



Media Kit 2025

The Platform for Sustainable Infrastructure

Leveraging the untapped power of materials for sustainable infrastructure





About ORIS

ORIS Materials Intelligence is **transforming the road and rail construction industry** with a cutting-edge, AI-powered digital platform, providing a more innovative, more sustainable approach to infrastructure. ORIS was born out of **an intrapreneurship initiative** and was incubated within the world-leading construction materials company. In 2025, ORIS closed a Series A investment of 3 million euros with LIBERSET, joining their entrepreneurial umbrella. This move carved ORIS out from its historic shareholder and established a new shareholding structure in which the co-founders and key employees maintain company management and control.

ORIS is the sustainability platform for infrastructure. It shapes the future of sustainable infrastructure by empowering designers and public authorities to mitigate sustainability risks through early-stage assessments, **boost design productivity by 20%** with streamlined carbon calculations, and make net-zero-aligned decisions that anticipate evolving regulations, powered by a science-backed data platform.

Launched in 2021, ORIS is on a mission to empower stakeholders to lead the way by making data-driven decisions that accelerate impact **by lowering costs by 15 to 30%, reducing carbon emissions by up to 50%, and decreasing natural resource usage by as much as 80%, while increasing resilience to climate change over the next few decades.**

By harnessing the power of **data science, AI, and life cycle assessments**, ORIS enables infrastructure owners, engineers, contractors, and material suppliers to optimise construction material use, enhance resilience, and drive cost efficiencies across projects.

Headquartered in Paris, with its main office in Lyon, France, ORIS partners with top-tier engineering and construction firms—including major names of the sector such as Ramboll, Sweco and AECOM—as well as public authorities like Die Autobahn, the European Investment Bank, the Asian Development Bank, the Asian Infrastructure Investment Bank and UNIDO. Together, ORIS and its partners are championing infrastructure sustainability **from the design stage onward.**

As a “Société à Mission” - in the French legal status - ORIS Materials Intelligence is committed to driving systemic change within the infrastructure sector, ensuring that every road and railway built enhances communities, reduces environmental impacts, and optimises resource use.

In recognition of its innovative approach to civil engineering, life cycle assessments (LCA), climate resilience, data science, and AI, **ORIS won the prestigious International Road Federation 2024 Award in the “Decarbonisation and Circular Economy” category.** This recognition highlights ORIS’s commitment to shaping the future of infrastructure, where sustainability and performance go hand in hand.





A word from our co-founders

At ORIS Materials Intelligence, **we believe that roads and railways can be built differently** - smarter, more resilient, and at a lower cost - to benefit our communities and our planet.

The world can no longer afford to overlook the impact of materials on our environment and economies in the construction of linear transportation infrastructure.

The way we build today determines the resilience of our societies tomorrow.

This is why we created ORIS: to drive a fundamental shift in how infrastructure is designed and built.

By leveraging advanced digital solutions and deep construction materials intelligence, we empower decision-makers to move beyond traditional, inefficient approaches and unlock sustainable, cost-effective solutions. Materials impact 60% of infrastructure costs and 85% of its carbon footprint - we have demonstrated that with data-driven insights, we can dramatically reduce both.

With urgent climate, financial, and social pressures - and infrastructure assets built to last decades - we cannot delay integrating sustainability into road and railway design. We must act now.

Our AI-powered platform is a tangible solution that enables engineers, designers and public authorities to chieve their sustainbaility ambitions, by cutting carbon emissions, reducing raw material consumption, and designing roads and railways that last longer, all while lowering costs.

Sustainability is not a constraint - it is an opportunity to build better, more resilient, and at lower costs.

Together, we are transforming the way the world builds - one road at a time.

Nicolas Miravalls, CEO and Co-Founder

Renaud de Montaignac, COO and Co-Founder



Key Figures - 2024



19,199 km of infrastructure assessed



1,400 users leveraging ORIS solutions



42,000+ material suppliers referenced on the platform

In 2024, ORIS identified for its clients levers enabling:

Avoidance of **3.2 million tonnes of CO₂ emissions**



Avoidance of usage of **4.4 million tonnes of materials**



Savings of **\$24 million in budget**



For more information

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Infrastructure construction: a market on the brink of transformation

The infrastructure construction sector is at a crossroads. Infrastructure projects are no longer judged solely on the basis of cost or timescales.

Faced with the challenges of climate change, resource scarcity, and exploding public spending, governments and industries can no longer afford to rely on outdated, resource-intensive construction practices. The shift toward **sustainable and resilient** infrastructure is no longer a choice—it's an imperative.

At ORIS Materials Intelligence, we see a future where infrastructure is planned and built **with intelligence, efficiency, and environmental responsibility at its core.**

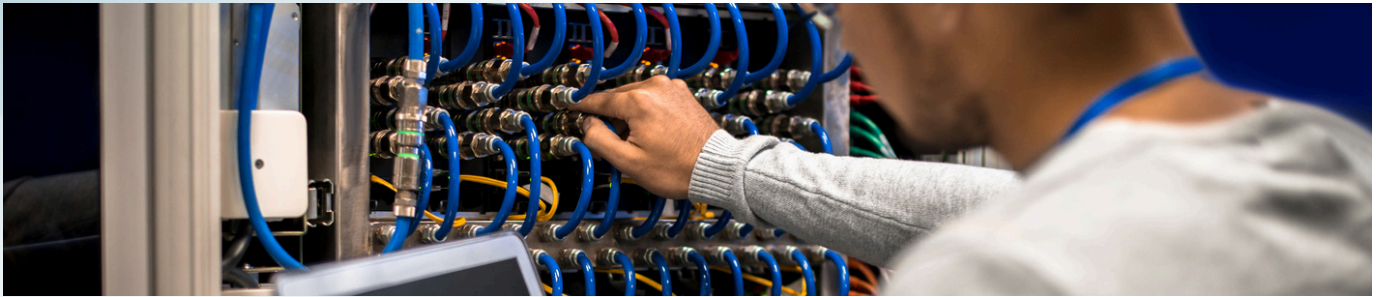


Roads and railways should not only connect people but also **be resilient, low-carbon and optimise the use of natural resources and budget.** The market is evolving rapidly, driven by technological advancements, regulatory pressures, and a growing demand for greener solutions.

We are convinced that advanced digitalisation enables us to solve the impossible equation between low-carbon, resilient and controlled budgets. By incorporating environmental science, data, and AI-driven insights, **we are demonstrating that designing sustainable roads and railways does not necessarily cost more.**



1. The digital shift: data as the new standard

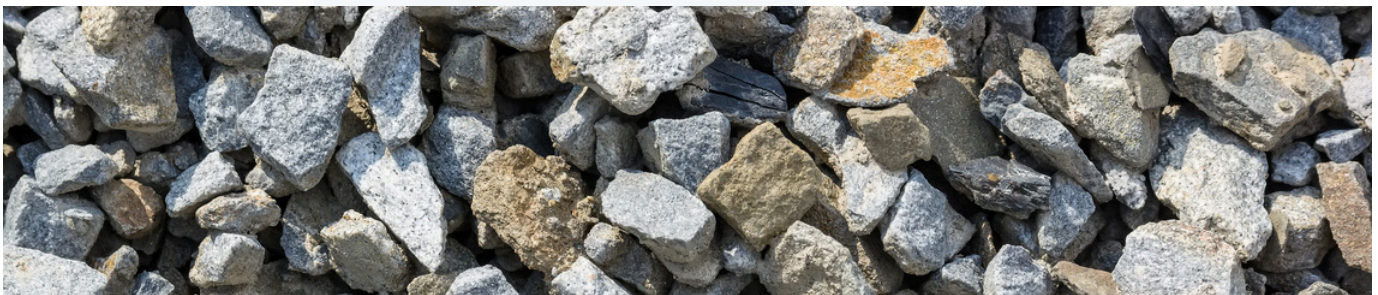


For decades, infrastructure decisions have been based on generic, one-size-fits-all approaches that fail to consider local material availability, carbon impact, or long-term resilience.

ORIS envisions a construction sector where **data-driven decision-making** is at the heart, ensuring that every infrastructure project is tailored to its unique environmental and economic context.

By integrating **data science, life cycle assessments, and AI-powered material intelligence**, ORIS is creating a new industry standard—where infrastructure is optimised for performance, sustainability, and cost-effectiveness **before a single material is laid**.

2. A circular and resilient future thanks to materials intelligence



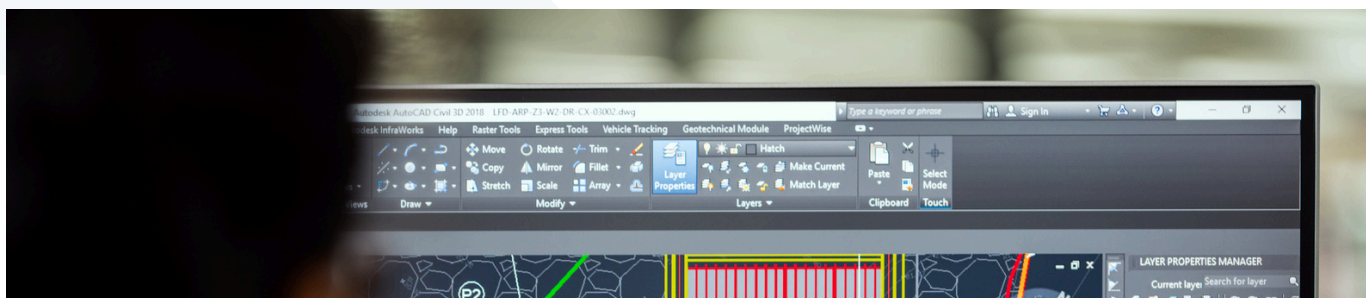
Materials can no longer be chosen by default, or copied and pasted from a previous project. Their impact goes far beyond the "technical" or "logistical" aspects: they have a direct influence on the overall performance of infrastructure projects.

We believe the future of infrastructure is circular, **adaptive, and resilient**. Traditional construction depletes natural resources and generates excessive emissions, but the future we envision embraces:

- **Circular economy principles** – Maximising the use of recycled materials to lower cost and environmental footprint.
- **Resilience to climate change** – Ensuring roads and railways can withstand extreme weather conditions through smarter material choices and design strategies.
- **Local sourcing for global impact** – Prioritising regional materials to reduce transport emissions & costs.



3. New reality, new role for engineers



In this new paradigm, engineers, project managers, BIM managers and environmental managers are no longer simply executors.

They become the architects of structuring choices: What materials should be used? Where should they come from? What trade-off between carbon, cost and distance? Which option will be the most resilient in the long term?

They can - and must - optimise design through materials, right from the design phase.

4. Transforming an industry to attain net-zero goals



At ORIS, we support the future of construction by enabling smarter, more sustainable infrastructure solutions.

Our technology and expertise empower key players across the construction sector—**infrastructure owners, policymakers, engineers, contractors, and material suppliers**—to make informed decisions that reduce carbon emissions, optimise costs, and enhance resilience.

By providing data-driven insights at every stage of the project lifecycle, ORIS helps **industry leaders transition toward a new era of responsible, resilient, and efficient transportation infrastructure.**



From vision to reality: the birth of ORIS

ORIS was founded in 2021 on a bold idea: construction materials—often overlooked in the first phases of infrastructure planning—hold the key to making roads and railways more sustainable, cost-effective, and resilient. Recognising the urgent need for smarter material choices in infrastructure, **Nicolas Miravalls** and **Renaud de Montaignac**, both industry experts, decided to create a platform that could revolutionise the way infrastructure projects are designed.

The idea was incubated between 2015 and 2021 within **the world's largest R&D center for construction materials**, where the co-founders identified critical inefficiencies in traditional infrastructure planning. With backgrounds in construction, materials science, and digital innovation, they saw firsthand how outdated methodologies led to excessive carbon footprints, costly project overruns, and missed opportunities for local sourcing and circularity.

Their solution? A **digital intelligence platform** that integrates advanced data science, AI, and engineering expertise to drive sustainability from the very first design stage.

Since 2025, **ORIS has been fully carved out of its historic shareholder** through its Series A fundraising of 3 million euros with LIBERSET and joining their entrepreneurial umbrella. This concludes the original path within the world-leading construction materials company, as a corporate spin-off, and establishes a new structure where the co-founders and key employees will ensure company management and control.

By redefining how roads and railways are designed, built, and maintained, ORIS is proving that sustainable infrastructure isn't just an option— it's the future.

On a mission to transform infrastructure

In 2024, ORIS Materials Intelligence took a bold step forward by becoming a **"Société à Mission"**, a legal designation in France that formalises its commitment to sustainability and impact. It is a pledge to lead the industry toward a more responsible future.

ORIS's mission is clear: **"To enable the construction sector to design inclusive, efficient, resilient, and low-carbon infrastructure projects by making the most of local resources and social and environmental data, connecting them through digital solutions."**

This mission is supported by 4 objectives:

- **Digitising the construction materials sector**
- **Reducing the environmental impact of infrastructure**
- **Contributing to inclusive transport networks**
- **Building equitable and balanced growth**

This mission isn't just words—it's a blueprint for action. ORIS empowers decision-makers with the tools to reduce carbon emissions, optimise material use, and build infrastructure that serves communities.



A social and environmental commitment

ORIS Materials Intelligence's impact extends beyond carbon savings and efficiency gains. Through its partnership with UNIDO and their joint program **Roads4People**, ORIS is rebalancing infrastructure investment toward rural and underserved communities, ensuring that transportation networks are inclusive and equitable.

At its core, ORIS isn't just building technology—it's building a movement. By bridging the gap between sustainability, innovation, and economic viability, ORIS is leading the way toward a world where infrastructure development is synonymous with progress, resilience, and responsibility.

ORIS core values: the foundation for our success

At ORIS, our core values—**Care, Dare, Together**—drive everything we do. These values shape our culture, guiding us as we work towards a sustainable future.

- **Care:** We prioritise kindness, empathy, and respect, creating a positive, supportive environment where high-quality, impactful work thrives.
- **Dare:** Innovation and boldness define us. We encourage creative thinking, risk-taking, and continuous improvement, pushing the boundaries of sustainable infrastructure solutions.
- **Together:** Collaboration is key. We foster diverse perspectives, trust, and open communication to achieve shared success—both internally and with our customers and partners.

These values are the foundation of our culture, enabling us to innovate, collaborate, and drive meaningful change in infrastructure.

A scientific approach to infrastructure assessment

ORIS Materials Intelligence's approach is supported by a rigorous scientific foundation, combining three core areas of expertise:

- **Construction materials knowledge** – Drawing on deep sector expertise to assess materials' performance, sourcing, and environmental impact.
- **Environmental engineering** – Following lifecycle assessment (LCA) principles to provide accurate and comprehensive sustainability insights.
- **Advanced digitalisation** – Harnessing AI and machine learning to deliver actionable data.

Nicolas Miravalls

Chief Executive Officer & co-founder



Nicolas Miravalls is a highly accomplished leader with **extensive international experience in the infrastructure industry**. With a career spanning over 30 years, he has held pivotal roles, from civil engineering in the field to senior management positions in contracting, business development, and strategic leadership. As the **Chief Executive Officer and co-founder of ORIS**, Nicolas has been instrumental in transforming the way infrastructure projects are approached, leveraging **cutting-edge data-driven solutions for smarter, more sustainable development**.

Before founding ORIS, Nicolas spent **15 years managing operations across Africa and Eastern Europe** for COLAS, a leading global infrastructure contractor. During this time, he gained invaluable expertise in **international contracting, operational management, and business development**. His deep understanding of the road infrastructure sector led him to take the role of Global Head of Road Markets at HOLCIM, where he **spearheaded road strategy and business development** from 2013 to 2021. It was there that Nicolas initiated the ORIS Materials Intelligence platform as an **intrapreneurial venture**, envisioning a future where materials digitisation and data-driven decisions would **optimise public infrastructure investment**.

Under Nicolas's leadership, **ORIS has grown into a transformative platform** for the infrastructure industry, providing innovative solutions for sustainable road and rail construction. His expertise in **business development, strategy setting, and team leadership** has driven ORIS's growth, enabling the company to build a strong presence in the industry and forge key partnerships with **leading engineering, procurement, and construction firms worldwide**.

Throughout his career, Nicolas has also played a key role in advising major infrastructure projects, from **operational restructuring to acquisition negotiations**. His advisory work has spanned various sectors, including roads, highways, civil works, and materials, across Central and Eastern Europe.

A passionate advocate for innovation and sustainability in infrastructure, Nicolas is a frequent speaker at international conferences and business events. He is a member of the Board of the International Road Federation and has served as President of the Environmental Working Group of the European Pavement Association.

Nicolas holds a MSc General Engineering degree from ICAM, and has completed executive education at HEC Paris. He has also served as a French Foreign Trade Advisor for nine years and continues to contribute to the advancement of global infrastructure.

Renaud de Montaignac

Chief Operating Officer & co-founder



Renaud de Montaignac is the Chief Operating Officer (COO) and co-founder of ORIS, a leading company in the digital transformation of the infrastructure sector. With a PhD in structural engineering and a background as a generalist civil engineer, Renaud brings over **20 years of experience in design, project management, and operations** across large infrastructure projects. His expertise **spans civil engineering, materials science, sustainability, environmental assessment, and Building Information Modelling (BIM)**.

Before co-founding ORIS, Renaud was with the HOLCIM Innovation Center, where he led the project management for ORIS from its inception. His ability to **drive product strategy, manage company operations, and develop engineering teams** has been essential in positioning ORIS as a pioneer in AI-powered solutions for sustainable infrastructure. Under his leadership, ORIS has grown from an idea to an international start-up.

Renaud is passionate about building digital solutions that enhance the sustainability and efficiency of the construction industry. He plays an active role in product development and in driving the company's long-term vision of **transforming how infrastructure projects are designed, built, and managed globally**.

In addition to his leadership in operations, Renaud has made significant contributions to groundbreaking research in structural engineering, including **work on finite element analysis and structural fire safety for major infrastructure projects**. His academic contributions, including a PhD on the behavior of bending elements in metal fiber-reinforced concrete, reflect his deep commitment to advancing engineering knowledge.

A graduate of Polytechnique Montréal and INSA Lyon, Renaud's education is complemented by executive training at Harvard Business School.

For more information

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ORIS Materials
Intelligence

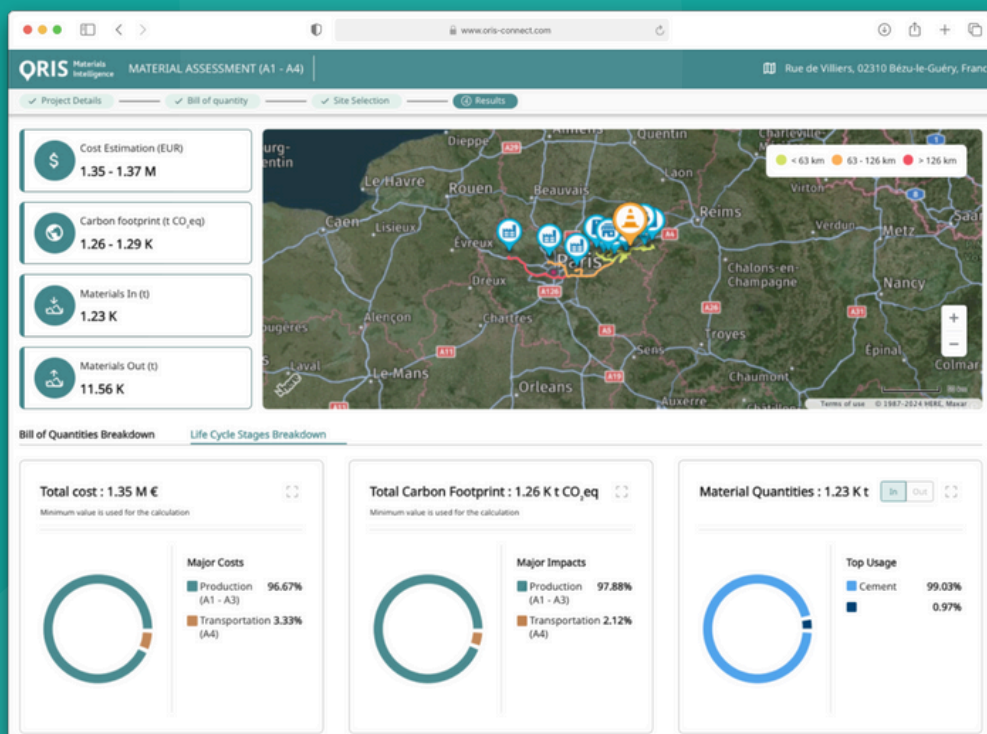
Our products & services

ORIS Materials Intelligence

Smarter, more sustainable infrastructure designs

ORIS Materials Intelligence is the sustainability platform for infrastructure by excellence, empowering designers and public authorities to shape the future of sustainable infrastructure.

ORIS Materials Intelligence enables risk measurement and mitigation through early-stage assessments, design productivity boost by 20% with streamlined carbon calculations, and net-zero-aligned decisions that anticipate evolving regulations. Powered by science-backed data, our users lead the way, accelerate impact and build trust.



The platform is seamlessly integrated within civil engineers workflows through its open BIM Module **enabling the assessment of construction materials** in infrastructure designs. It allows engineers and infrastructure designers to access ORIS' capabilities on embodied carbon assessment during the design process, using their BIM designs, enabling end-to-end construction materials impact assessment from extraction to construction through transport with GIS-based materials sourcing.

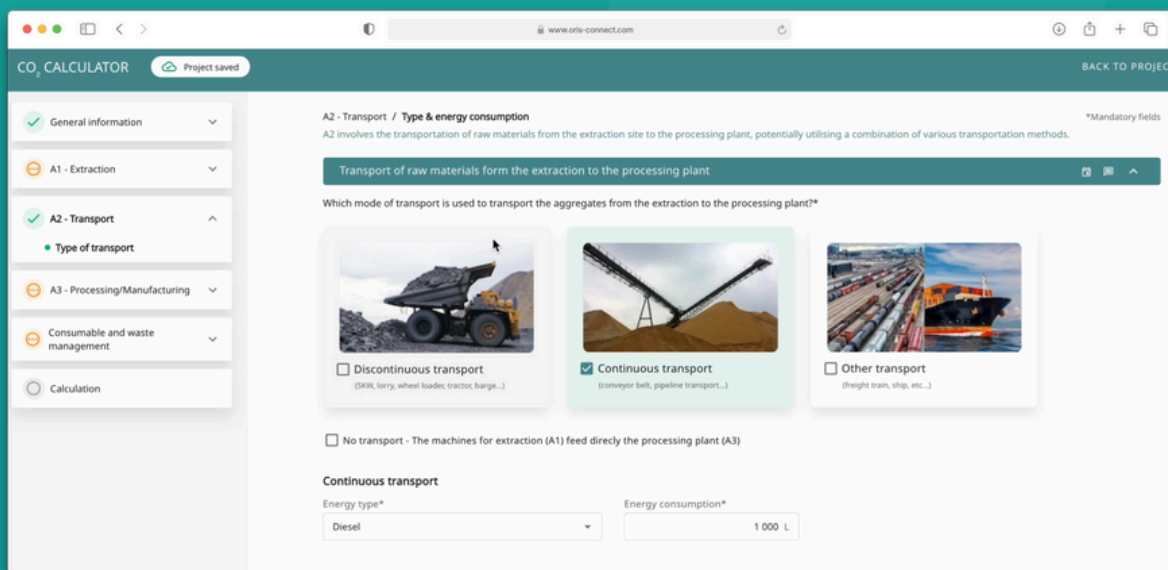
The platform is also integrated within **Autodesk AutoCAD** and **Autodesk Civil 3D** through a **plug-in**.

ORIS CO₂ Calculator

Fast, reliable carbon footprint assessments

The ORIS CO₂ Calculator provides quarry operators and material suppliers with a **science-based, automated tool to measure and report the carbon footprint of construction materials**. Complying with international standards, it delivers fast and accurate insights to help the industry measure its impact and transition toward low-carbon solutions.

By simplifying carbon assessments, ORIS accelerates transparency and climate action across the value chain.



The screenshot shows the ORIS CO₂ Calculator web application. The interface is divided into a left sidebar and a main content area. The sidebar contains a list of steps: General information, A1 - Extraction, A2 - Transport (selected), A3 - Processing/Manufacturing, Consumable and waste management, and Calculation. The main content area displays the 'A2 - Transport / Type & energy consumption' section. It includes a description of A2, a title 'Transport of raw materials from the extraction to the processing plant', and a question 'Which mode of transport is used to transport the aggregates from the extraction to the processing plant?'. Three options are shown with corresponding images: 'Discontinuous transport' (off-road vehicle), 'Continuous transport' (conveyor belt, selected), and 'Other transport' (freight train, ship). Below these, there is a checkbox for 'No transport' and a section for 'Continuous transport' with dropdowns for 'Energy type*' (set to Diesel) and 'Energy consumption*' (set to 1 000 L).

ORIS Tech-Enabled Services

Beyond our software, ORIS delivers expert, **tech-enabled services** that bridge digital and sustainability transformations for the infrastructure industry.

We empower multilateral development banks (MDBs) and road authorities to **prioritise investments, strengthen infrastructure resilience, and leverage green finance** by combining AI-powered analytics with multidisciplinary expertise. Our approach simplifies complex assessments, providing clear, actionable insights that support investment prioritisation and optimise long-term road sustainability.

Striving for efficient, resilient and adapted infrastructures, ORIS uses AI- and data-driven methodology to allow faster and more informed decision making.



ORIS uses recognised international standards and models, such as EN 15804+A2 and ISO 21930 for carbon modeling, which have been validated by Intertek, and the UNFCCC (United Nations Framework Convention on Climate Change) for resilience prediction models.

This scientific rigor ensures reliable assessments, bridging critical knowledge gaps in infrastructure construction.

ORIS follows the Life Cycle Assessment approach (LCA) to holistically evaluate the environmental impact of infrastructure projects, from extraction to end-of-life. It enables early modelling and visualisation of material performance, helping stakeholders make informed decisions about carbon footprint, resource efficiency, resilience, costs, and maintenance.

Let's act now for sustainable infrastructure.

For more information

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