GOOD PRACTICE
COMPENDIUM
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earth
ethical & responsible transportation & handling

INNOVATION MANAGEMENT DIGITALISATION FOR SUSTAINABLE LOGISTICS

BUSINESS CASE STUDIES

2024

www.innovating4earth.eu

Co-funded by the European Union

ABOUT THE EARTH PROJECT

The EARTH (Ethical and Responsible Transportation and Handling) project mission is to enhance the sustainability focus in logistics through integrating digital approaches to innovation management practices.

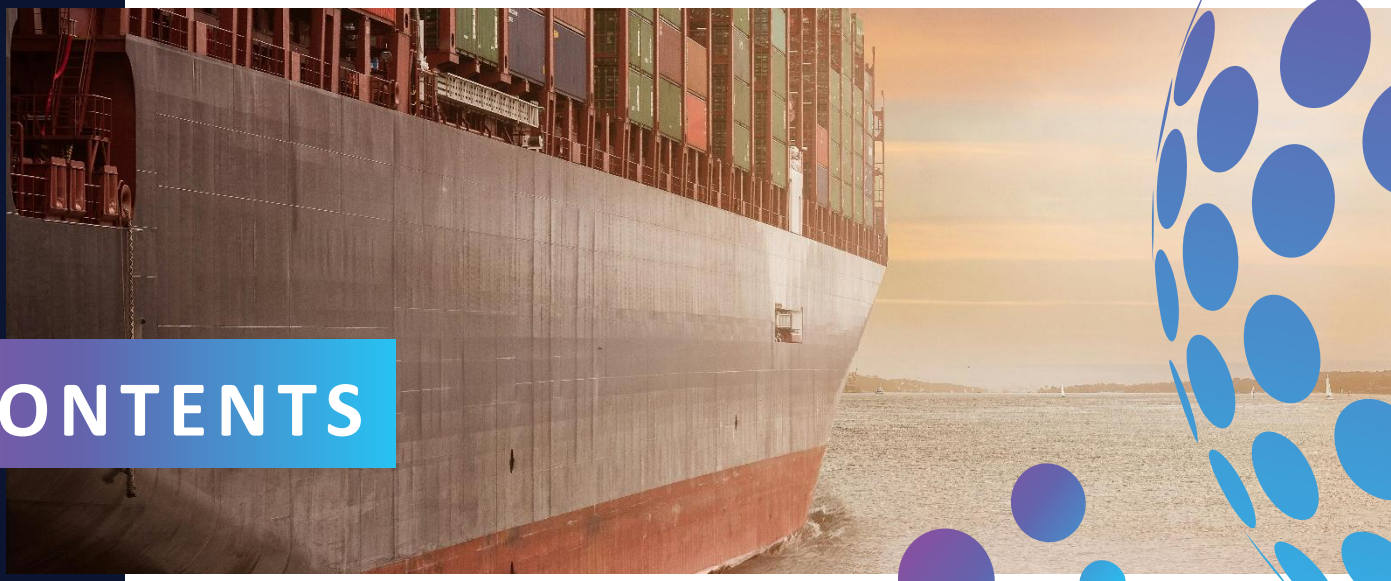
Purpose of the Business Case Studies Collection

This Business Case Studies Collection presents a curated collection of multimedia case studies from several European countries, each demonstrating innovative approaches to integrating sustainability with innovation management in logistics. The focus is on illustrating how digital tools support innovative processes that lead to sustainability in logistics operations.

The collection is a rich resource designed to inspire logistics companies, policymakers, and educational institutions by providing:

- **Insights** into how innovation management catalyses sustainability in logistics.
- **Real-world examples** demonstrating the impact of innovative and digital solutions on enhancing sustainable practices.
- **Practical guidance** on how to apply these innovative solutions to overcome logistical challenges and improve operations.

This document aims to deepen the understanding of how targeted innovation management can drive significant and positive changes in the logistics industry, encouraging stakeholders to widely adopt and implement these advanced practices.



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01

INTRODUCTION

INTRODUCTION

Overview of the Business Case Studies Collection

This Business Case Studies Collection is a pivotal resource within the EARTH project, showcasing innovative management practices in logistics from several European countries. It features case studies that demonstrate how operations integrate advanced digital tools and strategies to enhance sustainability. The collection underscores the transformative impact of innovation management across the European logistics landscape, offering inspiration and actionable guidance for embracing technological and strategic innovation in the field.

Objectives and Scope

The primary goal of this collection is to spread insights and motivate logistics companies by illustrating innovative management and digital tools that drive sustainability and operational efficiency. This document serves to:

- **Showcase Innovative Practices:** Demonstrate how organisations implement cutting-edge solutions to bolster both innovation and sustainability within logistics.
- **Facilitate Knowledge Exchange:** Act as a conduit for sharing effective strategies and methodologies across the logistics community.
- **Support Policy Making and Education:** Provide valuable insights to guide policy decisions and enrich educational content, strengthening sustainable logistics practices.

The scope of the collection covers a broad array of themes such as innovation management, sustainable operations, digital transformation, and the integration of Sustainable Development Goals (SDGs). Each case study is meticulously selected to highlight specific innovative practices that contribute to substantial improvements in sustainability and efficiency within the logistics sector.

Methodology of the Case Studies Collection

The methodology for collecting these case studies involved a structured process to ensure the breadth and depth of content:

- **Selection Criteria**: Companies were selected based on the integration of logistical operations in their activities. Criteria included the scale of impact, novelty of the solution, and relevance to the logistics industry.
- **Data Collection**: Information was gathered through a combination of interviews, site visits, and secondary research, including company reports and industry publications.
- **Analysis Framework**: Each case study was analysed using a standardised framework to extract key insights and learning points. This framework considered factors such as the implementation process, outcomes, challenges, and scalability of practices.

By adhering to this rigorous methodology, the collection ensures that each case study is not only informative and reliable but also actionable, providing valuable lessons that can be noted across the logistics sector.

INNOVATION DRIVES LOGISTICS - TRANSFORMING INDUSTRIES, SHAPING FUTURES

02

DIGITAL AND TECHNOLOGICAL INNOVATIONS

02 | OVERVIEW

The logistics industry is rapidly evolving, and adopting digital and technological innovations is essential for improving operational efficiency, meeting customer demands, and achieving sustainability goals. This section highlights how leading companies such as **UPS TÜRKİYE** and **GLS Italia Spa** are leveraging advanced technologies to transform logistics operations and set new industry standards.

UPS TÜRKİYE is a prime example of how digitalisation can optimise logistics operations. The introduction of their import assistant chatbot has streamlined real-time customer support, enabling quicker responses and reducing paperwork. Additionally, the company's customs automation systems have simplified complex customs procedures, ensuring faster processing and improved efficiency. UPS TÜRKİYE's commitment to sustainability is evident in its efforts to reduce paper usage, while also supporting SMEs in adopting more efficient business models through digital tools.

GLS Italia Spa showcases the role of digitalisation in driving both operational efficiency and sustainability. The company's "ServiceNow" platform optimises key business processes, enhancing cross-department collaboration and ensuring seamless operations. GLS Italia is also focused on reducing its environmental impact, with substantial investments in electric vehicle infrastructure and renewable energy projects that align with sustainability goals. These innovations not only reduce operational costs but also help the company comply with environmental regulations.

Both **UPS TÜRKİYE** and **GLS Italia Spa** are great examples of how digital solutions can improve logistics processes while driving sustainability. They show that embracing technological advancements is not just about enhancing efficiency but also about addressing environmental and operational challenges, paving the way for a more sustainable future in logistics.

***Watch:** "UPS: How VR, IoT, and big data powers one logistics company's digital transformation"*

CASE STUDY: AMAZON

Leading with Robotic Automation

Founded by Jeff Bezos in 1994 as an online bookstore, **Amazon** has transformed into one of the world's largest e-commerce and tech companies, providing services that span **e-commerce**, **cloud computing**, and **digital streaming**. With a global workforce of over **1.5 million employees**, Amazon's logistics network plays a crucial role in delivering fast, reliable service to customers worldwide. In **Germany**, **Marina Demangel**, a Shift Manager in Delivery Operations, oversees the critical **last mile** of Amazon's logistics process, ensuring timely and secure delivery directly to customers. Amazon's logistics infrastructure is designed to optimise the entire **supply chain**, from **warehousing** and **inventory management** to **transportation** and **final delivery**. As the company continues to evolve, Amazon is committed to **innovation** and **sustainability**, meeting the growing demands for faster deliveries while addressing environmental challenges and maintaining its competitive edge in the global logistics market.

AMAZON

Innovation Management Practices and Digitalisation

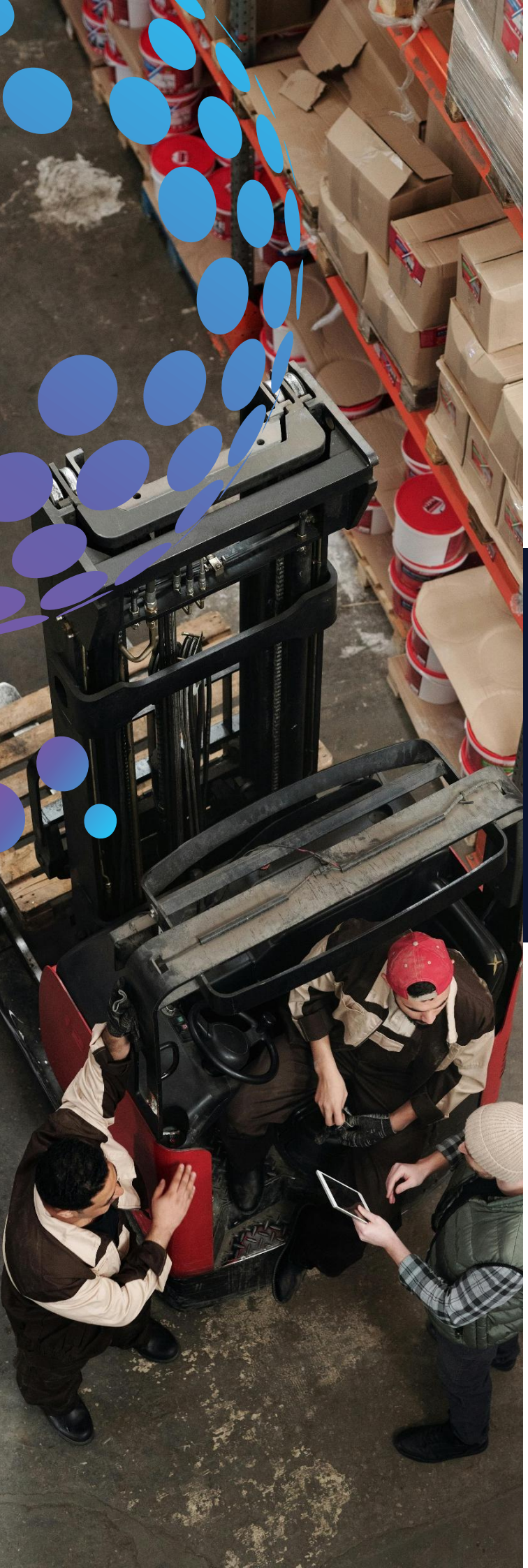
- **Systematic Innovation Process:** Amazon employs a systematic and data-driven approach to innovation, ensuring that new ideas or processes are rigorously tested before large-scale implementation. This method was evident in Marina's sustainability initiative, which began with internal evaluations and a successful pilot at her local station before scaling up across Germany.
- **Collaborative Approach:** Innovation at Amazon is characterized by high levels of collaboration across departments. For Marina's project, she worked with sustainability teams across Germany, Austria, and the Netherlands, which ensured that the innovation aligned with both local and company-wide goals.
- **Structured Implementation:** Amazon's innovation practices are well-organised, with defined processes for idea generation, pilot testing, and scaling successful initiatives. These practices are supported by robust feedback mechanisms and the integration of customer insights to ensure practical and effective outcomes.
- **Digital Tools and AI Integration:** Digital platforms like Asana are crucial for managing and tracking the progress of innovation projects, facilitating efficient team collaboration and timely completion of tasks. Additionally, Amazon leverages AI-driven tools for research and operational support, enhancing the efficiency of projects like the Sustainability Corner by providing quick access to necessary data and resources.

Sustainability Focus

- **Marina's Sustainability Corner:** This project improves waste management and recycling at Amazon's facilities, aligning with SDG 12 for responsible consumption and production, and contributes to Amazon's wider goal of reducing its environmental footprint.
- **Climate Pledge Commitment:** Amazon aims for net-zero carbon emissions by 2040, ten years ahead of the Paris Agreement, by adopting electric delivery vehicles and switching to recyclable packaging materials, supporting SDG 13 on climate action.
- **Electric Vehicle Initiative:** In alignment with SDG 7 (Affordable and Clean Energy), Amazon is piloting electric vehicles in cities like Essen, Germany, to reduce carbon emissions and promote clean energy within its delivery operations.
- **Holistic Sustainability Approach:** Amazon integrates environmental considerations into its innovation projects, assessing each for its sustainability impact alongside financial and operational effects, ensuring comprehensive sustainability integration in business practices.

Main Operational Challenges

- **Customer Expectations:** Amazon continuously innovates to meet fast delivery and high-quality service demands.
- **Competitive Pressure:** Fierce competition drives Amazon to constantly improve and maintain market leadership.
- **Regulatory Compliance:** Compliance with global and local environmental and sustainability laws is critical.
- **Logistical Complexity:** Managing a global supply chain requires alignment with diverse legal and customer expectations.
- **Cost Optimisation:** Balancing cost efficiency with investments in innovation and sustainability is crucial.
- **Industry Trends:** Keeping pace with rapid technological and market changes is essential for Amazon's competitiveness.



AMAZON

CONCLUSION

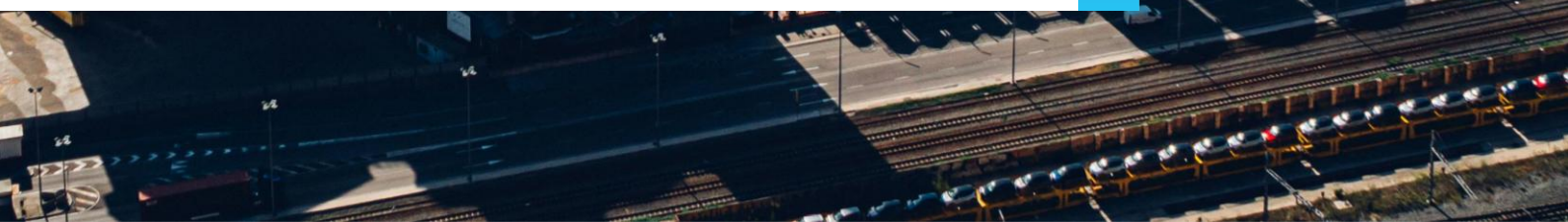
“AMAZON: REDEFINING LOGISTICS WITH INNOVATION AND SPEED.

Amazon's approach to overcoming operational challenges showcases its ability to innovate and adapt in a rapidly evolving global market. By continuously refining its logistics operations and staying ahead of customer expectations, Amazon not only leads in e-commerce but also sets standards in efficient supply chain management. The company's proactive stance on regulatory compliance and sustainability further strengthens its industry leadership, demonstrating that strategic innovation and environmental responsibility can coexist. Amazon’s commitment to embracing new technologies and trends ensures it remains at the forefront of the logistics and retail sectors, making it a model for others aiming to excel in these areas.

CASE STUDY:
GLS ITALIA SPA

Driving Sustainability through Digital Innovation

GLS Italia Spa exemplifies how digital and technological innovations can support sustainability and efficiency in logistics. By integrating advanced systems like "ServiceNow" for business process management and investing in cutting-edge technologies such as electric vehicle charging stations and renewable fuel solutions, the company is redefining sustainable logistics. These initiatives not only streamline operations but also position GLS Italia as a forward-thinking leader in the logistics industry, committed to reducing its environmental footprint while maintaining high service standards.



GLS ITALIA SPA

Innovation Management Practices and Digitalisation

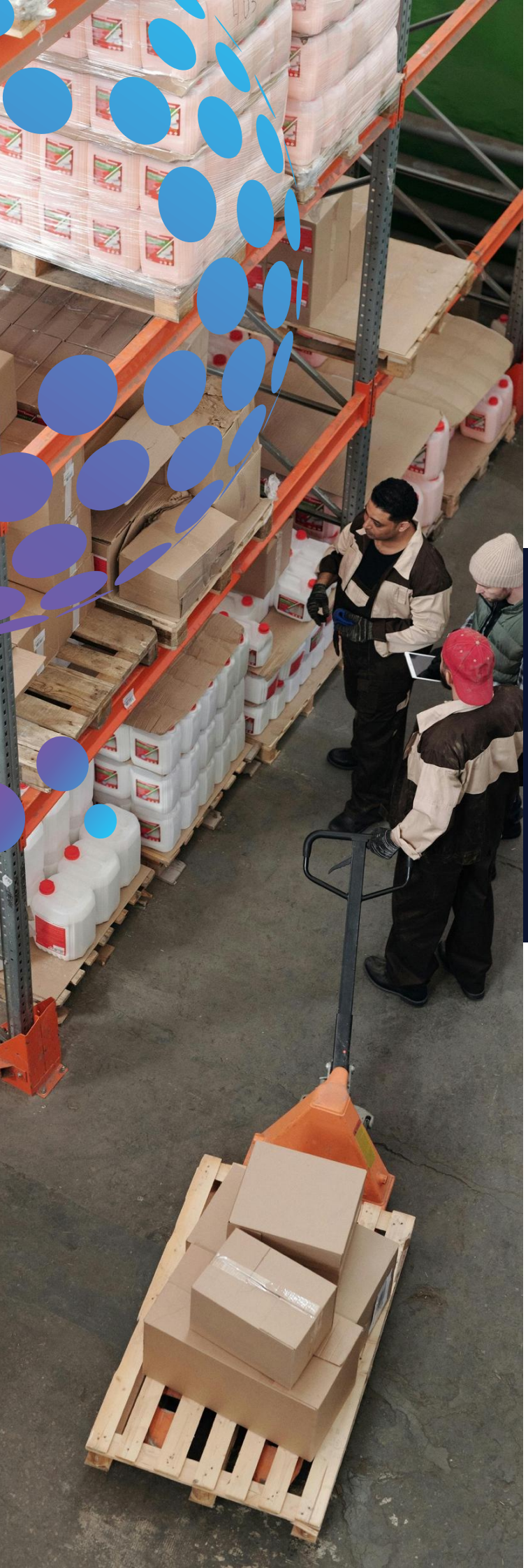
- **Innovation Management System:** GLS Italia has implemented the "ServiceNow" platform, an advanced information system that enhances the management of business processes, improving efficiency and decision-making.
- **Sustainable Mobility Investments:** The company has invested in 580 charging stations for electric vehicles across its facilities, encouraging zero-emission transport among employees and customers. Additionally, GLS is incorporating LNG-powered vehicles and renewable fuels like HVO into its fleet.
- **Partnerships for Innovation:** Collaboration with Volvo Trucks has enabled GLS to introduce heavy-duty electric vehicles into its fleet, showcasing a commitment to testing and adopting sustainable technologies.
- **Intermodal Transport Experimentation:** GLS explored using trains to reduce road transport's environmental impact, although this initiative faced challenges due to limited infrastructure for effective north-south connections in Italy.
- **Renewable Energy Initiatives:** Photovoltaic systems have been installed in some warehouses, demonstrating a move toward green energy, though wider implementation is limited by property rental constraints.

Sustainability Focus

- **Carbon Emission Reduction:** Aims to cut CO2 emissions by 50% by 2030 through electric vehicles, LNG-powered vehicles, and renewable fuels like HVO.
- **Electric Mobility:** Installed 580 charging stations for electric vehicles to support zero-emission transport.
- **Renewable Energy:** Uses photovoltaic systems in warehouses for green energy, though expansion is limited by rented facilities.
- **Reforestation Projects:** Partnered with Treedom to plant 6,200 trees, offsetting 1,435 tons of CO2.
- **Offsetting Programmes:** Collaborates with Climate Partner on projects like forest conservation and renewable energy, allowing customers to participate via the "Climate Protect" programme.
- **Social Responsibility:** Combines environmental initiatives with efforts to enhance employee and community well-being.

Main Operational Challenges

- **Infrastructure Limitations:** The intermodal transport project, aimed at reducing road transport emissions, faces challenges due to limited rail connectivity between northern and southern Italy.
- **Rented Facilities:** The reliance on rented properties restricts the installation of photovoltaic systems, limiting the company's ability to expand renewable energy usage across its operations.
- **Regulatory Compliance:** Adhering to evolving environmental and sustainability regulations, such as CO2 emissions standards, adds complexity to logistics operations.
- **Customer-Driven Sustainability:** Sustainable initiatives like carbon footprint certification are only provided upon customer request, reflecting a gap in proactive customer engagement.
- **Balancing Innovation and Scale:** Scaling sustainable technologies, such as heavy-duty electric vehicles, while maintaining operational efficiency presents logistical and financial challenges.



GLS ITALIA SPA

CONCLUSION

“GLS ITALIA: INNOVATING LOGISTICS FOR A SUSTAINABLE FUTURE.”

GLS Italia Spa stands as a model of how digital innovation and sustainability can coexist in the logistics industry. Through advanced tools, renewable energy initiatives, and sustainable transportation solutions, the company demonstrates a commitment to reducing environmental impact while improving operational efficiency. Despite challenges such as infrastructure limitations and regulatory demands, GLS Italia’s forward-thinking strategies position it as a leader in creating eco-friendly logistics solutions. By balancing innovation with responsibility, GLS Italia paves the way for a more sustainable future in logistics.

CASE STUDY: UPS TÜRKİYE

A Leader in Digital Transformation and Customer-Centric Innovation

UPS TÜRKİYE has become a front-runner in integrating cutting-edge digital solutions to optimise logistics operations and enhance customer experience. As part of the global UPS network, the company combines international expertise with local knowledge to provide innovative, tech-driven solutions. With a focus on sustainability, efficiency, and customer satisfaction, UPS TÜRKİYE has successfully implemented digital tools like the import assistant chatbot and the ETGB for e-commerce businesses, transforming how they manage customs and streamline processes. The company's commitment to continuous improvement and agility in adopting new technologies positions it as a key player in Turkey's logistics sector, paving the way for the future of digital logistics.

UPS TÜRKİYE

Innovation Management Practices and Digitalisation

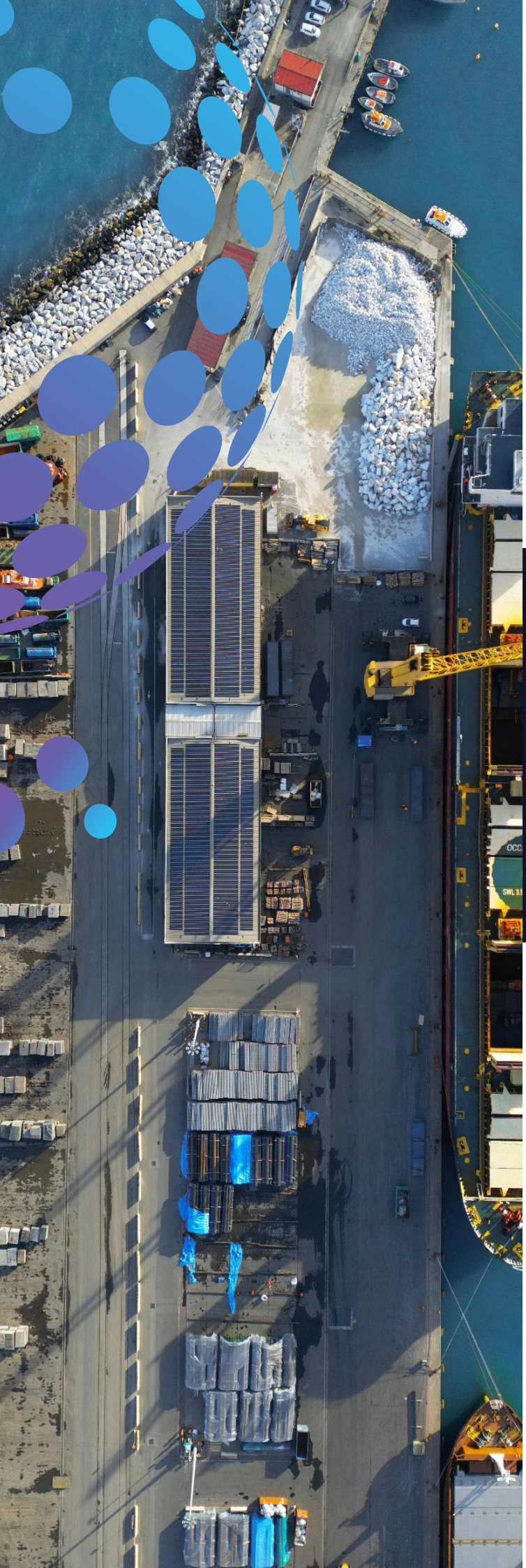
- **Customer-Centric Digital Solutions:** UPS Türkiye has launched an import assistant chatbot to streamline import processes and enhance customer service by providing real-time responses and reducing paperwork.
- **Investment in Digital Infrastructure:** The company is integrating advanced digital tools, including AI-driven fleet management systems and the ETGB platform, for faster customs clearance and improved operational efficiency.
- **Cross-Functional Innovation:** Innovation at UPS Türkiye is driven by collaboration between marketing, operations, and IT departments, with a focus on aligning customer needs with sustainability goals and digital transformation.
- **Employee Training for Innovation:** Recognising the importance of digital skills, UPS Türkiye invests in employee development to ensure its workforce is well-equipped to support future technological advancements and innovation.

Sustainability Focus

- **Energy-Efficient Fleet:** UPS Türkiye's investment in low-emission vehicles, such as electric and hybrid trucks, aligns with SDG 12, focusing on responsible consumption and production by reducing carbon emissions.
- **Digital Solutions for Sustainability:** The import assistant chatbot reduces paper usage, promoting resource efficiency and contributing to a more sustainable business model.
- **Support for SMEs:** UPS Türkiye's Women Exporters Program supports small, women-owned businesses, offering access to global markets and contributing to SDG 10 (Reduced Inequalities) and SDG 8 (Decent Work and Economic Growth).
- **Gender Equality Initiatives:** The Women's Leadership Development Program empowers female employees, addressing gender disparities in the logistics sector, in line with SDG 5 (Gender Equality).

Main Operational Challenges

- **Regulatory Complexity:** Navigating the complex customs landscape in Turkey is challenging, though the use of the ETGB system has streamlined processes, improving efficiency and compliance.
- **Digital Integration:** Legacy systems present obstacles in fully integrating new digital solutions. However, ongoing efforts to update infrastructure are aimed at addressing this issue.
- **Cost of Innovation:** The initial costs associated with technology adoption, particularly for new tools and platforms, can be prohibitive. Nonetheless, UPS Türkiye views these investments as essential for long-term growth and competitiveness.
- **Customer Expectations:** The growing demand for faster deliveries and real-time tracking pushes UPS Türkiye to continuously innovate and improve its service offerings, presenting a challenge in balancing efficiency and customer satisfaction.



UPS TÜRKİYE

CONCLUSION

“INNOVATION IS KEY TO OUR GROWTH AND COMPETITIVENESS.”

UPS Türkiye demonstrates how innovation and sustainability can be effectively integrated into logistics operations. By leveraging digital tools such as the import assistant chatbot and AI-driven fleet management systems, the company enhances operational efficiency and customer service while contributing to sustainability goals. Despite facing challenges like regulatory complexity and the cost of implementing innovation, UPS Türkiye remains committed to advancing both digital transformation and social sustainability. Its focus on employee training, gender equality, and supporting SMEs aligns with global sustainability objectives, positioning UPS Türkiye as a forward-thinking leader in the logistics sector. As the company continues to innovate, it sets an example for others on how to balance technological progress with environmental and social responsibility, ensuring a sustainable and resilient future in logistics.

02 | CONCLUSION

The case studies in this section illustrate the transformative impact of digital and technological innovations on the logistics industry. Organisations like **UPS TÜRKİYE**, **Amazon**, and **GLS Italia Spa** demonstrate how advanced tools, including AI, robotics, blockchain, and digital management platforms, can enhance transparency, efficiency, and customer satisfaction. These technologies not only solve immediate logistical challenges but also position organisations as leaders in a competitive and evolving sector.

UPS TÜRKİYE's introduction of tools like the import assistant chatbot for real-time support and their work with automated customs systems showcases how digital innovation can streamline logistics processes and boost operational efficiency. Amazon's deployment of robotics and AI highlights the value of automation in meeting customer expectations. **GLS Italia's** digital management systems and investments in sustainable transport show how innovation can align efficiency with environmental goals.

These examples underscore the importance of adopting digital transformation strategies tailored to operational needs and sustainability objectives. By investing in technology, organisations can address pressing industry demands, achieve long-term growth, and enhance their adaptability in an ever-changing market.

The case studies highlight that innovation is not a one-size-fits-all approach. Each organisation's unique strategy provides valuable insights into the integration of digital tools, offering lessons for others in the sector. As the logistics industry navigates the pressures of globalisation, competition, and sustainability, embracing technology will remain crucial for securing growth, resilience, and progress in the future.

Watch: *"GLS Smart Delivery Service"*

03

ECO-FRIENDLY PRACTICES AND INNOVATION

03 | OVERVIEW

Sustainability is now a driving force in the logistics and manufacturing sectors, influencing operational strategies and long-term growth. Section 03 delves into five case studies—**LEMAN, SDK Logistics, Fercam, Florim Ceramiche, and Aerosol Service**—that highlight how eco-friendly practices and innovative solutions are transforming operations and addressing global environmental challenges. Each case study provides valuable insights into how companies are integrating sustainability into their core business models.

LEMAN showcases the integration of green technologies like intelligent Lithium-Ion chargers for forklifts and solar panels, significantly reducing carbon footprints and operational inefficiencies. By working with external experts, **LEMAN** demonstrates how collaboration can enhance sustainable business strategies.

SDK Logistics takes a broader, strategic approach, leveraging mergers and technological integration to create a strong foundation for sustainable logistics. With the adoption of digital tools and a focus on sustainable growth, SDK has not only improved operational efficiency but also reduced its environmental impact. The merger with **FREJA Transport & Logistics** highlights how strategic partnerships can accelerate innovation and sustainability goals.

Fercam focuses on sustainable mobility and energy efficiency, making bold investments in BIO LNG production, emission-free deliveries, and photovoltaic systems. These efforts reflect how large-scale logistics companies can make significant strides towards a greener future while contributing to global climate goals.

Florim Ceramiche redefines sustainability in the manufacturing sector with its "Carbon Zero" philosophy, extensive green energy initiatives, and electric fleet investments. As the first ceramics company to achieve B-Corp certification, Florim integrates sustainability into all aspects of its operations, driving both growth and social impact.

Aerosol Service integrates sustainability through eco-friendly practices, such as using natural gas-powered fleets and implementing energy-efficient systems. These innovations reduce waste and energy consumption, demonstrating how manufacturers can adopt green practices while improving operational efficiency.

These case studies highlight a diverse range of approaches to sustainability, each providing actionable insights for companies looking to balance profitability with environmental and social responsibility. By exploring these innovative practices, this section offers a roadmap for organisations seeking to transform their operations, enhance sustainability, and stay competitive in a rapidly evolving market.

***Watch:** "DHL Group's Path to Sustainable Logistics"*

CASE STUDY:

LEMAN

Pioneering Eco-Friendly Logistics Through Innovation

LEMAN exemplifies how eco-friendly practices and innovation can coexist to drive sustainable progress in the logistics industry. By integrating green energy solutions such as Lithium ION chargers, solar panels, and renewable fuels, the company has significantly reduced its carbon footprint. LEMAN's commitment to sustainability extends beyond technology, with customer-focused initiatives like CO_2 compensation programmes and ambitious environmental targets developed in collaboration with external experts. These efforts demonstrate LEMAN's holistic approach to innovation, blending sustainability, advanced technology, and strategic planning to create a greener future for logistics.

LEMAN

Innovation Management Practices and Digitalisation

- ❑ **Sustainability-Driven Innovation:** LEMAN introduces green energy solutions like intelligent Lithium ION chargers and solar panel installations, reducing CO_2 emissions and supporting SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action).
- ❑ **Collaborative Strategic Planning:** External consultants help develop ambitious sustainability goals, ensuring strategies are actionable and forward-thinking.
- ❑ **Technology Integration:** Investments in IT system updates, AI, and machine learning enhance logistics efficiency and align with SDG 9 (Industry, Innovation and Infrastructure).
- ❑ **Eco-Friendly Practices:** Initiatives like CO_2 compensation and renewable energy adoption demonstrate LEMAN's commitment to SDG 12 (Responsible Consumption and Production).
- ❑ **Employee-Centric Culture:** Flexible work models and continuous learning foster a dynamic, innovative organisational environment.

Sustainability Focus

- ❑ **Carbon Emission Reduction:** LEMAN is committed to reducing CO_2 emissions through initiatives like Lithium ION chargers for forklifts, solar panel installations, and renewable fuels, aligning with SDG 13 (Climate Action).
- ❑ **Green Energy Adoption:** The use of clean, energy-efficient technologies, such as solar panels and intelligent charging systems, supports SDG 7 (Affordable and Clean Energy).
- ❑ **Sustainable Logistics Infrastructure:** LEMAN's investments in AI and machine learning optimise logistics operations, contributing to SDG 9 (Industry, Innovation and Infrastructure).
- ❑ **Customer-Focused Sustainability:** Offering CO_2 compensation programmes allows customers to actively participate in reducing environmental impact, addressing SDG 12 (Responsible Consumption and Production).
- ❑ **Integrated Sustainability Strategy:** Collaboration with external consultants ensures ambitious, actionable sustainability goals, embedding environmental considerations into all aspects of operations.

Main Operational Challenges

- ❑ **Balancing Sustainability and Costs:** Implementing green energy solutions and advanced technologies can be costly, requiring LEMAN to carefully balance environmental goals with financial sustainability.
- ❑ **Infrastructure Limitations:** The rollout of solar panels is constrained by the availability of suitable facilities, as many of LEMAN's properties are leased, limiting the scale of renewable energy adoption.
- ❑ **Regulatory Compliance:** Navigating complex sustainability regulations and ensuring adherence to environmental standards adds administrative and operational challenges.
- ❑ **Technological Adaptation**: Integrating advanced technologies like AI, machine learning, and Lithium ION solutions requires continuous investment and adaptation to stay competitive.
- ❑ **Customer Engagement in Sustainability:** Encouraging customers to participate in CO_2 compensation programmes and aligning these initiatives with market demands remains a challenge.

LEMAN

CONCLUSION

“LEMAN: LEADING THE WAY IN GREEN LOGISTICS INNOVATION.”

LEMAN’s dedication to eco-friendly practices and innovation underscores its role as a trailblazer in sustainable logistics. By integrating cutting-edge green technologies and fostering a culture of environmental responsibility, the company addresses critical challenges in reducing its carbon footprint. Initiatives like Lithium ION chargers, solar panels, and CO_2 compensation programmes highlight LEMAN’s proactive approach to balancing sustainability with operational efficiency. Through strategic planning and collaboration with external experts, LEMAN sets an example for how logistics companies can align innovation with environmental stewardship, creating meaningful and measurable impacts for a sustainable future.

CASE STUDY:
SDK LOGISTICS

Integrating Eco-Friendly Practices Into Logistics Innovation

SDK Logistics exemplifies how eco-friendly practices can be seamlessly integrated into innovative logistics operations. Following its merger with FREJA Transport & Logistics, SDK has focused on enhancing sustainability through digital tools, optimised fleet management, and streamlined processes. By prioritising carbon emission reductions and resource efficiency, the company not only meets environmental standards but also sets a benchmark for sustainable growth in the logistics sector. SDK's commitment to blending environmental responsibility with operational innovation highlights its leadership in creating greener and more efficient logistics solutions.

SDK LOGISTICS

Innovation Management Practices and Digitalisation

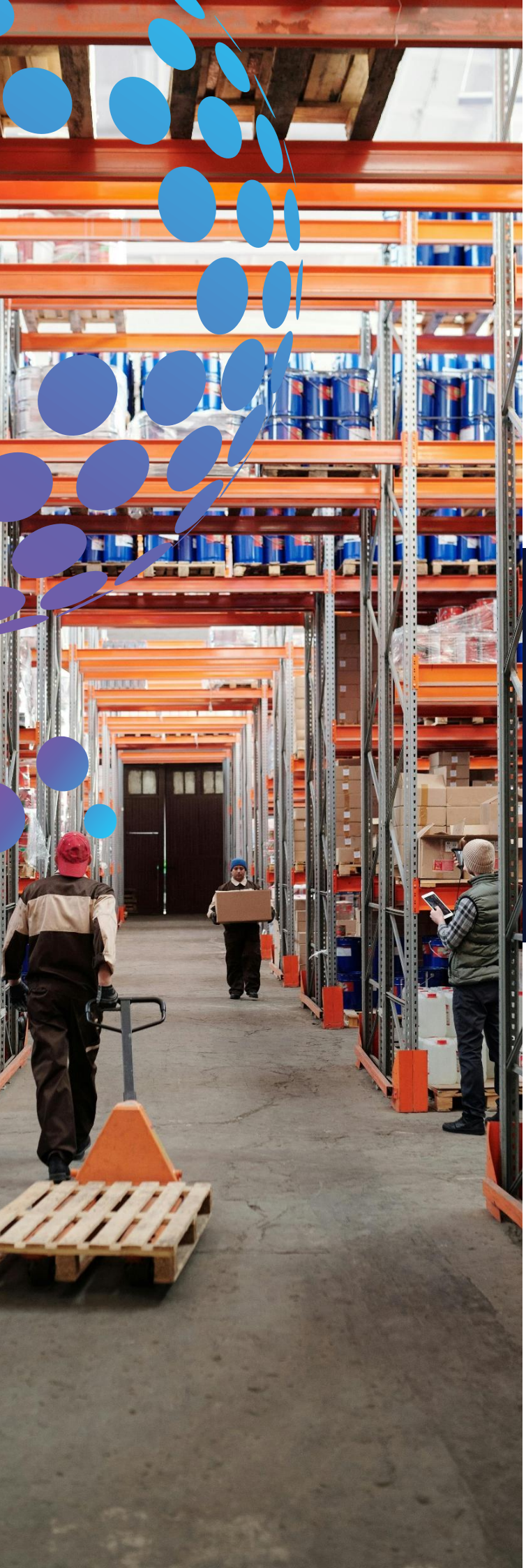
- **Strategic Mergers for Innovation:** The merger with FREJA Transport & Logistics enhances SDK's capacity to deliver comprehensive solutions by combining resources and expertise, fostering innovation and efficiency.
- **Leadership-Driven Initiatives:** A dedicated leadership team aligns innovation efforts with strategic goals, focusing on customer satisfaction, efficiency, and sustainability.
- **Sustainability in Innovation:** SDK integrates sustainable practices into its operations, reducing environmental impact through optimised logistics and technology use.
- **Advanced Technology Integration:**
  - **ERP Systems:** Streamline operations and enhance decision-making with real-time data.
  - **CRM Systems:** Improve customer engagement and retention.
  - **TMS:** Optimise route planning, reduce costs, and lower fuel consumption.
- **Digitalisation for Sustainability:** Digital tools enhance resource efficiency, reduce emissions, and support SDK's environmental goals.

Sustainability Focus

- **Carbon Emission Reduction:** SDK optimises route planning and fleet management using advanced Transport Management Systems (TMS) to lower fuel consumption and reduce CO_2 emissions.
- **Sustainable Operations:** The integration of digital tools such as ERP systems minimises resource waste and enhances operational efficiency, supporting sustainable logistics practices.
- **Environmental Commitment:** SDK incorporates sustainable strategies into its innovation efforts, including fleet upgrades and streamlined processes, to mitigate environmental impact.
- **Sustainability-Driven Mergers:** The merger with FREJA Transport & Logistics enables the adoption of shared sustainable practices and advanced technologies across a broader network.

Main Operational Challenges

- **Balancing Growth and Sustainability:** Managing the integration of sustainable practices while scaling operations through mergers, such as with FREJA, presents complexities in aligning goals and resources.
- **Technological Adaptation:** Implementing and updating advanced digital tools like ERP, CRM, and TMS requires significant investment and continuous adaptation to stay competitive.
- **Regulatory Compliance:** Navigating evolving environmental and logistics regulations adds administrative and operational pressures.
- **Market Competition:** Operating in a highly competitive global market demands constant innovation to meet customer expectations and maintain a competitive edge.
- **Optimising Resource Allocation:** Efficiently managing resources across an expanded network post-merger while maintaining sustainability goals poses logistical challenges.

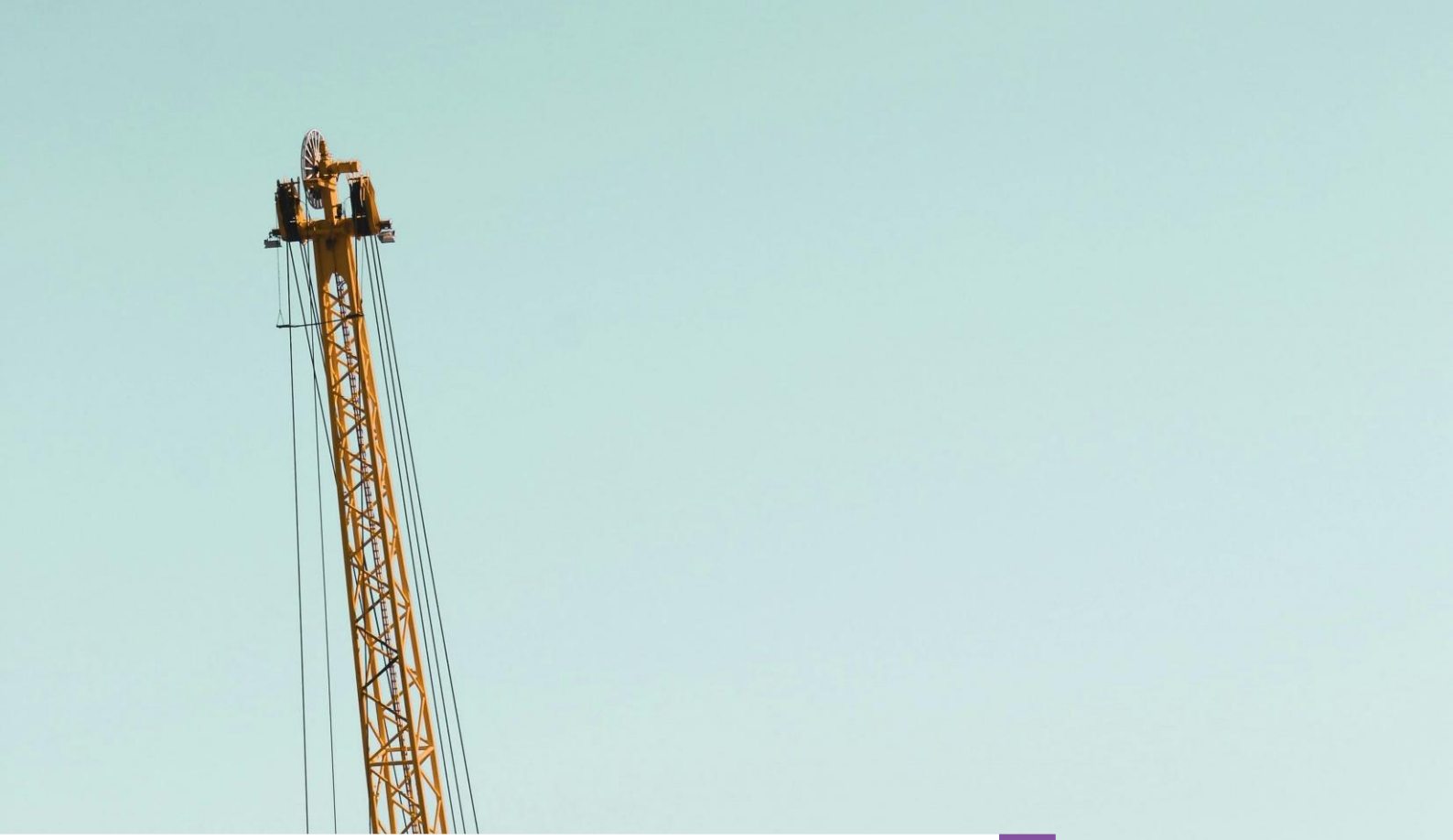


SDK LOGISTICS

CONCLUSION

“SDK LOGISTICS: WHERE INNOVATION MEETS SUSTAINABILITY.”

SDK Logistics showcases the power of innovation and collaboration in driving sustainable logistics practices. By integrating advanced digital tools, optimising operations, and prioritising carbon emission reductions, SDK demonstrates how eco-friendly practices can align with business growth. The merger with FREJA Transport & Logistics has further strengthened its capabilities, enabling the company to adopt shared sustainable strategies and expand its impact. SDK Logistics serves as a compelling example of how the logistics sector can embrace innovation to create efficient, environmentally responsible solutions for the future.

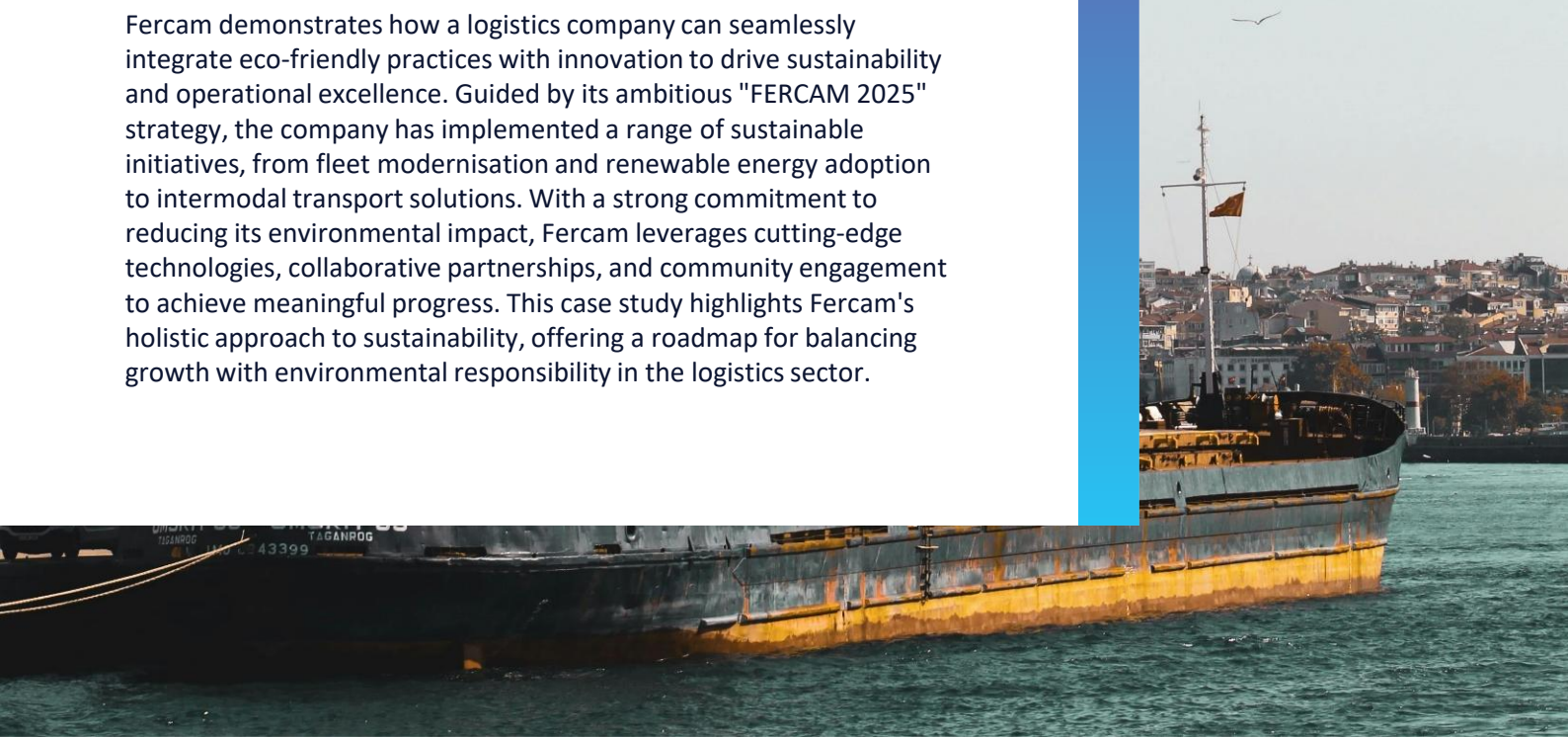


CASE STUDY:

FERCAM

Setting the Standard for Eco-Friendly Logistics and Innovation

Fercam demonstrates how a logistics company can seamlessly integrate eco-friendly practices with innovation to drive sustainability and operational excellence. Guided by its ambitious "FERCAM 2025" strategy, the company has implemented a range of sustainable initiatives, from fleet modernisation and renewable energy adoption to intermodal transport solutions. With a strong commitment to reducing its environmental impact, Fercam leverages cutting-edge technologies, collaborative partnerships, and community engagement to achieve meaningful progress. This case study highlights Fercam's holistic approach to sustainability, offering a roadmap for balancing growth with environmental responsibility in the logistics sector.



FERCAM

Innovation Management Practices and Digitalisation

- **Sustainability-Driven Strategy**: The "FERCAM 2025" plan drives sustainability across divisions, focusing on fleet transformation, intermodal transport, and facility upgrades to reduce environmental impact.
- **Advanced Fleet Management:** Upgraded to 74% Euro 6 vehicles, 19% LNG-powered vehicles, and introduced electric and methane vehicles for last-mile deliveries. Collaborates on BIO LNG fuel production.
- **Intermodal Transport Leadership**: Since 2000, Fercam has pioneered intermodal freight, reducing road transport by 55% and avoiding 33,000 tons of CO_2 emissions in 2022.
- **Eco-Friendly Facilities:** Photovoltaic systems generate 3.5 MW of power, reducing CO_2 emissions by 3,000+ tons, and 90% of warehouses feature LED lighting, aiming for full coverage.
- **Engagement and Awareness:** Sustainability assessments, driver training on eco-friendly practices, and customer collaboration foster innovation and environmental responsibility.
- **Digitalisation:** Relies on Microsoft software for operations and uses its intranet, newsletters, and "Fercam Blog" to communicate initiatives and engage stakeholders.

Sustainability Focus

- **Carbon Emission Reduction:** The fleet transformation includes 74% Euro 6 vehicles, 19% LNG-powered vehicles, and pilot projects for electric and methane vehicles, significantly lowering CO_2 emissions.
- **Renewable Energy Adoption:** Photovoltaic systems generating 3.5 MW of power have reduced CO_2 emissions by over 3,000 tons, with plans to expand renewable energy use.
- **Intermodal Transport:** A leader in intermodal freight, reducing road transport by 55% in 2022, avoiding 33,000 tons of CO_2 emissions, and promoting rail transport to minimise environmental impact.
- **Facility Sustainability:** LED lighting in 90% of warehouses, with a target of 100%, improves energy efficiency and reduces overall consumption.
- **BIO LNG Fuel Collaboration:** Partners with Biogas Wipptal to produce liquid natural gas for transport, supporting circular economy and reducing reliance on fossil fuels.
- **Community Engagement:** Organises events like "ROM-E" to promote sustainability, collaborates with the Food Bank of Bolzano for food redistribution, and invests in staff training on environmental practices.

Main Operational Challenges

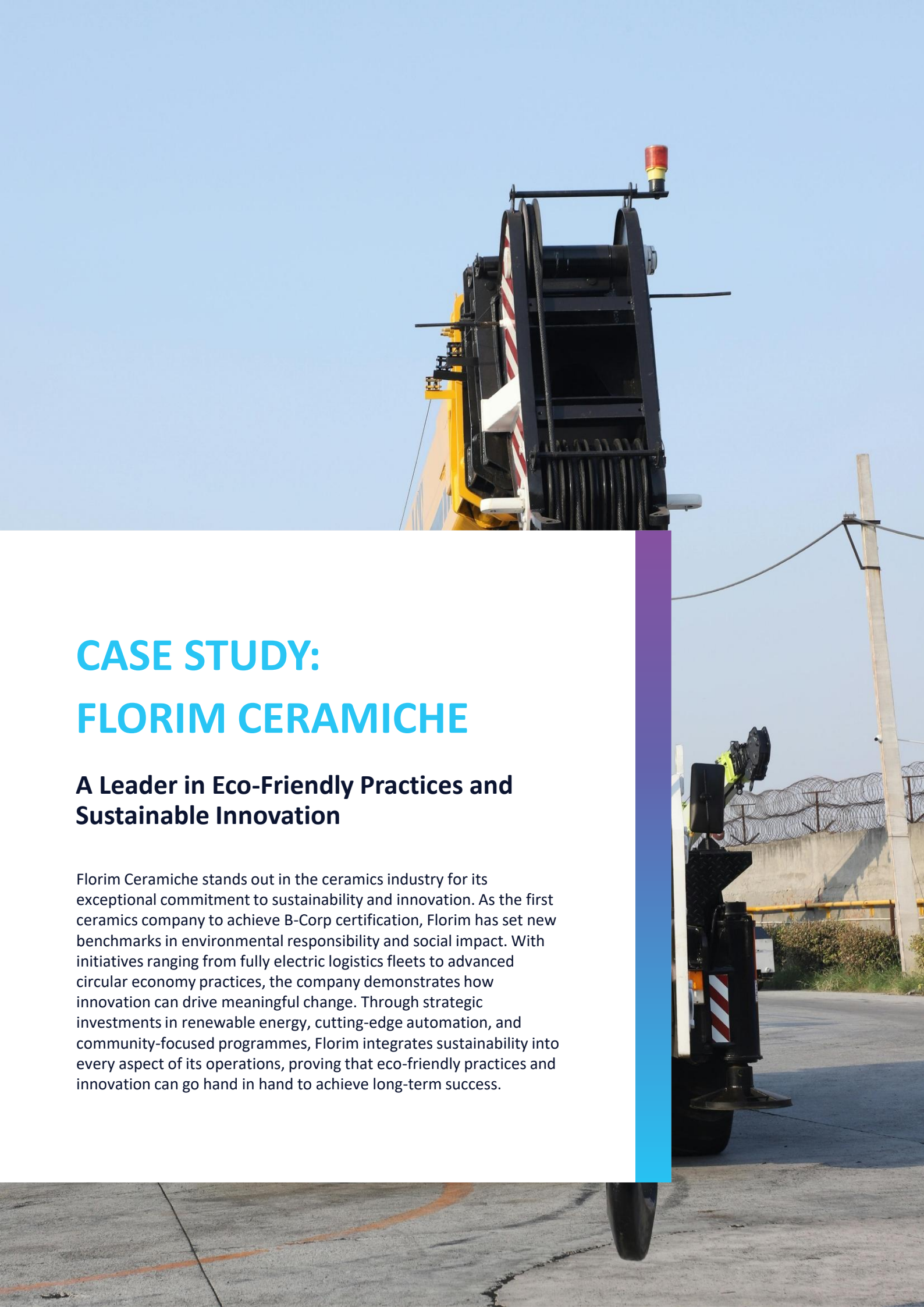
- **Fleet Upgrade Costs:** Transitioning to sustainable vehicles, including electric and LNG-powered options, demands significant investment and maintenance.
- **Infrastructure Constraints:** Expanding charging stations and renewable energy facilities is challenging, particularly in leased properties.
- **Balancing Growth and Sustainability:** Meeting ambitious "FERCAM 2025" goals while managing rapid business expansion strains resources.
- **Intermodal Transport Limitations:** Limited rail infrastructure restricts the scalability of intermodal freight solutions.
- **Regulatory Compliance:** Adhering to environmental regulations and maintaining certifications like ISO 14001 requires dedicated resources.
- **Stakeholder Engagement:** Encouraging customer collaboration for sustainability initiatives, such as offsetting programmes, remains a challenge.

FERCAM

CONCLUSION

“FERCAM: INNOVATING LOGISTICS WITH SUSTAINABILITY AT THE CORE.”

Fercam stands as a beacon of sustainability and innovation in the logistics sector. Its "FERCAM 2025" strategy exemplifies how a commitment to eco-friendly practices, combined with technological advancements, can lead to transformative change. From fleet modernisation and intermodal transport to renewable energy adoption, Fercam consistently prioritises reducing its environmental footprint while maintaining operational efficiency. By engaging employees, collaborating with communities, and fostering customer trust, the company not only meets sustainability goals but also sets an example for others to follow. Fercam’s approach demonstrates that responsible growth and innovation are not just compatible—they are essential for the future of logistics.



CASE STUDY:
FLORIM CERAMICHE

A Leader in Eco-Friendly Practices and Sustainable Innovation

Florim Ceramiche stands out in the ceramics industry for its exceptional commitment to sustainability and innovation. As the first ceramics company to achieve B-Corp certification, Florim has set new benchmarks in environmental responsibility and social impact. With initiatives ranging from fully electric logistics fleets to advanced circular economy practices, the company demonstrates how innovation can drive meaningful change. Through strategic investments in renewable energy, cutting-edge automation, and community-focused programmes, Florim integrates sustainability into every aspect of its operations, proving that eco-friendly practices and innovation can go hand in hand to achieve long-term success.

FLORIM CERAMICHE

Innovation Management Practices and Digitalisation

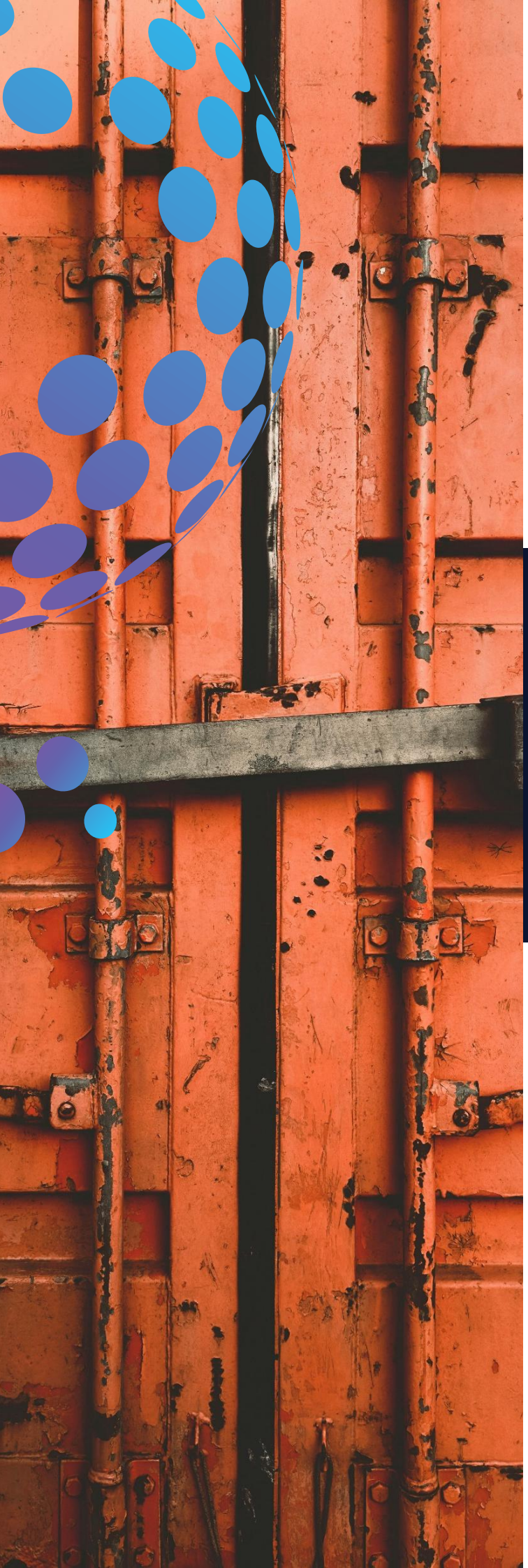
- **Visionary Leadership:** Innovation is driven by Giovanni Lucchese's green-oriented vision, beginning with top-down initiatives that evolve into bottom-up operational improvements.
- **Sustainability Investments:** €370 million invested over five years, including €121 million in 2023, supports energy efficiency, automation, and green mobility.
- **Technological Integration:** A Warehouse Management System (WMS) and a fleet of Automated Guided Vehicles (AGVs) optimise logistics in a 48,000 m² automated warehouse.
- **Green Energy Commitment:** Photovoltaic systems generate 80% of the company's electricity, supplemented by LED lighting and renewable energy purchases.
- **Customer Collaboration:** Florim aligns innovation efforts with market needs through structured discussions and targeted questionnaires with customers.
- **Digital Transformation:** Although lacking dedicated innovation tools, Florim uses sustainability reports and digital feedback to ensure continuous improvement

Sustainability Focus

- **Green Energy Production:** Generates 80% of electricity needs through photovoltaic systems, saving 152,845 tonnes of CO_2 over 12 years, with 23,457 tonnes saved in 2023.
- **E-Mobility Initiatives:** Uses fully electric trucks powered by self-produced energy, aiming to cut CO_2 emissions by 560 tonnes annually.
- **Carbon Neutral Goals:** Adopts a "Carbon Zero" philosophy, offsetting emissions with Environmental Product Declarations (EPD) and carbon credits.
- **Circular Economy Practices:** Recycles 100% of raw material waste and water, while recovering hot air from kilns for energy efficiency.
- **Efficient Facilities:** LED lighting in all facilities and an internal energy manual promote sustainable operations.
- **Social Responsibility:** Offers corporate welfare for employees, supports health and training programmes, and invests in local initiatives like reforestation and scholarships.
- **Sustainability Leadership:** Achieved B-Corp certification, with 16 years of voluntary sustainability reporting, integrating sustainability into its core strategy.

Main Operational Challenges

- **High Energy Demand:** Balancing 24/7 production with renewable energy sources, especially during winter and at night.
- **Fleet Transition Costs:** Significant investments required for electric trucks, forklifts, and charging infrastructure.
- **Circular Economy Maintenance:** Ensuring 100% recycling of raw materials and water requires ongoing optimisation.
- **Carbon Neutral Goals:** Meeting "Carbon Zero" targets involves continuous investment in carbon credits and emission tracking.
- **Customer Collaboration:** Aligning with customer sustainability priorities demands tailored projects and resource-intensive surveys.
- **Community Engagement:** Sustaining impactful social initiatives requires consistent commitment and resources.
- **Market Pressures:** Competing in a sustainability-driven market necessitates constant innovation.



FLORIM CERAMICHE

CONCLUSION

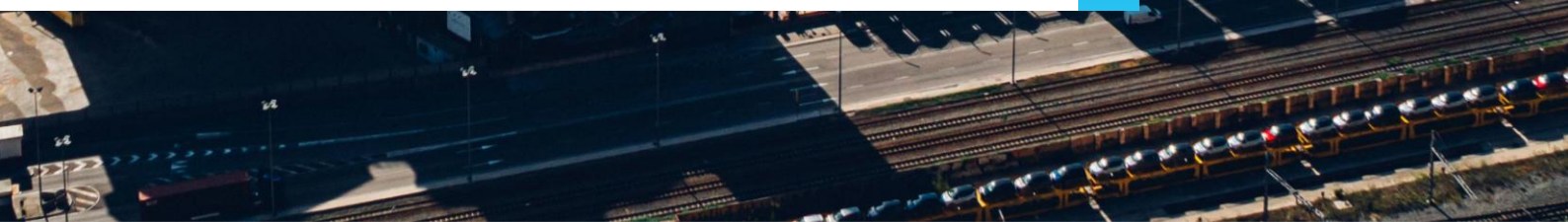
“INNOVATION AND SUSTAINABILITY ARE NOT OPTIONS—THEY ARE NECESSITIES FOR A BETTER FUTURE”

Florim Ceramiche exemplifies how a strong commitment to sustainability and innovation can redefine an industry. By integrating renewable energy, advanced automation, and a circular economy mindset, Florim not only addresses environmental challenges but also fosters community well-being and market leadership. The company’s forward-thinking approach, underpinned by significant investments and a green-oriented vision, highlights the tangible benefits of embedding sustainability into core operations. Florim’s achievements offer a powerful model for businesses seeking to align profitability with environmental and social responsibility, proving that sustainable innovation is both achievable and essential.

CASE STUDY: AEROSOL SERVICE

A Leader in Eco-Friendly Practices and Innovation

Aerosol Service has established itself as a leader in the aerosol manufacturing industry with its strong commitment to sustainability and innovation. The company integrates eco-friendly solutions into its operations, from introducing a fleet of natural gas-powered vehicles to implementing cutting-edge technology for waste reduction and energy efficiency. With a focus on sustainable product design and packaging, Aerosol Service demonstrates that environmental responsibility and innovation can go hand in hand, offering both operational success and a positive impact on the planet. Through continuous investment in sustainable practices, the company ensures that it not only meets but exceeds environmental expectations while driving long-term growth and efficiency.



AEROSOL SERVICE

Innovation Management Practices and Digitalisation

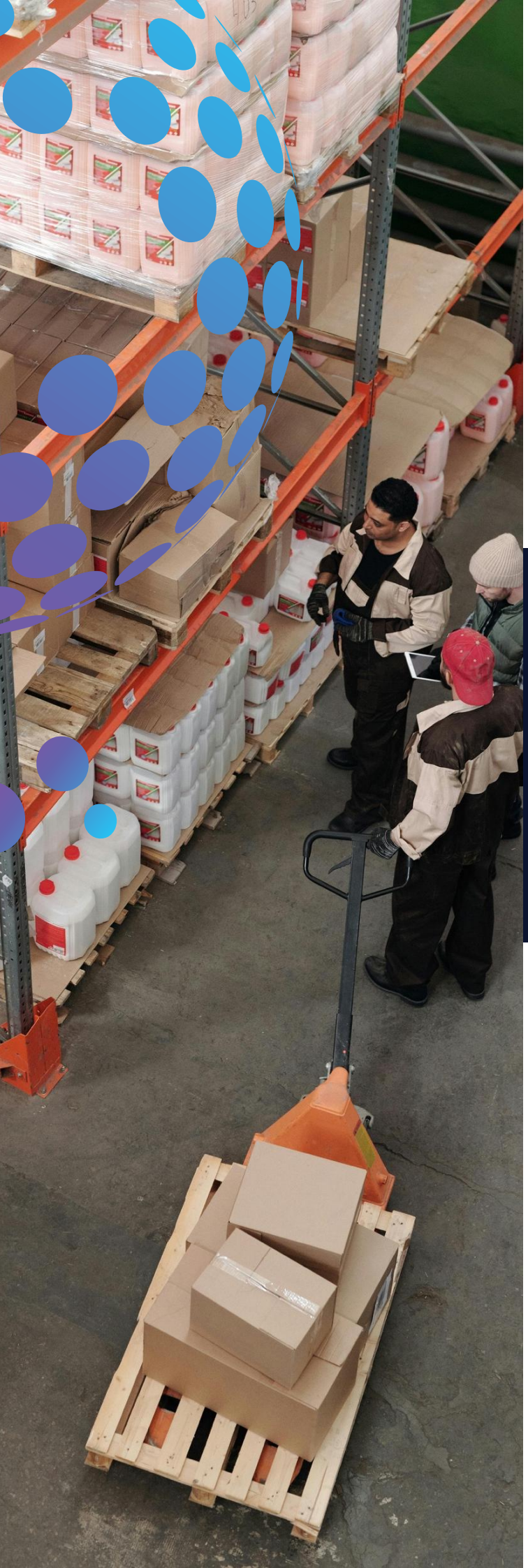
- ❑ **Visionary Leadership:** Driven by internal needs and customer demands, focusing on process digitisation to enhance flexibility and scalability.
- ❑ **Sustainability Investments:** Commitment to eco-friendly solutions, including natural gas-powered fleet and eco-friendly forklifts.
- ❑ **Technological Integration:** Implementation of ERP, MRP, and WMS systems to streamline production and logistics.
- ❑ **Green Energy Commitment:** Energy-efficient systems and waste management to reduce environmental impact.
- ❑ **Customer Collaboration:** Aligning innovation efforts with customer needs to meet sustainability and production goals.
- ❑ **Digital Transformation:** Integration of Power BI and cloud-sharing for enhanced data monitoring and productivity.

Sustainability Focus

- ❑ **Green Energy Production**: Focus on energy efficiency, including natural gas vehicles and energy-saving measures.
- ❑ **E-Mobility Initiatives**: Adoption of lithium-ion forklifts to reduce carbon footprint.
- ❑ **Carbon Neutral Goals**: Continuous improvement in energy efficiency to reduce carbon emissions.
- ❑ **Circular Economy Practices**: Emphasis on recycling and eco-friendly packaging solutions.
- ❑ **Efficient Facilities**: Use of energy-efficient systems and equipment.
- ❑ **Social Responsibility**: Employee welfare programs and community-focused sustainability projects.
- ❑ **Sustainability Leadership**: Certifications in ISO, GMP, and SMETA to demonstrate commitment to sustainability.

Main Operational Challenges

- ❑ **High Energy Demand:** Balancing energy needs with efficient production, especially during peak periods.
- ❑ **Fleet Transition Costs:** Significant investment in eco-friendly vehicle infrastructure.
- ❑ **Circular Economy Maintenance:** Ongoing optimisation of waste recycling and water usage.
- ❑ **Carbon Neutral Goals:** Continued investment in green technologies and carbon offsetting.
- ❑ **Customer Collaboration:** Tailoring solutions to diverse customer sustainability demands.
- ❑ **Community Engagement:** Sustaining social responsibility programmes and maintaining a strong reputation.
- ❑ **Market Pressures:** Constant innovation required to stay competitive in an eco-conscious market.



AEROSOL SERVICE

CONCLUSION

“INNOVATION AND SUSTAINABILITY GO HAND IN HAND FOR A GREENER FUTURE.”

Aerosol Service stands as a prime example of how businesses can drive innovation and sustainability hand in hand. By integrating cutting-edge technologies, digital tools, and eco-friendly practices into their operations, they not only meet customer demands but also contribute to a greener future. Their continuous focus on efficiency, sustainability, and flexibility ensures they remain competitive while reducing their environmental impact. With a clear commitment to process automation and sustainable development, Aerosol Service is shaping the future of logistics and production in a sustainable and innovative way.

03 | CONCLUSION

The case studies in this section—**LEMAN, SDK Logistics, Fercam, Florim Ceramiche, and Aerosol Service**—demonstrate how sustainability and innovation are driving significant change in logistics and manufacturing. These companies prove that sustainability is not just an obligation, but a strategic advantage, enabling them to reduce environmental impact, improve operational efficiency, and strengthen their market competitiveness.

LEMAN stands out for its integration of clean energy and advanced technologies, aligning its environmental goals with operational excellence. **SDK Logistics** amplifies its sustainability efforts through strategic mergers and the use of digital tools, proving the value of collaboration in driving large-scale sustainable change. **Fercam** leads the way with sustainable mobility solutions, including emission-free deliveries and BIO LNG fuel production, setting a new standard for the logistics sector. **Florim Ceramiche's** innovative "Carbon Zero" philosophy demonstrates how manufacturers can balance environmental stewardship with meaningful social responsibility initiatives. **Aerosol Service** shows that even in traditional industries, sustainable practices, such as energy-efficient technologies and waste reduction, can lead to operational improvements.

These organisations illustrate that eco-friendly practices are not only feasible but essential for businesses in today's landscape. Their achievements highlight the importance of forward-thinking leadership, strategic investments, and collaboration in driving sustainable growth. Beyond environmental benefits, their initiatives foster stronger customer relationships, improve employee satisfaction, and position them as industry leaders.

As the call for climate action grows, these case studies provide a clear roadmap for companies aiming to align their operations with both environmental and social priorities, while maintaining economic growth. These examples show that innovation and sustainability are not mutually exclusive but deeply interconnected, offering organisations the opportunity to thrive while addressing some of the world's most pressing challenges.

The path forward is clear: by embracing sustainability and innovation, businesses can play a pivotal role in creating a greener, more resilient future, setting a strong example for others to follow and contributing to global sustainability goals.

Watch: *"Nachhaltigkeit in der Logistik - Logistics Summit 2023"*

04

SDG INTEGRATION AND SOCIAL RESPONSIBILITY

04 | OVERVIEW

This section highlights the critical role of innovation management in driving sustainability and social responsibility within the logistics sector. Through a series of case studies—Collins Aerospace, Técnicas Reunidas (TR), and SOGEMA S.p.A.—we explore how leading companies are integrating sustainability into their operations while maintaining a focus on innovative logistics practices that respond to evolving customer demands and regulatory pressures.

Collins Aerospace, a global leader in the aviation industry, showcases how innovation management in logistics can thrive within highly regulated sectors. Their approach prioritises safety, compliance, and efficiency while meeting the rigorous demands of the aviation market. Collins Aerospace has adopted practical innovations such as manual logistics systems and digital tools like Microsoft Excel and Visio to streamline operations, ensuring operational excellence while meeting environmental and safety standards. Their commitment to sustainability, including reducing their carbon footprint and promoting responsible consumption, aligns with key Sustainable Development Goals (SDGs), notably SDG 13: Climate Action and SDG 12: Responsible Consumption and Production.

Técnicas Reunidas (TR), a prominent player in the oil and gas sector, provides an example of how innovation in logistics can be a direct response to external challenges. TR's focus on developing new logistical strategies in response to geopolitical events such as Brexit and the Yemeni conflict demonstrates the company's ability to adapt its operations flexibly and pragmatically. TR's adoption of the Logistics Management System (LMS) is a prime example of how digital tools are being used to enhance efficiency, improve cost management, and share knowledge across projects. Despite lacking a formal innovation strategy, TR's experience-driven approach has allowed the company to continuously improve and maintain a competitive edge in a challenging market, contributing to SDG 12 and SDG 13 through sustainable logistics and procurement practices.

SOGEMA S.p.A., a smaller player in the logistics field, highlights the importance of integrating innovation on a more localised scale. By focusing on customised logistics solutions and small-scale sustainability projects, SOGEMA has been able to drive both operational efficiency and social responsibility. Through initiatives like the "Save the Bees" project, SOGEMA not only contributes to biodiversity but also fosters a culture of environmental awareness within its workforce. While the company's sustainability efforts are modest, its innovation management practices allow for continuous improvements in logistics and supply chain operations.

Together, these case studies illustrate the diverse ways in which innovation management is being used to address both operational challenges and sustainability goals in logistics. The integration of SDG-focused innovation into everyday logistics operations proves that even in industries driven by complex supply chains and stringent regulations, there are significant opportunities for innovation to contribute to both environmental and social responsibility.

Watch: *"MSC at Green Logistics Expo 2024"*

CASE STUDY: COLLINS AEROSPACE

SDG Integration and Social Responsibility

Collins Aerospace, a global leader in the aviation sector, exemplifies how a large-scale enterprise can integrate sustainability and social responsibility into its operations. Originating in the early 20th century, Collins Aerospace has evolved from its automotive roots to a powerhouse in aviation, with approximately 150,000 employees worldwide, including 480 at the site explored in this case.

Guided by Juergen Laux, a seasoned Logistics Manager, this case study provides insights into how Collins Aerospace leverages innovation to align its logistics practices with the United Nations Sustainable Development Goals (SDGs). The company's commitment to regulatory compliance, sustainability, and operational excellence makes it a standout example of integrating SDG principles in a highly regulated and competitive industry.

COLLINS AEROSPACE

Innovation Management Practices

- ❑ **Compliance-Focused Innovation:** Innovations are driven by aviation safety standards and regulatory compliance, ensuring operational integrity.
- ❑ **Continuous Improvement System:** Logistics ideas are evaluated at the site level by experts to align with corporate goals and customer needs.
- ❑ **Structured Evaluation:** Innovations undergo internal evaluations, prototype development, and feasibility assessments.
- ❑ **Cost-Benefit Analysis:** Financial implications and ROI are key factors in deciding whether to pursue innovations.
- ❑ **Stakeholder Engagement:** Securing buy-in and managing changes effectively are integral to implementing innovations successfully.
- ❑ **Performance Tracking:** Plan-Do-Check-Act (PDCA) cycles are used to monitor the long-term impact of innovations.

Digitalisation

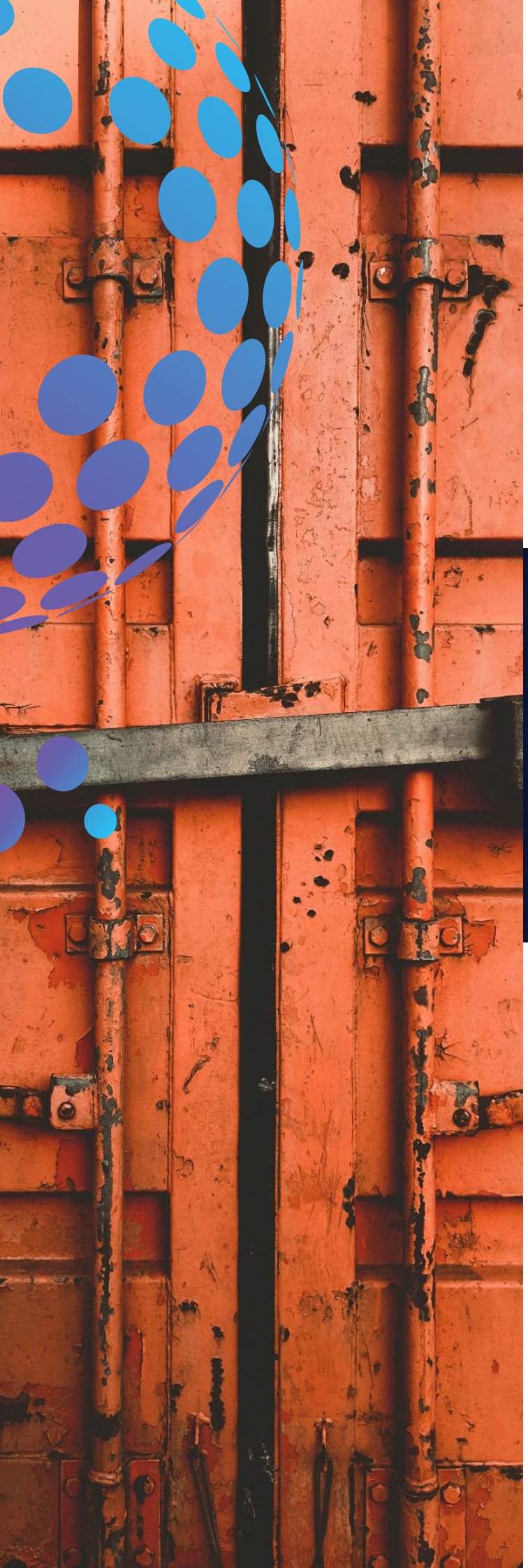
- ❑ **Process Management Tools:** Microsoft Excel, Visio, and Project are used to track activities, define roadmaps, and plan phases, enhancing coordination and transparency.
- ❑ **Support for Compliance and Sustainability:** Digital tools monitor the lifecycle of innovations, ensuring alignment with regulatory and sustainability goals.
- ❑ **Facilitating Transformation:** Corporate-led digital transformation efforts streamline logistics operations and improve process efficiency.
- ❑ **Sustainability Integration:** Platforms track environmental impacts, enhancing transparency and aligning operations with sustainability objectives.

Sustainability Focus

- ❑ **Compliance with Environmental Standards:** Innovations align with corporate sustainability goals and safety regulations.
- ❑ **Transparency in Logistics:** Digital tools track and assess environmental impacts across logistics operations.
- ❑ **Sustainability Monitoring:** Performance metrics ensure alignment with sustainability objectives and regulatory requirements.
- ❑ **Integrated Innovation:** Sustainability is embedded into the innovation lifecycle to support long-term environmental goals.

Main Operational Challenges

- ❑ **Regulatory Constraints:** Strict aviation safety and compliance regulations limit the scope of technological advancements.
- ❑ **Balancing Innovation with Costs:** Innovations must demonstrate clear financial benefits and align with cost-effectiveness goals.
- ❑ **Complex Logistics Coordination:** Managing intricate logistics operations while ensuring compliance with customer and corporate requirements.
- ❑ **Stakeholder Buy-In:** Securing approval and engagement from employees and decision-makers for new innovations.
- ❑ **Sustainability Integration:** Aligning operational goals with corporate sustainability targets within regulatory frameworks.



COLLINS AEROSPACE

CONCLUSION

“INNOVATION AND SUSTAINABILITY TAKE FLIGHT AT COLLINS AEROSPACE.

Collins Aerospace demonstrates that even in a highly regulated industry, innovation and sustainability can go hand in hand. By aligning its logistics practices with SDG principles, the company not only meets stringent regulatory requirements but also sets a benchmark for social responsibility and environmental stewardship. Through strategic use of digital tools, continuous improvement systems, and a commitment to transparency, Collins Aerospace integrates sustainability into its core operations while maintaining excellence in service delivery. This case serves as an inspiring example of how aviation leaders can balance compliance, innovation, and sustainability to create long-term value for stakeholders and the environment.

CASE STUDY: TÉCNICAS REUNIDAS

Driving SDG Integration Through Global Logistics Excellence

Técnicas Reunidas (TR), a prominent procurement and construction company with a 60-year legacy, has cemented its reputation as a trusted partner for major oil corporations like Exxon and Saudi Aramco. Headquartered in Saudi Arabia, TR operates on a global scale, with branches in Spain, India, Tokyo, China, and beyond, executing large-scale oil and gas projects. By tailoring its logistics services to the specific needs of each project and leveraging a multicultural workforce of up to 14,000 personnel, TR integrates sustainable development goals (SDGs) into its operations. From optimising transportation strategies to managing resources efficiently, TR demonstrates how logistical innovation and social responsibility can align to drive impactful, sustainable practices in one of the world's most demanding industries.

TÉCNICAS REUNIDAS

Innovation Management Practices and Digitalisation

- **Practical, Project-Driven Innovation:** Innovation at TR is embedded in day-to-day operations, emerging as responses to project-specific challenges rather than through a formalised innovation strategy. Innovations are often documented and shared across the company, ensuring continuous improvement.
- **Logistics Management System (LMS):** Central to TR's operations, the LMS tracks logistics processes from shipment release to final delivery. It also serves as a knowledge-sharing platform, allowing teams to document lessons learned and improve future operations.
- **Responsive Adaptations to External Challenges:** TR demonstrated adaptability during disruptions caused by geopolitical events like Brexit and the Yemeni conflict, developing alternative logistical strategies to ensure project continuity. These solutions were recorded in the LMS for future use.
- **Coordination Across Departments:** Innovations are often collaborative efforts involving input from procurement, logistics, and quality control teams. This decentralised approach ensures tailored solutions for each project while fostering communication among stakeholders.
- **Use of Digital Tools:** Beyond the LMS, TR employs tools like Microsoft Teams for collaboration, Smart Plan for procurement, and PCO for project cost management. These tools are integrated into a digital framework, enhancing operations and efficiency.
- **Cost Management Focus:** Innovations are assessed for financial feasibility using cost-benefit analyses, ensuring that only viable solutions are implemented.
- **Continuous Learning and Improvement:** Knowledge-sharing facilitated by the LMS and other tools ensures that TR's teams can build on past experiences, improving long-term operational efficiency and adaptability.

Sustainability Focus

- **Collaborative Approach:** TR works with logistics partners and suppliers to adopt sustainable practices, focusing on reduced emissions and energy efficiency.
- **Alignment with SDGs:**
  - **SDG 13 (Climate Action):** Minimising its carbon footprint through decarbonisation efforts.
  - **SDG 12 (Responsible Consumption and Production):** Promoting responsible sourcing and resource management.
- **Integrated Commitment:** Sustainability is embedded in TR's logistics, construction, and procurement operations.
- **Client-Driven Necessity:** Meeting growing market expectations for sustainable solutions.
- **Partner Reliance:** TR's sustainability efforts depend on the capabilities of its forwarders and suppliers, but the company remains committed to driving greener practices.

Main Operational Challenges

- **Geopolitical Disruptions:** Brexit and regional instability, such as in Yemen, have forced TR to reroute shipments, increasing costs and delays.
- **Customs Complexities:** Evolving customs regulations, particularly in Saudi Arabia, add complexity and time to logistics operations.
- **Market Competition:** Meeting strict timelines and standards of clients like Saudi Aramco while maintaining cost efficiency.
- **Internal Coordination**: Ensuring effective collaboration among multiple departments and external partners in large-scale projects.

TÉCNICAS REUNIDAS

CONCLUSION

“TÉCNICAS REUNIDAS: SUSTAINABILITY DRIVES OUR OPERATIONS.”

Técnicas Reunidas exemplifies how a global company can balance operational efficiency with a strong commitment to sustainability and social responsibility. By aligning its logistics strategies with SDG principles, the company addresses critical challenges in emissions reduction, resource management, and workforce inclusivity. Through its tailored logistics solutions, innovative use of digital tools, and focus on sustainable procurement practices, TR not only meets the rigorous demands of the oil and gas sector but also sets a benchmark for integrating environmental and social considerations into large-scale operations. This approach ensures that TR remains a resilient and forward-thinking leader in its industry.

CASE STUDY: SOGEMA

Driving Innovation through Customized Logistics Solutions

SOGEMA S.p.A. is a leading logistics provider that excels in innovation management by developing tailored logistics solutions to meet the evolving needs of its customers. The company leverages advanced technologies and integrated IT systems to streamline warehouse management and supply chain operations. Through its commitment to customised services and continuous improvement, SOGEMA stands out for its ability to manage complex logistics challenges and deliver value-added services, positioning itself as a key player in the logistics sector.

SOGEMA

Innovation Management Practices and Digitalisation

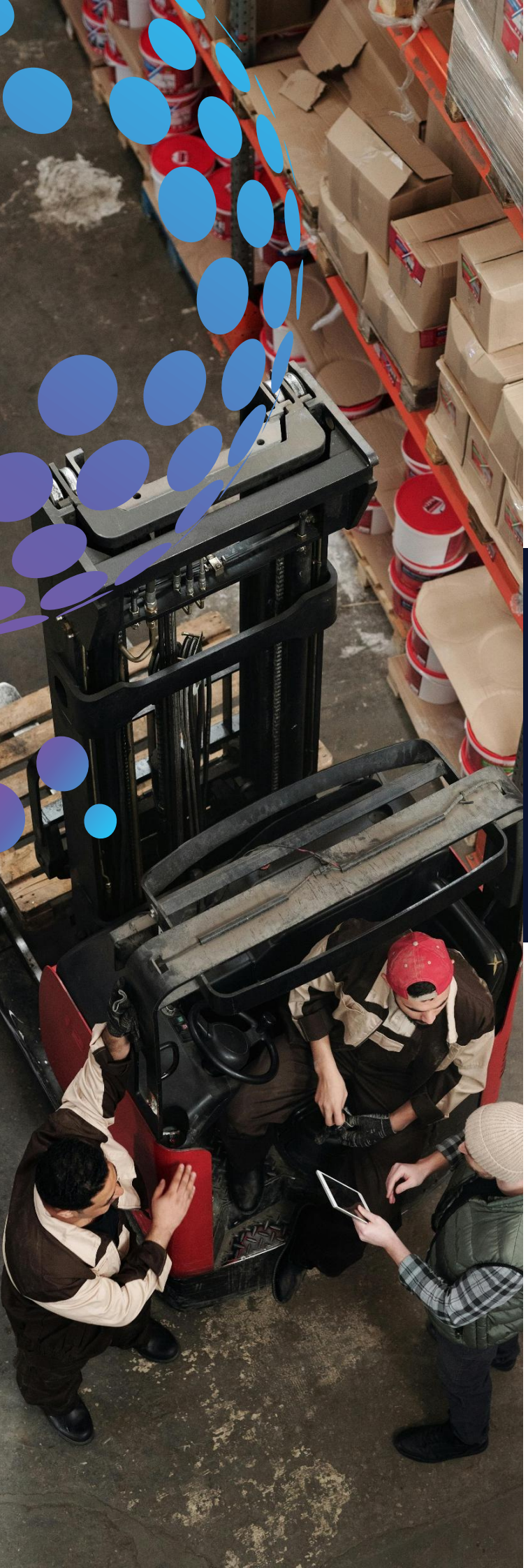
- **Advanced Energy Management Systems:** Sogema employs state-of-the-art energy management systems in its warehouses, which significantly reduce energy consumption. These systems use smart sensors and IoT technology to monitor and adjust energy use in real-time, ensuring optimal efficiency.
- **Eco-Driving Training Programs:** Sogema has implemented comprehensive training programs for its drivers, focusing on eco driving techniques. These programs are designed to reduce fuel consumption and emissions, promoting more sustainable driving practices across the company's fleet.
- **Waste Reduction Initiatives:** The company has instituted rigorous waste management protocols that prioritize recycling and the reduction of waste materials. Sogema's initiatives include the reuse of packaging materials and the elimination of single-use plastics from its operations.
- **Green Procurement Policies:** Sogema adheres to strict procurement policies that favor suppliers and partners who demonstrate a commitment to sustainability. This approach ensures that the company's supply chain contributes positively to its environmental goals.

Sustainability Focus

- **Collaboration for Sustainable Practices:** Sogema works closely with forwarders and suppliers to ensure adherence to global sustainability standards, pushing partners to adopt greener solutions and improve energy efficiency.
- **Decarbonisation Goals:** The company actively supports industry decarbonisation, reducing emissions in its operations and supply chain to align with SDG 13 (Climate Action).
- **Responsible Sourcing:** Sogema promotes sustainable resource management and responsible consumption practices, contributing to SDG 12 (Responsible Consumption and Production).
- **Partnership-Driven Sustainability:** While reliant on external partners, Sogema remains committed to integrating sustainability into its business model, recognising its importance for meeting client expectations and maintaining market competitiveness.

Main Operational Challenges

- **Energy-Intensive Operations:** Managing energy consumption and emissions in a logistics sector that is highly energy-intensive.
- **Limited Control Over Property:** The company doesn't own its plant, restricting its ability to implement sustainability initiatives like solar panels.
- **Cost of Innovation:** High costs of innovation often outweigh the benefits, limiting large-scale adoption of new technologies.
- **Lack of Structured Customer Feedback Integration:** The absence of a formal process to collect and integrate customer feedback hinders continuous improvement.
- **Scalability of Sustainability Projects:** Sustainability initiatives are small-scale and face challenges in scaling for greater impact.
- **Regulatory Compliance and Certification Costs:** The need to comply with environmental regulations and obtain certifications, which can be costly and resource-intensive.



SOGEMA

CONCLUSION

“INNOVATION THAT DRIVES LOGISTICS EXCELLENCE AND SUSTAINABILITY.”

SOGEMA S.p.A. stands as a prime example of how a logistics company can successfully integrate innovation management into its operations. By focusing on the development of customised logistics solutions, SOGEMA has been able to address the diverse needs of its clients while maintaining high levels of efficiency. The company’s use of advanced IT systems to manage warehouses and optimise supply chain processes ensures that it remains competitive in a rapidly evolving industry. Moreover, SOGEMA’s commitment to innovation is evident not only in its technological advancements but also in its value-added services, which enhance customer satisfaction. While sustainability is woven into its practices, SOGEMA's true strength lies in its ability to innovate and adapt, positioning itself as a leader in the logistics sector and demonstrating that a focus on innovation can drive both operational success and long-term growth.

04 | CONCLUSION

In conclusion, the case studies of Collins Aerospace, Técnicas Reunidas (TR), and SOGEMA S.p.A. demonstrate how innovation management can drive both operational excellence and contribute to sustainability goals in logistics. Despite operating in different industries, these companies highlight the significant role of innovation in addressing both customer demands and environmental challenges.

Collins Aerospace shows that in highly regulated industries like aviation, innovation management focuses on continuous improvement, compliance, and operational efficiency. While not reliant on cutting-edge technologies, their strategic use of digital tools and industry collaboration has enabled them to enhance sustainability and reduce their carbon footprint, aligning with SDG 13: Climate Action and SDG 12: Responsible Consumption and Production.

For **Técnicas Reunidas (TR),** innovation emerges as a response to external challenges such as geopolitical instability. The company's practical approach to innovation, exemplified by the Logistics Management System (LMS), allows it to adapt to market conditions while improving logistics operations. TR's efforts to incorporate sustainability practices into its supply chain, though reliant on partners, reflect a commitment to SDG 13 and SDG 12.

SOGEMA S.p.A., with its more localised focus, shows that innovation can also thrive on a smaller scale. Their dedication to customising logistics solutions and implementing community-oriented sustainability projects highlights how businesses of any size can contribute to social and environmental goals.

Across all three cases, the common theme is clear: innovation management is essential for long-term success in logistics. These companies demonstrate that innovation isn't just about new technologies—it's about continuously improving processes, adopting digital tools, and responding to both external pressures and internal needs. Integrating sustainability into innovation management ensures that businesses not only meet operational goals but also contribute to the broader global sustainability agenda.

Watch: *"Green Logistics: The Future of Sustainable Supply Chains"*

05

SUPPLY CHAIN AND OPERATIONS INNOVATION

05 | OVERVIEW

This section focuses on how companies in the logistics and transport sector are embracing innovation in supply chain and operations to enhance both efficiency and sustainability. By examining the practices of leading organisations such as **Number 1 Logistics Group, Torello Trasporti, Fiege Logistics Italia, Italtrans S.p.A., Enterprise Logistics,** and **Bumerang Logistics**, we gain valuable insights into how these companies are leveraging advanced technologies, automation, and customer collaboration to transform their operations.

Each case study highlights a unique approach to optimising logistics processes while prioritising environmental and social sustainability. Number 1 Logistics Group integrates sustainability into its logistics systems through automated warehouse operations, green technologies, and a focus on employee management, enhancing both productivity and well-being.

Torello Trasporti optimises its supply chain by introducing innovative practices to manage peak periods and reduce operational costs, demonstrating the impact of sustainability in improving performance.

Fiege Logistics Italia uses real-time monitoring and warehouse automation to enhance efficiency and reduce emissions, while working closely with customers to align on sustainability goals.

Italtrans S.p.A. has advanced its logistics with AI-driven fleet management and sustainable transport solutions, optimising fleet performance while reducing emissions.

Enterprise Logistics in Poland uses telematics and warehouse management systems to streamline operations and reduce fuel consumption, focusing on digitalisation and data management for future growth.

Bumerang Logistics in Turkey, despite challenges in fully embracing innovation, has recognised the importance of data collection and digitalisation for sustainability and growth.

These case studies demonstrate that innovation in logistics is not just about adopting new technologies but also creating a balanced approach that integrates sustainability, efficiency, and customer-driven solutions. They show how the logistics industry can evolve to meet the growing demand for sustainable practices while maintaining operational excellence. By leveraging technology, these companies are leading the way in a more sustainable and efficient logistics sector.

***Watch:** "The Future of Logistics: Exploring the Latest Trends and Innovations"*

CASE STUDY:

NUMBER 1 LOGISTICS GROUP SPA

Leading Innovation in Sustainable Logistics

Number 1 Logistics Group S.p.A. is a leading player in Italy's grocery logistics sector, known for its strong commitment to **environmental**, **social**, and **governance (ESG)** principles. Founded in 1996, the company has continuously innovated its operations to improve **sustainability** and **efficiency**. With a fleet of 650 vehicles and advanced logistics services, including **supply chain design** and **co-packaging**, Number 1 focuses on delivering value-added solutions while minimising its environmental impact. Its **social sustainability** efforts include the **NEXT association**, which creates job opportunities for disadvantaged individuals, and investments in **green infrastructure**. Through strategic investments and innovation management, Number 1 is setting the bar for sustainability in logistics.

NUMBER 1 LOGISTICS GROUP SPA

Innovation Management Practices and Digitalisation

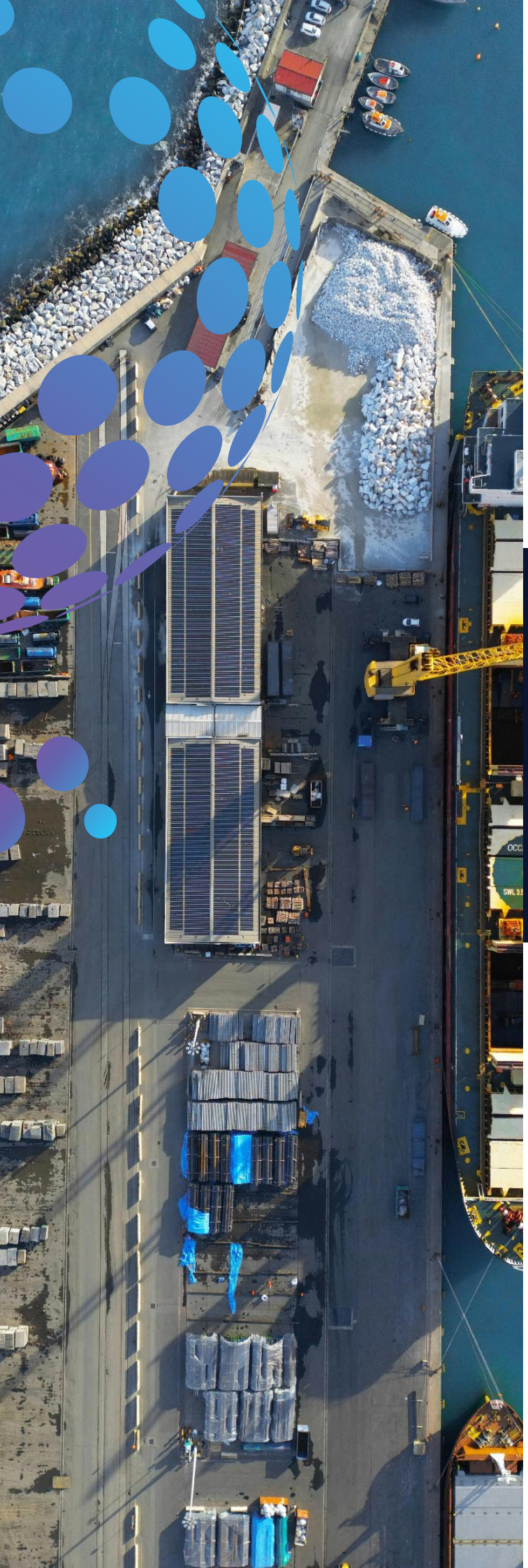
- **Sustainability Integration:** Number 1 Logistics has embedded sustainability into its innovation management, with a clear focus on environmental, social, and governance (ESG) principles.
- **Customer-Driven Innovation:** While customer demands play a significant role in shaping innovations, Number 1 anticipates market needs, developing solutions like intelligent trolleys and exploring hydrogen fuel alternatives.
- **Top-Down and Bottom-Up Approach:** Innovation is driven by a top-down approach from management, with operational input and ideas encouraged from staff, ensuring alignment with strategic sustainability goals.
- **Investment in Infrastructure and Technology:** Significant investments in automation and digitalisation, including the renovation of the Pignataro Maggiore logistics hub with solar panels, LED lighting, and intelligent trolleys.
- **Digitalisation for Operational Efficiency:** The introduction of a satellite communication system enables real-time data exchange between vehicles, improving route efficiency and reducing delays.

Sustainability Focus

- **Collaboration for Sustainable Practices:** Number 1 works with forwarders and suppliers to promote greener solutions and energy-efficient practices across the supply chain.
- **Decarbonisation Goals:** Actively contributes to decarbonisation by reducing emissions in its operations, aligning with SDG 13: Climate Action, through initiatives like solar panels and LED lighting.
- **Responsible Sourcing:** Promotes responsible sourcing to ensure suppliers adhere to ethical and sustainable practices, supporting SDG 12: Responsible Consumption and Production.
- **Social Sustainability Initiatives:** Through the NEXT association, Number 1 promotes social inclusion by offering job training and placement for disadvantaged individuals.
- **Sustainable Infrastructure:** Investment in brownfield redevelopment, such as the Pignataro Maggiore logistics hub, focuses on reuse and reducing land use, reflecting a commitment to sustainable infrastructure.

Main Operational Challenges

- **Energy-Intensive Operations:** Managing energy consumption and emissions in a highly energy-intensive logistics sector.
- **Limited Control Over Property:** Operating in a leased facility, which limits the ability to implement sustainability initiatives like solar panels.
- **Cost of Innovation:** Balancing the high costs of implementing new technologies with the operational benefits and customer demands.
- **Lack of Structured Customer Feedback Integration:** The absence of a formal process to collect and integrate customer feedback, hindering continuous improvement.
- **Scalability of Sustainability Projects:** Challenges in scaling sustainability initiatives to have a broader impact across operations.
- **Regulatory Compliance and Certification Costs:** The need to comply with environmental regulations and obtain certifications, which can be costly and resource-intensive.



NUMBER 1 LOGISTICS GROUP SPA

CONCLUSION

> **“INNOVATING LOGISTICS WITH SUSTAINABILITY AT THE CORE.”**

In conclusion, **Number 1 Logistics Group S.p.A.** stands out as a leader in integrating **innovation** and **sustainability** within the logistics sector. The company's proactive approach to **social inclusion**, **green infrastructure**, and **energy efficiency** sets a high standard for the industry. Through its commitment to **ESG principles** and continuous innovation, Number 1 is not only enhancing operational performance but also contributing to **sustainable growth** in the logistics field. Their efforts demonstrate how a focus on both **sustainability** and **efficiency** can drive long-term success.

CASE STUDY:
TORELLO TRASPORTI

Pioneering Sustainable Logistics Innovation

Torello Trasporti S.r.l., founded in 1975, has grown into one of Italy's leading logistics and transport operators, with a strong presence across Europe. Known for its commitment to both **environmental** and **social sustainability**, the company has pioneered innovative solutions like the **Green Logistic Automation Platform (GLAP)** to reduce emissions and optimise fleet management. Torello's success is driven by its family-oriented leadership and a strategic focus on adopting advanced technologies, including **solar-powered vehicles** and **intermodal transport**. By continuously investing in sustainability and innovation, Torello Trasporti is setting new standards in the logistics sector while addressing the evolving needs of its customers and the environment.

TORELLO TRASPORTI

Innovation Management Practices and Digitalisation

- ❑ **GLAP (Green Logistic Automation Platform):** Real-time monitoring system that optimises vehicle routes, reduces emissions, and tracks key performance metrics such as fuel consumption and driving behaviour. Data collection on vehicle routes, emissions, and driver performance, which is analysed to improve efficiency and inform decisions.
- ❑ **Sustainability-Driven Fleet Management:** Focus on vehicle fleet modernisation, with a strong emphasis on Euro 6 and LNG fuel compliant vehicles. Solar panels installed on trucks and warehouses to reduce energy consumption and extend battery life.
- ❑ **Technology Integration:** Use of digital thermo recorders (Trailercold Blue) for real-time monitoring of refrigerated transport conditions, replacing paper-based thermal receipts with digital reports for greater efficiency and customer transparency. Blockchain technology used for document storage, reducing paper usage and optimising archive management, though currently limited by regulatory requirements.
- ❑ **Customer Collaboration in Innovation:** Close collaboration with customers to gather feedback, identify emerging needs, and integrate sustainability requirements into project proposals, such as using HVO fuel and electric fleets in tender submissions.
- ❑ **Digitisation of Business Processes:** Utilisation of tools like Microsoft Teams and SharePoint for communication and internal project management, though not relying on a full project management information system.

Sustainability Focus

- ❑ **Emission Reduction:**
  - GLAP system optimises routes and driver behaviour to reduce emissions and improve fleet efficiency.
  - Investment in Euro 6 vehicles and LNG fuel to cut carbon emissions.
- ❑ **Sustainable Fleet & Infrastructure:**
  - Solar panels installed on trucks and warehouses to reduce energy consumption and improve efficiency.
  - Energy-efficient heating and cooling systems in warehouses.
- ❑ **Sustainable Fuel:** Adoption of HVO (Hydrotreated Vegetable Oil) for lower environmental impact.
- ❑ **Social Sustainability:** Collaboration with customers to integrate sustainability criteria in tenders, including ESG certifications and gender equality.
- ❑ **Circular Economy:** Use of solar-powered trucks and battery life extension to reduce waste and costs.

Main Operational Challenges

- ❑ **Regulatory Compliance:** Adapting to increasingly stringent emission regulations, especially with the shift to zero-emission logistics by 2035.
- ❑ **Cost of Innovation:** Managing the high costs of implementing sustainable technologies and modernising the fleet.
- ❑ **Energy-Intensive Operations:** Reducing the energy consumption of logistics and transportation operations.
- ❑ **Customer Expectations:** Meeting growing demand for sustainable logistics while balancing costs.
- ❑ **Technological Integration:** Ensuring seamless real-time data and digital systems integration for efficient operations.
- ❑ **Supply Chain Disruptions:** Navigating external factors like geopolitical instability and market fluctuations.

TORELLO TRASPORTI

CONCLUSION

“INNOVATING LOGISTICS WITH A COMMITMENT TO SUSTAINABILITY AND EFFICIENCY.”

Torello Trasporti S.r.l. stands at the forefront of sustainable logistics, blending cutting-edge innovation with a strong focus on environmental and social responsibility. The company’s Green Logistic Automation Platform (GLAP), alongside investments in solar-powered vehicles and HVO fuel, demonstrates its dedication to reducing emissions while maintaining operational efficiency. By fostering close collaboration with customers and continuously adapting to market demands, Torello ensures its leadership in the logistics sector while driving forward sustainable practices. The company’s proactive approach to innovation and sustainability positions it for continued success in an increasingly eco-conscious industry.

CASE STUDY:
FIEGE LOGISTICS ITALIA

Innovating Supply Chain and Operations for a Sustainable Future

Fiege Logistics Italia S.r.l. is a prime example of how supply chain and operations innovation can drive both efficiency and sustainability. As part of the global Fiege Group, the company has successfully integrated cutting-edge technologies such as warehouse automation and real-time monitoring systems to streamline logistics and reduce environmental impact. By focusing on direct employee management and collaborating closely with customers on sustainability goals, Fiege has developed a forward-thinking approach that not only meets the challenges of high-demand periods but also improves operational efficiency and reduces emissions. Their commitment to innovative logistics solutions serves as a model for other companies looking to optimise operations while maintaining a strong focus on sustainability.

FIEGE LOGISTICS ITALIA

Innovation Management Practices and Digitalisation

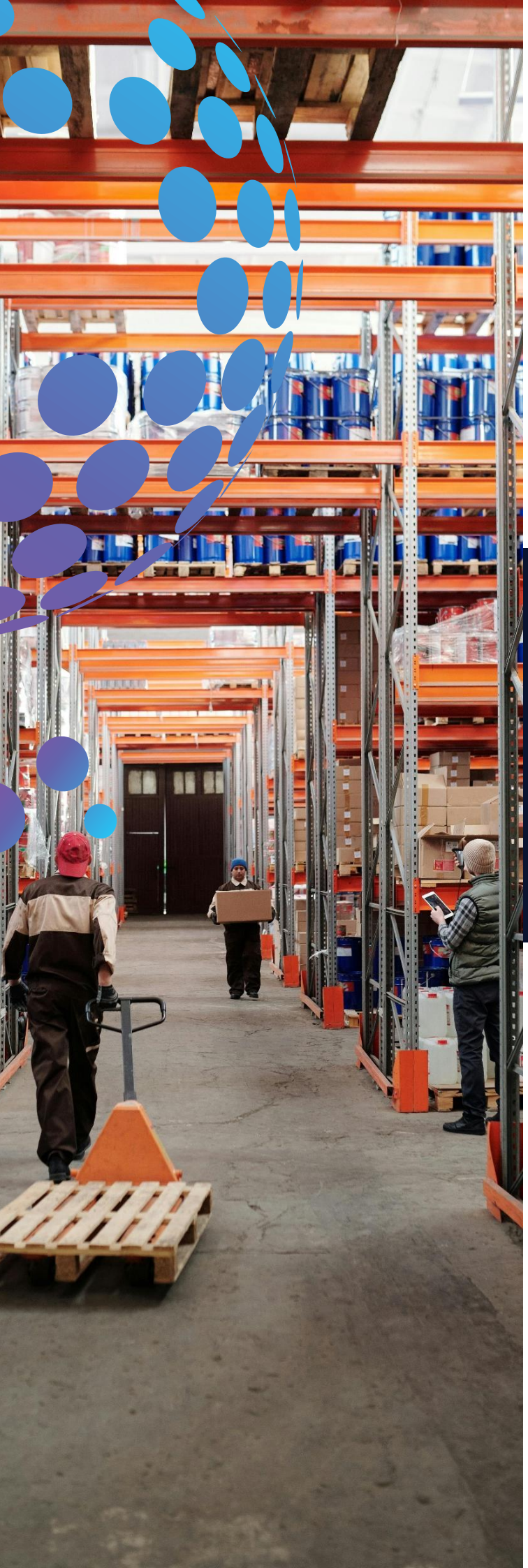
- ❑ **Direct Management of Personnel:** Fiege Italia shifted from relying on cooperatives to direct management of employees, improving staff quality, loyalty, and skills while fostering a closer relationship between management and operational teams.
- ❑ **Warehouse Automation:** Transitioned from manual warehouses to "goods to person" systems, drastically reducing labour hours and increasing operational efficiency, especially during peak periods like Black Friday and sales seasons.
- ❑ **Optimisation of Peak Periods:** To minimise waste, Fiege moved from intensive production during short peaks to more spread-out sales periods, reducing staff fluctuations, infrastructure overuse, and environmental impact.
- ❑ **Sustainability in Operations:** Focus on sustainable logistics by reducing energy consumption and emissions through more efficient processes, stable employment contracts, and resource optimisation to avoid unnecessary waste.
- ❑ **Customer Collaboration:** Works closely with customers to align on sustainability goals and innovation strategies, holding workshops and continuous improvement meetings to develop tailored solutions for each client.
- ❑ **Digital Tools:** Uses standard tools like Microsoft Office and Google for collaboration and communication, but does not employ a dedicated innovation management system.

Sustainability Focus

- ❑ **Energy Efficiency:** Reducing energy consumption through automated warehouses and optimising resource use during peak periods.
- ❑ **Emission Reduction:** Lowering CO2 emissions by spreading out demand periods and streamlining operations during high-demand seasons.
- ❑ **Sustainable Employment:** Direct management of employees to reduce turnover and create a stable, skilled workforce.
- ❑ **Collaboration for Sustainability:** Working with customers to align on sustainability goals through workshops and improvement meetings.
- ❑ **Resource Optimisation:** Avoiding infrastructure overuse by smoothing out peak demand, reducing waste and costs.
- ❑ **Social Sustainability:** Enhancing job quality and ensuring fair working conditions through direct management.

Main Operational Challenges

- ❑ **Regulatory Compliance:** Meeting sustainability regulations and customer demands for low emissions and energy-efficient solutions.
- ❑ **Cost of Innovation:** Managing the costs of automation and sustainable technologies while staying competitive.
- ❑ **Peak Demand Management:** Handling peak season pressures with efficient staffing and resource usage.
- ❑ **Supply Chain Coordination:** Aligning customers and internal teams on sustainability goals and logistics processes.
- ❑ **Staffing and Training**: Transitioning from cooperatives to direct employee management while ensuring a skilled workforce.
- ❑ **Technological Integration:** Integrating digital tools for real-time monitoring and continuous improvement without a formal innovation system.



FIEGE LOGISTICS ITALIA

CONCLUSION

“DRIVING SUSTAINABLE LOGISTICS THROUGH INNOVATIVE SUPPLY CHAIN SOLUTIONS.”

Fiege Logistics Italia S.r.l. exemplifies how **innovation** in supply chain and operations can lead to significant improvements in both **efficiency** and **sustainability**. By embracing **warehouse automation**, **real-time monitoring**, and **direct employee management**, the company has successfully navigated the complexities of modern logistics. Their focus on **collaboration with customers** and **sustainable practices** not only enhances operational performance but also contributes to **environmental goals**. Fiege's approach provides a valuable blueprint for businesses striving to balance operational excellence with sustainability, making them a standout example in the logistics industry.

CASE STUDY: ITALTRANS

Leading the Way in Sustainable Supply Chain and Operations Innovation

Italtrans S.p.A. stands out as a leader in **supply chain and operations innovation**, combining **advanced automation** and **sustainability** to optimise its logistics processes. With a focus on improving operational efficiency, the company has invested heavily in technologies like **warehouse automation systems** and **AI-driven fleet management**. Italtrans is committed to reducing its environmental impact through initiatives like **LNG-powered vehicles**, **photovoltaic systems**, and **energy-efficient warehouses**. By aligning **customer demands** with **sustainable practices**, Italtrans has created a robust, future-focused model that enhances operational efficiency while prioritising environmental and social sustainability.

ITALTRANS

Innovation Management Practices and Digitalisation

- ❑ **Automation and Warehouse Management:**
  - Implemented a Warehouse Management System (WMS) and automated picking systems to optimise logistics and improve accuracy.
  - Miniload systems and robots automate pallet picking, enhancing efficiency and reducing time.
- ❑ **Fleet Management and Remote Diagnostics:**
  - Developed the Cojali project, using AI for remote fleet diagnostics, reducing downtime and optimising fuel use.
  - Focus on LNG-powered vehicles and electric trucks to improve sustainability.
- ❑ **Logistics Digitisation:**
  - Daedalus system for real-time logistics management, improving efficiency and reducing unnecessary vehicle mileage.
  - Route optimisation and multi-driver vehicle usage to reduce idle miles and enhance efficiency.
- ❑ **Customer-Driven Innovation:** Customer needs drive innovation, with investments in technology and fleet management to reduce emissions and improve logistics.
- ❑ **Social Sustainability and Employee Engagement:** Use of intranet to inform employees about sustainability initiatives and plans for a company academy to support skills development.

Sustainability Focus

- ❑ **Energy Efficiency:**
  - Photovoltaic systems on warehouse roofs reducing CO2 emissions by 6,375 tons in 2022.
  - Insulated warehouses to improve heating and cooling efficiency.
- ❑ **Emission Reduction:** Fleet includes Euro 6 and LNG-powered vehicles, with plans for electric trucks to reduce emissions.
- ❑ **Sustainable Fleet Management:** Development of the Cojali project using AI for fleet diagnostics, improving fuel efficiency and reducing downtime.
- ❑ **Social Sustainability:** Intranet for employee updates on sustainability and plans for a company academy to train drivers and develop external skills.
- ❑ **Resource Optimisation:** Route optimisation and multi-driver vehicle usage to reduce idle miles and improve fleet efficiency.

Main Operational Challenges

- ❑ **Regulatory Compliance:** Adapting to increasing sustainability regulations and customer demands for low emissions and energy-efficient solutions.
- ❑ **Cost of Innovation:** Managing the high costs of automation and fleet upgrades while maintaining competitive pricing.
- ❑ **Fleet Maintenance:** Addressing operational downtime and maintenance issues, particularly with LNG-powered vehicles.
- ❑ **Energy-Intensive Operations:** Overcoming the energy-intensive nature of logistics and transport, requiring continuous investment in sustainable technologies.
- ❑ **Technological Integration:** Integrating AI and digital tools effectively for real-time fleet diagnostics and logistics management.
- ❑ **Customer-Driven Demands:** Meeting the evolving sustainability requirements of customers, which often include strict environmental criteria in tenders.

ITALTRANS

CONCLUSION

“INNOVATING LOGISTICS WITH SUSTAINABILITY AT THE CORE.”

In conclusion, **Italtrans S.p.A.** exemplifies how **innovation** in logistics can drive both **operational efficiency** and **sustainability**. Through significant investments in **automation**, **AI**-driven fleet management, and **sustainable fleet solutions**, the company has optimised its supply chain while reducing its environmental impact. Italtrans' proactive approach to integrating **customer-driven innovation** and **sustainability goals** has not only enhanced its competitiveness but also set a benchmark for the logistics industry. The company’s commitment to continuous improvement ensures its ongoing leadership in sustainable supply chain practices.

CASE STUDY:
ENTERPRISE LOGISTICS

A Leader in Logistics Innovation and Sustainable Practices

Enterprise Logistics has been a pioneer in the logistics sector, consistently embracing new technologies and sustainability initiatives to stay ahead of the curve. Established in 1993, the family-owned business has successfully integrated a variety of cutting-edge solutions, from telematics systems and intermodal transport to photovoltaic installations, ensuring both operational efficiency and eco-friendly practices. With a strong commitment to reducing its environmental impact, Enterprise Logistics also focuses on innovation management and customer collaboration, making strategic investments to enhance service offerings and streamline operations. Through its forward-thinking approach, the company demonstrates how sustainable practices and digitalisation can enhance both profitability and environmental responsibility in the logistics industry.

ENTERPRISE LOGISTICS

Innovation Management Practices and Digitalisation

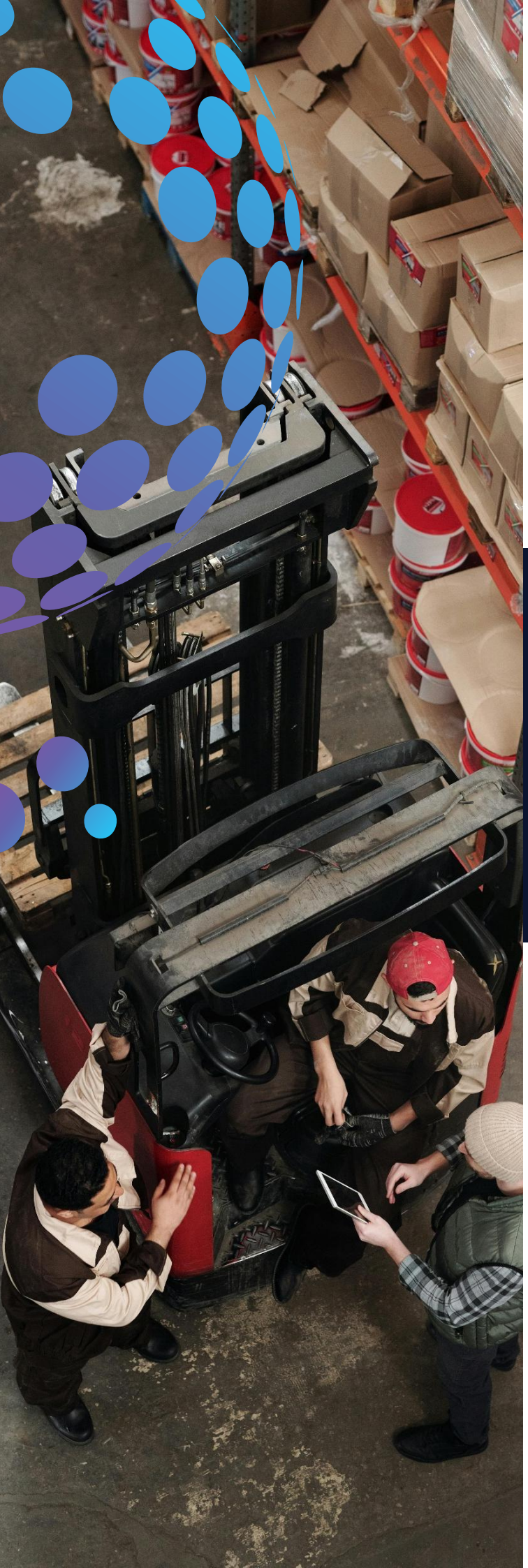
- **Customer Collaboration:** Actively engages with customers to understand their logistics needs and integrate process improvements based on feedback, including in-depth interviews and strategic planning meetings.
- **Telematics Integration:** Implemented the TRANSICS TELEMATYKA system for fleet and driver management, monitoring carbon footprints, driving efficiency, and optimising fuel consumption.
- **Technological Evolution:** Developed and evolved its own TMS (Transportation Management System) and WMS (Warehouse Management System), supporting the company's expansion into warehouse logistics and increasing operational efficiency**.**
- **Digitalisation in Innovation:** Utilises historical data from ERP, TMS, and WMS systems to evaluate the expected impact of innovations. Also employs external collaborations with academic experts and consultants to foster new ideas.
- **Digitalisation of Innovation Process:** Although tools for innovation management are limited, the company uses its bespoke ERP system for data analysis and has plans to implement more dedicated innovation management tools to streamline the process.

Sustainability Focus

- **Green Energy Commitment:** Installed photovoltaic systems on the warehouse roof in 2020, earning a "Green Energy Badge" from a medical client.
- **Carbon Footprint Monitoring**: Implements eco-friendly solutions like telematics for monitoring and optimising fuel consumption, with a focus on reducing CO_2 emissions.
- **Eco-Friendly Transport:** Uses semi-trailers in intermodal transport and is actively exploring the implementation of energy storage systems combined with photovoltaics and electric vehicles.
- **Sustainable Logistics:** Considers the environmental impact in all transport and logistics decisions, ensuring processes are aligned with sustainability goals, and adapting solutions for the green transport market.
- **Circular Economy Practices:** Focuses on sustainability and legal compliance with environmental standards, with a focus on using recyclable materials and energy-efficient practices.

Main Operational Challenges

- **Customer Expectations:** Managing and adapting to evolving customer demands for sustainable and cost-efficient logistics solutions.
- **Innovation Implementation**: Balancing the implementation of new technologies with a need for proven, reliable systems, as employees and customers can initially resist change.
- **Environmental Compliance:** Keeping up with rapidly changing environmental regulations and ensuring sustainability standards are met across logistics processes.
- **Industry Competition:** Staying ahead of competitors in an industry that increasingly prioritises sustainability, digitalisation, and innovation.
- **Investment in Green Solutions:** Making significant investments in sustainable practices such as electric vehicles, energy storage, and intermodal transport while managing the cost implications.



ENTERPRISE LOGISTICS

CONCLUSION

“INNOVATION AND SUSTAINABILITY ARE THE DRIVING FORCES BEHIND ENTERPRISE LOGISTICS’ SUCCESS."

Enterprise Logistics exemplifies how innovation and sustainability can work hand in hand to drive business growth and operational excellence. By integrating advanced technologies such as telematics, ERP, and WMS, the company has enhanced its operational efficiency while striving for sustainability in its processes. Their commitment to reducing carbon emissions through eco-friendly transportation solutions and energy-efficient facilities reflects a forward-thinking approach that aligns with global sustainability goals. With continuous investment in digitalisation and green technologies, Enterprise Logistics is well-positioned to stay ahead of industry trends, fostering long-term success in an increasingly sustainability-driven market.

CASE STUDY:
BUMERANG LOGISTICS

Optimising the Cold Chain: Innovating for Operational Excellence

Bumerang Logistics, established in 2002, is a key player in Turkey's logistics sector, providing essential services in refrigerated transport and warehousing. With a fleet of 500 vehicles and an extensive network, Bumerang Logistics stands out for its focus on delivering time-sensitive products across Turkey, especially for the food industry. The company has embraced operational innovations, such as digital tracking systems and a customer-driven approach, to optimise the cold chain and meet the evolving demands of its clients. Despite challenges in its innovation management process, Bumerang is steadily modernising its operations with a focus on improving efficiencies and enhancing service delivery, setting a strong foundation for future growth.

BUMERANG LOGISTICS

Innovation Management Practices and Digitalisation

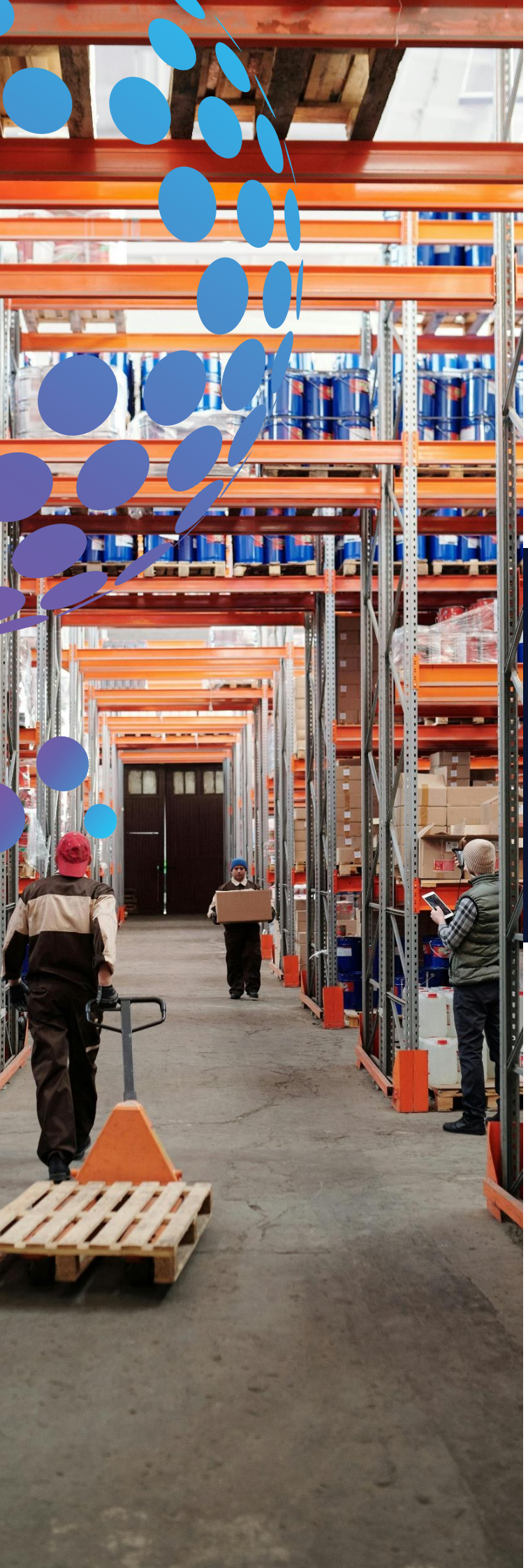
- **Traditional Innovation Approach:** Bumerang Logistics' innovation management has been shaped by a traditional approach, with limited strategic planning and innovation processes driven by operational needs rather than customer demands.
- **Data Collection and Standardisation:** Over the past five years, the company has increasingly recognised the importance of data collection and has begun to standardise certain processes manually, although no formal digital system has yet been implemented.
- **Customer-Driven Innovation:** The company's innovation projects generally stem from customer needs, with a particular focus on improving operational efficiency and control in its transportation and warehousing services.
- **Technology Integration:** The company attempted to implement an ERP system to centralise operations but faced challenges in execution, primarily due to management disagreements and lack of infrastructure.
- **Employee Digital Literacy:** Bumerang Logistics is focusing on developing digital literacy within its workforce to enable smoother adoption of digital tools and enhance its innovation capabilities in the future.

Sustainability Focus

- **Environmental Responsibility:** While sustainability is not a key focus of the company's innovation strategy, it has begun to adopt some sustainability-related practices, such as using newer vehicles with lower fuel consumption, motivated by cost reduction and legal requirements.
- **Resource Efficiency:** The company's efforts to optimise resource use and reduce waste are mostly driven by cost considerations, rather than environmental concerns, though these practices align with SDG 12 (Responsible Consumption and Production).
- **Gender Equality:** Bumerang Logistics has shown a desire to increase the number of female employees, although the male-dominated logistics sector presents challenges in making progress towards gender equality (SDG 5).
- **Future Sustainability Plans:** The company's management recognises the need to take more active steps towards sustainability, especially as data collection and reporting systems for sustainable management become mandatory in the future.

Main Operational Challenges

- **Lack of Strategic Innovation Planning:** The company faces challenges due to the lack of a structured innovation strategy, with efforts often driven by immediate operational needs rather than a long-term vision.
- **Traditional Management Approach:** The first-generation leadership's traditional perspective on innovation has slowed down the adoption of digital tools and more modern approaches to operational improvements.
- **Data Collection and Integration:** Challenges in integrating data collection processes across operations hinder the company's ability to make informed decisions and improve overall efficiency.
- **Human Resource Limitations:** The company struggles with a lack of qualified employees, particularly in areas of digitalisation, which impedes the smooth execution of innovation projects.
- **Customer-Centric Innovation**: As customers remain primarily price-driven, Bumerang Logistics faces difficulty in justifying the costs of more advanced, sustainability-oriented innovations.



BUMERANG LOGISTICS

CONCLUSION

“INNOVATION IS A JOURNEY, NOT A DESTINATION.”

Bumerang Logistics is navigating the challenges of the logistics and transportation sector with a gradual shift towards innovation. The company's traditional approach, influenced by a mix of generational perspectives, has slowed down some of its innovation processes. However, recent efforts to standardise data collection and address operational inefficiencies signal a positive move towards embracing digital solutions. Although sustainability initiatives are still limited and largely driven by cost reduction and legal obligations, there is growing recognition within the company of the need for more strategic innovation. With increasing awareness and a focus on enhancing digital literacy, Bumerang Logistics is poised to evolve its approach to meet future challenges, which will help them stay competitive and improve operational efficiency.

05 | CONCLUSION

In conclusion, the case studies presented in this section showcase how supply chain and operations innovation are transforming the logistics sector. Companies like **Number 1 Logistics Group, Torello Trasporti, Fiege Logistics Italia, Italtrans S.p.A., Enterprise Logistics**, and **Bumerang Logistics** are leveraging strategic investments in automation, digitalisation, and sustainability to enhance both operational efficiency and environmental responsibility. These organisations have incorporated cutting-edge technologies like warehouse automation, AI-powered fleet management, and real-time data monitoring, which have significantly streamlined operations and reduced their environmental footprint.

One key takeaway from these case studies is the essential role of customer collaboration in driving innovation. By working closely with clients, these companies have tailored their operations to meet specific needs while aligning with sustainability goals. This approach has proven crucial in delivering customised solutions that lower costs, improve performance, and enhance social sustainability across supply chains.

The commitment to social sustainability, particularly employee well-being and development, also stands out across these organisations. By investing in employee-focused initiatives like training, direct management practices, and improved work-life balance, these companies are building skilled, stable, and motivated workforces. This investment in people contributes to long-term success and nurtures a positive corporate culture.

This section highlights that the integration of sustainability with innovation is not merely a trend but a crucial necessity in the logistics sector. The companies featured here demonstrate that, through the adoption of advanced technologies, collaborative partnerships, and a commitment to environmental and social responsibility, logistics companies can drive success while creating a sustainable future.

Watch: *"Technology Trends in Logistics - 2023 and Beyond"*

06

CONCLUSION

COMPARATIVE ANALYSIS

This section of the Business Case Studies Collection provides a comparative analysis of how different logistics companies, across Europe and internationally, are integrating sustainability and innovation into their operations. The analysis focuses on the innovative management practices, digitalisation strategies, and eco-friendly initiatives that these companies have adopted. The case studies presented, such as Amazon, Torello Trasporti, Fiege Logistics Italia, and Italtrans, highlight diverse approaches to overcoming operational challenges while addressing sustainability goals.

Common Themes

1. **Digital Technologies Integration:** All companies leverage AI, automation, and real-time tracking to optimise operations, enhance efficiency, and improve transparency across supply chains.
2. **Sustainability Efforts:** Companies like Fiege Logistics Italia and Italtrans have invested in electric vehicles, solar panels, and energy-efficient systems to reduce emissions and improve eco-friendly practices.
3. **Customer Collaboration:** A focus on customer-driven innovation is evident in companies like Fiege Logistics Italia and Italtrans, where logistics solutions are tailored to meet specific customer sustainability goals.
4. **Social Responsibility:** Many companies, including Italtrans and Torello Trasporti, prioritise employee well-being and community engagement, contributing to both social sustainability and operational stability.
5. **Operational Efficiency:** Across the board, these companies work to streamline processes through automation, route optimisation, and cost-saving technologies, enhancing both performance and profitability.

Unique Strategies

1. **Amazon's Customer-Centric Logistics:** Amazon uses real-time data and AI-driven logistics to meet customer demands for speed and accuracy in delivery.
2. **Torello Trasporti's Peak Period Optimisation**: Torello reduces seasonal surge costs by spreading demand over time, decreasing the need for temporary hires and reducing environmental impact.
3. **Fiege Logistics Italia's Real-Time Monitoring:** Feige integrates real-time data monitoring and collaborates closely with customers to ensure sustainability and operational goals are met.
4. **Italtrans' Fleet Management Innovation:** Italtrans uses AI for preventative fleet maintenance, optimising fuel efficiency and reducing vehicle downtime.

COMPARATIVE ANALYSIS

Potential for Cross-National Learning

Technological Innovations: Companies can learn from each other's use of AI, automation, and real-time tracking. Italtrans' AI-driven fleet management offer models that can enhance logistics operations across borders.

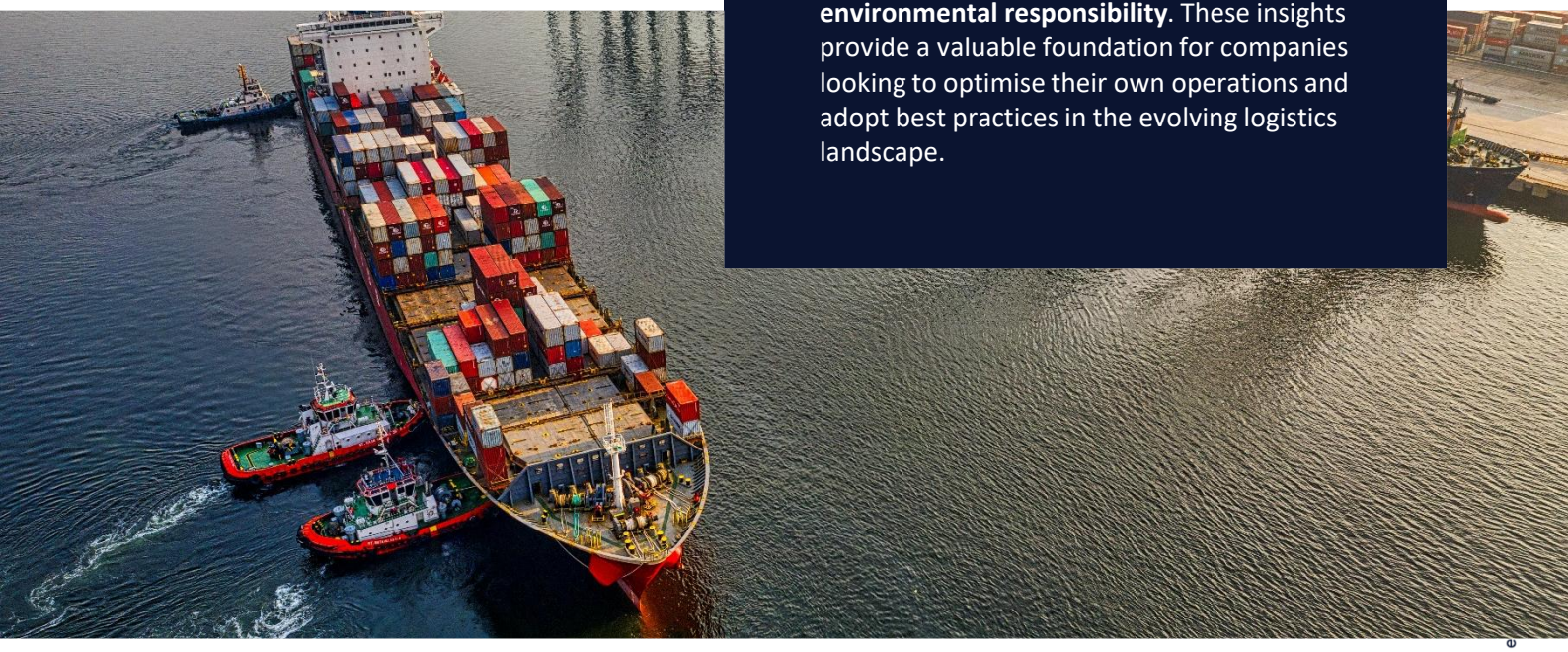
Sustainability Practices: Cross-national learning in sustainability is key, with companies like Torello Trasporti optimising peak demand periods and Fiege Logistics Italia using solar panels and electric vehicles. These practices can help global companies reduce costs and environmental impact.

Customer Collaboration: Fiege and Italtrans' focus on customer-driven innovation is an approach that can be adopted internationally to align sustainability goals and improve service delivery through tailored logistics solutions.

Social Sustainability: Cross-national learning can also apply to social sustainability. For instance, Italtrans' company academy and Torello's employee development models can be replicated to improve skills development and employee retention globally.

Efficiency and Cost Optimisation: Companies can benefit from sharing strategies to optimise routes and reduce idle time, as demonstrated by Amazon's last-mile delivery model. These innovations can lead to significant cost savings and environmental benefits across different markets.

In conclusion, the **comparative analysis** of the case studies highlights the diverse yet interconnected approaches taken by logistics companies to innovate and drive sustainability across their operations. While each company has tailored its strategies to its unique challenges and market conditions, common themes such as **digitalisation**, **customer collaboration**, and **sustainability** emerge as key drivers of success. The unique strategies adopted by companies like **Amazon** and **Torello Trasporti** demonstrate the importance of adapting innovation to specific needs while maintaining a shared commitment to **efficiency** and **environmental responsibility**. These insights provide a valuable foundation for companies looking to optimise their own operations and adopt best practices in the evolving logistics landscape.



“UNITING GLOBAL EFFORTS FOR A SUSTAINABLE LOGISTICS FUTURE.”

07

ANNEXES

GLOSSARY OF TERMS

1. **Carbon Footprint:** The total amount of greenhouse gases (GHGs) emitted directly or indirectly by an individual, organization, event, or product, measured in terms of carbon dioxide equivalents.
2. **Circular Economy:** An economic system aimed at eliminating waste and the continual use of resources. It employs reuse, sharing, repair, refurbishment, remanufacturing, and recycling to create a closed-loop system, minimizing the use of resource inputs and the creation of waste, pollution, and carbon emissions.
3. **Eco-Driving:** Driving techniques that maximize vehicle fuel efficiency, reduce emissions, and lower the costs of vehicle operation. These techniques include maintaining a steady speed, using gears efficiently, and turning off the engine when stationary.
4. **Energy Efficiency:** The use of technology and practices to reduce the amount of energy required to provide products and services, thus reducing energy consumption and environmental impact.
5. **Fleet Modernization:** Updating or replacing a group of vehicles with newer models that typically offer improvements such as reduced emissions, better fuel economy, and advanced safety features.
6. **6. Greenhouse Gas Emissions (GHG):** Emissions of compounds that trap heat in the atmosphere, contributing to the greenhouse effect. Major GHGs include carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O).
7. **Intermodal Transport:** The use of two or more modes of transportation (such as ship, rail, and truck) to move goods from the origin to the destination, which can reduce cargo handling, improve security, reduce damage and loss, and allow freight to be transported faster.
8. **Liquefied Natural Gas (LNG):** Natural gas that is super-cooled to liquid form for ease and safety of non-pressurized storage or transport. It significantly reduces the volume of the gas making it more cost-efficient to transport over long distances.
9. **Logistics:** The management of the flow of goods between the point of origin and the point of consumption to meet the requirements of customers or corporations, including the integration of information, transportation, inventory, warehousing, material handling, and packaging.
10. **Renewable Energy:** Energy derived from natural processes that are replenished constantly. This includes electricity and heat generated from solar, wind, ocean, hydropower, biomass, geothermal resources, and biofuels and hydrogen derived from renewable resources.
11. **Route Optimization:** The application of strategies and technologies to find the most efficient route for vehicles to follow, not only saving time and fuel but also reducing overall operational costs and environmental impact.
12. **Sustainable Logistics:** Logistics practices that consider not only economic and service efficiency but also environmental and social sustainability. This approach seeks to minimize the environmental impact and energy consumption of logistics activities, often through the use of green technologies and methods.
13. **Waste Management:** The collection, transport, processing or disposal, managing, and monitoring of waste materials to reduce their environmental impact. This includes the practices of reducing, reusing, and recycling waste products.
14. **Zero Waste to Landfill:** A waste management philosophy that involves designing and managing products and processes to avoid and eliminate the volume of waste materials being sent to landfill. It emphasizes waste prevention via thoughtful design and by supporting recycling and recovery techniques.
15. **Supply Chain Management:** The oversight of materials, information, and finances as they move in a process from supplier to manufacturer to wholesaler to retailer to consumer. Supply chain management involves coordinating and integrating these flows both within and among companies.

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