2023

IMPACT
REPORT

Materials Intelligence
For a More Sustainable Future

QRIS Materials
Intelligence

Table of Content

A word from our co-founders

" As we continue to support a systemic change in our industry towards more sustainability, it is with great pleasure and pride that we share with you our 2023 Impact Report.

This comprehensive document encapsulates the strides we have taken together with our team and clients towards changing the infrastructure construction industry, championing sustainability, and fostering intelligent solutions for a more sustainable, resilient and inclusive infrastructure.

When we embarked in 2021 on the journey of founding ORIS Materials Intelligence, our vision was clear: to revolutionise the infrastructure construction sector by sharing construction materials knowledge and data, using advanced technologies.

Through this impact report, we reflect on the significant progress we've made. This report is also a testament to our commitment to sustainable development and the pivotal role of materials intelligence in achieving it. We delve into the impact our solutions have had on reducing environmental footprints, optimizing resource utilization, and enhancing overall project efficiency.

It is a celebration of the collective efforts made by our dedicated team, whose passion and commitment have been the driving force behind our accomplishments.

ORIS Materials Intelligence has also made a strategic shift in becoming a mission-driven company. This will be the cornerstone for our future developments, where every initiative is anchored in our core mission and beliefs.

Looking ahead, we are inspired by the challenges that lie before us and invigorated by the opportunities to further advance sustainable practices in the construction industry. The journey to a more sustainable future is ongoing, and we are excited about the prospects that the coming years hold for us.

Thank you for joining us on this exciting journey, together we are pushing boundaries, creating positive impact, and shaping the future of sustainable infrastructure.

With gratitude and excitement,

Nicolas Miravalls, CEO and Co-Founder

Renaud de Montaignac, COO and Co-Founder

Our Story

Who Are We?

ORIS Materials Intelligence, established as an independent company in 2021, is a pionnier in sustainable infrastructure construction by leveraging the power of digital solutions. Using AI and data science, it enhances the linear infrastructure sector's efficiency, sustainability and resilience.

With a mission to participate to resilient, inclusive, low-carbon linear transportation infrastructure projects using local resources, ORIS ambitions to redefine the industry's future.

- **Pioneering Sustainability:**
Collaborating across the value chain, from public authorities to materials suppliers, ORIS integrates cutting-edge digital solutions for sustainable practices.

- **Technological Innovation:**
A deeptech innovation, using AI and data science, ORIS aims to support inclusive, efficient, low-carbon infrastructure projects by leveraging local resources and social & environmental data.

- **Visionary Leadership:**
ORIS embodies a commitment to a sustainable future, redefining infrastructure construction. With a dedication to inclusivity and efficiency, it pioneers a transformative path, putting technology at work for a sustainable future.

Our Purpose

ORIS Materials Intelligence is committed to enabling the construction sector to create inclusive, efficient, and resilient infrastructure projects with a low-carbon footprint. This mission is realized through:
- providing digitized insights into construction material impacts,
- facilitating the measurement and optimization of environmental impacts,
- contributing to inclusive transport networks,
- fostering equitable growth by prioritizing employee well-being and fostering healthy workplace relationships.

8,167 km
of roads and railways assessed

936 users

Our 2023 Highlights

January:
Our Carbon Models receive Insurance from Intertek, showing the quality and excellence of our approach

March:
We join the United Nations Global Compact

March:
Signature of an MoU with Autodesk to join forces on sustainability through a plug-in for Civil 3D

July:
Signature of our partnership with UNIDO with the aim of developing inclusive road networks

September:
Winner of the WBDE award for most impactful act for sustainability

NEW PRODUCT
Carbon Calculator for Aggregates

September:
Launch of our CO_2 Calculator for aggregates, democratizing the access to whole lifecycle carbon calculation to all players within the value chain

November:
We pass the SOC 2 type 1 Audit, demonstrating the robustness of our data security approach

Our Approach to Sustainability

ORIS Materials Intelligence integrates **sustainability at the heart of its purpose, vision and product proposal.** At the core of the company is the crossing of three expertises:

- construction materials knowledge;
- environmental engineering;
- and cutting-edge digitalization, particularly in AI and machine learning.

This unique approach empowers our clients, throughout the infrastructure construction value chain, to be more sustainable, resilient and efficient. ORIS facilitates early modeling and visualization, offering insights into how construction materials will perform both during construction and over their entire lifespan. This approach bridges critical knowledge gaps within the industry.

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Moreover, ORIS Materials Intelligence takes its commitment to sustainability beyond its innovative platform. As a responsible actor in the sustainability landscape, ORIS extends its commitment to every facet of its operations, from minimizing environmental footprints to enhancing social impact and implementing governance policies that reflect a steadfast dedication to responsible business practices and creating a healthy working-environment.
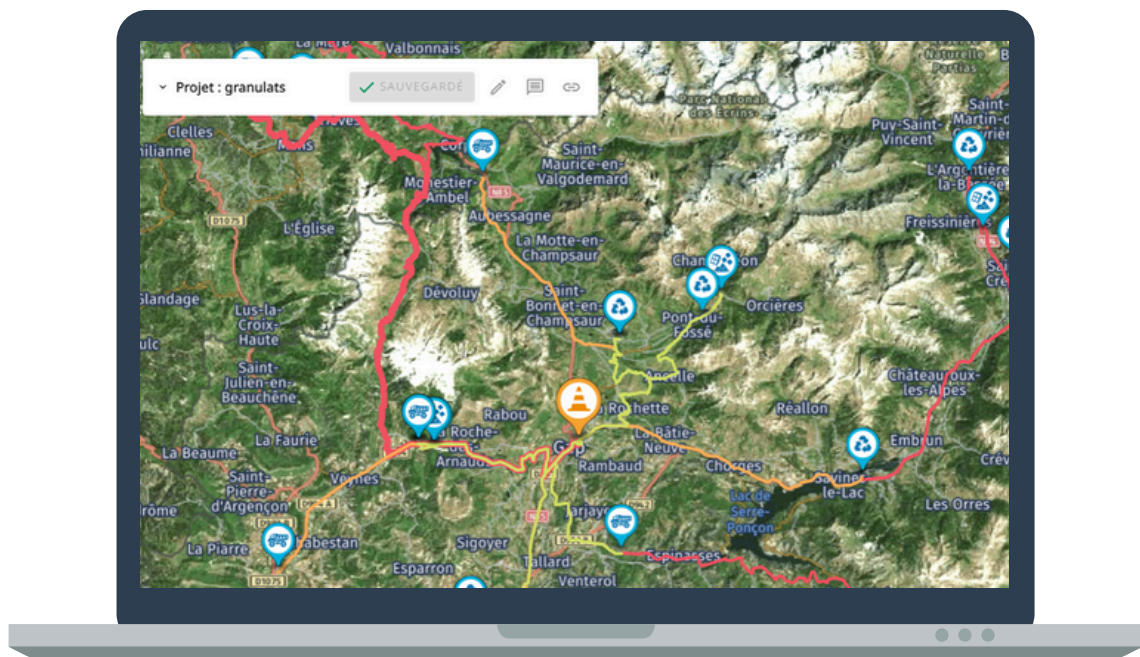
Sustainability Matrix

A sustainability matrix, embracing the concept of double materiality, serves as a comprehensive tool that assesses and communicates the environmental, social, and economic impacts of a particular product, service, or business operation.

For ORIS Materials Intelligence, creating a sustainability matrix is important in measuring our potential impact on society. The sustainability matrix is a guiding instrument for ORIS, allowing the company to make informed decisions, track progress, and continuously improve its practices, reinforcing its dedication to sustainable innovation in the infrastructure construction industry.

The sustainability matrix was established by our Management Committee and will be reviewed on a yearly basis, to integrate new risks and factors, as the company grow its market positions and product portfolio.
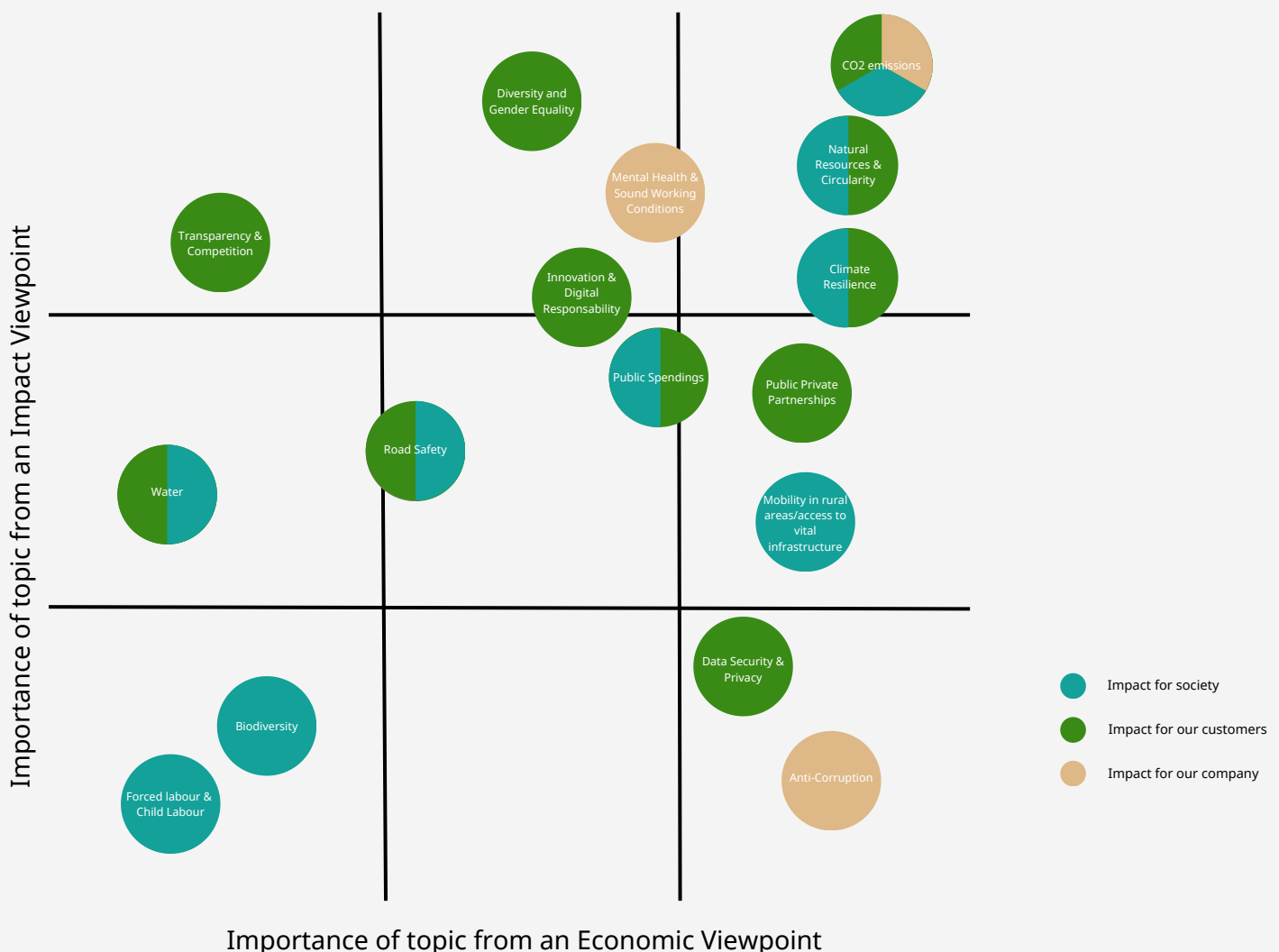
A Mission-Driven Company

In 2023, ORIS Materials Intelligence took significant steps towards becoming a mission-driven company, underscored by an official change in its legal status to become a "Société à mission" according to French law in February 2024. This pivotal move underscores the company's commitment to aligning its business strategies with a broader societal purpose. By transitioning into a mission-driven company, ORIS demonstrates its dedication to not only pursuing economic success but also prioritizing a positive environmental and social impact.

Our mission was defined with the support of our teams, using a collaborative approach.

In 2024, we will operationalize the creation of this mission by implementing a Mission Committee to propose and follow the implementation of actions that will support our progress towards our mission.

Our 2024 Impact Report will cover the outcome of this ground work.

Our Mission:

Enable the construction sector to design inclusive, efficient, resilient and low-carbon infrastructure projects by making the most of local resources and social & environmental data, connecting them through digital solutions (AI, data science and engineering)

Our 4 Objectives:

- **Provide digitized knowledge of the impact of the choice of construction materials used in infrastructure;**
- **Enable the infrastructure construction sector to measure and optimize the environmental impact of materials;**
- **Contribute to inclusive transport networks in line with global development objectives;**
- **Build equitable and balanced growth through an HR approach that cares about the well-being of its employees and a healthy relationship at work.**

Supporting our clients in their sustainability journey

At the core of ORIS Materials Intelligence's offerings is an innovative advanced platform designed to simulate and visualize the potential impact of selected materials on linear infrastructure projects, particularly on roads and rails. This innovative tool enables clients to comprehensively assess and understand the implications of their material choices, providing a dynamic perspective on the environmental, economic, and resilience aspects of their projects.

By leveraging ORIS Materials Intelligence, our clients gain the ability to identify the optimal design options for their infrastructure projects. This includes strategic decision-making to minimize carbon footprint, reduce natural resource consumption, enhance resilience to external factors such as climate change, and effectively manage budgetary constraints.

Our approach includes an advanced Climate resilience Methodology that allows priorization within a network, based on vulnerability, climate exposure and social impact.

The platform empowers clients to make informed decisions tailored to their unique project requirements, allowing them to prioritize specific aspects or strike a balance that aligns with their sustainability goals.

The simulations conducted through ORIS Materials Intelligence draw on a wealth of data concerning local resources and leverage expert knowledge on the role of materials over time.

This comprehensive approach ensures that the insights provided are not only accurate but also rooted in a deep understanding of the contextual factors that influence the long-term impact of chosen materials in diverse geographical settings.

Measuring our positive impact through our clients

In 2023, the potential positive impact through our project adds up to:

CO2 **- 0.9MT CO2eq.**

carbon emissions avoided
incl. 0.66MT from the use phase

- 23% on average

- 17 MT

primary resources not used

- 59 % on average

- $163 M

saved on initial budgets

- 23 % on average

ORIS Materials Intelligence plays a key role in driving positive transformations within the linear transportation infrastructure construction sector through through the potential of optimization and reduction we bring to our clients. By optimizing local data on construction material availabilities and favouring low-carbon and circular materials, we assess various desigh options and identify significant reductions in costs, carbon emissions, and natural resource consumption.

Through our platform, we empower our clients to make informed decisions aligned with sustainability goals and offer a tangible solution for responsible and impactful practices within the infrastructure construction industry.

8,029 km

of road and rails
assessed for climate resilience

Innovative Products

Easy, Accurate and Scientifically Robust: Making the Measure of Aggregates' Carbon Footprint Accessible to All

ORIS Materials Intelligence has launched in September 2023 its CO_2-calculator, a sophisticated tool designed to calculate the carbon footprint of aggregates with ease and scientific robustness.

Developed in collaboration with CIRAIG, a prominent LCA research center, and MIRO, the German aggregates association, the calculator aligns with the Life Cycle Assessment (LCA) methodology, the tool considers all stages in a product's life cycle, providing aggregate producers with a comprehensive approach for infrastructure construction emissions.

The CO_2-calculator users receive a certificate and background calculation report within a week, facilitating informed decision-making and fostering strategies to minimize carbon footprint.

Easing the Construction Waste Management Process in France

ORIS simplifies the waste management process by facilitating the completion of the Dossier d'Acceptation Préalable (DAP) in compliance with French regulation.

DAPs are essential for waste recycling, ensuring traceability by collecting detailed information on the characteristics, origin and composition of waste, as well as its final treatment. The ORIS platform offers precise location of waste on a map, simplifying DAP completion, while providing BASOL/CASIAS/SIS information to detect any potential pollution. By enabling a precise decision on waste pollution, ORIS optimizes the time spent on waste management, while guaranteeing regulatory compliance.
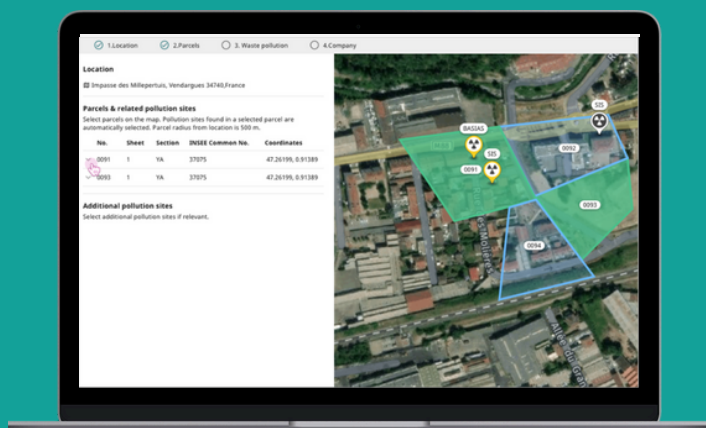
Building Resilient Transportation Networks

ORIS Materials Intelligence has developped a groundbreaking Climate Resilience Methodology aimed at revolutionizing sustainable and climate-resilient transport infrastructure designs. Acknowledging the vulnerability of local mobility networks to climate change, the methodology employs advanced digital solutions and artificial intelligence to anticipate, mitigate, and adapt to future climate constraints. Despite advancements in climate modeling and risk assessment, a significant gap exists in providing policymakers with digital tools seamlessly integrating climate resilience assessment into transportation decision-making.

The ORIS methodology is structured around key phases, including the definition of geographical and climate parameters, a combined analysis of climate exposures and infrastructure vulnerabilities, and the identification of social and economic impacts.

By utilizing advanced climate models like CMIP 6 and considering factors such as heat, freeze-thaw cycles, and precipitation, ORIS generates a comprehensive Heat Climate Exposure Map on its platform. The methodology evaluates the project's vulnerability to identified climate exposures, factors in social aspects through the Rural Access Index, and calculates a united score that guides the formulation of adaptation and mitigation measures.

ORIS adapts infrastructure designs through measures such as rigid pavement, stabilized bases, and optimized maintenance programs, with a focus on reducing the Global Warming Potential. These adaptations and mitigations are dynamically integrated into the ORIS digital platform, providing policymakers with a versatile tool for decision-making. The methodology represents a significant leap forward in addressing climate challenges in the transport sector, offering a clear, evidence-based pathway for infrastructure planning aligned with global decarbonization goals.
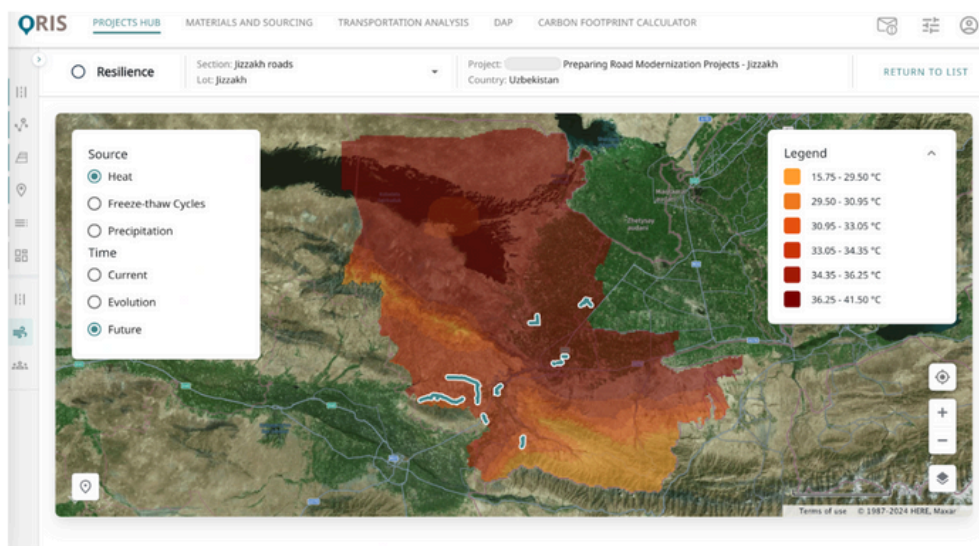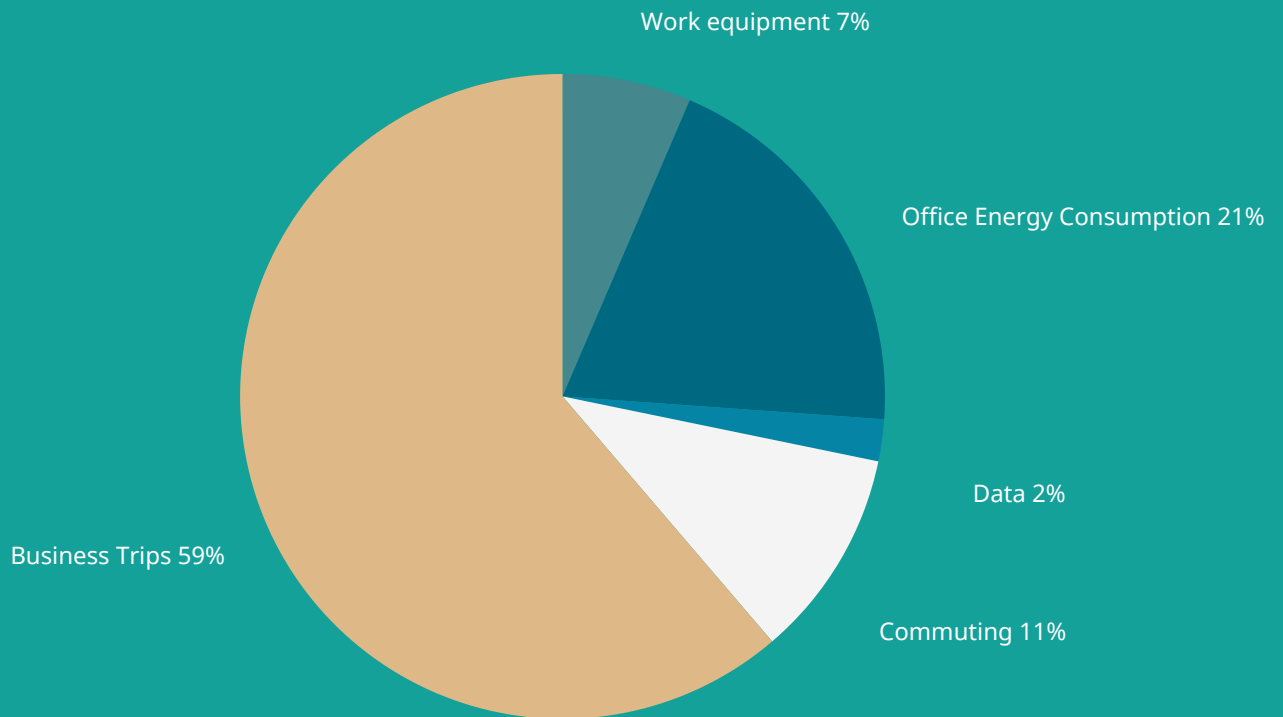
Our CO$_2$ Footprint

As a company committed to promoting the measurement of carbon footprints to reduce environmental impact, we apply these principles to ourselves. Using our internal expertise and knowledge, we have carefully assessed our own carbon footprint. This process allows us to identify improvements, implement reduction strategies, and transparently communicate our environmental impact.

In 2023, despite an increase in our number of employees and activity, our CO$_2$ emissions remain stable thanks to a significant change: ORIS has relocated its main offices from the suburbs of Lyon, France, to the city center. This move has brought several positive outcomes, including a more sustainable energy mix, with heating no longer reliant on fuel oil and gas, a reduction in rented office space, and the reduction of daily commuting needs, with the new location easy to reach via public transportation or bike. This is reflected by a lower ratio of emissions per employee (-6.8%).

in t CO$_2$ eq.

Scope1 **Scope 2** **Scope 3**

130 **129**

2023 2022
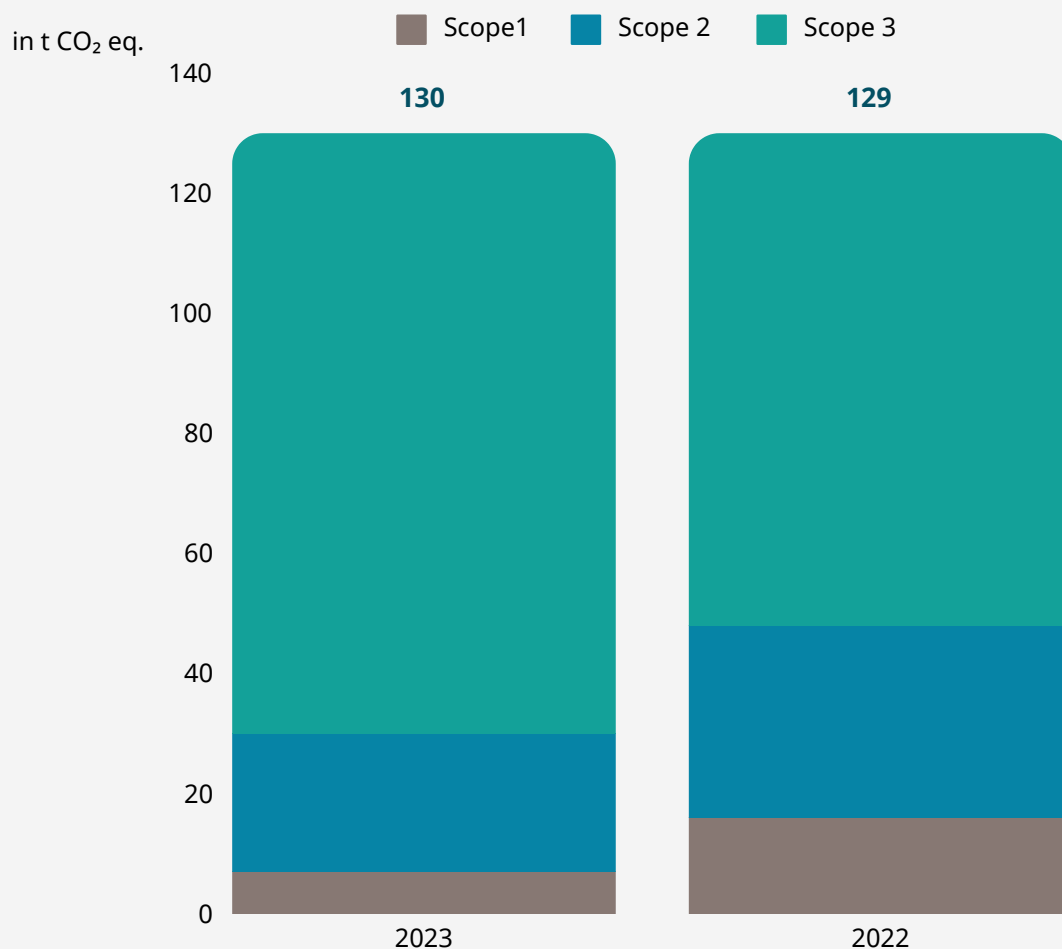
ORIS Materials Intelligence CO$_2$ Footprint per scope

Work equipment 7%

Office Energy Consumption 21%

Data 2%

Commuting 11%

Business Trips 59%

ORIS Materials Intelligence 2023 CO₂ Footprint per source of emissions

ORIS Materials Intelligence's primary source of carbon emissions stems from business trips, a topic the company is addressing. In 2023, trips have been rationalized, and the centralization of its development team in Lyon will reduce further its travel-related carbon footprint. ORIS is also currently reviewing its travel policy to encourage low-carbon mobility options.

1 ton for 6,741 tons

The figure above illustrates the ratio of carbon emissions emitted by our activity, compared to the potential emissions avoided, highlighting the positive impact of what we do.
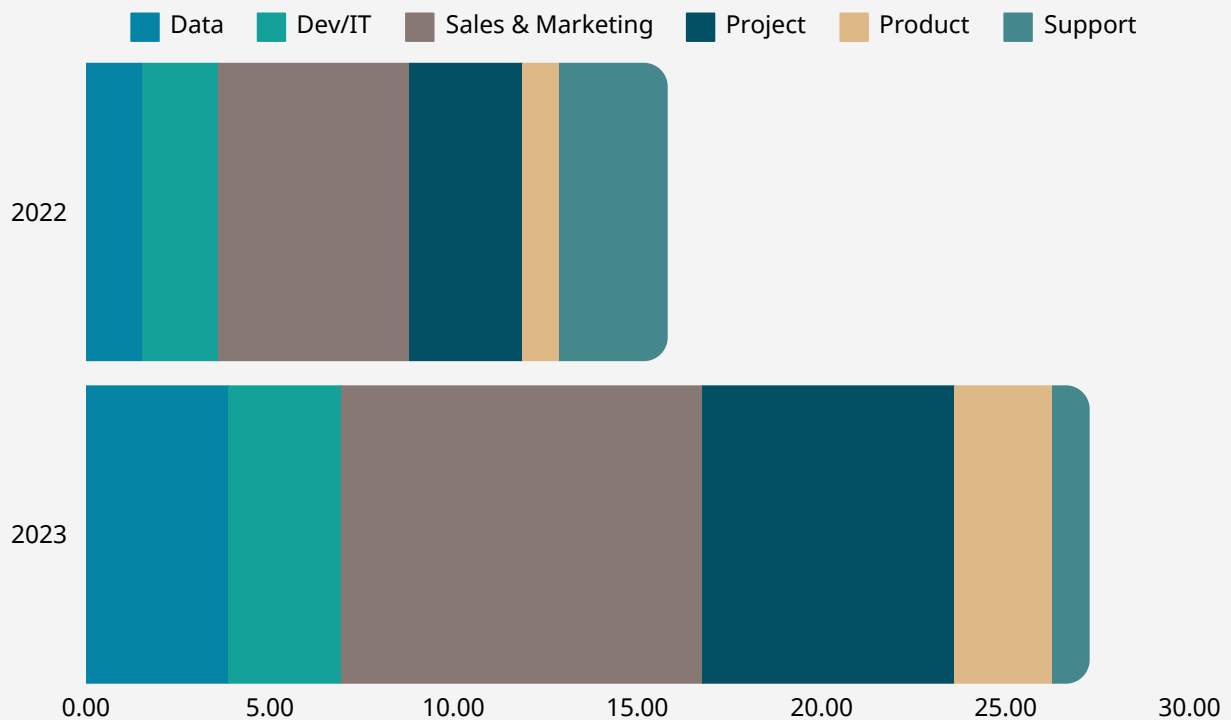
Our people at the heart

ORIS places people at the heart of its Human Resources (HR) approach, recognizing the invaluable role employees play in the company's success. The organization prioritizes fostering a healthy relationship to work, understanding that employee well-being is fundamental to productivity and long-term engagement. To uphold this commitment, ORIS is implementing mental health initiatives, ensuring that employees have access to resources and support to maintain their mental well-being. By recognizing and prioritizing mental health, while granting employees the autonomy needed to pursue their objectives within a structured framework, ORIS aims to create a work environment where individuals can thrive both personally and professionally.
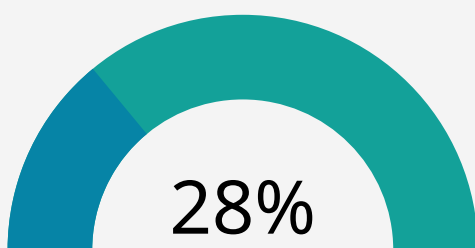
In building a dynamic and innovative workforce, ORIS has curated a team of young professionals that is international, diverse and gender-balanced. Recognizing the strength in varied perspectives, the company places a strong emphasis on cultivating an inclusive workplace that values differences. This commitment to diversity not only fosters creativity and innovation but also contributes to a positive and collaborative company culture. Furthermore, ORIS invests in training hours and opportunities to ensure continuous skill development among its employees. By providing avenues for growth and learning, ORIS enables its workforce to stay at the forefront of industry advancements, contributing to the overall success of both the individuals and the organization.

Key Figures

Legend: Data, Dev/IT, Sales & Marketing, Project, Product, Support

Number of Employees (FTE equivalent): 27.29

Bar chart showing employee breakdown by department for years 2022 and 2023, with x-axis from 0.00 to 30.00.

Share of female employees

28%

Age breakdown

- Above 50: 7%
- Below 30: 31%
- 30-50: 62%
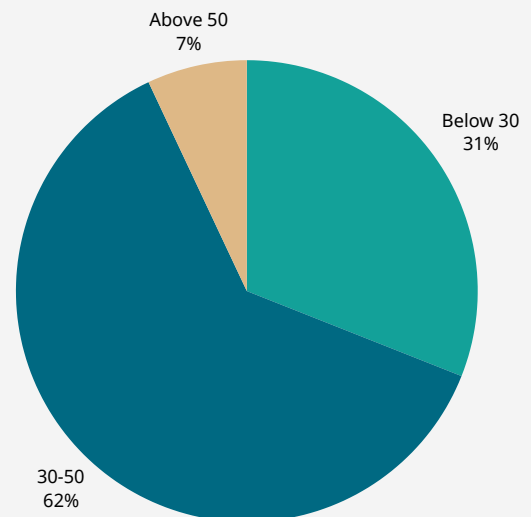
12.26

training hours per employee on average

Data as of December 31, 2023

A groundbreaking partnership for inclusive road networks

The
ROADS4PEOPLE
Programme

ORIS Materials Intelligence signed in July 2023 a partnership agreement with the United Nations Industrial Development Organization (UNIDO) to spearhead an innovative and forward-thinking project at the forefront of sustainable and inclusive road development.

This "systemic" program aims to help developing countries rebalance investments towards local infrastructure to build roads for the benefit of rural communities.

This program aims at facilitating investment & technology transfer in infrastructure development, especially in rural areas.
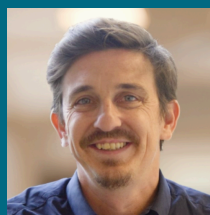
Governance

Management Committee

Nicolas MIRAVALLS
Chief Executive Officer & Co-Founder

Renaud de MONTAIGNAC
Chief Operations Officer & Co-Founder
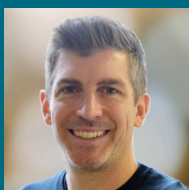
Laurent GIVAUDAN
Chief Data Officer
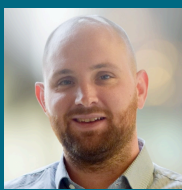
André WEIGELT
Chief Technology Officer

Elodie WOILLEZ
Chief Strategy & Impact Officer

Supervisory Board

Edelio BERMEJO
President of the Supervisory Board

Karine UZAN MERCIE
Member of the Board

Audrey TURBIEZ
Member of the Board

Susanna ZAMMATARO
Member of the Board, Independent

Data as of December 31, 2023

Leading business in a sustainable manner

As a leading business committed to sustainability and impactful practices, ORIS takes pride in its unwavering dedication to conducting operations with integrity. Rooted in a strong foundation of responsible business conduct, the company has clear guidelines for ethical behavior in it activities, including on anti-bribery and corruption. Every ORIS employee has committed to upholding these standards through the company's Code of Business Conduct, ensuring a collective adherence to principles that prioritize transparency and fairness.

Moreover, ORIS is actively engaged in continuously enhancing its commitment to data privacy and protection, by developing frameworks aligned with global standards, including SOC 2 and the EU GDPR.

These efforts underscore ORIS's proactive stance in fostering a business environment, demonstrating it's commitment to responsible and sustainable business practices.

In 2023

15 internal policies related to data security and privacy adopted

100% employees trained

Achieving SOC 2 audit

ORIS successfully completed in November 2023 the SOC 2 Type 1 audit. This underscores the company's unwavering dedication to upholding top-tier standards in data security, privacy, and integrity, aligning with industry benchmarks.

As part of its journey to achieve its SOC 2 Audit, ORIS implemented several internal processes to strengthen its data security including a comprehensive set of security policies and procedures which are aligned with the SOC 2 Trust Services Criteria which are focusing on security, availability, processing integrity, confidentiality, and privacy.

Engaging with our Eco-System

ORIS aspires to democratize access to comprehensive data and knowledge concerning construction materials, making it readily available to all participants within the infrastructure value chain. To achieve this objective, the company actively collaborates with essential stakeholders along the infrastructure value chain and within the digital ecosystem. The overarching aim is to harness and facilitate the exchange of expertise, fostering a collaborative environment where valuable insights and information about construction materials are shared seamlessly among all relevant actors. This collaborative effort seeks to empower decision-makers, enhance transparency, and contribute to informed and sustainable practices throughout the infrastructure development process.

Labels and Verifications

AUTODESK

ʒʒJ TURUN TUNNIN JUNA

iRAP

SWECO

ARKANCE SYSTEMS

UNIDO

Die Autobahn

IBM

AΞCOM

ADB

aws

HOLCIM

International Road Federation
Fédération Routière Internationale
Federación Internacional de Carreteras
IRF

ARCADIS

AtkinsRéalis

here

Public Policy

ORIS Materials Intelligence emphasizes the importance of integrating construction materials into the early stages of linear infrastructure designs, aiming to enhance sustainability, resiliency, and cost-efficiency. In order to achieve these goals, ORIS advocates for a comprehensive approach that considers the unique characteristics of each project and its specific sourcing environment.

The key principles that infrastructure projects should take into account include:

- **Local Sourcing:** Recognizing that the best materials are often found locally, sometimes right beneath our feet. Utilizing materials from the project's immediate surroundings can contribute to sustainability and reduce transportation-related environmental impacts.
- **Circular Economy:** Identifying materials available for reuse during the design stage is crucial. This approach minimizes reliance on primary natural resources and promotes a circular economy by maximizing the lifespan of materials.
- **Carbon Footprint:** Conducting a whole life cycle analysis (LCA) to assess the carbon footprint is essential. This thorough examination helps identify and address key areas for carbon reduction throughout the infrastructure project's life cycle, promoting environmentally responsible practices.
- **Carbon Pricing:** Placing a monetary value on carbon emissions is a mechanism designed to incorporate the societal costs associated with carbon into the decision-making process. This strategy serves as a catalyst for the dissemination of responsible business practices across the entire construction value chain.
- **Durability and Resilience:** Emphasizing the importance of the longevity of a road and its ability to withstand extreme weather events. This focus on durability and resilience helps minimize the need for frequent maintenance work, ensuring a prolonged service life to communities and reducing overall costs.

ORIS actively collaborates with international organizations, including the International Road Federation, GI Hub, Multinational Development Banks, PIARC, and others. These collaborations aim to promote and advocate for the integration of these principles in infrastructure projects globally, fostering a more sustainable and resilient approach to linear infrastructure development.

Key figures

ENVIRONMENTAL & SOCIAL IMPACT	2023	2022
Carbon emissions potentially avoided through our projects (in tons CO$_2$ eq.)	**877,646**	**16,495**
Construction phase	215,646	16,495
Use phase	662,000	-
Use of primary resources potentially avoided through our projects (in tons)	17,783,422	371,946
Budget project potentially saved through our projects (in M$)	163.33	14.62
Networks assessed for climate resilience (in km)	8,029	29
ORIS Materials Intelligence Carbon Footprint (in tons CO$_2$ eq.)	**130.21**	**128.73**
Scope 1	7.20	15.51
Scope 2	22.91	31.55
Scope 3	100	81.76
Carbon Footprint per employee (in tons CO$_2$ eq.)	**2.553**	**2.739**
Ratio ORIS Carbon Footprint/Emissions avoided	**1 for 6,741**	**1 for 124**

Key figures

EMPLOYEES	2023	2022
Number of Employees (FTE equivalent)	**27.29**	**15.82**
In France	20.33	15.82
Abroad	6.96	3.15
Number of Female Employees	7.59	2.34
Number of Employees with disabilities	0	0
Share by Function (FTE equivalent)		
Data	3.88	1.53
Dev/IT	3.06	2.06
Sales & Marketing	9.82	5.21
Project	6.84	3.06
Product Management	2.68	1
Support	1	2.95
Share by Age (FTE equivalent)		
Below 30	8.44	4.54
30-50	16.85	9.53
Above 50	2	1.74
Number of Subcontractors (FTE equivalent)	**3.4**	**1.4**
Number of female Subcontractors	1.4	1.4
Number of employees who left over the period	3	0

Key figures

TRAINING & SKILLS	2023	2022
Average number of training hours per employee	**12.26**	**-**

HEALTH & SAFETY	2023	2022
Number of work-related injuries or ill health	**0**	**0**
Number of days lost to work-related injuries or ill health	**0**	**0**

Key figures

GOVERNANCE	2023	2022
Supervisory Board		
Number of members	4	4
Number of female members	3	3
Number of independent members	1	1
Management Committee		
Number of members	5	2
Number of female members	1	0

RESPONSIBLE BUSINESS	2023	2022
Number of Incidents		
Related to corruption or bribery	0	0
Related to data privacy breach	0	0
Related to cybersecurity	0	0
Share of Employees trained		
On policies related to data privacy & security	100%	-