networks, they need the right devices. This is why 60% of the smartphones in Orange’s catalog are 5G compatible and we hope to bring this figure up to 80% by the end of 2022. Orange operates 5G networks in six European countries—France, Luxembourg, Poland, Romania, Slovakia and Spain. In Tunisia and Senegal, Orange has...
Growing 4G coverage

Orange continues to strengthen network coverage across all its geographies, particularly in rural areas. Our 4G coverage reaches nearly 99% of the population in our eight operating countries in Europe and we provide 4G coverage in 17 countries in Africa and the Middle East. Our efforts were recognized once again when Arcep ranked us No. 1 for mobile network quality in France for the 11th year running. We now have 44.4 million 4G customers in Africa and the Middle East, a 34.4% increase on the previous year. To optimize 4G and 5G network management and development, and lower our carbon footprint, we plan on phasing out our 2G and 3G networks in Europe by 2030.

presented 5G demonstrations to the general public and key economic players.

Technology designed with energy efficiency in mind

— With smart antennas that transmit signals only when necessary, 5G consumes less energy than other mobile networks. The per-gigabyte energy efficiency of 5G networks in 2025 will be up to 10 times greater than their 4G counterparts in 2019.

The new use cases enabled by 5G, which include shortening travel times by relaying live traffic information and extend to many other smart city applications, will also reduce energy consumption. What’s more, 5G infrastructure will benefit from decentralized renewable energy systems by balancing supply and demand in real time and improving remote maintenance at manufacturing facilities.
Impact on Industry 4.0

— Manufacturers stand to benefit a great deal from this 5G revolution, as it will enable them to monitor production to a very high degree of accuracy, operate equipment remotely with minimal latency, manage resources and incidents using a network of sensors, perform predictive maintenance, plan call-outs in an optimized, secure way using augmented reality, etc. In order to develop these new uses, Orange has teamed up with Schneider Electric to run industrial 5G trials at a “showcase factory”. For instance, as part of tests on the use of augmented reality technology for maintenance purposes, operators simply film a piece of equipment using a 5G-enabled device to access information on its status and upcoming maintenance schedule. This reduces equipment downtime, speeds up maintenance operations and minimizes the risk of human error.

Additionally, Orange is working with ArcelorMittal France and Ericsson on 5G Steel, the largest industrial 5G network in France, which will enable the steel group’s plants to deploy use cases requiring high-speed mobile connectivity.

Filming a piece of equipment using a 5G-enabled device provides immediate access to information on its status and upcoming maintenance schedule.
A competitive edge in the business world

— All areas of the economy could benefit from 5G, as it will offer businesses faster speeds and shorter reaction times, enabling them to achieve unprecedented levels of quality and operational efficiency, offshore certain activities and manage customer relations remotely, while greatly improving productivity.

Not only does it offer higher speeds and lower latency, 5G is a disruptive innovation owing to its network distribution capabilities. Network slicing allows a single physical network to be split into multiple virtual networks, prioritizing mission-critical applications and providing different levels of quality and security. Network slicing requires a standalone 5G core, which does not rely on 4G infrastructure. Orange will be launching standalone 5G solutions in its operating countries in Europe in 2022. Orange Business Services already provides solutions to customers on request.

Infrastructural sharing through TOTEM

— In 2021, Orange launched TOTEM, its European TowerCo (see pages 40-41). TOTEM offers operators passive mobile infrastructure sharing services and tailored connectivity solutions. The TowerCo also sells solutions to improve connectivity and provide differentiation in crowded, enclosed environments such as stadiums, trains and offices. On 1 November 2021, TOTEM managed 18,500 sites in France and 7,900 in Spain. We are looking into extending TOTEM’s scope to include other European countries and claim a leadership position in the European TowerCo market.

72% of companies say they expect their operator to provide 5G support to test and develop solutions in advance

Source: Orange study conducted with GlobalWebIndex (2021)

Orange 5G Lab

Bringing future use cases to life

The Orange 5G Lab initiative enables the public and private sector to seize all opportunities presented by 5G networks. Our nine Orange 5G Labs in Europe have given over 70 companies of all sizes and sectors—including retail gaming start-up Sporty Peppers and telemedicine app designer Bioserenity—a taster of how 5G could impact their products and services. Event use cases, such as immersive fan experiences, are also being tested as part of the initiative.
**What are TowerCos?**

Through TOTEM, our fully operational European TowerCo, we aim to derive higher value from our passive mobile infrastructure assets and benefit from new growth opportunities. What exactly is a “TowerCo”?

**Definition of a TowerCo**

The word “Tower” refers to the structures that support mobile network antennas and include masts and rooftop installations. A Tower Company or TowerCo is an entity responsible for managing “passive” (non-electronic) infrastructure assets, which exclude antennas. Today, TowerCos hold a significant proportion of passive mobile infrastructure assets in Europe. They lease space on their masts and rooftop installations to different operators on a long-term basis. They can also build new infrastructure when required.

**Benefits of infrastructure sharing**

Infrastructure sharing improves operational performance and generates additional revenue, enabling owners to maximize the value of their assets. Expenses such as electricity and maintenance are split among users. Furthermore, infrastructure sharing helps optimize network coverage and reduce the digital divide in areas with space constraints (i.e., where new infrastructure cannot be built). TowerCos can help operators take a differentiated approach by building exclusive sites on request. Operators need to decide whether it makes more sense to share infrastructure or adopt a differentiated approach depending on the circumstances. Infrastructure sharing also benefits the environment, as less new infrastructure needs to be built if multiple operators use the same mast.

**New networks driving demand for TowerCo solutions**

Several operators in Europe already employ shared infrastructure models. Infrastructure sharing is also a well-established practice in the United States, providing a viable solution for quick coverage expansion in such a large country. With the arrival of new IoT (Internet of Things) and 5G networks, a significant increase in the number of antennas is expected and, in turn, the demand for TowerCo solutions.
TOTEM’s passive mobile infrastructure portfolio includes over 26,000 sites in France and Spain.
Growth areas

- Key performance indicators
- Africa and the Middle East: double-digit growth
- Orange Bank goes from strength to strength
- Orange Money, providing access to mobile financial services
- Gaining a stronger foothold in Europe
- Guiding businesses through their own digital transformation
- Orange Cyberdefense, a leading provider of cybersecurity services in Europe
Key performance indicators

Our networks are the foundation for developing innovative and responsible digital services relating to finance, business IT support, cybersecurity, content, e-health and energy. Our multi-service strategy is paying off in Africa and the Middle East, as well as Europe.

Strong growth in Africa and the Middle East

- Retail services
- Revenues generated in Africa and the Middle East

<table>
<thead>
<tr>
<th>Year</th>
<th>Retail Services</th>
<th>Revenues generated in Africa and the Middle East</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>8.6%</td>
<td>6.2%</td>
</tr>
<tr>
<td>2020</td>
<td>7.8%</td>
<td>5.2%</td>
</tr>
<tr>
<td>2021</td>
<td>12.8%</td>
<td>10.6%</td>
</tr>
</tbody>
</table>

€6.4 bn in revenues generated across Africa & the Middle East, up 10.6% on 2020 (on a comparable basis)

Orange Money

25.1 m active customers, up 14.6% on 2020
Orange Bank

1.7 m customers in Europe

0.7 m customers in Africa

Solid growth across IT & IS services

Cybersecurity: 13.8%

Cloud: 9.3%

Digital & data: 7.4%

Customer experience

Percentage of customer issues resolved during the first contact in Europe

Objective: 85% in 2025
79% in 2021
77% in 2020

Percentage of sales in Europe generated via digital channels

Objective: 30% in 2023
18% in 2021
17% in 2020

Proportion of customers who would recommend Orange

Objective: 9/10 in 2025
8.8/10 in 2021
8.8/10 in 2020

Percentage of remote customer interactions handled via digital channels in Europe

Objective: 80% in 2023
70% in 2021
62% in 2020

Data at 31.12.2021
Africa and the Middle East: double-digit growth

Orange aims to become the benchmark multi-service operator in Africa and the Middle East by 2025. The Group’s strategy in this region, where it has been present for over 20 years, involves extending network coverage, building a multi-service digital ecosystem, helping people acquire new digital skills and enhancing BtoB services. All of which are drivers of a nearly 11% rise in 2021 revenue, meaning the region was the largest contributor to the Group’s growth.

Connectivity

Orange invests heavily in deploying networks in Africa and the Middle East. In 2021, we invested €135 million in expanding our fiber network and delivered 793,000 new sockets. We have 2 million landline customers across the region. Growth remained robust across very high-speed mobile broadband in 2021, with the number of 4G customers rising 34.4% year-on-year to reach over 44.4 million. Our investments in infrastructure—including as part of the All 4G project in Mali—aim to reinforce this connectivity. What’s more, we acquired 5G frequencies in Botswana and launched pilot 5G projects in Senegal, Mali and Tunisia.

BtoB, a fast-moving market

Orange is developing a range of services to support healthcare, food, agriculture and education professionals in their digital transformation while ensuring the population’s needs are also met. Orange and Axa jointly acquired a majority stake in DabaDoc, a Moroccan health-tech that streamlines the appointment booking and remote consultation process. We support business performance and local employment by offering SMEs an...
ever-expanding range of IT services, particularly for cloud computing and cybersecurity. The Group’s performance in the Enterprise market increased 15% in 2021. Furthermore, Orange completed the acquisition of the strategic Etix Everywhere data center in Morocco, and Orange Business Services signed a contract to build and operate a data center as part of the New Administrative Capital project in Egypt. To keep pace with this growth, our Digital Institute provides digital adoption and skills training courses to help our employees in their career development.

Content production and distribution

— Content activities are central to Orange’s strategy as a local and responsible operator. We expanded our range of TV and video content in 2021. Furthermore, we support local audiovisual productions, including “The Gravedigger’s Wife” and “Above Water”, which won the most prestigious prizes at FESPACO, the Panafri
can Film and Television Festival of Ouagadougou in Burkina Faso. Through our partnership with Deezer, Orange customers in Egypt and Morocco have unlimited access to 73 million tracks. What’s more, our customers can access a large selection of novels, newspapers, local magazines and educational resources via Nextory (ex-Youboox) in Tunisia and YouScribe in six other countries. This cultural contribution is why Orange was the most powerful brand in its market in 10 countries in 2021.

Digital support

— Our commitment to developing people’s digital skills is another way we demonstrate our local presence. Doorways to new opportunities, our nine Orange Digital Centers (ODCs) are a key step forward in our commitment to digital equality in Africa and the Middle East (see page 79). ODCs bring together three complementary programs—a coding school, a Solidarity FabLab and an Orange Fab start-up accelerator (over 250 African start-ups have received support to date). They are supported by the Orange Ventures investment fund, which allocated €50 million to the region, some of which was earmarked for seed funding for tech start-ups in Orange’s operating countries.
Orange Bank goes from strength to strength

Mobile financial services—a strategic growth area for Orange—underpin the soaring global demand for mobile banking solutions, a trend largely accelerated by the Covid-19 pandemic. The Group’s strategy is paying off, as there are now 1.7 million Orange Bank users across France and Spain. As a wholly owned subsidiary of the Group, since the acquisition of Groupama’s 21.7% stake in 2021, Orange Bank offers cutting-edge banking services that are mobile-native and work in synergy with our broader telecoms activities.

Mobile-native banking services

— When Orange launched Orange Bank in 2017, it became the first telecoms operator in the French retail banking market to offer innovative mobile banking services, enabling customers to view transactions in real time, transfer money instantly by text message and make contactless payments using a bank card or a mobile device. Since day one, the bank has regularly expanded its service portfolio and enhanced its customer experience. Its innovative solutions have proven successful. In France, for example, Orange Bank ranks among the top five neobanks and the Orange Bank app was named by MoneyVox as the best banking app in 2022, with a 92.2% satisfaction rating. The app is also the highest rated banking app on app stores in Spain, with a rating of 4.9/5. Supported by a fraud response team, the bank harnesses Orange Cyberdefense’s expertise in identifying malicious websites that could put it at risk of identity theft. In response to an ever-growing rise in online fraud attempts, Orange Bank was one of the first banks in France to anticipate the revised Payment Services Directive (PSD 2).

€1.2 bn

granted in loans by Orange Bank in Europe, a 64% increase year-on-year
Commercial success

— In France, Orange Bank attracts 40,000 new customers each month, with 90% signing up to fee-based services. In 2021, 44 of the 100 mobile telephony interactions in Orange stores related to banking queries covering insurance, accounts and financing. What's more, Orange Bank has accumulated 140,000 customers since its launch in Spain in 2019. Our strong growth in France is supported by our 2,000 advisors, who are certified to act as intermediaries in banking operations and payment services and provide customer support in over 300 Orange stores. This helps us stand out in the competitive neobank market. Groupama also retains its status as a key commercial partner for Orange Bank, contributing to almost a third of loans granted by the bank.

Acquisitions and combined service packages

— To broaden our service portfolio, increase visibility and attract new customers, Orange Bank is continuing to expand through an acquisition strategy that capitalizes on the success of packages combining banking and telecoms. Having acquired Orange Courtage in 2020 to expand its insurance brokerage business, Orange Bank reached another milestone in 2021 when it acquired Anytime, a neobank for professionals and businesses. Today, Orange Bank can offer millions of Orange business customers financial support and new digital management tools. In 2021, Orange Bank joined forces with Younited Credit—a leading French fintech company—to accelerate its expansion into the consumer credit market.

Today, Orange Bank is launching new fee-based services as part of its upselling strategy. For instance, the “Pack Premium” family banking proposition includes an option to add one person as a joint holder to each child’s account and a second Premium card (which can be given to a child over the age of 18, for example).

Customer experience

Reinventing the customer relationship

Orange Bank has implemented a new customer relationship model, using artificial intelligence tools acting as a first point of contract for existing and potential customers. One such tool is Djingo, a virtual assistant available 24/7. Djingo processes an average of 100,000 conversations per month, including 76% from start to finish without needing to redirect customers to “contact us” forms or messaging services.
Orange Money, providing access to mobile financial services

As our core financial services solution in Africa and the Middle East since 2008, Orange Money enables people to transfer money and make payments using mobile devices in 17 countries. With an ever-expanding range of features, Orange Money is synonymous with financial inclusion across the region, where many people do not have a bank account.

Our mobile banking solutions enhance financial inclusion.

Over 1 million loans granted in 2021

Enhancing financial inclusion in Africa and the Middle East

Orange mobile customers can open an Orange Money account free of charge with their mobile phone at one of 400,000 points of sale. Today, over 25 million customers use Orange Money to complete financial transactions, such as transferring money, making payments online or in local stores and paying bills. We are constantly adding innovative solutions to our range of products and services. Since 2020, users have been able to access credit and savings products through Orange Bank Africa. Users without a smartphone can use a QR code card to access Orange Money services easily. Entrepreneurs can carry out banking transactions and track their income using O’Calm, a service launched in Côte d’Ivoire that will soon be extended to other countries. Meanwhile, we have continued to develop our basic services, including international money transfers. For example, in 2013, Orange Money became the first provider in the market to offer an international money transfer service, starting in West Africa before branching
out into countries where Orange does not operate, including in southern Africa. Users can now send money from France, Belgium and Italy to countries in Africa. This service is available to all users of the Orange Money Europe app, regardless of their operator.

Driving growth with digital technology

— The Orange Money app offers users a simple and smooth experience while ensuring they can access our retail partners within a dedicated marketplace. The Orange Money distribution network is also seeing the fruits of the digital transformation, as new tools offer resellers in the field a robust app that saves them time while simplifying the customer experience.

Ensuring compliance

— In response to risks such as fraud, money laundering and various other offenses, Orange Money has set up financial institutions with Central Bank approval in 12 countries and a mutualized compliance expertise center for mobile financial services, ensuring best practices are applied in an increasingly demanding regulatory environment. Central banks have issued a number of directives regulating mobile money transactions in recent years. Our goal is to ensure full compliance with regulatory requirements. We must use our position to set a good example by complying with rules and standards and effectively combating money laundering and terrorist financing.
Gaining a stronger foothold in Europe

Orange has eight operating countries in Europe and generates nearly 80% of its revenues across the continent. The Group continues to deploy very high-speed fixed and mobile networks, while exploring local consolidation opportunities. This strategy, combined with our efforts to continuously improve the customer experience and diversify into new services, enables us to gain a stronger foothold in this highly competitive market, which has considerably more operators than the Americas or China.

Excellent commercial performance in France

— Fiber is key to commercial growth in France. In 2021, we gained 1.4 million new fiber customers, over 53% of whom were completely new customers. Orange France reached 6 million fiber customers in early 2022. These milestones demonstrate the success of the Group’s copper-to-fiber migration strategy, which has enabled us to maintain our fixed broadband market share throughout the country. The deployment of the fiber network exceeded 80% of the objectives set for 2023. At end-2021, 28.8 million homes were FTTH connectable. As for mobile networks, Orange reported a strong growth in net sales, largely driven by the success of premium products and services and revised prices. Orange France is also pursuing a responsible 5G deployment strategy that involves prioritizing built-up areas. At end-2021, 32 cities were covered by 5G. Despite very strong competition, Orange recorded its lowest churn rate in four years in the last quarter of 2021. We achieved high customer satisfaction levels by leveraging data and artificial intelligence to enhance our digital pathways. Our growth strategy for 2022 focuses on premium (fiber and 5G) packages for retail customers, a diverse multi-service offering (home surveillance, insurance and Orange Bank) and business support services.

An Oscar-worthy content strategy

Orange is consolidating its role as a content super-aggregator as part of its customer convergence strategy in Europe, with almost 12 million homes connected to TV, including 44% to FTTH. Orange Content teams help our European subsidiaries continuously expand their content offering through partnerships (Netflix, Canal+, Amazon, Disney+, HBO). In France, Orange is developing an ambitious policy for producing and releasing movies and series. Our subsidiary Orange Studio co-produced “The Father”, a successful feature film released in 2021 that won two Oscars and one César. OCS—the Group’s premium streaming platform for movies and series—offered 2.9 million customers in France exclusive access to the first season of the series “L’Opéra”, Orange’s first home-grown original series co-produced by Orange Studio.
Consolidation in Europe

In Spain, despite a decline in annual revenue, the number of very high-speed fixed and mobile broadband customers remained steady, while convergence and mobile contracts were up on 2020. Furthermore, Orange reduced its portfolio from five brands to three (Orange, Jazztel and Simyo). At the beginning of 2022, Orange entered into exclusive negotiations with the operator MásMóvil with a view to forming a 50/50 joint venture. Valued at €19.6 billion, the future entity will serve 7.1 million fixed broadband customers and 20.2 million mobile customers, generating over €7.5 billion in revenues. This move is expected to unlock synergies of around €450 million per year starting in three years’ time as well as opportunities offered by the consolidation of the Spanish market.

In Belgium and Luxembourg, Orange enjoyed moderate growth in 2021. In Belgium, the number of postpaid mobile customers grew 3.9%, notably from new data tariffs. What’s more, at the end of 2021, Orange Belgium signed an agreement to acquire a 75% stake minus one share in the cable operator VOO. This acquisition will give Orange Belgium a very high-speed broadband network in Wallonia and part of Brussels, thereby strengthening its convergence strategy.

In Poland, Orange announced the launch of a new strategy for 2021-2024—“.Grow”— to attract additional customers by expanding the country’s fiber network. At end-2021, 5.9 million lines were FTTH connectable, an increase of 900,000 on the previous year.

In Romania, to become a convergence leader, Orange acquired a majority stake in Telekom Romania. Together, they will draw on their combined telecom infrastructure and expertise to provide comprehensive bundled services including landline, mobile and television. What’s more, Orange launched 5G services in Slovakia in 2021. Additionally, Orange Moldova launched a migration project with a view to deploying a 100% fiber-optic network by the end of 2022 and switching all copper network customers over to the fiber network in 2023. The launch of the “Love” convergence package also supports our growth in the country.
Guiding businesses through their own digital transformation

Orange Business Services is a network-native digital services provider that combines the DNA of an operator with the expertise of a service integrator. This foundation allows us to provide solutions across the entire digital value chain, guiding 2.5 million professionals, 35,000 French local authorities and companies with over 50 employees, 3,000 large national companies and 1,000 multinational companies through their own digital transformation. Our goal is to help companies derive maximum value from their data all around the world to transform their business lines, rethink their services and make a positive impact.

Enovacom

E-health solutions

Orange Business Services’ healthcare software subsidiary Enovacom—a provider of interoperability solutions—works with more than half of the healthcare establishments in France. In 2021, the company launched Enovacom Patient Link to help healthcare establishments embrace a more digital approach to patient care. This solution helps healthcare workers better manage their workload and streamlines their interactions with patients while improving patient care and saving time.

Trusted cloud services and end-to-end support

— According to research and advisory company Gartner, the accelerating shift to the cloud means that 51% of enterprise IT budgets will go to cloud computing solutions in 2025, compared with 41% in 2022. In response to this trend, we provide our own infrastructure solutions and a comprehensive range of services spanning audits, migration and critical application management, including in a multi-cloud environment. We also provide our customers with cybersecurity and digital sovereignty assurances when required for data and related processing activities. Furthermore, we help companies develop new services harnessing big data, artificial intelligence and edge computing.

This expertise earned Orange Business Services a “Very Strong” rating in GlobalData’s report on managed hybrid cloud services (hybrid clouds combine public and private cloud resources). What’s more, our expertise has
been recognized by GÉANT—the provider of a backbone network for Europe’s research and education community—which is now using our cloud services for 8,000 establishments across Europe, reaching 50 million users.

**Smart manufacturing partners**

— A new generation of digital tools for equipment traceability, process optimization and machine maintenance is paving the way for new production methods as part of Industry 4.0. Orange Business Services is helping to drive this revolution by guiding manufacturers through their transformation, leveraging the possibilities offered by data mining and IT/OT convergence (the integration of information technology systems with operational technology systems). For instance, Safran Aircraft Engines chose the IoT Smart Tracking solution to optimize equipment traceability in its workshops. Additionally, Siemens Digital Industries and Orange Business Services announced a strategic partnership in 2021 to bring manufacturers a joint portfolio of solutions for predictive maintenance, scalable connectivity and manufacturing resilience. Furthermore, Orange Business Services established a partnership with Lacroix, Sierra Wireless and STMicroelectronics to launch “IoT Continuum”, an initiative to accelerate the mass deployment of Internet of Things (IoT) projects.

**Network virtualization for greater operational efficiency**

— In 2021, BNP Paribas turned to Orange Business Services to accelerate its digital transformation, migrating to a software-defined wide area network (SD-WAN). This SD-WAN leverages network functions virtualization (NFV) technology to offer flexibility and agility in response to changing uses, while guaranteeing service continuity. Developed with Cisco, our Flexible SD-WAN solution enabled us to deploy the highest digital standards quickly and easily across 1,870 BNP Paribas sites and multiply the bandwidth of the bank’s network by ten.

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**Innovation**

**Stretching as far as outer space**

The increasingly dense satellite network above us generates large amounts of earth observation data. Orange Business Services is leading a consortium comprising HPE, Scality and Tealenium to facilitate data storage and security for programs carried out by the French government space agency (CNES). A data lake (a central repository) will provide CNES users with simple, quick and secure access to over 100 petabytes of data for applications including transportation network optimization, environmental studies and agricultural research.

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**60%**

of our BtoB revenue will be generated through new connectivity services (SD-WAN, 5G) and IT services in 2025
Orange Cyberdefense, a leading provider of cybersecurity services in Europe

The more we depend on digital tools in business and our lives, the greater the need for security across all digital networks. Orange’s 25 years of experience in cybersecurity means we’re well placed to offer businesses, local authorities and administrations solutions designed to protect their digital assets.

— According to the security report published by Orange Cyberdefense in 2021, cyber attacks against public- and private-sector entities had risen by 13%, primarily due to the surge in online activity (remote working, e-commerce, entertainment, etc.). Solutions designed to protect data and IT systems need to keep up with the ever-changing cyber threat landscape. With 2,500 researchers and analysts and 32 cyber threat detection centers, Orange Cyberdefense is a leading provider of cybersecurity services in Europe and can therefore play a key role in building a safer digital landscape.

Protecting organizations

— Set up in 2014, Orange Cyberdefense helps protect key players in the economy—such as critical network operators—and small organizations, which are increasingly targeted by hackers. Keenly aware of how important IT security is to small- and medium-sized enterprises, we provide comprehensive solutions.

In 2021, Orange’s cyber threat detection centers analyzed over 60 billion security events each day, investigated more than 94,000 security incidents and implemented over 230 incident response plans.

Source: Orange Cyberdefense Security Navigator 2022
adapted to their needs. Our threat intelligence (the process of collecting and classifying cyber-attack data) and resulting solutions are constantly updated to reflect the shifting threat environment, harnessing the latest developments in AI and machine learning. These solutions incorporate incident data to generate attack scenarios and anticipate hacking attempts, complementing our analysts’ expertise.

The high-quality solutions provided by Orange Cyberdefense have enabled it to fulfil strict accreditation criteria. In 2021, the French national cybersecurity agency (ANSSI) listed it as an accredited provider of cyber security incident response, cyber security incident detection and IT security audit services (denoted by the acronyms “PRIS”, “PDIS” and “PASSI” in French).

All these strengths combined have enabled Orange Cyberdefense to generate €838 million in revenues in 2021, an increase of 14% on a like-for-like basis from 2020.

Protec ting society

— Online security requires more than security systems and solutions alone—most of the time it depends on the behavior of individuals and groups. Organizations should therefore engage in training and awareness raising initiatives and develop internal IT security policies and incident response plans. Cybersecurity has become a top priority for governments. For instance, the French national cybersecurity agency (ANSSI) listed Orange Cyberdefense as an accredited provider of services in line with the national cybersecurity strategy outlined as part of the France Relance economic recovery plan and the PIA future investment plan. Its ability to develop tailored strategies has earned Orange Cyberdefense its key position as a provider of cybersecurity services to administrations, local authorities, healthcare facilities and public bodies.

OINIS SEC

Safeguarding the security of international networks

Orange International Networks Infrastructures & Services (OINIS), the Group’s international technical department, provides network services and infrastructure to our wholesale customers (B2C operators, companies, etc.). These robust networks can resist cyber attacks, harnessing the latest automation, artificial intelligence and big data technologies. OINIS set up OINIS SEC in June 2021 to enhance its network security services. This new entity pools expertise, resources and tools to fight cybercrime across Orange’s international networks, infrastructure and services.
Environment

- Key performance indicators
- Reducing our carbon footprint
- Making greater use of renewable energy
- Boosting our circular economy
- What does net zero carbon emissions mean?
Key performance indicators

In response to the climate challenge, Orange aims to achieve net zero carbon emissions by 2040 — 10 years earlier than the objectives set by the GSMA global telecoms industry body. The Group’s threefold strategy consists of reducing its carbon emissions, making greater use of renewables and boosting its circular economy.

Reduction in scope 1 and 2 CO₂ emissions compared with 2015 levels*  
Objective: 30.0% in 2025
12.1% in 2021

Target for reduction in scope 3 CO₂ emissions between 2018 and 2025*  
14.0%

* Objectives approved by the Science Based Targets initiative (SBTi)

Biodiversity

31 MSA.km²  
The Group’s estimated “static terrestrial scope 1” impact on biodiversity. The indicator MSA.km² (Mean Species Abundance) converts a company’s impact into an equivalent area where 100% of the biodiversity would be lost.

Over €1 bn  
The revenue generated by our Orange Business Services solutions to help customers reduce their environmental footprint
Nearly
500 GWh/year
to be delivered under signed PPAs (Power Purchase Agreements), eventually covering 9% of Orange’s electricity consumption in Poland, 10% in France and 50% in Spain

Over
17 m
unwanted mobile devices collected by Orange in 10 years

Electricity consumption from renewable sources

Objective: 50.0% in 2025
36.3% in 2021
31.3% in 2020*

Collection rate of unwanted mobiles in Europe

Objective: 30.0% in 2025
20.4% in 2021
10.2% in 2020

* On a comparable basis.

6,000
sites equipped with solar panels in Africa and the Middle East, i.e., over 16% of mobile sites in the region

Almost €58 m
saved in 2021 through the development of the circular economy for our network equipment (capital expenditure avoided or saved)

117 GWh
Our annual renewable energy production (equivalent to the consumption of around 40,000 homes in France)

Data at 31.12.2021
Reducing our carbon footprint

Ever-increasing digital needs pose a major challenge to operators, as they are expected to provide greater connectivity at higher speeds while reducing their carbon emissions. In other words, they must strive to decouple growing demand from growing environmental impacts. In line with the Paris Agreement scenario of limiting the global temperature rise to 1.5°C above pre-industrial levels, Orange has set out to achieve net zero carbon emissions by 2040, 10 years earlier than the objective set by the GSMA global telecoms industry body.

Focusing on our network carbon footprint

— In 2021, networks and IT systems accounted for 82% of the Group’s overall energy consumption and 87% of its CO₂ emissions. The Green ITN energy consumption action plan launched in 2008 entered its second phase, the “Green program”, in 2021. It harnesses a number of new tools, including artificial intelligence, advanced standby mode and enhanced active network sharing. The action plans deployed in 2021 helped limit the rise in the Group’s energy consumption to 2.3% compared with 2020, on a comparable basis, despite a significant increase in traffic. These results were also achieved by strengthening cooperation with our suppliers to develop highly energy-efficient telecommunications equipment. Sharing the Group’s networks and mobile technical environment, which accounts for a large proportion of energy consumption across our network, is another effective way of reducing energy expenditure. By the end of 2021, network-sharing agreements had been established for 53.8% of radio sites (with 26.1% covered by active network-sharing agreements), resulting in lower energy consumption.

Meanwhile, we continue to improve the eco-efficiency of our data centers by optimizing occupancy rates and boosting energy efficiency. In France, Orange operates three new-generation data centers which are secure, resilient, and eco-efficient (consuming 30% less energy than standard data centers while offering the same capacity, notably thanks to a natural cooling system called “free cooling”). We are building a new data center to the same high standards in Poland. Finally, copper decommissioning has already saved energy in Poland and will be carried out in France in 2023 (see page 31).

The EU Taxonomy

This classification system is designed to shift investments toward environmentally sustainable economic activities. The European Commission has adopted a gradual approach, starting with sectors with the highest greenhouse gas (GHG) emissions. Sector-wide contribution to sustainability should become clearer as the Commission’s work progresses. Even though our activities can make a positive contribution to adapting to and mitigating climate change, most of them do not currently meet the EU Taxonomy criteria. Our eligible activities include our hosting and data processing services, services related to the Internet of Things and the solar panel installation service available to Orange customers in Poland, accounting for 1.4% of our revenue in 2021 and €83.4 million of our capital expenditure.
Measuring and reducing our impact on biodiversity

A study conducted by The Biodiversity Consultancy in 2021 concluded that Orange’s direct impact on biodiversity was minimal. The impact of our activities is most marked across scope 3—indirect emissions—which are harder for the Group to influence. By investing in carbon sinks to help reverse biodiversity loss and embracing the circular economy to reduce the exploitation of natural resources, Orange could achieve a “net zero” impact on biodiversity—in addition to net zero carbon emissions—around 2040. However, if biodiversity impact assessments continue to gain ground, Orange will make further commitments using the Science-based Targets Network (SBTN) methodology.

Opting for more energy-efficient solutions

— The Group is targeting a 20% reduction in energy consumption across its building stock between 2015 and 2025. In France, a number of actions are already underway. The deployment of the “HQE Exploitation” certification across a number of large sites within the Group enables us to ensure environmental considerations are taken into account during the operation phase of these buildings. In addition, the Group’s real estate department has launched a digital consumption management platform to respond to the Group’s ambition and the regulatory requirement of Éco Énergie Tertiaire, a French government energy efficiency initiative. 3,800 sites are covered in total, including 700 by the regulation.

Meanwhile, we are continuing to introduce electric vehicles into our fleet. We now have more than 2,200 electric vehicles—an 89% increase in the space of a year. We had over 3,800 car-sharing vehicles at the end of 2021. We have reduced the size of our vehicle fleet in France by an average of over 4% per year since 2015, and we have stopped the purchase of diesel cars since 2020. Furthermore, Orange gives its teams access to video conferencing facilities and collaborative tools to minimize business travel.

Creating our first catalog of eco-friendly solutions

— In 2021, Orange Business Services put together its first catalog of eco-friendly solutions designed to help customers reduce their carbon emissions. These solutions relate to virtual communication (remote working and conference calling tools), innovation (eco-friendly web development, the eco-management of mobile fleets and infrastructure virtualization) and new IoT applications (Smart Éco-Energy to optimize the energy performance of buildings and Ocean Fleet Management to optimize vehicle fleets).

Capturing residual emissions while supporting regional development

— Orange launched an ambitious plan in 2021 to offset its estimated residual emissions by 2040. To achieve this goal, it funds natural carbon sink projects (involving forests, mangroves, etc.) to support regional economic and social development. These projects also have a positive impact on biodiversity. In 2021, Orange teamed up with the management company Mirova (Natixis Investment Managers) to create Orange Nature, an innovative single-investor carbon fund with an investment envelope of €50 million and returns in the form of high-quality carbon credits. We also contribute to the Livelihoods Carbon Fund 3 along with other investors to offset residual carbon emissions. We also work with local stakeholders such as Alliance Forêts Bois in mainland France and the non-profit Nébéday in Senegal.
Making greater use of renewable energy

Committed to achieving net zero carbon emissions by 2040, Orange aims to obtain 50% of its electricity from renewable energy sources by 2025. The Group is therefore ramping up low-carbon energy production and insulating its energy supply chains from market volatility.

Nearly 70% of our electricity needs in Jordan are met by three Orange solar farms

Renewable electricity purchase contracts in Europe

— Orange is increasing its renewable energy supply in European countries through Power Purchase Agreements (PPAs). These long-term contracts guarantee green electricity at a pre-agreed price.

Orange signed two PPAs in France in 2021—a 20-year PPA with TotalEnergies for 100 GWh of renewable solar energy per year and a shorter, 15-year PPA with Engie to develop two solar projects in France which will eventually produce 76 GWh of energy per year. These two agreements will help meet the Group’s long-term power supply needs. By the end of 2021, the Group had signed PPAs in Europe for a total capacity of 500 GWh/year—10% of Orange’s annual electricity consumption in France, 9% in Poland and 50% in Spain. Additionally, renewable electricity is sourced in some European countries through agreements under which suppliers must present a Guarantee of Origin. In 2021,
these agreements accounted for 34% of scope 2 emissions across Orange Business Services, 36% across Orange Spain and 67% across Orange Slovakia and provided for all of Orange Belgium’s electricity needs.

Solar farms in Africa and the Middle East

— Orange is installing solar farms and equipping its technical sites with solar panels in Africa and the Middle East as part of an infrastructure investment program that also involves collaborative projects with energy service companies (ESCOs, see paragraph on the right). By the end of 2021, around 6,000—or 16%—of the Group’s sites in Africa and the Middle East had been equipped with solar panels to power facilities. We also began extending a number of solar farms to provide local residents with power via a mini-grid system (an off-grid electricity distribution network involving small-scale electricity generation). This system has been up and running in the Democratic Republic of the Congo since November 2021.

In Jordan, nearly 70% of our electricity needs are met by our three solar farms. A similar solution will be implemented in Mali, where the Group will install a 25 MW solar power plant that will produce 48 GWh of energy and boast a storage capacity of 30 MWh. In 2021, Énergie du Mali SA and Orange Mali signed a memorandum of understanding on transporting and purchasing any surplus electricity.

Orange’s annual renewable power consumption in Africa and the Middle East amounts to 117 GWh (the consumption of around 40,000 homes in France). This allows us to reduce fuel consumption by over 53 million liters per year and emissions by almost 142,000 metric tons of CO₂ equivalent.
Boosting our circular economy

For many years, Orange followed a linear extraction-production-distribution-installation-disposal model, which had a considerable impact on the environment and society. The Group has therefore pledged to ensure key circular economy principles are a core feature of its strategy, processes and business lines. Our eco-design approach and repair, refurbishment, collection and recycling solutions prolong the lifespan of equipment and devices and add to the range of end-of-life management options available for different materials.

Almost 17 m
unwanted mobile devices collected by Orange over 10 years

Developing branded products in line with an eco-design approach

— In 2021, we defined a process to ensure all electronic products sold under the Orange brand would be developed in line with an eco-design approach by 2025. This 16-step process targets each stage of the product and service life cycle, from upstream development to end-of-life management. It also ensures environmental and functional considerations are systematically taken into account from the design phase. Orange product managers receive eco-design training to get to grips with this new process, which has already been followed for the next-generation Livebox.

We also launched the Neva Leaf, our first smartphone developed in line with eco-design principles, in France. Made from 20% recycled plastic, this smartphone has been awarded an excellent repairability score of 8.8/10 for its sturdy, modular design that allows customers to replace the battery and screen themselves. The current goal is to launch the device in Europe, starting with Poland in 2022.
Recycling and extending the lifespan of devices

Orange aims to collect and recycle the equivalent of 30% of the phones sold in Europe by 2025. We are on the right track to meeting this goal, achieving a collection rate of 20.4% in 2021 versus only 10.2% in 2020. Furthermore, we achieved a collection rate of 67% for leased equipment (including domestic equipment such as routers and set-top boxes) in 2021 (see page 306 of the 2021 Universal Registration Document). In line with our environmental ambitions, we want to increase this figure to 90% by 2025.

In a bid to extend the lifespan of phones, we are committed to offering appealing repair services in our operating countries in Europe. We took steps in the right direction in 2021 by further enhancing our service portfolio. The Group has pledged to ensure refurbished devices make up 10% of sales in Europe by 2025. We recently signed purchase agreements with several suppliers to meet an ever-growing demand for second-hand phones.

Placing the circular economy at the heart of our infrastructure

Our commitment to embracing the circular economy also applies to our core business, which means we’re using more refurbished equipment for our network infrastructure and data centers. In 2020, Orange launched the Orange Sustainable & Circular Ambition for Recertification (OSCAR) program and its internal Marketis platform to facilitate the purchase and sale of refurbished equipment. Used equipment is made available for reuse both internally and externally. We’ve also signed agreements with several partners to develop the purchasing of refurbished equipment. In this first year alone, more than €10 million has been saved. Elsewhere, through its role in GSMA, Orange and 21 other telecoms operators developed a strategy paper on the subject which was presented at the 2022 Mobile World Congress.

Scarcity resources

Towards sustainable usage

To limit the use of scarce and critical resources in product production processes, Orange uses a database that includes an up-to-date record of each material. This database provides a basis for performing risk analyses and finding suitable substitutes for resources. The Group also encourages its suppliers to choose recycled resources over rare materials whenever possible. We also support the development of recycling channels for electrical and electronic waste, which could contain up to 40 times more extractable ore than subsoil.

Almost

€58 m

saved in 2021 through the development of the circular economy for our network equipment (capital expenditure avoided or saved)
What does net zero carbon emissions mean?

Carbon neutrality—an overall balance between the emissions produced and eliminated from the atmosphere—can only be considered on a global scale. Orange aims to achieve “net zero carbon emissions” by 2040 in line with the Paris Agreement scenario of limiting global warming to 1.5°C above pre-industrial levels. What does this involve in concrete terms?

Keeping our emissions down

Achieving net zero carbon emissions primarily involves keeping greenhouse gas (GHG) emissions down to a minimum. The first step is to reduce scope 1 emissions, direct GHG emissions associated with fuel consumption in buildings and vehicles. The second is to reduce scope 2 emissions, indirect GHG emissions associated with purchasing electricity for networks and buildings. Orange has already initiated plans to increase our supply of electricity generated from renewable sources, including wind, solar and hydro power. Addressing scope 3 emissions is important even if they extend beyond a company’s direct control and the methodologies involved are not yet fully mature. This scope covers all upstream emissions associated with suppliers, employee commuting and business travel and downstream emissions associated with customer use. Scope 3 emissions can be reduced by optimizing the purchase of raw materials, products and services, limiting business travel and employee commuting, applying eco-design principles to products and services and managing waste more efficiently.

Offsetting our residual emissions

Some of the greenhouse gases released by activities in various sectors cannot be avoided. As part of a net zero carbon approach, only these residual emissions must be offset by natural carbon sinks (such as forests, bogs and mangroves) or artificial sequestration processes. Companies can create their own carbon sinks or fund those developed by others. The concept of “net zero carbon emissions” is therefore different from “carbon neutrality”, a balancing act that relies on offsetting options such as the purchase of carbon credits, which does not meet the standards of additionality for climate change mitigation. Additionality is a determination of whether CO₂ sequestration projects have made a genuine reduction in emissions above and beyond what would have happened anyway. A project is only “additional” if it brings about changes in practices and behavior, new technologies or any other action to accelerate the transition to the low-carbon future.
targeting a 30% reduction in its scope 1 and 2 CO₂ emissions between 2015 and 2025 in line with our net zero carbon ambition.
Social

- Key performance indicators
- A responsible employer
- Diversity and inclusion are critical for sustainable performance
- Supporting digital inclusion
- Financial instruments that reflect our commitments
- What are sustainability bonds?
Key performance indicators

As a telecommunications operator, we have a social responsibility to our stakeholders and local communities. Orange supports the significant digital transformations shaping online and offline environments.

9,200
recruitments on unlimited contracts in 2021

91%
of employees say they are proud to work at Orange according to our last Group-wide Employee Barometer (conducted in 2020)

Percentage of technical roles held by women
Objective: 25.0% in 2025
20.9% in 2021
20.5% in 2020

Percentage of management network roles held by women
Objective: 35.0% in 2025
31.6% in 2021
31.1% in 2020
92% of employees completed at least one training program in 2021

€350 m allocated to Orange Ventures, the Group’s international technology investment fund

€23.5 m invested by the Orange Foundation in 23 countries in 2021

Awarded the GEEIS-AI label for inclusive artificial intelligence

Nearly 140,000 new people benefitting from Orange Foundation’s programs

Number of Orange Digital Centers

Objective: 26 in 2025
9 in 2021
3 in 2020

Data at 31.12.2021
A responsible employer

For Orange, being a responsible employer means maintaining the highest ethical standards and maintaining an attractive work environment. That’s why our initiatives relating to quality of life, health and safety, social dialogue and training aim to offer our employees a work environment that matches their expectations and reinforces a sense of belonging and commitment across our workforce.

An open social dialogue process at all levels

— Orange promotes an open social dialogue process involving employees, trade unions and elected workforce representatives. With that in mind, we have put in place employee representative bodies with their own prerogatives. The World Works Council reinforces social dialogue at a global level while aligning with our CSR development strategy, whereas the European Works Council deals with economic, financial and social matters. Complementary bodies include the French Works Council, which is responsible for communication with employee representatives in France.

91% of employees proud to work at Orange

— According to our annual employee barometer, which focuses on factors including quality of life at work, 91% of employees say they are proud to work at Orange and 87% would recommend Orange as a great place to work. These figures reflect the hard work carried out by all our teams and departments in a range of initiatives such as signing agreements in France for remote working, workload assessments and adjustments, as well as work-life balance.
A health and safety dashboard

— The global health and safety agreement lays out a set of principles for the whole Group. For instance, all employees have health insurance coverage and all entities organize specific meetings to encourage social dialogue. The “Quality of Life at Work by Orange” sessions held worldwide focus on themes such as duty of care, harassment and violence in the workplace. Our “health and safety and quality of life at work” dashboard tracks the impact of our initiatives using the same indicators for all entities. It covered 99.4% of Group employees in 2021.

Skills development across teams

— The number of training hours offered to Group employees rose 27% between 2020 and 2021 as a result of the widespread shift to online training and the gradual return to in-person training. We place great importance on training, as demonstrated by the seven-point rise in our Net Promoter Score (NPS), a trainee satisfaction metric. In France, our Apprentice Training Center welcomed its second intake of work-study students looking to specialize in one of four technical roles to become data analysts, cybersecurity engineers, cloud specialists or customer service technicians. The center looks to ensure a minimum of 30% of participants are women. A wide range of CSR training courses was also launched for all employees in 2021.

High levels of employee engagement

— The Group encourages volunteering (including skills-based volunteering) among all employees. In 2021, for instance, almost 300 employees in France volunteered to facilitate digital workshops to help upskill clients and at-risk communities on responsible and safe practices in digital technology. More than 10,000 people took part in these empowering workshops. Over 600 employees also work as mentors for young people from underprivileged backgrounds or areas with high rates of unemployment. Launched in 2021, the Engagement Makers Prize awards the active civic engagement of Orange teams around three themes: net-zero carbon, equality, and solidarity.

Together 2021

A milestone for employee shareholding

Open to 140,000 employees and 45,000 retirees, “Together 2021” is the largest employee share ownership plan ever launched by Orange. The plan to involve employees in the Group’s long-term success was a resounding victory, with all 26.1 million shares delivered to over 64,000 subscribers across 37 countries on December 1, 2021. As a result of the high uptake, employee shareholders held 7.38% of Orange’s capital and 10.8% of its voting rights at the end of 2021, bringing us closer to our target of 10% employee share ownership.
Diversity and inclusion are critical for sustainable performance

Diversity and inclusion are key to innovation and critical for sustainable performance, which is why they have been priorities of ours for many years now.

Achieving gender equality

— Workplace gender equality has been a core focus of our strategy for over 15 years. The Group’s international policy is underpinned by the global agreement signed with UNI Global Union in July 2019. This agreement covers workplace gender equality, the fight against discrimination and violence, work-life balance, etc. Local committees and a network of special correspondents ensure the agreement is implemented in all of Orange’s operating countries. The sixth Gender Equality and Work Life Balance Agreement was signed in late 2021 in France. It builds on the commitments made since 2004, covering parenthood (with family-friendly measures such as longer paternity leave) and the fight against domestic violence. We signed charters on these two topics in 2021. What’s more, Orange achieved an overall score of 94 out of 100 as rated by the French Ministry of Labor, Employment and Economic Inclusion in the 2022 Gender Equality Index.

Integrating people with disabilities into the workforce

— Having adopted the GSMA’s Principles for Driving the Digital Inclusion of Persons with Disabilities in late 2020, Orange organized workshops in eight countries in Africa and the Middle East to ensure a better understanding of the challenges involved at local level. To mark the International Day of Persons with Disabilities, a special edition of the Orange.com magazine—“Disability, neurodiversity: how can digital technology become more inclusive?”—presented the initiatives led by the Group in its operating countries.

In France, we renewed the agreement on employing people with disabilities and combating discrimination for a three-year period ending in 2023, placing particular emphasis on the recruitment process. The Group firmly believes that cognitively diverse teams are the highest performing, which is why it launched the Neuroteam program to boost the recruitment, integration and happiness of employees with neurodiverse conditions (i.e., who are autistic, have ADHD or learning difficulties, are gifted, etc.).

Orange is aiming to ensure women hold 25% of its technical and digital roles by 2025. As it stands, women are under-represented in these promising professions. In 2021, the Group launched its new Hello Women program with a call for projects in line with four objectives: raise awareness, identify, retrain and retain. In France, four innovative project leaders were supported in implementing their initiative. At the same time, 20 projects were selected in 20 countries for a total amount of nearly €1 million. They will be launched in 2022.
Promoting all forms of diversity

— Promoting diversity means allowing the inclusion of everyone, regardless of their gender identity, personal opinions, age, social and ethno-cultural background, sexual orientation, health status or disability. As an active member of the non-profit organization l’Autre Cercle, the Group takes part in activities such as the annual “LGBT+ Role Models and Allies” ceremony (two of our employees received awards), as well as forward-looking projects such as Odyssey for Equality (focusing on what the working world should look like for LGBTQIA+ people in 2031). In line with its commitment to combat origin-based discrimination, Orange, through its partnership with the non-profit organization Club 21, took part in the French Corporate Diversity Barometer designed by McKinsey to measure the sociocultural diversity of the executive ranks of large companies. The results were published in 2021.

Carrying out assessments

— Orange’s efforts to promote diversity and inclusion are assessed internally and externally. According to the Employee Barometer conducted in 2021, 85% of employees think that Orange’s workforce reflects the diversity existing in society. The Group is committed to continuous assessment and improvement as part of the Gender Equality European & International Standard (GEEIS) and GEEIS DIVERSITY labels. Since 2011, 20 Group entities in 18 operating countries have been awarded these labels following audits conducted by an independent external body every two years. Orange ranked 78th overall out of 850 European companies in the Financial Times Diversity Leaders 2022 ranking published in November 2021, coming second in the telecoms sector. The Group ranked 23rd out of 4,000 companies worldwide in Equileap’s 2022 Gender Equality Ranking, coming second in its sector.

Combating discrimination related to new technologies

— Following the launch of the International Charter for an Inclusive AI in 2020, 104 companies, associations and universities have committed to promoting diversity at every stage of the data value chain to ensure that all discriminatory biases are identified and controlled. In 2021, to capitalize on this proactive approach and encourage the sharing of best practice, Orange and the Arbors endowment fund launched an inclusive AI club, bringing together all signatories seeking to improve their response to future challenges.
Supporting digital inclusion

Digital technology is a key driver of economic and social development. Digital access is essential for a whole host of services woven into our daily lives, including healthcare, education, public services and information. Orange taps into its full range of expertise and resources to improve accessibility and help people acquire new digital skills. This commitment is central to our Purpose and reinforced by our strategic plan.

Connecting as many people as possible

— Providing connectivity to as many people as possible involves improving access to equipment and services. That’s why Orange invests heavily in expanding mobile network coverage and provides inclusive solutions for vulnerable groups. Our “Tarifa Social” offering in Spain is available to households living on the minimum wage, providing them with access to fiber-optic internet, a landline and a mobile line at a discounted price. The Sanza range of affordable smartphones is available in 16 countries in Africa and the Middle East. Furthermore, to address the digital divide affecting people with disabilities and the elderly, Orange designs special products that are innovative, straightforward and user friendly. For instance, Orange France launched a senior-friendly smartphone, the Swissvoice G80, in late 2021. Its streamlined features include amplified sound, a simplified interface and easy-to-use video calling.

Providing access to essential services

— Orange boosts access to essential online services. In Africa, people can buy affordable individual solar power equipment from Orange and pay for it in
installments via Orange Money (see pages 50-51). To increase access to healthcare services in areas where there is a lack of facilities, the Group works with national health authorities to provide remote medical information and advice, vaccination reminders and family planning services. What’s more, Orange has developed an “education pass” mobile contract for online educational content.

Educating people about responsible use

— In response to the rapid growth of digital services, Orange is educating the public—particularly young people—about how to use them safely and responsibly. We provide limited access plans in certain countries. For instance, in Poland, “Safe Starter for your Kid” is an affordable plan that includes parental control features and unlimited calls with a parent. What’s more, we have also introduced informative resources, workshops and training courses on staying safe online. People can also take part in free workshops on digital responsibility in the Group’s European stores.

Teaching people how to use digital tools

— Orange’s work on the ground focuses primarily on unemployed young people, women in difficulty and entrepreneurs. One example of this commitment in action is our network of Orange Digital Centers (ODCs) to help people learn new digital skills free of charge while working on concrete projects. With centers already open in nine countries (Cameroon, Côte d’Ivoire, Egypt, Ethiopia, Jordan, Mali, Morocco, Senegal and Tunisia) in 2021, Orange intends to set up an ODC in each of its 26 operating countries by 2025. The Orange Foundation leads a range of initiatives harnessing digital tools as a means of integration, including digital centers, Solidarity FabLabs, digital workshops, or digital schools. In 2021, almost 140,000 people benefited from these training initiatives.

1,250 digital schools in 16 countries in Africa and the Middle East
Financial instruments that reflect our commitments

Orange uses a number of sustainable finance instruments to enhance social and environmental responsibility, optimize our finance structure and support entrepreneurship.

Orange Ventures Impact supports start-ups that help bring about new responsible economic models with a positive impact on the environment, inclusion or care.

Our first sustainability bond issuance

— In 2020, the Group issued its first bond to the tune of €500 million to support its social and environmental commitments. The use of bond proceeds is audited on an annual basis. In 2021, we published our first sustainability bond allocation and impact report, giving details of the projects chosen, the proceeds used and the impacts achieved for each project category. By the end of 2020, the Group had provided almost €328 million in funding to social projects by deploying fiber optic in rural France. Environmental initiatives funded by Orange included infrastructure sharing in Poland (avoiding nearly 106,000 metric tons of CO₂ emissions) and set-top box refurbishment in France (4.8 million appliances).

An entrepreneurship fund launched by Orange Ventures

— Orange Ventures is an international technology investment fund with €350 million in assets under management. It finances start-up ventures working in innovative services (digital solutions, networks, cybersecurity, FinTech, e-health, etc.), principally in Europe, Africa, and the Middle East.

Orange Ventures encourages synergies between start-ups and our operational entities to maximize our agility to better serve our customers and to maximize our positive impact in our operating countries. In 2021, a
seed fund was launched across 18 countries in Africa and the Middle East to support 100 young start-ups by 2025. Orange Ventures also announced the launch of Orange Ventures Impact in 2021, a new €30 million investment vehicle for start-ups in France and elsewhere in Europe that are at the seed stage or have proven their growth potential. These start-ups must help bring about new responsible economic models with a positive impact on the environment, inclusion or care. Orange Ventures invested in 18 new start-ups in 2021.

**Employee saving schemes promoting engagement, sustainability and solidarity**

— Orange works in close collaboration with trade unions and employee share ownership associations to ensure its employee saving schemes promote engagement, sustainability and solidarity. That’s why 92% of the company’s employee saving and retirement schemes include socially responsible investments (SRIs) and 50% have been awarded a responsible label.

At the end of 2021, the value of these SRIs stood at €800 million, accounting for almost 30% of the diversified employee savings and retirement funds (€2.7 billion). Among these SRIs were “Dynamis Solidaire ISR” (with €163 million in assets) and “Epsens Emploi Santé Solidarité” (with €38 million in assets), funds where 5% to 10% of the securities are unlisted and have a high social or environmental impact. By the end of 2021—a year where €20 million was invested in these solidarity funds and funding was provided to almost 48 structures—nearly 30,000 employees had contributed to social and solidarity projects.

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**Impact investing**

**Orange Nature**

In December 2021, the Group launched the Orange Nature carbon fund in partnership with Mirova (a Natixis Investment Managers affiliate). This €50 million fund aims to invest in various carbon sequestration and offsetting projects, which range from restoring and conserving natural ecosystems such as mangroves to supporting agroforestry initiatives. The returns from the fund will be in the form of carbon credits, which will be used to offset a significant amount of our residual CO₂ emissions (see pages 62-63 and 68-69).

**€50 m**

The investment capacity of the Orange Nature carbon fund
What are sustainability bonds?

In 2020, Orange issued a €500 million sustainability bond. How do these bonds work and how do they differ from other financial instruments?

A bond is a loan made from an investor to an issuer (a company, government, etc.) for a set period of time in return for an agreed rate of interest. Sustainability bonds are debt instruments where the proceeds are used exclusively to finance one or multiple projects that positively contribute to sustainable development. The market for sustainability bonds is booming, growing twentyfold between 2015 and 2021 to stand at €1,000 billion.

Sustainability bonds versus green bonds

A number of sustainable financial instruments exist in financial markets, including “sustainability bonds” (to finance social and environmental projects), “social bonds” (to finance innovative social projects) and “green bonds” (to finance environmentally friendly projects). The proceeds are primarily used to finance projects that help bring about the environmental transition. The European Union raised €12 billion in the world’s largest green bond issuance to date.

Benefits of issuing sustainability bonds

Companies can use sustainability bond proceeds to finance projects in line with their purpose and/or environmental and social commitments, thereby reconciling their financial and CSR strategies. Orange invested around 40% of the proceeds from its first bond issuance in September 2020 in digital and social inclusion projects and about 60% in projects relating to energy efficiency and the circular economy. Sustainability bonds offer investors attractive yields compared with traditional bonds.
Sustainability bond issuances totaled $1,000 bn in 2021, 20 times more than in 2015.

Source: Refinitiv
Governance

- Key performance indicators
- A renewed governance team
- Executive Committee
- Compensation balanced equally between financial and non-financial performance targets
- Risk management
- Materiality assessment, a tool to fuel strategic thinking
- Ensuring ethical compliance
Key performance indicators

Orange’s governance team develops and implements a long-term growth strategy combining strong operational performance, high ethical standards and optimal risk management.

The Board of Directors in 2021*

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<table>
<thead>
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<tbody>
<tr>
<td>12 meetings</td>
<td>97.2%</td>
</tr>
<tr>
<td>Average attendance rate</td>
<td></td>
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<tr>
<td>4.3 years</td>
<td>55 years</td>
</tr>
<tr>
<td>Average number of years of service</td>
<td>Average age</td>
</tr>
<tr>
<td>45% Women (excluding directors representing employees and employee shareholders)</td>
<td>55% Men</td>
</tr>
<tr>
<td>63% Proportion of independent directors (excluding directors representing employees and employee shareholders)</td>
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Members of the Board of Directors**

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman and Chief Executive Officer</td>
<td>Stéphane Richard</td>
</tr>
<tr>
<td>Non-independent director</td>
<td>Christel Heydemann</td>
</tr>
<tr>
<td>Independent directors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alexandre Bompard</td>
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<tr>
<td></td>
<td>Anne-Gabrielle Heilbronner</td>
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<td></td>
<td>Bernard Ramanantsos</td>
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<td></td>
<td>Frédéric Sanchez</td>
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<td></td>
<td>Jean-Michel Severino</td>
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<tr>
<td>Directors representing the public sector</td>
<td></td>
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<tr>
<td></td>
<td>Stéphanie Besnier</td>
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<tr>
<td></td>
<td>Bpifrance Participations</td>
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<tr>
<td></td>
<td>(represented by Thierry Sommelet)</td>
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<tr>
<td></td>
<td>Anne Lange</td>
</tr>
<tr>
<td>Director representing employee shareholders</td>
<td>Laurence Dalboussière</td>
</tr>
<tr>
<td>Directors representing employees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sébastien Crozier</td>
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<tr>
<td></td>
<td>Vincent Gimeno</td>
</tr>
<tr>
<td></td>
<td>Magali Vallée</td>
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Balanced and varied skills on the Board**

** Data at 16.02.2022 (the date on the Board's corporate governance report)

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<td>Banking/Finance</td>
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<tr>
<td>Industry</td>
<td>4/14</td>
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<tr>
<td>Retail</td>
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<tr>
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<td>Americas</td>
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<td>Asia</td>
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<td>Africa/Middle East</td>
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</table>

<table>
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<th>Corporate expertise</th>
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<tr>
<td>HR &amp; employee support</td>
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<tr>
<td>M&amp;A &amp; investor relations</td>
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<tr>
<td>Finance/Audit/Accounting/Risk</td>
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<tr>
<td>Senior management</td>
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<tr>
<td>Regulatory framework</td>
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<tr>
<td>CSR &amp; sustainable development</td>
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<td>(2/14: climate and the environment)</td>
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<tr>
<td>Sales/Marketing</td>
<td>5/14</td>
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<tr>
<td>Innovation &amp; technology</td>
<td>6/14</td>
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* Data at 31.12.2021
A renewed governance team

Orange has a renewed, robust and experienced governance team to steer its strategy and achieve its long-term performance goals. Our governance structure is balanced at every level to ensure a diverse range of skills, broad international experience and a more balanced gender representation.

A renewed governance team

— On 28 January 2022, Orange’s Board of Directors appointed independent director Christel Heydemann as the company’s new Chief Executive Officer with effect from 4 April 2022. Given the Board’s decision to separate the roles of Chair and Chief Executive Officer, Stéphane Richard will continue to serve as a non-independent director and a non-executive Chairman until the Shareholders’ Meeting on 19 May 2022. This decision was a natural step to take when appointing a new CEO and renewing the governance team, and it also reflected the wishes of various shareholders. Increasing numbers of large companies and groups are splitting the roles of chair and CEO to ensure compliance with the principles of separation of powers and independence.

Core and complementary expertise on the Board of Directors

— The Board of Directors sets the Group’s major strategic, economic, social, financial and technological policies and oversees their effective implementation by senior management. At the end of 2021, the Board was made up of 15 members, each appointed for a four-year term of office, bringing together a balanced range of expertise. Its structure accords with legal requirements, including in relation to diversity and diverse gender representation. A member of Orange’s Central Social and Economic Committee and a representative from its Worldwide Works Council take part in Board meetings. The Board appointed its first lead director at the end of 2016, a position that has been held by Bernard Ramanantsoa since 12 February 2020. As lead director, Bernard Ramanantsoa exercises statutory powers and is entrusted with the duties and powers set out in the Internal Guidelines.
Work carried out by the Board in 2021

— The Board of Directors met 12 times in 2021, with an average attendance rate of 97.2%. In addition to the standard monitoring of Group operations—including operational performance, quarterly results, half-yearly and annual accounts, budget, risk factors and the compensation of corporate officers—the Board, in close collaboration with senior management, actively monitored the Group’s situation and the measures implemented in response to the Covid-19 pandemic throughout the year.

In the first half of 2021, the Board authorized the conclusion of an agreement with La Banque des Territoires (Caisse des Dépôts), CNP Assurances and EDF Invest for the sale of 50% of the share capital and joint control of Orange Concessions. Additionally, it approved the principle and terms of the contribution agreement between Orange and TOTEM France and authorized Orange Spain to take part in the country’s 5G spectrum auction for the 700 MHz band. In September 2021, the Board approved the proposed acquisition of the operator VOO in Belgium. It also expressed its support for the Together 2021 share ownership plan open to Orange employees.

The Board discussed the findings of the internal investigation into and the aftermath of the outage that impacted emergency calls in France on 2 June 2021. It reviewed Orange Bank’s development projects, in particular the “One Bank” IT project.

Three active specialized committees

— Three committees provide proposals, recommendations and opinions in their respective areas of expertise to inform our major discussions and decisions. These committees are chaired by independent directors and all include at least one director representing employees and one representing the public sector.

In 2021, the Audit Committee worked on financial reporting (annual and half-yearly accounts, quarterly results and the Group’s budget), the effectiveness of internal control systems, risk management, the Code of Ethics and strategic development projects (including interests in Africa and the Middle East). The Committee also looked at the Group’s debt refinancing and liquidity investment policy.

The Governance and Corporate Social and Environmental Responsibility Committee examines our main HR and CSR priorities, shaped by the stakeholder dialog process. It reviews the Ethics Committee’s report on ethics-oriented initiatives on a yearly basis, as well as the roll-out of our compliance programs. It puts forward objectives and defines the methods used to calculate corporate officers’ annual variable compensation and directors’ compensation.

The Innovation and Technology Committee's role is to assess the Group's multi-year investment programs and technological partnerships, as well as its strategy and performance as regards innovation and technology. It held a meeting on the management of innovation and technology within the Group. It examined our research priorities and analyzed our innovation strategy and public cloud objectives.
Executive Committee

The Executive Committee, acting under the authority of senior management, steers the Group and coordinates the implementation of its strategy. It monitors progress against the targets set for operations, labor relations, technical matters and the allocation of financial resources. It meets every week.

Members at 31.12.2021

1. **Stéphane Richard**
   Chairman and Chief Executive Officer*

2. **Ramon Fernandez**
   Delegate Chief Executive Officer and Executive Vice-President Finance, Performance and Development

3. **Gervais Pellissier**
   Delegate Chief Executive Officer, Executive Vice-President People & Group Transformation and Chairman of Orange Business Services**

4. **Fabienne Dulac**
   Deputy Chief Executive Officer, CEO of Orange France

5. **Mari-Noëlle Jégo-Laveissière**
   Deputy Chief Executive Officer, in charge of Orange’s operational activities in Europe (outside France)

6. **Paul de Leusse**
   Deputy Chief Executive Officer, in charge of mobile financial services and CEO of Orange Bank

7. **Jérôme Barré**
   Executive Vice-President, CEO of Wholesale and International Networks

8. **Hugues Foulon**
   Executive Vice-President of Strategy and Cybersecurity activities

9. **Nicolas Guérin**
   Executive Vice-President, Secretary-General for the Group and Secretary of the Board of Directors

10. **Béatrice Mandine**
    Executive Vice-President Communication, Brand and Engagement

11. **Alioune Ndiaye**
    Executive Vice-President, CEO of Orange Middle East and Africa

12. **Helmut Reisinger**
    Executive Vice-President, CEO of Orange Business Services***

13. **Élizabeth Tchoungui**
    Executive Vice-President CSR, Diversity and Philanthropy, Deputy Chair for the Orange Foundation

14. **Michaël Trabbia**
    Executive Vice-President Technology and Innovation for the Group

Appointment of the new Chief Executive Officer
On 28 January 2022, Orange’s Board of Directors appointed Christel Heydemann as the company’s new Chief Executive Officer with effect from 4 April 2022.

* Both Chairman and Chief Executive Officer until 4 April 2022, then just Chairman until the Shareholders’ Meeting on 19 May 2022.
** Delegate Chief Executive Officer until 31 December 2021, Deputy Chief Executive Officer People & Group Transformation since 1 January 2022, Chairman of Orange Business Services.
*** Until 17 January 2022.
Compensation balanced equally between financial and non-financial performance targets

The Orange compensation policy for senior executives not only is a management tool that helps the company attract, motivate and retain the talent it needs, but also meets the expectations of shareholders and other stakeholders for transparency with regard to performance and the fulfilment of CSR commitments.

A balanced and measured compensation policy

— Each year, the compensation of Orange’s corporate officers is assessed by the Board of Directors on the basis of recommendations made by the Governance and Corporate Social and Environmental Responsibility Committee. It is also subject to approval at the Shareholders' Meeting as part of shareholders’ Say on Pay. We implement our Corporate Social Responsibility (CSR) strategy by incorporating non-financial performance criteria into the compensation packages of corporate officers and members of the Executive Committee. These criteria include social indicators, such as the rate of women's participation in management networks, levels of access to training, the Group-wide Employee Barometer, and environmental indicators, including the change in CO₂ emissions.

The three pillars of executive compensation

— The compensation of Orange’s corporate officers is made up of three components.

Fixed compensation

— The fixed compensation of corporate officers is determined by the level and complexity of their responsibilities, their experience and professional background, and market analysis for comparable positions. In 2021, it remained unchanged from the previous year.

Variable compensation

— Variable compensation is intended to give corporate officers an incentive to fulfil the annual performance targets set by the Board of Directors in line with the corporate strategy. The variable component is split into levels of performance with a balanced weighting between financial (50%) and non-financial (50%) criteria.
The variable component is determined using specific objectives and quantitative performance measures, including non-financial indicators. The variable component represents 80% of the fixed compensation awarded to the Chairman and Chief Executive Officer, and can increase to 100% where targets are exceeded, and a maximum of 60% of the fixed compensation awarded to the Delegate Chief Executive Officers*.

Performance shares

Corporate officers benefit from performance share grants under the Long-Term Incentive Plan (LTIP) when they contribute to medium- and long-term value creation for the company in line with the expectations of shareholders.

Performance is measured over a three-year period and is based on criteria that take into account the direct contribution of executives to the long-term overall performance of the company. The plan is open to members of the Executive Committee, as well as executive and leadership networks.

* For more information, see the 2021 Universal Registration Document.
Risk management

Our regular operations and Engage 2025 strategic plan expose us to a number of risks* that could impact our stakeholders, prevent us from achieving our targets, invoke legal liability or undermine trust in our brand. The main goal of our risk management system is to ensure we deliver on our Purpose so that all our stakeholders continue to place their trust in us.

— Orange has the structure, procedures and systems to detect risks and implement targeted measures to prevent and mitigate them. The goal is to provide reasonable assurance that we will meet our targets, deliver on our Purpose, comply with current laws and regulations and disclose reliable financial and non-financial information.

Formed by senior management, the Risks Committee meets five times a year to steer risk management within the Group. Its role is to monitor what we assess to be our main risks, submit proposals to senior management on effectively managing these risks according to the highest standards of internal control, and help senior management report on risk management to the Audit Committee and the Board of Directors. Spearheaded by the Group Audit, Control and Risk Management Department, the committee ensures internal control and audit plans are consistent with objectives. Security, compliance, legal and CSR teams contribute to the work carried out by the committee.

The joint committee of the Board of Directors convenes once a year to review risks and the effectiveness of the risk management systems. Chaired by the lead director, this meeting brings together all of the Board’s committees and the Group’s senior management team.

The operations and risk management framework is based on a cross-disciplinary and collaborative structure following the three lines of defense (see model on page 57 of the 2021 Universal Registration Document). This is a stable, long-term structure while adapting to changing global, geopolitical, economic, social and health contexts.

The effectiveness of this structure and the procedures involved is assessed on an ongoing basis, in line with the company’s strategy and the nature of the risks identified, to ensure it continues to serve us correctly.

* For more information about risks, see the Duty of Care plan and Section 2.1 (Risk factors) of the 2021 Universal Registration Document.

The following pages focus on 13 themes that emerged from the 22 risks outlined in the 2021 Universal Registration Document.
Technological risks

Innovation

Description and impact: drop in performance due to disruptive technology, business models or regulations that could affect the appeal or profitability of our products and services; infrastructure obsolescence; and insufficient scale of infrastructure.

Examples of protection/prevention measures: Our Innovation Department brings together our activities around strategic innovation, as well as research and development. Our investment policy supports research and innovation, including by contributing to public and private programs, standard-setting bodies (e.g. the GSMA) and supporting start-ups.

Description and impact: loss in quality or disruption or interruption of services provided, due to a technical malfunction, operational failure, cyberattack, damage to our infrastructure or the loss of licenses or usage rights, or following injunctions from authorities.

Examples of protection/prevention measures: We monitor our networks to react quickly should an incident occur and organize the necessary maintenance operations. We ensure our solutions are as resilient as possible right from the design phase, and deploy the Business Continuity Management System (BCMS) across our business units (fallback sites, preventive infrastructure relocation, equipment redundancy, business resumption plans, etc.).

Electromagnetic waves/fields

Description and impact: potential effects of prolonged exposure to electromagnetic waves, yet to be scientifically confirmed; public perception of a risk to human health or biodiversity that could lead to a reduction in the number of customers and their level of use, as well as an increase in litigation; strengthening of legal safeguards regarding mobile and internet use and related infrastructure; and mistrust of digital technology, which hinders innovation.

Examples of protection/prevention measures: We ensure compliance with current health regulations and follow the standards set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), particularly in relation to 5G. We support epidemiological research programs (administered by the WHO, etc.) and transparent information*, develop tools to measure wave intensity and raise awareness among employees and customers of responsible digital use.

* https://radio-waves.orange.com/en/
Economic risks

**Investment capacity**

*Description and impact:* difficulty in making investments due to insufficient access to finance and internal financing capabilities; poor credit rating due to external factors; deterioration in financial or non-financial indicators, depreciation of assets, against a particularly tense geopolitical and macroeconomic backdrop; and liquidity crises.

*Examples of protection/prevention measures:* The Group’s Finance Department monitors these risks on an ongoing basis. We have implemented a number of internal financial control processes to safeguard transactions, as well as various hedging instruments to manage our foreign exchange risk exposure. Additionally, we obtain financing through diverse sources, primarily bond markets.

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*Description and impact:* deterioration in quality or performance due to failure on the part of a key supplier; unfair contractual terms imposed by a monopoly or niche supplier; supply chain disruption or business interruption when products and services depend on certain key services or equipment and international geopolitical tensions arise; and revision of our strategy, in particular regarding new technologies (5G, AI, etc.).

*Examples of protection/prevention measures:* Our purchasing policies include a risk assessment for supplier selection and monitoring. We ask our suppliers to choose recycled resources over rare materials. Additionally, we regularly update our procurement and diversification strategy to make our supply chain more secure and frequently review our choice of suppliers in light of market threats and opportunities.

**Overreliance on a supplier**

*Description and impact:* skills development in line with new corporate demands; talent acquisition and retention in a tight labor market; delayed launch or discontinuation of new businesses or transformation initiatives; major business disruption; increased reliance on suppliers; and decline in employee morale.

*Examples of protection/prevention measures:* Skills management is a key focus of our strategic plan. We give our employees the means to grow while supporting everyone throughout our transformation. Additionally, we sign intergenerational agreements to promote the integration of young people and the transmission of knowledge.
Geopolitical and macro-economic instability

**Description and impact:** national or international crises or conflict (in Mali, Ukraine, etc.) leading to a potential increase in economic sanctions, damage to assets or harm to individuals as a result of conflation with the French State; business disruption; breaches of fundamental freedoms resulting from injunctions from local authorities; humanitarian, health and migration crises; economic crisis; tension on supply chains for key equipment and devices; and decline in financial performance, impairment loss.

**Examples of protection/prevention measures:** We use monitoring and alert systems to anticipate a number of eventualities including national conflicts, international tensions and crises of all kinds. These systems help us take appropriate steps to avoid or mitigate the risks, protect people and assets and ensure business continuity, as telecommunications is an essential service. Additionally, we support local communities (e.g. Ukraine) through Orange Foundation initiatives.

**Description and impact:** growing distrust of or aversion to new technology; shift toward digital sobriety; increased competition, including in core network activities; loss of contact with customers; multiplication of legal and regulatory constraints; lack of strategic resources; failed transformation/diversification; loss of control of key infrastructure; and unfulfilled financial and non-financial ambitions against a particularly tense geopolitical and macroeconomic backdrop.

**Examples of protection/prevention measures:** Guided by our purpose (which was incorporated into our bylaws in 2020), we continue to pursue our Engage 2025 strategic plan, notably by bolstering operations in new growth areas, such as mobile financial services and cybersecurity. We take practical measures such as entering into partnerships with key industry stakeholders and investing in ventures that will further our strategy and diversification priorities. Additionally, we invest heavily in our networks to provide customers with enhanced connectivity.
## CSR risks

### Compliance with laws, regulations or contractual obligations

**Description and impact:** litigation, administrative, civil or criminal sanctions at local or international level in an increasingly litigious economic environment where laws and regulations—particularly those with an extraterritorial reach—are instrumentalized; and additional costs to achieve compliance, in particular in areas where the legal framework has not yet been determined or remains in flux (IoT, AI, blockchain, etc.).

**Examples of protection/prevention measures:** The Group’s Legal Department ensures all our operating regions and businesses are covered in this respect, including the programs focused on key issues in the present day or the future, covering GDPR, duty of care, monitoring of international economic sanctions, international anti-corruption laws and climate reporting (TCFD, etc.).

### Environment/ climate change mitigation

**Description and impact:** any event that could prevent Orange from fulfilling its environmental commitments to combating climate change, such as a significant increase in data use and volumes, failure to achieve the Group’s energy transition target and failure of the Group’s energy efficiency programs.

**Examples of protection/prevention measures:** The Engage 2025 strategic plan is driven by our ambition to set an environmental benchmark, which is underpinned by a proactive policy to ensure our own networks and resources achieve net zero carbon emissions by 2040. The Green ITN plan aims to improve the energy and environmental efficiency of our networks and IT systems. We promote infrastructure sharing with other operators, recycle equipment, have developed an eco-design approach to product development and promote responsible internet use among our customers.

### Ethics and governance

**Description and impact:** damage to the Group’s image and reputation due to an ethical breach; inadequate governance to meet the needs of the company and the expectations of its stakeholders; discredit to the Group’s purpose; and sanctions against the company and/or its employees.

**Examples of protection/prevention measures:** The Governance and Corporate Social and Environmental Responsibility Committee ensures employees adhere to our charters and policies and oversees the related compliance programs. We regularly run employee training and awareness programs, and the associated management and control systems undergo regular internal and external assessments. We take the expectations of stakeholders into account as part of our decision-making processes and our holistic risk management approach (ERM 360°), and incorporated our Purpose into our bylaws to strengthen our commitment to advancing social issues.
Data and information integrity and confidentiality

**Description and impact:** events* that may compromise information and data integrity, confidentiality or storage, threaten business continuity or invade individuals’ privacy (cases of non-compliance with legislation on protecting personal data or human rights and fundamental freedoms).

**Examples of protection/prevention measures:**
Our comprehensive security system improves measures to protect our infrastructure, products and services by implementing a Security by Design approach and rolling out targeted mechanisms to protect and supervise our networks and IT systems. Our Data Protection Officer coordinates all privacy-related programs and measures.

* Unauthorized access to data, cyberattacks, injunctions from authorities, new technology not yet fully mastered, issues with a change management process, failure of partners to protect externalized data, etc.

Health and safety of people

**Description and impact:** deterioration in the working conditions of employees or partners in periods of crises and significant internal transformation; and physical and mental harm to employees, customers and partners as a result of activities in high-risk areas or significant changes to ways of working, which can pose psychosocial risks.

**Examples of protection/prevention measures:** We pursue a proactive risk prevention policy, which has been allocated its own budget, and have health and safety agreements in place with employee representatives. The policy has led to a social contract and pledge to be a digital and caring employer, a range of occupational health initiatives and the implementation of our Duty of Care plan. We are a member of the JAC, an association of operators that seeks to audit, assess and develop the implementation of major CSR principals and policies in the manufacturing processes for the largest multinational telecoms suppliers. We circulate safety information to employees and customers on the responsible use of technology.
Materiality assessment, a tool to fuel strategic thinking

We regularly engage in dialogue with our internal and external stakeholders to ensure we take account of their experiences and expectations. These consultations fuel our strategic thinking in line with our Purpose and four commitments.

Fueling strategic thinking

— Orange’s structured approach to stakeholder dialogue is rooted in its corporate social responsibility (CSR) strategy. This approach enables the Group to identify social and environmental challenges and detect weak signals likely to shape the future. It also provides the Group with a basis for regularly updating its materiality matrix. This materiality matrix compares the importance of issues to external stakeholders with the impact on Orange’s business and reputation as perceived by internal stakeholders.

Updating the matrix in 2021

— A total of 3,750 people have taken part in our consultations over the past five years. Over 1,000 people across 16 countries in Europe, Africa and the Middle East have contributed to the process through interviews or working groups—47% represented Orange employees, 27% civil society (influencers, associations, the media and stakeholders in the field), 16% business (suppliers, subcontractors, business customers, etc.) and 10% public authorities (elected representatives and representatives of regional authorities). Furthermore, we conducted an online consultation that received almost 2,700 responses. Orange consolidated points from these consultations to develop its materiality matrix (see opposite).

In 2021, stakeholder dialogue focused on issues relating to the Group’s four commitments—to the environment, digital equality, a society based on trust and a responsible economy—in line with its Purpose (see pages 24-25) and the priorities of its Engage 2025 strategic (see pages 14-15).

The updated materiality matrix from 2021 shows that, on the whole, the issues perceived as having the largest impact on Orange’s business and reputation match up with the priorities identified by stakeholders. Data protection and privacy protection were identified as being important to stakeholders and potentially having a critical impact on the Group. The
perception of digital equality-related issues shows high expectations for inclusive services and the adoption of new services. Environmental issues, including resource depletion, generated particularly high levels of interest in Europe.

The rich and diverse nature of the data set enables Orange to produce geography- or theme-specific matrixes to fuel its strategic thinking. Orange took part in a GSMA working group to identify salient issues— with concrete consequences for individuals— facing the telecoms sector. These include respect for privacy and freedom of expression, children’s rights and the use of conflict minerals, which also emerged as top priorities in Orange’s materiality assessment.
Ensuring ethical compliance

Ethical conduct is a cornerstone of the Group’s history and culture, a requirement that must be met in all business activities, as well as a prerequisite for sustainable growth and a digital world built on trust.

The Code of Ethics, a key component of our approach

— Orange’s approach to ethics is built around four commitments—respect, integrity, quality and team spirit. Our Code of Ethics sets out guidelines for our stakeholders and governs the professional conduct of our employees in line with the Universal Declaration of Human Rights, the International Labour Organization (ILO), the Organisation for Economic Co-operation and Development (OECD), our corporate social responsibility commitments and our Purpose.

Hello Ethics, a new whistleblowing platform

— The Group launched a new, secure whistleblowing platform called Hello Ethics in 2021. Accessible to both employees and external stakeholders, this user-friendly platform enables designated people to handle incoming reports of corruption, fraud, breaches in ethical compliance or concerns relating to the environment, fundamental and human rights, and health and safety. Users submitting their concerns via Hello Ethics help us comply with laws and regulations and fulfil our ethical commitments. This process safeguards the long-term success of our operations, as it reduces the risk of reputational and financial losses. Furthermore, an ethics chatbot was introduced in 2021 to provide our employees with quick answers to questions relating to ethics and compliance.
commitments—respect, integrity, quality and team spirit—underpinning Orange’s Code of Ethics.

Ethics and Compliance Days organized since 2013

Anti-corruption assessments, checks, training and prevention

Orange regularly ramps up its anti-corruption practices to bring them in line with the changing legal landscape. Honoring our commitment to responsibility and integrity, and promoted by executives and managers, this involves assessing risks including corruption and influence peddling each year. Third-party evaluations, internal checks, audits and reporting help enhance risk control measures. Furthermore, our anti-corruption training tools and resources—videos, independent learning content (e.g., e-learning modules and quizzes) and teaching materials used for in-person sessions—have been extensively updated since 2018. In 2021, new training pathways covering various themes were rolled out and a catalog of internal and external training courses was shared with all our entities.

Ethics and Compliance Day

Orange’s annual Ethics and Compliance Day raises awareness among all employees and encourages them to remain actively involved in the Group’s prevention programs across all of our operating regions. Held in November 2021, the ninth annual Ethics and Compliance Day featured conferences and debates led by executives and experts at the Orange head office, who focused on day-to-day business ethics and secure international expansion. These interactives sessions built around questions from participants were live-streamed on the Orange Plazza social network and the Orange News mobile app. The way in which subsidiaries and departments across the Group mark the day depends on the challenges that are most relevant to them. Examples of some of the varied, creative activities that take place include webinars, quizzes, debates and treasure hunts.
Results

- Key performance indicators
- Financial results
- Non-financial results
## Key performance indicators

### Financial results

**2021 targets fully achieved**
**Strong growth expected in 2022**

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBITDAaL</td>
<td>€12.6 bn</td>
<td>Increase of between 2.5% and 3%</td>
</tr>
<tr>
<td>eCAPEX</td>
<td>€7.7 bn</td>
<td>≤ €7.4 bn</td>
</tr>
<tr>
<td>Organic cash flow (telecoms)</td>
<td>€2.4 bn</td>
<td>≥ €2.9 bn</td>
</tr>
<tr>
<td>Net debt/EBITDAaL (telecoms)</td>
<td>1.91x</td>
<td>Around 2x in the medium term</td>
</tr>
<tr>
<td>Dividend</td>
<td>€0.70*</td>
<td>€0.70</td>
</tr>
</tbody>
</table>

### Revenues

**€42.5 bn**
up 0.8% on 2020

- 41.1% France
- 24.6% Europe
- 17.3% Enterprises
- 14.6% Africa and the Middle East
- 2.4% International carriers & shared services

* See page 109.
Non-financial results

Diversity
Aligning female representation in senior management with the proportion of women in the Group

Percentage of women in management networks
Objective: 35.0% in 2025
31.6% in 2021

Digital inclusion
Enhancing connectivity and extending digital inclusion

FTTH connectable homes
Objective: 69.0 m in 2023
56.5 m in 2021

Orange Digital Centers
Objective: 26 in 2025
9 in 2021

Environment
Reducing our emissions of CO₂ equivalent and expanding our circular economy to achieve net zero carbon emissions by 2040

Reduction in CO₂ emissions on 2015 (Scopes 1 and 2)
Objective: 30.0% in 2025
12.1% in 2021

Percentage of electricity from renewable sources
Objective: 50.0% in 2025
36.3% in 2021

Data at 31.12.2021
Financial results

The Group’s results reflect a solid performance in 2021, delivering on its commitments and confirming all its targets for 2023, including an organic cash flow of between €3.5 billion and €4 billion. Furthermore, our excellent commercial performance contributed to us achieving our 2021 targets despite facing considerable challenges.

Moderate rise in revenue

— Orange Group revenues totaled €42.5 billion in 2021, up 0.8%* on 2020. This growth was primarily driven by Africa and the Middle East (with revenues up 10.6% year on year), followed by Europe excluding Spain (up 2.6%) and Enterprises (up 0.5%). The 1.6% decline in revenues from France was due to lower levels of co-financing in the fiber network compared with 2020. Retail services continued to grow through convergence offers (up 1.9% year on year) in France and the rest of Europe excluding Spain, as well as standalone mobile services (up 4.2%) in Africa and the Middle East, whereas standalone fixed services contracted 2.8%. Wholesale revenues declined 6.8% due to co-financing in France, while IT&IS services and equipment sales continued to grow.

EBITDAaL and eCapex**

— Group EBITDAaL amounted to €12.6 billion in 2021, down 0.5% on the previous year. This result includes a €172 million expense incurred through the 2021 employee share ownership plan that covered approximately 1% of the company’s share capital (and primarily applied to France and Enterprises). EBITDAaL from telecoms activities also fell 0.8% to €12.7 billion in 2021.

Group eCAPEX totaled €7.7 billion, up 7.8%, in line with the target set following a high level of co-financing and a slowdown in investment due to the pandemic in 2020. In the second half of 2021, eCAPEX began to decline.
Operating income
— The Group’s net income fell from €5,537 million in 2020 to €2,521 million in 2021, on a comparable basis, primarily due to the recognition of €3.7 billion in impairment of goodwill in Spain in the first half of the year.

Operational efficiency program Scale Up
— In 2020, Orange launched the Scale Up operational efficiency program to reduce costs. The program aims to achieve net savings of €1 billion by 2023 from within a defined scope of €13.8 billion at end-2019, made up of indirect costs. By end-2021, almost €300 million had already been saved. We intend to achieve aggregate net savings of around €600 million by the end of 2022.

Changes in the asset portfolio
— On 3 November 2021, Orange sold a 50% equity interest in Orange Concessions to a consortium comprising La Banque des Territoires, CNP Assurances and EDF Invest based on an enterprise value of €2.7 billion, losing sole control of the entity and its subsidiaries.

On 24 December 2021, Orange Belgium signed an agreement to acquire a 75% stake minus one share in VOO SA based on an enterprise value of €1.8 billion. This acquisition, which is in line with the Group’s convergence strategy, is expected to generate significant synergies related to the transfer of VOO’s MVNO business to Orange Belgium’s network. Subject to European Commission approval, the deal is expected to close in 2022.

Organic cash flow
— Cash flow reached €2.4 billion in 2021 (compared with €2.5 billion in 2020), meeting our target of over €2.2 billion.

Dividend
— A dividend payment of €0.70 per share for the 2021 financial year will be put to a vote at the Shareholders’ Meeting on 19 May 2022. Taking into account the €0.30 interim dividend paid on 15 December 2021, the remaining dividend of €0.40 per share will be paid in cash on 9 June 2022. The ex-dividend date is 7 June 2022.

* Unless otherwise stated, changes are on a comparable basis.
** See the 2021 Universal Registration Document for the definition of EDITDAaL and eCapex.
Gross annual return on the Orange share compared with the average gross annual return on CAC 40 company shares

Source: Bloomberg, 31.03.2022

Total shareholder return*

* Base 100: 1 January 2017

Total Shareholder Return is the sum of all dividends received plus/minus the change in stock price, expressed as a percentage of the initial purchase price.
Key figures  
Data at 31 December

<table>
<thead>
<tr>
<th>In millions of euros</th>
<th>2021</th>
<th>2020 comparable basis</th>
<th>2020 historical basis</th>
<th>Change comparable basis</th>
<th>Change historical basis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>42,522</td>
<td>42,201</td>
<td>42,270</td>
<td>0.8%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Europe</td>
<td>18,092</td>
<td>18,394</td>
<td>18,461</td>
<td>(1.6)%</td>
<td>(2.0)%</td>
</tr>
<tr>
<td>Africa &amp; Middle East</td>
<td>10,579</td>
<td>10,665</td>
<td>10,580</td>
<td>(0.8)%</td>
<td>(0.0)%</td>
</tr>
<tr>
<td>Enterprise</td>
<td>6,381</td>
<td>5,770</td>
<td>5,834</td>
<td>10.6%</td>
<td>9.4%</td>
</tr>
<tr>
<td>International carriers &amp; shared services</td>
<td>7,757</td>
<td>7,718</td>
<td>7,807</td>
<td>0.5%</td>
<td>(0.6)%</td>
</tr>
<tr>
<td>Intra-Group eliminations</td>
<td>1,515</td>
<td>1,454</td>
<td>1,450</td>
<td>4.2%</td>
<td>4.5%</td>
</tr>
<tr>
<td><strong>EBITDAaL</strong>*</td>
<td>12,566</td>
<td>12,635</td>
<td>12,680</td>
<td>(0.5)%</td>
<td>(0.9)%</td>
</tr>
<tr>
<td>o/w telecom activities</td>
<td>12,696</td>
<td>12,799</td>
<td>12,839</td>
<td>(0.8)%</td>
<td>(1.1)%</td>
</tr>
<tr>
<td>as % of revenues</td>
<td>29.9%</td>
<td>30.3%</td>
<td>30.4%</td>
<td>(0.5) pts</td>
<td>(0.5) pts</td>
</tr>
<tr>
<td>France</td>
<td>6,867</td>
<td>7,073</td>
<td>7,163</td>
<td>(2.9)%</td>
<td>(4.1)%</td>
</tr>
<tr>
<td>Europe</td>
<td>2,830</td>
<td>2,914</td>
<td>2,932</td>
<td>(2.9)%</td>
<td>(3.5)%</td>
</tr>
<tr>
<td>Africa &amp; Middle East</td>
<td>2,265</td>
<td>1,939</td>
<td>1,964</td>
<td>16.8%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Enterprise</td>
<td>970</td>
<td>1,058</td>
<td>1,023</td>
<td>(6.3)%</td>
<td>(5.2)%</td>
</tr>
<tr>
<td>International carriers &amp; shared services</td>
<td>(237)</td>
<td>(185)</td>
<td>(244)</td>
<td>(27.9)%</td>
<td>3.0%</td>
</tr>
<tr>
<td>o/w mobile financial services</td>
<td>(131)</td>
<td>(165)</td>
<td>(160)</td>
<td>20.7%</td>
<td>18.3%</td>
</tr>
<tr>
<td><strong>Operating income</strong></td>
<td>2,521</td>
<td>5,537</td>
<td>5,521</td>
<td>(54.5)%</td>
<td>(54.3)%</td>
</tr>
<tr>
<td>o/w telecom activities</td>
<td>2,702</td>
<td>5,736</td>
<td>5,715</td>
<td>(52.9)%</td>
<td>(52.7)%</td>
</tr>
<tr>
<td>o/w mobile financial services</td>
<td>(182)</td>
<td>(200)</td>
<td>(195)</td>
<td>9.3%</td>
<td>7.0%</td>
</tr>
<tr>
<td><strong>Consolidated net income</strong></td>
<td>778</td>
<td>5,055</td>
<td>(84.6)%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net income attributable to owners of the parent company</td>
<td>233</td>
<td>4,822</td>
<td>(95.2)%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>eCAPEX</td>
<td>7,660</td>
<td>7,103</td>
<td>7,132</td>
<td>7.8%</td>
<td>7.4%</td>
</tr>
<tr>
<td>o/w telecom activities</td>
<td>7,636</td>
<td>7,070</td>
<td>7,102</td>
<td>8.0%</td>
<td>7.5%</td>
</tr>
<tr>
<td>as % of revenues</td>
<td>18.0%</td>
<td>16.8%</td>
<td>16.8%</td>
<td>1.2 pts</td>
<td>1.2 pts</td>
</tr>
<tr>
<td>o/w mobile financial services</td>
<td>24</td>
<td>33</td>
<td>30</td>
<td>(26.8)%</td>
<td>(20.1)%</td>
</tr>
<tr>
<td><strong>EBITDAaL</strong> - eCAPEX</td>
<td>4,906</td>
<td>5,532</td>
<td>5,548</td>
<td>(11.3)%</td>
<td>(11.6)%</td>
</tr>
<tr>
<td>Organic cash flow (telecom activities)</td>
<td>2,401</td>
<td>2,494</td>
<td>(3.7)%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>31 December</th>
<th>31 December</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net financial debt</strong>*</td>
<td>24,269</td>
<td>23,489</td>
</tr>
<tr>
<td>Ratio of net financial debt / EBITDAaL from telecom activities**</td>
<td>1.91</td>
<td>1.83</td>
</tr>
</tbody>
</table>

* Net financial debt as defined and used by Orange does not include mobile financial service activities for which this concept is not relevant.

** The ratio of net financial debt to EBITDAaL for telecom activities is calculated as the ratio of the Group’s net financial debt compared to EBITDAaL for telecom activities calculated over the previous 12 months.
Non-financial results

We assess and monitor both our financial and non-financial performance to ensure we uphold our societal commitment for future generations.

**Human rights**

— Orange renewed its support for the United Nations Global Compact for the 21st year in a row, pledging to protect and promote fundamental human rights. We protect freedom of expression and privacy through our involvement in the Global Network Initiative, regularly discussing best practice with fellow members to meet governmental demands in the telecommunications sector. Orange now provides an e-learning module in over 90% of its operating countries to share its key workplace human rights principles with employees.

**Data protection**

— In 2021, data protection officers were appointed in all our subsidiaries in Europe as well as in Orange Business Services. To ensure any data created, processed or stored by the Group was appropriately protected, over 1,000 manual technical and non-technical assessments and more than 100,000 automated assessments were carried out in 2021. Nearly 26,000 employees completed a total of 200,000 hours of cybersecurity training.

**Employees**

— As of 31 December 2021, Orange employed 139,698 people—136,928 on unlimited contracts and 2,770 on temporary contracts. In 2021, 9,200 people were hired on unlimited contracts—2,195 of whom in France and over 80% in “innovation and technology” and “customer” roles—and 3,124 people were brought in on work-study contracts. Orange placed 78th out of 850 European companies in the Financial Times Diversity Leaders 2022 ranking published in November 2021, coming second in the telecoms sector. At end-2021, women filled 31.5% of executive roles within the top 10% of the Group’s leadership positions. Since 2018, almost 19,000 employees in France have received workplace equality certificates after completing an online training course. The equivalent international course, launched in multiple languages in April 2021, has been completed by almost 10,000 employees worldwide.
Digital inclusion

— In addition to our ambition of increasing regional digital coverage, we help people access digital technology and teach them how to use it. In 2021, the Group had nine Orange Digital Centers—all in Africa and the Middle East—which enabled young people to acquire new digital skills, promoting entrepreneurship and enhancing their job prospects. The Sanza range of affordable smartphones (costing around USD 20 each) is available in 16 countries in Africa and the Middle East. We market reconditioned smartphones in Europe. In 2020, we launched “Tarifa Social”, the first convergence offering in Spain, adapted to the financial resources and needs of low-income households, who were offered faster speeds—of up to 500 Mb/s—in 2021. Launched in 2020 in France, our digital accessibility e-learning course had been completed by 1,600 employees by the end of 2021.

Environment

— We have set the ambitious goal of achieving net zero carbon emissions by 2040, as well as an intermediary target of lowering our CO₂ emissions (across scopes 1 and 2) by 30% by 2025 compared with 2015 levels, after having achieved a 12.1% reduction between 2015 and 2021. Our network and IT systems account for 82% of the Group’s overall energy consumption and 87% of its CO₂ emissions. The action plans deployed in 2021 helped limit the rise in the Group’s scope 1 and 2 energy consumption to 2.3% compared with 2020. We collected 20.4% of unwanted mobiles in Europe as part of our circular economy program.
## Employee distribution

### Employees by business line

<table>
<thead>
<tr>
<th>Business Line</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>19.7%</td>
<td>19.5%</td>
<td>19.6%</td>
</tr>
<tr>
<td>Customer</td>
<td>31.8%</td>
<td>32.8%</td>
<td>33.0%</td>
</tr>
<tr>
<td>Support functions</td>
<td>11.1%</td>
<td>11.1%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Innovation and Technology</td>
<td>35.0%</td>
<td>33.3%</td>
<td>32.3%</td>
</tr>
<tr>
<td>Other</td>
<td>2.4%</td>
<td>3.3%</td>
<td>3.0%</td>
</tr>
<tr>
<td><strong>Group total</strong>(1)</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

### Employees by geographical area

<table>
<thead>
<tr>
<th>Geographical Area</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>56.0%</td>
<td>57.9%</td>
<td>59.4%</td>
</tr>
<tr>
<td>Spain</td>
<td>4.1%</td>
<td>4.3%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Poland</td>
<td>7.5%</td>
<td>8.0%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Other European countries</td>
<td>12.2%</td>
<td>9.6%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Africa</td>
<td>13.8%</td>
<td>13.3%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>4.6%</td>
<td>4.5%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Americas</td>
<td>1.8%</td>
<td>2.4%</td>
<td>2.3%</td>
</tr>
<tr>
<td><strong>Group total</strong>(2)</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

(1) The Group’s reporting scope includes all fully consolidated entities.
(2) “Managerial positions” refers to senior management, i.e., levels E, F and G in the French collective agreement on telecommunications (CCNT). Entities outside France can refer to an explanatory document when determining the most appropriate level for each employee.

### Gender equality in the workplace

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of women in the active workforce</td>
<td>35.9%</td>
<td>36.0%</td>
<td>36.0%</td>
</tr>
<tr>
<td>% of women in managerial positions**(2)**</td>
<td>31.3%</td>
<td>31.3%</td>
<td>30.9%</td>
</tr>
<tr>
<td>% of women in management networks**(3)**</td>
<td>31.6%</td>
<td>31.1%</td>
<td>31.1%</td>
</tr>
</tbody>
</table>

(1) Item reviewed by KPMG: reasonable assurance.
(2) “Managerial positions” refers to senior management, i.e., levels E, F and G in the French collective agreement on telecommunications (CCNT). Entities outside France can refer to an explanatory document when determining the most appropriate level for each employee.
(3) Executive and leadership networks, with 1,330 people holding positions of great responsibility across the Group at end-2021.

 Item reviewed by KPMG: reasonable assurance.
### Toward a lower impact on the environment and the climate

#### Environmental performance (energy)

<table>
<thead>
<tr>
<th>Facilities presenting a risk</th>
<th>Units</th>
<th>France</th>
<th>Rest of the world</th>
<th>Group</th>
<th>Group</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tanks</td>
<td>units</td>
<td>1,161</td>
<td>475</td>
<td>1,636</td>
<td>3,606</td>
<td>3,606</td>
</tr>
</tbody>
</table>

#### Energy consumption – Scope 1

| Fuel oil (all buildings, all uses) | m³ | 487 | 66,838 | 67,325 | 72,163 | 65,930 |
| Gas | m³ | 8,738,286 | 3,461,782 | 12,200,067 | 12,927,319 | 12,927,319 |
| Coal | metric tons | N/A | 15 | 15 | 13 | 13 |
| Fuel | liters | 16,806,350 | 8,941,116 | 25,747,466 | 24,656,085 | 24,656,085 |
| – Gasoline-LPG for company vehicles | liters | 6,276,312 | 4,112,106 | 25,747,466 | 24,656,085 | 24,656,085 |
| – Diesel for company vehicles | liters | 10,530,038 | 4,829,010 | 15,359,049 | 16,963,178 | 16,963,178 |
| Total energy Scope 1 | GWh | 377 | 310 | 687 | 662 | 1,139 |

#### CO₂ emissions from Scope 1

| CO₂ emissions from fuel oil, gas & coal | metric tons CO₂ | 51,470 | 188,293 | 239,762 | 253,937 | 211,771 |
| CO₂ emissions from vehicles | metric tons CO₂ | 42,658 | 22,366 | 65,024 | 63,238 | 63,238 |
| CO₂ emissions from Scope 1 (energy only) | metric tons CO₂ | 94,128 | 210,658 | 304,786 | 317,175 | 275,009 |
| CO₂ emissions from greenhouse gases (refrigerants) | metric tons CO₂ eq | 3,057 | 16,180 | 19,237 | 7,517 | 7,517 |
| CO₂ emissions from Scope 1 | metric tons CO₂ eq | 97,185 | 226,838 | 324,023 | 324,692 | 282,526 |

#### Electricity consumption – Scope 2

| Electricity consumption | GWh | 2,227 | 2,239 | 4,467 | 4,358 | 4,329 |
| of which green energy | GWh | 67 | 676 | 743 | 643 | 624 |
| – Green energy supply with guarantee of origin certificate | GWh | - | 303 | 303 | 488 | 488 |
| – Green energy supply from ESCO contracts, solar farms or internal solar production | GWh | - | 161 | 161 | 155 | 136 |
| – Green energy supply from PPAs | GWh | 67 | 213 | 280 | |

#### CO₂ emissions from Scope 2

| CO₂ emissions from Scope 2 | metric tons CO₂ | 115,707 | 862,935 | 978,642 | 994,582 | 990,554 |

#### Total energy consumption

| Total energy consumption (Scope 1 and Scope 2) | GWh | 2,604 | 2,550 | 5,154 | 5,040 | 5,468 |

#### Total CO₂ em. (Scope 1 and Scope 2)

| Total CO₂ em. (Scope 1 and Scope 2) | metric tons CO₂ eq | 212,891 | 1,089,773 | 1,302,665 | 1,319,274 | 1,273,080 |

#### Energy consumption – Scope 3

| Flight distance for business trips | km | 21,361,279 | 635,815 | 21,997,094 | 61,782,497 | 61,782,497 |
| Train distance for business trips | km | 21,731,643 | 1,707,853 | 23,425,117 | 23,425,117 |
| CO₂ emissions from Scope 3 | metric tons CO₂ | 5,143 | 1,332 | 6,475 | 14,729 | 14,729 |
| Total CO₂ em. (Scopes 1 + 2 + 3) | metric tons CO₂ eq | 218,034 | 1,091,105 | 1,309,140 | 1,334,004 | 1,287,809 |

---

N/A: not applicable.

Since the figures are rounded up, the Group figures may not be the sum of the “France” and “Rest of the World” figures.

The figures of certain countries in the Middle East and Africa are based on estimates and may be revised.

The 2020 comparable basis includes the inclusion of 3 new existing countries in the reporting (Burkina Faso, Liberia, Sierra Leone) and a change in methodology for converting fuel from technical operations from Scope 1 to GWh; this change in methodology does not affect the calculation of CO₂ emissions (see the environmental methodological note on pages 318-319 of the 2021 Universal Registration Document).

1. The France scope covers Orange France, the Group’s headquarters, Orange Marine and the entities of Orange Business Services operating in the country.
2. Only emissions related to business travel are presented in this table. Scope 3 emissions for all 15 GHG protocol items for 2021 are the subject of ongoing work. See below.
3. Item reviewed by KPMG: reasonable assurance.
# How Orange meets the UN Sustainable Development Goals

<table>
<thead>
<tr>
<th>Goal</th>
<th>Description</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</td>
<td>P. 4-5; P. 7-11; P. 14-19; P. 23; P. 25; P. 30-33; P. 36-40; P. 46-47; P. 52-53</td>
</tr>
<tr>
<td></td>
<td>Development of digital solutions (BtoB)</td>
<td>P. 5-6; P. 8-10; P. 14-19; P. 23; P. 34-39; P. 46-52; P. 54-57</td>
</tr>
<tr>
<td></td>
<td>Research and innovation investment</td>
<td>P. 14-19; P. 23-25; P. 38-39; P. 55</td>
</tr>
<tr>
<td></td>
<td>Financial services platforms</td>
<td>P. 9; P. 10; P. 14-19; P. 23-25; P. 48-51; P. 111</td>
</tr>
<tr>
<td>10</td>
<td>Reduce inequality within and among countries</td>
<td>P. 14-15; P. 24; P. 78-79; P. 113</td>
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<tr>
<td></td>
<td>Social offers</td>
<td>P. 14-19; P. 23-25; P. 50-51; P. 78-79; P. 113</td>
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<tr>
<td></td>
<td>Affordable products</td>
<td>P. 78-79</td>
</tr>
<tr>
<td></td>
<td>Autonomy offers</td>
<td>P. 14-19; P. 46-47; P. 52-53; P. 78-79</td>
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<td></td>
<td>Multi-service offers</td>
<td>P. 11; P. 14-19; P. 36-39; P. 46-47; P. 74-75; P. 82; P. 113</td>
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<td>User support</td>
<td>P. 14-19; P. 46-47; P. 74-75</td>
</tr>
<tr>
<td></td>
<td>Training for digital careers</td>
<td>P. 14-19; P. 74-75; P. 78-79</td>
</tr>
<tr>
<td></td>
<td>Community support</td>
<td>P. 14-19; P. 23; P. 76-77; P. 112; P. 114</td>
</tr>
<tr>
<td></td>
<td>Workplace diversity and equality</td>
<td>P. 14-19; P. 23; P. 76-77; P. 112; P. 114</td>
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<tr>
<td>12</td>
<td>Ensure sustainable consumption and production patterns</td>
<td>P. 7; P. 14-19; P. 23; P. 66-67</td>
</tr>
<tr>
<td></td>
<td>Second-hand equipment</td>
<td>P. 7; P. 14-19; P. 23; P. 63; P. 66-67</td>
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<tr>
<td></td>
<td>Eco-design approach to equipment</td>
<td>P. 7; P. 14-19; P. 23; P. 66-67; P. 80; P. 113</td>
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<tr>
<td></td>
<td>Product collection and repair</td>
<td>P. 14-19; P. 23; P. 67</td>
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<tr>
<td></td>
<td>Waste recovery</td>
<td>P. 2; P. 10-11; P. 16-25; P. 28-29; P. 44-45; P. 50-51; P. 60-62; P. 72-75; P. 86-87; P. 94-101; P. 106-115</td>
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<tr>
<td></td>
<td>Transparency and reporting</td>
<td>P. 66-67</td>
</tr>
<tr>
<td>13</td>
<td>Take urgent action to combat climate change and its impacts</td>
<td>P. 7; P. 9; P. 11; P. 14-19; P. 23-25; P. 33; P. 36-39; P. 62-63; P. 68; P. 80-82; P. 113; P. 115</td>
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<td>CO₂ emissions</td>
<td>P. 7; P. 9; P. 11; P. 14-19; P. 23-25; P. 33; P. 36-39; P. 62-63; P. 68; P. 80-82; P. 113; P. 115</td>
</tr>
<tr>
<td></td>
<td>Energy-efficient infrastructure</td>
<td>P. 5-7; P. 14-19; P. 23; P. 25; P. 36-40; P. 62-63; P. 113; P. 115</td>
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<tr>
<td></td>
<td>Renewable energy use</td>
<td>P. 14-19; P. 23; P. 25; P. 37; P. 64-65; P. 68; P. 115</td>
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<tr>
<td></td>
<td>Supporting our customers on their low-carbon journey</td>
<td>P. 7; P. 14-19; P. 23; P. 36-39; P. 62-63</td>
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<tr>
<td>16</td>
<td>Promote peaceful and inclusive societies</td>
<td>P. 22-25; P. 34-35; P. 101; P. 112</td>
</tr>
<tr>
<td></td>
<td>Freedom of expression</td>
<td>P. 9; P. 10-18; P. 23; P. 24-35; P. 100; P. 112</td>
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<td></td>
<td>Personal data protection</td>
<td>P. 6; P. 8-10; P. 14-19; P. 23; P. 34-35; P. 47-49; P. 54-57; P. 112</td>
</tr>
<tr>
<td></td>
<td>Cybersecurity</td>
<td>P. 14-18; P. 23; P. 30-31; P. 34-39; P. 76-79</td>
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<tr>
<td></td>
<td>Responsible technological developments</td>
<td>P. 14-19; P. 23; P. 102-103</td>
</tr>
<tr>
<td></td>
<td>Ethics &amp; compliance</td>
<td>P. 14-19; P. 23; P. 76-77</td>
</tr>
<tr>
<td></td>
<td>Efforts to combat workplace discrimination</td>
<td>P. 14-19; P. 23; P. 76-77</td>
</tr>
<tr>
<td></td>
<td>Responsible purchasing</td>
<td>P. 14-19; P. 23; P. 76-77</td>
</tr>
<tr>
<td></td>
<td>Autonomy offers</td>
<td>P. 15-16; P. 23; P. 25; P. 66-67</td>
</tr>
<tr>
<td></td>
<td>Affordable products</td>
<td>P. 15-16; P. 23; P. 25; P. 66-67</td>
</tr>
<tr>
<td></td>
<td>Financial services platforms</td>
<td>P. 15-16; P. 23; P. 25; P. 66-67</td>
</tr>
<tr>
<td></td>
<td>Research and innovation (BtoB)</td>
<td>P. 14-19; P. 23-25; P. 38-39; P. 55</td>
</tr>
<tr>
<td></td>
<td>Development of digital solutions</td>
<td>P. 14-19; P. 23-25; P. 38-39; P. 55</td>
</tr>
<tr>
<td></td>
<td>Partnerships (technological cooperation, industrial partnerships, PPPs)</td>
<td>P. 14-19; P. 23; P. 76-77</td>
</tr>
<tr>
<td></td>
<td>Employee outreach</td>
<td>P. 14-19; P. 23; P. 76-77</td>
</tr>
<tr>
<td></td>
<td>Support for SMEs/start-ups</td>
<td>P. 14-19; P. 23; P. 76-77</td>
</tr>
</tbody>
</table>
Useful links and contacts

Useful links

Integrated Annual Report  
Corporate website  
Orange Business Services  
Universal Registration Document  
Corporate Social Responsibility  
Working at Orange  
Enovacom  
Orange Foundation  
Bien vivre le digital

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Individual shareholders
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The indicators presented below offer an estimate of the potential environmental impact of a printed copy of this report across its entire life cycle. They are calculated in accordance with the French standards for environmental disclosure (Afnor best practice guidelines – BP X 30 323 and the “printed documents” – GT8 Edition guide).

<table>
<thead>
<tr>
<th>WATER POLLUTION</th>
<th>AIR POLLUTION</th>
<th>CLIMATE CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8 g N eq./copy</td>
<td>3.1 g C,H4 eq./copy</td>
<td>1,194 g CO2 eq./copy</td>
</tr>
</tbody>
</table>

This scale can be used to compare the recyclability of products within the same category, ranking them from 1 (optimal recyclability) to 7 (poor recyclability).

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