DANIELI
YEAR 2020

CONTENTS

Danieli Year 2020

Results from
Innovation, Reliability
and Partnership

Danieli & C. Officine Meccaniche S.p.A.
Headquarters in Buttrio (Udine) Italy
Share Capital: euro 81,304,566 fully-paid

The data in this publication refers to the period 01.07.2019 / 30.06.2020

Letter to the Stakeholders

Dear Shareholders, Customers and Colleagues

Results for the fiscal year 2019 / 2020:

(millions of euro)	2019 / 20	2020 / 2021
	Group Results	Group Forecast
Revenue	**2,803**	**2,900 / 3,100**
EBITDA	**188**	**210 / 220**
Order book	**2,936**	**3,100 / 3,300**

MARKET FORECAST

The downward cycle in steel demand began in Quarter 4 of 2019 and then was exacerbated by the Covid-19 crisis, weighing down the results for 2020 more than anticipated.
A slight recovery is forecast for 2021, although still down by 3 to 5% compared to 2019.
The only exceptions are China, Vietnam and few other countries, which are expected to exceed their respective 2019 figures during 2021.
Consequently, the years 2020 and 2021 will still be below par on average; whereas, in our opinion, an excellent 2022 can be expected.

DANIELI / PLANT MAKING

Fiscal year 2019/20 ended with EBITDA not significantly affected by the impact of the Covid-19 pandemic.
The most significant achievement, however, was the consolidation of innovative technologies that are important to confirm our position among the front runners in metals technologies, now and in the future.
Our main achievements include:

— Leadership in the supply of Endless Casting Rolling plants, for both long and flat products.

— The Danieli Digital Melter, which replaces the traditional EAF (electric arc furnace), has overcome the initial inertia typical of all innovative technologies and is increasingly appreciated by the market. We can therefore expect its success to grow, in both new and existing electric meltshops.

— The MI.DA. (Danieli Minimill) has consolidated its success as confirmed by a contract for a Hybrid MI.DA. (H MI.DA) in the USA. Thanks to the Danieli Digital Melter, this plant will be the first to operate with alternative renewable energies (solar panels, wind, own energy production with gas, water, etc.).

— The Digi&Met project, which aims to achieve full automation and digitalization of meltshop processes and logistics, is advancing as foreseen.

CUSTOMER SATISFACTION

Excellent customer satisfaction and performances by the plants recently brought into production were accomplished during the last year.
Here we will highlight the most important ones:

— Thin-Slab Rolling - Hoa Phat (Vietnam).

— MI.DA. - Nucor (USA).

— High-speed wirerod mills – Ferriere Nord (Verona, Italy)

— Long-product rolling for special steels - Acciaierie Venete (Italy)
— Successful start-up of the latest Cold Rolling Complex supplied to Yildiz Demir Çelik in Turkey.

— Numerous MI.DA. type steelmaking and rolling plants supplied in China.

The order backlog is satisfactory not only in quantity but also for its high-tech content, notably:

— Top-quality rail production mill for Evraz (USA).

— MI.DA. S., CMC (USA), will be the first in the world to produce sections in endless mode, even indeed in hybrid mode, which thanks to the Digimelter steelmaking solution will allow the customer to use renewable energy sources such as solar and wind.

— Contract concluded in September 2020 with OMK (Russia) for a direct reduction plant equipped with an endless charging system directly feeding the EAF. It is a notable example of sustainable steel production with 64% lower emissions than the best integrated complexes, and it will be the first "green steel" plant in Russia and the European region.

— High-tech plate mill for high-quality plates at Nucor (USA). These are just some of the most significant orders we have now in progress.

ABS / STEELMAKING

ABS - Acciaierie Bertoli Safau (Italy) has suffered the effects of the market downturn, even though its results were primarily affected by the loss generated by the ESW Rohrenwerke GmbH pipe mill in Germany.
The initiative and management of the pipe mill proved far from good, so much so that it was decided to close the plant and absorb its costs. Although some residual charges will remain into fiscal year 2020/21, we have substantially stopped the draining of financial resources resulting from this investment.
It must be emphasized that without the loss generated by the pipe mill, ABS would have recorded a profit, despite the market downturn, which demonstrates the company's competitiveness.
ABS has confirmed its position as one of the three European leaders in high-quality long products.
Investments in new plants have not been interrupted and by October or November 2020 the new wirerod mill (190 million Euro CapEx) will start producing high-quality steel wirerod thanks to the use of innovative thermomechanical processes.
This investment is the first of the "Vision 2.300" programme for ABS, which aims to increase its sales revenues by 50% and achieve the record of being the only meltshop to produce quality steels in a product range of dia. 5.5 mm to 500 mm dia at a single site, with consequent important savings in OpEx and logistics.

GROUP VISION

— ABS has set itself the goal of achieving 1,300 – 1,400 million Euro sales in the next two or three years, thereby accounting for an even more significant portion of Group turnover.

— Moreover, the parameters of competitiveness, productivity, added-value per person, product quality and customer service have been in general redefined for the whole Group, with a view to improving them.

MIDA ECR	GREEN STEEL
MIDA HYBRID	DIGIMELTER
QSP DUE	DIGIMET

The new parameters have been agreed upon with the management, and new targets and time frames have been set. Fiscal year 2020/21 still will feel the effects of the downturn in steel consumption, affecting the order backlog not only of the steelmaking segment, but also of the plant-building segment. However, considering the volatility of the steel market, this can be considered as a routine event. What is most important is to gear up for the next upturn phase, in order to be ready to secure the new opportunities and added value it will bring.

— Investments in new plants and research continue according to plan.

The targets for the fiscal year 2020/2021 are:

— Completion and/or progress of the innovative projects mentioned above.

— Fiscal year results with:
Revenue: 2,900-3,100 M Euro.
EBITDA: 210-220 M Euro.
Order backlog: 3,100-3,300 M Euro.

We also continue to invest in the design and supply of plants developed from "green steel" concepts (environmentally friendly steel production) as well as to improve safety in the workplace, with the pride of being – thanks to ABS – among the best in Europe regarding workplace safety. And the first results of these investments are already visible with the orders for the hybrid Minimills, the first ever in the world.
Danieli Academy continues to present an agenda that contributes to the professional growth and development of our employees and promotes teamwork and a positive culture.

The contributions directed at preserving the local cultural heritage also have been validated. A significant example is the structural repair work in progress for the Castle of Udine (Italy), one of the most cherished symbols of the Friuli region.

Before concluding, we wish to thank our shareholders who have allowed us to invest 85-90% of our profits back into the company. This is perceived as an expression of the shareholders' trust and esteem for the Danieli team, which we intend to honour to the best of our abilities.
It is a trust which, in any case, has been repaid by the fact that the acquisition of Danieli shares has been confirmed to be a good, long-term investment.

On behalf of the Board of Directors and of the shareholders, special thanks go to the Danieli Group Team who, with passion and professionalism, are strongly committed to achieving the agreed objectives for our company's continuing improvement, and to honour the motto "Danieli, the reliable and innovative partner to be a step ahead in CapEx and OpEx", for the satisfaction of our business partners. And last, but not least, we express thanks for their efforts in bringing about the cultural change that today's technological and social trends call for, which is essential to maintaining market shares and competitiveness in a highly challenging global economy with constantly evolving quality requirements.

Gianpietro Benedetti
CHAIRMAN OF THE BOARD OF DIRECTORS

The Danieli True Green Metal

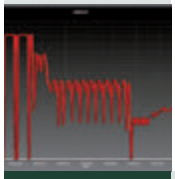
FTP Q-Drive Variable Frequency Drivers (VFD) on main fans: Electricity savings up to 12-15 kWh/t of liquid steel (l.s.)

FTP MAIN FANS DRIVE CONTROL

Steelmaking EAF 2020 with ECS electricity savings: 20 kWh/t of l.s.

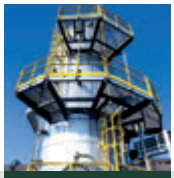
ECS ENDLESS SCRAP CHARGING SYSTEM

18-20% of total energy can be saved (ref. case in wtp)



Q3-DEMS PLANT AND UTILITIES ENERGY OPTIMIZATION

Fume Energy recovery with Clean Heat Recovery (CHR) System: Electricity produced up to 10-15 kWh/t of l.s.



CLEAN HEAT RECOVERY (CHR)

Reduction in electrode consumption up to 15% and in power on time of about 10%

Q-ONE POWER CONVERTERS TO FEED THE ELECTRIC ARC FURNACE

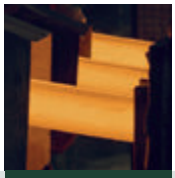
The pumps can work in a more efficient way, saving energy up to the 35%

INTELLIGENT HYDRAULIC POWER UNITS

WTP Absorber system to convert thermal power into energy savings up to 4 kWh/t of l.s.

WTP ABSORBER SYSTEM

Billet to billet rolling mill: savings in natural gas consumption up to 20-25 nm^3/t of l.s.



HOT-CHARGE AND FASTCAST TECHNOLOGY

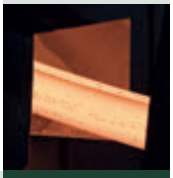
"Flameless" burner design allow NOx reductions of up to 70% compared to conventional "flame mode" burners

REHEATING AND HEAT-TREATING FURNACES

WTP area, Q-Drive Variable Frequency Drivers on pumps and cooling towers: Electricity savings up to 5 kWh/t of l.s.

PLANT WATER TREATMENT PLANT

Saving in natural gas consumption up to 30-32 nm^3/t of l.s.



ENDLESS CASTING AND ROLLING PROCESS

Improved productivity and quality, reduced scale formation up to 1% and CO_2 up to 80%

Q-HEAT

Vision is our commitment to the understanding of complex issues and critical developments that are affecting our customers, causing continuous and rapid market changes.

In the following pages, the Executive Board Members of the Danieli Group, of the Danieli Plantmaking Division and of the ABS Steelmaking Division present their views and perspectives on the company and the market, and how they view the future.

Danieli Group Executive Board

GIANPIETRO BENEDETTI
Chairman

In developed economies, steel consumption is forecast to remain stable in the future. However, it is possible that demand will decrease slightly during the next 10 to 20 years.
In contrast, a growth in consumption is forecast in India and South East Asia (SEA). In China demand will continue growing, albeit at a lower rate compared to recent years. An increase in consumption can be foreseen also in some regions of Africa and Latin America.
The lowest common denominator in all economies will be the environmental factors, which today are given foremost consideration all around the world and also will lead to considerable investments in existing plants.
It is against this likely scenario that the Group has developed its operational guidelines for the coming years.

1. DANIELI PLANT MAKING

Investments in research and prototyping of machines and plants, aiming to:
— Reduce OpEx and CapEx per ton, also thanks to Digi&Met,
— Increase product quality,
— Achieve green steel production.

The first two priorities have nearly always absorbed most of our expenditures in research, while the third, i.e. green steel, despite being raised to the same level only recently, has already allowed us to obtain as front runners – the first significant results:
— H-MIDA – Hybrid Minimill.
— Coke-free process from ore to liquid steel.
As far as developing markets are concerned, we are already present with our manufacturing plants and engineering offices of considerable size, mainly in China, India and Thailand. Our objective is to continue investing in these plants to improve their competitiveness and customer service. We are expanding our service centres also in Europe, USA and Latin America.
In substance, we expect a reduction in the orders for new plants in developed countries, which however will be compensated by many revamping projects, even substantial ones, oriented towards circular economy principles and green steel production in which we are front runners, as evidenced by the recent orders received for a hybrid minimill and a coke-free integrated steel mill. In developing countries, on the other hand, we foresee an increase in the demand for new plants.

2. ABS STEEL MAKING

ABS has set for itself the goal of increasing its European market share, while preserving the domestic one.
Today ABS is one of the three or four leading manufacturers of quality steel long products and approximately 50% of its output is intended for exports. The goal is to increase the export percentage.
It is with this objective in mind that we have developed the Vision 2.300 programme, whose implementation has begun with a 190 million Euro investment for a new Quali Wire Rod Mill to make prime quality wirerod, to be started up in October 2020. This will be followed by several other investments, already approved for next year, aimed at further expanding the already broad range of products of ABS.
The first phase of Vision 2.300, already in progress, aims to increase production by 45%.
The final goal is a turnover of 1,300 – 1,400 million Euro.

3. TEAMWORK WITH TECHNICAL INSTITUTES, UNIVERSITIES AND RESEARCH CENTERS

Provided that the team management is based on recognition of merit regardless of the operational level, and that everyone is given an equal chance to grow professionally, the activities of Danieli Academy and DRC (Danieli Research Center) will continue to be developed as well as the cooperation with technical institutes, universities and research centers worldwide.

ALESSANDRO BRUSSI
Vice Chairman
Group Chief Financial Officer

Danieli has been listed on the Milan Stock Exchange since 1986, with the aim of always guaranteeing our Shareholders a good return on their investment, year by year with positive results, but above all by presenting a solid financial situation to allow growth and good visibility to the future.
The company has embarked on a development path to strengthen both the Plantmaking and Steelmaking operating segments, also proposing to the stock market the conversion of savings shares with a simplification of the capital structure to allow adequate valorization of the two activities where large investments are planned to increase margins and turnover volumes.

Today, Danieli's social role has expanded by interacting more and more with all the Stakeholders involved:
to reward investors with a dividend that pays off their investment; as well as
to satisfy customers who require Danieli product innovation, respect for the environment and a strong commitment to building large industrial plants with quality and within the agreed time

Camilla Benedetti | Giacomo Mareschi Danieli | Gianpietro Benedetti | Alessandro Brussi | Rolando Paolone | Carla de Colle | Antonello Mordeglia | Anna Mareschi Danieli | Stefano Scolari

schedule; and, to develop an efficient, ethical and sustainable supply chain; and, to offer support to the community by always protecting our employees with training, safety and a remuneration system based on equity and meritocracy.
Today, and increasingly in the future, these objectives will require greater commitment by the Danieli group, with industrial strategies integrated with the theme of sustainability, greater diversification in the business, and stability in performance to ensure continuity in the company's results.
We are certainly motivated and ready to keep our standing high, to support and promote our duty of Corporate Social Responsibility with concrete actions that lead to continuous improvement.

CAMILLA BENEDETTI

Vice Chairwoman
Danieli Asia and Ethics Audit—
Human Capital Management Overseas

We keep on working on our Metyou journey.
Metyou's aim is to recall our transformation process, to harmonize Danieli metamorphosis with our people as a unique and multicultural group.
All the above is possible also through the support of a digital and integrated platform established to foster knowledge and enhancement of the skills, experiences, performances, training and career paths of our people.
We are working on our Human Capital Performance Evaluation improvement, where we have defined a space focused on highlighting skills, performance and consistency in applying good practices in managing people, evolving the leadership guidance in clearly Indicating the goals, and giving the reasons why and engaging teams through examples and facts.
Our goal is to recognize merit, professional and managerial skills and ideas, putting people in the position to release energy, thoughts and ideas.

Competitiveness comes from ideas, the ability to make them concrete with determination, method and passion.
We aim to nurture proactive resources that will have the right flexibility to reach targets, understand and interpret company needs to get along with the customers, and be competitive to build toward success in any sustainable future!

Danieli Executive Board

GIACOMO MARESCHI DANIELI
Chairman Danieli Plant Making Executive Board

The market proves will support a company like Danieli, provided that we will take some strategic and structural steps that have become imperative. The substantial investments made in the recent and medium terms have developed the distinctive features that now are at the basis of our competitiveness and, thanks to this, we have built an extremely solid technological and market-share foundation that makes it possible for us to look ahead with a positive attitude.

Therefore, our priorities are:

1. To implement innovations and build a suitable structure for communicating, promoting and explaining our solutions to our Customers while focusing on the quality of sales.
2. To act on productivity and individual and group performance, thus improving competitiveness and profit, enhancing the merit of each stakeholder and offering in exchange a value equivalent to the one received, rewarding excellence and proactivity and discouraging superficiality and indiscipline.
3. To diversify, focus on our core know-how by constantly increasing it, and restructuring the divisions that don't provide added value for the Group and the Customers. We will avoid spending resources in unknown market sectors just because the present ones are not satisfying.
4. To improve Customer service to make it increasingly present, proactive and pervasive in the market.
5. To continue innovating to define future solutions, focusing on green technologies with the aim of providing smarter solutions for producing metals in a sustainable and competitive way.

Thanks to these actions, Danieli will be able to grow further and, with the same resources currently available, to offer more and better solutions and services to our Customers.

Let's examine in detail the actions being taken and the progress made:
1. The Kam/Jam structure has been completed, and new additions and some optimizations have been carried out. Entrepreneurship of top managers is being promoted, giving simple and clear objectives and requiring proactivity and vision to achieve them.
2. Significant streamlining projects have been given to the direct structure, together with new and challenging objectives. Important progress has been made in global compliance and manager accountability. A new MBO system based on profit has been deployed and a new evaluation system is being launched.
3. Some product lines have been renovated and downsized to restart from the core know-how and then, when positive results are achieved, to expand again. We are determined not to lose ground in any technology, since we consider portfolio completeness to be one of our Company's strengths.
4. New service centers (US, Mexico, Vietnam) have been opened and others (UK, Russia, Brazil) have been strengthened according to the market and sales, to guarantee presence, quick response and assistance to our Customers. This decision has been made even more strategic by the Covid problem. During the period of social and travel lockdown, our continuous local presence have contributed to the endurance of our sales, execution and assistance systems.
5. Our Research Center has around 100 active projects and there are at least 10 ongoing, innovative projects (the first ones of their kind). MI.DA for sections, Q-One, thin-slab casting towards exposed parts, a high-speed long-product casting machine reaching up to 10 mpm, to mention a few. Our goal is not to sit back but to keep developing such projects, to always be a step ahead, with the blessing of our customers and partners.

All the above-mentioned actions are aimed at guaranteeing our Customers a better, win-win, fast and excellent service capable of ensuring a continuous growth for both parties.

ROLANDO PAOLONE
Vice Chairman Plant Making Danieli Executive Board, Long Products & Advisory Services for Plant Start up and Commissioning

The Company mission is to support our Customers in reducing production costs and emissions, while increasing the quality of their products.
Danieli Team is working toward this goal on the daily basis with its technical and technological worldwide organization.
The feedback coming from the different countries gives us the possibility to recalibrate our strategies and efforts, to be effective worldwide.
The Automation Team, embedded in the Danieli Group, simplifies the synergies with the Design and Technological Team to think and work as a single technological team.
The consolidation of the technologies introduced in recent years, but meanwhile enhancing the performances we have already set, is the way to make the mission possible.
Iron production minimizing CO_2 emissions, and ready for "zero emissions" when hydrogen will be available at a reasonable cost, is the key for our customers to succeed in upholding the EU rules that see CO_2 emissions down to zero within the next 30 years.
This step ahead will become actual thanks to the recent order from Russia and will represent the consolidation of a new way to produce iron from mineral without the use of coke.
Endless rolling from continuous casting, introduced for long products 10 years ago,

Stefano Stafisso
Rolando Paolone
Giacomo Mareschi Danieli
Antonello Mordeglia
Nico Bleijendaal
Andrea Deana
Paolo Menta
Emanuele Brusini
Michele Marinutti

is a reality now also for flat products.
In both cases the reheating of the stock is not necessary, or of marginal impact, and can be done without burning fossil fuels thanks to induction coils used only where (layout position) and when (steel grades need) necessary.
As always, plant safety is at the top of the list of our priorities as we introduce or consolidate new technologies.

MICHELE MARINUTTI

Industrial Accounting,
Information Technology

We continue to firmly support the vision of a productive, profitable and digital group. We pursue these goals through talent enhancement, skill development and merit recognition.
Danieli designs and manufactures high-tech plants worldwide, with Customers requiring increasingly high standards in terms of lead times, performance, automation and operating results. A careful management of the Job Order ensures successful results for both the Customer and the Group.
The key concepts of our team are Accountability and Data Driven Culture: Accountability, to link merit recognition of each team member to facts; and Data Driven Culture to foster decisions and actions based on data reading and the use of integrated instruments and performance indicators available daily for all company areas. Together with Administration, Finance and Control and IT Depts., we are developing the skills and working on predictive tools to seize the opportunities resulting from market ups and downs, ensuring full saturation of the production structure, continuous optimization of operating costs and elimination of extra costs, always putting the commitments with our Customers first.

ANDREA DEANA

Finance and Administration

Our goal is to provide financial information regarding the Plant Making sector in a clear, effective and transparent way in order to properly plan our strategic choices, considering both market

complexities and risk indicators, as well as to enable all stakeholders to understand and share our business vision.
However, we don't just provide a static presentation of what has already happened; we have always played a proactive role within the Company, supporting the top management in strategic decisions and in the evaluation of financial, economic and tax variables of CapEx investment projects and jobs commissioned to Danieli.
This can be achieved only by ensuring fast data recording and data accuracy and quality, to develop faster and more reliable predictive analyses.
We have set the objective of reaching this target in the near future by implementing innovative automation tools, such as RPA (Robotic Process Automation), and cooperation platforms integrated with SRM and CRM systems, in order to obtain certified and certifiable input data, with lower operating costs, allowing fast data processing and more timely economic, financial and strategic decisions.

PAOLO MENTA
Competitiveness and Tendering, Macro Planning

COMPETITIVENESS

Competitiveness means being a step ahead in the market, to be more successful than others.
The mission of the Tendering & Costing Dept. is to develop, together with our business units, the most competitive strategy as sales change, and to support the achievement of the targets during execution of that strategy.

This proceeds through our capability to:
— forecast and plan our workload;
— react to market trends with continuous benchmarking of our capabilities and market levels; and
— have an in-depth knowledge of our customers' needs to achieve CapEx/OpEx reduction goals with new technological challenges;

Our Danieli worldwide factories have a key role in our competitiveness recipe, where the passion and experience of the team lead to continuous improvement of flexibility and specialization at the same time, to ensure quality, reliability and fast response.
Another key role is played by our supply chain, which is always on the lookout for new solutions and to establish fruitful relationships with industrial partners.
Needless to say, the market is dynamic and therefore visionary forecasting is essential to seize each of the new opportunities ahead of us.
We can face this strategic task through a mix of Big Data machine learning and long-lasting company experience and intuition.
Finally, all the above is translated into actions, starting from the tendering phase, through the daily hard work of the Danieli Team.

EMANUELE BRUSINI
Customer Service

DANIELI SERVICE EVOLUTION

Two years ago we launched a synchronization initiative to strongly collaborate with customers' needs.
Today Danieli Service is guarantying a new performance by synchronizing Manufacturing, design, Logistics and the Field Services by an integrated approach that will guarantee customer satisfaction in terms of punctuality, quality and resources: the PERFORMANCE SYNC is a new approach to structure Flexibility.
Following this new approach, any bottlenecks and inefficiencies will be eliminated starting:
— Automated order management.
— Dedicated product cells with optimized workshop layouts for lean and automatic intelligent manufacturing.
— "Courtesy products" that, in case of emergency, are available just in time to restart production following an unplanned event.
— The introduction of specific warehouses, specific customer-centered stocks, and demand-driven management to ensure quick deliveries all around the world, at the right time and cost.
— The Consignment Stock for consumables and products that allows the customer to avoid costly procurement, dilution of parts expenses, rapid and continuous availability in order to always guarantee production, all just a click away to monitor quality, time, tracking and efficiency due to a dedicate customer portal.
— Dedicated service centers worldwide that ensure the same quality everywhere thanks to advanced manufacturing plants and highly skilled technicians, and may be considered as a single, unified workshop
— The proximity to support customers by remote support through virtual collaboration by QSPACE1- Augmented Reality, allowing us the field and support execution process 24x7.
— Maintenance improvement and guidelines for equipment efficiency and reduced maintenance costs through monitoring of the machine during the operating mode, to reduce unpredicted failures and to support customers in planning the spare parts in advance (just in time).
— Danieli Full Service and Maintenance approach empowering your premises for OpEx optimization.
As Danieli Service we strongly believe that the future is a performanSync, a true

synchronization of interest for mutual benefits, products and services in quality and on time.
We will work closely to achieve the best performance ever, knowing that "There's a Way to Do It Better. Danieli Service!

ANTONELLO MORDEGLIA
Danieli Automation Group
and Digi&Met 4.0

We started our investments in Research and Development many years ago, and today they are bearing fruit.
We have always believed in, and never deviated from, our targets focused on energy saving and intelligent automation and robotics.
We are the first and only company in the world to have digitalized the electric arc furnace.
Then, it has been implemented in medium and large size furnaces. Today, the future irreversibly depends on the respect for nature; in this context, we are the only ones who have the technology to melt steel in a hybrid way and even fully using renewable energy sources.
All this leads to an incredible technological reality. The awareness of having already industrialized what the others have yet to develop, according to our patents and outcomes, suggests that the applications and products we are launching on the market are not just advertising, but a proven reality of an extremely innovative high-tech company, rare to find in this sector.
Today, we are proud that some of the most innovative Customers in the world, such as Tokyo Steel (Japan) or CMC (US), are about to implement our technology as a milestone in their investments, and this pushes us to develop other products, increasingly innovative, digital and useful, capable of helping our Customers to produce better, with high quality, and reduce production and storage costs. This is the mission of Danieli Automation.

STEFANO STAFISSO
Human Capital Management

For the Danieli Group, the enhancement of human resources represents a strategic choice. In fact, we are constantly committed to preserving and developing our human capital as a way for intellectual resources to be regarded as a strategic asset of our Group - with the awareness that from such assets the Company will certainly achievement of its target goals.
The continuous improvement of our organizational structure at a global level ensures the evolution of our business model, the enhancement and qualitative development of resources through the clear definition of roles, accountabilities and objectives, and the identification and promotion of talent and merit recognition.
With this in mind, the continuous evolution of HR management processes and tools is aimed at guaranteeing the identification of excellence, beginning with recruitment; the constant monitoring of development plans; and the design of professional and managerial training courses within our Academy, a place of learning, where our resources are treasured.
It is thanks to the creation of a successful team that we are able to generate the vision and values that satisfy our needs and expectations, as well as to keep on building the excellence of the service for our customers.

NICO BLEIJENDAAL
Danieli Germany, Danieli Corus

While the adverse effects of the ongoing pandemic are self–evident for our industry, economic recovery will restore the growth in global steel consumption that is required for a healthy investment climate. This is not expected to take the pressure off our global market in the short term, but we are confident that each of our market segments offers solid potential.
Whereas global economic recovery is still ahead of us, a few areas have demonstrated their ability to rebound quickly and return to rising output. In addition, we will continue to contribute to building a competitive and sustainable industry in areas where economic growth outpaces the industry's expansion, or where investment is the key to reducing dependency upon imported steel. Another large part of our market is the group of steel producers that benefit from relatively low operational production costs, which will allow these players to continue to have room for investment.
However, many leading players in our industry experience few or none of these favorable conditions. Even at competitive operational costs, their positions in their mature markets - Europe - continue to enforce cost–focus before consolidating leadership. Surging CO2 emission costs are consuming their margins, but also are making investment in decarbonization the leading driver for their path towards a sustainable future.
We share the relentless drive to innovate and we confidently commit to redeveloping large–scale, high-quality steel production, which we acknowledge is a process of decades. Today, we are ready to jointly take each tailor–made step — suited for each individual operating environment — to make this evolution happen.

DANIELI PROCESS CONTROL SYSTEMS

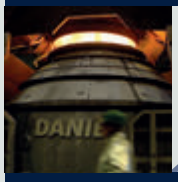
SCRAP SHEARS AND SHREDDERS

DANIELI TURNKEY PLANTS SUPPLIED WORLWIDE

DIRECT REDUCTION AND PELLETZING PLANTS

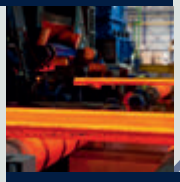
ELECTRIC ARC FURNACES

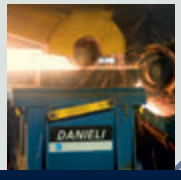
DANIELI SUSTAINABLE PLANTS



BLAST FURNACE AND CONVERTER PROJECTS

SECONDARY METALLURGY STATIONS





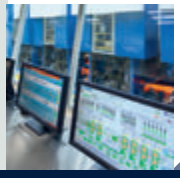
CASTING STRANDS FOR SLABS, BLOOMS, AND BILLETS

SLAB, BLOOM, AND BILLET GRINDING MACHINES

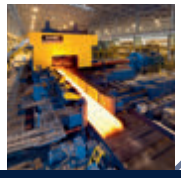
DANIELI HANDLING SYSTEMS AND CRANES

The Danieli Technology Portfolio

Thorough planning, complete systems integration and construction with our own heavy-lifting equipment, provide our teams with full operational flexibility. Danieli Engineering and Danieli Construction International: your trusted partners with 37 years of experience in on-time project delivery and cost management.



HOT STRIP, PLATE AND COLD MILLS

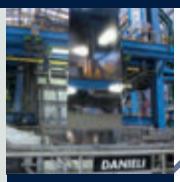


HEAVY-SECTION, RAIL, BAR AND WIREROD MILLS

SEAMLESS TUBE PLANTS

EXTRUSION AND FORGING PRESSES

ALUMINIUM HOT AND COLD MILLS



STRIP PROCESSING LINES

DRAWING AND PEELING MACHINES

DANIELI HEATING AND HEAT TREATMENT SYSTEMS

ABS Executive Board

CARLA DE COLLE
Chairwoman ABS Steelmaking Executive Board

In our history, the ability to design a vision for the future in difficult times has represented an element of differentiation. Vision 2300 is not just a number, but represents the goal we have set for ourselves for the next few years: 2.3 million tons to be produced, corresponding to about 2 million tons to be shipped.
We have built this Vision by defining a clear volume growth strategy, but also by aiming at seeking greater value within our markets, with further goal of increasing our global presence. In support of this strategy, concrete and ambitious improvement projects have been defined that, on the one hand aim at increasingly enhancing our many strengths, and on the other aim at making us increasingly resilient, in order to face market turbulence in a positive and flexible way.

ANNA MARESCHI DANIELI
Vice Chairwoman ABS Steelmaking

In the last 20 years, we have invested about 1 billion Euros in new plants and processes. This has allowed us to be today one of the reference companies in the production of special steel long products at the international level.
This path continues. Our Vision 2300 has been defined in the name of development starting from the investment in the QWR plant (190 million Euro CapEx.) This development cannot ignore the implementation of processes and procedures to support cost monitoring, in order to guarantee the competitiveness and long-term economic sustainability of our company, allowing us to trigger virtuous circles that make further investments possible, and opening the doors to continuous improvement.

STEFANO SCOLARI
Chief Executive Officer, Vice Chairman ABS Steelmaking Executive Board

Competitiveness and Sustainable Development are the drivers of our Vision 2300. Competitiveness is based on the optimisation of our processes and on a clear and in-depth knowledge of our customers and their real needs. This leads us to develop partnerships that materialise with the improvement of production processes along the entire supply chain. This approach has consolidated a corporate culture that finds a good synthesis in the logic with which the new QWR plant was designed and developed, for the production of high quality wirerod. This plant will allow us to complete our product range and offer the market sections ranging from 5 to 500 mm, produced at a single site. The goal of producing steel in a sustainable way, which we have been pursuing for years, is in line with the European Green Deal, aimed at making the European economy increasingly sustainable.
Sustainability, understood in its broadest social, environmental and not least economic meaning, represents a primary value that we pursue with full conviction. We have chosen a path of continuous improvement, which allows us to reduce impacts while preserving the environment and creating value for the community and our customers, with a focus on spreading a shared culture of health, safety and welfare for the people who work at ABS every day.

ANDREA DI BELLO
Business Development Director

The ABS strategy cannot be different than that of its customers: Strong attention will be devoted to supporting the evolution of the automotive sector and its new needs for lighter components, as well as the specifications required by the renewable energy supply chain, primarily wind power. Our R&D (ACM: ABS Centre Metallurgique) is supporting us in finding the best solutions for these new needs.
Our strategy proceeds through a consolidation of our leading position in our current markets, with a prospect of extending the business linked to new products.
In the last two years, we have obtained some important product approvals in strategic sectors and with select partners. We believe that this is the way, increasingly, to link our growth to consistent and lasting businesses. The constant innovation of products and processes inherent to the company's DNA, together with the quality of our customer service, represent one of our strengths on which to base our development projects, and at the same time is the lever that allows us to be recognised by the market as a reference company in all application sectors.

GIACOMO DISARÒ
Chief Operation Officer

Many of our projects in support of Vision 2300 are focused on the continuous improvement of our competitiveness. The main lines of action are the analysis and improvement of processes, the elimination of waste, the increase in performance and the usage factor of our plants, together with the quality and level of our services, which are an integral and concrete part of our strategy and aim to make our productions increasingly effective and efficient while meeting the customers' needs.

Andrea Di Bello | **Stefano Scolari** | **Carla de Colle** | **Anna Mareschi Danieli** | **Giacomo Disarò**

ABS VISION 2300

Vision 2300 is the new challenge for ABS team. It envisions the new production target which will consolidate the leadership as European special steelmaking company.

SCRAP YARD

EAF 1-2

LF 1-2

VD 1-2

ECO-GRAVEL PLANT

INGOT CASTING

JUMBO BLOOM CASTER

BLOOM CASTER

BLOOM CASTER

The ABS Production Chart

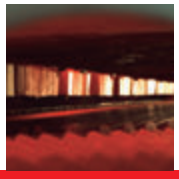
ABS plant, Cargnacco, Italy.
Scrap-based minimill with two meltshops for clean steel and three conticasters, one of which is for jumbo blooms up to 850 mm dia. Two rolling lines, including Rotoforge capability, and finishing, heat treatment and NDT inspection facilities. Product quality certification.

FORGING

ROTOFORGE, BLOOMING, AND REVERSING MILL

BAR MILL

COLD PROCESSING

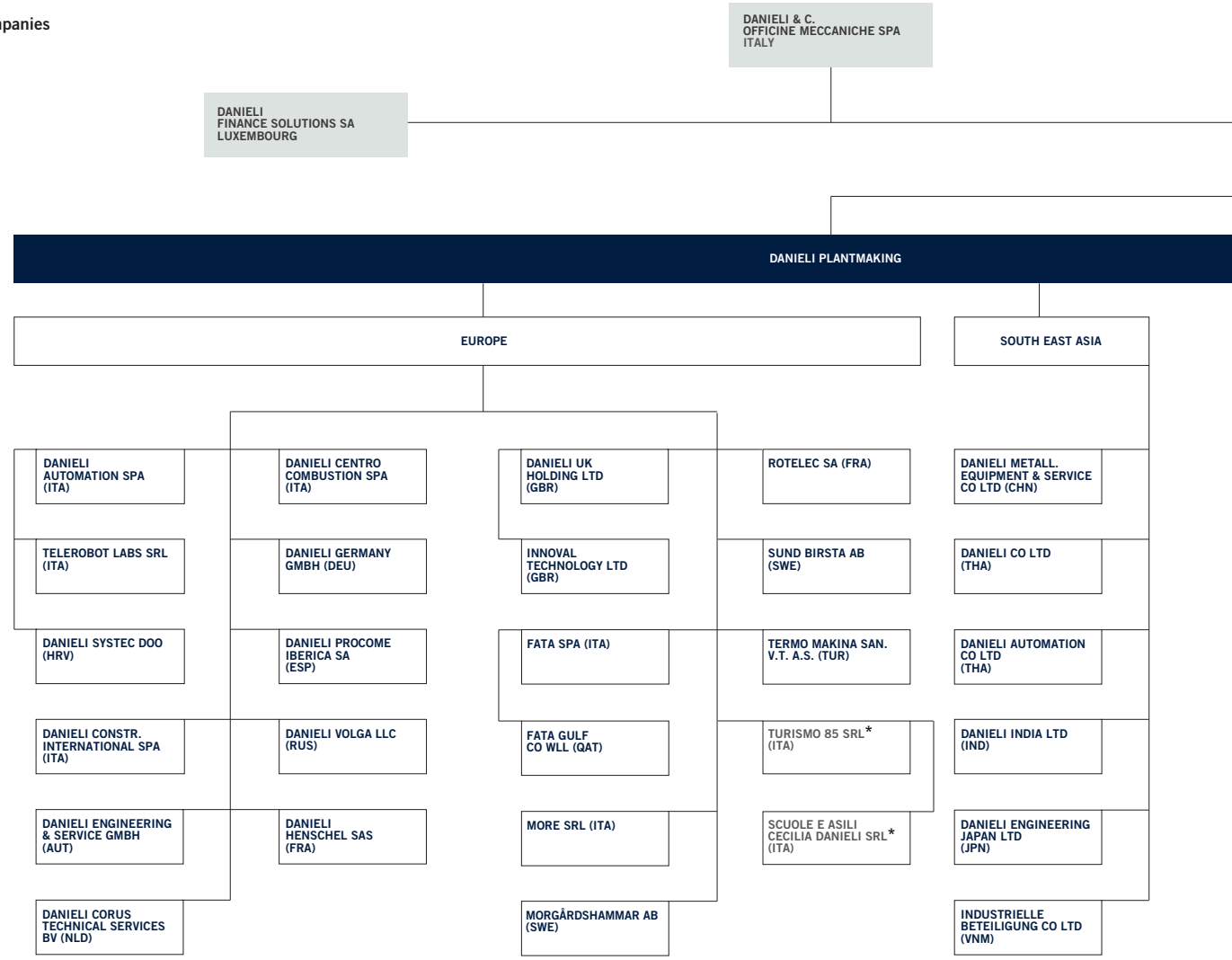


HEAT TREATING

QUALITY CONTROL

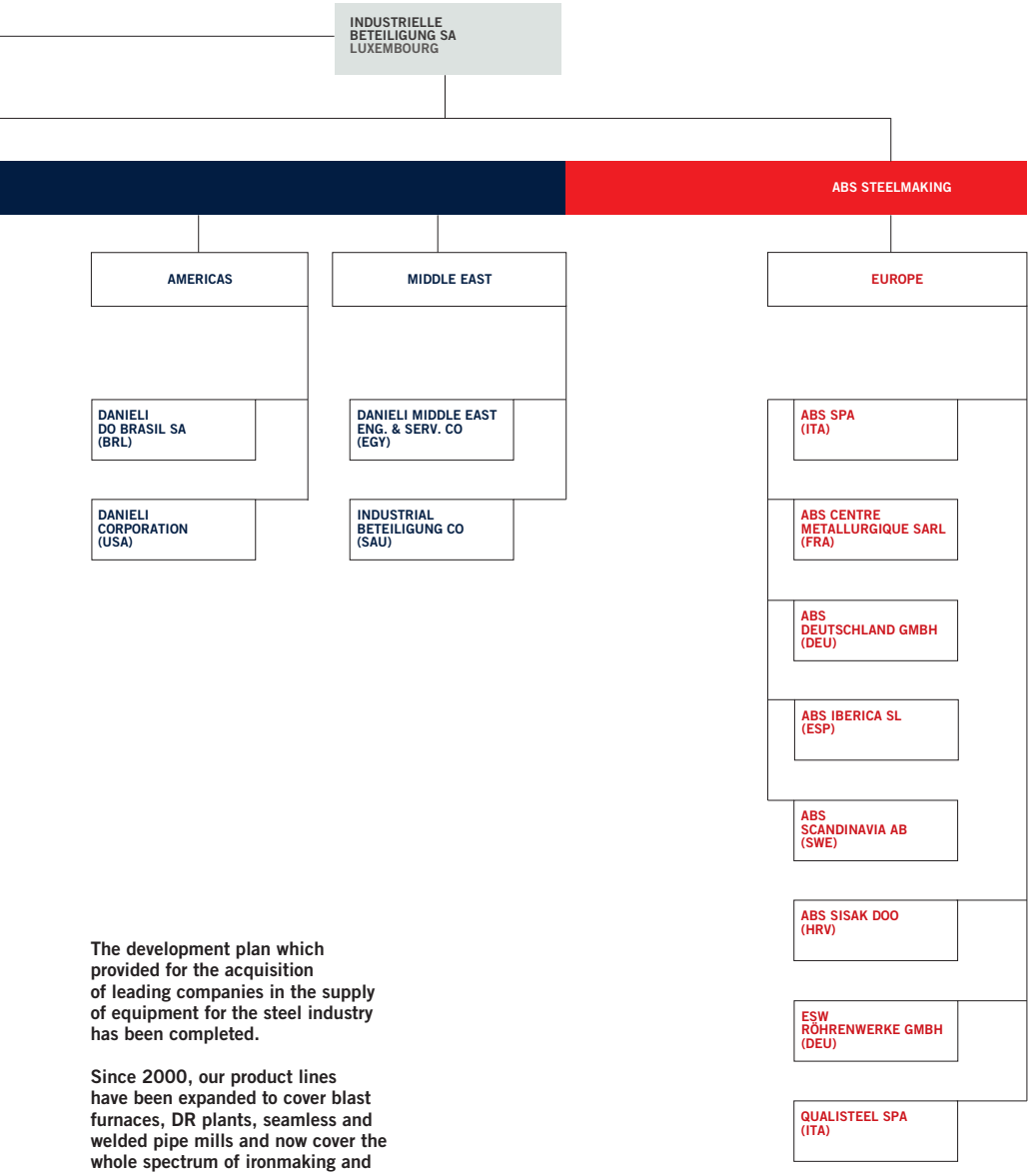
Danieli at a Glance
Group Structure

Finance Companies



Plantmaking and Steelmaking Companies

***Services and other Activities**



The development plan which provided for the acquisition of leading companies in the supply of equipment for the steel industry has been completed.

Since 2000, our product lines have been expanded to cover blast furnaces, DR plants, seamless and welded pipe mills and now cover the whole spectrum of ironmaking and steelmaking plants, from iron ore to any steel finished products as well as those for non-ferrous metals.

Board of Directors

GIANPIETRO BENEDETTI
Chairman

CAMILLA BENEDETTI
Deputy Chairman

GIACOMO MARESCHI DANIELI
CEO

ANTONELLO MORDEGLIA
Chairman Danieli Automation DIGI&MET

ALESSANDRO BRUSSI
CARLA DE COLLE
CHIARA MIO
GIULIO CAPOCACCIA
Directors

Board of Statutory Auditors

DAVIDE BARBIERI
President

GAETANO TERRIN
VINCENZA BELLETTINI
Auditors

GIULIANO RAVASIO
MARINA BARBIERI
EMANUELA ROLLINO
Deputy Auditors

Group Executive Board

GIANPIETRO BENEDETTI
Chairman

ALESSANDRO BRUSSI
Vice Chairman / Group CFO

CAMILLA BENEDETTI
Vice Chairwoman
Danieli ASIA and Ethics Audit – Human Capital Management Overseas

GIACOMO MARESCHI DANIELI
Plantmaking CEO

ROLANDO PAOLONE
Group CTO

CARLA DE COLLE
Chairwoman ABS

ANNA MARESCHI DANIELI
Vice Chairwoman ABS

STEFANO SCOLARI
Chief Executive Officer ABS

ANTONELLO MORDEGLIA
Chairman Danieli Automation Digi&Met 4.0, Commercial Group Coordinator

Danieli Year 2019/20

in thousands of euro	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Order backlog	3,225,000	3,206,000	3,079,000	3,155,000	2,814,000	2,532,000	2,954,000	3,099,000	2,936,000
Sales revenue	3,081,108	2,782,294	2,944,102	2,765,940	2,508,352	2,490,912	2,705,600	3,063,588	2,803,100*
Net income	174,578	163,165	153,577	161,738	87,999	50,166	57,987	66,760	62,425
Total net worth	1,292,113	1,427,266	1,548,396	1,713,744	1,777,158	1,817,828	1,853,000	1,899,189	1,936,629
Research and development	146,000	140,000	150,000	200,000	185,000	175,000	185,000	200,000	200,000
Employees	10,037	10,944	11,424	10,954	9,419	8,959	9,358	9,521	9,060
Consolidated net income per share (euro)	2.51	2.20	2.06	2.17	1.19	0.68	0.78	0.90	0.85
No. of ordinary shares	40,879	40,879	40,879	40,879	40,879	40,879	40,879	40,879	40,879
No. of non-convertible saving shares	40,425	40,425	40,425	40,425	40,425	40,425	40,425	40,425	40,425
Dividends distribution	25,002	23,075	23,075	8,195	8,195	8,195	8,195	11,915	11,170
Dividend per ordinary share (euro)	0.33	0.30	0.30	0.10	0.10	0.10	0.10	0.15	0.14
Dividend per non-convertible saving share (euro)	0.3507	0.3207	0.3207	0.1207	0.1207	0.1207	0.1207	0.1707	0.1607

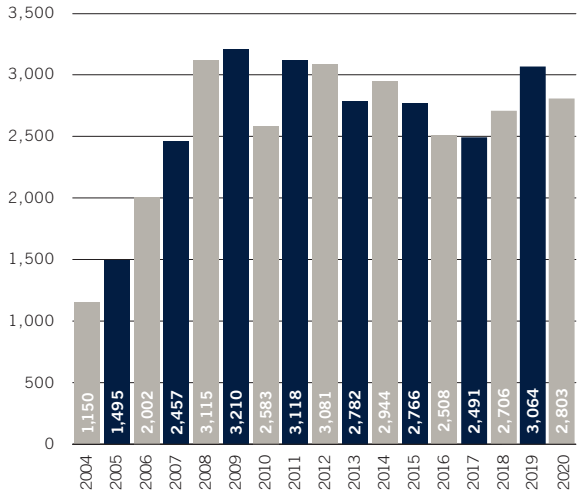
Thanks to prudent policies and the highly entrepreneurial spirit of our shareholders, which have always allowed us to allocate a large part of our profits to research and development, Danieli has been able to achieve positive results even in periods of economic downturn.

* Revenues include 129.7 million euro for the Quality Rod Mill sold to ABS S.p.A.

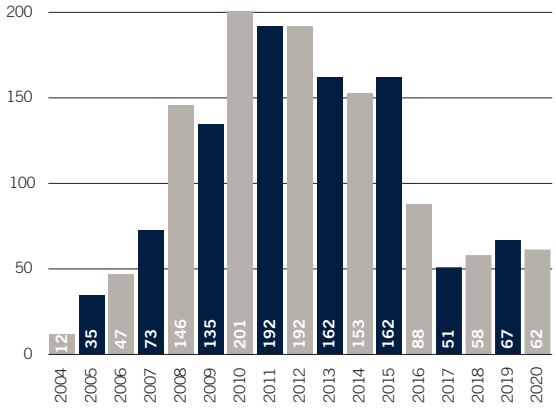
Danieli Group

The initial expectations of an improvement in 2020 in the growth of the world economy, which fell to 2.9% in 2019 compared to 3.6% in 2018, were disregarded by the disruptive effect of the COVID-19 pandemic, which generated many restrictions on production and consumption, leading to negative growth in both emerging countries and those with advanced economies. The global economy shows a downward trend of 4.9% in 2020 with a forecast of an upward rebound in 2021 with growth at 5.4%: the US and EU are expected to decline by 8.0% and the emerging countries by 3.0% with China alone still in positive terms by 1%. On the other hand, in 2021, the average growth rate is expected to be positive at 4.5-5.0% for advanced countries and 6.0-7.0% for emerging countries with China above 8.0%, all to be confirmed against an expected significant containment of COVID contagions by the end of 2020 accompanied by a marked resumption of economic activity at the global level.
The experience in the medical management of the pandemic gained in the first half of 2020 will be of great help in the second half of the year to manage the possible recurrence of contagions more carefully, while the financial support launched by all countries will be more efficient and will allow a relaunch of activities for a promising 2021.
A good growth in the USA in 2021 with a recovery in consumption supported by a protected and financially strong domestic market, with Japan recovering and India and China growing strongly thanks to the public investment programmes developed by their governments, will hopefully be accompanied by a good recovery of the EU economy no longer conditioned by Brexit and supported by the expansive policies promoted by the European Central Bank and the low prices of energy factors, also related to the ongoing green revolution.
Maintaining a growing demand in 2021 will ensure that the prices of the main energy factors (oil, gas and coal) and of the main raw materials will remain stable with a relaunch of the economy of the producer countries, while the policies to control average inflation will lead to the implementation of an accommodating monetary management at negative rates by the main central banks with tax stimulus policies that favoured the consolidation of growth and employment by improving the quality and competitiveness of domestic production and containing dumping in exports thanks to the protectionist measures adopted by many countries in a similar way.

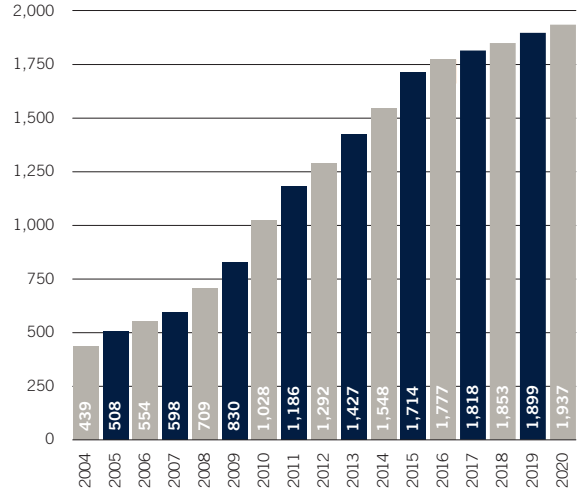
Danieli Group: Sales Revenue



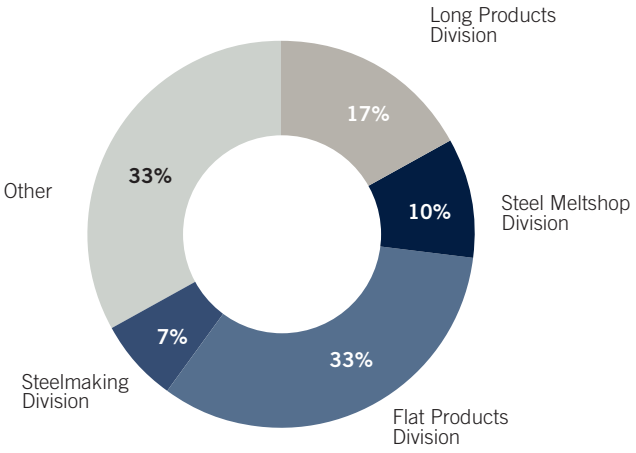
Danieli Group: Net Income



Danieli Group: Net Worth



(millions of euro)



Danieli Group: Order backlog at June 30, 2020, per product line. The order backlog amounts to 2,936 M Euro.

The steel market

Worldwide steel production reached nearly 875 million tonnes in the first half of 2020, down by 6.0% compared to the same period of 2019, which then reached approximately a total of 1,870 million tonnes over 12 months.
The forecasts for 2020 show an overall decrease by nearly 5.0-6.0%, with Asia (where China alone still shows growth in production) down slightly by 2.0-2.5% and advanced countries, together with emerging ones, with a more marked decrease of approximately 13.0-15.0%.
The plant utilisation average coefficient compared to the maximum theoretical level was slightly below 85% at the end of 2019 with a forecast down to 75% in 2020.
The steel market will therefore decrease in the second half of 2020 and then grow slightly in 2021 following the general recovery of the world economy.
Steel producers confirmed increasingly their commitment to operate plants worldwide in a sustainable manner, reducing energy consumption per tonne and using the new technologies available (Green Steel) to reduce GHG emissions and to make production towards the community and the environment socially sustainable.
The challenge undertaken by steel producers is to bring CO2 emissions to zero with technological solutions to produce liquid steel using alternative energies and minimising the use of coal in the production process with increasingly flexible and highly verticalised plants that operate using continuous production solutions with great efficiency.
Production quality with a high-quality finish together with an accurate customer service remain the most important factors to obtain more remunerative prices from the market and greater continuity in the deliveries to serve customers who tend to reduce minimum stock volumes of warehouses and require more and more "on time" deliveries of customised products.
A market consolidation is expected in the second half of 2020 and improvement in 2021 and 2022, with the recovery of private investments and public infrastructure projects both in countries with emerging economies and in developed economies.

The market for steelmaking plants

The maintenance of a constantly high steel consumption in the world and the interest in further developing production in some geographical areas with renewed development prospects and where it may be possible to produce in an innovative, sustainable and efficient manner using the energy factors present, maintain our customers' keen interest in investing in new plants, in addition to technologically upgrading and developing those already existing to increase flexibility and quality by using available resources in a sustainable way.
Demand is maintaining appreciable growth in the BRIC and North African countries for new generation integrated large plants whereas in the USA and EU for mid-sized flexible plants and modernisation of existing plants to enable environmental-friendly, higher quality production with high finishes used in mechanical engineering, car making and infrastructure.
The anti-dumping policies now activated by all major steel producing countries have stimulated demand for new plants that must also guarantee low emissions for sustainable production in line with the trend of CO2 reduction required today by every production chain and which will lead to many investments in innovative plants already during 2020 and in the following years.
To maintain competitiveness in this "New Normal" market, Danieli invested heavily in technologies that maintain first of all customer focus allowing Green steel production:

— improving plant productivity and with it value added per capita;
— reducing GHG emissions per tonne produced by applying technological solutions with low environmental impact;
— making operational the principles of revolution 4.0 in the steel industry by developing the DIGIMET project to ensure total control of the production variables both when devising and commissioning the plants;
— and speeding up production processes by reducing time and costs and optimising production efficiency by integrating different processing phases with endless continuity solutions.

The research and technological development carried out by Danieli over the last ten years have led to an expansion in the range of products offered within the Metal sector (steel, aluminium and other metals), reducing significantly the cost required for the initial investment per individual project (CapEx) and even optimising operational expenditure (OpEx), by integrating multiple stages of processing in the production process, widening the target audience of potential investors in the sector thanks to increased economic feasibility of investments, both in countries with mature economies and in those still at the development phase.
Maintenance by the Group of a significant order book that includes many green and innovative plants confirms the propensity of our customers to invest in new plants, thanks to the competitiveness and technological solutions proposed by Danieli currently qualified and well-referenced across the entire metalmaking industry.

Danieli Group operations

The Danieli Group designs, builds and sells plants for the iron and steel industry, offering a complete range of machines from primary process management to the manufacture of finished goods (essentially from ore to finished product). It also produces and sells special steels for the long products market through its subsidiaries Acciaierie Bertoli Safau S.p.A. and ABS Sisak d.o.o that use secondary metallurgy (electric arc furnaces) for the production of liquid steel.

Construction and sale of plants for the metals industry

Twelve design centres:

Danieli Centro Combustion SpA	Italy
Fata SpA	Italy
Danieli Germany GmbH	Germany
Danieli Corus BV	Netherlands
DWU Engineering Polska Zoo	Poland
Danieli UK Holding Ltd	United Kingdom
Innoval Technology Ltd	United Kingdom
Danieli Engineering Rom Srl	Romania
Danieli Procome Iberica SA	Spain
Danieli Heavy Machinery Engineering LLC	Ukraine
Danieli Engineering Japan Ltd	Japan
Industrielle Beteiligung Co Ltd	Vietnam

Fifteen production units and design centres:

- Danieli & C SpA / Italy
- Danieli Automation SpA / Italy
- More SpA / Italy
- Danieli Engineering & Services GmbH / Austria
- Rotelec SA / France
- Danieli Germany GmbH / Germany
- Danieli UK Ltd. / United Kingdom
- Danieli Czech Engineering AS / Czech Republic
- Danieli Volga LLC / Russia
- Morgårdshammar AB / Sweden
- Sund Birsta AB / Sweden, People's Republic of China
- Termo Makina San vT AS / Turkey
- Danieli India Ltd / India
- Danieli Met. Equipment & Service (China) Co. Ltd. / People's Rep. of China
- Danieli Co Ltd / Thailand

The product lines are as follow:

- Danieli Plant Engineering / Italy
  Turnkey Plants and Systems Engineering
- Danieli Automation / Italy, USA
  Process Control Systems
- DanGreen, Italy, the Netherlands
  Hybrid technology solutions for Green Steel production
- Danieli Centro Metallics / Italy
  Ore Processing and Direct Reduction Plants
- Danieli Corus IJmuiden / The Netherlands
  Integrated Steelmaking Plants
- Danieli Centro Recycling / Italy, UK, France, Germany, USA
  Scrap Processing Plants
- Danieli Centro Met / Italy, Austria
  Electric Steelmaking Plants and Long Product Casters
- Danieli Davy Distington / UK, Italy
  Thick and Thin Slab Casters
- Danieli Wean United / Italy, USA, Germany
  Flat Product Rolling Mills and Strip Processing Lines
- Danieli Kohler / USA, Italy
  Air Wiping Equipment for Zinc Coating
- Danieli Fata Hunter / UK, USA, Germany, Italy
  Casting, rolling and painting plants for aluminium strip
- Danieli Fata EPC / Italy, USA, India, People's Republic of China, UAE
  Construction of Turnkey Industrial Plants
- Danieli Fröhling / Germany
  Specialty Mills and Strip Finishing Lines
- Danieli Morgårdshammar / Italy, Sweden
  Long Product Rolling Mills
- Danieli Centro Tube / Italy
  Seamless Pipe Plants
- Danieli Centro Maskin / Italy, Sweden
  Conditioning, Drawing and Finishing Plants
- Danieli Rotelec / France, Italy
  Electromagnetic Stirrers and Induction Heating Systems
- Danieli Breda / Italy
  Extrusion and Forging Plants
- Danieli Centro Combustion / Italy
  Reheating Systems
- Danieli Olivotto Ferrè / Italy
  Heat Treatment Furnaces
- Danieli Hydraulics / Italy, Thailand
  Industrial Hydraulic and Lubrication Equipment
- Danieli Centro Cranes / Italy
  Heavy-Duty Cranes
- Danieli Environment / Italy
  Ecological and Recovery Systems
- Danieli Construction / Italy, Thailand
  Turnkey Construction, Erection and Systems Engineering
- Danieli Service / Italy, Austria, People's Rep. of China, India, Russia, USA, Brazil, Thailand Technical Service and Original Spare Parts
- Danieli Telerobot / Italy
  Advanced robotics

Production and sale of special steels

These operations are carried out by the subsidiaries Acciaierie Bertoli Safau S.p.A. and ABS Sisak d.o.o., which are in a position of leadership in Europe in the special structural steels sector, with production to order of high quality products for the most demanding applications in the form of ingots up to 160 tonnes, blooms, billets, forged and rolled products with a high level of verticalisation, with diameters from 15 to 800 mm, to which the high quality products of the new wire rod mill and special steels currently being completed and scheduled to be activated shortly at the Italian industrial site will be added.
The structural steels family includes high carbon steels, case-hardened, hardened and tempered, and surface hardened steels verticalised in many types of product, which have applications in all engineering components. Their field of use is very extensive: motor vehicles and engines in general, tractors and earthmoving machines, machine tools, the railway industry and the energy and petrochemical industries.

Highlights of the consolidated income statement as at June 30, 2020

in millions of euro	June 30, 2020	June 30, 2019	Change
Revenues (*)	2,803.1	3,063.6	-9%
Gross operating margin (EBITDA) (**)	187.7	239.2	-22%
% revenues	6.7	7.8	
Depreciation, amortization and write-downs of fixed assets and receivables	(96.1)	(137.7)	
Operating income	91.6	101.5	-10%
% revenues	3.3	3.3	
Net financial income/(charges)	9.3	3.6	
Companies measured at equity	0.1	0.5	
Profit before tax	101.0	105.6	-20%
Income taxes	(22.2)	(38.8)	
Net profit from continued operations	78.8	66.8	-18
Profit and loss deriving from yielded assets	(16.4)	0.0	
Net profit for the period	62.4	66.8	-7%
% revenues	2.2	2.2	
Profit (Loss) attributable to non-controlling interests	0.5	0.2	
Net profit attributable to the Group	62.9	67.0	-6 %
% revenues	2.2	2.2	

(*) To be added to revenues of 2019/2020 amounting to 2,673.4 million euro are 129.7 million euro for the Quality Rod Mill internally manufactured and sold to ABS S.p.A.

(**) The Gross Operating Margin (EBITDA) represents the operating profit as in the consolidated income statement, before depreciation, amortisation and write-downs of fixed asset and receivables.
The Gross Operating Margin (EBITDA) is used by the issuer to monitor and evaluate the performance of the Danieli Group, although it is not defined as an accounting measurement within IFRS. Consequently, the criteria for determining this value may not be consistent with the one used by other entities, and therefore not be altogether comparable.

Danieli Group structure

Danieli & C. Officine Meccaniche S.p.A
(Parent Company)

The company's revenues developed during the financial year by the parent company amounted to 1,101.7 million euro (1,018.9 million euro in 2019) with EBITDA of 6.5 million euro (31.7 million euro in 2019). The value of production for the period includes 129.7 million euro (in 2019 it was 11.5 million euro) for the progress of work at June 30, 2020 towards Acciaierie Bertoli Safau S.p.A. (hereinafter also ABS) for the new Quality WRM rolling mill: the company has made a very important effort to quickly build the plant in this time period, committing its technical offices and workshops to allow ABS to start already at the end of 2020, completing the learning curve in the first months of 2021 when the demand in the steel market is better again. In this period, the company still achieved an important turnover volume, with a good operating margin in relation to the orders developed, although reduced mainly due to the extraordinary provisions made for potential charges on some disputes related to the start-up of innovative projects. The company preferred to maintain a prudent approach to the ongoing litigation in view of the complexity of the dispute, while ultimately relying on a favourable solution for Danieli. Research and development activities continued with the use of important corporate resources, above all to expand and complete the range of products offered, developing high-tech solutions and environmental management and energy recovery systems to be used mainly in cutting-edge facilities.
The company continued to implement its investment plan to improve the productivity and efficiency of the Buttrio plants with a new plan to replace the operating machinery older than 15 years.
The financial management of the period shows a result in line with forecasts as regards the ordinary management of exchange rates and cash-flow related to job orders in progress, without significant penalties in the financial year albeit considering the additional charges for discounting financial receivables for which a deferred collection is expected beyond 12 months.
Order acquisition for the year is in line with the budget and already assures good production planning for next year, with operating income expected to improve also for the 2020/2021 financial year.

The Parent Company Danieli & C. Officine Meccaniche S.p.A. directly owns the following companies:

— Industrielle Beteiligung SA, the holding company for the Group's manufacturing firms;

—Danieli Finance Solutions SA, which invests important liquidity available to the Group in the international financial markets.

Below is a description of the operations and results of the main companies of the Group around the world

and of the Italian-based steel making and plant making businesses. Results are based on the companies' own financial statements, suitably reclassified and adjusted to bring them into line with the international accounting standards followed by the Group.

Analysis of/commentary on the economic and financial position of the Danieli Group

As at June 30, 2020, the main economic and financial data were as follows:
— revenues: 2,803.1 million euro down by 9% compared to 3,063.6 million euro as at June 30, 2019;
— Group's net profit: 62.9 million euro, marking a decrease of 6% compared to 67.0 million euro as at June 30, 2019;
— consolidated shareholders' equity: 1,936.6 million euro, up by 37.4 million euro compared to 1,899.2 million euro as at June 30, 2019;
— positive net financial position: 903.2 million euro reduced by 25.1 million euro compared to 928.3 million euro as at June 30, 2019, mainly due to the recognition of lease liabilities (amounting to 45.7 million euro as at June 30, 2020) following the first-time adoption of IFRS 16.

The Group order book is well-diversified by geographical area and by product type and as at June 30, 2020 amounted to approximately 2,936 million euro (of which 190 million euro in the special steel making segment) still solid albeit slightly down compared to 3.099 million euro as at June 30, 2019 (of which 237 million euro for special steels).
Moreover, some major contracts already signed with foreign customers are not included in the order book: they will come into force only upon completion of the engineering or with the finalisation of the related loan procedures.
The rationalisation process of management in the Plant Making sector continued strongly with a special attention to competitiveness in terms of innovation, technology, quality, efficiency and customer service, with:
— the research and production of innovative products with noble components mainly developed in Europe;
— the design and production of plants with consolidated technologies is carried out in the Asian factories, at a lower cost but with the same European quality, covering both the Western steelmaking market and the Asian one, which to date accounts for more than half of global steel production.

In the Steel Making sector, construction of the new Quality Wire Rod plant, which will enter production at the end of 2020, is nearing completion allowing ABS to expand its range of high quality products through the use of innovative thermomechanical processes. This investment is the first one in ABS's "Vision 2.300" programme, which aims to increase sales by 50%, with the distinction of being the only steel mill for the production of quality steels, with a product range from 5.5 mm to 500 mm in diameter at a single site, with all the savings on Op-Ex and logistics that this entails. The objective is always to raise the technological competitiveness of ABS by improving production quality and efficiency, reducing the cost of processing and increasing quality and increasingly personalised customer service, rationalising and completing the product range to be able to export directly 50-60% of production.
Production at ESW Röhrenwerke GmbH in Germany ended during the period with the closure of the plants and the termination of contracts with almost the entire workforce. In the period, the company generated an operating loss of about 16 million euro, including extraordinary charges related to the termination of relations with employees. During the period, the operational and environmental safety of the plants was also completed.
It is significant to point out that without the losses of the German pipe manufacturer, ABS - despite the declining market trend - would have made a profit and this shows the competitiveness of the company.
The ABS Sisak plant in Croatia also remained closed during the year (after completing the modernisation of the furnace and casting machine feed systems) and will be restarted at the end of 2020 in coordination and synergy with the start-up of the new quality wire rod mill in Italy.
In the Plant Making segment, investments will be approximately 10/15 million euro per year, in addition to those for research and innovation, which are still high, mainly due to the development of new green technologies to produce steel without CO2 and with low GHG emissions.

COVID-19 pandemic

As indicated in more detail in the Non-Financial Statement, the company approached the COVID 19 issue with great care, promptly implementing in Italy (and at all foreign premises) all the necessary measures to limit any negative impact on its employees.
The Group's Italian plants were completely closed for a fortnight as from March 23, 2020, completing only urgent activities and making the plants safe, while the Russian and Indian plants closed only in April and June: the Chinese plants (although far from the Wuhan area) were closed for a further two weeks in February to coincide with the New Year holidays.
At the subsidiaries in the EU and the USA, activities continued without any particular restrictions, while taking the utmost care to ensure the safety of employees.
With the subsequent opening of the production sites, we continued to pursue a very prudent approach, as was already done in the period immediately prior to closing, by checking the temperature of the personnel before each entrance, equipping them with medical safety devices and re-launching the work stations in a distanced and protected manner, installing hand sanitisation stations in the offices, prohibiting physical meetings and closing the canteen and refreshment points.
Smart working was activated in all possible cases while, in other cases, the available hours of leave have been used up to the request of the ordinary redundancy fund if deemed necessary (used mainly in the second quarter of 2020 about 17% in the Steel Making sector and about 6% in the Plant Making sector).
Although there were no serious cases among the employees, many of the activities at our customers' construction sites had to be rescheduled in order to be

Revenues by geographical area

in millions of euro	Year to June 30, 2020	%	Year to June 30, 2019	%	Change
Europe and Russia	1,425.6	51	1,658.4	54	-14.0%
Middle East	351.1	13	447.9	15	-21.6%
The Americas	543.3	19	365.3	12	48.8%
Far East	483.1	17	592.0	19	-18.4%
Total (*)	2,803.1	100	3,063.6	100	-8.5%

(*) Revenues include 129.7 million euros for the Quality Rod Mill sold to ABS S.p.A.

Key consolidated financial ratios

(*) net of interests on discounting operations
(**) excluding advances on job orders not yet in production.

Note that the figures used to calculate the performance ratios shown above do not always constitute standard measurements in the context of the Group's accounting policies.

Profitability ratios	Description	June 30, 2020	June 30, 2019
ROE	Group profit for the year / Group shareholders' equity	3.2%	3.5%
ROI	Operating income / Net capital employed	8.4%	9.9%
	GOM (EBITDA) / Shareholders' equity	9.7%	12.6%
	GOM (EBITDA) / Financial charges (*)	9.03	10.74
GOM (EBITDA)	GOM (EBITDA) / Revenues	7.0%	7.8%
	Gross financial indebtedness (**) / GOM (EBITDA)	2.96	2.23
ROS	Operating income / Revenues	3.3%	3.3%
Financial charges over revenues	Financial charges / Revenues	0.8%	0.8%

Capital ratios	Description	June 30, 2020	June 30, 2019
Debt to equity ratio	Gross financial indebtedness / Consolidated shareholders' equity	37.1%	40.2%
Financial independence	Consolidated shareholders' equity / Total assets	38.2%	37.5%
Primary structural margin	Consolidated shareholders' equity / Non-current assets	158.8%	180.7%
Secondary structural margin	Consolidated shareholders' equity + non-current liabilities / Non-current assets	185.0%	216.8%
Current ratio	Current assets / Current liabilities	136.8%	144.0%
Quick ratio	Current assets (- Inventories) / Current liabilities	94.8%	103.6%

Profit indicators	June 30, 2020	June 30, 2019
Revenues per employee (thousands of euro)	295.1	321.8

able to manage plant start-ups with local supervisors who could not travel with the usual ease and activate remote assistance that allowed the work to be completed without incurring excessive delays.
In the Plant Making sector, the pandemic caused limited delays in the performance of job orders, especially when compared to the normal duration of projects, which never stopped completely thanks to the on-site presence of technicians from our subsidiaries based in all the Group's main geographical markets.
The pandemic did not lead to a significant slowdown in the collection of new orders from customers and no cancellations of orders already signed with counterparties resulted from this.
On the other hand, in the Steel Making sector, the shutdowns related to the COVID-19 restrictions led to a further drop in turnover in a market that was already less attractive due to a more marked incidence of production costs and lower sales margins.

Highlights of the consolidated income statement as at June 30, 2020

The level of revenues of the Group decreased by 9% compared to the previous year with an increase in turnover in the Plant Making segment and a decrease in Steel Making segment, which shows lower production volumes compared to 2018/2019 due to the stop in the ABS Sisak plants, the closure of the ESW pipe manufacturer and periods of operational down-time in the Italian ABS plant.
In 2020/2021, ABS Sisak's plants will restart to guarantee the supply of special steel billets to the new wire rod mill that will be started in Pozzuolo del Friuli in the last quarter of 2020 and total production in the Steel Making sector is therefore expected to grow thanks to the increase in the verticalisation capacity of ABS SpA.
Revenues for the Plant Making segment are consistent with the forecasts at the beginning of the year and derive from the compliance with the construction programmes contractually agreed with the customers, with an EBITDA of 124.3 million euro, better than the result for the 2018/2019 period, even though a substantial provision was made in the period against ongoing disputes related to the start-up of innovative plants.
On the other hand, revenues for the Steel Making segment are lower than the budget at the beginning of the year and show a profitability of 63.4 million euro, a good result, penalised by unsatisfactory margins generated by production, which may improve in the coming year thanks to the start-up of new rolling mills.
Therefore, the 2019/2020 financial year showed a reduced operating profitability (EBIT) compared to the previous year mainly due to the above-mentioned non-recurring one-off negative factors and to restrictions to production suffered in the last quarter of the year related to the reduction in demand from our customers due to the COVID-19 pandemic effect.
The production sold during the financial year by the Steel Making segment (ABS Group) reached approximately 1,000,000 tonnes (down from last year), with the aim of increasing these volumes in the next financial year by bringing the company ABS Sisak in Croatia back to full production.
ABS S.p.A. provides high quality products and delivery times in line with the best global producers, and its objective is to be the leading operator in Italy in the special steel sector and among the top three in Europe.
The performances of both the Plant Making (engineering and plant construction) and Steel Making segments (special Steel production) and keeping the order book at good levels mean positive results for next year and an improvement compared to 2019/2020.
In particular, in the Steel Making segment, 2020/2021 is expected to grow without one-off negative influences, with greater efficiency in production thanks to the start-up of the new QWR wire rod mill and with the full operation of ABS Sisak.
In the Plant Making segment, on the other hand, a better operating result is expected in 2020/2021 against the better margin included in the order portfolio and equally distributed throughout the main product lines (steelworks, long products and flat products), with a homogeneous distribution in all geographical areas affected by our projects, and an improved contribution to the Group's operating profitability from the Parent Company.
Thanks to investments made in both operating segments, the Danieli Group can offer its customers innovative and more environmentally-friendly products and an increasingly better service in terms of quality, price and delivery timeliness, operating with an organisation that aims to optimise company processes in order to reduce waste, striving for maximum customer satisfaction.
Liquidity management continued during the year in accordance with the usual low-risk and easy to realise investment principles, incurring no financial loss and with a satisfactory return both on investments in euro and on those denominated in foreign currencies (essentially in USD), with a positive effect on the income statement related to the alignment of the exchange rates to the exchange rates in force on June 30, 2019.
Group EBITDA as at June 30, 2020 was 187.7 million euro, a decrease by approximately 22% on the previous year, and margins were still substantial enough, compared to the turnover for the period, to cover the very high research and development costs incurred in the period.
Net financial income came to a positive 9.3 million euro, (after exchange rate alignment) and includes the discounting charges calculated on financial receivables with the expectation of a long deferred payment; the exchange rate management was also positive due to the weakening of the euro against the US dollar as at June 30, 2020. Cash management was in any case handled prudently, maintaining a high solvency profile while closing the year with a satisfactory net cash position.
Total taxes for the period amounted to 22.3 million euro (38.8 million euro in the previous year), essentially deriving from the application of ordinary taxation to the results of consolidated companies without the significant impact of other one-off items.
The net profit for the period came to 62.4 million euro, increasing by 7% compared with 66.8 million euro as at June 30, 2019.

With regard to the Plant Making segment, the geographical distribution of revenues for the period reflects the target area of sales related to shipments

made and includes the progress of equipment construction operations at our factories and the assembly and start-up activities carried out at our customers' sites on a worldwide basis.
On the other hand, the revenues of the Steel Making segment are concentrated in Italy and Europe and are included in the Europe and Russia area, where they account for 25% of the total value of this area as at June 30, 2020, and for 34% of the total value of this area as at June 30, 2019.

Net Invested Capital increased compared to the previous year, with working capital decreasing thanks to advances received from customers on new orders acquired during the period, while the financial management for the period ensured adequate financial coverage for investments made in both operating sectors.
This situation, with expectations of continuing positive economic and cash flows in the next few years, will allow the Group to quickly repay its debt to banks, which remained stable during the period despite having supported new investments being developed in the Steel Making segment.

Analysis of the consolidated net financial position as at June 30, 2020

The net financial position remained strong but decreased by 25.1 million euro compared to the value as at June 30, 2019 (largely due to the effect of 45.7 million euro for the recognition of financial liabilities related to the first-time adoption of IFRS 16).
The net financial position was calculated by including, within “bank debts and other financial liabilities", customer advance payments on job orders not yet in production, amounting to 117.0 million euro as at June 30, 2020 (229.1 million euro as at June 30, 2019). These amounts are still included as payables for construction contracts and customer advance payments in the consolidated balance sheet.
As at June 30, 2020 there were no residual payables for the purchase of equity investments (6.6 million euro as at June 30, 2019), which were previously included in other liabilities.

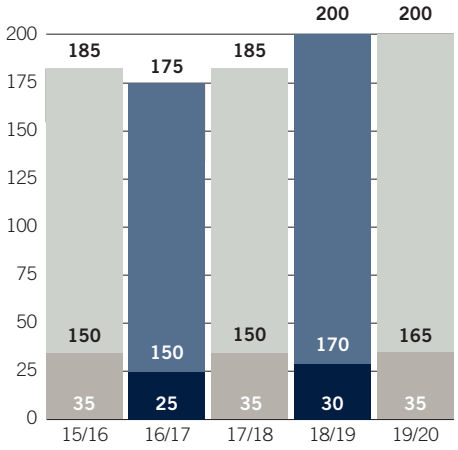
The remaining customer advances, net of advances paid to suppliers, amounting to 647.5 million euro as at June 30, 2020 and 560.1 million euro as at June 30, 2019, are included in working capital as they are used to finance job orders in progress. The related amounts are still included as payables for construction contracts and customer advance payments in the consolidated balance sheet.
The net financial position remained positive as at June 30 reaching the amount of 903.2 million euro. This amount is still important, affected partly by advances collected on current contracts and partly by a careful financial management of production on job orders, enabling the Group to finance the important investments in research and development in the Plant Making segment as well as those required for the new QWR Mill of the Steel Making segment that will make it possible to diversify and increase production and strengthen the efficiency in operations.

By maintaining this level of cash, the Group can meet without financial stresses the new technological challenges of building plants with high innovative content, by independently covering all extraordinary expenses that may arise from technical difficulties during their start-up.

Investments and research activities

The main investments in tangible and intangible fixed assets in the period, totalling 175.4 million euro, were as follows:
— 158.1 million euro in the Steel Making segment are mainly related to the works for the new wire rod mill (QWR) and for the modernisation at Sisak on the furnace power supply system to provide greater flexibility and efficiency in steel production, by expanding the range of products offered with improvements to their quality, together with a careful environmental management of all phases of production;
— 17.3 million euro in the Plant Making segment for new machine tools installed in Italy and in production facilities abroad, with the aim of improving efficiency and expanding the sales market for our plants, and in Italy to assure the replacement of operating machinery in use for more than fifteen years in the Parent Company’s factories.

During the period, the Group moved ahead with research programmes initiated in previous years, with a view to providing customers with new-technology plants capable of superior quality output and lower investment (CAPEX) and production costs (OPEX). This process involved expenditure of approximately 35 million euro for direct and indirect research activities (almost entirely supported by the Plant Making segment for approximately 2% of the relevant turnover), with the management of a volume of innovative projects of approximately 165 million euro (approximately 10% of the turnover of the Plant Making segment).



Research (lower columns) and costs incurred for new products development.

Consolidated Non-Financial Statement

The Group's approach to Corporate Social Responsibility

The Chairman of the Board of Directors of the company and his Directors confirm the commitment of the Group to increasingly promote its role of Corporate Responsibility towards the global community not only directly but also indirectly promoting the research and development of equipment and machines for producing steel with Green Steel and Sustainable Steel solutions, improving efficiency, safety and reducing waste and the impact of Green House Gas emissions (GHG) to protect the environment.

Danieli has always considered as a priority the issue of protecting human health and the environment, accompanied by a commitment to research, innovation and social responsibility.
Today, it is necessary to operate in a complex global context, with the Group aimed at consolidating its reputation by carrying out business activities increasingly integrating industrial strategies with sustainability issues.
The increasingly challenging objectives in the metal industry to make conscious use of resources by reducing emissions, noise and waste production required, and still require, a great commitment from Danieli to develop new technological solutions that guarantee customers sustainable production and, at the same time, a competitive OPEX in plant management. Therefore, on the basis of what has been achieved so far and with a view to continuous improvement, the path taken by the Group in the field of sustainability is based on a continuous implementation of the values and operating practices in implementation of the principles of the Code of Ethics, which inspires the Group, and the main compliance models (primarily the Organisational Model pursuant to Italian Legislative Decree 231/01).
In this context, the Group has set itself some specific objectives for the short to medium term (within the next three years), including:
The monitoring and assessment of non-financial risks, related to the Group's main sustainability issues, and their integration into the business risk management process.
In particular, during the 2019/2020 financial year, the Executive Committee, set up within the Board of Directors of the Parent Company, reviewed the material topics previously identified, also to update, where necessary, the monitoring and assessment procedures for non-financial risks, linked to the main sustainability issues of the Group, as already identified in the Risk Assessment phase.
At the same time, the IA&C (Internal Audit & Compliance) function updated the mapping of business risks involving the persons in charge of different product lines and prepared the Audit plan for 2019/2020, and also collaborated with operational functions in the analysis of Compliance risks in relation to commercial operations (by checking carefully the identity of third parties in contact with the Danieli Group in line with the international regulatory compliance framework).

— The strengthening of the Governance of Sustainability within the Group.

With reference to the initiatives undertaken in this perspective by the Group in the 2019/2020 financial year, the Sustainability Committee - set up during the previous financial year to coordinate the various managers of the investment projects undertaken and/or financed and to verify their implementation - (made up of the main operational function managers) continued to operate in ABS S.p.A.; as from July 1, 2020, this responsibility was entrusted to a single person reporting directly to the Chief Executive Officer of the company.

— The implementation of the new guidelines published on June 20, 2019 by the European Commission on integrating the disclosure of non-financial information with specific information on the control measures adopted in relation to climate change, as well as on the effect of business activities on climate and the impacts of climate change on business activities.

In this regard, note that the Group begun the process of implementing the aforementioned recommendations by including information on the main initiatives undertaken so far on environmental management for the carrying-on of its activities in this Non-Financial Statement. Refer to the paragraph "Commitment to the environment" below for more details.

Within this path of sustainability, the communication of non-financial information thus represents a further step in the Group's commitment to work in line with the provisions of the Paris Climate Agreement and to achieve the most strategic objectives (Sustainable Development Goals) for the Group among those defined by the United Nations with Agenda 2030 for Sustainable Development, promoting all ESG issues as well.
The result of the company is not limited only to the management profits but should be understood considering also the capital strength, the international reputation, the propensity to innovation and protection of the personnel by promoting professional growth and safety in the workplace together with support to local communities in Italy and abroad and attention to culture and youth.
Therefore, Danieli's values for future generations represent an important legacy of skills, knowledge and processes for the creation of value that form a heritage to be preserved and further developed in a logic of long term and continuous improvement.

Given the above, Danieli defined the relevant material topics to be reported in this Non-Financial Statement, reconfirming those of the previous year, taking into account the reference context, the specific nature of the operating sector and the indications received from stakeholders.

The macro areas covered by this statement are:

— Governance and Compliance
— Human capital
— Research, development and product quality
— Commitment to the Environment
— Supply chain
— Community commitment

Stakeholder Engagement and materiality analysis

Danieli mapped the stakeholders present in the geographical contexts in which it operates, by identifying the most important ones on the basis of the interactions existing with the two main operating sectors of the Group.
The Group adopted flexible and diversified practices of dialogue and involvement in order to share present and future development strategies and objectives with the main stakeholders.
No critical issues and/or significant aspects emerging from stakeholder engagement activities carried out by Group companies are reported. The main stakeholders recognised by the Danieli Group are listed in the table below. The Danieli Group operates in two substantially different industrial sectors:

— Steel production with Acciaierie Bertoli Safau S.p.A. (hereinafter also referred to as "ABS S.p.A.") and affiliates (Steel Making segment), which use secondary metallurgy (electric arc furnaces) for the production of liquid steel;
— Production of machines to produce steel with Danieli & C. Officine Meccaniche S.p.A. and affiliates (Plant Making segment), by offering a complete range of machines from primary process management to the manufacture of finished goods (essentially from ore to finished product).

The Group has always addressed in a more structured and careful way the management in the territory of issues related to the steel sector in consideration of the greater significance of the social and environmental impacts related to this specific activity.
The process followed by the Group was based on the preparation of questionnaires submitted to the main stakeholders to collect information in an independent manner and across the board.
During the financial year, the Danieli Group did not update the materiality analysis drawn up during the previous year, considering it still in line with what emerged from the stakeholder engagement, also in the light of the COVID-19 emergency, which did not have a significant impact on the Group's material topics.

For the Plant Making segment, the assessments of the top management and the main function managers also include the assessments of the main suppliers and customers.
The Steel Making sector also maintained the internal and external stakeholder engagement, involving senior employees (second, third and a few fourth levels), main customers and some partners in the assessments.
The analysis with the materiality results and the identification of the material topics was then confirmed by the Executive Committee of the company, which absorbed the main ones considering that the Board of Directors had already previously

The main stakeholders recognized by the Danieli Group are:

Environment	Trade associations	Local authorities
Customers	Collectivity and local communities	Employees
Suppliers and Business Partners	Future generations	Investors and financial analysts
Public bodies	Media and press organizations	Non-governmental organizations
Trade unions	Universities and Research Centres	

Material topics of the Danieli Group

Anti-Corruption	Business ethics and integrity	Governance and management of sustainability
Relations with stakeholders	Creation of economic value	Presence on the market and indirect economic impacts
Occupational health and safety	Training and Development	Protection of human rights
Diversity	Industrial relations	Company welfare
Innovation and R&D	Product quality and safety	Environmental impact of products
Management of energy consumption	Greenhouse Gas Production	Water resource management and quality of wastewater discharges
Waste and hazardous materials management		

absorbed as its own the most strategic topics for the Group among the "Sustainable Development Goals" (SDGs) defined by the United Nations.

Governance and Compliance

The Corporate Governance structure adopted by Danieli is indicated in the 2019/2020 Report on Corporate Governance and Ownership Structure (approved by the Board of Directors on September 24, 2020) and envisages a Board of Directors, an Executive Committee, in addition to the Board of Statutory Auditors and the Supervisory Body.
The company adopts a corporate management model based on a system of principles and rules of behaviour (collected in a Code of Ethics and in the protocols developed pursuant to Italian Legislative Decree 231/2001) and by Risk Management and control tools for both financial and non-financial issues under the supervision of Internal Audit.
Danieli adopted and implemented a Code of Ethics (adopted by all the Companies of the Group with very small changes required by organisational characteristics of some subsidiaries) to identify and promote homogeneous behaviour standards for those who work with and for Danieli and complying with the principles of legality and transparency. In this context, special emphasis is placed on the rules aimed at prohibiting acts of corruption, private or otherwise, and the provisions on the prevention of conflicts of interest.
During 2018, a general census of the active employees to whom the Code of Ethics was sent was conducted. A very large percentage of employees replied that they had examined and read it. For all Group employees and in particular for new employees, the Code of Ethics is available on the company portal and is being included in the "welcome kit" the new employees are provided with. All new employees since 2019 have reviewed and complied with the Company's Code of Ethics.

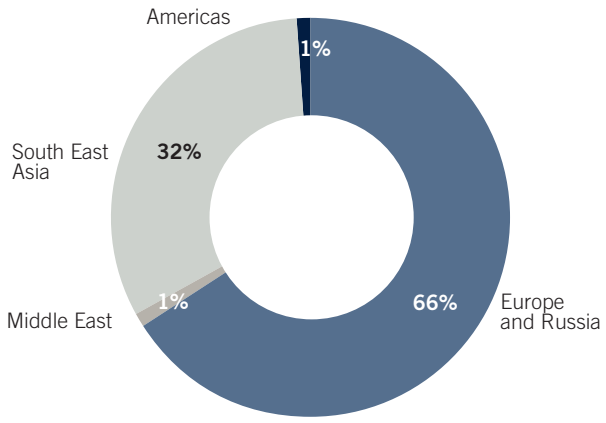
Over the year, Danieli developed and applied its own Organisation, Management and Control Model for the prevention of crimes pursuant to Italian legislative decree no. 231 of 2001, hereinafter also referred to as "Model 231" adopted today by the Parent Company, Danieli Automation S.p.A., Fata S.p.A. and ABS S.p.A., by progressively expanding it with new protocols to gradually cover all the sensitive operating areas of the company and changing its contents in accordance with legislative innovations and organisational changes in time.
The internal regulations aimed at preventing environmental crimes are particularly important in this area: although 35% of the Group's production sites with ISO 14001 certification cover over 90% of the volumes produced. In addition to the Parent Company, the most significant production sites are also ISO 14001 certified: ABS S.p.A., ESW GmbH, Danieli Met. Equipment & Service (China) Co. Ltd., Danieli Co. Ltd, Danieli India Ltd. During the last six months of the financial year, the activities of ESW GmbH were discontinued because it was no longer considered economically viable, also in view of the negative prospects in the reference market.
The Parent Company and Danieli Germany GmbH already obtained the transition from OHSAS 18001 certification to ISO 45001 certification, while the other companies that obtained OHSAS 18001 certification are in the transition phase, and in any case, will adopt this standard upon expiry of the three-year certificate.
The affiliates equipped with the occupational health and safety management system certified by the above standard are ABS S.p.A., Danieli Automation S.p.A., Qualisteel S.r.l., Danieli Met. Equipment & Service Co. Ltd., Danieli Co. Ltd, Danieli India Ltd., Danieli Corporation (a US company that follows the local market), and Danieli Centro Combustion S.p.A.
The Supervisory Body oversees the updating and verification of compliance of the above-mentioned Model. This body has autonomous powers and consists of internal and external personnel with impartiality and specific skills. Moreover, in the area of environmental issues, the company ABS S.p.A. is a member of the ETS system (Emission Trading System) for the calculation and certification of direct greenhouse gas emissions.
Training programmes are planned and implemented on a regular basis aimed at disseminating a culture of corporate responsibility and business legality as outlined in the internal regulations, first of all the Code of Ethics. In particular, new hires at the Parent Company and the Buttrio production centre will follow a work placement path within the company's organisation.
The main companies of the Group asked their employees to confirm that they have read the Code of Ethics, which was sent to all in order to inform them of the zero tolerance position and the practices adopted by the company to prevent corruption, export control and the security of financial transactions.
Danieli established the Compliance Manager function, who in the performance of his/her functions also planned a series of courses for senior employees on Anti Bribery practices to mitigate the risk of corruption towards agents and suppliers.
This function developed in March 2019 two policies approved by the Parent Company's Board of Directors: the "Gift and Hospitality Policy" and the "Third Parties Compliance Management Policy". These documents were communicated to the top management of the Group companies and published on the company portal Danieli Synapse, to which reference is made in the following pages. During the 2019/2020 financial year, an activity was carried out to share the new policies that employees are asked to view and whose acceptance must be confirmed. With regard to the internal protocol "Gift and Hospitality Policy", during the year the Group Compliance Manager received a single report that did not reveal any anomalies after appropriate analyses and checks.
In each company of the Group, a whistle-blowing system is being implemented through dedicated channels and independent control authorities to report violations of the Code of Ethics or Model 231. Some of them have already implemented the whistle-blowing platform (Digital PA), which will subsequently be adopted by all companies.
The Parent Company set up an internal control and risk management system consisting of a set of rules, procedures and organisational structures that allow the identification, measurement and management of the main business risks in order to protect the correct management of the company's operating activities with:
— orderly management of powers and decision-making;

Human Resources

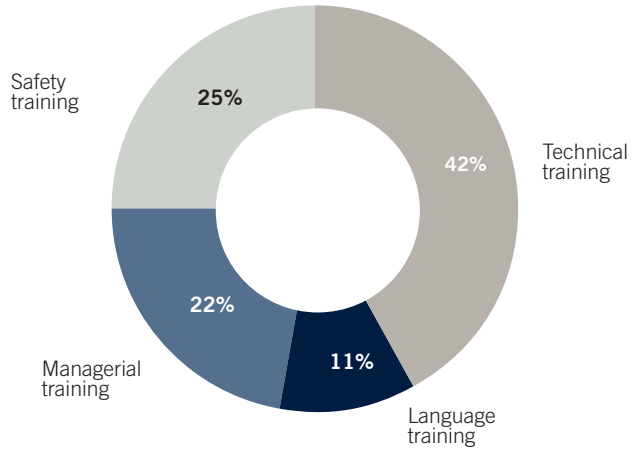
	June 30, 2020		June 30, 2019	
	Plantmaking	Steelmaking	Plantmaking	Steelmaking
Danieli & C SpA in Italy	2,428		2,432	
Italian affiliates	943	1,163	894	1,210
Foreign offices and affiliates	4,361	165	4,568	417
	7,732	**1,328**	**7,894**	**1,627**

Figure by category

	June 30, 2020	June 30, 2019
Apprentices	200	203
Blue collars	2,842	3,119
White collars and Middle managers	5,815	5,998
Managers	203	201
Total employees	**9,060**	**9,521**



Danieli Group: Employees per geographical area. Female count for about 12%.



Danieli Group: Training

— segmentation of activities separating operational and control activities;
— traceability of the choices and decisions taken; the whole maintaining confidentiality and compliance with the regulations for the protection of privacy.

The Group's interfunctional privacy committee continued to implement the organisational privacy model. The training activities are underway in order to ensure compliance with the GDPR (EU Regulation 2016/679) for all Group companies in Europe.

The Parent Company and some Italian companies of the Group (ABS S.p.A. and Danieli Automation S.p.A.) have an Internal Audit function in charge of verifying - on a continuous basis and in relation to specific requirements and in accordance with international professional standards - that the internal control and risk management system is functioning and adequate, taking into account the development of business operations and the context of reference as well as existing best practices for:
— carrying out interventions aimed at checking that the rules and procedures of the control processes are observed and that all the subjects involved work in compliance with the set objectives;
— ensuring support to the other Control Bodies and with the players of the Internal Control and Risk Management System in order to ensure a sound, consistent and correct management of the company with the set goals.
Preliminary due diligence procedures were implemented and are regularly applied to the main contractual partners of the company, which envisage the use of software systems that allow to carry out analytical checks (as defined by the transparency principles issued by the World Bank) in order to preventively monitor the presence of any risk areas.
The applicable CONSOB regulations were adopted and, in particular, the CONSOB regulation on related-party transactions is implemented, with the obligation of reporting by senior management of each company of the Group any commercial/financial transaction with related parties of significant value.
Danieli is committed to complying with the anti-corruption laws in force in all the countries in which it operates, adopting a "zero tolerance" approach to all forms of corruption and spreading a culture of compliance to its personnel so as to always operate with honesty and integrity in line with the relevant international best practices.
In the field of competitive practices, as formalised in the Code of Ethics, the company is inclined to ensure maximum competitiveness on the market and, therefore, its commercial policy is developed in full compliance with all applicable laws and regulations on competition.
The monitoring activity carried out by the Compliance Manager and by the Internal Audit pursues the objective of preventing and minimising the risk of active and passive corruption by carrying out a specific Risk Assessment process where necessary and providing for conservative penalties, termination of employment and actions for damages against employees and collaborators who have committed these serious contractual violations.
Moreover, Danieli adopted as its own the principles of transparency of the International's Business Principles for Countering Bribery and also takes part in a Collective Action in the Metal Technologies segment under the coordination of the Basel Institute on Governance, aimed at maintaining a "fair competition"

among the key competitors operating in the segment (SMS Group, Primetals and Tenova), through the adoption of similar internal rules for all participants, aimed at preventing corruption and other improper practices.
In the 2019/2020 tax year, the Group Compliance Officer received two reports. With reference to these reports, appropriate analyses and checks were carried out in agreement with the relevant functions, confirming the absence of offences committed by Group companies and defining the appropriate measures for those responsible.

The company maintains its "zero tolerance" policy in the face of situations of non-transparency and confirms its position of firm and harsh action against those who do not comply with the indications of the company's code of ethics.
With reference to environmental topics, the Group's organisational model
— clearly identified the roles, tasks and responsibilities of the management involved in managing the two main operating sectors: Danieli Plant Making for the production of industrial machinery and ABS Steel Making for the production of special steels
— defined the objectives to be achieved related to environmental topics for both operating sectors:
a) the development and marketing of new technological solutions to produce steel with lower environmental impact for the Danieli Plant Making sector (DRI, MIDA, DUE and Q1 HYBRID technologies)
b) obtain a reduction in the average energy consumed per tonne of steel produced in the ABS Steel Making sector using the latest generation plants to increase production with a very limited environmental impact
With regard to the process of identifying and assessing risks related to climate change, the Group is developing an important action towards the market to promote new technologically advanced products to produce steel with low environmental impact and lower emissions.
Innovative products to produce Green Steel with lower energy consumption per tonne produced but also using new technologies that reduce related Co2 emissions. The improvements resulting from the green management of Danieli's direct production activities will in any case not be very significant in view of the high operating standard already present in the group in both the Steel Making and Plant Making sectors, while the overall improvements that can be achieved by modifying our customers' plants are, on the other hand, very significant, going from about 2,000 kg of Co2 per tonne of steel produced with traditional blast furnaces to about 350 kg of Co2 per tonne if produced with new hydrogen-based direct reduction plants and the new hybrid fusion system developed by Danieli with an 80% reduction in emissions.

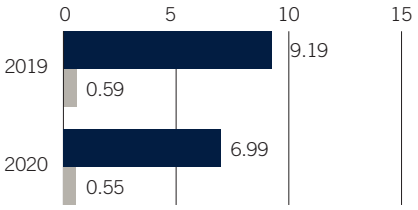
Human Capital

Human resources, prime origin and driving force behind all innovation, are in Danieli the central pivot of the organisation of the work that aims to ensure excellence and quality in customer service. Consistently with this concept, they are always the subject of constant attention: from enhancing the individual employees' potential and aptitudes, to promoting the professional development of teams and individuals, with instruments and initiatives to improve and enrich managerial skills, technical and specialist competencies, ethics and dedication to perform.
With a structured simplification, the values with which it is desirable for the Danieli Team to identify itself were identified:
— customer-oriented approach
— passion
— team spirit
— respect for people
— consistency and reliability
— excellence
— sustainability.

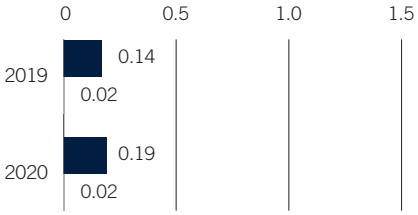
These values are built every day with concrete actions and are transmitted by setting an example with transparency and trust.
Personnel management is developed in accordance with the principles included in the Code of Ethics and in compliance with the laws and regulations applicable in the countries in which the Danieli Group operates.
The approach of the company with regard to the personnel aimed at:
— attracting talented people through scouting activities and in particular graduates also with the collaboration of the best educational institutions;
— enhancing individual skills through development and training programmes by supporting an extensive and shared culture that also allows the consolidation and transfer of skills between employees;
— promoting a culture of safety at all levels of the organisation and always maintaining the highest level of health and safety protection for workers by using appropriate measures for the protection and prevention of occupational risks;
— motivating and retaining professional resources with an incentive and fair remuneration system based on meritocracy following market best practice.

Danieli operates on a Worldwide basis and the planning of human resource requirements (according to a standardised process for defining organic plans) is carried out centrally in coordination with the production units, while selection, recruitment and contracting are then managed independently by the individual Group companies, also taking into account the different national legislations applicable on site.
The recruitment process also uses a computer tool that allows an initial evaluation of soft and hard skills
Danieli's remuneration policy follows:
— all practices and procedures necessary to comply with the provisions on minimum salary,
— a careful management of remuneration in order to obtain the loyalty of key figures, encouraging them to remain and stabilising collaboration in the medium to long term in the interests of the company and its stakeholders.

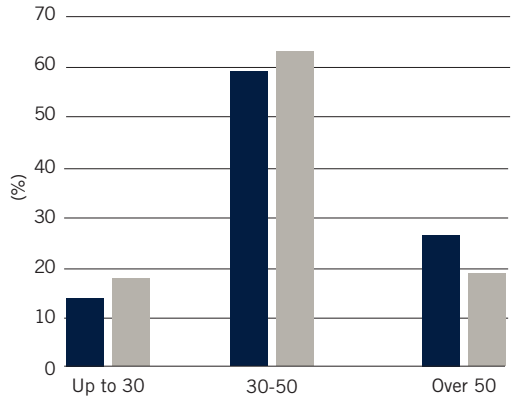
The Group adopts a remuneration policy with incentive systems: the remuneration of personnel holding positions of greater responsibility is subject to assessment based on shared objectives (Management by Objectives) every three years.
Therefore, the variable component of remuneration, which usually never exceeds 30% of salary, is related to the achievement of the set objectives (of the company as a whole and/or of individual product lines) compared to the budget values.
In the steelmaking segment, environmental objectives are assigned for some positions that result in the achievement of production efficiency while at the same time improving environmental impact.
The Group uses a management application called MET YOU to assess performance, the progressive development of skills and to have a complete



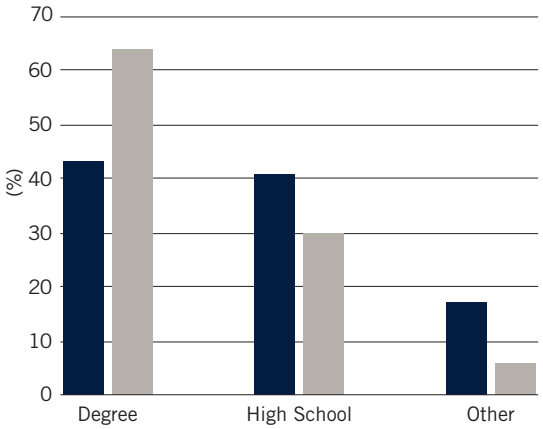
Danieli Group: Injury frequency indicator



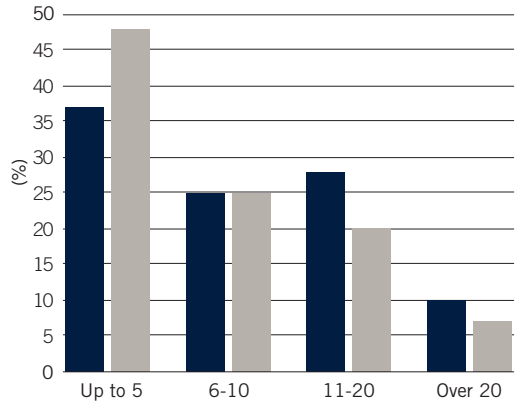
Danieli Group: Injury severity indicator



Danieli Group: Age of Employees



Danieli Group: Educational level



Danieli Group: Seniority of Service

view of the resources used by the Group ensuring transparency and traceability of what has been done. The objective is to fill all company positions with qualified profiles so as to always guarantee the continuity of operations, always taking into account the induction period necessary for the assimilation of company policies and procedures and the need for training for specific technical alignment.

The Group points out that the workforce used in its factories and construction sites is highly specialised and that the risk of using child labour or the risk of forced labour is minimal.

For all employees, projects were started in the business and staff areas through the Hoshin method to disclose and measure the application of Danieli's values with continuity.

As explained in the Code of Ethics, Danieli also confirms its commitment to respect human rights, against discrimination in the workplace and child, irregular or forced labour by promoting equal opportunities (in terms of gender, origin, religion, age, political orientation, sexual orientation, disability), protection of diversity, freedom of association and the development of knowledge and professionalism of its own employees to better express their talents and the responsiveness to problem solving.

Danieli protects the integrity of its personnel by protecting workers from acts of physical, psychological or mobbing violence and by guaranteeing working conditions that respect the dignity of the person in compliance with the labour laws applicable in the countries in which it operates and with national collective agreements where present.

The company deals, where applicable, with organisations representing workers with an attitude that is always open and constructive where required.

The working conditions, working hours and economic treatment of employment relationships are established on the basis of the national rules envisaged with the aim of ensuring compliance with the applicable legislation in each country ensuring full transparency of information on contractual terms and conditions of employment for candidates.

Danieli never received any reports from employees and, during the year, no well-founded violations of working conditions were raised against the company, not even through national or foreign trade unions.

There are no significant risks in terms of personnel management and in relation to the protection of diversity, duly referred to in the Company's Code of Ethics and in the Report on Corporate Governance and Ownership Structure regarding the composition of the board and the independent control bodies.

Danieli's position on human rights refers to the principles promoted by the United Nations (United Nations Guiding Principles on Business and Human Rights), fully in line with the Universal Declaration of Human Rights, with the commitment to require the entire chain of subcontractors used to be treated equally in their structures.

This continuous investment, together with the constant offer of career opportunities and prospects tied to merit, engenders a strong pride of place among our personnel, stimulating all of them to do their part in maintaining their companies' efficiency, effectiveness and competitiveness.

Welfare and health in the workplace

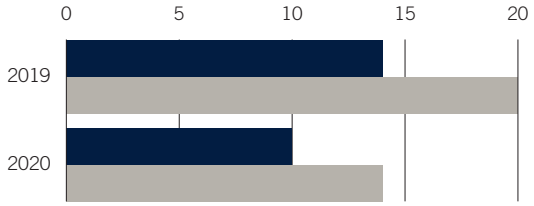
The development and expansion of the welfare platform dedicated to all Italian employees and other similar formulas for other employees abroad continued where required by current local regulations.
Specifically, the Group signed an agreement with a number of specialised operators for the management of the flexible benefits provided for in the trade contract of Italian companies, which envisage the use of these portions for the purchase of goods and services or the reimbursement of health or education-related expenses.
The personnel are covered by an insurance programme against accidents, travel and reimbursement of medical expenses in case of business trips to mitigate the risks of these events.
Moreover, both the Metasalute Fund for health care and a general coverage programme against accidents of the working personnel operate whereas the Danieli Foundation provides support to former employees in case of any situation of emergency. The Steel Making sector was characterised by a number of initiatives that continued at the ABS plants, such as the "heart of steel" initiative (free annual cardiology check-up for employees over 50) and the management of company uniforms (the cleaning of which is taken care of directly by the company, guaranteeing employees savings on washing and at the same time providing them with a garment that is always clean and in line with safety standards).
In order to protect the health of employees and prevent the spread of seasonal epidemics, the flu vaccine is given free of charge to employees who request it.
The Danieli Foundation provides support and assistance in the event of mournful events or serious needs to former employees and their families.
The Turismo 85 S.r.l. travel agency, company belonging to the Group, offers attractive prices to employees, proposing monthly tourist destinations at discounted prices and day trips, promoting co-worker socialisation outside working hours.
Many initiatives have been developed by Danieli for its employees:

— Concerts organised for employees and family members;
— MetYou project for the management of Soft and Hard Skills of personnel;
— "Pink" (gender) parking (at the Parent Company and in ABS S.p.A.);
— Family party and open factory in ABS S.p.A.;
— Parent company Christmas party and lottery;
— Blood donation with mobile blood bank;
— Support activities for personnel employed in operating units in Thailand, China and India.

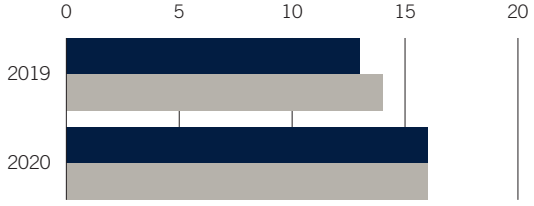
Occupational health and safety

Danieli defined a company management model identifying the roles, operational responsibilities and methods for carrying out the main production processes, paying the utmost attention to the health and safety of workers.
In particular, specific guidelines and company procedures were prepared for each operating unit and the activities carried out by them in order to:
— identify and assess any possible exposure to the hazard;
— identify potentially exposed persons;
— implement risk mitigation measures and control their application;
by training the personnel at the same time and raising their awareness through specific information and communication campaigns.
Employers and Safety Managers are responsible for the implementation of health prevention activities and the implementation of safety in the workplace using specialist personnel who devote particular attention to the training and education of personnel assigned to specific operational tasks.
Risk Assessment Documents are prepared and coordination meetings are held between third-party companies and site managers, verifying the health and safety issues of external workers.
The health of workers is guaranteed in the workplace also with the help of an internal Company Health Service present in all production units that carries out a health surveillance program with prevention and control procedures, information campaigns and periodic inspections.
ABS completed an important activity: the obtaining of the Fire Prevention Certificate of the Cargnacco Plant in December 2019, which represented the crowning achievement of 6 years of work and over 7.5 million euro of investments, broken down in 340 detailed projects, positively passing 6 inspections by the Fire Brigade and making it possible to affirm that ABS is one of the safest steelworks in Italy.
During 2020, the company approached the COVID 19 issue with great care, promptly implementing in Italy (and at all foreign premises) all the necessary measures to limit any negative impact on its employees.
Comprehensive information on the COVID-19 infection situation was immediately made available on the company's intranet system to update all employees in real time for the entire group and in full transparency.
The Group's Italian plants were completely closed for a fortnight as from March 23, 2020, completing only urgent activities, while the Russian and Indian plants closed only in April and June: the Chinese plants (although far from the Wuhan area) were closed for a further two weeks in February to coincide with the New Year holidays.
The Italian companies remained in constant contact with the Prefect of Udine from whom the authorisations to continue the most delicate activities considered of strategic importance for the national economy were obtained, as envisaged by Article 1, par. 1, letter h) of the Italian Decree of the President of the Council of Ministers of March 22, 2020.
With the subsequent opening of the production sites, we continued to pursue a very prudent approach, as was already done in the period immediately prior to closing, by checking the temperature of the personnel before each entrance, equipping them with medical safety devices and re-launching the work stations in a distanced and protected manner, installing hand sanitisation stations in the offices, prohibiting physical meetings and closing the canteen and refreshment points.
Moreover, the general services did more cleaning and sanitisation work on the premises not only in the evening but also during working hours.
Insurance cover was also activated to guarantee compensation to its employees, should they be hospitalised for more than 7 days following COVID-19 infection.

Danieli Group.
Rate of new employee hires (%)



Danieli Group.
Rate of employee terminations (%)



Male
Female

Smart working was activated in all possible cases while, in other cases, the available hours of leave have been used up to the request of the ordinary redundancy fund if deemed necessary.
On the other hand, the situation at the ABS S.p.A. steelworks is more complex in that before using up back holidays and before applying for the ordinary redundancy fund, all the necessary works to make the plants safe were carried out.
In China, our company suffered a very limited slowdown, managing the lockdown imposed by the local authorities by extending the leaves for the New Year holidays in February and then resuming normal work activities at the end of the same month.
The chart below shows by geographical area the statistical data of presence in our worldwide factories, pointing out the lower progressive use of smart working and the return to normal operations in all areas in June 2020.
All in all, on a population of more than 9,000 employees, the cases of COVID-19 infection were very limited without any outcome of absolute seriousness.

Similar safety and control procedures were applied to workers of subcontractors who work on sites for which the Group implements the same procedures for monitoring the risks of employees and checks and controls the technical and professional requirements of the operating companies.
The Parent Company and Danieli Germany GmbH obtained ISO 45001 certification, whereas Danieli Automation S.p.A. is in the process of transition to obtain it; ABS S.p.A., Qualisteel S.r.l., Danieli Met. Equipment & Service Co. Ltd., Danieli Co. Ltd, Danieli India Ltd. and the companies Danieli Corporation (a US company that follows the local market), Danieli Automation Co. Ltd. and the design centre Danieli Centro Combustion S.p.A., which have an OHSAS 18001 certified management system, will adopt the ISO 45001 standard upon expiry of the three-year certificate. In December 2019, the inspection was carried out at the subsidiary ABS S.p.A during which non-compliance was not found.

The company approach for the prevention of accidents and injuries achieved positive results on average over the years.
On the other hand, ABS S.p.A. obtained a reduction in the INAIL Premium for interventions to improve prevention conditions and to protect health and safety in the workplace.
Note that data relating to injuries recorded during the reporting year and in the previous year were shown by indicating all of them, thus also considering injury cases with days lost of less than 3 days.
The injury indexes are calculated in accordance with the procedures established by UNI 7249: 2007 "Statistics on injuries at work", indicating the number of injuries that occurred per million hours worked.
The positive results, despite the slowdown in the last period, were achieved also thanks to the pursuit of the project entitled “Alcohol and the workplace”, directed at contrasting alcohol abuse in the company, which is often a contributing cause in unacceptable accident situations both from the viewpoint of the frequency of events, and of their severity.
During the 2019/2020 tax year, training activities on safety were carried out totalling approximately 29,741 hours.
The company carries out training and information courses with the aim of forming all employees on occupational health and safety issue, correct emergency management practices and the use of the equipment available in the company. This year, given the situation linked to the pandemic, SPP (Health Prevention and Protection) in collaboration with Danieli Academy used the e-learning/webinar tool to guarantee an important training/informative intervention on the COVID issue, in order to disseminate the company directives and the correct behaviour required by the mandatory regulations.
Particular attention is also paid to periodic training for workshop technicians on the procedures to be used in carrying out daily activities.
During the first months of the year, the activity related to the five-year compulsory retraining of the basic training for all workers began.
The personnel are covered by an insurance programme against injuries, travel and reimbursement of medical expenses in case of business trips to mitigate the risks of these events.
If local needs require a special control unit, the company equips foreign sites with a security structure with specialised personnel that:
— develops an action plan to protect the job order,
— operates in line with local regulations and standards,
in order to guarantee the continuity of operations, the integrity of personnel and that of the company assets used, operating in compliance with the company's Code of Ethics.

Training

The “Danieli Academy” is the kingpin and the organisational centre of the corporate training system and it pursues the dual objective of promoting and improving the growth and development of human resources and of fostering and consolidating corporate vision and values.
The “Danieli Academy” is a business school in the company to support both the process of change and

Energy - GRI 302-1	June 30, 2020	June 30, 2019
Energy consumption by type of fuel and process		
LPG by production process (GJ)	10,959	13,833
Methane gas by production process (GJ)	2,148,108	2,882,470
Diesel for non-production process (GJ)	166,022	20,419
Petrol and other fuels (GJ)		
For company cars (owned and rented) (GJ)	18,509	18,056
Electricity consumed (GJ) **of which**	3,240,613	3,888,804
Electricity purchased from the grid (GJ)	3,235,235	3,881,542
Internally produced and self-consumed electricity (GJ), of which	5,378	7,261
produced by photovoltaic plant (GJ)	4,432	4,363
produced by an ORC (Organic Rankine Cycle) plant (GJ)	947	2,898
Total energy consumption (GJ)	**5,584,212**	**6,823,582**

Notes: The conversion factors used are taken from the document "UK Government – GHG Conversion Factors for Company Reporting 2019". Some items that contribute to the determination of the Group's energy consumption were partly estimated, using criteria that can provide as accurate and exhaustive a representation as possible.
Environmental data refers to the Danieli Group. As regards the Parent Company, in addition to its head office, the main Italian local units are also included.

For 2018/2019, the collection method was updated with a view to a continuous improvement in data presentation. Consequently, ABS S.p.A. was not included in the calculation of energy consumption from renewable sources.
The portion of electricity purchased from renewable sources does not have Certificates of Guarantee of Origin. Therefore, the calculation of indirect CO_2 emissions according to the Scope 2 Market-based logic also takes this portion into account.

Total volume of water withdrawn with a breakdown by source

GRI 303-1	June 30, 2020	June 30, 2019
Surface water utilisation (m^3)	149,397	547,511
Groundwater utilisation (m^3)	1,191,571	1,157,072
Municipal water utilization (m^3)	398,948	345,230
Total water utilisation (m^3)	1,739,916	2,049,813

Greenhouse gas emissions into the atmosphere (t)	June 30, 2020	June 30, 2019
GRI 305-1		
Scope 1 CO_2 direct emissions	211,231	291,508
GRI 305-2		
Location-based Scope 2 CO_2 indirect emissions	325,879	391,629
Market-based Scope 2 CO_2 indirect emissions	416,476	539,132

Note: Water withdrawals from surface water sources mainly refer to the company ABS Sisak d.o.o.; therefore, the reduction found during the year is attributable to the production downtime of this company, which affected almost the entire duration of the year.

Other pollutant emissions into the atmosphere

GRI 305-7	June 30, 2020	June 30, 2019
NOx Nitrogen oxide (t)	855	809
SOx Sulphur oxide (t)	1	14
Dust (t)	58	73
CO (t)	1,501	1,129
Dioxins and furans (PCDD/F) (g)	1	0

Note: The data for other pollutant emissions into the atmosphere have been estimated on the basis of the measurements and analyses carried out at the emission points.

the organisational development, as well as a place of learning where resources are enhanced through professional consolidation and team work with the support of Universities and of local High Schools. Danieli Academy maintains lasting and fruitful collaborations with Italian and foreign Higher Technical Institutes and Universities thanks to the Talents area. Internships are promoted and organised with a view to alternating schoolwork both within the Academy and at the various product lines. During the curricular internships, trainees are followed daily by the company tutors in a constant training activity alongside and "on the job" which involves thousands of hours of personnel dedicated to the training of the new generations. Thanks to these activities, the hosted students develop school projects or thesis in the company. The Talents area of the Danieli Academy also deals with the recruitment, selection, management and development of young graduates and new graduates in the company. At Schools and Universities, company presentations, lectures and Career Days are organised with the aim of attracting the best talents within the Danieli company organisation.
Abroad, the Group is also determined to create new development opportunities, with particular reference to technology and employment, and it actively cooperates with major Universities and Education Institutions, sponsoring innovation projects and offering concrete suggestions to promote youth employment.

The refresher and training courses for employees (2,136 courses equal to about 117,536 hours) represent a company investment and are of different types with multiple goals:
— sharing the basic technical and technological knowledge that constitute the company's value and uniqueness today, and will increasing do so in the future;
— development of specific technical – specialist knowledge and skills, including managerial ones, both general and running across the entire organisation, and tied to a specific role/function;
— consolidation of language skills;
— training and updating of workers on rules of behaviour and company procedures related to safety.

Collaboration with institutions for school and university education

The Parent Company constantly collaborates with High Schools, ITS and Italian and foreign Universities, organising and managing each year approximately 100 work-related learning projects and about thirty curricular internships with related thesis.

Moreover, the company actively takes part in the study programmes of High Schools, ITS and Universities as follows:

— frontal lessons;
— organising guided tours in the company;
— taking part in vocational meetings aimed at student work placement;
— taking part in career days.

The Parent Company is a founding member of the Fondazione ITS Malignani of Udine and sponsors

each year the Mechatronic Course that has 2 classes totalling 50 students.

Each year, approximately 100 newly-qualified students and new graduates are hired by Danieli & C. Officine Meccaniche S.p.A. with a professionalising training contract.

This initiative focuses on young people to stimulate them in a training course that essentially gives them four perspective elements of development, which are of crucial importance today:

— a highly specialised career, within a multinational context;
— guarantee of recruitment at the end of the training and work placement course;
—a remuneration aligned with that of the personnel of the same level from the beginning of the training course;
— the possibility of taking a highly specialising training course thanks to the support of expert business tutors (training on the job) and to the participation in training courses (Danieli Academy).

The focus on young talents is also emphasised by the annual sponsoring of scholarships and graduation awards for worthy newly-qualified students and new graduates in technical and scientific branches.
The Group actively participates in the organisation of specific Masters courses for the metallurgical sector and economically supports Masters courses in economic/administrative subjects in which some employees take part at advantageous economic conditions.

Company portal

In addition to the company website, the Danieli Synapse company portal is also available for each employee, allowing immediate interaction with the company, guaranteeing up-to-date information on topics of specific interest, as well as services and assistance on safety and governance in the broadest sense. Each employee can customise the service that is continuously updated and guaranteed even on smartphones. The "Danieli Synapse" portal during the COVID-19 emergency and the simultaneous lockdown were particularly important, allowing Group companies to inform their employees about the various activities and tools put in place to combat the effects of the virus and to keep employees up to date with the effects of the epidemic in the various countries in which the group operates.

IT security

A special attention was paid to the company for business protection concerning Cyber Risks operating on several fronts:
— dedicated personnel training on a worldwide basis to promptly assist Group employees;
— carrying out specific interactive courses for all Danieli personnel on the main IT risk issues;
— cognitive analysis of system, network and user behaviour to reduce the time required for accident interception;
— BIA revision (Business/IT alignment), gap identification and application of corrections to machines and software;
— revising and publishing safety policies;
— accident management standardisation.

All the above-mentioned activities are covered by a dedicated budget and personnel training beyond the high standard of our systems (as Danieli is a world leader in the development of Hi Tech technologies) and updating existing firewalls has prevented any intrusion into the internal network to date.

Research, Development and Product Quality

Danieli concentrates its research and development activities exclusively in the technological areas falling within the Group's operating sector (metal production and production of machinery for the metal working industry), starting with the development of the primary process and ending with the finished product (in practice, from ore to finished product).
In summary, the following process areas are covered:

— reduction of iron ore;
— melting;
— casting;
— rolling;
— finishing;
— management of non-ferrous metals.

The ability to develop new technologies and technological packages in the sectors indicated above is for the Danieli Group a fundamental ability to maintain competitiveness in the steel and aluminium market.
The research process usually develops in an orderly manner:
— starting from the collection and analysis of data from existing plants;
— then developing studies on the physics, chemistry and mechanics of products validating the conclusions with mathematical models and laboratory tests;
— continuing with the 3D engineering of the plants (operating them also in a virtual manner);
— and completing with the implementation of prototypes and/or industrial equipment in the laboratory or at customers where to carry out tests of production and performance.

Research results in the form of ideas, concepts, technological approaches and operational capabilities represent an important intangible asset to ensure Danieli's technological leadership in the market.
To this end, the Group created the Danieli Innov-Action Award, a competition open to all employees and collaborators to stimulate and encourage the development of new technologies, applications or processes to improve environmental sustainability with four main themes
— Energy saving
— Energy recovery
— Waste reduction
— Improving workers' safety.
The proposed innovations, after examination by a technical commission, are tested in the research laboratories and, if they are considered valid, applied to the plants in production. The "innovators" (teams or individuals) are awarded during the company's annual

DaNews: the quarterly magazine of Danieli Group provides readers with thorough information about the activities and the technology developments carried out by Danieli Product Lines.

meeting with employees and families around the Christmas holidays.
Again with a view to searching new developments, Danieli Digi&Met Lab was inaugurated in February 2020 at the University of Udine (Uniud Village Labs), the first private laboratory set up at a university centre, with the aim of stimulating the interest of students, researchers and professors in the search for concrete innovative solutions in the field of metallurgical production.
The protection of intellectual property plays a strategic role for the company that every year invests countless resources to develop new products and new technologies to be applied in industrial solutions offered to customers.
The maintenance of know-how and existing patents requires a constant updating activity that is also carried out with dedicated projects and with the involvement of the main local universities.

The total annual expenditure of about 200 million euro includes both prototype and direct research and related expenditure for innovative projects without margins and the first industrial applications that require a strong commitment for the company in start-ups and performance tests.

In Italy, there is a Research Centre with about 150 employees with a new structure opened in 2017 to serve the machinery and plant sector and in France there is a Research Centre with about 25 employees to serve the steel sector to offer customers new alloys for industrial applications while Innoval Technology Ltd. operates in the UK with its own laboratories and offers innovative solutions to customers operating in the aluminium sector.
In France, ABS Centre Métallurgique ACM obtained accreditation according to the international standard ISO 17025 (General requirements for the competence of testing and calibration laboratories).

Product quality

Meeting deadlines and quality of the products supplied in line with the obligations contracted towards the customer is the main objective of the company and of its employees to obtain customer satisfaction.
To achieve these results, the Group adopted a Corporate Quality Policy based on company values and culture that defines construction methods, quality standards and performance indicators to be followed to prevent product non-conformities and provide quality goods and services contractually required.

Therefore, the Danieli quality system operates in compliance with the standards required by the certifications:
— ISO 9001:2015
— ISO 3834-2:2005
— EN 1090-1:2009 + A1:2011
ensuring that the products supplied are manufactured in accordance with the customer's expectations and in compliance with contractual, safety, statutory or regulatory obligations.
The standardised application of rules and processes across all Group units represents company know-how available to all employees to identify Best Practices to be followed in all Group factories, always guaranteeing the same level of quality and safety.

The production of machinery for the metal industry and the production of steel both require compliance with regulations, laws and requirements issued by national and international directives whose observance is required and regulated by the production specifications envisaged by the company and ABS S.p.A. that envisage the use of technical personnel trained and aware of the limits envisaged and imposed by applicable standards and regulations.
Finally, the company's quality system envisages verification plans and controls to ensure compliance with the followed production standards.
To ensure the prevention and mitigation of health and safety risks to which customers are exposed, the Group obtained certifications attesting to compliance with the required standards on product quality (the company ABS S.p.A. obtained the ZF certificate), prepares accurate manuals for the use and maintenance of the plants, organises courses available to customers for the training of personnel who will work on the plants sold.
Moreover, note that ABS S.p.A. undertook to purchase raw materials from sources that certify an ethical and sustainable production chain.

Commitment to the Environment

Environmental protection is not only a priority for the Group in relation to the production activities directly carried out in both the Steel Making and Plant Making sectors, but also an opportunity for the latter to be promoted to customers to enable them to comply with applicable legal requirements, and a conscious use of resources as part of a continuous improvement process in line with best practices.
Danieli is an active participant in the ClimateNeutralEU process to achieve a substantial reduction in GHG emissions in 2030, raising the awareness of European authorities on the need to achieve these objectives promoted by the general commitment of the main European companies.
The Group's environmental protection approach is aimed primarily at ensuring compliance with the legal requirements applicable to its own production activities by identifying, monitoring and mitigating all related environmental topics:
— using appropriate safety procedures and efficient technical prevention systems;
— developing new technologies (also with HOSHIN projects) that allow a rational use of natural resources (raw materials, energy, water and waste management);
— achieving an increasingly effective mitigation of pollution, GHG emissions, waste, noise and any inconvenience to the local communities concerned;
— by raising personnel awareness through specific training and education.

The Danieli Group defined reference targets in order to maintain high environmental protection standards:

— promoting a culture of health and environmental protection in all workers and their families;
— designing plants with ever better performance from the viewpoint of the environment and workers' health and safety;
— constantly informing and training workers on general and specific risks, on rules of behaviour and company procedures;

Note 1: Hazardous and non-hazardous waste disposal operations listed under "Other" concern physical-chemical treatment (D9) or preliminary storage (D15) in authorized plants.
Thanks to an improvement of the reporting system in the 2018/2019 reporting year, it was possible to collect data within the organization on the waste produced with more detail for its disposal items, improving the coverage of the indicator.

Waste (t)	June 30, 2020		June 30, 2019	
GRI 306-2	Hazardous	Non-Hazardous	Hazardous	Non-Hazardous
Reuse	69	210	54	0
Recycling	18,136	96,883	19,595	38,768
Landfill	982	33,757	651	99,805
Incineration	692	5	703	3
Recovery	1,094	5,365	132	6,455
On-site storage	1	386		14,633
Other	8,171	4,825	16,265	5,079
Tons of waste	**29,145**	**141,431**	**37,400**	**164,743**

(Note 1)

Materials used in the Group production process

GRI 301-1	June 30, 2020	June 30, 2019
Gases used in the production process (m^3/000)	52,432	59,007
Materials used in production process (t)	434,993	480,031
Scrap and ferrous materials used in the production process (t)	1,104,495	1,420,467

Directly generated and distributed economic value

in millions of euro	June 30, 2020	June 30, 2019
A. Directly generated economic value	2,695.8	3,080.5
B. Distributed economic value	2,540.6	2,890.9
(A - B) Economic value retained	155.2	189.6

Analysis of the distributed economic value

in millions of euro	June 30, 2020	%	June 30, 2019	%
Operating costs	2,041.7	80.4	2,344.3	81.1
Personnel remuneration	453.8	17.9	472.7	16.4
Public administration remuneration	27.6	1.1	44.5	1.5
Venture capital remuneration	11.9	0.5	8.2	0.3
Non controlling interest remuneration	(0.5)	0.0	(0.3)	0.0
Ancillary components	(0.5)	0.0	13.8	0.5
Lender remuneration	5.2	0.2	6.1	0.2
Donations and sponsorships	1.4	0.1	1.6	0.1
Total distributed economic value	**2,540.6**	**100.0%**	**2,890.9**	**100.0%**

SCIENCE BASED TARGETS

Over 1,000 companies around the world are taking ambitious climate action grounded in science. Spanning nearly 50 sectors, 60 countries, and with a combined market cap of $15.4 trillion, these companies are breaking new ground and delivering on the Paris Agreement.

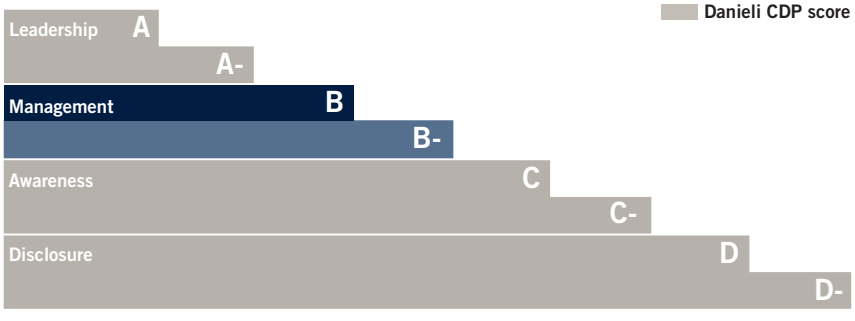
Danieli is proud to be among 1,000 business leaders working with sciencetargets to build a sustainable future, and be one of the 485 companies with approved targets. sciencebasedtargets.org.

Score Levels

Score summary statement. Companies at Management level are taking further steps to effectively reduce emissions, indicating more advanced environmental stewardship.

CDP

Understanding Carbon Disclosure Project (CDP) "Climate Change" score. The Group' Scoring Level (Disclosure, Awareness, Management, Leadership) demonstrates the company's level of environmental stewardship, and the actions and approaches in managing climate change. Danieli has received a score of B which is within the Management band. This is higher than the global average of C and higher than the Europe regional average of C. The band of Danieli is colored blue, and it's on par with the sector average.



— investments of economic, technical and human resources to achieve environmental protection goals for Danieli and for customers;
— promoting knowledge of environmental regulations and generating widespread awareness of their importance, by example and through systematic oversight of their compliance also along the supply chain used by the Group;
— improving waste management by providing specific labelled containers and dedicated areas bearing appropriate signs, and through more accurate separation of waste for disposal;
— improving hazardous materials management by identifying and labelling all containers, providing containment basins and suitable absorbing materials in case of spills, conducting practical emergency simulation exercises.

In the production of metals, the "Green technologies" are those that allow to limit waste and emissions with lower consumption of raw materials in the production process, resulting not only in benefits for producers but also in reductions in the use of water and GHG emissions.
In new projects and in the modernisation of existing ones, the use of innovative design, logistics and plant layout using "Best Available Technologies" (BAT) make production more efficient and clean, above all by reducing energy consumption, which is one of the main sources of CO2 emissions.
Products such as the Q-ONE, which allow to digitally power the electric furnaces preventing disturbances on the network will allow their better sizing at the service of the whole community reducing consumption, waste and Flicker disturbances and allowing the direct connection of the systems with renewable energy sources.
The development of processes that continuously manage the casting and rolling phase (MI.DA and QSP-DUE) and the treatment of products at lower temperatures with induction heating systems (QHEAT) already allow us to obtain quality products with a substantial increase in efficiency compared to the past.
The lower use of natural gas with the use of controlled flame burners and the replacement of hydrogen in direct reduction plants will lead to steel production with a very significant reduction in CO2 emissions.
The future will be even better thanks to "green" research using predictive models and artificial intelligence, transferring the know-how developed through Danieli's research to the service of customer plants for highly efficient production and low waste.
In this context, a new DanGreen product line has been launched with three main objectives:

— develop and market machines and plants that will allow a significant reduction in CO2 related to steel production by 2030 and a cancellation of CO2 produced by 2050;
— build steel plants with HYBRID technologies that allow the use of renewable energy;
— use new Green technologies within the steel production cycle reducing the environmental impact of the production itself by recovering the related GHGs.

During the launch of new projects (especially in the Plant Making segment), the company always carries out a risk assessment, which also identifies significant environmental issues related to the development of the job order at its customers' production sites, and identifies the measures needed to mitigate the impact on local communities, which in most projects are manageable and extremely limited.

The Parent Company (which covers both the operating unit as well as head office and the headquarters of the Research Centre), ABS S.p.A., ESW GmbH, Danieli Met. Equipment & Service (China) Co. Ltd., Danieli Co. Ltd and Danieli India Ltd developed an ISO 14001 certified Environmental Management System. The subsidiary ABS S.p.A., whose business activities are highly energy-intensive, also implemented an ISO 50001 certified energy management system in which an energy audit is carried out every 4 years. ISO 50001 certification was also obtained by Danieli Germany GmbH for its three premises.

Energy consumption, emissions and water withdrawals are the main indicators of the environmental impact of the Group's production processes. In particular, as part of energy efficiency initiatives, the Parent Company and Danieli Automation S.p.A. installed some photovoltaic systems covering the roofs of industrial buildings and the company ABS S.p.A. installed an ORC (Organic Rankine Cycle) system to produce energy using the heat from the fumes of electric furnaces used in the production of steel. Also in ABS, a district heating system was built to recover the hot fumes from the Rotoforgia's Walking Beam furnace to heat some buildings, including the office building, canteen and dressing room. It is planned to extend this plant to other buildings on the Pozzuolo site.

ABS launched an LCA (Life Cycle Assessment) project to measure and validate the impacts of its processes/ products from birth to end of life, since sustainability must necessarily be a supply chain sustainability, and attention to the environmental and social performance of suppliers is therefore fundamental.
The purposes of the project aim to:
— identify areas for improvement on the technical, management and logistics level;
— compare the environmental loads related to the processes;
— study alternative technical solutions to help reduce the environmental footprint throughout the supply chain;
— guide the re-design of products and processes in order to minimise their impact through efficient consumption of natural resources.

Environmental sustainability

The steel industry accompanies the economic growth of the world community contributing to social welfare with an increasing respect for the environment following the guidelines defined by the United Nations (UN-SDGs) and in line with the commitments undertaken with the COP21 Paris Treaty.
The World Steel Association identified eight main parameters to measure the sustainable performance of steel production divided into three families:
A) environmental sustainability
— reduction of Greenhouse Gas Emissions (GHG);

— reduction of energy consumption;
— efficiency in production;
— environmental protection;
B) social sustainability
— safety in production;
— development and training of human capital;
C) economic sustainability
— innovation in new technologies;
— equitable distribution of value added.

The development of these indicators in the past years shows a constant commitment in the protection of the environment and in social responsibility and an improvement in economic sustainability related to increased investments in new technologies with an increased value added distributed to the community.

Danieli became an integral part of these results by accompanying (with the equipment supplied) customers in the process of technological and productive improvement with innovative and sustainable solutions.

In the construction of plants, Danieli guarantees the principles described above also to customers by implementing technical solutions in line with the contractual obligations undertaken and with those envisaged by the various regulations in force, both in terms of energy performance and in terms of reduction in emissions, in order to minimise their environmental impact.

As part of the protection of biodiversity and to mitigate the environmental impact of the steelworks, in recent years ABS has built about 2 km of mitigation hills, natural noise barriers and visual filter towards the industrial core. The hills were made using Ecogravel, i.e. the inert slag resulting from the production process. The ABS Forest, with an extension of more than 13 hectares and with the presence of more than 10.000 medium-sized and tall trees, has been for years a green area at the disposal of the community and an oasis of conservation of the local biodiversity, ideal refuge for the small local fauna. The piezometric tower, converted to a vertical wood, with the presence of ornamental plants and plants typical of the Friulian countryside also contributes to creating an oasis of refuge, especially for birds.

These measures actively contribute to improving air quality, absorbing around 200 tonnes of CO2 per year. During the 2019/2020 financial year, a number of measures were implemented to improve the acoustic impact caused by production activities on the surrounding area, with a view to meeting the needs of the inhabitants of neighbouring municipalities and the commitment, which over the years has always distinguished ABS, towards the territory that hosts it. Moreover, as part of the reuse of processing stocks, the cooling area of the steel slag has been rebuilt in order to obtain better mechanical characteristics of the Ecogravel - the EC certified material that - in terms of circular economy - is an excellent substitute for quarry materials used for roadbeds and/or bituminous conglomerates.

The Parent Company participated also in the Climate Change Program of the Carbon Disclosure Project, a programme that aims to monitor the reduction of greenhouse gas emissions and involves both the public sector and private companies with the ultimate aim of mitigating the risk of climate change. In 2019, the Parent Company was in a good position in the international rankings of the sector, better than the European average. This excellent goal was achieved thanks to our commitment to developing SusSteel (increasing efficiency in steel production) and Green Steel (minimising environmental impacts in steel production) solutions for the Group and our customers.

For 2019, Danieli also obtained the A- rating for "Supplier Engagement", resulting in a significantly better leadership position than the sector and geographical area average.

In June 2019, Danieli also obtained confirmation from SBTi (Science Based Targets Initiative) that its GHG emission reduction targets by 2030 fall within the global "well-below 2°C trajectory" decarbonisation target, i.e. in line with the level of decarbonisation required to keep the global temperature increase below 2 degrees compared to pre-industrial temperatures. This certification was obtained on the company's 2030 objectives of reducing emissions related to Scope 1 and Scope 2 by 36% compared to 2017 levels and by 62% per dollar value added compared to 2017 for indirect emissions related to Scope 3.

The use of specific parameters prepared by Quantis Evaluator guaranteed a refining of data entered for the completion of the CDP questionnaire, above all in defining the information related to indirect emissions (Scope 3), by obtaining a better quality of data presented; moreover, by joining the Science Based Initiative, Danieli received further validation for long-term targets for Scope 1 and 2 emissions related to direct and/or directly manageable activities. The achievement of emission targets results in the objective of reducing greenhouse gas emissions to keep the global temperature increase below 2 degrees compared to pre-industrial temperatures. The definition and achievement of Science Based Targets allow, on the one hand, to make a contribution to the challenge against climate change and, on the other, to stimulate innovation and increase competitiveness.

Waste management is carried out in compliance with the regulations in force, following their methods of disposal and destination envisaged by the law classification for each specific category of waste. Disposal activities are carried out by certified external companies where permitted by the relevant regulations and with the use of the most up-to-date and efficient technological solutions on the market.

Over the years, the Danieli Group implemented a policy of reducing the consumption of raw materials that enabled it to optimise them; last year, heat treatment activities increased and improved product quality by using the plants efficiently with integrated and waste-free production cycles.
In particular, the ABS S.p.A. company and the entire Steel Making sector are the Group's most impactful companies in terms of raw material consumption.

The following table shows the materials used during the year by the Group's main production companies in which the various materials included in the production process include gas and refractory materials, machinery for steelmaking plants and other consumables, while the last item includes scrap and metal machine parts used in the production process.

Supply Chain

The quality of the supply is a key element for Danieli and the supplier is an important asset with which to build relationships based on principles of transparency, integrity and trust that can last in the long term.
The Group manages its activities with suppliers selecting them correctly and impartially based on quality/competitiveness checking of the offers and without taking advantage of any situations of weakness or dependence.

In the Plant and Steel sectors, the Danieli Group uses a total of around 5,000 suppliers to service its activities and factories in the West and the East:

— in the steel sector, there are about 500 strategic suppliers for about 2,000 customers;
— in the machinery sector, there are about 4,500 strategic suppliers for about 500 customers.

The suppliers are subject to technical and ethical prequalification according to the Group Code of Ethics, company anti-corruption directives and relations between individuals and the management of privacy. During the year, the Parent Company and the main companies that manage production workshops implemented a specific procedure to obtain acceptance of the Code of Ethics by all active suppliers to achieve 100% coverage.

Danieli is investing in the supply chain to prevent procurement risks and to ensure their compliance with existing environmental and social issues.

The choice and management of Group suppliers for the Plant Making segment follows a guideline that envisages:
— segregation of duties;
— the use of a Vendor list managed by a computer system;
— acceptance of general conditions of supply including security, environment and human rights issues;
— acceptance of the provisions of the Danieli Code of Ethics;
— getting through a Supplier Quality Development (SQD).

Danieli is increasingly using qualified and certified suppliers to limit the occurrence of technical, qualitative, environmental and safety problems in its supplies, reducing commercial and reputational risks for the company.
The qualification process of strategic suppliers is managed by the Parent Company's Procurement Department and envisages:
— the completion of questionnaires to identify their company structure, governance and financial data, certifications, environment and safety and human rights;
— Specific in-depth sessions with visits to the production units to assess the technical and operational capacities and quality procedures followed in general and specifically for the types of products and services of interest to the Danieli Group;
— Scheduled Quality Audit and Verification Sessions at suppliers even without prior notice to the latter.

Specific clauses are included in contracts with suppliers who undertake to accept and comply with the Code of Ethics, in addition to the requirements of Model 231 and the requirements of quality, health and safety.

Supplier performance and compliance monitoring activities are carried out by Danieli personnel during the order Expediting sessions.

In the Plant Making segment, there is a high presence of high-tech knowledge-intensive suppliers that are part of a “make of buy” strategy with an impact on noble components and on solutions offered to customers.

In the Steel Making sector, suppliers are mainly engaged in continuous deliveries and large handling volumes where the quality and punctuality of the service are crucial to ensure a rational and efficient production process.
In order to maintain a sustainable value in the long term through lasting and solid supplier relationships, a process was developed for the qualification, selection and constant monitoring of supplier performance.
The qualification process involves the assessment of the ability to guarantee economic and financial soundness over time, technical and quality management requirements, compliance with international standards and sustainability criteria: protection of the environment and occupational health and safety, energy impact and ethics. It does so through a primary selection process in which compliance with standard ABS requirements is assessed in economic, financial, quality, safety and environmental terms, and an approval phase in which the quality of the supplies and of the supplier's company procedures is checked through second party audits and supply tests.
This vendor rating process was implemented for all new suppliers as early as last year, while the revaluation of all existing suppliers is underway and is expected to be completed in the next two financial years.
With regard to conflict minerals, ABS is also committed to eliminating supplies of raw materials from Countries involved in conflicts.

Danieli continues to participate in the "Corporate Social Responsibility" qualification procedure on the ECOVADISs platform, obtaining a Silver rating in 2020 with 56% positive parameters and a ranking better than 79% of the companies surveyed at June 30, 2020; the result is an improvement compared to 2019 and new targets have already been defined and will be brought to the attention of the management to integrate the current profile and further improve the company's ranking.

Community Commitment

The Danieli Group believes in its social role within the complex systems in which it operates at a global level and contributes to the development of the areas in which it is involved with projects in favour of the social communities present there (social initiatives, sponsorships and philanthropic donations) by following the guidelines and counterparty checks and with budgets approved by company management.

Most of the actions carried out can be classified into 3 macro areas of intervention:

— social and charitable
— culture, art and education
— sports and entertainment

Danieli takes an active part in the development of positive relations with local communities, defining and managing initiatives in their favour (e.g., the initiatives to restore the historical and architectural heritage on buildings of public interest in the city of Udine, the Telethon marathon in Udine, work in support of local communities and medical research, contributions to local musical events, support to schools through contributions to expand classrooms/improve learning instruments, etc.).
During the year, Danieli signed several sponsorship contracts for cultural and sporting events that unfortunately had to be postponed or cancelled due to COVID-19. In particular, the events related to the World Series of Paralympic swimming, which were to take place in Lignano Sabbiadoro in February and April 2020, have been cancelled, while other sponsored events, among which the performance of the opera "Le Nozze di Figaro" at the Giovanni da Udine theatre and the International Symposium of stone sculptures of Friuli Venezia Giulia have been postponed to a later date. Danieli continued its support for the Illegio Exhibition, which for many years has been attracting thousands of people to the small town of Carnia.
During the period, Danieli continued its work to promote architectural restoration in the main sites of cultural and historical interest of Udine.
The support guaranteed was of particular significance in terms of entity and destination with a donation to the municipality of Udine for the conservative restoration of the covering of the municipal Castle of Udine, which began in 2019 and will be completed by 2021.
During the year, the Parent Company, together with Confindustria Udine, supported the Sa.Pr.Emo - Salute Protagonisti Emozioni Project, an initiative consisting of various coordinated actions for the prevention of the distress and illegality of narcotic substances. The activity was aimed at high school students, teachers and more generally young citizens and families in the area. Various initiatives have been put in place, including meetings to promote informed choices on health, legality and the fulfilment of individuals, with the participation of qualified speakers, and a competition to stimulate the imagination and the involvement of young people through cooperative learning with the aim of overcoming the challenges they face. During the year, the project for the redevelopment of the "Locanda alle Officine" area in Buttrio, acquired at the end of last year, was launched and will continue in the coming years with the renewal of the hotel and restaurant structure, the renovation of the existing sports facilities and the construction of other accommodation facilities that will also be available to the local community.
The company Telefriuli S.p.A. is part of the Danieli Group and working in the region for more than 20 years with the aim of providing the community with local television and news report highly dedicated to and rooted in the territory, while the weekly magazine "Il Friuli", also related to the same publisher, is distributed free of charge in the region and also made available to Parent Company employees.
As part of the support to local communities, Danieli participates in the "Think Tank Fvg >2030" project, an initiative that aims to be a fundamental contribution to the need for modernisation in Friuli Venezia Giulia, with the aim of envisaging actions to adequately manage the socio-economic developments and changes taking place, with a time horizon of 2030. The objectives are:

— Foresee possible scenarios between now and 2030 in relation to the actions that will be implemented to maintain and improve the current per capita income level, development and social services;
— Identify the factors that currently delay the development process;
— Present the results to the Regional Government to share the implementation of improvement actions in the fields of education, family, environment and energy;
— Configure the "optimal system" for the FVG Region and then carry out a further optimisation in the North-East context (Veneto and Trentino-Alto Adige), creating a favourable environment for investments in logistics and especially for start-up projects with high added value.

Danieli provides the children of its employees and of contractor workers with the support of the company nursery school, accommodating family needs through work schedule flexibility and opening days, and kindergartens, providing the possibility of caring for children from 3 to 6 years of age with the same flexibility of working hours and hospitality. The traditional training offer is supplemented by permanent English language labs, outdoor activities of contact with nature, the weekly proposal of psychomotor practice sessions according to the Aucouturier method, music sessions with a master and only for kindergarten children, an annual course that provides a day every other week to spend at a teaching farm in the area.
The officially recognised primary school “Cecilia Danieli” (now with a new accommodation facility), both for the families of the employees and for the families of the local community, where the Italian tradition blends with an innovative approach to the English language and to new technologies was opened in September 2016. An innovative teaching path based on lectures with mother-tongue teachers and on the laboratory approach to science and new computer technologies. The English Plus course envisages 5 hours of weekly English Language from the first class and modules of Science, Geography, Art and Computing (3 to 5 hours a week) with mother-tongue teachers (CLIL - Content and Language Integrated Learning method).
The Tech Plus course consists of specific programming and educational robotics (Scratch and Lego Wedo) enabling the approach of the child to

"coding" and to technology through the construction of animated objects. It ensures a certification of skills released by Eipass Junior (European Informatics Pass).
In June 2019, the Primary School was certified as a "Cambridge Exam Preparation Centre". The recognition means that the prestigious English institution recognises the specialisation of the language preparation of the students thanks to the quality of the training offer and to the structured approach to the learning of the English language.
During the year, the Group continued with the construction of the new structure that will house the Middle School, as a natural development of the teaching path already created, which should come into operation with the 2021/2022 school year.
In addition to direct sponsorship of Group companies with a number of local sports teams, the Danieli Sports Group was also set up in Italy. It operates as an association open to the community (with more than 2,000 members) founded to promote aggregation, physical fitness and Group spirit, while maintaining a healthy sense of sporting competition. The latter has also promoted a series of agreements with various commercial and service operators in the area to ensure favourable conditions for its members (employees and non-employees).

Participation in trade associations

The Italian companies of the Group are registered with Confindustria in their own local areas whereas Danieli is also registered with the World Steel Association with headquarters in Brussels, Belgium and with the European Engineering Industries Association with headquarters in Brussels, Belgium, while the subsidiary ABS S.p.A. is registered with the Italian association METALFER.

Directly generated and distributed economic value

The following tables show the distribution of economic value among stakeholders through the reclassification of the figures of the consolidated income statement. In particular, the determination of the generated value added shows the wealth created by the Group and its method for distributing it to the identified stakeholders Non recurring ancillary components derive from net financial income and expenses (excluding the expenses relating to payables to banks), gains and losses from foreign currency transactions and income and expenses on equity investments.

Net distributed economic value is divided among the following beneficiaries: personnel (direct remuneration consisting of wages, salaries, employee severance indemnity and indirect remuneration consisting of social security contributions); Public Administration (income taxes and other taxes and duties); venture capital (dividend distribution); third parties (non-controlling interests); company remuneration (reinvested earnings); remuneration to lenders (interest on loans) and donations and sponsorships (sponsorships, donations and other forms of contribution). Non recurring ancillary components derive from net financial income and expenses (excluding the expenses relating to payables to banks), gains and losses from foreign currency transactions and income and expenses on equity investments.

Treasury shares

As at June 30, 2020 the company held 2,961,213 ordinary shares and 3,945,363 savings shares with a par value of 1 euro each, for a total par value of 6,907 thousand euro (8.49% of the share capital). No ordinary or savings shares were purchased or sold during the year.

Events occurring after the end of the reporting period

In a world steel market which is still weak but with prospects for growth, company operations continued with no significant events occurring since June 30, 2020.
Alignment of currency items to the exchange rate prevailing on September 24, 2020 would result in a decrease of approximately 13.5 million euro in unrealised exchange differences for the year compared to the figure recorded considering the exchange rate as at June 30, 2020.
Except for what has already been discussed, no other events occurred after June 30, 2020 which could have had an impact on the economic, equity and financial position as shown in the balance sheet, the income statement and statement of comprehensive income at said date, or required further adjustments or additional notes to the consolidated financial statements and to the separate financial statements.

Outlook

We believe that in the second half of 2020, the world economy will show a still negative level of growth due to the restrictions imposed due to the COVID-19 pandemic with a significant improvement at the end of the year and especially in 2021 both in Asia but also in the USA and Europe.
The solution of the BREXIT problem and a desirable normalisation of the Trade War between the USA and China could allow an acceleration in the process of economic growth, especially for the manufacturing and steel sectors, which remain the basis for the development of infrastructures and the metalworking industry.
In any case, steel consumption remains strong in 2020 and 2021 in absolute terms, growing slightly in Asia and recovering in other countries.
The trend of the main players in the metals market to make targeted investments to improve production efficiency by starting the de-carbonisation process in steel production and always aiming at quality products is confirmed, also by migrating production to countries where the general competitiveness package (including the presence of domestic demand, energy, ore and transport) can guarantee greater production cost-effectiveness, with good opportunities for new orders in the plant engineering sector to be added to the current order book.
Based on these premises, the Danieli Group will be able to register steady performance in the next financial year in the engineering and plant making sector, whilst in the steelmaking sector 2020/2021 is expected to be positive, better than the financial year just ended.
With these objectives in mind, the Danieli Group, in the Plant Making sector, will continue to consolidate its international structure and in the Steel Making

sector, important investments for the new wire rod mill (QWR) will be completed in Pozzuolo del Friuli and Sisak with the aim of widening the product range while also increasing production volumes, diversifying it towards more profitable ranges while maintaining competitiveness, quality and productivity.
The Group continues to pursue its efficiency objectives such as increased productivity, reduction in structural costs and innovation with the goal of improving competitiveness in the global market and ensuring an improved service especially to Southeast Asian customers where steel production is mostly concentrated.
There are no other significant unknown factors for the year ahead, barring unforeseeable events beyond our control.

Proposals by the Board of Directors to the annual general meeting

We express our appreciation and thanks to all those whose perseverance and professionalism contribute to maintaining our strong competitive position and high technological status in world markets. We rely on their enthusiasm, as well as on our own, as we seek to progress with the serenity, confidence and strength necessary to meet future challenges.
The financial statements of Danieli & C. Officine Meccaniche S.p.A. for the financial year ended June 30, 2020, which we submit for your approval, show a loss of 2,840,888 euro that will be covered by existing equity reserves.
Considering the net profit of the consolidated financial statements of the Danieli Group for the year ended June 30, 2020, which amounted to 62.9 million euro, we nevertheless propose the payment of a dividend of
— 0.1400 euro for the 37,914,320 ordinary shares;
— 0.1607 euro for the 36,479,670 savings shares.
The entire amount of the dividend is held in available reserves in the shareholders' equity of Danieli & C. Officine Meccaniche S.p.A. as at June 30, 2020 pursuant to Italian Ministerial Decree of May 26, 2017.

The breakdown is shown below:

Dividend payable from Nov. 25, 2020 (distribution date Nov. 23, 2020; registration date Nov. 24, 2020)		
to the 37,918,320[1] ordinary shares euro 0.1400 per share	euro	5,308,565
to the 36,479,670[2] savings shares euro 0.1607 per share	euro	5,862,283
Total dividends	euro	**11,170,848**
Distribution of extraordinary reserve	euro	**-14,011,736**
Total net profit for the year	euro	**-2,840,888**

(1) net of 2,961,213 ordinary treasury shares held on September 24, 2020.
(2) net of 3,945,363 savings treasury shares held on September 24, 2020.

A new Danieli
technological milestone

DANIELI

MIDA HYBRID

TO BE FRONT RUNNERS IN COMPETITIVENESS AND SUSTAINABILITY

MIDA HYBRID

Danieli adds clean energy to the MIDA ECR® minimill finding a perfect synergy which results in further competitiveness and production sustainability

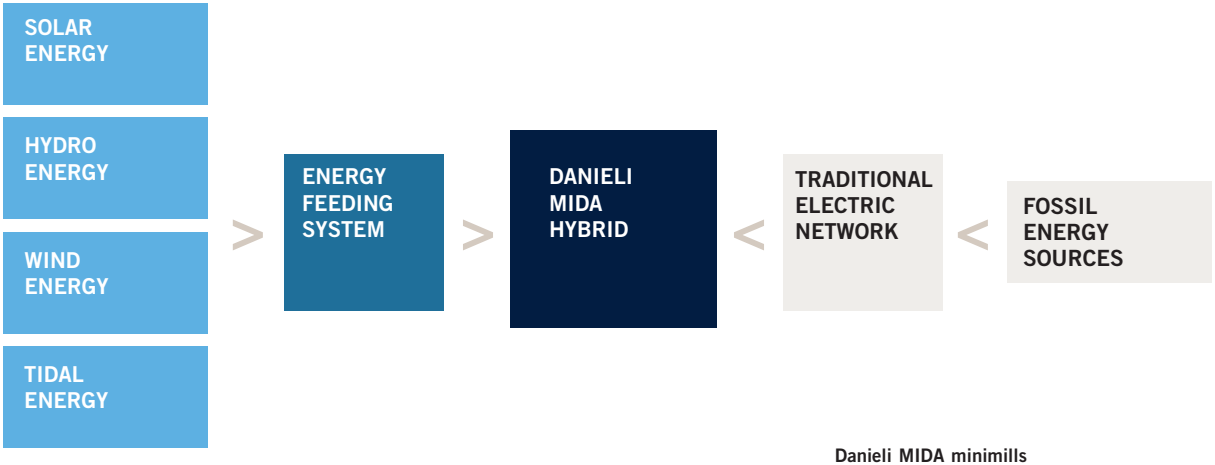
Taking advantage of the experience in controlling power electronics on high-power inverter drives (Danieli Q-Drives), in 2015 Danieli Automation explored the idea of improving the arc current and voltage during melting and refining processes.

The Q-One DigiMelter technology was born, and the electric arc started to be controlled digitally, just like the speed and torque of stand motors are regulated.
The testing of the first prototype in 2016 immediately proved and surpassed the best design estimates, and thanks to a very low flickering and voltage unbalance, Q-One proved to be capable of operating with total harmonic distortion within the limits and a power factor constantly above 0.96-0.97. There is no more need for compensation.

Moreover, such digital control improved arc stability with consequent very positive effects on electrode consumption and refractory consumption.

Paired also with the Danieli Q-Melt, which is optimizing process performance with the use of artificial intelligence, the Q-One provides full digital control of the arc.
Therefore, we call the full system Danieli DigiMelter.

While exploring future additional potential for this new technology, andhaving the flexibility given by digitalcontrols, as well as the full power capacity of the traditional transformer solution, Danieli immediately understood that efficiency, power and flexibility together opened a new scenario for steelmaking: the MIDA Hybrid technology.



Danieli MIDA minimills can be fed by different energy sources including renewable energies.

Like the vehicles, H-MIDA uses two or more distinct types of power to feed the plant: solar and conventional energy.
The basic principle is to use solar energy during the day and the conventional network energy during the night.
H-MIDA is setting new rules for steel production and will represent the new benchmark for rebar, MBQ and wirerod production.

Furthermore, H-MIDA looks to the future thanks to an environmentally sustainable production concept, aiming to become the new standard for steel production in the coming years.
Solar feeding can be applied thanks to the Danieli Q-One DigiMelter technology.
Q-One is the only patented technology that can feed an electric arc furnace using solar, wind or other present and future alternative energy power sources, since it's inherently suitable for connection to such energy sources, which can be seamlessly connected to the Q-One DC Link (Q-Jenius), allowing for an increase in total power available for melting or refining.

The quantity of the renewable energy produced can either partially or totally cover the actual request of the plant.

MIDA HYBRID IS THE MERGER OF THREE SYNERGISTIC TECHNOLOGIES WHICH CAN BE SUMMARIZED AS:

— MIDA ECR®
Endless casting rolling minimill: no reheating energy consumption, maximum plant yield.

— DIGIMELTER
— Q-One: power handling and process stability in the furnace.
— Zerobucket: continuous scrap charge, energy saving, lower emission, smooth process. (stable, consistent, easy, ...)
— Q-Melt: artificial intelligence melting process for automatic control and adjustment of the process.

— Q3-JENIUS
Power interface among alternative power sources at site and Q-One.

THE FIRST MIDA HYBRID

FEATURING Q-ONE DIGIMELTER, THIS WILL BE THE WORLD-FIRST MINIMILL POWERED BY THE SUN, PRODUCING REBAR AND MERCHANT BARS IN ENDLESS MODE

American steelmaker CMC Steel orders a third, technologically-advanced MIDA ECR minimill from Danieli, the first MIDA ECR® HYBRID

Once again CMC Steel paves the way to implementing innovative solutions leading to enhanced production competitiveness and product quality.

To be installed in Western USA, the new MIDA ECR plant will produce an estimated 500,000 shtpy of long products, namely 350,000 shtpy of rebar and 150,000 shtpy of small merchant sections.

It will melt local scrap by the innovative Danieli DigiMelter solution (Q-One, Zero-bucket, Q-Melt) and will produce clean and sustainable steel thanks to the endless casting and rolling technology developed by Danieli and CMC in the late 2000s and in operation at the first-ever Micromill plant, in Arizona.

Q-One and the new control strategy will guarantee significant advantages such as real time control of supply voltage and arc current, allowing to act on the output frequency and running the furnace with two phases only. This will provide very high flexibility in the melting process resulting in the significant savings of almost 3 million USD / year, as illustrated in the side table.

Additional OpEx and environmental emissions savings are expected from the usage of green energies instead of power network.

CMC MIDA Hybrid is expected to begin operation with a 10-MW solar power installation.

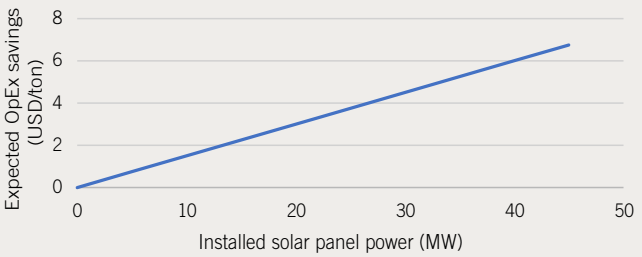
New CMC Triple M plant data

Yearly production	> 500,000 shtpy
EAF size	60 shtons
Caster type	Single strand FastCast, powered by ECO Power Mold
Rolling mill	20 stands with Direct Rolling and Bundling technology
Total installed power	48 MVA

Estimated benefits: Q-One vs. traditional EAF

SVC	Losses (3% total energy): 820,000 USD/y Maintenance cost: 100,000 USD/y
Electrode consumption	330,000 USD/y
Energy saving in substation	1,500,000 USD/y
No maintenance for transformers and furnace breaker	300,000 USD/y
Yearly maintenance cost Q-One	- 100,000 USD/y
TOTAL ESTIMATED SAVING	2,950,000 USD/y

Estimated benefits: solar panel power usage



— TRACY PORTER, EXECUTIVE VICE PRESIDENT AND CHIEF OPERATING OFFICER OF CMC, STATED:

"Representing another first in North America, this new micromill will employ the latest technology in EAF power supply systems provided by Danieli, our equipment provider. Among the many advantages, we selected Danieli's "Q-One" technology because it allows us to directly connect the Electric Arc Furnace and Ladle Furnace to renewable energy sources such as solar and wind, and we intend to construct a solar array on our plant site to provide a meaningful portion of the facility's power. With this new advanced technology, coupled with the continuous steelmaking process, we will be one of the most efficient steel producers in the world."

MIDA ECR

The unique capability to cast billets at speeds over 8 m/min for quality rebar production with 99% plant yield and productivities up to 250 tph per strand

Available in four configurations, it offers the most competitive CapEx and OpEx, giving tangible advantages over traditional minimill users.

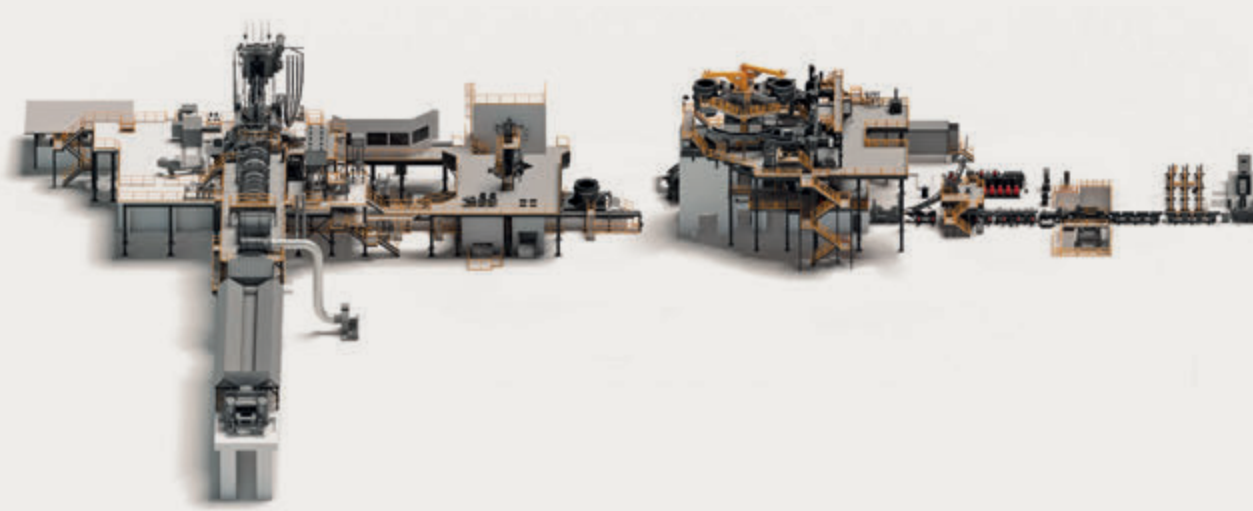
NANO MIDA ECR®
Single-strand continuous casting machine and rolling mill for small productivity from 100,000 to 200,000 tpy, using 80x80 or 100x100-mm billet.

SINGLE-LINE MIDA ECR®
Single-strand continuous casting machine and rolling mill to cover a production range from 200,000 to 1,000,000 tpy using, respectively, 120x120 and 200x200-mm billet.

JUMBO MIDA ECR®
Single-strand continuous casting machine and rolling mills to cover a production range from 1,000,000 to 1,600,000 tpy using, respectively, 220x220 and 260x260-mm billet.

TWIN MIDA ECR®
Double-strand continuous casting machine and rolling mills to cover a production range from 1,000,000 to 2,000,000 tpy using, respectively, 150x150 and 180x180-mm billet.

SINGLE MIDA ECR® FOR 200,000 TO 1,000,000 tpy



MAIN BENEFITS FROM DANIELI MIDA ECR

— HIGH ENERGY SAVINGS
UP TO 330 KWH / TON

— ZERO NO_x, SO_x, CO_2
DURING CASTING-ROLLING

— MAXIMIZED EFFICIENCY
UP TO 99% YIELD, 5% RUNLIGHT

— OPERATING COST SAVINGS
AROUND 20% COMPARED TO CONVENTIONAL MINIMILL

TOP QUALITY BAR BUNDLES, SPOOLED BARS, WIREROD, LIGHT SECTIONS AT THE LOWEST PRODUCTION COST PER TON




REFERENCE PLANT

350,000-tpy MIDA ECR plant for rebar production. Total length only 320 m.

Plant area and related construction -25% compared to conventional minimill.

Danieli scorecard records 19 MIDA ECR endless casting rolling plants, since 2009.

Initially designed as a regional minimill capable of producing up to 300,000 tpy from local scrap, today the productivity of 1.6 Mtpy on a single-strand is achieved.

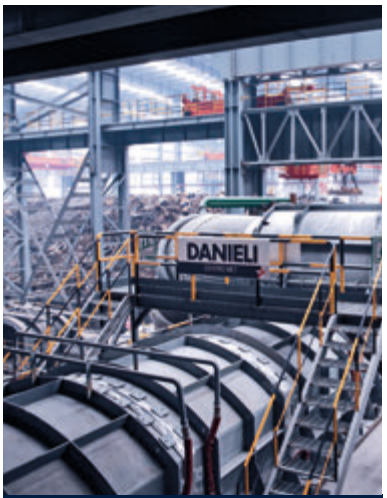

DANIELI

DIGIMELTER

The Danieli intelligent melting unit with Hybrid Q-One power and Zerobucket technology to be competitive in production costs and sustainability

Q-ONE

Q-One, the latest Danieli patented technology for EAF power management, handles irregular power loads with high flexibility and reliability, thanks to the control capabilities provided by power semiconductor devices. It replaces traditional furnace transformers and does not require any disturbance compensation systems like SVC. Q-One reduces EAF overall electric power consumption with a shorter power-on time and no generation of reactive power.
Q-One is natively ready for direct feeding of energy coming from renewable sources generated at site.

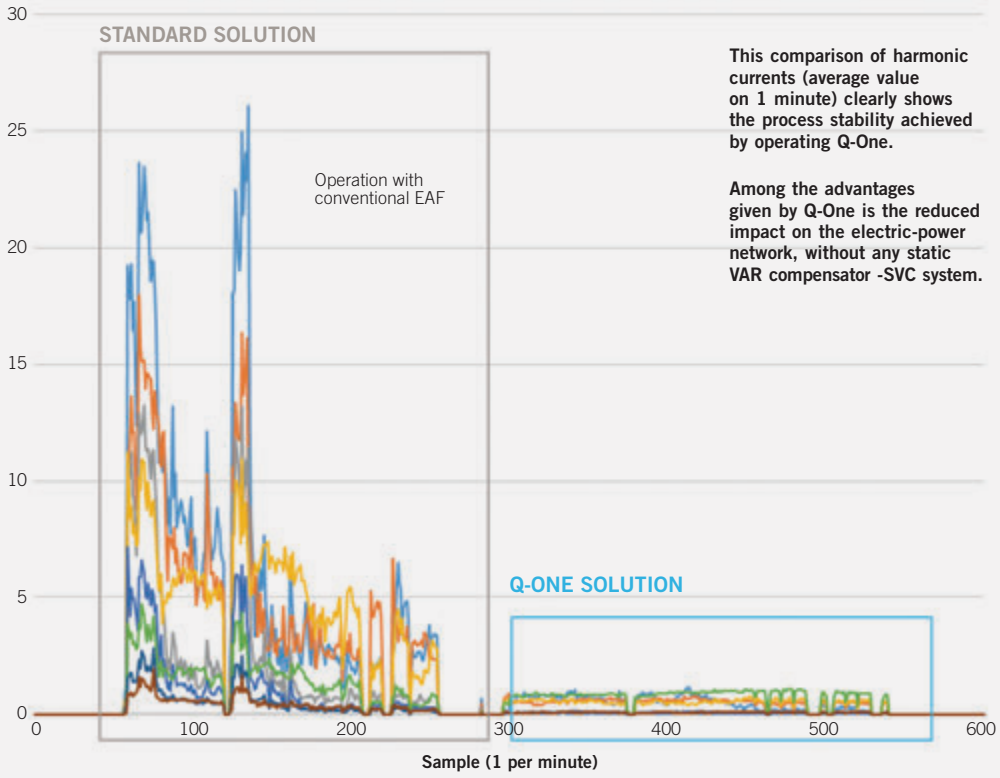


ZEROBUCKET

Danieli Zerobucket EAF is the most environmentally friendly melting technology with the lowest CO_2 footprint.
Characterized by high flexibility in raw material, low energy consumption, very high reliability and utilization factor, lowest noise and pollution emissions, Danieli FastArc Zerobucket with ECS horizontal continuous charging system is the perfect answer to the latest needs of the steel making market.
Very stable and smooth process allows the operators to easily bring the system to optimized operating conditions, reducing the risks of delays and providing extremely fast learning curve.

Q-MELT AUTOMATIC FURNACE

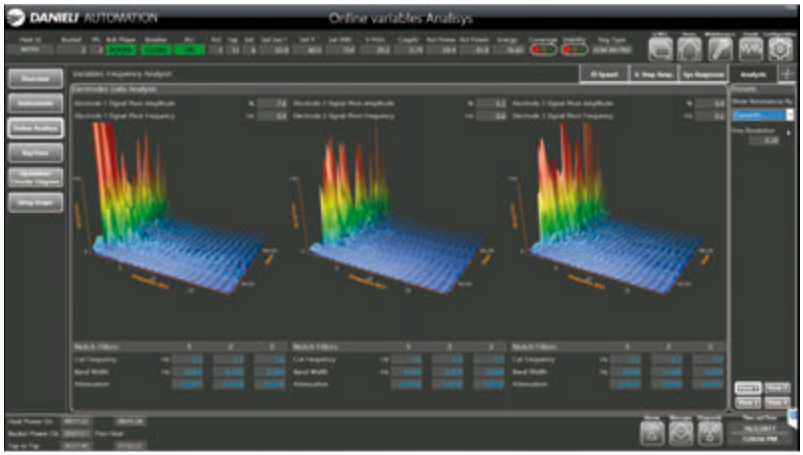
Q-Melt allows to operate the EAF always with most optimized process under any operating conditions and in fully automatic mode. The core of the Q-Melt automatic furnace is the Melt-Model. It interacts continuously with the Q-Reg electrode regulator and the LINDARC gas analyzer to control operating conditions. By processing chemical and/or electrical profiles, the Melt-Model makes the necessary process adjustments, dynamically and automatically, according to the best possible practice. The impact on both productivity and energy consumption results in higher productivity and lower operating costs (OpEx).



This comparison of harmonic currents (average value on 1 minute) clearly shows the process stability achieved by operating Q-One.

Among the advantages given by Q-One is the reduced impact on the electric-power network, without any static VAR compensator -SVC system.

- 2nd - L3 - Avg values (A)
- 3rd - L3 - Avg values (A)
- 4th - L3 - Avg values (A)
- 5th - L3 - Avg values (A)
- 6th - L3 - Avg values (A)
- 7th - L3 - Avg values (A)
- 8th - L3 - Avg values (A)
- 9th - L3 - Avg values (A)



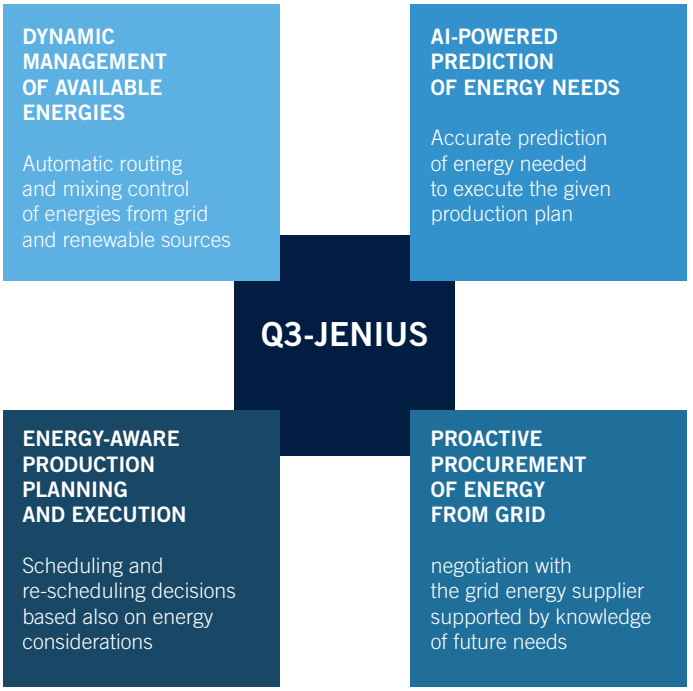
Q-JENIUS

With Danieli Automation Q-Jenius and Q3-Jenius (patent pending) Danieli makes it possible to use solar and other renewable energies to melt steel in an efficient and sustainable way

Carbon taxes and other emission regulations are creating a strong incentive for renewable energy sources, like solar and wind power. Efficient handling of the variability of the energy from such sources and their transfer without the losses caused by the regular AC power grid is required.

DANIELI Q-JENIUS FLEXIBLE AND EFFICIENT "HYBRID" FEEDING

Q-Jenius is the Danieli's proprietary solution based on DC technology and state-of-the-art power electronics, which enables the controlled routing of "green" energies produced in-house and their direct and efficient usage at the main plant's electrical loads like EAF, LF and induction heating, reducing the energy acquired from the power grid. To avoid any waste of "green" energy produced during plant's power offs or downtimes, Q-Jenius also supports the use of energy-storing devices, like Battery Energy Storage systems, where unused energy available can be accumulated for use at later time. Thanks to its modular design Q-Jenius is highly scalable and remains operational even in case of individual modules failure. Furthermore, being based on a limited number of component types –all of small size– it implies a low investment in spares.

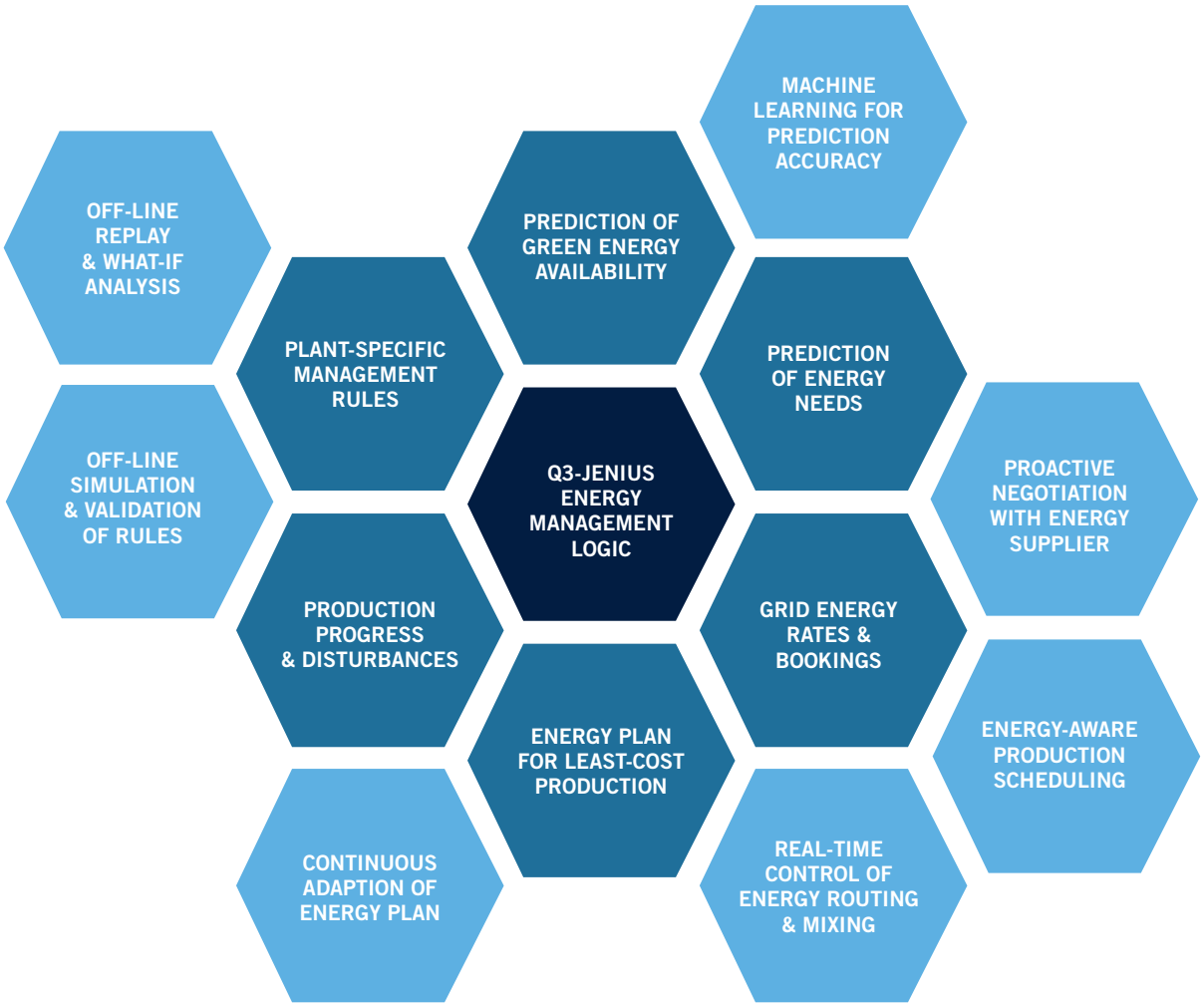


DANIELI Q3-JENIUS DYNAMIC ENERGY MANAGEMENT FOR LEAST-COST PRODUCTION

Q-Jenius is the new Danieli Automation overall energy management system that dynamically handles the energies generated in-house from renewable sources automatically controlling their distribution via the Q-Jenius system, thus reducing the amount of energy acquired from the power grid. Q3-Jenius allows for a least-cost production by maximizing the usage of the auto-produced renewable energy, promoting an "energy-aware" production scheduling and enabling

Danieli Automation Q3-Jenius functional map.

Modular and scalable solution to meet the challenges of modern energy management.



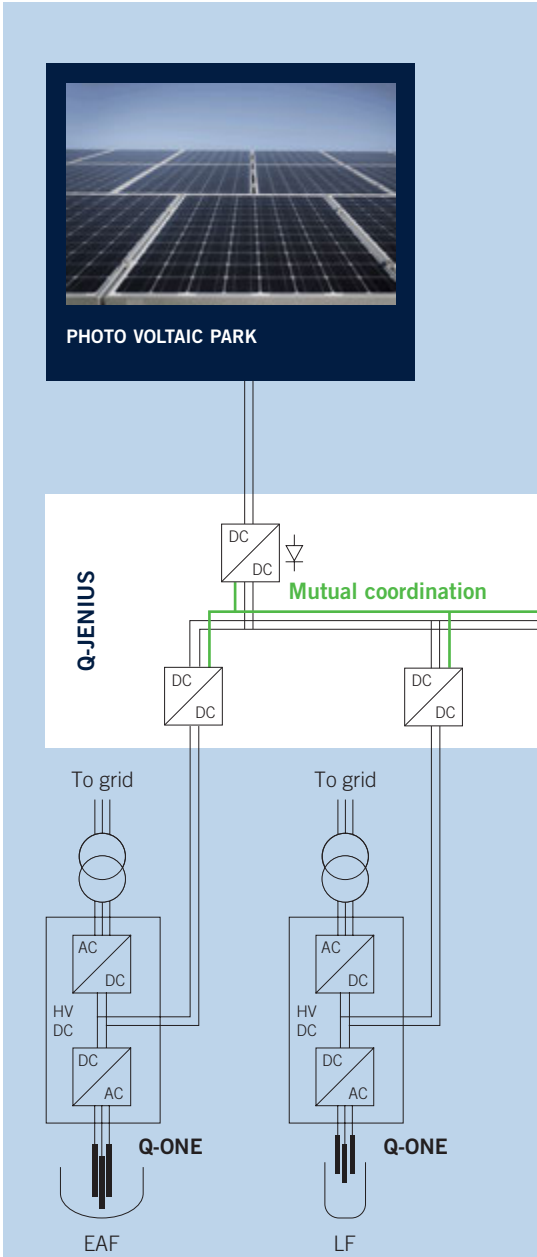
a proactive negotiation with the grid energy supplier.
Q3-Jenius automatically exploits available energy storage systems, recharging them whenever convenient and dynamically using the accumulated energy for best load management ("peak shaving" and other energy cost optimization strategies). Finally, based on the accurate tracking of the mix of energies used (auto-produced "green" energy portion vs. power grid portion), Q3-Jenius also generates "carbon footprint" reports quantifying and certifying the reduced CO_2 emission for the steel produced.

OPTIMAL INTEGRATION OF PHOTOVOLTAICS AND BATTERIES

Thanks to its DC-based implementation, Q-Jenius assures a natural integration of native DC energy sources and storage devices, like photovoltaic panels and batteries. This capability, coupled with the dynamic control provided by the Q3-Jenius, guarantees the maximum exploitation of the currently cheapest renewable energy and prepares for advanced energy management strategies made possible by the latter.

READY FOR "OFF-THE-GRID" PLANT OPERATION

In presence of on-site generators to complement the energy from intermittent renewable sources, the Q-Jenius and Q3-Jenius allow to implement a very efficient "off-the-grid" plant operation. Thanks to its DC-based distribution technology, the Q-Jenius separates effectively energy generation from consumption and generators are not forced to run at fixed speed as required by the usual AC-only arrangements. This possibility is exploited by the dynamic and proactive control of the Q3-Jenius, which regulates the generators' speed according to the current plant's energy need also considering the portion being provided by the renewable sources. This solution guarantees a highly efficient, off-the-grid operation and allows to build and run steelmaking facilities even in locations without a robust electrical network infrastructure.

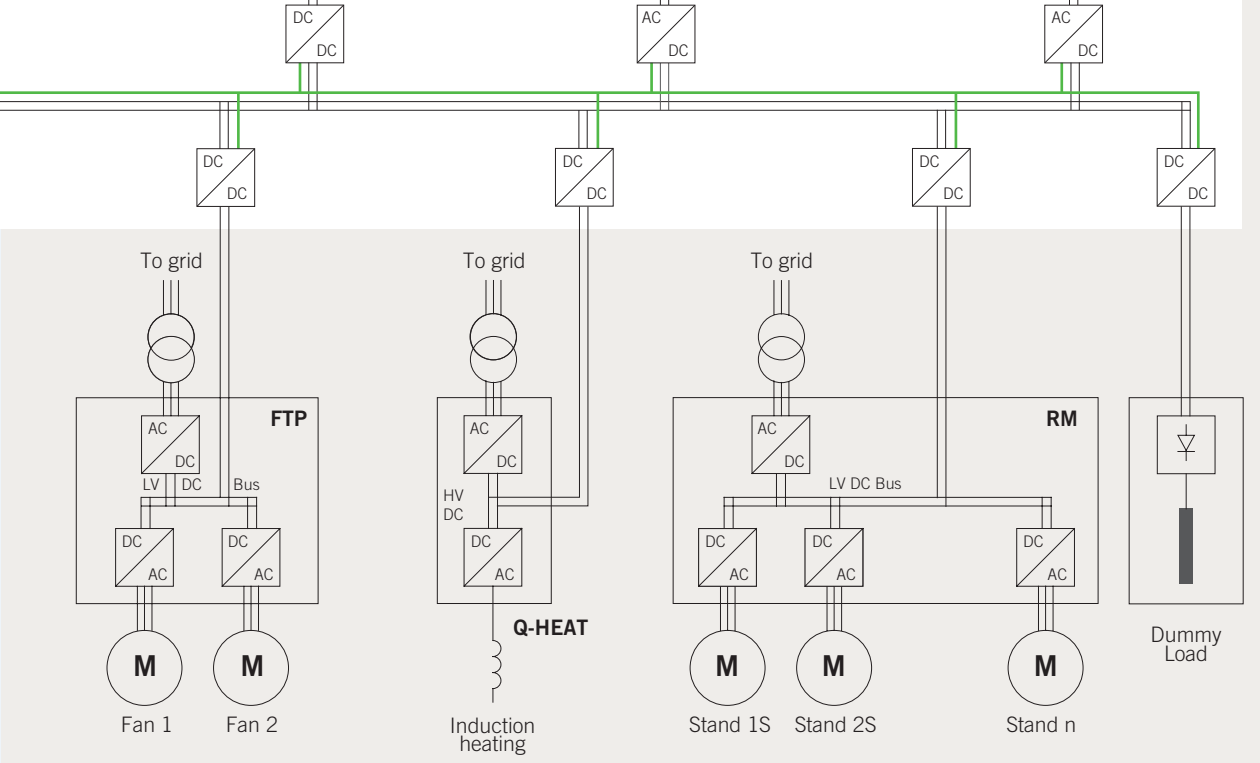


BASIC COMPONENTS

BATTERY ENERGY STORAGE

WIND MILL PARK

GAS GENERATORS



POSSIBLE ADDITIONAL COMPONENTS


DANIELI
THE TEAM
DANIELI
GREEN METAL

Upper Secondary School Cecilia Danieli. This new school, which has now reached an advanced stage of construction, is the natural continuation of the educational system inspiring the Cecilia Danieli Campus intended, only in part, for the children of the company's employees.
The theme of growth is proposed as a natural continuation of the already operating primary school and preschool. The educational spaces that will accommodate the new students are organized inside spacious premises surrounded by transparent surfaces establishing a close relationship with the landscape. Classrooms and other different spaces (library, agora, learning street, green courtyard and gymnasium) create a very stimulating path for the students' educational growth.

Corte delle Fucine. This new project has been designed to meet the opportunity of upgrading the area in front of the Danieli Headquarters at Buttrio in Italy. A very close and symbiotic relationship between architecture and vegetation is the founding principle of this small urban system. The works for the recovery of a historical service station included in the area (designed by Marcello d'Olivo in the Sixities and commissioned by Luigi Danieli) will transform it into a bistro also intended as information exchange point.

Danieli Plantmaking


PHILIPS

Danieli Plantmaking Leading Team Executive Board

Danieli Plantmaking Executive Board

GIACOMO MARESCHI DANIELI
Chairman Danieli Plantmaking Executive Board

ROLANDO PAOLONE
Vice Chairman Plantmaking Danieli Executive Board, Long Products & Advisory Services for Plant Start up and Commissioning

PAOLO MENTA
Competitiveness and Tendering, Macro Planning

GIACOMO MARESCHI DANIELI
Flat Products

EMANUELE BRUSINI
Customer Service

ANTONELLO MORDEGLIA
Danieli Automation Group and Digi&Met 4.0

GIACOMO MARESCHI DANIELI
Danieli Plant Engineering, Danieli Engineering Products, Danieli Construction

MICHELE MARINUTTI
Industrial Accounting, Information Technology

ANDREA DEANA
Finance and Administration

STEFANO STAFISSO
Human Capital Management

NICO BLEIJENDAAL
Danieli Germany, Danieli Corus

Executive Managing Staff

Research Center
G. Marconi, C. Tomat

DanGreen
A. Sgrò, L. Faralli

Group Technical Sales, Key Account Management
G. Mareschi Danieli, L. Morsut, F. Martino, A. Diasparro, P. Losso, L. Mottes, N. Nakamura

Special Projects
R. Pezzano, A. Perin

Costing and Tendering, Macroplanning
P. Menta, M. Chiandetti

Marketing
A. Perin

Product Lines

Electric Steelmaking, Continuous Casting
R. Sellan, M. Knights

Danieli Centro Met (Italy)
— Electric meltshops / billet, bloom, beam blank casters / slab casters.
P. Burin, L. Testa, A. Trisciuzzi, P. Franco, P. Gasparini, H. Koblenzer, M. Massimo

More Srl (Italy)
— EAF Special technologies.
M. Iacuzzi

Danieli Procome Iberica SA (Spain)
— Charging systems for EAF, DRP and pelletizing plants.
P. Burin, M. Moreno

Flat Products
G. Mareschi Danieli, L. Coianiz, F. Bortolussi, S. Lorenzini, M. Turchetto

Danieli Wean United
— Hot mills and quality strip production technology.
M. Bulfone, C. Bilgen, A. Pigani, M. Ferro, E. Bozzetto
— Cold rolling mills, processing lines.
T. Settimo, M. Svetina, L. Vignolo, S. Bressan

Danieli Fata Hunter (Italy)
— Aluminum flat rolling products.
M. Mazza, M. Chiappa

Innoval Technology Ltd (UK)
— Process technology and advisor. Services for aluminum product mills.
A.Betts, G. Mahon

Long Products
F. Mulinaris, C. Fabbro

Danieli Morgardshammar (Italy)
— Bar, Wirerod Mills, Heavy Bar/ Section Mills.
I. Danielis, A. Rossit, M. Occhipinti, F. Rocchetti

Sund Birsta AB (Sweden)
— Long product rolling mills for special steels, binding and handling systems for bars, wire.
V. D'Imperio, F. Ohlund, J. Lofqvist

Danieli Centro Maskin (Italy)
— Inspection and conditioning plants, cold finishing lines.
S. Orlando

Danieli Customer Service
E. Brusini, G. Carnelutti

Technical Service and Spare Parts
A. Vallan, M. Padovan, A. Zanon, A. Viviani, C. Garlant, M. Sorato, N. Tirel, T. Chiabai, L. Tambosco

Danieli Do Brasil Ltda (Brasil)
— Service, marketing, engineering, project management, site assistance.
L. Mottes, M. Castenetto, F. Turibio, W. Souza

Danieli Engineering and Services Austria GmbH (Austria)
— Service, marketing, engineering, site assistance.
S. Bergamasco, A. Deana, G. Ranc

Danieli Morgardshammar (Sweden)
— Service, Spare parts, rolling guides and revisions.
P. Larsson

Scrap Recycling

Danieli Centro Recycling (UK, Germany, France)
— Scrap recycling technologies.
R. Calligaro, A. Betts,

Danieli Plant Engineering
M. Pitton, R. Pezzano

Project Directors, Technical Sales
C. Caroselli, A. Perin

Danieli Construction International Spa
M. Pitton, F. Casarsa, M. Lapasin A. Brussi, R. Poboni

MIDA® Minimill Danieli
A. De Luca, A. Tellatin, J. Shuli

Danieli Engineering Products
S. Giacomelli, A. Di Giacomo

Danieli Centro Metallics
— Iron ore / pelletizing / DR plants.
A. Martinis, M. Zampa

Danieli Environment and Systems
— Ecological and recovery systems.
M.P. Cudicio, M. Flumignan

Danieli Centro Cranes
— Heavy-duty cranes / automated yards.
L. Argiolas, A. Vrech

Danieli Hydraulics
— Industrial hydraulic and lubrication equipment.
N. Capuzzi, M. Mattucci

Forging, Extrusion and Pipes
M. Totis

Danieli Centro Tube (Italy)
— Seamless pipe mills and finishing lines.
C. Bartolini, S. Bettinelli, A. Bucci, G. Solaroli

Danieli Breda (Italy)
— Extrusion and forging presses.
C. Bartolini, A. Galli, G. Macedonio, G. Solaroli

Advisory Services for Plant Startup and Commissioning
I. Grgic, L. Crespan, M. Furlani; J. Peressini

Manufacturing, Procurement, Logistics Management and Quality

Manufacturing, Procurement and Logistics
M. Di Giacomo, M. Rinaldis

— *Worldwide manufacturing.*
M. Rinaldis
— *Worldwide procurement.*
M. Di Giacomo, L. Sandrin, G. D'Orlando, A. Mansutti, F. Narduzzi
— *Worldwide logistics.*
E. Copetti
— *Worldwide workshops.*
M. Muroni, P. Deano, D. D'Odorico, S. Singh, D. Pedrocchi

Executive Managing Staff

Finance, Administration, Contracting, Controlling
M. Marinutti, A. Deana

— *Administration, controlling.*
M. Marinutti, A. Deana
— *Finance and contracting.*
A. Brussi, R. Grosso, M. Ius

Human Capital Management, Danieli Academy
S. Stafisso, P. Perabò

Kindergarden and primary school
P. Perabò

Information Technology
M. Marinutti, M. Cappa

Legal Affairs
F. Londero

Internal Audit
V. D'Imperio

Sister Companies

Automation and Digi&Met 4.0
A. Mordeglia, A. Ardesi, A. Brussi, S. Stafisso, M. Ometto, E. Plazzogna

Danieli Automation Spa
A. Mordeglia, A. Ardesi, M. Ometto, E. Plazzogna, A. Mestroni, G. Brunetti, S. Martinis, F. Perotti, G.B. Vallarino, R. Guido, R. Poboni, S. Vasinis, A. Lugnan, L. Faralli, A. Polo, G. Gregori

Digi&Met 4.0
A. Mordeglia, A. Ardesi, M. Ometto, C. Tassin

Danieli Systec Doo (Croatia)
S. Stafisso, R. Kosmerl, H. Manestar

Danieli Taranis LLC (USA)
A. Nardone, W. Dow, C.J. Feather

Elsid Cheda Ltd (Russia)
E. G. Cuzzot

Danieli Rotelec (France)
F. Guastini, P. Declercq

Danieli Telerobot Labs Srl (Italy)
D. Corsini, F. Becchi, G. Sini

Turnkey Plants

Fata EPC (Italy)
A. Lombardi, S. Pagani

Ironmaking and Converter Steelmaking
N. Bleijendaal

Danieli Germany GmbH (Germany)
— *Flat products rolling / Froehling and metallurgical engineering for final applications.*
S. Berger, C. Bilgen, R. Holz, M. Milocco

Danieli Corus Technical Services BV (The Netherlands)
— *Blast furnace and oxygen steelmaking technologies.*
N. Bleijendaal, R. Jonkman, G. Apeldoorn, F. Van Gool

Heating Systems and Heat Treatment Furnaces

Danieli Centro Combustion Spa
Danieli Olivotto Ferrè (Italy)
Danieli Centro Combustion India
— *Heating systems and heat treatment furnaces.*
F. Pere, E. Mozzi, C.A. Migliardi, S. Street, F. De Santis, E. Puppo, E. Carbone, C. Ferrari, A. Venanzini

Danieli Volga LLC (Russia)
— *Marketing, sales, engineering, project management, manufacturing, service.*
A. Colussi, P. Deano, A. Polulyakh

Danieli Corporation (USA, Canada)
— *Marketing, sales, engineering, project management, site assistance, service.*
— P. Losso, L. Rossetto, M. Sattolo, P. Saccavini, K. Shillam

Danieli Mexico (Mexico)
— *Marketing, sales, project management, service.*
L. Mottes, A. Voltolina

Danieli Asia
D. Ambrosino, C. Benedetti, F.D. Martino, A. Menocci, B. Mockmongkonkul, G. Panwar, N. Patrizi

Danieli Metallurgical Equipment & Services Co Ltd (China)
— *Engineering, Project Management, Site Management, Manufacturing and Service for Danieli Products.*
F.D. Martino, D. Pedrocchi, D. Ambrosino, J. Guo, L. Libanori, M. Meloni, G. Van Hattum, C. Zhang

Danieli Co Ltd (Thailand and Vietnam)
— *Engineering, Project Management, Manufacturing and Service for Danieli Products, Hydraulics, Pressure Vessels.*
A. Menocci, B. Mockmongkonkul, D. D'Odorico, D. Ambrosino, G. Charoenvananatee, T. Kosit, R. Nirut, N. Sathitchoke, N. Patrizi, N. Nakamura

Danieli India Ltd (India)
— *Engineering, Project Management, Site Management, Manufacturing and Service.*

G. Panwar, S. Singh B. Ghosh, R. Hisaria, S. Jain, H. Mehdipour, A. Pandey, J. Paul, P. Srinivas Rao

Danieli Engineering Japan Ltd (Japan)
— *Engineering and service.*
A. Mordeglia, N. Izumi, N. Nakamura

Danieli Plantmaking

Sales and operating results

In thousands of euro	**Plantmaking**	
	June 30, 2020	June 30, 2019
Net revenues*	2,144,273	1,986,618
Gross operating margin (EBITDA)	124,338	121,519
Depreciation, amort. and write-downs	(46,895)	(74,027)
Operating income	77,443	47,492
Net financial income/(charges)	14,962	4,945
Profit before tax	92,405	46,088
Income taxes	(19,970)	(14,580)
Net profit	72,435	31,508
Segment assets	4,174,130	4,055,508
(increases in investments in tangible and intangible fixed assets included)	17,256	20,724
Segment liabilities	2,896,513	2,850,832

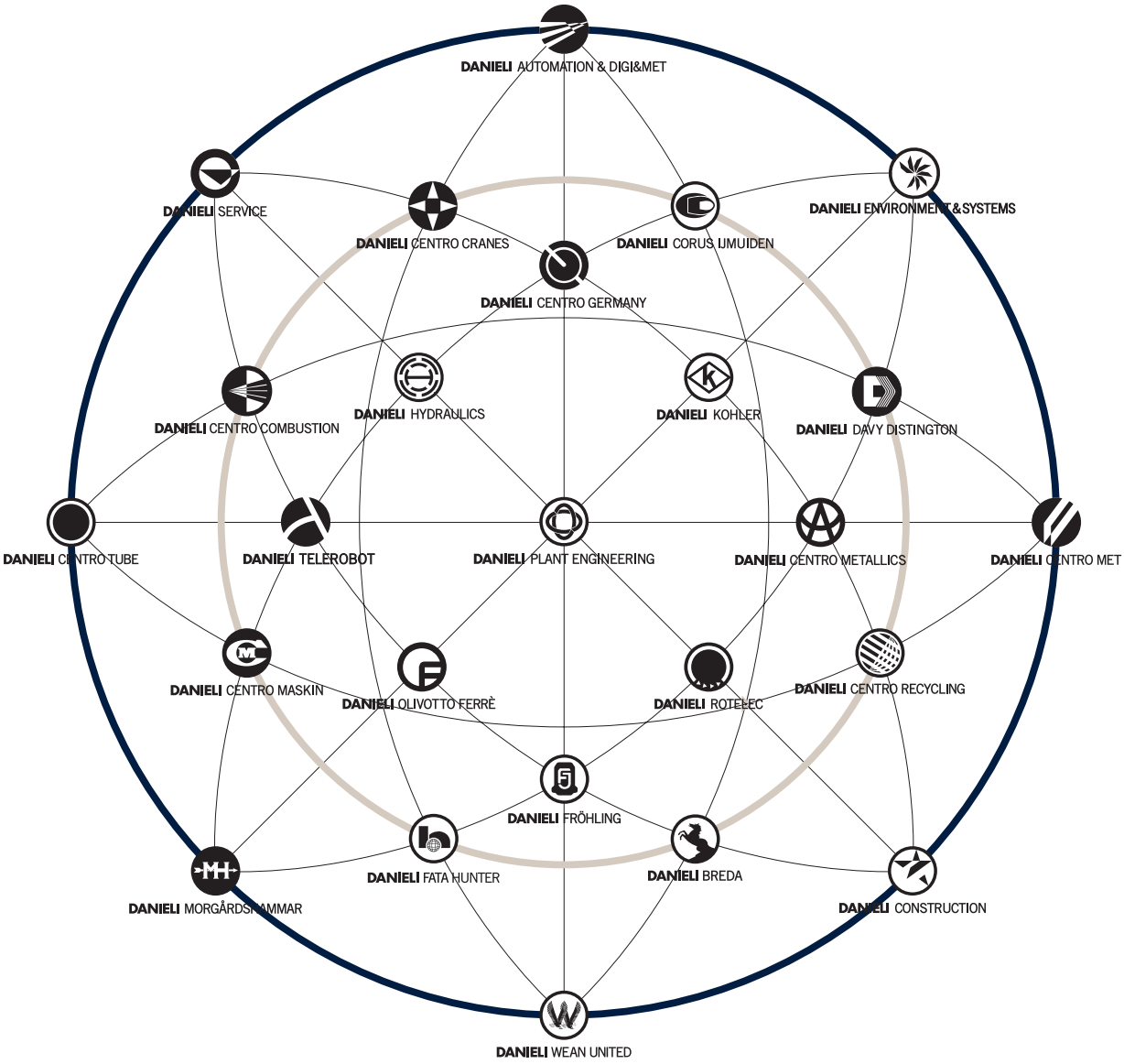
* Revenues include 129.7 million euro for the Quality Rod Mill sold to ABS S.p.A.

The Danieli Group designs and builds plants for all process areas, such as:

— Mines;
— Pellet production plants;
— Blast furnaces;
— Direct reduction;
— Scrap shredders,
— Steelworks for production of liquid steel;
— Conticasters for blooms, billets; slabs; thin slabs;
— Rolling mills for long products;
— Rolling mills for seamless tubes;
— Hot and cold rolling mills for flat products (all ferrous and non-ferrous metals and stainless steel);
— Process lines for flat products;
— Complete plants for dimensional checking and for non-destructive quality control, and conditioning plants;
— Plants for secondary processing, such as peeling, straightening, 2-roll reeling and drawing machines;
— Forging presses and manipulators and complete forging plants;
— Extrusion presses for ferrous and non-ferrous materials;
— Plants for longitudinal cutting and for transversal cutting to size of sheet and plate in all non-ferrous metals and stainless steel;
— Level 1, 2, 3 and 4 plant automation systems;
— Cranes and lifting equipment.

In the long-product rolling plant sector, the Danieli Group is world market leader in terms of both the number of plants in use and annual sales and in particular is the undisputed technological leader for level of automation as well as plant reliability, productivity and achievable product quality.

DANIELI THE TEAM



Danieli Team's mission is to serve Customers with competitive plants and process technology/ automation to produce quality with the lowest depreciation and production cash costs and to offer friendly after-sale service involving highly qualified, specialized engineers.

The technology spectrum -from ore to finished product- and relevant process know-how provided by our Product Lines, the well-known tendency towards innovation and high reliability are the best guarantees in reaching this target.

Danieli Plantmaking

The Team

More than 25 divisions, each one staffed by individuals with specific technical capabilities, and bringing long and notable legacies from their own countries form a multicultural, multilingual team that helps us to establish the best relationships with our customers around the world.

Italy, Thailand

DANIELI CONSTRUCTION / Since 2003
Turnkey construction, erection and systems engineering

Danieli Construction International operates worldwide with own handling and transportation equipment and through specialized and trained people covering a full range of services related to Civil and MEIP (Mechanical, Electrical, Instrumentation, Piping) installations for industrial plants.

Italy

DANIELI PLANT ENGINEERING / Since 1964
Turnkey Plants and Systems Engineering

We supply integrated plants for the metal industry, including technologies, auxiliary plants, construction, and after-commissioning assistance.
We provide customers with a single-point responsibility, ensuring project delivery time assurance and total investment cost certainty.

Italy, USA

DANIELI AUTOMATION & DIGI&MET / Since 1969
Process Control Systems

With more than 40 years of experience focused on metals worldwide, Danieli Automation is your technological partner for production management, process and equipment control, advanced instrumentation, and state-of-the-art electrical solutions.

Italy, USA, India, China, UAE

DANIELI FATA EPC / Since 1965
Turnkey Plant Engineering, Procurement, Construction

Danieli Fata EPC operates in the field of plant engineering, procurement and construction, providing customized, state-of-the-art technology and enviromentally consistent solutions for primary aluminium smelters, downstream aluminium projects, oil & gas, power generation plants.

Italy

DANIELI TELEROBOT / Since 1992
Advanced Robotics

With more than 25 years of experience focused on robotic applications for harsh and unconventional environments, Danieli Telerobot is the technological partner to provide tailor-made solutions integrating industrial robotics and process automation in Industry 4.0 systems and architectures.

Italy

DANIELI CENTRO METALLICS / Since 1987
Ore Processing and Direct Reduction Plants

With more than 50 years of research and experience in design, construction, commissioning and operation of iron ore processing and direct reduction plants, we supply any type and size of DRI based minimills.

Italy, UK, France, Germany, USA

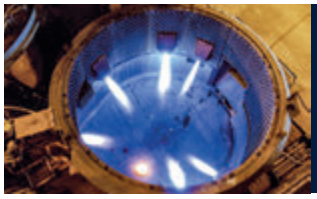
DANIELI CENTRO RECYCLING / Since 1998
Scrap Processing Plants

Danieli Centro Recycling is the innovative team to meet new challenges in the design and construction of advanced recycling plant technology, giving added value to scrap, and focusing on the needs and requirements of aiming for zero environmental impact.

The Netherlands

DANIELI CORUS IJMUIDEN / Since 1977
Integrated Steelmaking Plants

Danieli Corus has firm roots in IJmuiden, where steel production started in 1924 and quickly developed towards world benchmark for Blast Furnace ironmaking and BOF steelmaking.



Italy, Austria

DANIELI CENTRO MET / Since 1914
Electric Steelmaking and Casters

The constant evolution of technical and process know-how through significant investments in R&D as well as synergies and cooperation with our customers have made Danieli Centro Met a worldwide leading supplier of electric steelmaking plants.

Austria, Germany

DANIELI CENTRO GERMANY / Since 2011
Oxygen Converter Steelmaking Plants

Danieli Centro Germany is a steelmaking center of competence, where proven oxygen converter specialists interact with experts on sublance systems, process models, and technological packages, as well as with the pioneering Danieli R&D Researchers.

UK, Italy

DANIELI DAVY DISTINGTON / Since 1951
Thick and Thin Slab Casters

Danieli Davy Distington pioneered continuous casting technology and today, through continuous innovation, is world's leader in the design and manufacture of advanced continuous slab casters.

Italy,
USA,
Germany

DANIELI WEAN UNITED / Since 1901
Flat Products Rolling Mills and Strip Processing Lines

Over the course of its long history Danieli Wean United has developed a thorough knowledge together with a well-earned experience in the downstream processing of the hot/cold rolled steel and strip processing lines.

Italy,
USA

DANIELI FATA HUNTER / Since 1936
Aluminium Casting, Rolling, and Coil Coating Lines

Danieli Fata Hunter is one of the world leaders in implementing single equipment as well as complete turnkey plants for the aluminium flat rolled product industries and for steel and stainless steel processing industries, with a comprehensive ability and know-how for all production ranges.

USA

DANIELI KOHLER / Since 1959
Air Wiping Equipment for Zinc Coating

Danieli Kohler is world leader in the supply of highly technological equipment, with more than 150 installations in molten metal coating lines of all types.

Italy,
Sweden

DANIELI MORGÅRDSHAMMAR / Since 1856
Long Product Rolling Mills

We believe in what we build day by day and we are what we produce.
This is written in our DNA since 1856. From bigger to smaller, from heaviest to longer, from smaller to faster, simply undisputable features in the metals industry.

Germany

DANIELI FRÖHLING / Since 1947
Specialty Mills and Strip Finishing Lines

Danieli Fröhling is well known all over the world as a manufacturer of machines of the highest quality for rolling and processing of non-ferrous metals, not simply satisfying its demanding customers but rather inspiring them by continuously extending technical limits.

Italy

DANIELI CENTRO TUBE / Since 2004
Seamless Pipe Plants

Through a highly qualified and long lasting experienced engineering team, Danieli Centro Tube designs, manufactures and supplies technologically-advanced complete plants and equipment for the hot rolling and cold finishing of high-quality seamless pipes.

Italy, Sweden

DANIELI CENTRO MASKIN / Since 1953
Conditioning, Drawing and Finishing Plants

Danieli Centro Maskin is a reliable and innovative partner for challenging new goals in the design and construction of advanced grinding, drawing, peeling and cold finishing lines for sbq bars.

Italy

DANIELI BREDA / Since 1950
Extrusion and Forging Plants

For well over 50 years Danieli Breda has been recognized as one of the world's front-runners in the design, manufacture and supply of machines and integrated plants for processing ferrous and non-ferrous materials in the field of extrusion and forging technology.

France, Italy

DANIELI ROTELEC / Since 1977
Ems and Induction Heating Systems

Danieli Rotelec is a leading company in the manufacture of electromagnetic stirrers for conticasters and induction bar edge heaters for hot strip mills, offering a unique combination of metallurgical process know-how, and expertise in designing/self-manufacturing of equipments.

Italy

DANIELI CENTRO COMBUSTION / Since 1981
Heating systems

Equipment is bespoke to suit the needs of each client and includes cutting-edge technologies which concentrate on environmentally friendly solutions. A well-established network of after sales services guarantees equipment supplied, regardless of different feedstocks; billets, blooms, beam blanks, slabs or pipes, etc.

Italy, Thailand

DANIELI HYDRAULICS / Since 2008
Industrial Hydraulic and Lubrification Equipment

Thanks to the expertise and know-how gained in the steel industry, Danieli Hydraulics can provide any stage of engineering, production and commissioning process also for other markets, such as oil & gas, mining, paper industry, cement industry, hydro-power, tools machine, marine, etc.

Italy

DANIELI OLIVOTTO FERRE' / Since 1927
Heat Treatment Furnaces

With over 800 references, Danieli Olivotto Ferre' is able to supply a wide range of economic and sustainable heating solutions and modern heat treating furnaces covering a whole range of appliances and services for the metals industry.

Italy

DANIELI CENTRO CRANES / Since 1958
Heavy-Duty Cranes

Design and supply of cranes and lifting systems for the heavy industry and logistics, with dedicated solutions for lifting and handling of materials and equipment in the most severe conditions. Our products are designed to operate where reliability, safety, and cost-effective solutions are a must.

Italy

DANIELI ENVIRONMENT AND SYSTEMS / Since 1973
Green Technology and Systems

A division that specializes in environmental protection, offering a full range of proprietary technologies for air pollution control, water treatment, energy saving, energy recovery, solid waste recovery, and noise reduction.

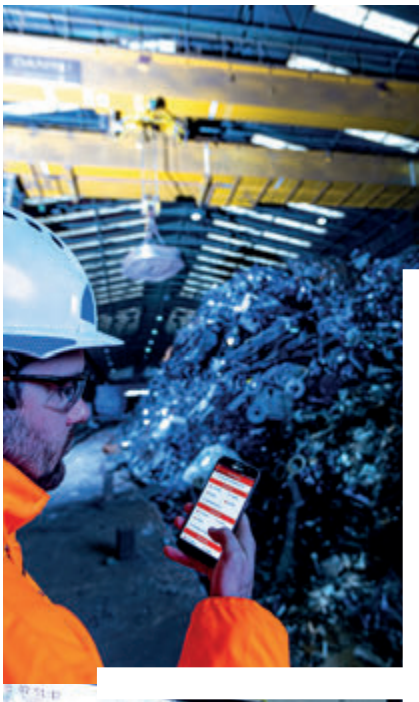
Italy, Austria, China, India, Russia, USA, Brazil, Thailand

DANIELI SERVICE / Since 1962
Technical Service and Original Spare Parts

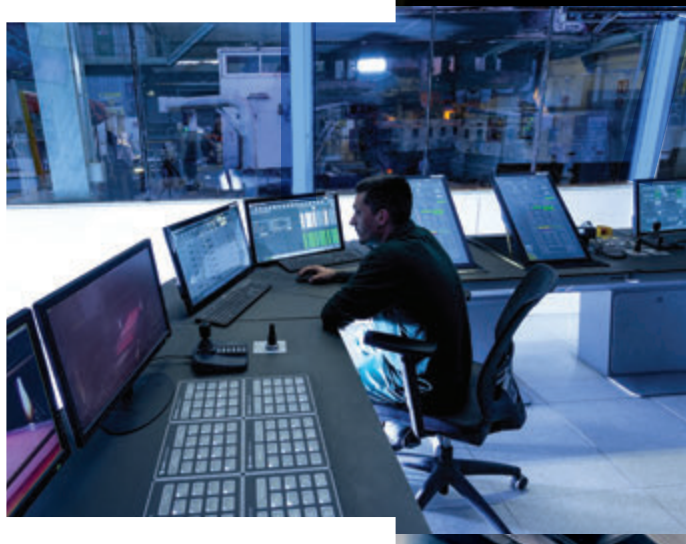
Danieli Service works closely with steel and nonferrous metal producers worldwide in order to enhance performance of their plants, providing global solutions based on state-of-the-art equipment and digital systems.

A compendium
of the latest revolutionary achievements and challenges

Danieli Answers to be a step ahead




DANIELI
Auto Pilot



The Danieli Automation new IIOT platform

for advanced, automatic plant control

Just like an airplane cockpit, the new Danieli Control Pulpit for the Danieli Intelligent Plant adopts an IIOT platform and advanced technologies that revolutionize the control of steel and nonferrous metal plants.
An entire plant can be controlled from a single pulpit, which no longer needs to be in the production area.

The system proactively interacts with the operator, focusing his attention just on what it is needed at that precise moment, not only for the controls on the HMI page or on the Operator Assistant replacing obsolete pushbuttons, but also in the LED walls displaying images from the plant.

Events (Points of Interest) are identified and stored in the system, allowing the “time machine” to track all anomalies or specific situations, based on automatic and also manual triggering, including voice control.

Points of Interest then are used for ex-post analysis, identifying possible malfunctions and quality issues, allowing for discovery of trends and improvements. The resulting data builds up the data lake (numeric, visual, audio and other information) to support artificial intelligence models, which will automatically improve plant performances.

IIOT
PLATFORM


DANIELI
ENERGIRON


DANIELI


DANIELI

Danieli Answers to be a step ahead

Metallurgical results obtained from DRI+EAF steelmaking equal those obtained with the blast furnace+converter process, for quality clean steel for demanding applications, including exposed automotive parts.

Considering the lower CO_2 release of the DRI+EAF process, 800 vs. 1,800 $kgCO_2$/tls for the BF+BOF, the DR+EAF route offers the most environmentally friendly solution to couple with the international and particularly European emission regulations (COP 21), which are becoming stricter and more expensive (carbon tax).

The 800 $kgCO_2$/tls result is obtained thanks to the Energiron DR process technology developed by Tenova HYL and Danieli, and Danieli FastArc EAF.

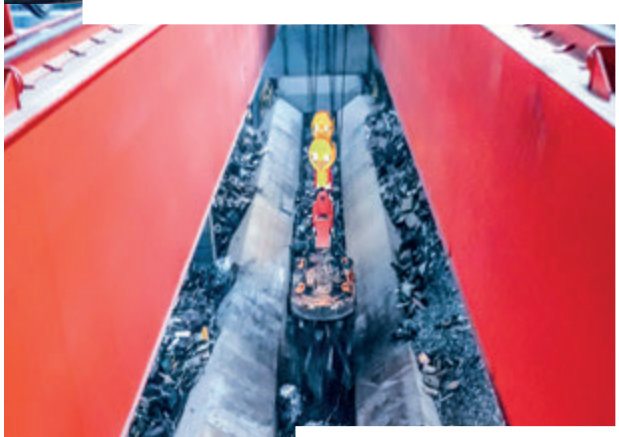
Furthermore, the Energiron Zero Reformer technology development allows the use of up to 70% hydrogen as a reduction agent, instead of 100% natural gas, without compromising the DRI quality and allowing liquid steel production with CO_2 emissions down to 324 $kgCO_2$/tls.

European customers are requesting feasibility studies for Energiron technology combined with EAF steelmaking via HyTemp hot charging as a replacement for the ironmaking process.

Danieli CO_2 reduction strategy

from carbon-based BF route to hot DRI, directly charged into the EAF

CO_2 REDUCTION




L1

Digimelter is the Danieli-patented technology with a unique combination of power, intelligence, and environmentally friendly equipment for the achievement of 15,000 heats per year with minimal OpEx, lowest environmental impacts, and high flexibility for raw materials.

The Q-One electrical feeder provides the highest power factor and very low network flicker due to real-time arc control. It achieves unprecedent high-power transfer thanks to independent control of arc current, voltage and frequency, for each electrode.

The Q-Melt intelligent controller runs EAF melting processes automatically in a stable and adaptive way by making use of Q-Reg+ electrode regulator, Lindarc laser off-gas analyzer, and Melt-Model self-learning optimizer.

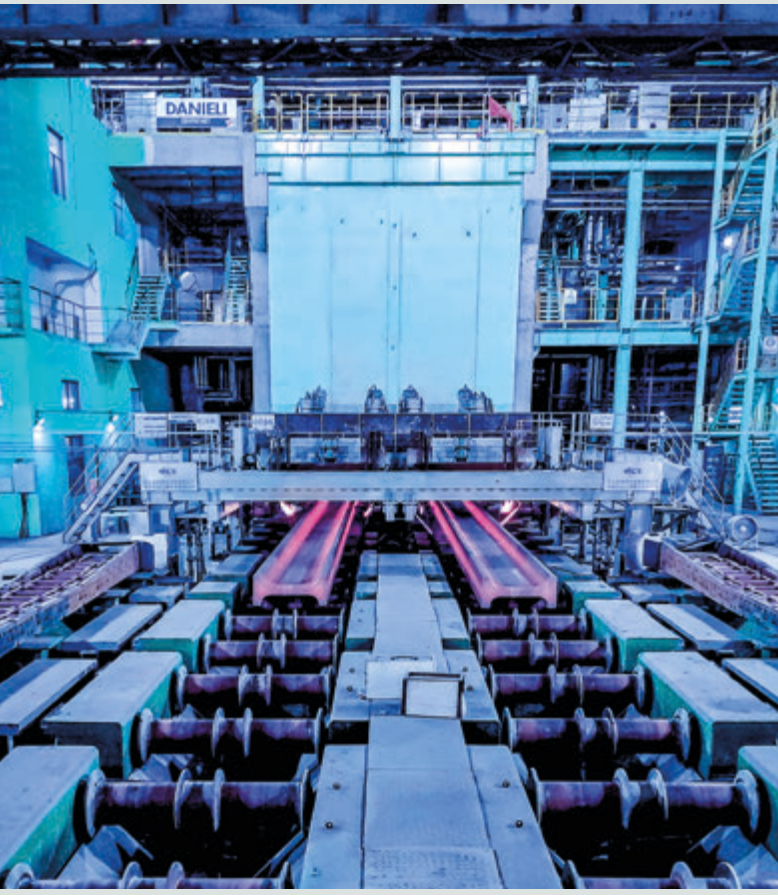
Zerobucket concept is accomplished by the ECS continuous scrap charging and preheating system, for reduced environmental impact and enhanced energy saving.

Danieli EAF technology references include the recent, 150-ton EAF equipped with ECS at Guihang Metal Products, China, that achieved 36 heats per day, equivalent to 12,000 heats per year, only two months after startup.

Danieli Digimelter

15,000 heats per year at the lowest OpEx and environmental impact

DIGIMELTER



New record by a Danieli conticaster

the largest beam-blank ever produced

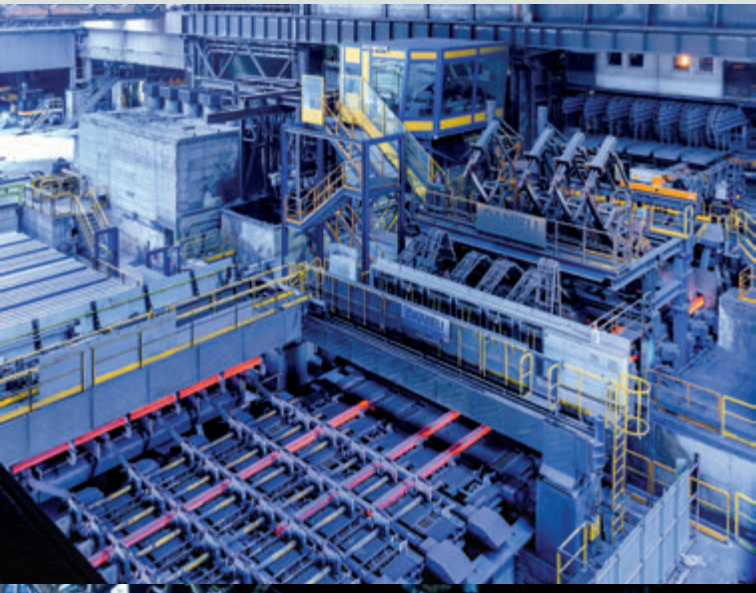
NEW RECORD

With its 1300 mm width, the BB7 cast by Maanshan sets a new record for wide H-beam production (1300x510x140 mm).

The two-strand caster produces beam-blanks BB5, BB6, and BB7, and mini-slabs for construction purposes and small angles.

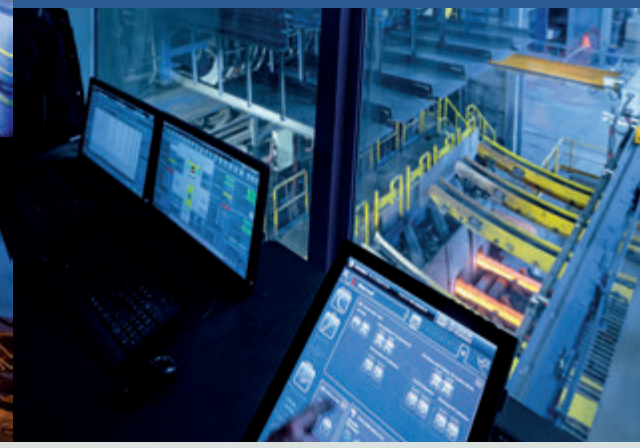
The special design allows casting of four mini-slabs (280x550 mm), maintaining productivity at 180 tph for each cast product.

The modernized caster features new L1 and L2 automation and the Q-Cool technological package for online monitoring of the solidification profile.



Unbeatable Danieli FastCast technology

to boost billet-casting speed to 10 m/min



FAST CAST

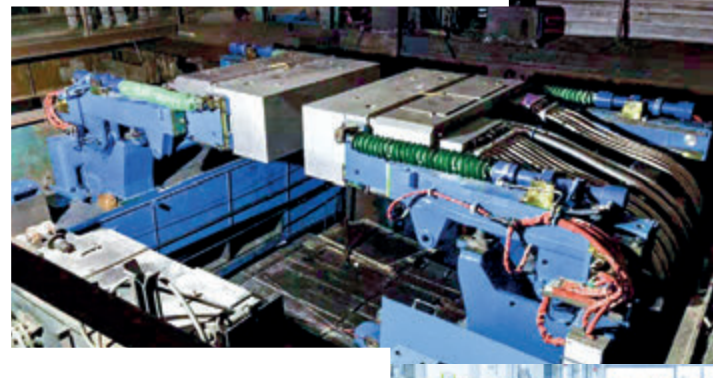
Pioneer in high-speed casting since 2000 when 6 m/min was first reached, today top speeds up to 8 m/min have been achieved and a plan is in place for 10 m/min to consolidate the benchmark.

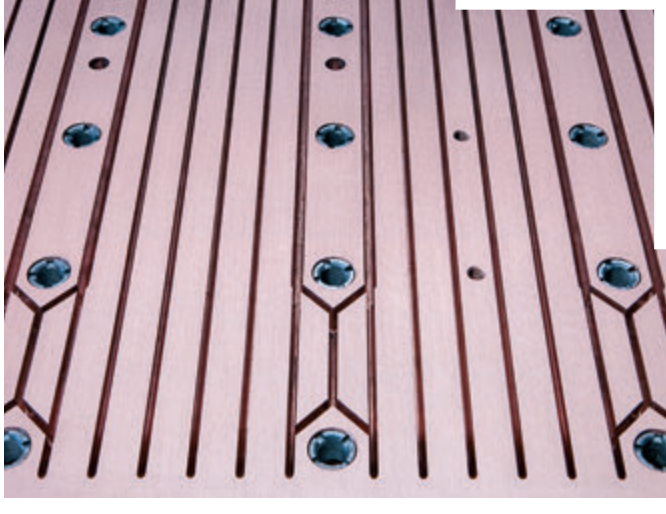
Conceived for single-strand, endless-casting rolling, high-speed casting is available now for any plant requiring productivity increase, without adding strands.

FastCast also contributes to energy savings and lower emissions whilst producing equal or better billet quality.


DANIELI


DANIELI
DANIELI
DANIELI





Danieli QSP and QSP DUE thin-slab caster technology is now mature for the production of automotive steel grades.

Thanks to greater slab thickness and the new, proprietary MM-EMB Electromagnetic Brake technology that allows a significant size reduction of the SEN, it is now possible to work with full flat copper plate for a superior surface quality, including peritectic grades.

A calcium-free steel is mandatory for high-quality automotive grades, exposed and non-exposed. This process requires the possibility to inject argon to the SEN and the changing of the SEN itself during casting, to counteract the occurrence of clogging.

The reduction of the SEN dimensions and the MM-EMB allow Nozzle Quick Change, as per a traditional caster. Handling of the SEN via a robot guarantees accuracy and repeatability of SEN position and safe operation.

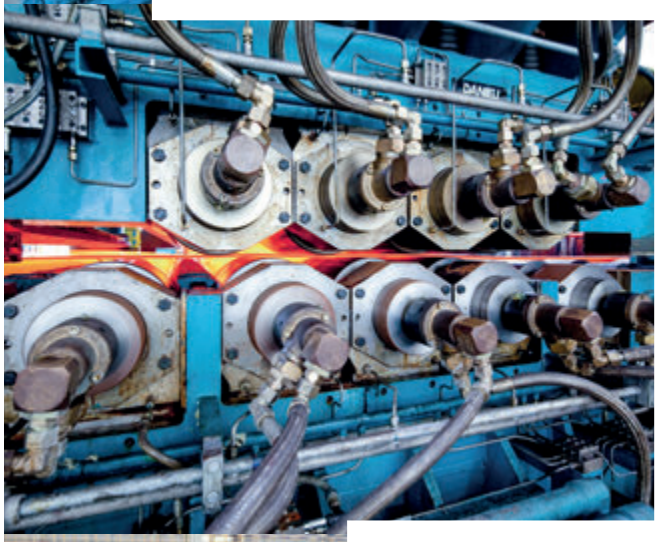
The powerful MM-EMB is able to manage the flow pattern in the mould without suffering disturbances from argon blowing.

This makes it possible to cast Ca-free steel without limitations, satisfying the requirements of the automotive industry.

The next challenge

Danieli thin-slab casting for exposed parts

PREMIUM QUALITY



Heavy-duty and flexible performance are musts for competitive plate rolling of a wide range of applications, as it is being implemented at Nucor Steel in Brandenburg, KY, USA.

The greenfield plate-Steckel mill complex will produce both heavy plates up to 14" (356 mm) thick and 168" (4267 mm) wide, and heavy coiled plates up to 1-1/4" (31.75 mm) thick and 125" (3175 mm) wide - a world record in hot coiled products.

The mill is designed to roll a wide range of thick slabs as well as ingots with a maximum thickness of 36" (915 mm), and conceived for an extensive application of slab hot-charging to minimize OpEx.

The combination of roughing to an intermediate thickness and final hot reduction at low temperature promotes fine-grain sizes and retards precipitation, to perform the Thermo-Mechanical Control process.

The Danieli Exstream II advanced and powerful cooling concept (direct quenching + accelerated cooling) completes the metallurgical job, and the Danieli EVO VI plate leveler establishes final plate flatness at ¼ ASTM standards.
An I4.0-ready, Danieli Automation system will drive the plant.

Two-in-one Danieli heavy plate mills

production flexibility in wide plates and coils

PRODUCTION FLEXIBILITY

Energy-saving Danieli walking-beam furnaces

improve yield, reducing carbon footprint

HIGH YIELD

With 0.4% scale formation Acciaierie di Verona (Pittini Group) furnace achieves a high yield, and through HVAC energy recovery supplies thermal energy for domestic hot-water generation.

L2 thermal model and PHL combustion-control promptly support any sudden change to steel grade and production rate, in a fully automatic mode granting operational flexibility.

Heat absorber and economizer installed in the waste-gas duct push the furnace energy efficiency from 70 to 84%.

Proprietary, patented flameless burners keep average emission level under 40 ppm of NO_X.

Multiline Danieli roller-hearth furnace technology

for heat treating alloyed steel bars

PATENT PENDING

Çemtas produces premium automotive-steel bars with hardness variation, surface < ±1 Delta HRc, surface to core < ±2 Delta HRc; and bar straightness after heat treatment < 1 mm/m.

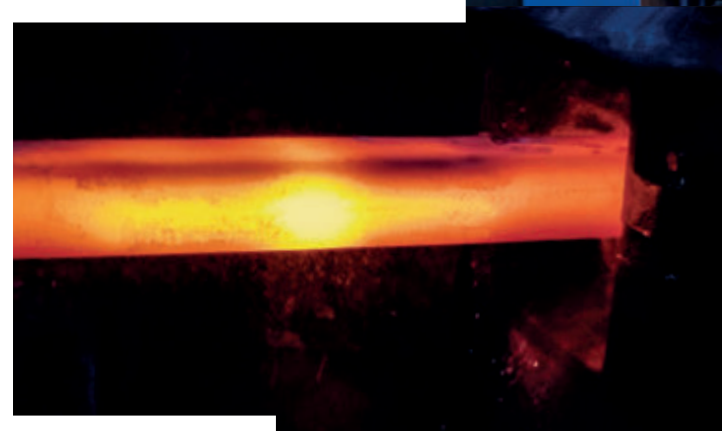
The patent-pending solution uses multiline, inclined and shaped rolls to continuously rotate selected bars within the austenitizing furnace and quenching system.

The roller design and the combustion system allow heat-treated bars to reach ±5°C uniformity.

In addition to the quenching and tempering, it is possible to perform normalizing and soft annealing in parallel on the two furnaces.


DANIELI


LAYING DEVICE
18




DANIELI
DANIELI
MORGARDSHAMMAR

Another Danieli step ahead in continuous billet welding-rolling, and bar spooling in coils up to 8 tons

Pioneer in endless rolling, Danieli is developing the fifth-generation of billet welders to feed rolling mills with endless billets up to SQ200 mm, for yield savings up to 1.5%.

Up to 50% downtime reduction will be achieved by introducing the welder cartridge fast-changing concept, improving accessibility for maintenance.

A 5x faster welding-process control will maximize the energy transferred in the cycle increasing productivity and reducing energy consumption.

Optimizing and balancing the electro-magnetic field will result in a 3x less magnetic force on the welded joint.

The new spark-killer design will ensure a reliable and long-lasting operation of a clean machine, and the new design of the wearing clamps will simplify and reduce changing times.

Furthermore, Danieli K-Weld technology finds ideal application when combined to Danieli K-Spool technology, allowing the most efficient production of twist-free spooled bars, 8-32 mm dia, in custom coils up to 8 tons.

Another Danieli step ahead

in continuous billet welding-rolling, and bar spooling

8-TON
SPOOLED COILS


DANIELI FROHLING
KYM3

By operating a six-high Danieli DiamondFlex cold mill, KUMZ in Russia produces a wide range of aluminium cold-rolled strip including defence-grade hard alloys.

Rolled widths up to 2800 mm for aerospace applications is a current world record.

DiamondFlex 6-high mill stands use parallel or shaped (OSRT) long-stroke intermediate rolls for flatness control that meets customers' current and future product requirements.

The Danieli Automation Level 2, model-based self-learning mill set-up ensures production efficiency and ease of use.

Logan Aluminum, in the USA, is operating a DiamondFlex mill at the world's most productive rates, reaching standard production speeds of over 2200 m/min whilst rolling canstock.

Powered by a 9500-kW stand motor utilizing Danieli Automation Q-Drives, the mill achieves record-setting speeds with efficient fume extraction, stable Ironing Roll operation and mill stand stability.

Exacting tolerances for flatness and thickness utilizing advanced automation control, including the Danieli Automation Adaptive AGC, ensure the highest product quality and yield.

Danieli Diamond^{Flex} cold mill technology

top performances at KUMZ and Logan Aluminum

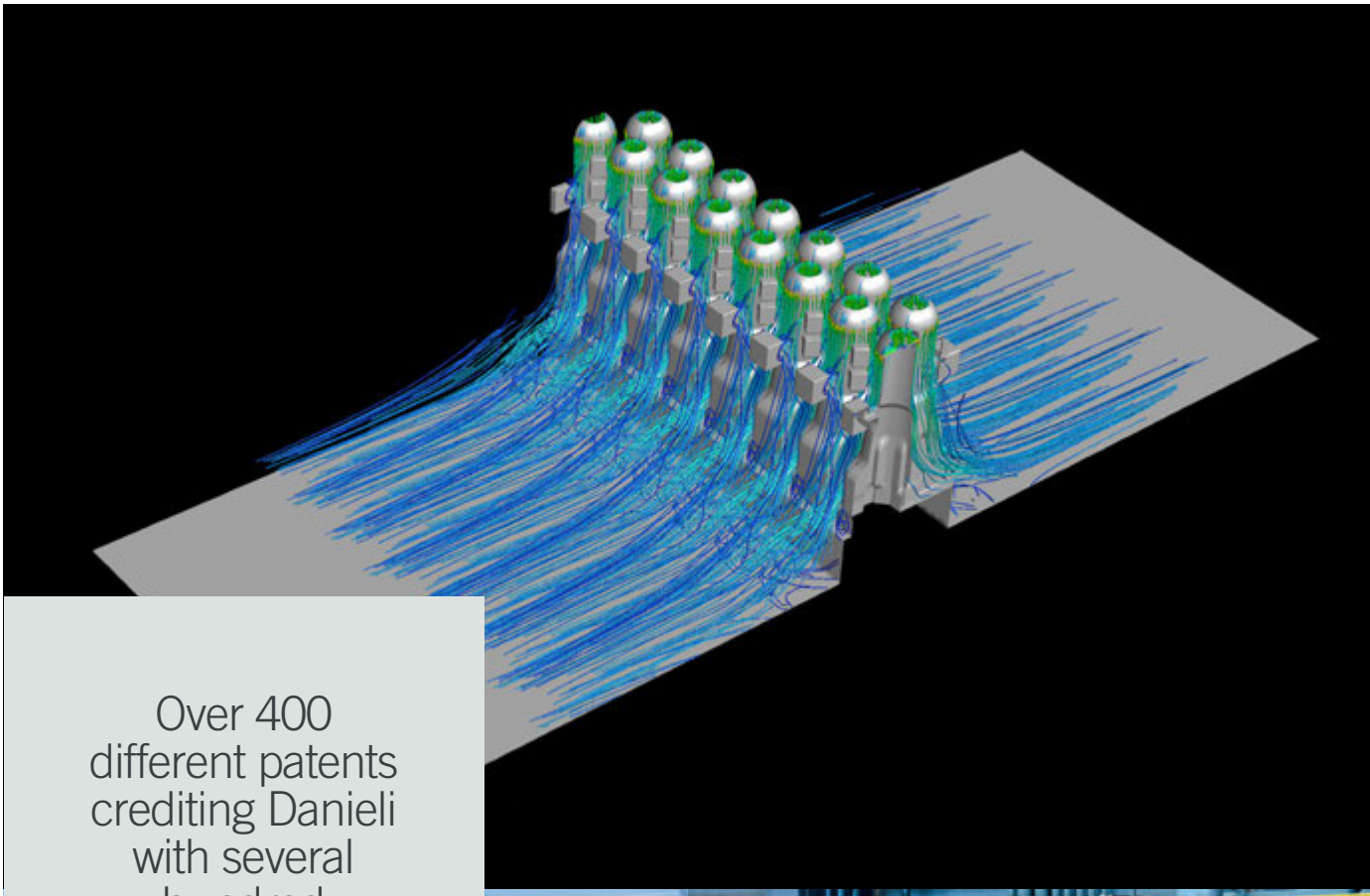
WIDTH AND SPEED RECORDS

Danieli
Answers
to be
a step
ahead

Danieli Plantmaking

Activities

Research, Engineering, Production,
Construction, Service



Over 400 different patents crediting Danieli with several hundred inventions

Danieli Research and Development
imagines, designs, builds,
and tests the processes and equipment
for the Metals Industry of the next 20 years

Integrating DRP and EAF for an hydrogen-ready process, the effective solution to reach carbon neutrality, also utilizing less demanding raw materials.

Scrap management technologies (tracking & selection) to optimize the EAF process, increasing yield and reducing cost, creating added-value from waste material.

Digital Green melting, with further developments in the continuous charging concept by new Q-One technology opportunities.

Development of an integrated-adaptive metallurgical system covering the entire meltshop area from tapping to tundish.

Further development of the CCM technology to further increase actual casting speed for co-rolling lines for long products.

Continuous improvement for thin-slab caster technology to increase productivity, steel grade range and quality.

New generation of long-product rolling mill, fully compliant with Industry 4.0.

Development of in-line heat treatments for flat products with a high-efficiency through adjustable system for process requirements.

New generation of aluminum continuous casters for high productivity and a wider range of castable alloys.

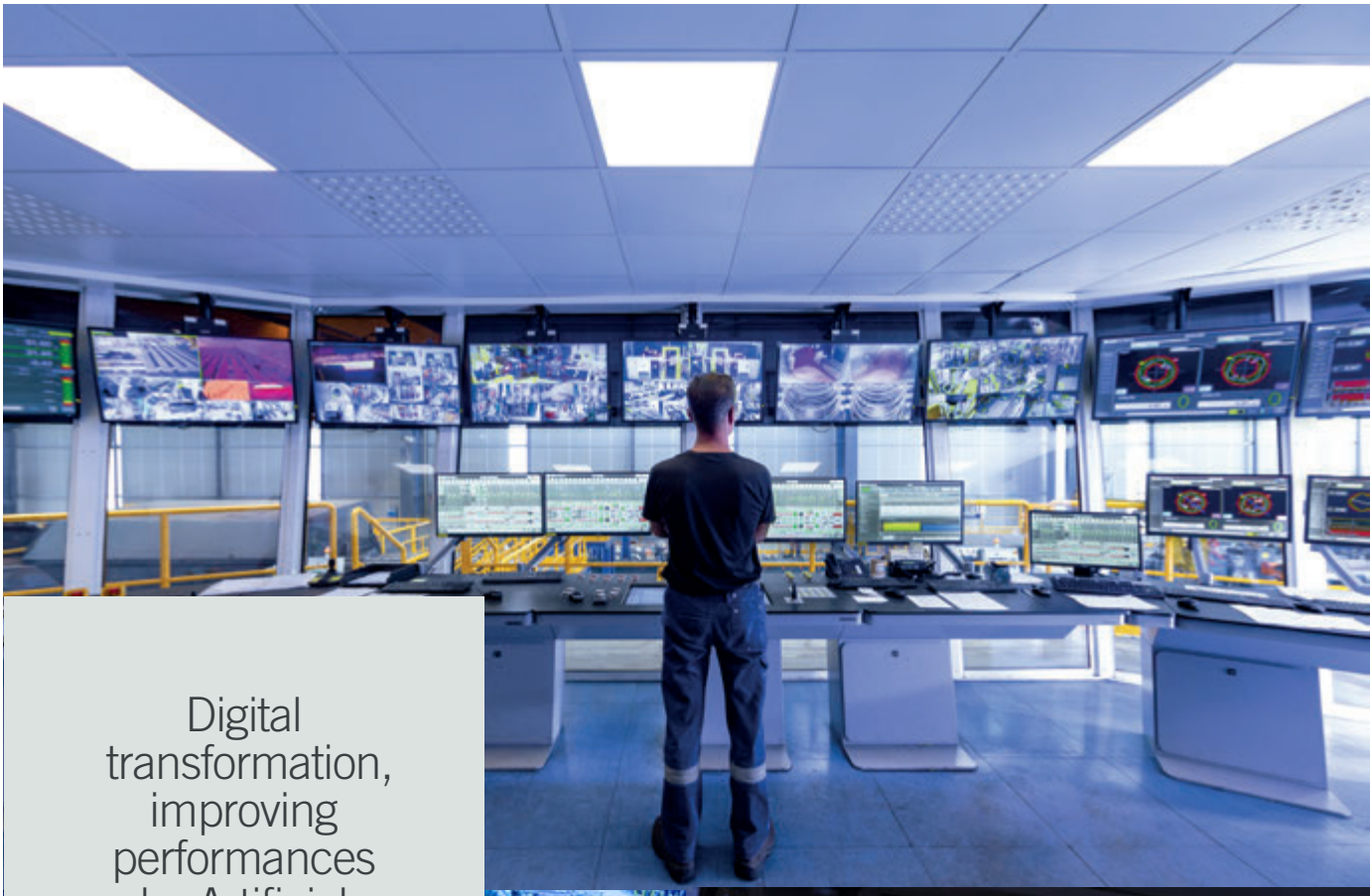
Development of green technologies for hydrogen-ready plants, to improve energy efficiency and energy recovery, achieve circular economy, reduce carbon foot print and exploit renewable energy.

1,488 engineers
for process,
mechatronics,
electronics,
and automation

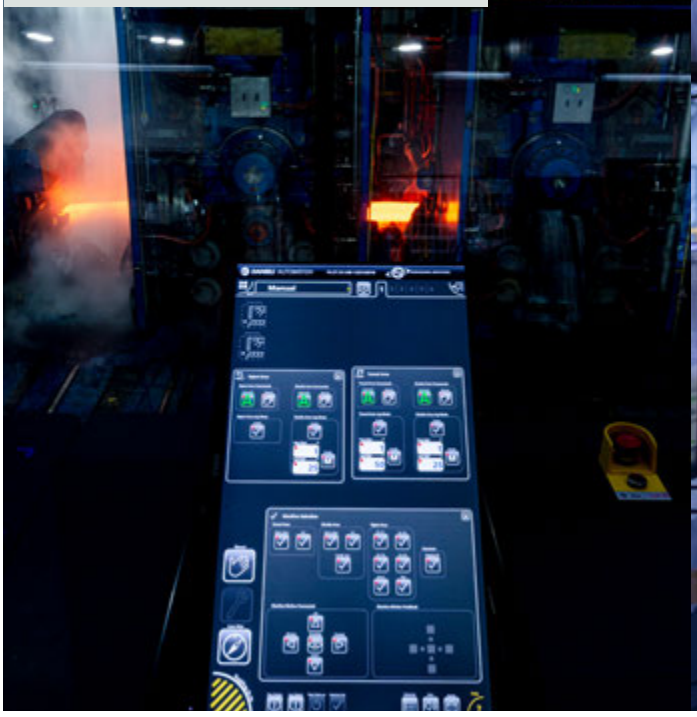
Danieli Engineering and Design a multidisciplinary, multicultural team combining the best skills

Our Global Engineering Team approaches the challenges that the market offers us every day, in order to remain a step ahead.
Today, industrial design is inevitably multidisciplinary and multicultural, with a concurrent engineering approach to transform the ideas or insights of new physical and chemical processes into new plants, respecting time and cost.
The wide scope of Danieli's Metals Industry Technology gives our designers the possibility to exchange experiences, pooling their expertise to achieve continuous improvement process. These collaborative opportunities also enhance the innovative potential for our products.
During the design phase the most modern 3D software is being used to develop machinery and plants in synergy with FE and FMEA, in order to simulate, for example the structural behavior of the equipment or plastic deformation of the metal during the process, or the suction lines of the new EAF canopy system to avoid dust emissions.

The Design Team is one link of the value chain and works strictly in connection with procurement and production in order continuously improve our products and reach the project targets.



Digital transformation, improving performances by Artificial Intelligence



Danieli Automation power electronics, knowhow, and smart solutions for a more sustainable industry, simplifying metals complexity

DIGIMET

Danieli Automation transfers the technological know-how from Danieli technological divisions to end-users, supplying the interface between plant process and operator.
Engineering, electrical solutions, power electronics, process automation and control systems for the metals industry, are provided covering the whole spectrum of metals technologies.
Patented innovative solutions for melting, intelligent use and management of energy allow the use of renewable energy and own power electronics systems are designed for high-performance drives and for induction-heating systems.
Special instruments developed by Danieli Automation are used for quality assessment during production and to provide the required feedback for advanced control systems.
Robotic applications improve plant safety and production efficiency.
Software algorithm models, computerized quality and production control systems are developed in-house thanks to the synergistic relationship with the Danieli technological teams.
By cooperating with mechanical designers, we achieve optimized and standardized solutions, resulting in best performances and quicker plant start-ups.
Competence, reliability and experience are key factors for our success in plant upgrades, together with the world-wide presence and digital collaboration tools ensure prompt and efficient customer support, even in remote mode.

439,000 sqm of own workshops and manufacturing knowhow

Seven **Danieli Production Centers** worldwide to ensure the same quality everywhere

We operate advanced manufacturing plants in Europe, China, India, Thailand, and Russia to better supply customers, worldwide.
Plants, overall, cover an indoor area of 439,000 sqm with 2,500 highly skilled technicians who provide 5 million productive hours per year, working in a safe and eco-friendly environment.
In particular, we are able to:

— Weld thicknesses up to 1,000 mm on products weighing up to 500 tons.
— Carry out boring, milling, turning, and grinding operations on 250 machine tools equipped with the latest-generation numerical controls, and special tools able to work on eight axes simultaneously.
— Produce high-precision gears and perform all types of heat-treatment, checking the chemical and physical properties of the products before and after treatment.
— Assemble and complete final tests that ensure performance and reliability, in cooperation with commissioning teams.
Advanced planning tools, real-time traceability systems, 3D measuring machines, and metallurgical labs give us overall project control from in-house design and manufacturing to on-site startup and commissioning. We produce the most strategic and complex machines that incorporate the company's know-how at top-quality standards.
All Danieli workshops are fully owned and managed by Danieli experts and can be seen as one unified workshop.
Danieli does not compromise the quality and reliability levels of the equipment supplied.


ADVANTAGE

> Danieli Headquarters / Italy

Total surface: 320,000 m²;
Workshop area: 92,000 m²;
Technical and administrative offices: 28,000 m².
Employment: 1,800 engineers.
Start of operations: 1962.

> Danieli Germany

Total surface: 4,200 m²;
Workshop area: 2,800 m²;
Technical and administrative offices: 1,400 m².
Employment: 140 engineers.
Start of operations: 2005.

> Danieli Thailand
Total surface: 525,000 m²;
Workshop area: 90,000 m²;
Technical and administrative offices: 13,000 m².
Employment: 900 engineers.
Start of operations: 2005.

< Danieli India

Total surface: 320,000 m²;
Workshop area: 41,000 m²;
Technical and administrative offices: 2,500 m².
Employment: 500 engineers.
Start of operations: 2013.

At Danieli we don't shop around for noble equipment

Danieli worldwide
Total surface: 2,032,000 m²;
Workshop area: 439,000 m²;
Technical and administrative offices: 123,000 m².

< Danieli Volga / Russia

Total surface: 250,000 m^2;
Workshop area: 10,000 m^2;
Technical and administrative offices: 1,800 m^2.
Employment: 90 engineers.
Start of operations: 2014.

< Danieli Austria

Total surface: 40,000 m^2;
Workshop area: 6,000 m^2;
Technical and administrative offices: 1,400 m^2.
Employment: 40 engineers.
Start of operations: 2008.

< Danieli China

Total surface: 200,000 m^2;
Workshop area: 90,000 m^2;
Technical and administrative offices: 12,000 m^2.
Employment: 950 engineers.
Start of operations: 2 007.

136 turnkey projects executed, ensuring on-time deliveries and cost certainty

Danieli Turnkey

Providing added-value and risk-mitigation EP/EPC/EPCM services for metal producers, up to industrial production

Danieli Plant Engineering, together with Danieli Construction International and Danieli Commissioning and Ramp-up Services, is the ideal EPC partner. Customer satisfaction and on-time plant operation hand-over are the main goals. Danieli Turnkey team acts either as a multi-referenced main contractor or as a reliable and knowledgeable business provider, capable of developing products and services with value-added solutions.
Thanks to its extensive, in-house knowledge of plant processes, equipment and operations, and its ability to act in partnership with customers, Danieli addresses all project requirements to avoid risks, to minimize CapEx and OpEx and to maximize ROI.

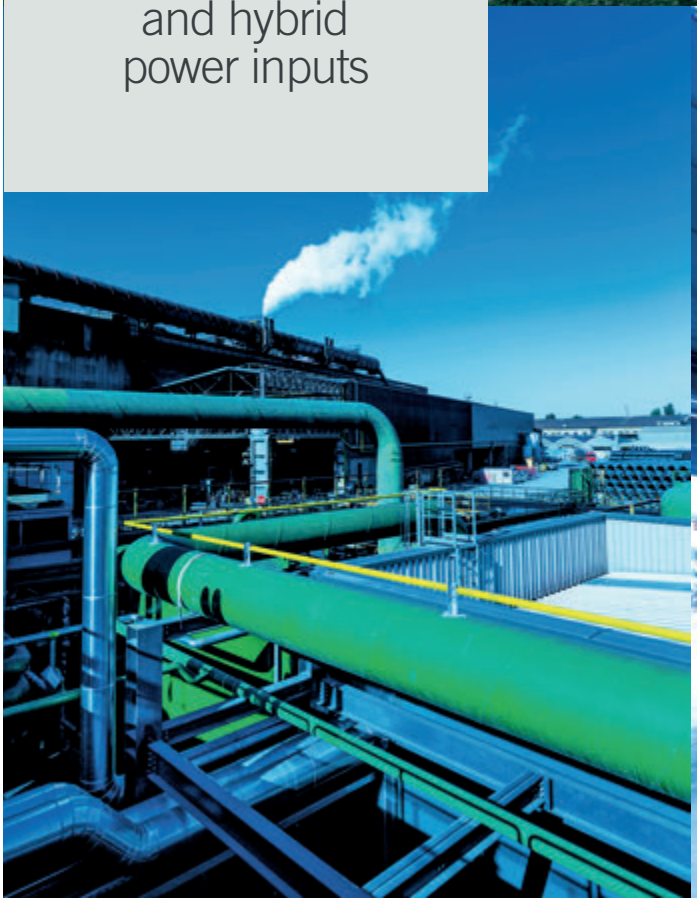
Main strengths and capabilities:
— Single-point of responsibility for all activities related to engineering, manufacturing, construction and industrial production of the plant, with full in-house expertise.
— Fast-track execution, ensuring on-time project delivery and total investment cost certainty.
— Plants conceived and realized taking into consideration the plant operating needs and sustainability of the project, maximizing cost optimization and the ROI.
— Flexibility in providing added-value and tailor-made EP/EPC/EPCM services according to the needs of the owner.
Over 136 turnkey plants have been successfully executed by Danieli since 1964.

10,000
hours / year
of technical support
and consultancy
services

Danieli Service and Customer Support optimizing resources to create new business ecosystems

Nowadays, in an increasingly global context, characterized by volatility of markets, geopolitical dynamics and digital innovations, it's necessary to guarantee customer satisfaction in terms of punctuality, quality and resources optimization.
To face this challenge Danieli Service provides a wide range of value-added solutions to support steel and nonferrous metals producers through the lifecycle of their plants and equipment:
More Capacity and Specialization: in the last year Danieli Service opened new Workshops, while expanding capacity and specialization of service activities in the existing ones. The target is always to synchronize all our activities of manufacturing, design, Logistics and the Field Services by an integrated approach according to the needs of the Customers.
Plant Modernization: to improve the performance of the plants Danieli Service provides customers with upgrading or renewal, revision, repair of existing equipment through the implementation of new technological packages and customized assembly solutions
Own-Brand Products & Spare Parts: Danieli Service organization has been implemented to boost Consumables and Own-Brand Products such as hot and cold mandrels, liners, mill rolls and wrapper rolls, segments and casting rolls, DanOil, supported by the long-established organization of Spare Parts.
Advanced Services: to support customer on improving plants' performances in terms of availability, reliability, quality and productivity Danieli Service have created a wide portfolio of solutions about maintenance methodology and interactive services (CMS and Remote Service Q-Space).

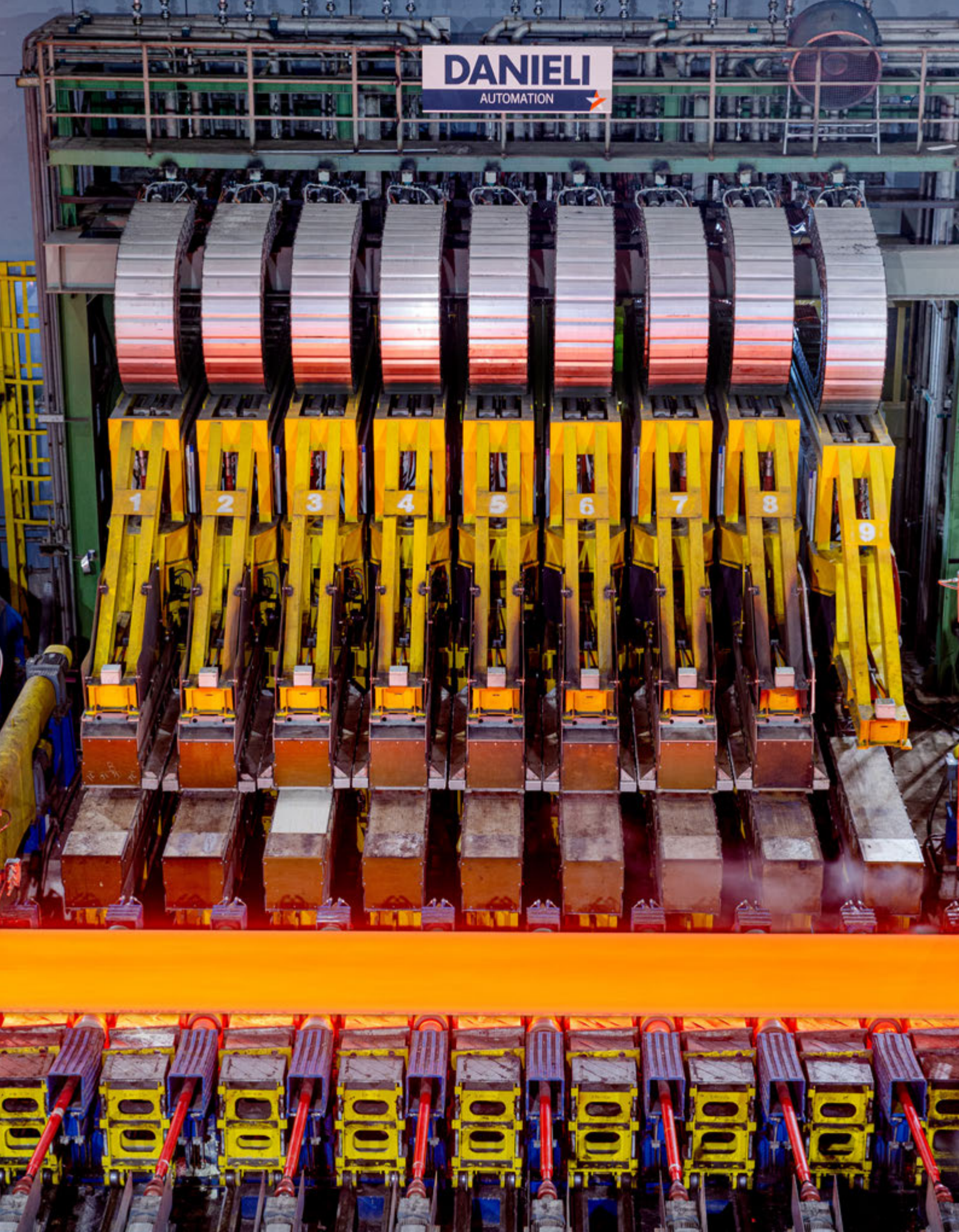
Zero-emission targets, low energy consumption and hybrid power inputs



Danieli True Green Metal

Technologies, knowledge, experience and commitment to sustainability

DRI-EAF steelmaking has a 50% lower carbon footprint than BF-BOF, and can be reduced further by using hydrogen instead of natural gas.
ECS reduces EAF energy consumption, TTT and GHG emissions.
Q-ONE cuts EAF power-on time and electrode consumption.
Upgraded BFs use mechanization and automation for energy savings and emissions reductions.
Latest-generation FTPs with Pulse-Jet bag filters and chemical injection control residual dust and pollutants.
Noise is reduced through original AcouStack.
WTPs optimize consumption via Q-Water and to Zero-Liquid Discharge, including recovering blow-down water through crystallization.
Q3-OPT automation schedules activities to manage know-how and complexity.
Q3-DEMS constantly monitors energy and resources, building a “data lake”.
Zero-Slag Discharge means slag is not landfilled, but becomes a secondary raw material.
With Zero-ASR, automotive shredder residue (SYNCA) with low inert contents can replace up to 30% of carbon injected to the EAF.
Endless Casting Rolling technologies like MIDA and QSP-DUE are revolutionizing steel production, with no reheating or product loss through scale.
Electric induction represents a sustainable, flexible reheating option to control and equalize temperatures, increasing product quality and reducing GHG, NOx and dust emissions.
Ultra-low NOx burners optimize flame patterns, with high radiant-tube efficiency and temperature uniformity for indirect heating.


DANIELI
AUTOMATION
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Danieli Plantmaking

Main Events of the Year

Main orders acquired
Plant startups and commissioning

Main orders acquired

— Minimills, ironmaking and steelmaking plants

Americas

CMC STEEL, USA
New MIDA ECR plant to be installed in Western USA to produce 500,000 shtpy of rebar and merchant sections.
Third MIDA ECR plant for CMC and first MIDA Hybrid .

NUCOR STEEL BRANDENBURG, USA
Complete meltshop with 165-sht mono-bucket EAF AC with Q-Melt suite, twin LF and twin-tank twin-cover VD for 1.2 Mtpy of high-quality liquid steel.

NORTH STAR BLUESCOPE STEEL, USA
Complete meltshop including 195-sht mono-bucket EAF AC with Q-Melt automatic EAF, two LFs, raw materials handling system and FTP plant.

GERDAU LONG STEEL NORTH AMERICA - WHITBY MILL, CANADA
New, 136-sht bucket EAF, revamping of FTP primary line and improvement to the LF process to increase the meltshop productivity.

DEACERO SAPI DE C.V. - PLANTA RAMOS, MEXICO
Engineering order for 135-ton, twin-tank, twin-cover vacuum degassing facility.

ARCELORMITTAL, USA
Modernization of hot-blast system for blast furnace #5 in Cleveland.

GERDAU, BRAZIL
Reline project for 2650 m3 blast furnace #1 in Ouro Branco, for a campaign of at least 15 years.

NUCOR STEEL, USA
Four heavy-duty EOT cranes up to 400 sht for new Danieli meltshop in Brandenburg.

NUCOR STEEL, USA
Sixteen process and service cranes for new Danieli plate mill in Brandenburg.

NORTH STAR BLUESCOPE STEEL, USA
Two new, heavy-duty and high-capacity (40 t) scrap-yard cranes.

Europe

VOESTALPINE STAHL, AUSTRIA
Order for feasibility study concerning introduction of the DRI+EAF route in existing integrated complex at Donawitz.

ARMABESSAIRE, FRANCE
Scrap wing shear for the flexible processing of industrial metal scrap.

ABS, ITALY
New, 160-t teeming crane serving conticaster #2.

REVAC, NORWAY
Scrap shredder equipped with activated-carbon treatment for efficient air-pollution control, to remove Volatile Organic Compounds (VOC).

SEVERSTAL, RUSSIA
New, 125-ton EAF for flexible melting of 100% scrap to 85% hot metal replacing shaft EAF, and revamping of 350-ton Vacuum Degassing station.

SEVERSTAL, RUSSIA
Sublance systems for three 350-t converters to lower steel production costs while maintaining efficiency and quality.

PJSC MAGNITOGORSK IRON AND STEEL WORKS, RUSSIA
Danieli Q-Melt Automatic control for EAF with hot-metal charging, to automatically control melting and refining, improving consistency and reducing liquid steel conversion costs.

OMK, RUSSIA
Zero-Liquid Discharge water-treatment plant for bloom caster and steelmaking plant, for 105 m^3/h of blow-down water recovery.

MMK, RUSSIA
Fume Treatment Plant modernization for 180-t EAF#1 and #2, to cope with the strictest environmental regulation of the Russian Federation.

MMK, RUSSIA
New L2 and HMI system to ensure accurate set-ups, collect process data for quality reports and archives for three long-product rolling mills.

ARCELORMITTAL, UKRAINE
Replacement of three BOF converter vessels at block #1 of Kryvyi Rih steel plant.

ARCELORMITTAL, UKRAINE
Upgrade of three BOF gas-cleaning systems to Danieli RS-type scrubber technology.

Middle East and Africa

KAM, NIGERIA
New, 70-tph scrap shredder equipped with downstream and separation systems, plus full refurbishment of an inclined shear.

HADEED, SAUDI ARABIA
Upgraded VD process controls, with steel grades and practices stored in L2, accessed through a Q3-Intelligence dashboard and available web-based reporting.

East, SE Asia / Asia Pacific

GUANGDONG JINSHENGLAN METALLURGICAL TECHNOLOGY CO. LTD., CHINA
Four, jumbo Zero Bucket EAFs with Endless Charging System to minimize electrical power consumption and maximize productivity.

HBIS, CHINA
Three sublance systems for 120-t converters at the Laoting plant.

HUNAN VALIN I&S GROUP, CHINA
Three sublance systems for 80-t converters for Xiangtan plant.

ANHUI CHANGJIANG STEEL CO. LTD., CHINA
Zero Bucket EAF with Endless Charging System, plus continuous hot-metal charging for highest productivity and maximum raw material flexibility.

HBIS LAOTING, CHINA
New L2 for updated process control and automation of two ladle furnaces.

CHENGDE JANLONG, CHINA
Complete Q-Robot Cast Ladle and Q-Robot Cast Sliding gate for "no-man operations" on the casting floor.

NANJING IRON & STEEL UNITED CO LTD, CHINA
Danieli Q-Melt Automatic control for EAF with hot-metal charging, to automatically control melting and refining, improving consistency and reducing liquid steel conversion costs.

SHANXI JIANLONG I&S
Two sublance systems for 120-t converters for Yuncheng plant.

TANGSHAN REAFON, CHINA
One sublance system for 210-t converter for Tangshan plant.

TOKYO STEEL, JAPAN
Q-ONE power optimization for ladle furnace at Kyushu plant. An innovative digital solution to control the arc, reducing flicker and limiting harmonic distortion.

HYUNDAI STEEL, KOREA
Conversion of bosh area of blast furnace #3 at Dangjin to Danieli Corus plate-cooling technology.

Central and South Asia

BASHUNDARA, BANGLADESH
New Jumbo MIDA ECR minimill for the production of 1 Mtpy of rebar in bundles and wirerod structural grades.

JAI RAJ ISPAT LIMITED, INDIA
350,000-tpy MIDA ECR minimill for rebar in bundles. First MIDA ECR to be installed in India.

NUCOR STEEL
SELECTS DANIELI
FOR NEW PLATE MILL COMPLEX

Producing thermo-mechanical rolled plates, supported by advanced automation, it will be the new benchmark plant.
To be installed in Brandenburg, USA, as a greenfield project, the plate/Steckel mill will be equipped with two stands and roll plates up to 168" wide and coils up to 125".
An EAF meltshop, secondary metallurgy equipment, twin LMF and VD stations are part of the supply.

EVRAZ
ORDERS DANIELI QSP-DUE® PLANT
FOR HOT ROLLED STRIP

Thanks to three rolling modes in one line, coil-to-coil, semi-endless and endless, QSP-DUE guarantees the widest production flexibility.
To be installed in Novokuznetsk, Russia, it will be the second Danieli QSP-DUE plant in the world and produce 2,500,000 tpy of added-value strip from 0.80 to 16.0 mm thick and 950 to 1,700 mm wide.











LIBERTY




North Star BlueScope


— Flat product casting, rolling and strip processing lines

Americas

ALGOMA STEEL, CANADA
Complete upgrade of the 166-in. plate mill, including new equipment and L0-L2 automation, to produce wider and higher-quality plates.

NUCOR STEEL GALLATIN, USA
New water-treatment plant for expanded and modernized, 3 million shtpy meltshop and thin-slab casting and rolling plant.

NUCOR BRANDENBURG, USA
Two stands wide-plate Steckel mill with advanced automation for a flexible production of thermo-mechanical rolled plates up to 168" wide and coils up to 125".

NORTH STAR BLUESCOPE STEEL, USA
New concept coil-handling system as part of the project to expand capacity of the HSM, supplied by Danieli in 1997, to 3.2 Mtpy.

Europe

MARCEGAGLIA PLATES, ITALY
Slab pusher furnace revamping to increase production and reduce maintenance costs and NOx emissions.

MARCEGAGLIA, ITALY
Revamping of hot-dip galvanizing to increase line productivity by upgraded combustion system and after-pot cooling tower equipment.

MARCEGAGLIA, ITALY
Four-high plate mill upgrade will include HiPAC, L1 and L2 process controls, and new hydraulic cylinders for better speed and positional accuracy.

AST TK, ITALY
Hot-strip mill cranes upgrade, including coil-tracking and -positioning system, and crane maintenance monitoring.

BECKER STAHL-SERVICE, GERMANY
Slitting line upgrade featuring fully automatic recoiler mandrel change system.

THYSSENKRUPP, GERMANY
Slitting line upgrade for first-class, special steel strip quality material.

CD WÄLZHOLZ, GERMANY
Modernization of silicon steel slitting line to increase capacity and flexibility.

GKSS, GERMANY
Order for research rolling mill overhaul after severe fire damage at Helmholtz Materials Research Center.

EVRAZ, RUSSIA
QSP-DUE (Danieli Universal Endless) plant for flexible production of 2.5 Mtpy hot-rolled coils, from 0.80 to 16.0 mm thick and 950 to 1,700 mm wide.

MMK MAGNITOGORSK, RUSSIA
Multipurpose unit for flexible strip inspection and sampling, for 1.2- to 25.4-mm-thick and up to 2,350-mm-wide coils.

OMK VYKSA WORKS, RUSSIA
Upgrade of existing Danieli Thin Slab Caster to increase productivity and improve slab quality.

NLMK, RUSSIA
Two-stage upgrade for slab caster L1 and L2 controls.

NLMK, RUSSIA
Revamping of coil-coating line #1 for quality performance improvement at Lipetsk.

COLD STRIP IN-LINE INSPECTION SECTION FOR SEVERSTAL
New in-line inspection section for fully continuous Tandem Mill 1700.

TATA STEEL, UK
Complete HSM automation replacement L1 and L2, new DC converters for existing strip transportation motors.

Middle East and Africa

DUFERCO STEEL PROCESSING, South Africa
CGL strip-wiping technology upgrade will include the Danieli Electromagnetic strip Stabilizer - DES™, automatic closed-loop control, and Kohler X-Jet.

East, SE Asia / Asia Pacific

NORTHERN COPPER INDUSTRY, CHINA
Six-high cold-finishing mill for a wide mix of alloys, from soft pure copper to hard bronze alloy. to strip min. finish thickness of 0.05 mm at max. width of 670 mm.

NINGBO POWERWAY ALLOY MATERIAL, CHINA
FAT of two, 20-high cold mills for multiple alloys, from soft pure copper to hard phosphor bronze. Strip entry thickness 1.2 mm, min. finish thickness 0.03 mm, at max. width of 650 mm.

F-MAGNESIUM INDUSTRY, TAIWAN
Z-high mill refurbished for foil products down to 0.05 mm with enhanced thickness and flatness performance.

HOA PHAT DUNG QUAT STEEL JOINT STOCK CO, VIETNAM
Multi-Mode Electro Magnetic System (MM-EMB) to control the mould fluid dynamics at high casting speed and high throughputs on both strands of the Danieli-supplied TSC.

SAHAVIRIYA STEEL INDUSTRIES, THAILAND
Replacement of a downcoiler reel for hot-strip mill, with a service life projected at over 1.5 million tons.

PT SUNRISE, INDONESIA
Five coil-handling cranes, 35-ton capacity, for hot-strip mill shipping yard.

Central and South Asia

ABUL KHAIR STRIP, BANGLADESH
New, 200,000-tpy CGL to coat 0.12-1.0-mm thick and 1,350-mm wide strip, for construction products and white goods.

TATA STEEL, INDIA
Slab caster automation upgrade.

— Long product casting and rolling plants. — Seamless pipe mills

Americas

GERDAU MONROE, USA
Two HiProfile gauges to monitor dimensional tolerances and finished product quality of specialty steel long products, for automotive and engineered applications.

CMC STEEL, USA
Productivity boost with the new order to supply octagon sections to the existing, MIDA ECR single-strand billet caster in Oklahoma.

CMC STEEL, USA
New MIDA ECR plant to be installed in Western USA to produce 500,000 shtpy of rebar and merchant sections. First MIDA Hybrid plant, and third MIDA ECR plant for CMC.

GERDAU S.A., BRAZIL
New laser-head HiPROFILE gauge for accurate profile measurement of long products.

NUCOR STEEL, USA
Q3MET Manufacturing Execution System - MES for Nucor's first Danieli MIDA ECR minimill in Sedalia.

NUCOR STEEL, USA
Q3MET Manufacturing Execution System - MES for the Danieli MIDA ECR minimill in Frostproof.

NUCOR JEWETT, USA
HiProfile gauge featuring ultra-high-speed laser heads allowing real-time, 3D representation of structural products during rolling.

NUCOR SOUTH CAROLINA, USA
HiProfile surface-defect detection to reduce out-of-size products, to maximize quality finished products.

OPTIMUS, USA
New high-speed finishing facilities for rebar production.

ACEROS DE GUATEMALA, GUATEMALA
Mill upgrade to improve final product quality and increase productivity from 350,000 to 500,000 tpy, featuring bar slitting.

ACEROS DE GUATEMALA, GUATEMALA
New water-treatment plant to complete a rolling mill revamping project, to treat and recycle all the contact water coming from the mill and quenching system.

DE ACERO, MEXICO
Medium Voltage Drive for fast-finishing block, to ensure better operability and less maintenance.

Europe

ASCOVAL SAINT-SAULVE, FRANCE
Increased conticaster flexibility by adding new squares and rectangular sections to its portfolio.

FERRIERE NORD, ITALY
Bar and spooler line performance enhancement with new fast-finishing block.

RIVA, ITALY
New HiPROFILE gauge to be installed after bar mill resizing block, for 33- to 160-mm rounds and 120-mm squares.

ACCIAIERIA VALSABBIA, ITALY
Two HiPROFILE Lite gauges will be installed for 100% product quality monitoring.

ACCIAIERIE DI VERONA, ITALY WAITING FOR CUSTOMER APPROVAL
New hot-billet charging system to exploit billet temperature, saving reheating energy and reducing CO2 emissions.

SEVERSTAL, RUSSIA
New complete rolling mill to produce 1 Mtpy of wirerod and coiled bars for the engineering and automotive industries, and quenched rebar for construction purposes.

EVRAZ NTMK, RUSSIA
Rail and section mill revamping to produce 950,000-tpy of rails, beams, and other structurals.

NLMK, RUSSIA
New roughing mill stands to roll larger billets, upgrading Danieli existing mill.

OMK, RUSSIA
New rolling mill for high-quality spring steel flats, rounds, rebar and light profiles. Advanced process control and Q3 Intelligence.

METALFER, SERBIA
Spooler line for compact coils up to 3.5 tons, added to Danieli bar and wirerod mill.

Middle East and Africa

SCAW METALS, SOUTH AFRICA
Electrical and automation equipment to upgrade rolling mill process automation.

IÇDAS, TURKEY
New MV Q-Drive system to actuate fast-finishing block installed along the wirerod line.

RAIN FLOODS, IRAQ
Complete plant to produce 25,000 tpy of Fire-Refined High-Conductivity (FRHC) copper coils, up to 8-mm-dia rod.

CMC
ORDERS ITS THIRD
DANIELI MIDA ECR® MINIMILL
> THE FIRST MIDA HYBRID

CMC orders its third MIDA ECR® Minimill from Danieli Hybrid-ready, featuring the Q-One Digimelter, it will be the world-first minimill producing merchant bars in endless mode.
To be installed in Western USA, it will produce an estimated nominal 500,000 shtpy of long products, namely 350,000 shtpy of rebar and 150,000 shtpy of small merchant sections.

OMK
CONTRACTS DANIELI
FOR NEW 2.5-MTPY
DIRECT REDUCTION PLANT

Featuring Energiron technology, it will allow competitive, green steel production.
To be installed at Vyksa Steel Works in Russia, as part of the new complex for the production of slabs, seamless pipe and rail wheels, it will produce top-quality DRI -virgin iron units used in EAF to produce the most demanding steel grades.

East, SE Asia / Asia Pacific

SHANDONG LAIGANG YONGFENG, CHINA
New high-speed shears and automation for automatic head-and-tail cropping of 5.0- to 20-mm bar and rod products, with speeds up to 120 mps.

BAOSHAN IRON & STEEL CO. LTD., CHINA
New modules for Danieli conticaster for hard and soft reduction for alloyed blooms.

CHENGDE JIANLONG SPECIAL STEEL CO. LTD., CHINA
New 5-strand, 12-m radius conticaster for the production of large blooms and round products.

LAIWU STEEL GROUP LTD., CHINA
New 6-strand, 12-m radius conticaster to produce blooms and billets for SBQ and structural steel applications with twin-module W/S unit design. Third CCM order.

SHANDONG QINGDAO, CHINA
Twin rolling mills for a total 1 Mtpy of 5- to 7-mm-dia wirerod in coils at finishing speeds up to 112 mps, featuring LTR-Low Temperature Rolling.

HENAN JIYUAN, CHINA
Rebar mill upgrade with K-Weld billet-welding machine to increase mill productivity by 12-14%, improving efficiency and reducing downtimes.

CHANGSHU LONGTENG SPECIAL STEEL, CHINA
New 400,000-tpy continuous mill for flat bar products to replace a three-high mill, increasing annual production capacity and product quality.

JIANGSU YONGGANG JITUAN SHIYE, CHINA
New pinch rolls and laying head for each of two wirerod mills, to achieve 10-15% faster rolling speeds, improving reliability and loop shape.

TANGSHAN, CHINA
Two straightening machines for angles #3 to #14 and channels #5 to #22.

TSINGSHAN, CHINA
10-pass fast-finishing block for stainless steel wirerod production.

HOA PHAT DUNG QUAT, VIETNAM
New 1-Mtpy, two-strand rolling mill to produce 5.5- to 25-mm-dia wirerod coils, in low-, medium- and high-carbon grades.

TOPY INDUSTRIES, Japan
New off-line, cantilever straightener for light/medium sections.

CHANGZHOU DONGFANG SPECIAL STEEL, CHINA
Bar mill modernization with Danieli cartridges to improve the quality of the final products.

Central and South Asia

BASHUNDARA, BANGLADESH
New Jumbo MIDA ECR minimill for the production of 1 Mtpy of rebar in bundles and wirerod structural grades.

SUNFLAG, INDIA
Bar mill L1 automation, instrumentation, AC main drives, regenerative DC common bus technology, auxiliary drives, main stand and shear LV motors, and motor control centers.

VIJA, INDIA
Plant upgrading to enhance mill output for rebar at Danieli ECR plant.

JAI RAJ ISPAT LIMITED, INDIA
350,000-tpy MIDA ECR minimill for rebar in bundles. First MIDA ECR to be installed in India.

PACIFIC STEEL, INDONESIA
Another phase of the mill modernization, for coil-handling area process control.

— Extrusion and forging presses — Inspection, conditioning and cold finishing lines

Americas

NOVELIS, BRAZIL
New pit furnace to heat aluminium ingots more than 20% faster than the existing facilities.

Europe

TRAFILERIE CARLO GNUTTI, ITALY
Overall extrusion press modernization to produce round and hexagonal aluminium bars with an upgrade to 70-MN force and BreDanExt automation.

East, SE Asia / Asia Pacific

HENAN JIYUAN, CHINA
Two billet-grinding machines to process specialty steel billets in full-skin mode or spot/pattern grinding.

Central and South Asia

TATA STEEL, India
SuperGrinder with a capacity over 400,000 tpy, featuring IntelliGrind, Hi-Grind, E-Cube and CastGrind technological packages.

Plant startups and commissioning

— Minimills, ironmaking and steelmaking plants

Americas

NUCOR STEEL SEDALIA, USA
MIDA ECR minimill for the production of 350,000 tpy of rebar in bundles and spooled coils.
Steady operation in endless casting-rolling mode since a few days after the first heat.

GERDAU, BRAZIL
New Q-REG® (Electrodes Regulation System) for ladle furnace - I/O tests executed using remote connection.

ACEROS AREQUIPA, PERU
Commissioning for 8 meltshop cranes, including 280-t charging and teeming cranes.

Europe

ABS SISAK, Croatia
New, patented Q-ONE system featuring latest power electronics to handle irregular loads, flexibly and reliably, maintaining power factors close to unity, with electrode and energy savings.

ÓAM ÓZDI ACÉLMUVEK KFT., HUNGARY
Fume Treatment Plant for EAF primary and secondary suction lines.

ABS, ITALY
Q3-ASM Automatic Scheduling Management to generate production schedules for the meltshop, optimize overall plant efficiency, and reduce human intervention.

COLFER, ITALY
First recycling facility in Italy comprised of Grinder Mill and Shredder technologies, to process domestic and automobile scrap.

OMK, RUSSIA
EAF revamp for increased liquid steel production from 1.35 to 1.6 Mtpy, upgraded secondary system, revamped material-handling, new chemical package, and Danieli Q-MELT suite.

NLMK DANSTEEL, DENMARK
Fully-automatic hot-plate handling crane equipped with 4 trolleys, fully integrated to L3 automation system.

OMK, RUSSIA
Zero-Liquid Discharge water-treatment plant featuring physical-chemical pre-treatment, ultrafiltration and reverse osmosis, for pipe mill.

SEVERSTAL, RUSSIA
Startup of two out of three new sublance systems for BOF converter, in Cherepovets.
First fully remote startup for a sublance.

REDYESA, SPAIN
Heavy-duty scrap shredder equipped with 2500-HP motor actuated by inverter, dedusting system and downstream services.

SSAB, SWEDEN
Startup of new hot-blast stove #47 for blast furnace #4 in Oxelösund.
First-ever prefabricated hot-blast stove shell erected in one piece.

Middle East and Africa

AQS- ALGERIAN QATARI STEEL, ALGERIA
Completion of Danieli 2 Mtpy EPC minimill project, featuring two meltshops and bar and wirerod rolling mills, and plant auxiliaries.

HADEED, SAUDI ARABIA
VD process control suite with L2 software architecture, Q3 pulpit design and web-based reporting system.

East, SE Asia / Asia Pacific

HOA PHAT DUNG QUAT, Vietnam
The second of four, greenfield blast furnaces featuring high-conductivity cooling and lining design based on copper-plate coolers, with graphite and SiC refractories.

FOUR CUSTOMERS, CHINA
BOF sublance projects to increase steel output.

Central and South Asia

SYS, THAILAND
Q-Robot Melt Sample system for automatized steel-bath temperature measurement.

— Flat product casting, rolling and strip processing lines

Americas

USS GARY WORKS, USA
First US twin-slab caster with Dynamic Soft Reduction shows improved centerline segregation and overall slab quality.

USS GREAT LAKE WORKS, USA
Slab caster upgrade featuring Hy-Power® wire-by-wire powered actuators and Q-Level+ electromagnetic sensors for mould-level measuring and control.

JSW TEXAS, USA
First stage of a full-scale modernization of the 160" plate mill plant, including descaling, hot leveler and shears.

LOGAN ALUMINUM, USA
Final acceptance for an automotive finishing line, including in-line coil preparation and the new parabolic pass-line design.

LOGAN ALUMINUM, USA
New 6-high Diamond^{Flex} cold mill for aluminum canstock and automotive products.
Operating at speeds of 2,200 m/min, it is the fastest cold mill in the world.

ARCELORMITTAL TUBARAO, BRAZIL
Major revamping for 2.6-Mtpy double-strand, thick slab caster -from mould to the last segment, including automation- to produce 200, 225, 250-mm slabs from 1050 to 2300 mm wide.














SS2


DANIELI

QONE INSIDE
DANIELI

LIBERTY


DANIELI


Europe

AST TK, ITALY
Two cranes for hot-strip mill coil handling.

LIBERTY MAGONA, Italy
Upgraded electrical and process control for a complete pickling line, providing new L1 and L2 automation systems and DC converters for the existing motors.

MARCEGALIA, ITALY
Cold reversing mill upgrade with Yield Boost technology, improving 20% performance.

WIELAND-WERKE, GERMANY
Slitting line startup including Vacuum Roll Technology for copper, in Wieland.

WÄLZHOLZ NEW MATERIALS, GERMANY
Four-high cold-rolling mill at Taicang, China. Wide range of special steel strips with entry thickness over 5 mm and finish thickness below 1 mm, at a max. width of 670 mm.

ALRO-SLATINA, ROMANIA
24,000-tpy homogenizing furnaces and cooling chamber for aluminum slabs. The plant is certified for aerospace applications.

LIBERTY GALATI, ROMANIA
HSM revamp project consisting of geometrical re-alignment of mill windows by means of on-site machining plus new technological equipment.

RUSAL, RUSSIA
Flexible homogenizing plant for billets and slabs at aluminum research center for aerospace application.

TATA STEEL IJMUIDEN, THE NETHERLANDS
Comprehensive repowering of the finishing mill and replacement of interstand equipment to increase significantly product portfolio of the 5.0 Mtpy HSM. (Stage 1)

TATA STEEL IJMUIDEN, THE NETHERLANDS
Revamping of HDGL line #2 to increase furnace capability and process speed, to allow production of new, demanding materials.

TATMETAL, TURKEY
Five-stand tandem cold mill featuring 6-high technology, with inspection station, coupled to an existing continuous pickling line.

Middle East and Africa

ATAKAS, TURKEY
Six bell furnaces for recrystallization of coiled strip in 100% hydrogen atmosphere for prime-quality annealed products, for the general and automotive markets.

East, SE Asia / Asia Pacific

SHANDONG NANSHAN, CHINA
4-high, EDT cold mill and 4-high, hot-plate mill for aluminum automotive and aerospace coils and plates.

SHANDONG RIZHAO, CHINA
New hot and cold levelers with four EVO/5 multi-cassettes.

SHANXI JIANLONG STEEL CORPORATION, CHINA
1.8-Mtpy single-strand slab caster producing 210-mm-thick slabs up to 1400- mm-wide, at casting speed up to 2.5m/min.

SHOUGANG JINGTANG (SGJT), CHINA
Recovering and improving the performances of HSM housing stands through revamping.

NANJING IRON & STEEL GROUP (NISCO), CHINA
Laser inspection and precision adjustment tasks for three slab casters, resulting in better product quality.

PT KRAKATAU, INDONESIA
Electric and automation revamping of hot skin-pass mill, including new AC drives and automation control system to ease and reduce maintenance, enhancing performance.

HOA PHAT, VIETNAM
HDGL #2 for galvalume products completes the cold complex, consisting of a push-pull pickling line, two cold-rolling mills and two hot-dip galvanizing lines.

HOA SEN, VIETNAM
New Danieli X-Jet air knives in service at continuous galvanizing line #2.

Central and South Asia

TATA STEEL, INDIA
Laser checking and caster alignment restoration for three continuous slab caster machines.

JSW, INDIA
Electrolytic tinning line completing the tin-plate complex, running strip up to 0.14 mm at 400 mpm, with coatings ranging from 0.56 to 16.8 g/m^2/ side .

— Long product casting and rolling plants — Seamless pipe mills

Americas

NUCOR MARION, USA
New, 16-SHS stand rolling mill for straight and deformed bars and sign posts.

NUCOR STEEL SEDALIA, USA
MIDA ECR minimill for the production of 350,000 tpy of rebar in bundles and spooled coils. Steady operation in endless casting-rolling mode since a few days after the first heat.

STEEL DYNAMICS, USA
Overall bar mill upgrade, also including new billet welder and spooler line for the production of up-to-5-tons spooled coils in endless mode.

AM ACINDAR, ARGENTINA
Billet caster revamp including 6 HY-Power oscillating benches, providing surface quality improvements and up to 33% faster casting speed.

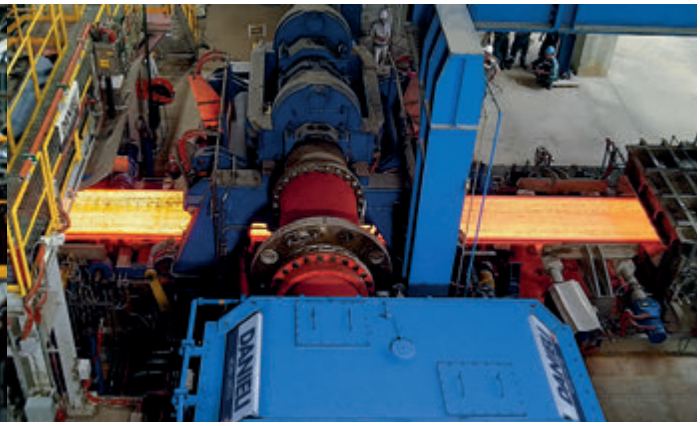
ARCELORMITTAL, BRAZIL
Four-laser heads HiProfile gauge performing accurate profile measurement of large beams and channels up to 155 mm.

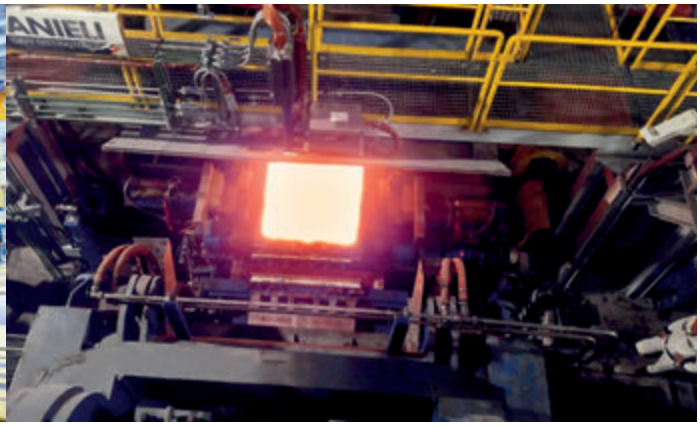
ARCELORMITTAL PIRACICABA, BRAZIL
C-Stock cost-effective, spare parts management solution based upon Danieli on-demand warehouse system.

GERDAU, BRAZIL
Automation upgrading to improve rolling speed control and process control of Garrett coiling lines, plus new precision traceability system.

NEW DANIELI QUALITY STRIP PRODUCTION (QSP®) PLANT AT HOA PHAT

Flexible production of quality and commercial grades, with excellent geometrical and mechanical strip properties has started at Hoa Phat new steel complex, in Vietnam. Featuring two vertical-curved casting strands, the plant produces 3.5 Mtpy of HRC with strip thicknesses ranging from 1.5 to 12.0 mm and widths from 900 to 1,500 mm, aiming to 4.0 Mtpy.

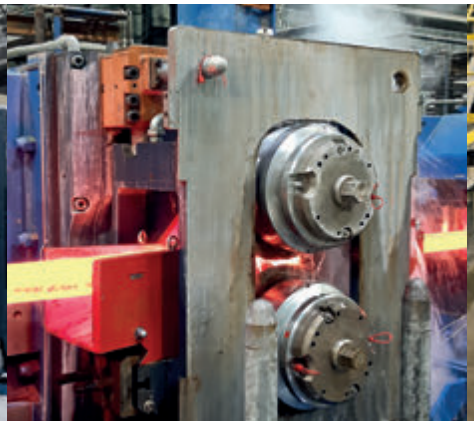

DANIELI


ANIELI


DANIELI
SUND / BIRSTA

DANIELI MIDA ECR® MINIMILL STARTS OPERATION AT NUCOR STEEL SEDALIA

The new MIDA ECR® endless casting-rolling minimill of Nucor Steel in Sedalia, USA, has a rated capacity of 380,000 shtpy for #4 to #11 rebars (12.7 to 35.8 mm) in straight and torsion-free spooled bars.
An excellent startup made it possible to produce liquid steel straight into bars in endless mode right from the very beginning.



GERDAU, BRAZIL
Automatic, label clip-holding robotized system for complete product traceability.

Europe

FERALPI, GERMANY
HiProfile gauge for in-line measurement of wirerod, 5.5- to 20-mm-dia, at over than 115 m/s.

LESEGNO RIVA ACCIAIO, ITALY
Bar mill modernization including new Compact Sizing Unit -CSU, plus a HiProfile laser-based gauge for in-line bar measuring.

ACCIAIERIE VENETE, ITALY
New Drawer bar finishing unit producing hot-rolled bars with high dimensional tolerances, avoiding downstream peeling operations.

OMK, RUSSIA
New, three-line finishing complex for 60– to 177.8–mm dia OCTG-welded-pipes. Heat treatment production rate up to 180 pieces/hour, threading capacity up to 135,000 tpy and Quality Assurance and beveling line capacity up to 165,000 tpy.

RUSAL, RUSSIA
Flexible homogenizing furnace for billets and slabs at aluminium research center.

Middle East and Africa

AQS- ALGERIAN QATARI STEEL, ALGERIA
Completion of Danieli 2 Mtpy EPC minimill project featuring two meltshops and bar and wirerod rolling mills, and plant auxiliaries.

SUEZ STEEL, EGYPT
New complete, 1.4-Mpty bar mill with endless welding-rolling, producing 10-mm-dia bars at up to 48.5 m/sec.

DILER DEMIR ÇELIK ENDUSTRI, TURKEY
Commissioning of 6-strand continuous casting machine for the production of SBQ billets.

KARDEMIR-KARABUK DEMIR CELIK, TURKEY
Four-strand, 9-m radius high-speed caster with FastCast Cube and Power Mould, setting a new strand productivity record in Turkey.

KROMAN ÇELIK, TURKEY
Wirerod mill upgrading with TMB Twin-Module Block.

East, SE Asia / Asia Pacific

MAANSHAN IRON & STEEL CO. LTD, CHINA
Two-strand, 12-m radius caster with the flexibility to produce four rectangular blooms with the twin concept on the two strands, produced the widest beam-blank ever in the world.

MAANSHAN IRON & STEEL CO. LTD, CHINA
Five-strand, 14-m radius caster for the production of large SBQ blooms.

SHANXI TAIGANG, CHINA
Bar and wirerod mill modernization with overall production increased to 200,000 tpy.

YUNNAN QUJING CHENGGANG, CHINA
New high-speed twin-channel line exceeding contractual values after two weeks from hot startup.

VALIN XIANGTAN, CHINA
New, 14-m, five-strand bloom caster for the production of a wide range of steel grades, including high-alloy and high-carbon spring steels, performing simultaneous soft and hard reduction.

CHANGSHU LONGTENG, CHINA
New, 800,000-tpy rolling mill for specialty steel bars and deformed bars, featuring Compact Sizing Unit.

JIANGSU LIANFENG, CHINA
New, 700,000-tpy rolling mill for 20 to 100-mm-dia bars in construction grades and specialty steel.

BEN STEEL, CHINA
New breakdown mill and dedicated finishing facilities for the production of 800,000 tpy of squares, rounds and rectangles.

PT TUNGGAL, INDONESIA
New, 450,000-tpy mill with high-speed wirerod line producing smooth wire and quenched rebar at speeds up to 105 m/s.

TUE MINH STEEL, VIETNAM
New high-speed bar and wirerod mill, including an induction furnace and a 10-pass, Multidrive twist-free finishing block, feeding both lines.

NGHI SON, VIETNAM
Direct Casting Rolling plant with a four-strand caster producing square billets, induction-heated and directly rolled in 12 SHS Plus stands, followed by two wirerod rolling lines.

HOA PHAT DUNG QUAT STEEL JOINT STOCK CO, VIETNAM
Three FastCast 6-strand billet conticasters for total 5.1 Mtpy production at reduced OpEx, commissioned in six months.

HOA PHAT, VIETNAM
Rolling mill #2 at Quang Ngai has started, exceeding 47 m/s for 10-mm-dia bars, and RM #1 received final acceptance less than one month after the first coil.

POMINA 2, VIETNAM
Bar mill revamp with electrics and automation, AC main drives, DC bus, auxiliary drives, motor control centers, LV distribution. L1 for reheating furnace and bar mill.

TISCO, CHINA
Rolling mill for special and stainless steel in bars and wirerod.

Central and South Asia

JSW, INDIA
6-strand billet caster upgrade to produce new sections and 14-m long billets. Target productivity was reached seven days after hot commissioning.

— Extrusion and forging presses — Inspection, conditioning and cold finishing lines

Europe

BONDIOLI E PAVESI, ITALY
New, patented drawing bench, 100-t pulling force, for steel tubes and bars.

METRA, ITALY
Aluminum extrusion press revamping to increase extrusion force from 60 to 70-MN, upgraded to front-loading design.

PROFILGRUPPEN, SWEDEN
New, front-loading 28-MN press for aluminum performing at 10.5 sec. from extrusion-end to new billet loading upsetting at 100 bar.

VOTKINSKY ZAVOD, RUSSIA
New forging plant consisting of a single-frame, cylinder-stroke open-die press and 2-ton capacity railbound manipulator.

ZMZ, RUSSIA
New forging complex equipped with a 25-MN open-die press, two integrated manipulators and DanForge automation system.

East, SE Asia / Asia Pacific

MASTEEL, CHINA
Billet grinder with 45- to 90° variable-angle system for +/-10% of the nominal grinding depth, operating in full-skin grinding mode.

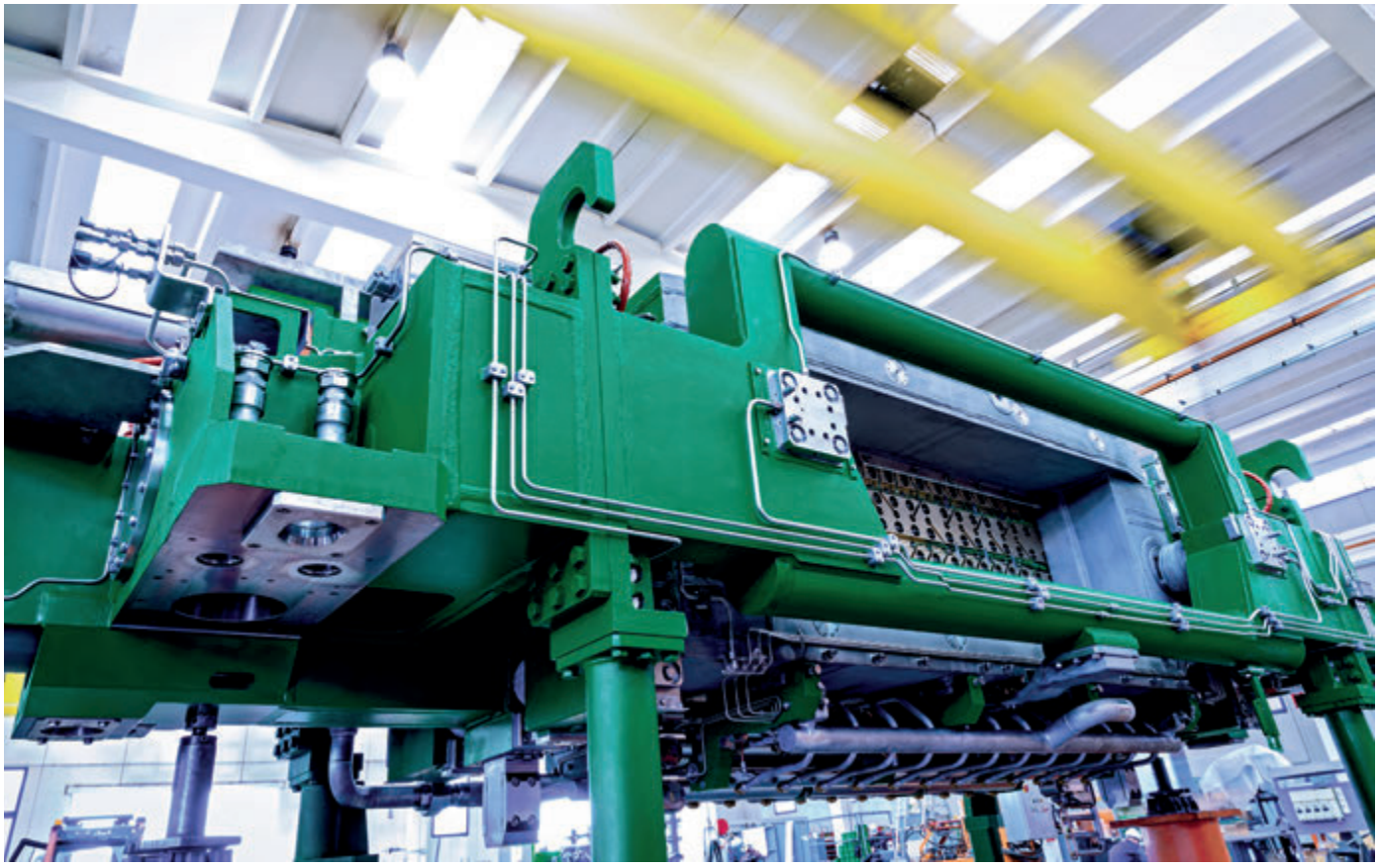
PANGANG GROUP, CHINA
New steel extrusion facility featuring a 45-MN extrusion press and a 15-MN vertical expander and downstream handling equipment.

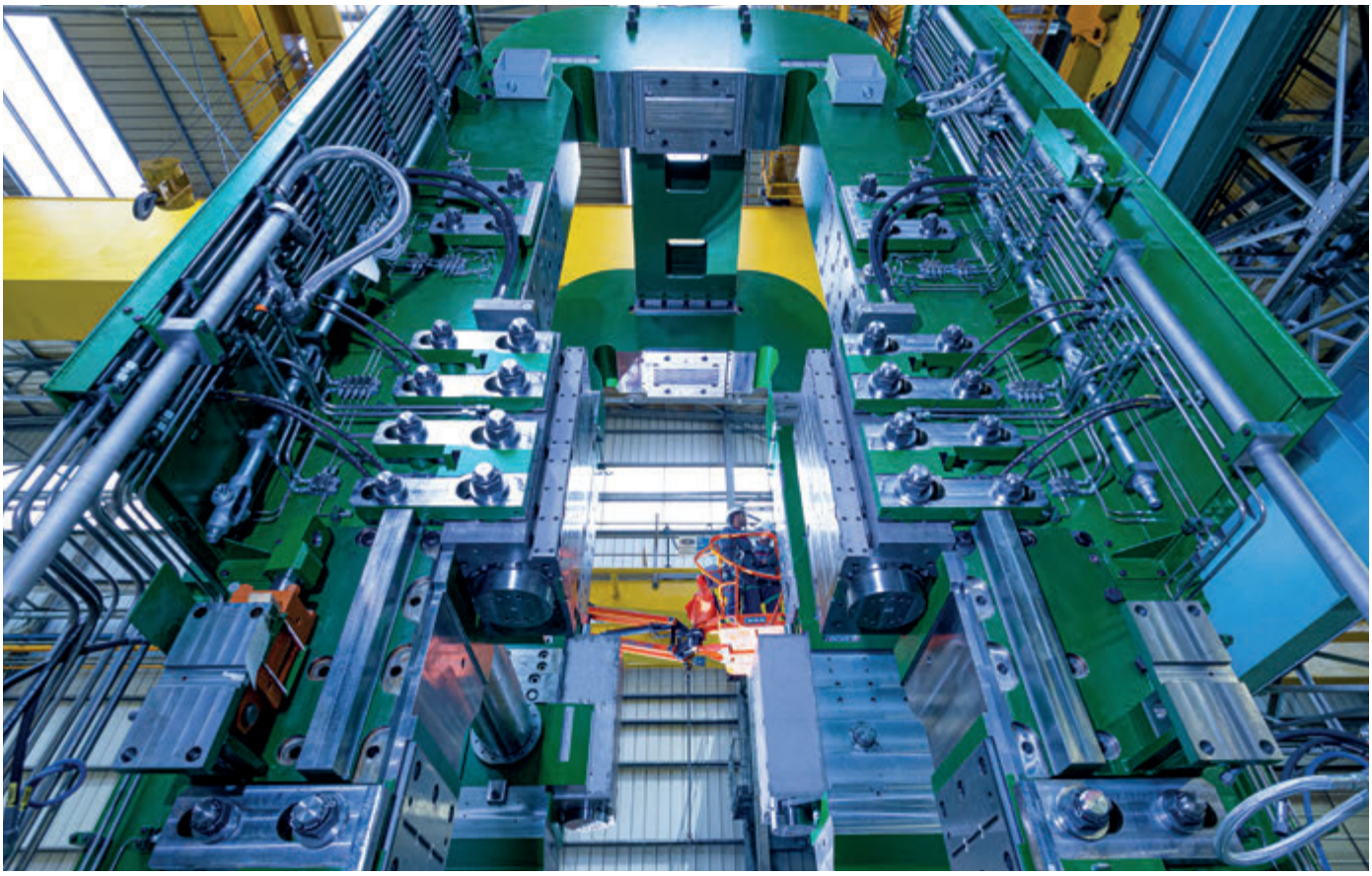
POONGSAN, KOREA
New extrusion line for brass and copper alloys, featuring a 36MN indirect press with ESED 4.0 system, a coiling system and a graphite-free cooling bed.

POSCO, KOREA
CastGrind unit for surface-grinding approx. 200,000 tpy stainless steel, in full skin-grinding mode.

DANIELI QSP®
QUALITY STRIP PRODUCTION TO UPGRADE NUCOR STEEL GALLATIN

The project, under execution in Ghent, USA, includes new meltshop, new thin-slab caster with a capacity of 3 million shtpy, stands and mill upgrade. This upgrade from CSP to Danieli QSP will allow Nucor to improve thermomechanical rolling capabilities, therefore expanding production of AHSS, API line pipe and a number of other added value steel grades.






L1
L2
L3

ABS Steelmaking

ABS Steelmaking

Acciaierie Bertoli Safau, with its wide range of products (ingots, blooms, rolled bars, Rotoforged bars, forged bars and coils), in terms of both dimension and quality, solidified its international position as one of the most important players in the production of special steels. The continuous product and process innovation, together with its long tradition and experience, guarantee the quality and the value of ABS' steel. ABS is able to satisfy every customers' request, even those with the most stringent requirements and is a supplier for several demanding sectors, particularly: Automotive, Mechanical Engineering, Oil & Gas, Wind Energy, Railways, and Yellow Goods.

ABS production and sale of special steels

Steelmaking structure

ABS Acciaierie Bertoli Safau S.p.A.	Steelmaking Plant (Udine, Italy)
ABS Sisak d.o.o.	Steelmaking Plant (Sisak, Croatia)
Qualisteel S.r.l.	Cold Finished Bars Production Unit (Udine, Italy)
ABS Centre Métallurgique Sarl	Research & Development Centre (Metz, France)
ABS Deutschland	Sales Agency (Ratingen, Germany)
ABS Scandinavia	Sales Agency (Oerebro, Sweden)
ABS Iberica	Sales Agency (Bilbao, Spain)

ABS Executive Board

Carla de Colle
Chairwoman

Anna Mareschi Danieli
Vice Chairwoman

Stefano Scolari
Chief Executive Officer,
Vice Chairman

Giacomo Disarò
Chief Operation Officer

Andrea Di Bello
Business Development
Director

ABS Executive Managing Staff

Production & Maintenance
G. Disarò

Business Development
A. Di Bello

Demand Planning
E. Belluati

Logistics
M. Fior

Technical Area
G. Giacomini

New Plants
A. Chittaro

Procurement
M. Magistretti

Controlling
F. Brunetti

IT
C. Rossi

Digital Transformation
C. Tassin

Finance & Administration
G. Flaborea

Human Resources
S. Catania

ABS Sisak d.o.o. (Croatia)
— *Steelmaking plant*
M. Clemente

ACM (France)
— *Research Centre*
C. Stocky


DANIELI
DANIELI
KUKA

Sales and operating results

In thousands of euro	June 30, 2020	June 30, 2019
Net revenues	660,904	1,044,412
Gross operating margin (EBITDA)	63,395	117,676
Depreciation, amortization, and write-downs	(49,225)	(63,658)
Operating income (EBIT)	14,170	54,018
Net financial income/(charges)	(5,516)	(912)
Profit before tax (EBT)	8,654	53,106
Income taxes	(2,286)	(24,203)
Net profit	6,368	28,903
Profit and loss deriving from yielded assets	(16,378)	0
Net profit for the period	(10,010)	28,903
Segment assets	1,089,854	1,130,917
Increase in investments in tangible and intangible assets	158,136	62,767
Segment liabilities	430,842	436,404

ITALY > **Acciaierie Bertoli Safau S.p.A. (ABS)**

For the period 2019/2020, ABS recorded a total revenues of 648.2 million euros (931.3 million euro in the Financial Year 2018/2019), with a net profit of 11.7 million euro compared to the previous Year, which closed with a profit of 59.6 million euro.
The steel market during the Financial Year 2019/2020 experienced three very different phases.
The first period, which lasted from June to November 2019, during which the main industrial sectors such as mechanics and automotive aimed to reduce stocks significantly. This approach has gradually led to a lack of orders from all producers in the steel sector, triggering a significant downward trend in prices.
The second phase, from December 2019 to February 2020, saw a marked reversal in the trend of apparent consumption, allowing a good level of order backlog to reconstitute.
And the last phase, from March until the end of the Fiscal Year, heavily influenced by the effects of the measures adopted by Governments around the world to react to the Covid-19. Even after the closures in March and April, many of the most important sectors of use of ABS products suffered a drop in consumption of over 40%.
The level of ABS shipments during the months of May and June, which continued into the first months of the following Year, had a limited drop (-20%) thanks to both the previously reconstituted order book and the important presence of ABS in sectors that did not record drops such as wind power generation and railways.
Once again, the strategy of constantly focusing on the development of high quality products for demanding applications in every end market that ABS products can reach, even in such a complex year, was confirmed.
The order backlog after the low level reached at the beginning of the new Fiscal Year is now seeing a recovery.
As regards the development of the plants and infrastructures serving the Company, investments in the Financial Year 2019/2020 amounted to over 90 million euro.
The most important investment is undoubtedly the continuation of the construction of QWR 4.0 (Quali Wire Rod), the new plant that will represent the “state of the art” for the rolling of wire rod and whose state of progress during the Year involved disbursements of approximately 67 million euro. At the end of June 2020, the plant reached a completion rate such as to allow the start of hot testing in October 2020, with a delay of a few months compared to the objectives, mainly due to the Government’s measures regarding the containment of the Covid-19 which, it should be remembered, led to the interruption of the activities of the national yards during the peak of contagion.

Other main investments include those for the Meltshop line, such as the installation and commissioning of the new turret of the continuous casting no. 2, which replaced the previous plant that had reached the maximum life cycles foreseen by the original project and the Danarc efficiency improvement project that saw the collaboration of a multidisciplinary team of ABS, Danieli Centro Met, Danieli Automation, More and Centro Cranes in order to obtain a more productive and safer melting furnace for the operators, using the concepts of automation of operations, remote control, installation of high definition cameras and thermal imaging cameras for the control and management of the most critical activities. Also important and strategic is the expansion of the 220 kV substation, with the laying of a double underground cable line, which will replace the overhead line located above the current storage area of Luna's finished products, and which will also function as an emergency line in the event of power failure.
Finally, ABS's activities with regard to Sustainability are also important:
- the interventions to improve the acoustic impact caused by production activities on the surrounding area, in the logic of respect for the needs of the inhabitants of neighbouring municipalities and commitment, which over the years has always distinguished ABS, towards the territory that hosts it
- the refurbishment of the slag cooling area of the Meltshop, aimed at obtaining better mechanical characteristics of the Ecogravel, the CE certified material which, from a circular economy point of view, is an excellent substitute for quarry materials used for road substrates and/or bituminous conglomerates.

CROATIA > ABS Sisak doo.

The Financial Year 2019/20 was marked by a production shutdown that occurred for almost the entire duration of the Year. In fact, after the implementation of the innovative sys-tem of the Q-One electric furnace, during the months of July and August, to which a total production stoppage was consequently paid, due to the strong slowdown of the steel market, the Company worked discontinuously only in the period September-December 2019. Starting from January 2020, and for the entire six-month period, it was not possible to produce due to the Covid-19 pandemic.
As consequence, the result for the Year was a loss of 4.9 million euro. The result could not have been any different, given the almost total absence of production. In spite of this, the first performances of the new Q-one plant gave very encouraging results. This aspect is very important because it consolidates the preliminary hypotheses of improvements in consumption and productivity that the innovative Q-One had promised, making the forecasts of

improvements in plant costs and productivity more solid once production has been distributed. Despite the lack of production and the uncertainty as to when the economy will start up again, on a global scale, due to the Covid-19 pandemic, the Company has decided to invest in its know-how while maintaining the employment level, in order to be able, immediately, once production has been restarted, to be competitive and performing to supply both the external market and the Quality wirerod plant in ABS Italy.
The Financial Year 2020/2021 will certainly be influenced by the costs of preparation for restarting, but it will also be characterised by a rapid growth curve in volumes due to a demand for fast plant saturation, in order to be able to supply the Quality wirerod plant in ABS Italy, which will produce wirerod from special steels, with the semi-finished product of ABS Sisak.
In addition, the Financial Year 2020/2021 will open a new cycle of investments to be carried out over the next 3/5 Years, which will have to guarantee an increase in productivity in order to make the site more competitive with consequent future production stability.

ITALY > **Qualisteel Srl**

In the period Qualisteel operated guaranteeing cold finishing activities on ABS products, completing their verticalization: both rolled bars and ground bars were processed where profitability was higher.
The Company's revenues for the Financial Year 2019/2020 amounted to 5.3 million euro, with a small net loss of 0.15 Million Euro at 30 June 2020.
The Company suffered a decrease due to the advent of the Covid-19 pandemic, which greatly reduced production volumes (worst performance on finished material 32,000 t) and related revenues. Despite this, the Company continued in the process of increasing flexibility, focusing on the tuning of the production lines in order to make them interchangea-ble in the various processes, thanks to the strong specialisation of the internal team and, in part, the support of Danieli Service. Therefore, a push in the execution of small but targeted investments to be effective and efficient.
For organisational reasons within the Steelmaking Division of the Danieli Group, starting from the new Financial Year 2020/2021, i.e. 1st July 2020, Qualisteel S.r.L. was merged by incorporation into Acciaierie Bertoli Safau S.p.A., which had previously acquired control, becoming the Sole Shareholder, in May 2020.

FRANCE > **ABS Centre Metallurgique (ACM) Sarl**

ACM is based in Metz and represents for the Group a centre of excellence for the research and study of steel production, covering the entire operating chain, from the raw material to the finished product developed according to specific customer and market needs.
A team of twenty-one engineers and technicians develop the research activities through a variety of projects aimed at improving the operation in the processes and / or the quality of the product.
During the year, the need to find solutions aimed at lightening the parts produced by ABS customers, while guaranteeing high mechanical performance, led to reinforce the range of innovative bainitic steels available in ABS offer, focusing on toughness behavior.
The research, however, has not only concerned products in the strict sense but aimed to im-prove various digital twins in order to support the processing and involved metallurgical mech-anisms understanding.
Besides to research activities; ACM conformed it accreditation according to the international standard ISO 17025 (General requirements for the competence of testing and calibration laboratories), extending also the frame of accreditation and consequently ACM offers its possibilities and competencies to various typologies of markets and customers.

Quality

Quality Dept, nowadays as part of Customer's Team & Production Team, ensures high quality products at sustainable costs. The optimization of transformation processes and the development of more performing steel products are important steps not only towards business sustainability and to strengthen customer's relationship, but also to support the achievement of the climate goals.

The key driver is to develop solutions with high customization level thanks to continuous technical support to direct Customers (forging / machining companies), OEM (Original Equipment Manufacturer) and End-users.

Moreover, this year ABS maintained or renewed these certifications, that are fundamental to reinforce our presence on several steel sectors:

— IATF 16949 and ISO 9001 for Quality Management System.

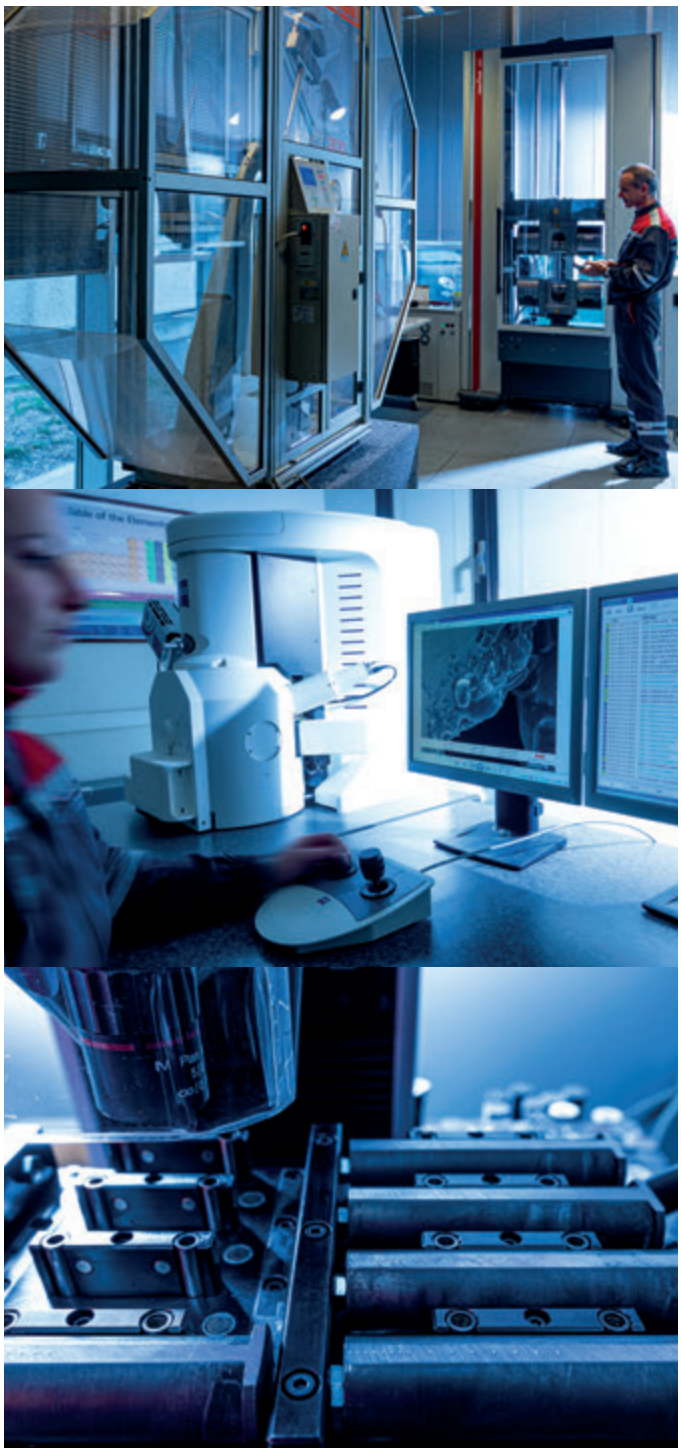
— CE Marking according to the Construction Products Regulation 305/2011/UE (EN 10025-1 and EN 10343).

— American Bureau of Shipping, Bureau Veritas, DNV GL and Lloyd's Register approvals for marine applications.

— TÜV approval according to the Pressure Equipment Directive 97/23/EC and AD2000 Merkblatt W0.

Safety

With regard to the Safety area, financial year was characterized by obtaining, in December 2019, the Certificate of Fire Prevention (CPI): after a 6-year journey with more than 7.5 M€ invested, the involvement of all Company's members on 340 detailed projects, ABS has passed 6 inspections of the Fire Department (VV.F.) and reached this important milestone. In the same month, was also passed the renewal of OHSAS 18001 certification, without any non-compliance, laying the groundwork for the switch to ISO 45001 which, from March 2021, will be the standard of Safety Management Systems.
Finally, the second half of the year was marked by the fight against the spread of Covid-19: from February 2020 a series of measures were adopted to protect employees and third parties operating in the Company against Coronavirus. These actions were culminating in implementation of a strict Protocol, shared with the Social Parties, which regulates all activities in order to prevent cases of Covid-19 infection. In addition to organizational measures, investments have been made in equipment (e.g. thermal scanners for temperature control of those entering the factory, UV lamps for sterilisation of changing rooms and places of refection) and for the adaptation of workplaces to the rules of social space, as well as for personal prevention devices and sanitization of all areas.



Sustainability: willing to go beyond

— Energy and CO_2.
The projects accounted according with the ISO 50.001 in the fiscal year 19/20 got 6434 toe of energy saving and 10,860 CO2 emission avoided. Notwithstanding the production contraction, the enrgy saving incrase 2.9% and the avoude emission incrase 14.2% compared with the previus fiscal year. This results are possible beacause sustainability is core values and a strategic factor for long-term growth vision. Technological innovation is the keystone of the environmental component and it is also strictly related to people, their skills and involvement.

— Environment.
Today Life Cycle Assessments, LCA, provide the best framework for assessing the potential environmental impacts of products. That's why ABS decided to apply this methodology to develop its first project of screening for our production cycle.
The target of this project is to help us identify improvement areas from the technical, management, logistic point of view and to guide the re-design and re-thinking of products and processes, in order to minimize their environmental footprint, through optimization of the consumption of natural resources and waste minimisation, within the framework of the Circular Economy.

Training & Information

Around 8,000 hours of training were organized with the participation of over 2,000 people. This year's courses covered a variety of topics, regarding technical training, soft skills training, compulsory training including safety courses as well as courses about the correct use of work equipment, courses about the use of Personal Protective Equipment, courses for Emergency Teams and BBS - Behavior-Based Safety courses.

This shows that the company is always committed to providing its employees with the training tools necessary for their professional development and to ensure their health and safety in the workplace.

Product mix

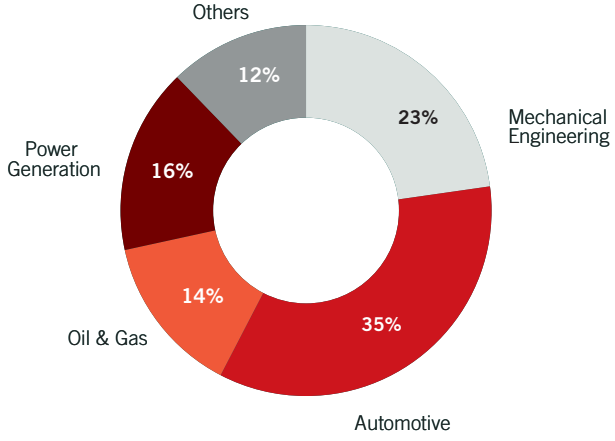
Ingots up to 130 t
Forged bars up to 1,000 mm
Blooms up to 850 mm
Rolled bars up to 500 mm
Bar in coils up to 60 mm
Peeled bars up to 300 mm
Ground bars up to 160 mm

Surface finish

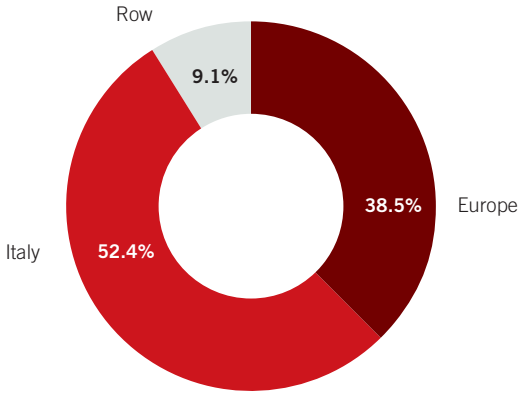
As-cast, As-rolled, Shot-blasted, Rough-forged, Peeled-reeled, Rough-turned, Ground

Heat treatments

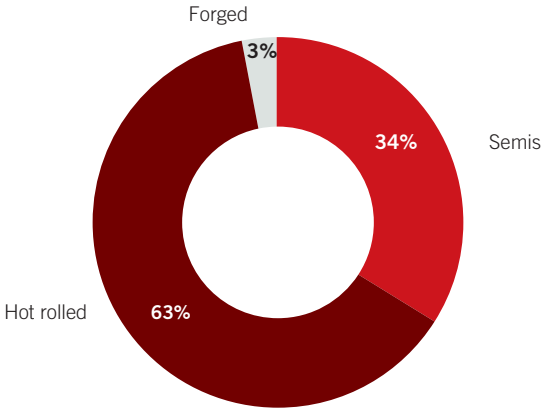
Shearability annealing
Soft annealing
Isothermal annealing
Spheroidizing annealing
Normalizing
Hardening and tempering



End Use. During the last fiscal year ABS consolidated its position in the reference markets, and opened to others. The shipments slightly changed: improving their percentage (Automotive, Power generation and Oil & Gas) or lightly decreased (Mechanical Engineering).



Geographical Area. ABS confirms both its good position on the domestic market (52.4%) and its traditional export activity. The great part of the export goes to European countries (38.5%).



Products. The overall volumes delivered during the fiscal year 2019/2020 and produced in the Udine steelmaking plant record a reduction of 15% due to COVID-19 pandemic, and maintain the same break down by product with an important quote in hot-rolled product shipments.

Square ingots

Poligonal ingots

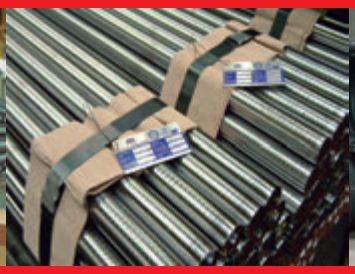
Round blooms

Forged round bars

Forged square bars

RCS rolled bars

Round bars



Peeled bars

Bars in coils

Ecogravel®
Industrial aggregate from EAF slag recovery, for bituminous conglomerates, cement mixes, and concrete.

QWR 4.0
The New ABS Quality Wirerod plant went live by rolling the first special steel bars.

Part of “ABS Vision 2300” project, the new plant will widen the ABS product portfolio by producing top-quality wirerod coils in diameters from 5 to 25 mm.

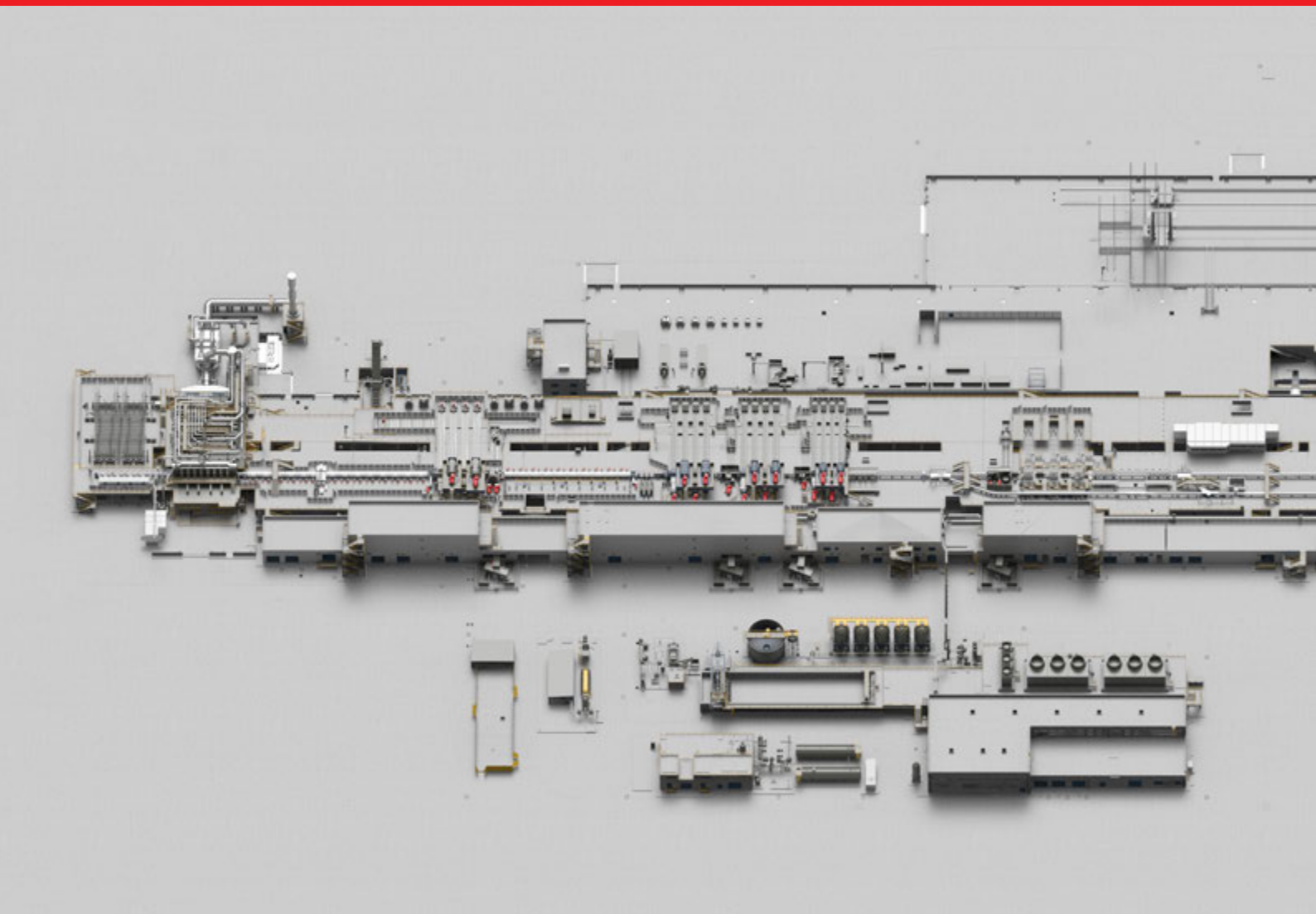
Designed for “Zero man on the floor”, remote controls, extremely strict tolerances and the finest grain sizes, QWR 4.0 is the most technologically advanced wirerod mill in the world.

ABS
VISION
2300

The new greenfield QWR 4.0 Quality Wirerod mill is part of the expansion project being implemented at ABS works in Cargnacco, Italy, and satisfies the production of coils from 5.0 to 25-mm-dia, fulfilling the ABS willingness to be even more resilient to changing market conditions.

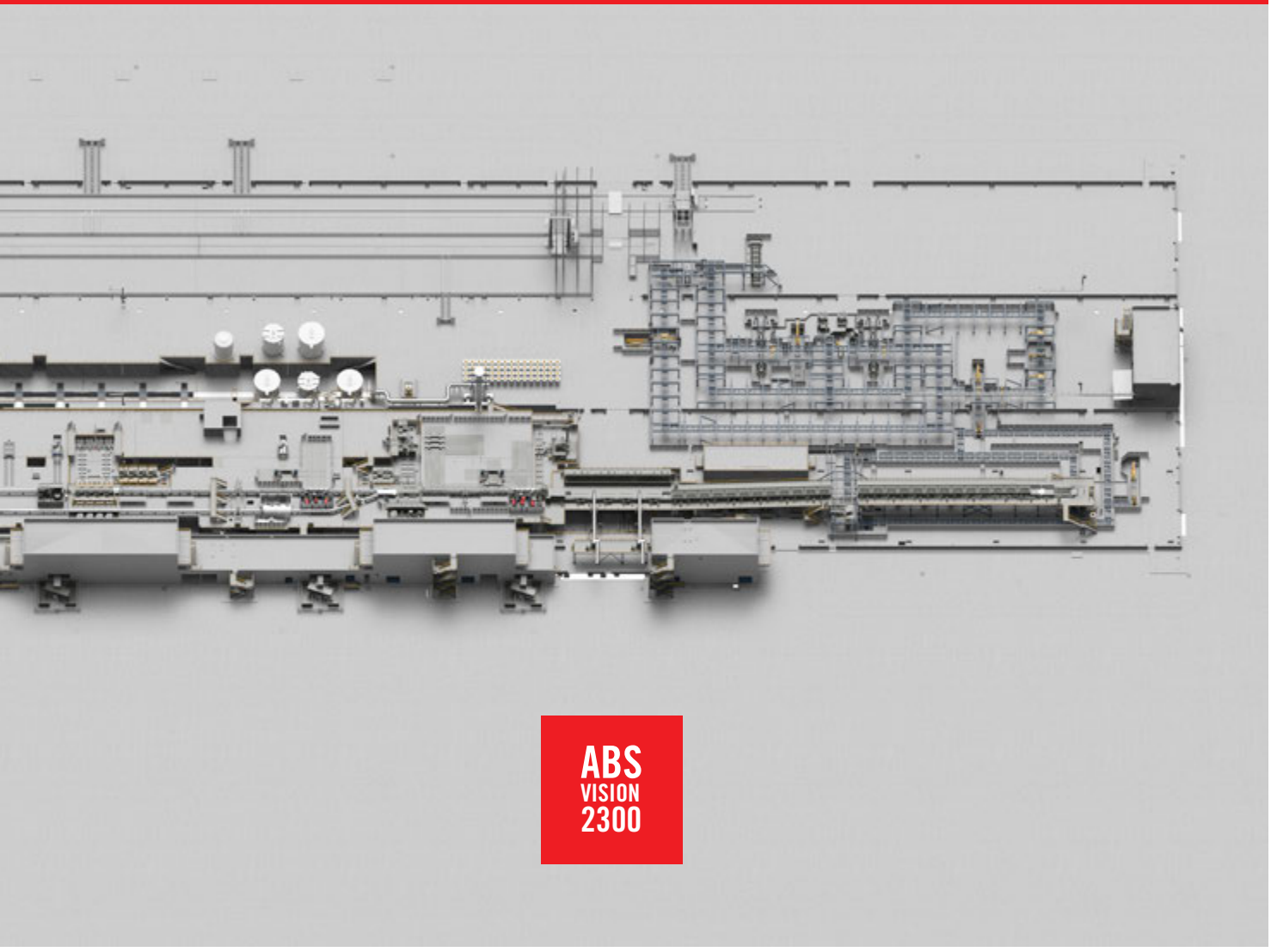
Coil production is not a novelty for ABS, but the range of sizes the new plant can produce adds to the portfolio of products. Service, quality and punctuality are just some of the musts of our supply, backed by an extensive, practical use of innovative technologies.

The “zero man on the floor” approach will in fact translate into an advanced capability to remotely control the process and give greater attention to the product, starting from its traceability.
The implementation on QWR of the innovative Danieli Intelligent Plant philosophy is a revolution for the plant management, post-processing analysis and training. Involving people in a daily learning and optimization project is the key to discovering new and unexpected optimization possibilities.
The wirerod produced in the new rolling mill will stand out for its dimensional tolerances and minimized

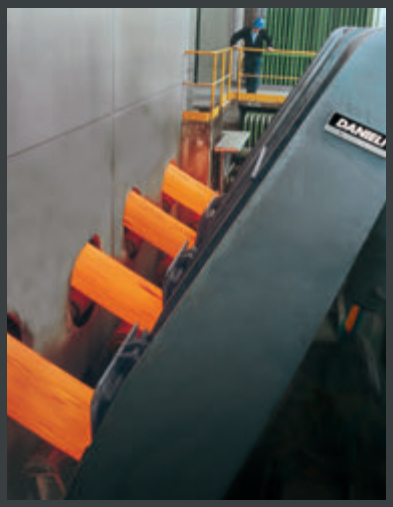


surface defects, both under 0.1 mm. This is guaranteed by the automation system and measuring equipment, i.e. Hi-Profile, Hi-Test, and more.
Temperature monitoring throughout the entire rolling process will make it possible to achieve a grain size of 9 or finer, as per ASTM standards.
Also, the EDC system, designed to obtain a very fine pearlite, will contribute to maximizing the mechanical properties and workability of the finished product.
The rolling mill is also designed to minimize processing costs (energy consumption, section-changing time, personnel employed, etc.) by applying the concepts of Industry 4.0.

The wirerod can be annealed right in the plant's furnaces during production. Then the coils will be stored in an automated warehouse designed to safeguard the surface quality of the product, all the while ensuring a high degree of process flexibility with short lead-times on orders.
ABS QWR 4.0 soon will become the benchmark special steel wirerod rolling mill.



ABS VISION 2300


DANIELI


DANIELI


DANIELI WEAN UNITED

Danieli Group
History

Danieli's origins date to 1914 when Mario and Timo Danieli founded the Angelini Steelworks in Brescia, Italy, one of the first companies to use the electric arc furnace for steel making.
In 1929 part of the steelworks was transferred to Buttrio to manufacture tools for forging plants and auxiliary machines for rolling mills.
In 1955, led by Luigi Danieli, the company started designing and manufacturing equipment for the steel industry. His idea was to manufacture more competitive equipment, simplify layouts and maximize the use of automation. One of the concepts developed, the "EAF/Conticaster-Rolling mill" production route, has characterized and contributed to the successful development of the minimill process, which is widely adopted today.
In 1982 the company was listed on the Milan Stock Exchange, and in 1984 Mrs. Cecilia Danieli (who had managed the financial and administrative departments of the Group since 1977) -who was appointed Chairman- and Mr. Gianpietro Benedetti (who had been Technological, Commercial and Project execution Director since 1977) -who was appointed C.E.O.- were entrusted with the management of the company.
The planned expansion of the company was based on two guidelines:

— increase the number of products offered through the purchase of companies considered to be international benchmarks;
— internationalization of the company with the construction of plants and engineering offices in areas forecast for strong growth.

Since then, through the acquisition of German (Josef Fröhling), Swedish (Morgårdshammar), British (Davy Distington), French (Rotelec), American (Wean Industries, United Engineering), and Dutch (Corus Technical Services) companies, leaders in their specific fields of activity, and the continuous development of the acquired process technologies and equipment, Danieli has become a global player in plantmaking over the full range of products, from ore, scrap and treating; to flat, long, tubular, forged and extruded products processing; and fume, water and slag treating.
At the end of the 1990s the internationalization process was completed with the construction of fully owned and directly managed design and production centers in China, Thailand, Vietnam and India, followed by Russia, Turkey, and Brazil, all of which were added to the European plants already existing in Italy, Sweden, and Germany, guaranteeing the same excellent quality equipment and service produced at Danieli Headquarters.

Beginning in 1969, through Danieli Automation, the company has developed its own automation systems, including instrumentation and power control technologies.
Danieli Automation has grown considerably in the past 20 years. In particular, in 2015 it began investing in Industry 4.0 technologies and purchased a company specialized in the use of robots.
In 1995 Danieli acquired a steelmaking company – ABS - which today is among the European leaders in engineering steels production. In addition to being a profitable business itself, it is an ideal laboratory for metallurgical research as well as equipment/processes testing.

Danieli Group
Milestones

Danieli's objective is constant technological improvement. Danieli is recognized as one of the most innovative and reliable companies in the metals producing industry.
On the right page are shown some of the technological milestones Danieli implemented through continuous investments in innovation, together with high-quality in-house manufacturing, our own process automation, construction, project management and customer service. These are the basis of the Danieli strategy that will allow us to maintain our leadership and expand our market share in plantmaking in the coming years.
Please visit our website for the complete list of our contribution to the history of the metals producing industry.

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DANIELI

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A CENTURY OF PARTNERSHIP EXPERIENCE

ITALY GERMANY SWEDEN AUSTRIA
FRANCE THE NETHERLANDS UK
SPAIN RUSSIA TURKEY USA BRAZIL
THAILAND INDIA CHINA JAPAN