



**ENVIRONMENTAL RESPONSIBILITY
AND CARBON REDUCTION**



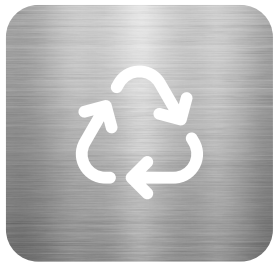
ENVIRONMENTAL RESPONSIBILITY AND CARBON REDUCTION

Environmental Responsibility is at the core of our modular **construction philosophy**. Our solutions are designed to reduce carbon emissions, optimize energy use, and minimize environmental impact **across the entire asset lifecycle**—from concept and design through manufacture, operation, adaptation, and end-of-life recovery. Through circular economy principles and advanced building technologies, we aim to support customers worldwide in meeting ambitious **decarbonization targets while maintaining economic**

efficiency, safety, and high performance. Sustainability in construction must be considered holistically. We evaluate ecological **impact, economic viability, and social responsibility** together rather than focusing on a single project phase. A lifecycle perspective—covering construction, operation, maintenance, refurbishment, relocation, and deconstruction—enables informed choices that conserve resources, reduce emissions, and preserve long-term value.

RESPONSIBLE CONSTRUCTION PRACTICES

Use of sustainable and **lower-impact materials**, selected with performance, **durability**, and **end-of-life recovery** in mind:



+ **Recycled steel**, reducing raw material extraction and supporting closed-loop supply chains where available.



+ **Responsibly sourced timber** (e.g., certified where applicable), supporting sustainable forestry and traceable procurement.



+ **Low-emission building products** (paints, sealants, adhesives, flooring, and insulation), improving indoor air quality and reducing embodied impact.



+ **Preference for standardized, repairable, and modular components**, enabling long service life and efficient replacement.



+ **Packaging reduction** through reusable transport frames and right-sized packaging strategies where feasible.

Built with sustainable and lower-impact materials, our solutions prioritize **durability**, **performance**, and **responsible sourcing** while enabling **long service life**, **flexibility**, and **reliable operation**.



PRECISION MANUFACTURING AND SMARTER LOGISTICS FOR LOWER-IMPACT CONSTRUCTION

Waste reduction strategies are enabled by precision manufacturing in **controlled factory environments**. This approach minimizes off-cuts, rework, and on-site disruption while improving quality and repeatability. **Standardized module production** supports accurate material **take-offs, tighter quality control, and the systematic separation of waste streams for recycling**. In parallel, we work with suppliers to reduce upstream waste and to improve recyclability of delivered materials and packaging.

Optimized transport and logistics reduce carbon emissions through **strategic planning, consolidated deliveries, route optimization**, and local sourcing where feasible. Factory-based production also shortens installation time, reduces the intensity of site activities, and limits temporary works, noise, dust, and the need for extended plant operation on site. Where practicable, we coordinate deliveries with installation sequencing to avoid double handling and unnecessary movements.

ENERGY-EFFICIENT BUILDING TECHNOLOGIES

Our modular buildings are engineered to **reduce operational energy** demand while maintaining occupant comfort and **functional performance**. Solutions are selected to suit the project context and may include:

- + **Smart lighting** systems using LED technology, daylight harvesting, and intelligent controls for maximum energy savings.
- + **High-performance building envelopes**, including appropriate insulation strategies, airtightness measures, and optimized glazing to reduce heating and cooling loads
- + **Demand-controlled ventilation** and indoor air quality monitoring, supporting efficiency while maintaining healthy environments.
- + **Smart-ready connectivity** that allows buildings to interact with energy infrastructure and support demand management where appropriate.
- + **High-efficiency HVAC** strategies such as heat recovery, zoned control, variable speed drives, and intelligent scheduling.
- + **Building automation systems** (BMS), providing real-time monitoring, fault detection, and continuous commissioning opportunities.
- + **Energy-efficient equipment** specification and commissioning practices to ensure intended performance is achieved in practice.

Where beneficial, we integrate **sensors that monitor occupancy, temperature, humidity, and CO₂ levels to dynamically adjust lighting, heating, cooling, and ventilation according to real use patterns**. These measures reduce energy consumption and can also support preventative maintenance by identifying performance deviations early.

WATER CONSERVATION AND ECOLOGICAL INTEGRATION

Water stewardship is an important element of sustainable building delivery. Depending on site conditions and customer requirements, solutions may include:

Smart metering and leak detection to improve transparency and reduce losses.

Low-flow fixtures and efficient sanitary ware to **reduce water consumption**.

Rainwater harvesting and storage options, where suitable, to support non-potable uses such as irrigation, flushing, or cleaning.



Greywater reuse strategies assessed on a case-by-case basis to reduce reliance on potable water resources.

Efficient irrigation approaches and drought-resilient landscaping to **reduce outdoor** water demand.



We also consider **ecological integration** and occupant wellbeing. Where feasible, nature-based elements such as green roofs, courtyard planting, and biodiversity-supporting features can improve micro climate, contribute to thermal performance, and enhance the user experience. **Responsible storm water management** and surface water strategies help reduce runoff peaks and support resilient sites.

A FUTURE-PROOF, SUSTAINABLE APPROACH TO MODULAR CONSTRUCTION

By embracing **advanced technologies, sustainable materials, and forward-thinking design principles**, we create modular buildings that are **functional, cost-effective, environmentally responsible, and adaptable for the future**. Modular construction inherently supports rapid delivery and consistent quality; when combined with circular design, it also supports long-term flexibility and resource efficiency.

Our approach supports longevity and **lifecycle efficiency**. Buildings can be expanded, reconfigured, relocated, or repurposed to meet changing needs with significantly reduced material consumption compared to conventional demolition and rebuild cycles. This adaptability **reduces both embodied and operational emissions over time** and can help customers protect capital investment while responding to evolving service requirements.



COST EFFECTIVE



ENVIRONMENTALLY RESPONSIBLE

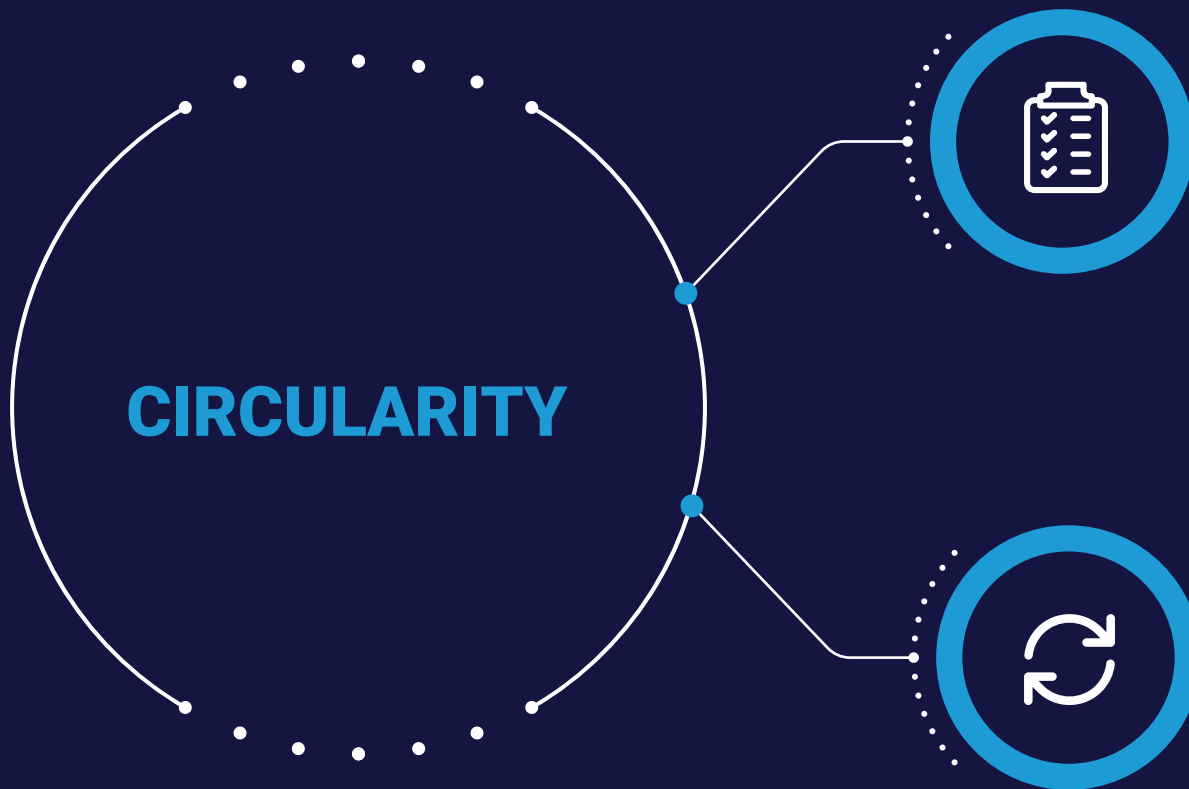


ADAPTABLE



OUR SUSTAINABLE MODULAR CONSTRUCTION FOCUSES ON CIRCULARITY

Our sustainable modular construction approach is fundamentally designed around the principle of circularity.



By integrating **optimized material selection** with early planning for the deconstruction phase, we maximize resource efficiency and reduce overall costs throughout the project lifecycle. This holistic strategy is implemented from the earliest design stages, where Design for Disassembly (DfD) is treated as a core element of planning and construction.

To support circular building principles, we prioritize **high recyclability and the reuse of materials** after deconstruction, thereby preserving residual value and enabling quality recycling. We assess assemblies not only for initial performance but also for how effectively they can be separated, repaired, replaced, or recovered. This includes the use of mechanical fixings and accessible interfaces rather than permanent bonding where it would inhibit future recovery.



PRODUCT LIFECYCLE MANAGEMENT AND THE BUILDING RESOURCE PASSPORT

To strengthen lifecycle outcomes, we apply **Product Lifecycle Management (PLM)** practices by continuously documenting product characteristics throughout the building's lifespan. For our modules, a digital building resource passport can be created, detailing connection elements, material specifications, component identities, maintenance needs, and other key attributes. This documentation improves transparency for owners and operators, supports efficient maintenance planning, and enables safer, faster, and higher-value recovery at end of life.

A resource passport approach also supports responsible procurement and compliance management by making **product information available to stakeholders** in a structured way. It can facilitate refurbishment, component replacement, and circular procurement strategies by identifying reusable assets and their condition.

Design for Disassembly (DfD), enabling non-destructive separation of components using mechanical fixings and accessible interfaces, supporting reuse, refurbishment, and high-quality recycling.

Modular adaptability, allowing buildings to be expanded, reconfigured, relocated, or repurposed with minimal material loss and reduced emissions compared with traditional construction.

Lifecycle documentation, including digital asset information and material/component records, improving transparency, maintenance planning, and recovery outcomes at end of life.



CIRCULAR CONSTRUCTION & LIFECYCLE SUSTAINABILITY

Maintenance-friendly detailing, reducing operational interventions and supporting longer replacement cycles for key components.

End-of-life planning, prioritizing reuse and recycling routes, supporting responsible material recovery through established partners where available, and reducing landfill.

We also consider the **social dimension** of sustainability. Modular construction can reduce on-site disruption, improve working conditions through controlled manufacturing environments, and support safer, cleaner sites. High quality control and standardized processes can also help ensure consistent performance for occupants over time.

OUR OPERATIONAL **CARBON** **MINIMIZATION** POLICY

In addition to project-specific measures, we maintain a company-wide policy to continually reduce the carbon footprint of our day-to-day operations. This policy applies across offices, sites, and supply chain activities and is reviewed regularly to drive continuous improvement:



TRAVEL REDUCTION

We prioritize virtual collaboration, digital workshops, and hybrid delivery models to avoid unnecessary travel. When travel is required, we plan efficiently by combining meetings and routes, favor rail or lower-emission options where practical, and reduce short-haul flights wherever feasible.



RESPONSIBLE MOBILITY

We encourage public transport, shared mobility, and active travel options, and support flexible working arrangements that reduce commuting frequency.



PAPERLESS WAYS OF WORKING

We minimize printing through digital approvals, electronic signatures, and document management. Where printing is unavoidable, we use duplex settings and recycled paper by default.



ENERGY MANAGEMENT

We monitor and reduce energy consumption through efficient equipment, optimized heating/cooling setpoints, LED lighting, and shutdown routines. We prefer renewable electricity options where available and practical.



SUSTAINABLE PROCUREMENT

We consider environmental performance in supplier selection, favoring transparent environmental data, efficient logistics, and lower-impact materials.



WASTE PREVENTION AND RECYCLING

We apply waste hierarchy principles—reduce, reuse, recycle—supported by segregation, take-back schemes where possible, and continuous awareness programs.



CONTINUOUS IMPROVEMENT

We track lessons learned, promote training and awareness, and refine processes to reduce emissions and resource consumption.



COMMITMENT TO **DIGITAL** TRANSFORMATION

We recognize the critical role of **digital transformation** in **reducing emissions** and resource consumption while maintaining the effectiveness of service delivery.

Our strategy focuses on implementing digital solutions that **reduce environmental impact while improving transparency**, collaboration, and performance throughout the contract or project duration. The following approach describes how digital methods **support resource-efficient delivery and long-term sustainability**.



PAPERLESS OPERATIONS AND DIGITAL DOCUMENTATION



BIM, DIGITAL TWINS, AND LIFECYCLE DATA



REMOTE COLLABORATION, MONITORING, AND SUPPORT



DATA-DRIVEN PLANNING AND LOGISTICS OPTIMIZATION

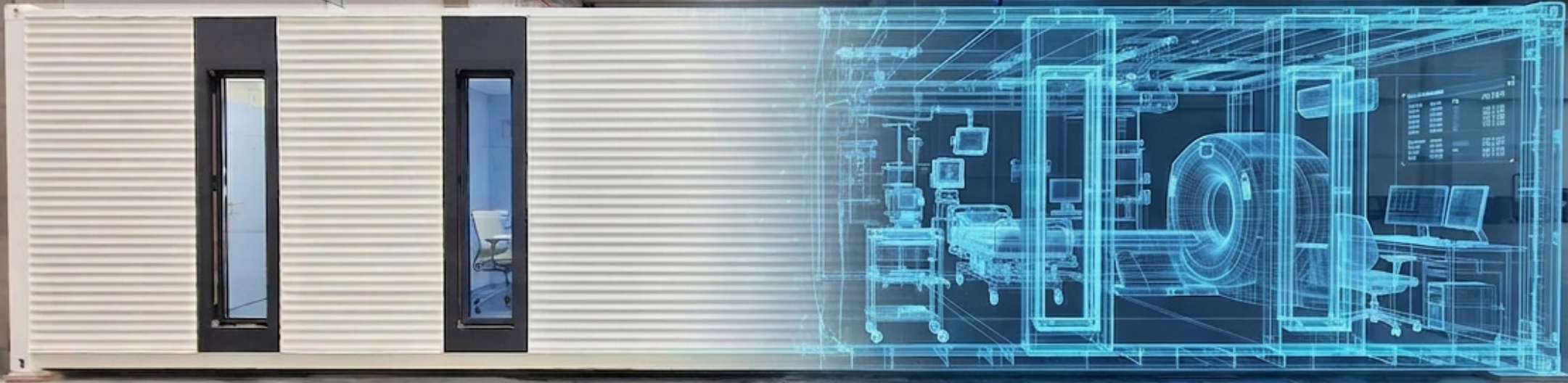


WORKFORCE DIGITALIZATION AND SMART TRAINING



PAPERLESS OPERATIONS AND DIGITAL DOCUMENTATION

- Transition to **digital documentation** for key project and operational processes, reducing paper use and waste.
- Use of **digital workflows** for approvals, checklists, audits, and handover documentation, enabling faster decisions and improved traceability.
- **Secure cloud-based** document repositories, ensuring stakeholders can access current information without physical distribution.
- **Digital forms** and **mobile tools** for site and factory reporting, reducing printing and manual re-entry.
- **Electronic training** materials and user guides, reducing printed manuals and supporting consistent knowledge transfer.



BIM, DIGITAL TWINS, AND LIFECYCLE DATA

- Use of **Building Information Modelling (BIM)** to optimize design, coordinate disciplines, and reduce clashes and rework.
- Creation of **structured asset information** models, supporting efficient maintenance, lifecycle planning, and informed decision-making.
- **Digital twin** approaches where appropriate, enabling performance monitoring, predictive maintenance, and continuous optimization.
- **Data standards** for components and systems, supporting transparency and better lifecycle outcomes.
- Use of **model-based quantity take-offs** to support material optimization and reduce over-ordering.



REMOTE COLLABORATION, MONITORING, AND SUPPORT

- Use of virtual meetings, remote design reviews, and digital stakeholder engagement to reduce travel emissions.
- **Remote monitoring** for key building systems where appropriate, enabling early issue detection and reduced call-outs.
- **Digital commissioning support**, training, and troubleshooting to reduce travel while maintaining responsiveness.
- Use of **sensor data** to improve operational efficiency, occupant comfort, and preventive maintenance.
- **Remote site inspections** and progress reviews using secure video and digital reporting where feasible.



DATA-DRIVEN PLANNING AND LOGISTICS OPTIMIZATION

- **Digital planning** tools to optimize production schedules, delivery routes, and installation sequences, reducing idle time and emissions.
- **Digitally enabled supply chain** transparency, supporting consolidation opportunities and reduced packaging.
- **Analytics** to improve material planning and reduce waste through better forecasting and procurement alignment.
- **Continuous improvement loops** using performance data to refine processes and reduce environmental impact.
- **Tracking** of deliveries and site progress, supporting efficient coordination and fewer repeat trips.



WORKFORCE DIGITALIZATION AND SMART TRAINING

- **Digital learning** and onboarding materials, enabling consistent training across locations and reducing printed content.
- Use of **virtual and augmented reality** where appropriate for assembly guidance, safety training, and technical familiarization.
- **Mobile access** to procedures, drawings, and quality records, improving accuracy and reducing administrative overhead.
- **Structured capture** of lessons learned and best practices, supporting continuous improvement and reducing repeat issues.
- **Digital competence development** to support safer work, faster problem solving, and improved service delivery.

MEASUREMENT, TRANSPARENCY, AND CUSTOMER SUPPORT

To ensure progress is demonstrable, we support transparent sustainability management throughout delivery and operation. Where project scope allows, we can collaborate with customers and partners to establish baselines, define key performance indicators, and track improvements over time. This may include embodied-carbon considerations during design, operational energy benchmarking during commissioning, and ongoing performance monitoring supported by digital tools.

We work with suppliers to improve the availability of environmental data for major materials and systems and to identify opportunities for lower-impact alternatives without compromising performance. We also promote commissioning, handover training, and clear operating guidance so that efficient design intent translates into efficient real-world operation. Where feasible, we also assess opportunities for electrification and on-site renewable integration—such as solar PV readiness, heat-pump compatible system design, and provisions for future battery storage—so that buildings can benefit from cleaner energy sources as grids decarbonize over time.

CONCLUSION

Through the strategic implementation of sustainable materials, circular design, high-quality prefabrication, energy-efficient building systems, efficient logistics, and digital solutions, we minimize the environmental impact of our products and operations while maintaining service excellence. By integrating lifecycle documentation, BIM-based coordination, remote collaboration, data-driven planning, and a company policy that reduces travel and paper consumption, we support customers globally in delivering resilient, low-carbon, and future-ready infrastructure with lasting value for communities and the environment, delivering practical and measurable environmental benefits across diverse global contexts.



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