

# 01

## Company overview

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# Dear Shareholders,

Accelleron delivered another year of outstanding growth and profitability in 2025, despite a challenging geopolitical and macroeconomic environment. With our core markets providing an encouraging backdrop, we continued to deliver for our customers, resulting in market share gains in both marine and energy. We are confident that Accelleron's growth story will continue in 2026.



## New heights

Building on the successes recorded in 2024, Accelleron reached new heights in 2025. Revenues rose to USD 1.263 billion, an increase of 23.5%, reflecting both strong market fundamentals and our continued ability to capture market share in attractive segments. Growth in 2025 outpaced the upgraded expectations we set in summer, supported by robust demand across our core industries. While the marine market remained resilient throughout the year, the energy market emerged as a powerful additional growth driver, with energy resilience now complementing decarbonization and digitalization as a key structural force shaping Accelleron's core markets.

### Net income rose by 35.8%

Operationally, we delivered significant improvements. Operational EBITA reached USD 321.0 million, up 22.6%, with a margin of 25.4% – only slightly below 2024 and just above our last guidance of 24–25%. Net income rose by 35.8% to USD 243.7 million, supported by strong topline growth and disciplined cost management. Free cash flow conversion remained high at 88%, and we further strengthened our balance sheet,

reducing net leverage to 0.5 (2024: 0.7). Accelleron's strong profitability allows us to propose an increased dividend of CHF 1.50 per share for 2025. In addition, we will launch a two-year share buyback program totaling CHF 100 million, as part of our balanced and disciplined capital allocation framework.

## Growth and market share gains in both segments

### Medium & Low Speed growth driven by marine and power applications

Our Medium & Low Speed segment delivered another year of broad-based growth. Revenues increased by USD 156.1 million, or 20.2% (+17.2% organic<sup>1</sup>), reaching USD 929.6 million in 2025. The marine business continued to perform exceptionally well, supported by further gains in new-build market share and the delivery of more than 1,000 low-speed turbochargers. Demand for retrofits and upgrades remained high, with EPLO and FiTS2 upgrades expanding by 45%. Furthermore, we signed service agreements with a total value of around USD 150 million in 2025.

Demand for fuel injection systems remained strong throughout the year. Growth was further supported by rising demand for gas-fired prime-power solutions across multiple geographies. In China, strong domestic demand and export activity resulted in high revenues from turbochargers for diesel-electric locomotives.

Operational EBITA increased by USD 40.3 million, or 20.2%, to USD 239.4 million, with the operational EBITA margin rising slightly to 25.8% (2024: 25.7%). A strong increase in new business activity – with lower margins than in the service business – was offset by operational leverage.

### High Speed gained further traction in data center backup and prime power

The High Speed segment continued its upward trajectory in 2025. Revenues increased by USD 84.5 million, or 33.9% (31.0% organic<sup>1</sup>), to USD 333.5 million, driven by sustained momentum in data center backup and prime power solutions in the U.S. We delivered 15,800 high-speed turbochargers, including a record 8,000 TPX44 units for data center and other critical-infrastructure applications – more than tripling TPX44 production year-on-year and strengthening our competitive position.

In backup power, Accelleron-equipped diesel engines surpassed a 10% market share in this estimated 40 GW segment, generating around USD 40 million in revenue and achieving +230% year-on-year growth. In gas-fired prime power applications, where Accelleron has a substantial market share, we grew in line with this rapidly expanding market, and the U.S. gas compression business developed in line with expectations.

Operational EBITA in the High Speed segment increased by USD 18.8 million, or 29.9%, reaching USD 81.6 million in 2025. The operational EBITA margin decreased to 24.5% (2024: 25.2%). The rapid expansion of new business and tariff-related costs in the U.S. were largely offset by operational leverage.

In summary: last year, we again demonstrated that Accelleron can grow profitably even during geopolitically and macroeconomically challenging times. We also executed reliably at scale, producing over 22,000 turbochargers. Growing profitably by well over 20% in 2025 – and by more than 60% since 2022 – is not a matter of course, particularly while gaining market share.

## Looking ahead with confidence

We are confident that Accelleron's growth story will continue in 2026.

### More moderate growth in marine

In marine, fundamentals remain solid as shipyard order books stay at high levels. Given Accelleron's already substantial turbocharger market share, we expect to grow slightly above the market. The postponement of the Net Zero Framework (NZF) decision does not alter the underlying drivers of shipping's decarbonization: efficiency measures continue to represent the most attractive path forward. Customers are expanding their upgrade programs, and we anticipate sustained demand for our efficiency solutions.

Our digital solutions are increasingly integral to service agreements and upgrade cycles, and contribute to profitable growth. Through the TNM acquisition, we have gained additional capabilities, with ex-seafarers in the team – supported by AI-powered tools – playing an increasingly important role in providing remote operational advice to ship charterers.

The fuel injection business acquired through OMT is expected to grow at a slower pace due to uncertainty about the timing of the NZF adoption and the maritime sector's energy transition more generally. This has already resulted in fewer new orders for methanol- or ammonia-powered dual fuel engines.

### High growth in energy

In energy, we expect comparatively high growth. Decentralized power generation continues to gain importance, as balancing and prime-power applications benefit from rising demand for on-site, dispatchable capacity.

Energy resilience is becoming a key investment driver, increasing demand for high-efficiency solutions with short lead times. With long gas-turbine lead times and grid constraints, gas-fired, turbocharged combustion engines

increasingly determine how quickly new data-center capacity can be added, driving higher prime-power demand in 2026 and beyond. As data-center growth is capped by power availability, backup-power demand is expected to grow more steadily.

Additional demand for prime power is emerging from markets such as island grids. Sustained low oil and gas prices in the U.S. will likely cap activity in the gas compression market.

### Significant investments to meet demand

To ensure we can meet market demand in an increasingly complex world and the expected surge in demand from the power generation market, we are strengthening our value chain's resilience and investing significantly in production capacity.

We also continue to invest in our people's skills. As part of our transformation into a learning organization, we keep expanding AI training for our employees. With the successful integration of our colleagues from OMT and TNM, we have added key competencies to the company that support our growth trajectory.

Growth also comes with responsibility for people and the planet. We are proud that our near-term climate targets were approved by the Science Based Targets initiative (SBTi) in 2025. The approved targets are a milestone that underscores our commitment to reducing our own emissions and contributing to a more sustainable future, while reflecting Accelleron's core purpose of accelerating sustainability in marine and energy.

### Board succession

As part of our Board succession planning, we will propose several changes to the Board of Directors to shareholders ahead of the AGM on April 28, 2026. On a very personal note, I have decided not to stand for re-election to the Board and as Chair. It has been a privilege to lead the Board through Accelleron's first years as a standalone, publicly listed company.

The Board will propose Monika Krüsi, currently Vice-Chair, as Chair. Furthermore, Gabriele Sons has also decided not to stand for re-election. We thank her for her dedicated service and important contribution to establishing effective practices around nomination, compensation, and sustainability. The Board will propose Mieke Van de Capelle and Reto Suter as new Board members to complement the Board of Directors.

We are grateful for the trust of our customers and shareholders and for the collaboration with our suppliers throughout 2025. And, of course, a big thank-you goes to our colleagues around the globe. Individually and collectively, their efforts have taken Accelleron to new heights.

Yours sincerely,



**Oliver Riemenschneider**  
Chair of the Board of Directors



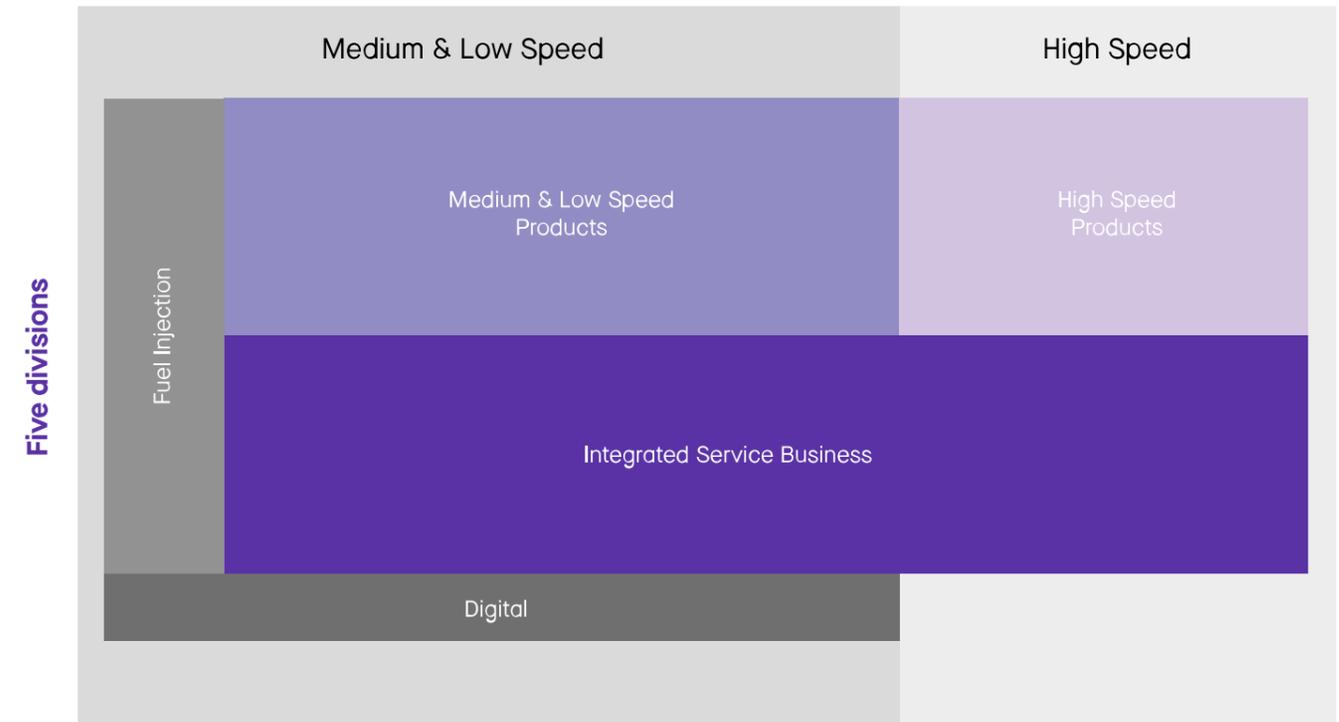
**Daniel Bischofberger**  
Chief Executive Officer

# Accelleron at a glance

Accelleron's technology gives engines an extra boost in performance to improve their fuel efficiency. By burning less fuel, the engines release fewer emissions. The Company designs, manufactures, sells, and services highly customized turbochargers and fuel injection equipment for heavy-duty applications.



## Two reporting segments



Accelleron reports its business in two segments: Medium & Low Speed and High Speed. They both cover the product business as well as the integrated service business. The service business relies on the value chain of the respective segment's product business, while operating as an overarching global service network. From an operating perspective, the business is organized into five operating divisions: two product divisions, one service division, one Digital division, and the Fuel Injection division. The Digital and Fuel Injection divisions are reported in the Medium & Low Speed segment as their application is primarily related to the Medium & Low Speed segment.

As a focused specialist with a comprehensive product and service range, Accelleron produces heavy-duty turbochargers ranging from 100 kg to 10 metric tons and from 0.5 to 30 megawatt (MW) as well as fuel injection equipment for large medium- and low-speed engines. Our main markets – marine and energy – are both exposed to the megatrends of decarbonization and digitalization, both of which provide vast opportunities.

With its products, Accelleron is the undisputed leader in turbocharging mission-critical applications. The Company's operations are based on a foundation of a century of making significant and continuous investments in technology, partnering with original equipment manufacturers (OEMs) and end-users, an unrivaled global service network, and a unique service culture that will never let customers down.

# Highlights

## Investments in fuel injection

In May, Accelleron set out a multi-year roadmap to expand manufacturing and R&D capabilities in fuel injection. The investments in Italy, including OMT's new technology center in Turin, support global demand for fuel injectors and reinforce the company's position in future-fuel applications.

## CIMAC – Industry leadership on display

At the CIMAC World Congress in Zurich in May, Accelleron showcased innovations in turbocharging and fuel injection that support decarbonization and the transition to carbon-neutral fuels. Engaging with hundreds of combustion-engine experts highlighted Accelleron's continuing role at the forefront of industry developments.

## Digital emissions reporting with ClassNK

In June, Accelleron launched a direct link to the ClassNK portal, simplifying digital emissions reporting for ship operators. The integration strengthens Accelleron's digital ecosystem and supports customers in meeting evolving regulatory requirements.

## Positive profit warning following strong first half

In July, Accelleron raised its revenue guidance for 2025 after impressive first-half growth across marine and energy markets. The update reflected continued market-share gains, robust demand for retrofits, and strong momentum in backup and prime power applications.

## Supporting Alaska's energy resilience

In September, Accelleron signed a 17-year Turbo SmartCare agreement with Matanuska Electric Association (MEA) to maximize uptime and maintain a dependable power supply in a remote and demanding environment. The digitally enabled service leverages Accelleron's expertise to offset the low availability and high cost of skilled labor in the region.



OMT's new technology center in Turin, Italy, will offer more than 1,200 m<sup>2</sup> for testing, assembly, and prototype production, as well as new office space for 100 employees.



MEA power station in Eklutna, Alaska, USA: The record-breaking 17-year service agreement includes an upgrade to the latest turbocharger technology.

## Accelerating to Net Zero – Part I

Accelleron's "Accelerating to Net Zero" report, unveiled in September at London International Shipping Week, highlights the need for shipping to pool its carbon-neutral fuel demand with other industries to accelerate the energy transition. The report underscores Accelleron's thought leadership in shaping the pathway to maritime decarbonization.

## Expanding digital reach through partnerships

Between October and November, Accelleron expanded the reach of its digital solutions through partnerships with LABO21 and Hyundai Marine Solution in Korea, and seawise in Japan. These collaborations extend the LOREKA360° and Turbo Insights ecosystems, enabling broader fleet coverage and deeper insights for customers across Asia.

## Accelerating to Net Zero – Part II

In December, Accelleron released the second report in its "Accelerating to Net Zero" series, illuminating the cross-sector pathways for scaling e-fuels in Asia-Pacific. The report highlights the region's emerging role in demonstrating how green hydrogen-based e-fuel networks can be built, connected, and scaled.

## Expanding full-cover service agreements

Accelleron signed its 50th Turbo MarineCare full-cover service agreement in December, reflecting the growing adoption of fixed-cost service plans among ship operators. The milestone demonstrates customer confidence in Accelleron's global service network and long-term value proposition.

## Climate targets approved by SBTi

The Science Based Targets initiative approved Accelleron's near-term climate targets in December, marking an important milestone for the company. The approval confirms that Accelleron's emission-reduction pathway aligns with the latest climate science.



Accelleron has entered a strategic cooperation with Hyundai Marine Solution on digital solutions, covering engine and turbocharger monitoring and optimization.



The ships are ready, but the fuel is not: Accelleron's net zero reports call for cross-sector collaboration to move toward hydrogen-based e-fuels.

# Higher efficiency, lower emissions, and best power density – with today's and tomorrow's fuels

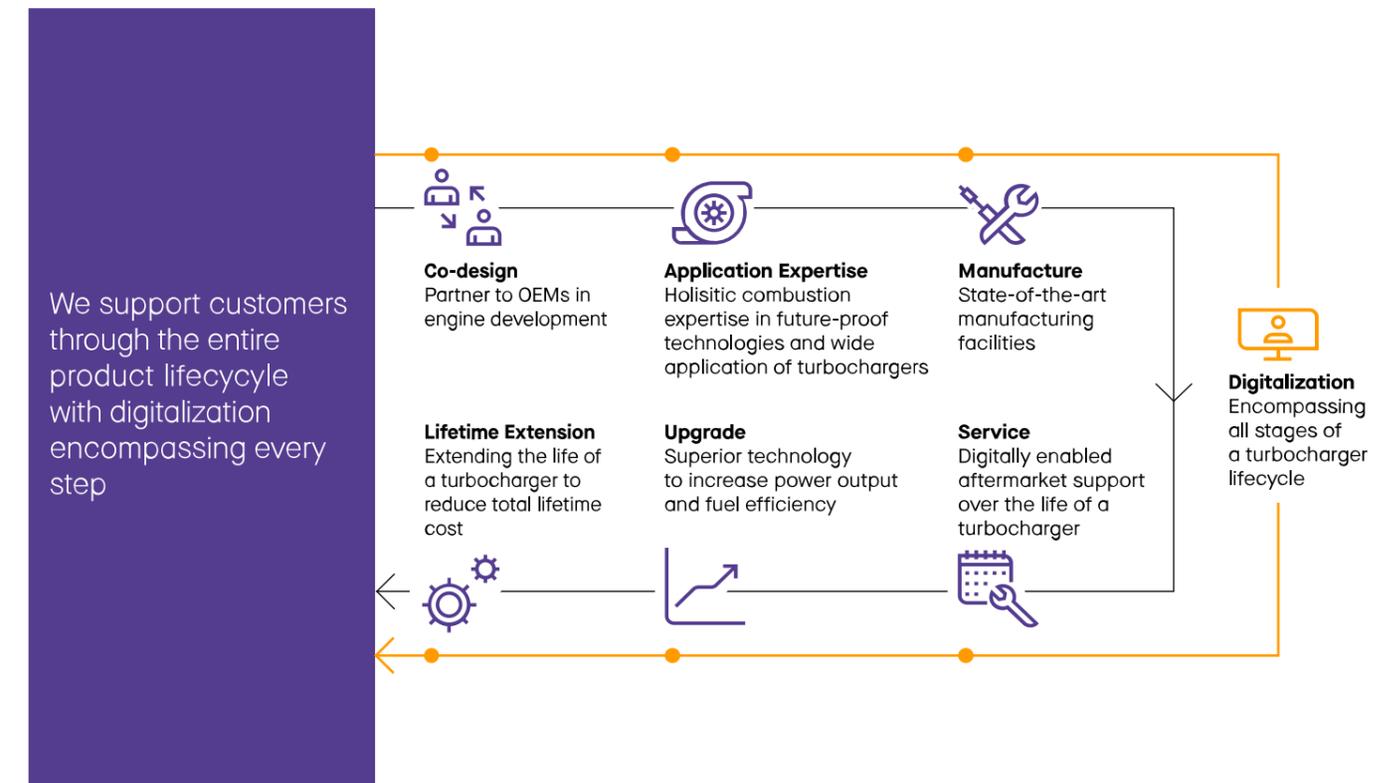
Accelleron's success builds on two mainstays. With best-in-class technology and a global service footprint, the Company cares for its customers by providing the optimal solution 24/7 all around the world.

Given its technological leadership, Accelleron is the preferred partner for internal combustion engine original equipment manufacturers (OEMs). The Company helps them achieve world-class power densities, up to 25% higher compared to the closest peers, and up to 2% better efficiency, lower emissions, and optimal reliability. The Fuel Injection division further puts Accelleron at the forefront of development with new carbon-neutral fuels. Superior R&D capabilities are the key driver for this: every year, Accelleron invests continuously above 5% of its annual revenues in R&D – irrespective of the economic cycle.

As part of the Company's global service network, over 500 trained service engineers in over 100 locations support more than 5,000 end customers. The global service center in Switzerland can deliver spare parts to any airport in the world in 48 hours, 365 days per year. With its strong and growing digital capabilities, Accelleron enables remote monitoring, predictive maintenance, and digitally enabled business models.

Accelleron is a global player. 34.9% of its revenues come from Europe, and 43.1% from Asia, the Middle East, and Africa (AMEA), where most of the new ships are built and maintained. In the Americas, which account for 22.0% of revenues, the major markets are cruise ships, gas compression, and power. In the power industry, Accelleron's products are operated in a variety of applications, including base-load power for locations with limited grid connection, balancing power (e.g., to compensate for fluctuating electricity supply generated from renewables), and back-up power (for the likes of hospitals and data centers).

Switzerland, the largest location, hosts the key functions that thrive on close cooperation: the global service center, R&D, the European sourcing hub, and the main manufacturing site. Accelleron has further production sites in China and Italy, a sourcing site in India, as well as local application engineering sites in China, Japan, South Korea, and the United States. The Fuel Injection factory (OMT)



in Turin, Italy, which has grown to more than 300 employees, has become the third largest site.

## Exceptional customer care

Accelleron's customer care and focus are exceptional. It starts with designing turbochargers in close coordination with engine OEMs to develop the best-performing combustion engines. The Company's application engineering experts also collaborate closely with OEMs to tailor turbocharger specifications to every single installation. Furthermore, they work to optimize end users' cost of ownership by offering upgrades and lifetime extensions. Digitalization encompasses all steps of a turbocharger's lifecycle, improving transparency and effectiveness both for Accelleron and its customers.

In the service business, Accelleron's market-leading global sales and service network sets the Company apart from its peers.

The mission is to offer turbocharging services and solutions that help the customers succeed in business. Accelleron provides turbocharger services and spare parts from a single source through its own network.

## Accelerating innovation

The company's more than 3,200 highly dedicated and skilled employees work toward clear goals. Their passion and alignment ensure Accelleron's technology and service excellence and strengthen its competitiveness. Best-in-class R&D capabilities and a portfolio of about 120 patent families secure technological leadership. One example successfully launched in 2025 is FITS2, a retrofittable turnkey solution allowing vessels to run with optimal efficiency in different load ranges through an innovative flexible turbocharger cut-out.

This approach offers customers a comprehensive service model, including lifetime service and paid-by-the-hour service agreements and digital offerings.

## Four growth pillars

Accelleron's strategy is to leverage its superior products and technology, service network, and leading market position to outgrow markets and competitors – while continuing to deliver best-in-class margins, cash conversion, and capital deployment. The strategy is based on four growth pillars:

1. Increase the Company's market share in the core markets marine and energy.
2. Grow the service business by focusing more on lifetime service contracts and digital offerings.
3. Enable and support customers in transitioning to natural gas and future carbon-neutral fuels, with the best turbocharging system and fuel injection solutions for single fuel engines, as well as for the growing market of dual fuel applications, e.g., engines running on diesel and LNG, methanol, or ammonia.
4. Expand organically and inorganically into adjacent areas, where Accelleron can stand out thanks to technological leadership and service excellence, e.g., digital solutions and engine components with high service intensity.

## Megatrends create significant opportunities

The megatrends of decarbonization, digitalization, and resilience impact Accelleron's two main markets – marine and energy. They create significant opportunities for Accelleron. Take the marine sector, for example: if the maritime industry was a country, it would be the world's sixth largest CO<sub>2</sub> emitter, comparable with countries like Japan, Indonesia or Germany, generating one billion metric tons of CO<sub>2</sub> emissions annually, or 3% of global CO<sub>2</sub> emissions. Annual fuel consumption is three billion

barrels of oil equivalent, similar to the aviation industry's annual fuel consumption.

Accelleron is continuously innovating to push the energy transition forward and accelerate the decarbonization journey for its customers. The Company does this in three ways. First, its turbochargers, fuel injectors, and digital solutions improve asset efficiency and reduce environmental impact by saving fuel and decreasing emissions, regardless of whether it is conventional fuel, bridging fuel like LNG, or a future carbon-neutral fuel like methanol, ammonia, or hydrogen. Second, Accelleron is working intensively on designing new fuel injectors which are tailor-made for the special requirements of future carbon-neutral fuels, and turbochargers that are adaptable for multiple fuel requirements. Finally, Accelleron's expanded digital offerings not only give marine customers the data needed to optimize vessel performance and efficiency, but they also help ship owners and charterers to report on emissions accurately, and to optimize overall fleet operations to meet decarbonization goals.

Furthermore, Accelleron leverages its superior turbocharging technology – higher efficiency and best power density – to help customers secure resilient energy supply. Highly efficient, turbocharged gas engines can provide decentral power either as baseload or as balancing power for intermittent renewables. For emergency power generation, the power density of Accelleron's turbochargers enables customers to generate the necessary power from the smallest possible engines, reducing both costs and fuel consumption.

Turbochargers improve the efficiency of large engines by up to 10%, leading to gains in both marine propulsion and the energy industry. This is equivalent to taking at least 40 million cars off the road in terms of CO<sub>2</sub> emissions and thereby creating USD 10 to 20 billion in annual fuel savings. In this context, Accelleron turbochargers improve efficiency by up to 2% more than the turbochargers of the next best competitor.

To achieve net zero targets in the Company's key markets, using future carbon-neutral fuels will be necessary. Since they cost much more, Accelleron's key competitive advantage of higher-efficiency turbochargers will be accentuated even further. Already today, Accelleron has a significantly higher market share in turbochargers for natural gas than for conventional fuels and is a leader in pilot applications with future fuels such as green methanol and hydrogen.

For fuel injection equipment, dual fuel engines represent a big opportunity for Accelleron because the delivery scope per engine increases considerably. Digital offerings are also gaining in importance. They positively impact Accelleron and its customers' business as they increase the efficiency and transparency of internal business processes and facilitate customers' interactions with the Company. Digitalization reduces customers' equipment lifecycle costs, whether they are incurred for turbochargers or combustion engines, and increases uptime. The Company strengthened its digital offering in 2024 through the acquisition of True North Marine, addressing key aspects of vessel performance and supporting customers with their decarbonization goals. In 2025, Accelleron launched LOREKA360°, an integrated digital platform that offers engine performance optimization as well as vessel and voyage optimization in combination with expert seafaring, operational and technical support.

Accelleron continues to develop digital twins of its turbochargers based on physical modeling and operational data. Thanks to the digital twins and related capabilities, the Company can offer its customers Smartly Enabled Services, meaning data-based service agreements that individually optimize turbocharger maintenance, performance, and the customer experience.

# COFCO International and Accelleron collaborate to improve voyage efficiency with LOREKA360° OptiNav AI

As the maritime industry continues navigating the complex transition toward lower-emission operations, COFCO International has taken a pragmatic approach: focusing not only on long-term solutions such as alternative fuels and new vessel designs, but also on operational measures that deliver immediate reductions in fuel consumption and emissions.

In 2025, COFCO partnered with Accelleron to trial LOREKA360° OptiNav AI, a voyage-optimization solution that blends advanced routing algorithms with human-in-the-loop decision support from shore. Across 13 voyages, the trial delivered clear, measurable sustainability and commercial benefits – without requiring the installation of any onboard hardware or triggering significantly higher costs for weather forecast services.

## Determining the most efficient transit for each voyage

The pilot began shortly after Accelleron's acquisition of Montreal-based True North Marine (TNM), whose voyage-optimization expertise now forms a core element of the LOREKA360° digital suite. OptiNav AI combines weather routing, vessel-specific performance models, and multi-objective optimization to determine the most efficient transit for each voyage. Rather than fixing a service speed and accepting the resulting fuel

consumption, COFCO's operations team could prioritize different objectives – such as arrival time, emissions reductions, or lowest total cost – while ensuring navigational safety and operational feasibility.

After acquiring True North Marine in 2024, Accelleron integrated TNM's voyage optimization software with its own engine expertise. Bringing together more than a decade of expertise, Accelleron now offers LOREKA360°, a single platform for managing and optimizing vessel, fleet and voyage performance. Besides OptiNav AI, LOREKA360° comprises three additional modules. Tekomar XPERT Engine assesses engine performance and delivers related advisory. OptiHull combines voyage and vessel data to optimize hull cleaning planning based on a ship's route, hull condition and potential fuel savings. And Emissions Desk supports operators in converting vessel data into compliance reporting and insights for further reductions.

A key strength of the system is the close collaboration between COFCO's operators and Accelleron's team of experienced former seafarers, who review route proposals, validate constraints, and provide continuous support during each voyage. This "human in the loop" element ensures that optimization remains practical and aligned with real-world conditions on board.



## Fuel saving of 3.5%

The results of the trial were consistently positive. Across the 13 voyages, COFCO achieved an average fuel saving of 3.5%, amounting to 327 metric tons of fuel saved, and a total CO<sub>2</sub> reduction of 1,030 metric tons. Commercially, the optimized voyages in the trial generated 2–3% cost savings on average per voyage, due to reduced fuel consumption and lower vessel hire expenses. For a large agricultural commodities trader operating a global fleet, these fuel savings demonstrate meaningful progress on its climate strategy while generating economic value.

Behind each optimization lies an enormous amount of computation. The OptiNav AI software evaluates millions of potential route and speed combinations, drawing on a decade of research and continuously refined vessel models. The resulting voyage plans often differ significantly from conventional routes. For example, optimized routing may avoid heavy weather, leading not only to lower fuel burn but also to more stable engine loads, which in turn support long-term engine and turbocharger health.

For COFCO, the OptiNav AI trial proved the tangible contribution that operational optimization can make to its climate strategy in the near-term, while new fuels and technologies have yet to reach scale.

Building on the success of this trial, COFCO is well positioned to scale digital optimization across its fleet, contributing meaningfully to its long-term decarbonization ambitions and driving value for the business.

# Advancing energy resilience for a data-driven economy

In 2025, energy resilience emerged – alongside decarbonization and digitalization – as a structural force shaping Accelleron’s core markets. Global energy demand continues to rise while grids in many regions simultaneously reach their capacity limits, particularly in countries with weak or aging infrastructure.

Modern power plants and generator systems built around turbocharged internal combustion engines provide three mission-critical functions: continuous baseload power in off-grid regions (prime power), grid-balancing capacity to support renewable energy (balancing power), and emergency power for critical infrastructure (backup power).

## Data centers are driving a surge in new power generation capacity

These technologies are essential to both the digital economy and the global energy transition. Data centers already consume about one fifth of all electricity in Ireland and require “five nines” availability – 99.999% uptime, a requirement intensified by the rapid growth of AI computing and high-density workloads. In the United States, data-center electricity demand doubled between 2017 and 2023, exceeding 4% of national power consumption, and is projected to reach 7–12% by 2028. This soaring demand is fueling a construction boom in power generation capacity.

At the same time, turbocharged gas engines play a pivotal role in integrating renewable energy into the grid by compensating for variability – a precondition for achieving global climate objectives.

Accelleron supplies high-performance turbochargers (medium and high speed) for internal combustion engines deployed worldwide in critical energy applications – from decentralized power plants and biogas facilities to emergency generators for data centers, nuclear power plants, and hospitals. Today, the energy sector accounts for more than 40% of Accelleron’s total revenues.

Turbocharged combustion engines in power generation serve three essential applications. Data centers rely predominantly on prime power and backup power.

**Prime power** – Baseload generation: These plants ensure continuous electricity supply in regions without stable grid access. With approximately 5,000 operating hours per year and engine outputs ranging from 0.5–20 MW, they cover essential demand in emerging markets, isolated island grids, sites near data centers, and industrial sectors such as mining.

**Balancing power** – Grid stability and flexibility: Gas-fired plants stabilize grids with high shares of variable renewables. Operating around 2,000 hours per year at 0.5–20 MW, they step in when wind and solar output drop due to weather conditions – enabling continued expansion of renewable energy.

**Backup power** – Emergency generation: Backup generators for critical infrastructure must reach full output within 30 seconds during an outage. Although they operate fewer than 500 hours per year, they are indispensable for data centers (1–3.5 MW) and nuclear facilities (up to 12 MW). Their reliability determines whether organizations face million-dollar losses – or worse, risks to human life.



## Resilience is especially critical for the digital infrastructure

Modern turbocharged gas engines are highly efficient, flexible, and increasingly compatible with carbon-neutral fuels. They significantly strengthen resilience of the electricity supply and thereby support the global energy transition. By stabilizing the grid, they offset the systemic risks introduced by the rapid deployment of renewables.

The intermittent nature of wind and solar leads to substantial grid fluctuations. On days with low wind or heavy cloud cover, turbocharged gas engines can ramp up within seconds, compensating for missing capacity. This fast response fundamentally distinguishes them from slow-ramping large power stations. During sudden demand spikes or unexpected renewable shortfalls, they stabilize the grid in real time. Modern power systems with high shares of renewables depend on this flexibility to prevent blackouts.

The economic dimension of resilience is equally significant: investors and grid operators can only commit capital to large-scale wind and solar projects if reliable peaking or standby capacity is available. Turbocharged gas engines reduce investment risk and accelerate the energy transition. In countries like Germany – where renewables account for more than 50% of electricity supply over a full year – they are indispensable for system reliability. Without such backup capacity, a far larger fleet of conventional power plants would need to remain online, slowing decarbonization.

Their role is particularly critical for digital infrastructure: data centers, telecommunications networks, and cloud services require uninterrupted 24/7 power availability. Turbocharged combustion engines – whether supplying continuous power or acting as emergency generators – ensure the reliability of this digital backbone, a prerequisite for today’s economy and society.