



fives

Industry can do it

WE ACT FOR
THE PLANET ON
A GLOBAL SCALE



ANNUAL AND CSR REPORT

2023 Financial Year

MESSAGE

from **Frédéric Sanchez**

Chairman and Chief Executive Officer
of Fives group



💧💧 At Fives,
we give meaning
to our employees'
jobs by giving them
full responsibility
for their project,
at every level. 💬

Industry can do it. With its strong societal ambitions, Fives' raison d'être is far from being a cosmetic formula. Quite the contrary. It is the guarantee for the Group's employees that they are doing a job that makes sense and is moving in the right direction. In concrete terms, what are we talking about?

💧💧 **First and foremost, we enable our employees to have a positive impact on their environment. Every day, our teams invent and design solutions that improve the daily lives of millions of people.** 💬

When you take a plane, receive a parcel or consume energy, there are solutions behind them that have been thought out and developed by our employees.

This constant concern to have an impact is also at the heart of the Group's commitment to combating climate change. For more than 200 years, Fives has been a long-term player and demonstrates today that industry is one of the solutions to decarbonization.

This vision, which we defend, led us to take a bold and visionary step more than 20 years ago, when we said that the industry of the future would either be digital and carbon-free or it wouldn't be. As a result, the Group focuses 100% of its activities on developing solutions that reduce its customers' environmental impact. Our employees innovate every day to make industry more efficient and sustainable. By joining the Fives teams, they are joining a group of passionate men and women who are proud to be pioneers, moving forward together to make people love industry.

💧💧 This constant concern to have an impact is also at the heart of the Group's commitment to combating climate change. For more than 200 years, Fives has been a long-term player, demonstrating that industry is one of the solutions to decarbonization. 💬💬

Impact, commitment, innovation... an employer promise that is often asserted, in line with the challenges of our time and a sine qua non for attracting and retaining talent. However, at Fives, we are convinced that we need to move in the right direction collectively and give each individual the meaning of his or her job. How can employees be involved in a large-scale social project, however noble it may be, if they don't see the direct impact of their contribution, mainly because of the endless layers of hierarchy? That's why, at Fives, we give meaning to our employees' jobs by giving them full responsibility for their project, at every level.

💧💧 The regionalisation of our organisation is part of the same ambition: to align authority and responsibility, to ensure that everyone is doing a job that is meaningful and moving in the right direction. INDUSTRY CAN DO IT. 💬💬

Over 20 years ago, we opted for a decentralised organisation. This enables our 9,000-strong workforce, working in more than 100 subsidiaries around the world, to take account of the constraints on the field and provide tailor-made solutions for our customers. Each employee is responsible for his or her own projects within the subsidiary. Projects that it is free to propose and develop, with the appropriate resources at their disposal. Every year since 2011, Fives has organised an internal innovation competition, the 'Fives Innovation Awards', designed to highlight projects proposed by its employees, across all subsidiaries and activities, and not initiated by the Group. The regionalisation of our organisation is part of the same ambition: to align authority and responsibility, to ensure that everyone is doing a job that is meaningful and moving in the right direction. Industry can do it.

Frédéric Sanchez

Chairman and Chief Executive Officer of Fives group

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1

WHO WE ARE?

Our key figures – 2023 financial year

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OUR KEY FIGURES

An international presence, close to our customers and markets

Around **100** locations in nearly 24 countries

35 centers of research and tests

Employees of **81** different nationalities

MORE THAN
200 YEARS
OF HISTORY

€**2,507** M
ORDER INTAKE

€**2,395** M
SALES

€**2,413** M
BACKLOG

NEARLY
9,000
EMPLOYEES

2,281
PATENTS IN 673 FAMILIES

73
NEW PATENTS FILED IN 2023

AN INDUSTRIAL ENGINEERING GROUP

Fives designs and manufactures machines, process equipment and production lines for the world's largest industrial groups in many sectors such as: steel, aluminum, glass, cement, aeronautics, automotive, logistics, energy.

Frédéric Sanchez

Chairman and Chief Executive Officer of Fives group



Over 20 years ago, we opted for a decentralised organisation. This enables our 9,000-strong workforce, working in more than 100 subsidiaries around the world, to take account of the constraints on the ground and provide tailor-made solutions for our customers. 

ORDER INTAKE BY ACTIVITY



SMART
AUTOMATION
SOLUTIONS

33%



PROCESS
TECHNOLOGIES

45%



HIGH PRECISION
MACHINES

13%

OTHERS
ACTIVITIES

9%

ORDER INTAKE BY GEOGRAPHICAL AREA

37%

AMERICAS

29%

EUROPE

25%

ASIA
OCEANIA

9%

AFRICA &
MIDDLE EAST

OUR FINANCIAL RESULTS

AND NON-FINANCIAL INDICATORS

I.

FIVES GROUP ACTIVITY IN 2023

1.1. ECONOMIC AND BUSINESS ENVIRONMENT

The Group's business continued to perform well in 2023. Buoyed by very favorable underlying trends around the challenges of automation, digitalization, decarbonization and sovereignty, the order intake for the 2023 fiscal year reached €2,507 million.

Although this level is €279 million lower than the record set in 2022 (€2,786 million), it includes a negative currency effect of €71 million, and does not include any order over €200 million (whereas two significant orders were booked for a total of over €430 million in 2022).

Smart Automation Solutions

The order intake in 2023 amounted to €818 million, down €16 million compared with 2022 (€834 million), however including a negative currency effect of €36 million. The effect of the market slowdown on the e-commerce segment in North America and Europe was offset by major investments in this segment in Japan, and by growth in industrial automation activities (E2Motion segment), particularly in the automotive sector in the United States.

High Precision Machines

The order intake in 2023 amounted to €338 million, down €29 million compared with 2022 (€367 million), including a negative currency effect of €9 million. This fall was due to the halt in combustion engine-related investments in the automotive sector in Europe and China.

Process Technologies

The order intake in 2023 amounted to €1,129 million, down €286 million compared with 2022 (€1,415 million), including a negative currency effect of €26 million. However, market trends remain very favorable in this division, which is seeing strong growth in the energy sector, while all other segments are holding up well excluding the impact of the two significant orders worth over €200 million each in 2022.

Transversal activities and other activities

The order intake for the 2023 financial year stands at €222 million, up by €52 million compared with 2022, mainly in the nuclear maintenance business, driven by orders relating to the «major refitting» program aimed at extending the operating life of nuclear facilities in France.

ORDER INTAKE BY ACTIVITY

Millions of euros	2022	2023
Smart Automation Solutions	834.2	817.6
High Precision Machines	366.6	338.3
Process Technologies	1,415.0	1,128.8
Transversal activities and other activities	169.7	222.0
Total	2,785.5	2,506.7

ORDER INTAKE BY GEOGRAPHICAL AREA

Millions of euros	2022	2023
Americas	1,117.7	928.0
Asia and Oceania	528.1	630.5
Europe	741.1	734.8
The Middle East & Africa	398.6	213.4
Total	2,785.5	2,506.7
Contribution from mature economies	67%	70%
Contribution from emerging countries	33%	30%
<i>Of which China</i>	9%	8%
<i>Of which Others</i>	24%	22%

1.2. ACQUISITIONS

To strengthen its positioning and expertise in the digital field, the Group made two acquisitions in 2023:

- Dizisoft develops software solutions dedicated to extracting and analyzing data to help diagnose the industrial performance of installations,
- Fives ProSim develops process simulation and optimization software designed to increase plant efficiency, cut their energy consumption and reduce their environmental impact.

OUR FINANCIAL RESULTS

AND NON-FINANCIAL INDICATORS

II. FINANCIAL PERFORMANCE

2.1. ACCOUNTING PRINCIPLES AND COMPARABILITY ELEMENTS

The Group's consolidated financial statements were prepared in accordance with the IFRS standards.

Dizisoft (consolidated through Fives CortX, with which it has merged) and Fives ProSim, which were acquired during the year, entered the consolidation perimeter in 2023. Their direct contribution to the Group's 2023 results is not material.

As a result of the depreciation of the other main functional currencies of the Group companies against the euro in 2023, there is a negative currency impact on order intake (-€71 million), sales (-€52 million) and EBITDA (-€5 million) compared to 2022.

2.2. GROUP RESULTS IN 2023

Sales

Sales for 2023 amounted to €2,395 million, an increase of €368 million (+18%) on 2022 (€2,027 million), despite a negative currency effect of €52 million. This growth, driven by a higher opening order book (+48%), was seen in all divisions, especially in Process Technologies.

Gross profit

The gross profit for 2023 was €441 million, representing 18.4% of sales. It is down 0.7 point compared with 2022 (19.1%), due partly to a less favorable mix, with a higher proportion of larger, lower-margin contracts, and partly to margin erosions in execution, notably in the Smart Automation Solutions division in North America.

Selling and administrative expenses

Selling and administrative expenses amounted to €304 million in 2023, up €20 million (+7%) on 2022 (€284 million), despite a positive currency effect of €6 million. This increase is mainly due to payroll (+6%), as a result of annual increases and, to a lesser extent, recruitment to keep pace with business growth; as well as higher operating expenses, correlated with sales or due to inflation.

However, at 12.7% of sales, selling and administrative expenses declined by 1.3 points compared to 2022 (14.0%).

Summary of consolidated figures

Millions of euros	2022	2023
Sales	2,027.0	2,394.7
Gross profit	387.0	444.1
Selling and administrative expenses	-283.9	-304.3
R&D expenses	-22.5	-29.4
Other operating income and expenses (including employee profit-sharing and bonus schemes)	-1.7	-3.5
Amortization of intangibles related to acquisitions	-10.3	-7.6
Profit from recurring operations (EBIT)	68.5	96.2
EBITDA	125.5	150.7
Restructuring costs	-2.5	-0.3
Impairment of fixed assets	0.0	-0.1
Gain or loss on disposals and acquisition costs	9.0	-9.1
Operating profit	75.0	86.8
Financial result	-15.3	-34.5
Profit before tax	59.6	52.3
Income tax expense	-29.1	-30.4
Share of profit (loss) of associates	-20.7	-24.2
Net consolidated profit (loss)	9.8	-2.2
Net profit (loss), Group share	9.4	-2.7

SALES BY ACTIVITY

Millions of euros	2022	2023
Smart Automation Solutions	714.8	752.7
High Precision Machines	308.8	327.6
Process Technologies	820.5	1,129.1
Transversal activities and other activities	182.9	185.3
Total	2,027.0	2,394.7

SALES BY GEOGRAPHICAL AREA

Millions of euros	2022	2023
Americas	795.2	915.6
Asia and Oceania	385.1	459.5
Europe	682.9	730.7
The Middle East & Africa	163.8	288.9
Total	2,027.0	2,394.7
Contribution from mature economies	71%	69%
Contribution from emerging countries	29%	31%
Of which China	9%	9%
Of which Others	20%	22%

OUR FINANCIAL RESULTS

AND NON-FINANCIAL INDICATORS

Research and development expenses

Research and development expenses reached €29 million, a strong increase (+31%) over 2022 (€23 million). In 2023, the Group stepped up its innovation efforts, focusing on market expectations: decarbonizing industrial processes, increasing the use of low-carbon energies, developing the circular economy, urban logistics, digitalization and cybersecurity.

Other operating income and expenses (including employee profit-sharing and bonus schemes)

In 2023, they represented a net expense of €4 million, up €2 million on 2022 (net expense of €2 million). This increase stems mainly from profit-sharing and bonus schemes, linked to the improved results of the Group's French subsidiaries.

EBITDA

EBITDA for 2023 was €151 million, up €26 million (+20%) on 2022 (€125 million) despite a negative currency effect of €5 million, mainly driven by sales growth.

It stood at 6.3% of sales, in line with 2022 (6.2%). Better absorption of selling and administrative expenses by higher volumes offset lower margins.

Profit from recurring operations

Profit from recurring operations for 2023 totaled €96 million, which is a €27 million (+40%) increase on 2022 (€69 million).

Gain or loss on disposals and acquisition costs

They represented a €9 million loss in 2023 compared to €9 million gain in 2022. This expense mainly relates to the fair value reassessment of the Group's interest in the AddUp joint venture, and offsets the income recognized in respect of the capital transactions carried out between AddUp and its associates in 2022.

Financial result

Financial result was in the red by €34 million in 2023, compared to a €15 million loss in 2022.

The cost of net financial debt for 2023 amounted to €23 million, which is a €4 million increase on 2022 (€19 million). This increase is due partly to the interest expense on the stimulus bonds («obligations relance») raised in 2023, and partly to higher interest rates on the variable-rate portion of the debt.

Other financial items amounted to a net expense of €11 million in 2023, compared to net income of €4 million in 2022. This change was mainly due to foreign exchange result, with a significant gain recorded in 2022 through the crystallization of certain intra-group transactions in dollars, which benefited from the appreciation of this currency against the euro during the year.

Income tax expense

The income tax expense for 2023 totaled €30 million, up €1 million on 2022 (€29 million), due to the growth in profit before tax.

Share of profit (loss) of associates

The expense for 2023 totaled €24 million, up €3 million on 2022 (€21 million) and mainly corresponds to the share of the net result of the AddUp sub-group.

Net profit (loss)

Net consolidated result in 2023 was therefore a €2 million loss, compared to a €10 million profit in 2022, despite an improved profit from recurring operations (+40%). This fall was due to financial and non-recurring items recorded during the year.

III.

FIVES GROUP PROSPECTS IN 2024

The closing order book for 2023 totaled €2,413 million, up €67 million from €2,346 million, providing all divisions with excellent visibility on their activity levels and workload for 2024.

ORDER BOOK BY ACTIVITY

Millions of euros	31.12.22	31.12.23
Smart Automation Solutions	767.9	820.0
High Precision Machines	279.9	272.3
Process Technologies	1,139.0	1,125.1
Transversal activities and other activities	159.5	196.0
Total	2,346.3	2,413.4

ORDER BOOK BY GEOGRAPHICAL AREA

Millions of euros	31.12.22	31.12.23
Americas	848.5	837.5
Asia and Oceania	467.2	628.1
Europe	689.6	699.6
The Middle East & Africa	341.0	248.2
Total	2,346.3	2,413.4
Contribution from mature economies	65%	67%
Contribution from emerging countries	35%	33%
<i>Of which China</i>	10%	8%
<i>Of which Others</i>	25%	25%

OUR FINANCIAL RESULTS

AND NON-FINANCIAL INDICATORS

SCAN THIS QR CODE

to see all the indicators



IV. NON-FINANCIAL INDICATORS

As a designer of machines, process equipment and production lines for the world's largest industrial groups, Fives is at the core of many of the sustainable development issues faced by industry. To meet these sustainability and industrial performance challenges, Fives designs innovative products that combine energy efficiency, emissions reduction and machine safety.

To better address the demands of our clients and, more widely, of all our stakeholders in these areas, indicators have been developed to steer and monitor the Group's performance levels against social, environmental and innovation criteria. Our reporting system is designed so that we can measure the progress of the Group's initiatives, and regularly report on changes.

Social, innovation and ethics reports are scoped in line with the financial consolidation perimeter. Health, Safety and Environmental data, on the other hand, is based on workforce and activity criteria, which may lead to differences in the consolidation scope.

OUR GOVERNANCE

SUPERVISORY COMMITTEE

With members from outside the Group, the Supervisory Committee meets several times a year and is responsible for overseeing the Fives' management.

Chairman:

Philippe Reichstul

Members:

- François Dufresne
- Dominique Gaillard
- Alain Cianchini
- Heyoung H Lee Bouygues
- Jean-Georges Malcor
- Antonio Marcegaglia
- Laurence Parisot
- Jean-Dominique Sénard
- Stéphane Guichard

SENIOR EXECUTIVE COMMITTEE

Defines the Group's priorities and transverse policies.

- **Frédéric Sanchez, Chairman and Chief Executive Officer**
- Suresh Abye, *Finance Director*
- Alain Cordonnier, *Deputy General Manager, President of the Cement, Minerals & Sugar Division*
- Sébastien Gauguier, *Deputy General Manager, President of the Aluminium Division*
- Guillaume Mehlman, *Deputy General Manager, President of the Steel & Glass Division*
- Denis Mercier, *Deputy General Manager of Fives*
- Céline Morcrette, *Human Resources Director*
- Michelle XY Shan, *Country Director - China*
- Frédéric Thrum, *Deputy General Manager, President of the Energy Division*



OUR GOVERNANCE

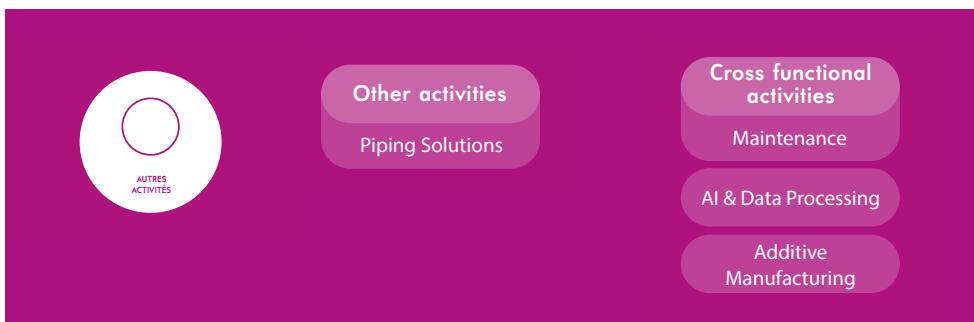
EXECUTIVE COMMITTEE

The Executive Committee is primarily in charge of ensuring the implementation of decisions made by the Senior Executive Committee and reviewing the relevance and effectiveness of cross-functional policies based on feedback.

- **Frédéric Sanchez, Chairman and Chief Executive Officer**
- Suresh Abye, *Finance Director*
- Hervé Boillot, *Mergers & Acquisitions, Strategy Director*
- Daniel Brunelli-Brondex, *Country Director - India*
- Frédéric Brunier, *Operational Performance Director*
- Alain Cordonnier, *Deputy General Manager, President of the Cement, Minerals & Sugar Division*
- Sébastien Gauguier, *Deputy General Manager, President of the Aluminium Division*
- Arnaud Lecœur, *Group General Counsel*
- Guillaume Mehlman, *Deputy General Manager, President of the Steel & Glass Division*
- Denis Mercier, *Deputy General Manager of Fives*
- Céline Morcrette, *Human Resources Director*
- Frédéric Renaud, *Country Director - Italy*
- Michelle XY Shan, *Country Director - China*
- Frédéric Thrum, *Deputy General Manager, President of the Energy Division*
- Thierry Valot, *Innovation & Digital Director*

OUR GOVERNANCE

ORGANIZATION CHART OF ACTIVITIES



OUR RISK MANAGEMENT AND COMPLIANCE



Denis Mercier

*Deputy General
Manager of Fives*

In 2023, in a still unpredictable context that requires our vigilance more than ever, we have continued to consolidate our risk management system, structuring our organization and equipping ourselves with tools that will enable Fives to strengthen its resilience in the face of all kinds of risks.

I. CONTROLLING RISKS IN A CONSTANTLY CHANGING ENVIRONMENT

2023 was marked by many crises that affected every aspect of industry, including the geopolitical crisis linked to the war in Ukraine, the complex challenges posed by increasingly volatile markets, the instability caused by increased protectionism and the growing complexity of supply chains and logistics flows.

Faced with this constantly changing environment, the Fives group's resilience lies in the diversification of its activities and its geographic footprint, as well as the agility of its organization.

An export control team ensures compliance with applicable regulations relating to goods, entities and the final destination of exports. Fives' internal policies are designed to ensure that exports are not diverted from civilian use and comply with all applicable regulations and sanctions. To support its resilience, the Group has a solid insurance program with suitable coverage conditions, adapted to its activities and its growth, in an industrial risk market that remains under pressure and is faced with varied and complex risks.

OUR RISK MANAGEMENT AND COMPLIANCE



The Group's insurance policy is based, in particular, on the increased involvement of group teams in risk prevention, rigorous monitoring of commercial matters (closely involving both head office and operational teams), constant adaptation of insurance cover to risks (both sectoral and geographical), and anticipation of policy renewal negotiations.

After work completed in 2022 on its corporate risk mapping, the Group also continued to implement roadmaps to respond to the other risks related to the competitive environment and procurement, climate issues, security risks and, in particular, our management of cyber risks.

Finally, as highlighted last year, each of these different risks also offers many opportunities for the Group's future. Good risk management allows the Group's subsidiaries to be better prepared for the threats they will face, to respond better to new or unexpected situations, and to seize the opportunities that arise from these disruptions.

Fives has developed an integrated risk management strategy based on the following three things:

1

A STRUCTURED RISK CONTROL SYSTEM

Including risk management in a rigorous and structured system, in particular through the Group Directives, which are regularly adapted and which set out the rules that all Group subsidiaries must follow.

The Group's Internal Control team is responsible for implementing, monitoring and updating the Directives.

These Directives mitigate the main risks identified in the risk map. The Group's Internal Audit team assesses the application of the Directives according to an annual action plan discussed by the Risk Committee and approved by the Group's Senior Executive Committee.

2

A CENTRAL BODY - THE RISK COMMITTEE

In order to coordinate all the activities contributing to the Group's risk management, has set up a Risk Committee in 2020, co-chaired by the Deputy General Manager of Fives Group and the Risk and Compliance Director, which brings together the head office functions primarily affected by the various types of risk.

The Committee helps to monitor and update the Group's overall crisis management system. It maintains an ongoing dialogue between the Group's headquarters and the divisions, business units, country directorates, regional offices, and subsidiaries, to monitor audits and the action plans resulting from risk mapping. The Committee reports to the Group's Senior Executive Committee on its activities and the crisis management system and proposes decisions that fall within this management body's remit.

3

A CRISIS MANAGEMENT SYSTEM

A crisis management system that ensures responsiveness and clarity of direction enables the Group to deal with all types of incidents, whether minor or major.

A crisis unit was set up, under the ægis of the Group Risk and Compliance Department, to ensure that the Group's activities are in strict compliance with the changing sanctions and regulations in force.

This system was reviewed in 2023 and a crisis management guide was developed for the benefit of all group entities.

II.

CYBERSECURITY, THE GROUP'S PRIORITY

To improve its cyber resilience, the Fives group established a dedicated organization in June 2018. A Cybersecurity Department that reports to the Deputy General Manager was created. A team has been set up to define a cyber strategy and address the needs of all Group subsidiaries to protect their data and information systems. In the face of increasing cyber risks and attacks, the main objective is to protect the Group's assets, ensure business continuity in the event of a cyber crisis and, of course, meet the cyber security requirements expressed by customers.

Fives' cyber governance is based on the close involvement of the senior management and operational teams of the divisions, countries and entities. In each division and in certain countries, cyber leaders have been appointed to manage and ensure the implementation of the Group's cyber roadmap in all subsidiaries.

This Cyber Roadmap is based on 4 pillars:

- user awareness,
- protection of assets and data,
- detection/remediation of vulnerabilities and incidents,
- capitalization (controls/ audits/ tests and associated action plans for continuous improvement of cyber resilience).

This cyber roadmap is updated annually to keep pace with changes in the threat environment. Cyber projects are selected and prioritized to address the risks identified by Fives.

To ensure the effectiveness of this approach, a cyber report measures quarterly progress in the deployment of technical solutions, compliance with the Group's security policies and the active involvement of all employees (measured by performance in awareness programs). This information is transmitted to the Group Cyber Department by the General Managers of the companies. It is monitored and commented on by company, divisional and Group management committees.

For example, cyber performance indicators following can be mentioned:

the validation rate of cyber training sessions (monthly and on-boarding), results of fake phishing, implementation of multi factor authentication, the level of compliance with the Information Security Policy (ISP), back-up tests, resolution of action plans defined following penetration tests or audits, coverage and velocity of patch management actions, preparing for cyber crisis management...

Various cyber committees are organized on a monthly basis to ensure the progress of projects, to share experiences and to encourage up- and down-stream communication. Some of these committees bring together technical experts, others business leaders.

III.

COMPLIANCE AND BUSINESS ETHICS, A CORE PRIORITY FOR OUR BUSINESS LINES

Compliance and business ethics are among the Group's core values. Senior Management has a clear and unequivocal message to ensure that all Group subsidiaries comply with applicable laws and regulations and that their actions are fully consistent with the Group's business ethics charter.

The Group's ethical values are also enshrined in the Code of Conduct, which is distributed to all employees. At the heart of the prevention system is a business ethics directive.

The Group has a Risk and Compliance Department, which reports directly to the Fives Deputy General Manager and is responsible for ensuring that the policies and procedures are implemented by all Group Divisions, Business Units, Country Directorates, Regional Offices and subsidiaries.

To comprehensively strengthen its system and ensure local legal oversight, the Group, which operates in 24 countries, has established a system of Compliance Officers in key countries to cover the Group's entire perimeter. The local Compliance Officers play a key role in adapting the Group's policies to local rules, raising employee awareness about Compliance and Business Ethics in the local language, and promoting a culture of integrity.

OUR RISK MANAGEMENT AND COMPLIANCE

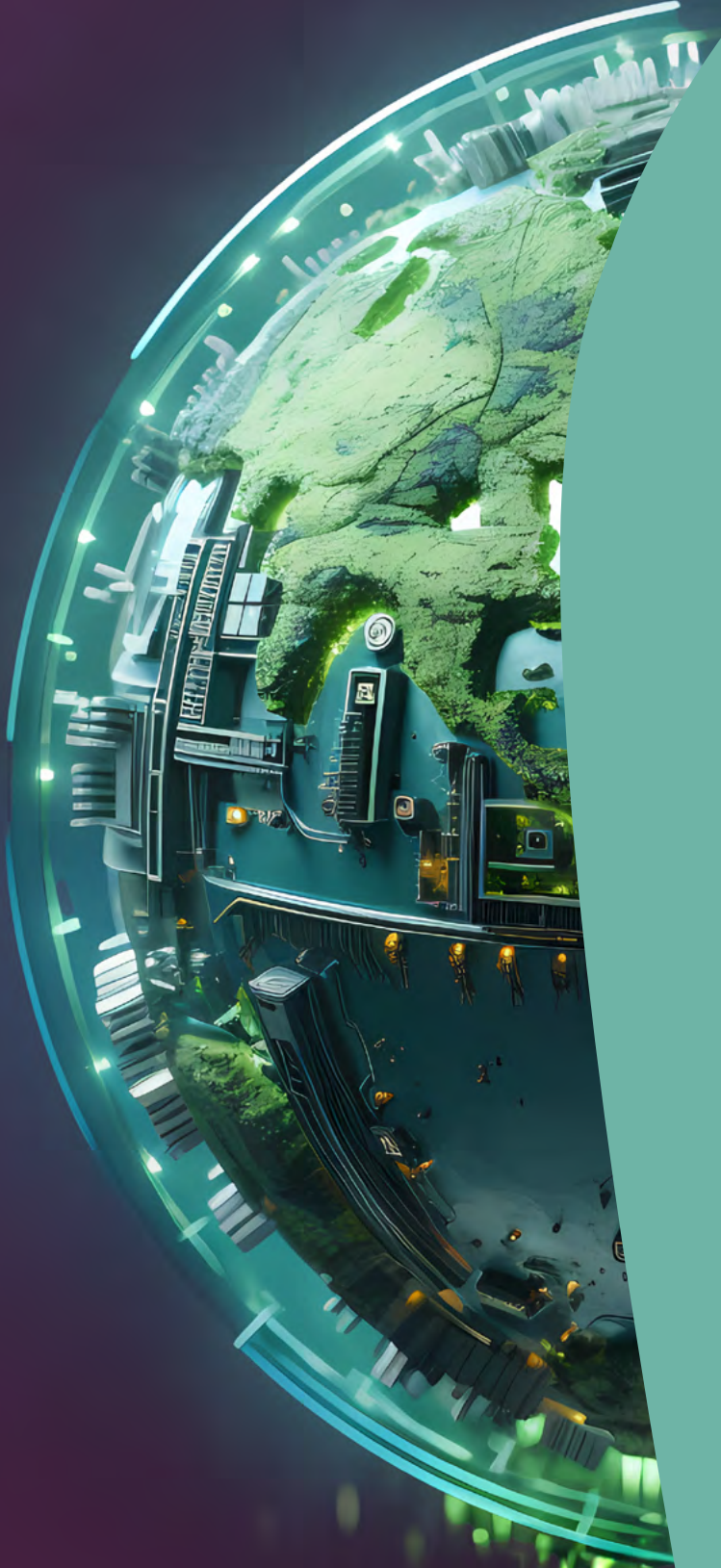
In 2023, the Group strengthened its anti-corruption system in accordance with the requirements of the Sapin II law of December 9, 2016. As part of its anti-corruption system, the Group has finalized work to update its corruption risk map, which have now a specific section for each Group Division and for the Group's five main non-EU countries, i.e., China, the United States, India, Japan, and the United Kingdom. In 2023, the Group also continued to raise employee awareness of corruption-related with more than 3,000 trainings provided, especially for managers and employees most exposed to these issues and risks.

The Group reinforces permanently a global digital architecture that strengthens the verification of third-party integrity (customers, suppliers, agents, etc.) and ensures that all the partners and entities it works with adhere to the Group's compliance rules.

For several years now, the Group has put in place a system that allows whistleblowers to report any violation of compliance rules and procedures or the Code of Conduct and to speak out freely without fear of reprisal, while maintaining their confidentiality and anonymity.

In short, the policies and measures deployed by Fives, which are being constantly improved, include measures to address the three pillars of the fight against corruption:

1. a firm and emphatic commitment by senior management, in particular the Senior Executive Committee,
2. a corruption risks map – with particular attention to the Group's wide range of sectors and geographies,
3. a prevention system to prevent any corruption and more generally any behavior contrary to the Group's Code of Conduct.



2

COMBINING AUTONOMY AND COLLECTIVE STRENGTH: local initiatives that reflect our CSR approach

Our climate strategy

Our innovations in support of
our climate commitment

Our health and safety strategy

Our employer promise

OUR CLIMATE STRATEGY

Performance, reliability and innovation have always been the hallmarks of the equipment designed by Fives, and for 20 years now the Group has been offering solutions enabling its customers to reduce their energy consumption and, more broadly, their carbon footprint.

Aware of the role it can play in helping to fight climate change, the Group has formalized its climate strategy in 2023 around three main priorities:

AXE 1

Reduce CO₂ emissions directly linked to its activities, with a target of a 30% reduction between 2019, the reference year, and 2030 (a target compatible with the Paris Agreement),

AXE 2

Support its customers in reducing their carbon footprint by continuing to develop sustainable solutions,

AXE 3

Serve markets that contribute to the low-carbon transition of the economy, such as batteries, green hydrogen, IoT and nuclear power.

All our teams are using their expertise to work towards these commitments, both in our subsidiaries and at the division level. Whether it's reducing CO₂ emissions at our sites, selling high-performance CO₂ solutions to our customers or continuing to develop the Group's activities in low-carbon transition sectors, 2023 has been a year of successes. The examples described below are a concrete illustration of this.

OUR CLIMATE STRATEGY

AXE 1

Reducing CO₂ emissions directly linked to its activities

PRODUCING AND CONSUMING RENEWABLE ENERGY,

one of the methods for decarbonizing our activities: In 2023, installation of photovoltaic panels at Fives Landis Ltd.

They chose solar energy. The project took two years from conception through to installation and commissioning.

The aim: to produce solar-generated electricity and use as much of it as possible to run the site.

The installation comprises 3,000 photovoltaic panels, installed on the roof, covering 50% of the available roof surface.



Based on Fives Landis's location in the UK (and the vagaries of the English weather), the installation is capable of producing 934 MW per annum, 850 MW of which is used directly for site operations. **This is equivalent to 30% of the site's total electricity consumption.**



Chris Hall

HSE & Maintenance Manager, Fives Landis Ltd, United Kingdom



 The increase in energy costs has turned out to be much greater than expected due to the uncertainty and volatility of global energy markets at the end of 2022. Against this backdrop, and in line with the Group's objective to reduce its carbon footprint, Fives Landis Ltd has investigated the various possible solutions to significantly reduce its energy expenditure and the CO₂ emissions associated with this electricity consumption. 

OUR CLIMATE STRATEGY

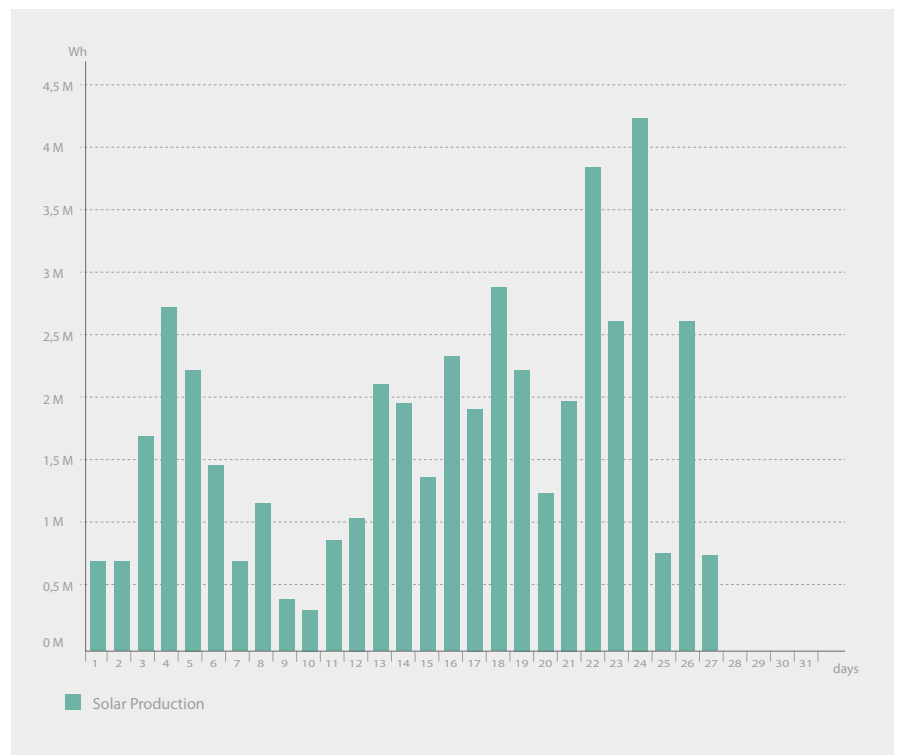
PRODUCING AND CONSUMING RENEWABLE ENERGY



- The site uses **100% of its solar energy production for its own operation**. At weekends, if the site is inactive, it is exported to the electricity grid.
- Since the system was set up in July 2023 and became fully active in September 2023, **16% of total electricity consumption has been generated from solar energy**.
- Thanks to this production and consumption of solar energy, **Fives Landis Ltd has so far reduced its CO₂ emissions by 62.5 tonnes**, equivalent to planting around 3,800 trees.

The total cost of the installation was £960,000, with a return on investment was just over 3 years (calculated on completion).

Example of Fives Landis Ltd one-month solar production



AXE 1

Reducing CO₂ emissions directly linked to its activities

MAKING CO₂ REDUCTION A STRATEGIC ISSUE

managed at the highest level: Fives OTO CO₂ action plan

Elisabetta Spiller, QHSE Manager at Fives OTO, explains the action plan put in place to reduce their carbon footprint and thus help combat climate change.

First of all, why is it important for Fives OTO to reduce its carbon footprint?

It is the responsibility of every company to integrate environmental issues into its strategy and therefore into its long-term decisions.

This means developing sustainable solutions for our customers, as well as reducing energy consumption on our sites. Lower energy consumption means lower CO₂ emissions, lower energy bills and improved operational efficiency.



Elisabetta Spiller
QHSE Manager at Fives OTO, Italy

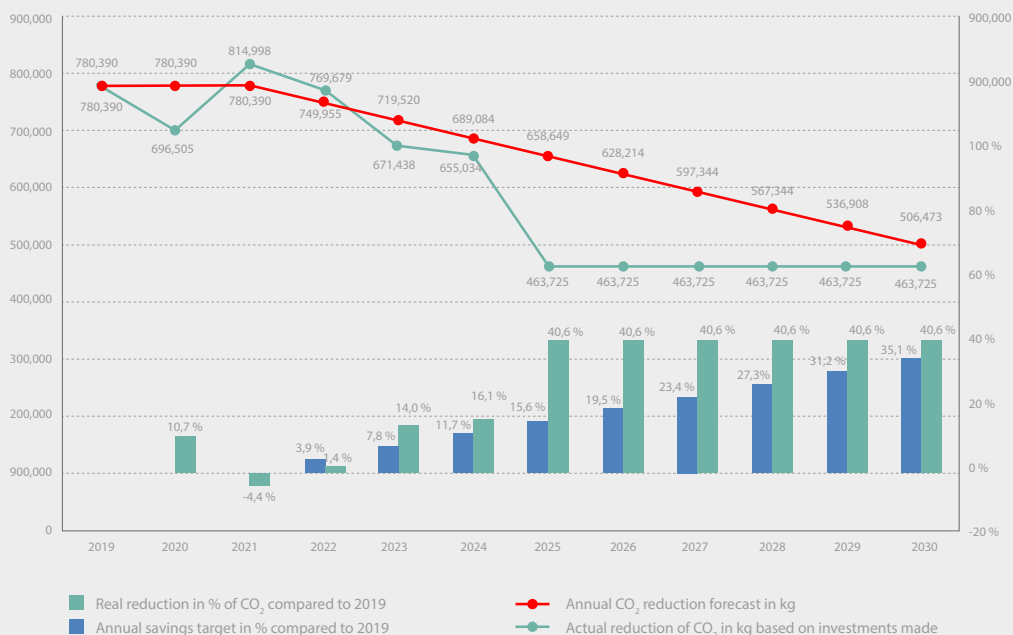
What are you doing to reduce Fives OTO's carbon footprint?

The company has set itself the target of reducing production-related CO₂ emissions by 35% between 2019 and 2030 (scopes 1 et 2). To achieve this ambitious goal, we have defined a multi-year action plan. One of our key actions has been to invest in new heating and cooling systems, which have enabled us to drastically reduce our energy consumption.

What are the results and next steps?

Between 2019 and September 2023, we have already reduced CO₂ emissions by 15.1%. This is a first conclusive result given the objectives.

Fives OTO CO₂ emission reduction trends from 2019 to 2030



OUR CLIMATE STRATEGY

AXE 2

Supporting customers in reducing their carbon footprint

PROVIDING TECHNOLOGIES TO ACCELERATE THE DECARBONIZATION of the cement industry



Alain Cordonnier

President of the Cement, Minerals and Sugar Division

Convinced of the importance of industry to address the decarbonization challenge, Fives has been developing disruptive technologies that enable manufacturers to achieve their sustainable development objectives.

Measures to reduce carbon emissions have become a priority for the cement industry, whose CO₂ emissions account for 7% of the global emissions.

Our technologies aim at:

- optimizing both electrical and thermal efficiency of cement plants,
- reaching the highest level of non-fossil fuels,
- reducing the clinker content in cement,
- recycling concrete and stimulating the circular economy
- facilitating the complementary CO₂ capture processes to reach carbon neutrality.

Clinker substitution, the main method towards decarbonization

As clinker production is the most CO₂ emitting activity during cement production, clinker substitution is therefore the main method towards decarbonization.

Fives technology, the FCB TSV™ THF Classifier (Very High Fineness), helps to minimize the clinker content of cement

This high-efficiency dynamic classifier ensures an optimal particle size distribution at the very high fineness required to produce cements with reduced clinker content. As a result,



customers obtain **low-carbon cements with comparable or even enhanced performance**, while optimizing production and electrical consumption. The impact is even greater when the FCB TSV™ Classifier is associated with the FCB Horomill® grinding mill.

A technology recognized by the major cement players worldwide.

In the framework of their modernization program, **Ciment Québec** ordered two grinding plants equipped with FCB Horomill® grinding mills and FCB TSV™ THF Classifiers, enabling the production of low-carbon cements with unrivalled energy consumption. Currently under installation, their commissioning is scheduled for late 2024.

In 2023, **Vicat** announced its partnership with Fives to upgrade its French Xeuilley plant. The FCB TSV™ THF Classifier is now in operation to produce its DECA range of low-carbon cement.

At the beginning of 2024, **Holcim** has awarded Fives with two contracts for FCB TSV™ THF Classifiers to be implemented in its Latin America plants to produce high fineness and low-clinker-content cements.

OUR CLIMATE STRATEGY

AXE 2

Supporting its customers in reducing their carbon footprint

FIVES FCB SUPPORTS THE EUROPEAN SUGAR INDUSTRY to reduce its CO₂ emission

In the framework of the European programs that support Industry on its path to carbon neutrality by 2050, several major players in the European sugar industry (notably Tereos and Cristal Union) have published their roadmap for reaching carbon neutrality and launched ambitious projects to reduce CO₂ emissions of the industrial sites they operate. This sugar industry's ambition is based on two main pillars: reducing energy consumption of the plants and using green energy.

Today, Fives is able to meet both these challenges:

- **The reduction of energy consumption:**

Fives offers high-performance heat exchangers with the best possible energy yields for evaporation and crystallization applications, as well as waste heat recovery solutions.

- **The use of green energy:**

Fives offers, for instance, mechanical steam recompression systems to switch from fossil fuels to low-carbon electricity.



Falling Film Evaporators, an efficient solution to maximize sugar plant's energy efficiency

The Cail & Fletcher Falling Film Evaporator is widely recognized as a key process equipment to improve the energy efficiency in beet sugar factories and sugar refineries. It optimizes the evaporation process, reducing therefore the amount of steam required and, consequently, the use of fossil fuels in steam boilers. The Cail & Fletcher Falling Film Evaporator is a proven, robust and easy to operate technology. When associated with steam recompression systems, it further reduces the carbon footprint of the plant.

A technology that is convincing European leaders

In 2023, Fives FCB was awarded with the supply of six falling film evaporators for Western European beet sugar factories totaling 33,000 m², to be commissioned by September 2024. New orders for five more units have just been received at the beginning of this year.



Christophe PELLETAN

Sales & Services Director, Sugar activity, Fives FCB

Thanks to its recognized expertise and the recent innovations its technologies have benefited from, Fives is positioned as a key partner for the sugar industry on its path to carbon neutrality.

OUR CLIMATE STRATEGY

AXE 3

Serving markets that contribute to the economy's low-carbon transition

FOCUS ON FIVES NORDON'S NUCLEAR ACTIVITIES

Nuclear power is one of the lowest CO₂-emitting energy sources, with emissions*:

- 4 times less than wind power,
- more than 10 times lower than solar power,
- 100 times lower than gas,
- 280 times less than coal.

Its very low CO₂ emissions make it an essential part of the energy transition.

A recognized player in the nuclear market for 50 years, Fives Nordon has participated in the construction of nuclear power plants and EPRs in France and abroad.

The nuclear sector accounts for 75% of Fives Nordon's business.



Nuclear Maintenance activities: **«Le Grand Carénage» program**

Today, Fives Nordon is present throughout France, **providing routine maintenance for all the reactors in the French nuclear fleet**. This activity accounts for a third of the company's sales.

As part of the program known as «Le Grand Carénage», an industrial program to renovate and **modernize existing nuclear power plants** (with the aim of extending their lifespan beyond 40 years), Fives Nordon signed a contract **worth over €50 million at the end of 2023** for a main phase of on-site work **between 2026 and 2031**.

Activities related to New Nuclear Power: New-generation reactor construction program

In France, a program to build new-generation reactors has been launched. Alongside renewable energies, it aims to **guarantee France's electricity supply** and help the **country achieve carbon neutrality**. It's the **biggest industrial project** in France, and the biggest nuclear program in Europe **for 50 years**. Initially, 6 new reactors will be built, with a potential further 8 to follow.

Fives Nordon's engineering teams have already been working for several years on the conception and design of EDF's new generation of Pressurized Water Reactors (EPR2).

OUR CLIMATE STRATEGY

FOCUS ON FIVES NORDON'S NUCLEAR ACTIVITIES

Given the scale of the challenge, in 2023 Fives Nordon decided to join forces with 4 other key companies in the industry to create the "Alliance Pour le Nouveau Nucléaire" (AP2N). Unveiled in November 2023, this alliance aims to unite capabilities and creativity within a single autonomous entity and thus contribute, in support of EDF, to the influence of the French nuclear industry.

Fives Nordon also aims to support the growing number of new reactor construction projects in the export market, particularly in Europe.



Complementary activities in low-carbon markets

Fives Nordon is also present in the «fuel cycle» with its subsidiary Fives Nordon ACPP, whose main customer Orano is due to launch major investment plans, and which has already announced plans to extend its enrichment capacities.

Numerous other opportunities are being studied in the nuclear (research reactors and SMRs) and hydrogen sectors.



**Jean-Jacques
Depuydt**

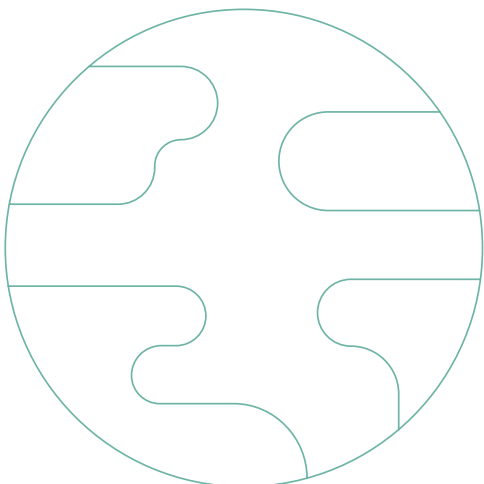
President of Fives Nordon

Two teal water drop icons. **New challenges lie ahead in the coming years, in particular to support our main customer, EDF, in maintaining France's nuclear fleet, and to prepare for the EPR2 program. The prospects for our nuclear activities give us tremendous visibility for the next fifty years.** Two teal water drop icons.

OUR INNOVATIONS IN SUPPORT OF OUR CLIMATE COMMITMENT

INNOVATION AT THE SERVICE OF OUR CUSTOMERS' ENVIRONMENTAL PERFORMANCE

20 years ago, Fives took a bold and visionary step towards the industry of the future: an industry that will either be digital and carbon-free or won't exist at all. A bold gamble that has become reality, as today Fives has become one of the undisputed leaders in this industrial revolution.



Our strength?

Technological leadership for industries aware of the need to reduce their environmental footprint thanks to:

THE MAJORITY of our research and development activities are geared towards **REDUCING THE ENVIRONMENTAL FOOTPRINT OF OUR SOLUTIONS.**

OUR INTIMATE KNOWLEDGE OF INDUSTRIAL PROCESSES enables us to create ultra-efficient technologies with a high environmental impact, **and to provide our customers with comprehensive support.**

FOCUSING OUR BUSINESS DEVELOPMENT ON MARKETS THAT CONTRIBUTE TO THE LOW-CARBON TRANSITION: green hydrogen, electro-mobility, digitisation of processes, etc.

OUR INNOVATIONS IN SUPPORT OF OUR CLIMATE COMMITMENT

Our practical solutions for customers:



Solutions to improve **equipment performance**,



Digital solutions based on a deep understanding of industrial process,



Implementation of low-carbon **combustion** solutions,



Electrification of processes,



Introduction of **new alternative processes** that are less carbon-intensive,



Solutions to **facilitate CO₂ capture**,



Solutions for **low-carbon transition markets**.

Click here to discover our decarbonization solutions.



Thierry Valot

Innovation & Digital Director

Thanks to the solutions developed by Fives over the last 20 years, the decarbonization of industry is a reality. Our wide range of validated solutions is available to meet the specific needs of each sector, to act at the heart of processes and reduce emissions at source.

OUR HEALTH AND SAFETY STRATEGY

2023 saw a sharp upturn in activity for the Group, which was accompanied by a rise in lost-time accidents and a return to the level of 2019, before the Covid period.

To achieve «100% Safety for All», the objective of the Fives group, a roadmap has been rolled out. In 2024, priority will be given to incident prevention (detecting and dealing with risk situations) and training.

LTH & SAFETY INDICATORS

	2019	2022	2023
Lost-time accident frequency rate (Number of lost-time accidents (≥ 1 day) x 1,000,000 / Number of hours worked)	3.39	2.83	3.39
Severity rate (Number of lost days following an accident (≥ 1 day) x 1,000 / Number of hours worked)	0.20	0.11	0.13

OUR AMBITION: GUARANTEEING 100% SAFETY FOR ALL OUR EMPLOYEES, CUSTOMERS AND PARTNERS

For us, working safely is more than a priority; it is a right and a duty towards our nearly 9,000 employees as well as all our customers and partners in the 24 countries in which the Group operates.

All the subsidiaries of the Fives Group worldwide share a common objective:
100% safety for all our employees, customers and partners.



Frédéric Sanchez

Chairman and Chief Executive Officer of Fives group

The strength of the Fives Group lies in its ability to combine the power of a Group of nearly 9,000 employees with the autonomy of our more than 100 subsidiaries around the world.

In terms of health and safety, the autonomy of each subsidiary in developing and implementing preventive actions is also accompanied by the individual responsibility of subsidiaries directors towards their employees, customers and partners.

OUR HEALTH AND SAFETY STRATEGY

THIS AMBITION IS BASED ON 3 PILLARS

Risk prevention, productivity and efficiency go hand in hand in the same quest for operational excellence. This vision means that prevention is at the heart of all our subsidiaries' activities, whether in their projects, on their sites, in their offices or in their workshops.

PILLAR 1

INCIDENT PREVENTION

PILLAR 2

RAISING AWARENESS AMONG ALL EMPLOYEES AND TRAINING MANAGERS

PILLAR 3

INNOVATION THAT LEADS TO RISK PREVENTION



Lætitia Liguori

Group Health & Safety Coordinator

Two teal speech bubble icons precede the text: Fives' health and safety policy combines strong impetus from the Group with decentralised deployment, rooted in operational realities. Each subsidiary draws up an action plan tailored to its environment and risks and allocates the necessary resources. Knowledge of the field is the sine qua non of an effective health and safety approach. Two teal speech bubble icons follow the text.

OUR HEALTH AND SAFETY STRATEGY

THE 3 PILLARS OF 100% SAFETY

PILLAR 1 INCIDENT PREVENTION

At Fives, we are developing a culture of risk prevention among all our employees. This is based primarily on detecting and dealing with risk situations that could lead to an accident in the working environment.

Every employee has a role to play in ensuring everyone's safety!



Marie-Julie Leray Pereira

*Quality, Health, Safety and Environment (QHSE)
Manager, Fives Syleps*

At Fives Syleps, we have introduced a safety month. It consisted of organising a major safety event (morning session for managers, safety flash meetings on dangerous situations, safety quiz). It ended with a team hunt for dangerous situations. 203 high-risk situations were reported, underlining employees' commitment to 100% safety for all.

Filippo Bertolini

*Quality, Health, Safety and Environment (QHSE) Manager,
Fives OTO, Italy*

At Fives OTO, we organised World Safety Day with the local primary school. Role-playing games on safety were organised, with the protagonists being Fives OTO employees whose children attend the school. Over the years, we've seen that these initiatives raise awareness of the risks among children, but above all among parents, because explaining to their children or grandchildren how to work safely is like promising them that they'll go home in good health.



OUR HEALTH AND SAFETY STRATEGY

PILLAR 2 RAISING AWARENESS AND TRAINING

With our customers:

At Fives, our service activities are carried out directly on our customers' sites. It is therefore our responsibility to work closely with them to ensure the health and safety of our employees.

In our workshops & offices:

- **Raising awareness among our visitors:** The safety rules to be observed on the site are presented to visitors via educational videos and/or directly by the Quality, Health, Safety and Environment (QHSE) Managers.
- **Training our employees:** In order to aim for 0 incident, our subsidiaries regularly carry out awareness-raising and training programmes tailored to each division (**73,000 hours of safety training in 2023**).
- **Sharing information with teams :** Regular communication is provided to teams on accidents and dangerous situations identified, as well as on the action plans put in place to guarantee 100% safety for all.



Aurélie Morel

QHSE Manager,
Fives Maintenance

At Fives Maintenance, we have drawn up «Workplace Accident Feedback Reports» which we share with our customers so that together we can reflect on and commit to actions for improvement.

At Fives Maintenance, to raise our employees' awareness of risk prevention, we inform them (through talks, letters, etc.) about serious events that have taken place and also set up monthly online training modules.



Hasan Qambar

QHSE Manager,
Fives Services Gulf, Bahrain

Fives Services Gulf is actively involved in the Hand Safe campaign, a global initiative to raise awareness of hand safety among all employees. This campaign has been designed to provide them with the knowledge and tools they need to prevent accidents and injuries. We have set up a series of workshops, training sessions and awareness-raising programmes to mobilise all our employees.

OUR HEALTH AND SAFETY STRATEGY

PILLAR 3 INNOVATION THAT LEADS TO RISK PREVENTION

Digital tools are used by the subsidiaries to facilitate the management of safety and strengthen the presence of managers in the field.



PurpleBox

At Fives Maintenance, the **PURPLE BOX** tool has made it possible to:

- **Increase the number of reports of risk situations** (900 reports by 2023 compared with 300 before 2020),
- **Facilitate the administrative work of the Quality Health Safety Environment (QHSE) engineers** and provide better support for the sites,
- **Guarantee traceability and efficient handling of events,**
- **Capitalise on and share** the events that have occurred and the actions to be taken to secure all the sites and ensure 100% safety.

OUR HEALTH AND SAFETY STRATEGY

OUR 10 GOLDEN SAFETY RULES

A COMMON SET OF SAFETY RULES FOR BETTER CONTROL OF OUR ACCIDENT RISKS

The Group Safety Golden Rules



WORK AT HEIGHT

ENERGY AND MACHINERY ISOLATION

LIFTING

POWERED HAND TOOLS

TRAFFIC

PRESSURE

HAZARDOUS SUBSTANCES

CONFINED SPACES

EXCAVATIONS

COACTIVITY

OUR EMPLOYER PROMISE

JOINING FIVES MEANS BEING SUPPORTED,
ENCOURAGED AND LISTENED!



POSITIVE IMPACT

Commitment and search for meaning

•

Innovation, commitment to the fight against climate change,
and global reach

•

Positive impact of Fives' solutions



GROW A CAREER AT FIVES

Career opportunities

•

Skills development/Employee training

•

Individualized support



WORKING ENVIRONMENT FOR ALL

Workplaces designed BY and FOR those who work there

•

Occupational safety

•

Work/life balance



Discover on our
YouTube channel
Fives - #WeareFives
portraits of our
employees

AT THE HEART OF INNOVATION

At Fives, innovation is a vocation. As a pioneer in the industry of the future, Fives innovates every day to make the industry more efficient and sustainable so that it can meet tomorrow's challenges:

- speed and agility
- flexibility and precision
- safety
- respect for the environment



2,281
PATENTS IN FORCE in over
673 DIFFERENT FAMILIES in 2023

73
new INNOVATIONS WERE
PATENTED in 2023

35
research
and testing
CENTERS

FIVES COMMITMENT TO THE FIGHT AGAINST CLIMATE CHANGE

Fives has a long-term vision for its activity.

This vision that the Group champions led Fives more than 20 years ago to make the farsighted and bold wager that the industry of the future would be digital and carbon-free, or it wouldn't be around at all.

It has ensured Fives to be seen as an essential partner in the fight against climate change through the use of digitalization, the promotion of a sustainable economy, and the development of new processes and new sources of energy.

80%
of Fives' industrial sites are **ISO 14001** certified in 2023

Fives focuses the majority of its activities on providing solutions **TO REDUCE THE ENVIRONMENTAL IMPACT OF ITS CUSTOMERS**

The Group aims **TO REDUCE THE CO2 EMISSIONS** of its scopes 1 and 2 by 30% between 2019 and 2030

PROMOTION OF LOCAL EMPLOYMENT

Fives' involvement in each of the 200 cities where it operates means that today the Group is acknowledged as a real driver of local economic growth, forging links with local stakeholders and creating many jobs.

Fives is present in more than 200 cities in **24 COUNTRIES**

Each year, the Group hires more than **1,500 NEW EMPLOYEES** worldwide

Fives builds **CLOSE RELATIONSHIPS WITH LOCAL STAKEHOLDERS** in every region where it operates

GLOBAL REACH

Joining Fives means becoming part of an international and multicultural Group present in 24 countries.

This openness to the world allows Fives' employees to take part in a large-scale human adventure and gives them access to numerous opportunities for career development and mobility.

81
DIFFERENT NATIONALITIES
work together within the Group

Fives has operations in **24 DIFFERENT COUNTRIES** worldwide



CAREER DEVELOPMENT

At Fives, every employee's career goals are valued and supported so that everyone has enough space to be able to grow all along their career path.

The Group helps all of its employees to realize their career goals: training, mobility, work time accommodation, etc.

Fives endorses a **ROBUST POLICY OF CAREER SUPPORT AND INTERNAL MOBILITY**, whether it be vertical, lateral, geographical, temporary or long term

78%
of employees had regular appraisal interview in 2023.

Fives uses **HR TOOLS** to actively track the careers of its employees and identify their potential for growth within the Group

Each employee can ask at any time **TO MEET WITH THEIR HR REPRESENTATIVE** to discuss their career goals

EMPLOYEE TRAINING

77%
of Fives' employees have received **TRAINING COURSES** in 2023.

Fives supports its employees throughout their careers.

By providing its employees with regular training programs adapted to their professions and the innovations specific to them, Fives enables them to advance to their chosen path.

Joining Fives means using your skills and developing many new ones throughout your career.

Fives is **DEVELOPING BUSINESS TRAINING COURSES** in line with the career paths of its employees



PROFESSIONAL FULFILLMENT

Fives cares greatly about the well-being and daily professional fulfillment of its employees.

85%*

of Fives' employees say they work in a team where collaboration is efficient

86%*

of Fives' employees say they care about their company



*Source: 2022 figures from Fives internal employee engagement survey Happy@Fives

OCCUPATIONAL SAFETY

Employee safety is a central concern at Fives. The Group updates its occupational safety policy to reflect the latest innovations and regulatory requirements so that its employees always feel safe while on the job.

Fives is committed every day to guarantee **100% SAFETY** for all our employees, customers and partners.

The Group has established 10 Golden Rules of Safety to enable everyone to better identify and control risks. These rules cover the **10 MAIN RISKS THAT COULD LEAD** to serious accidents at Fives



WORK/LIFE BALANCE

Fives pays close attention to its employees' well-being, a prerequisite that requires striking the right work/life balance for each of them.

75%*
of Fives' employees say that it makes it easier for them to manage their professional and personal lives.

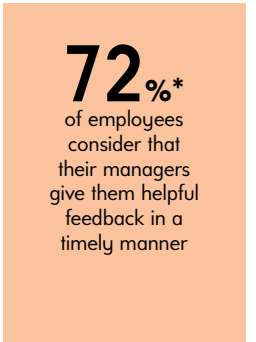
THE GROUP RECOGNIZES AND ENDORSES EMPLOYEES' RIGHT TO DISCONNECT.
A series of measures and best practices ensure that employees' right to rest is respected and that their work/life balance is maintained without hindering the autonomy and flexibility offered to them

*Source: 2022 figures from Fives internal employee engagement survey Happy@Fives

QUALITY MANAGEMENT

It is by growing its employees that the Group grows in turn.

This is why management is always put at the service of individuals and their needs.



DIVERSITY AND INCLUSION

As a Group that is committed to inclusion and diversity, Fives works to ensure that every person find their place through employment.

The Group is deeply convinced that it is the diversity of its employees that makes Fives such a rich place to work.



FOCUS IN FRANCE



FOR OVER 10 YEARS, THE FIVES GROUP HAS BEEN A PARTNER OF THE CHARITY «NOS QUARTIERS ONT DU TALENT»

to help young graduates from disadvantaged neighbourhoods find work or work-linked training, through mentoring from a professional.

40 OF OUR EMPLOYEES, ACTING AS PROFESSIONAL MENTORS, HELPED ALMOST 154 YOUNG PEOPLE

to define their career plans and find jobs.

This support has enabled 65 young people to find a job.

*Source: 2022 figures from Fives internal employee engagement survey Happy@Fives

OUR EMPLOYER PROMISE

DIVERSITY AND INCLUSION

1. EQUALITY WOMEN / MEN

Fives encourages and supports all its female employees who wish to evolve into technical professions or management positions in the short or medium term.



Fives is actively involved in **ASSOCIATIONS THAT PROMOTE CAREERS IN INDUSTRY** to women ("Elles Bougent" in France; "Women in Manufacturing" in the U.S.A.)

PRESENCE OF WOMEN ON MOST OF OUR TECHNICAL JOBS, such as welding, boiler making, design offices, R&D, and maintenance, etc...

In 2021, Fives launched its **"Women@Fives"** support program for female managers and leaders. Its objective is to promote gender diversity in the workplace by helping women unlock their potential, develop their leadership skills, and acquire the keys to building fulfilling and successful professional lives.

DIVERSITY AND INCLUSION

2. DISABILITY

At Fives, rather than make our employees adjust to their workstations, we redesign workstations to meet everyone's specific needs.

Doing so ensures that people with disabilities can progress in all of the 500 occupations available within the Group.

FIVES LINÉ MACHINES:

In partnership with the «UN SOUFFLE ET DES AILES» FOUNDATION, the Fives Liné Machines team collects recyclable cans from its factory.



Every can collected contributes not only to preserving the environment, but also to supporting an essential cause: the funds generated by recycling cans enable the Foundation to provide a permanent home for young adults with multiple disabilities in Roxton Pond, a municipality near Granby, Quebec.

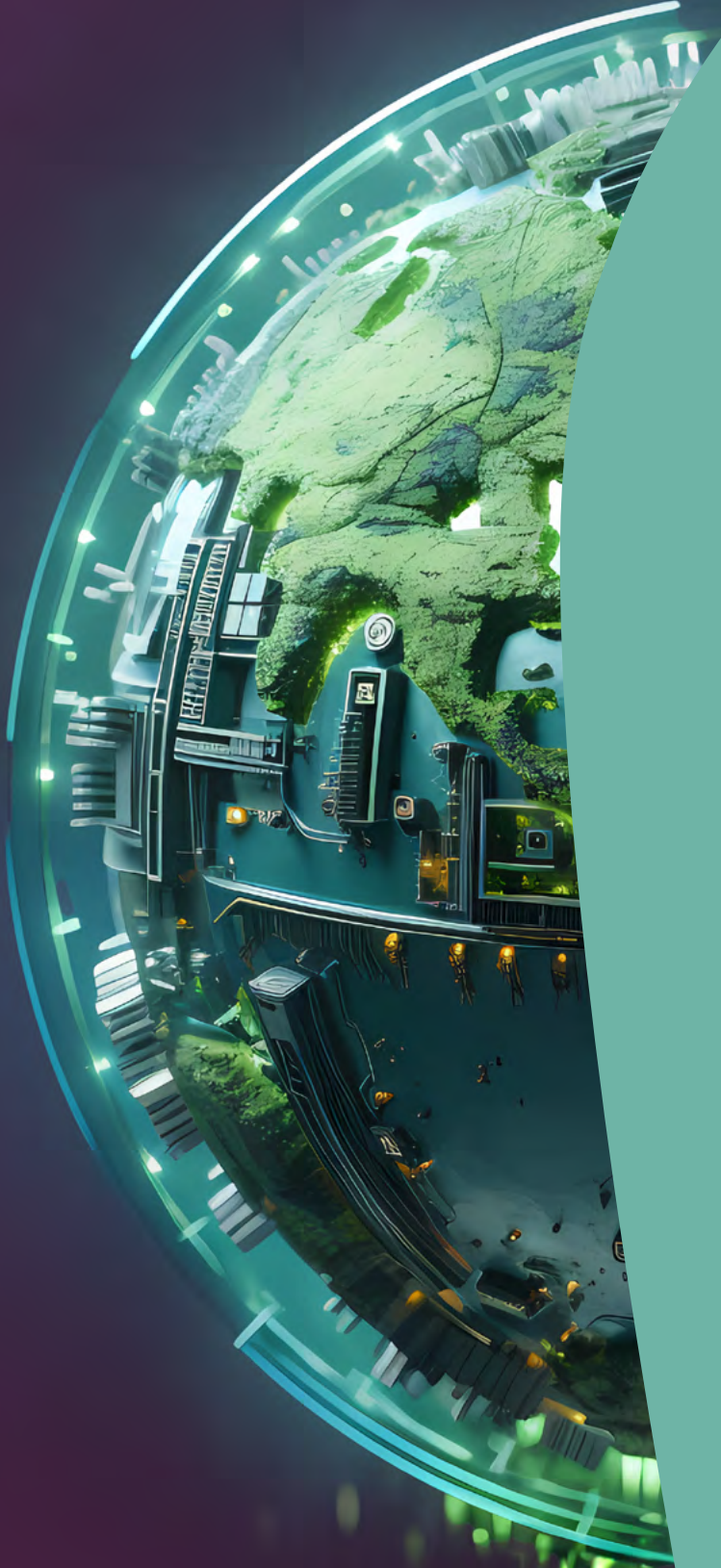
A POLICY IN FAVOR OF PEOPLE WITH DISABILITIES is implemented and coordinated in every country where the Group operates so that we can all move forward together (e.g., Mission Handicap in France, India, Italy, China, and the U.S.A.)



Anthony Cuperlier

Human Resources Manager, Fives Liné Machines, Canada

 This work increases solidarity within our team. To look after each other and the environment around us, every little action counts. 



ANNEX

Decarbonization Solutions



DECARBONIZATION

Fives solutions for a sustainable industry

CONTENTS

“

20 years ago, we bet on a bold vision for the industry of the future. An industry that will be digital and decarbonized or not.

Frédéric Sanchez
Chairman, Fives

1. Our philosophy
2. Equipment performance
3. Software and Digital
4. Combustion
5. Electrification
6. New processes
7. CO₂ Capture
8. Low-carbon energies

01 OUR PHILOSOPHY

FIVES, A PIONEER OF INDUSTRY DECARBONIZATION



« 20 years ago, we bet on a bold vision for the industry of the future. An industry that will be digital and decarbonized or not. We also prioritized research and development programs aimed at reducing the environmental impact of our technological solutions. This pioneering spirit has enabled us to become a key partner in the major transformation of the mobility sector, with the electrification of vehicles, and in green hydrogen, being the preeminent provider of the decarbonized energy. »

Frédéric Sanchez

OUR OBJECTIVES



Fives serves markets that alone account for around 25% of global greenhouse gas (GHG) emissions.

Aware of its responsibility on these climate issues, Fives has been acting for more than twenty years with three major objectives:

- 1 **ACT ON ITS DIRECT SCOPE BY REDUCING BY 30% THE CO₂ EMISSIONS** INDUCED BY OUR ACTIVITIES BY 2030 COMPARED WITH 2019 (SCOPE 1 AND 2)
- 2 **CONTINUE TO DEVELOP SUSTAINABLE SOLUTIONS** FOR INDUSTRY TO IMPROVE THEIR ENVIRONMENTAL PERFORMANCE, PARTICULARLY THEIR CARBON FOOTPRINT
- 3 **FOCUS OUR BUSINESS DEVELOPMENT** ON MARKETS THAT CONTRIBUTE TO THE LOW-CARBON TRANSITION

5

KEY FIGURES



3 Fives solutions have received the « Solar Impulse Efficient Solution » label

2,281

CURRENT PATENTS IN 673 FAMILIES

€ **36 M**

R&D EXPENDITURES

35 CENTERS

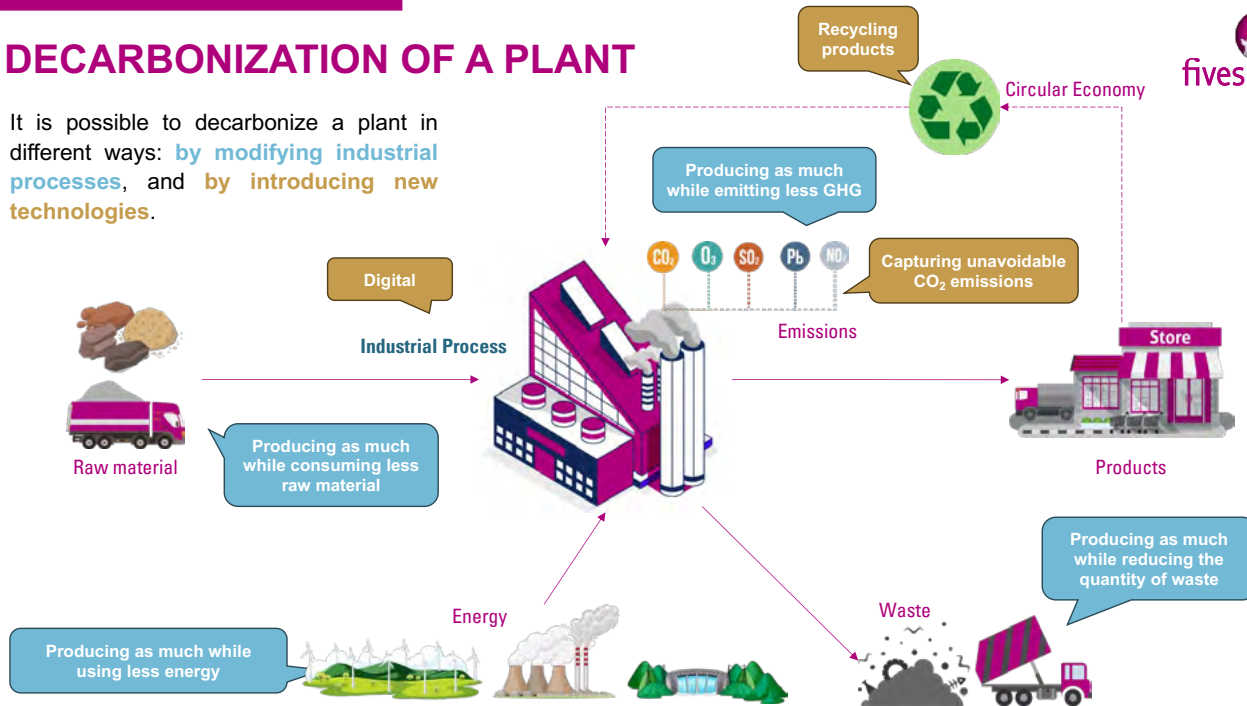
FOR RESEARCH AND TESTING

*Figures as at 31 December 2023

6

DECARBONIZATION OF A PLANT

It is possible to decarbonize a plant in different ways: **by modifying industrial processes**, and **by introducing new technologies**.



7

FIVES' PHILOSOPHY

Industry's carbon emissions are mainly due to its energy consumption. Decarbonizing industry means **working at the heart of industrial processes to make them greener**.

Fives responds to the need to combine environmental and economic performance by offering its customers:

- ✓ Solutions to improve **the performance of their equipment**
- ✓ **Digital solutions** to optimize the performance of an entire production line
- ✓ The implementation of **low-carbon combustion** solutions
- ✓ The **electrification** of their processes
- ✓ The introduction of new, **less carbon-intensive alternative processes**
- ✓ Solutions to **facilitate CO₂ capture**
- ✓ Solutions for **low-carbon transition markets**



8

CO₂ EQUIPMENT PERFORMANCE

EQUIPMENT PERFORMANCE



To improve performance, we work at the heart of industrial processes and offer equipment that significantly reduces CO₂ emissions by:

- **Consuming less energy**
- **Consuming fewer raw materials**, the production of which generates CO₂
- **Generating less waste**, the treatment of which consumes energy



Stein Digit@l Furnace®: heating efficiency, fuel flexibility, low energy consumption and ultra-low emissions

REDUCING LOSSES IN COMPOSITE MATERIALS



MADRAS Technology is a new process that combines draping, preforming and dry fiber placement with a **deposition speeds of 300 mm/s**, while using **sheets four times thicker and four times wider** than those previously used in aerospace applications. In addition, the **fall rate is reduced by 5%**.



Dry fiber deposition - Wing of the future project - Madras line (IRT Jules Verne)



Process control using on-board optical coherence tomography

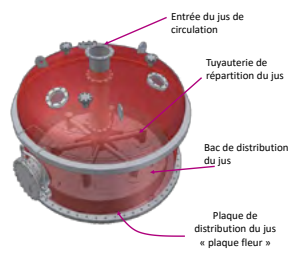
COAST Technology enables **the real time inspection of automated composite layup**, thanks in particular to machine learning and image processing. This improves part quality and traceability (via a digital twin), and **significantly reduces reject rates**, leading to a 20% improvement in yield.

[\[Metal Cutting | Composites\] Fives IPI - YouTube](#)

REDUCING ENERGY CONSUMPTION IN SUGAR PLANTS

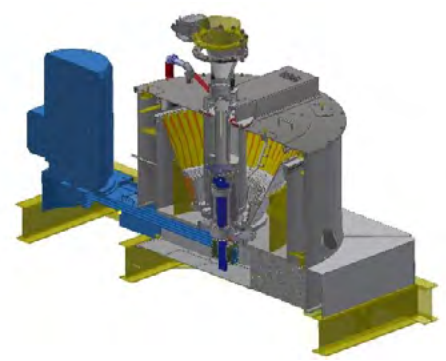


Energy consumption is a major issue for sugar manufacturers. Fives offers its customers a broad vision of the sugar factory, enabling **global optimization of the process**, and solutions **to reduce their energy consumption by 20% to 30%**: heat exchangers, energy reuse, the most efficient juice distribution system on the market, audits and expertise for process optimization.



Energy optimization in falling film evaporators, with the possibility of coupling with Steam Mechanical Recompression

Energy-efficient Cail & Fletcher e-Crystal™ continuous centrifugal



HIGH-PERFORMANCE GRINDING MILL – FCB HOROMILL®

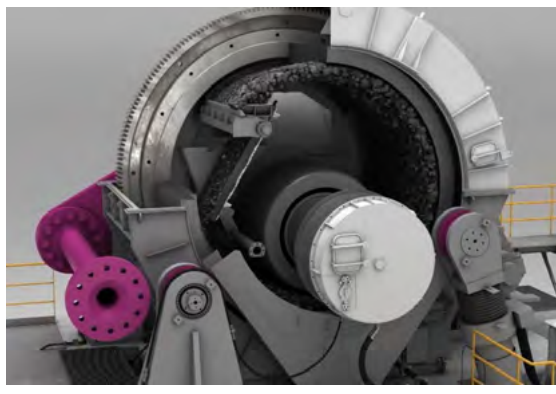


The **FCB Horomill®**, associated with the high efficiency classifier **FCB TSV™**, is a breakthrough innovation in **sustainable grinding**. Its material bed compression system has been helping cement manufacturers to significantly improve their grinding plant operation and product quality, while meeting their clinker reduction targets, **for 30 years**.

Lower energy consumption (up to 60% energy savings compared with ball mills, and 25% compared with vertical mills).

No water consumption

Highly automated and connected installation for eco-driving



FCB Horomill®



[Ciment | Minéraux] FCB Horomill® pour une meilleure qualité et durabilité du ciment - YouTube

03 SOFTWARE AND DIGITAL

SOFTWARE AND DIGITAL

Control software is at the heart of process performance. Drawing on its expertise, Fives implements **digital twins and tools to process data, making processes more efficient and reducing their environmental footprint.**

These solutions – **designed with our customers and validated in the field** – enable the deployment of Industry 4.0.

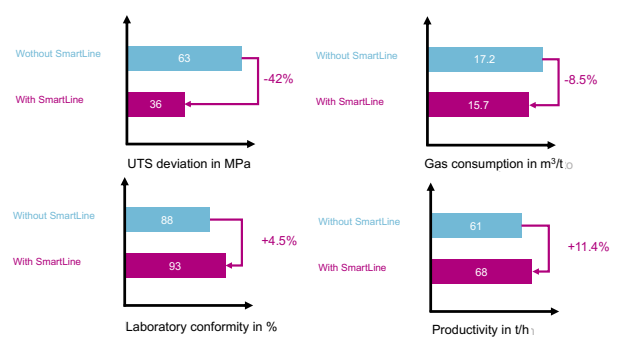


INNOVATIVE SOLUTION FOR STEELMAKERS



SmartLine™, a **fully automatic control system**, enables steelmakers to optimize process section operations of annealing or galvanizing lines. It ensures the optimum control of the equipment in order **to increase production yield and quality**, as well as to **reduce energy consumption.**

SmartLine™ has been installed on four galvanizing lines at the Marcegaglia Ravenna plant in Italy.



THERMAL OPTIMIZATION SOLUTION FOR STEEL



Virtuo™, an innovative digital solution based on predictive models and dynamic control, automatically optimizes furnace operation. It enables steel producers to meet the challenges of strict quality and ambitious production targets in a constantly changing market.

The solution is available for both Fives and non-Fives installations :

- Virtuo™-R** for reheating furnaces
- Virtuo™-L** for strip processing line furnaces

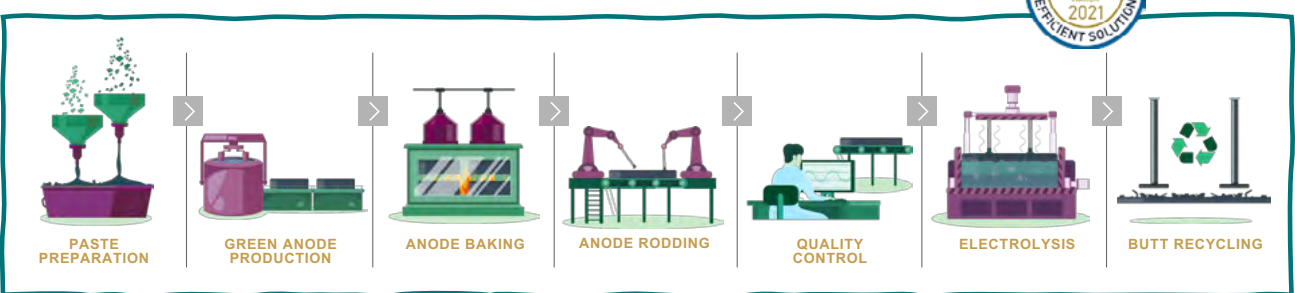
Results:

- Up to **22% reduction in gas consumption**
- 3 to 15% increase in production
- Better control of steel quality
- **Up to 20% of reduction in scale**

Reheating furnace for steel slabs

[Steel] Advanced reheating technologies - YouTube

AMELIOS DIGITAL SUITE FOR ALUMINUM INDUSTRY



Amelios Suite

The *Amelios* suite is a comprehensive digital suite that **uses advanced sensor data to control the entire anode manufacturing process**, thereby optimizing the carbon consumption associated with primary aluminum production. This solution guarantees a high-quality anode and **significantly reduces the amount of CO₂ emitted per tonne of aluminum produced**. The solution has been recognised by the Solar Impulse Foundation as an ecological and cost-effective solution to climate change.

Reduction in CO₂ emissions: **-35 to -70 kg CO₂/tAl** combined with a reduction in net carbon consumption.

Reduction of production incidents, which are high emitters of greenhouse gases (PFCs) whose global warming potential is 6,500 to 9,200 times greater than that of CO₂.

CONTROLLING AND REDUCING ENERGY CONSUMPTION DCARBONX SOLUTION



This solution tackles the problem of excessive energy consumption by providing **accurate data measurements** and information that enable companies to optimize energy use, reduce costs and **minimize the environmental footprint of their industrial estate**.

The "DCARBONX" solution enables companies to understand the sources of energy consumption, and thus **reduce them by up to 30%**.

- A solution which **can be connected to all machines**, enabling large-scale deployment
- Monitoring via dashboards
- Deployed by the experts of Fives Maintenance



Gateway CortX Alchemy

04 COMBUSTION

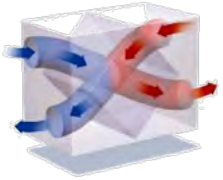
COMBUSTION



Through its various combustion technologies, **Fives meets the heating needs of many industries:** steel, aluminum, cement and minerals, chemicals and petrochemicals, paper, energy and low-temperature drying.

The solutions for decarbonizing combustion in these sectors are based on four pillars.

Heat recovery



Hydrogen



Biomass



Electrification



HEAT RECOVERY



Fives offers **the most advanced range of heat recovery burners** for metal processes (steel and aluminum). These technologies enable:

- The reuse of furnace heat **to reduce fossil fuel consumption by 20% to 30%.**
- Very high temperature combustion (up to 650°C and more) combined with low NO_x emission techniques to optimize heat recovery
- **process operation optimizations** thanks to **digital solutions**



Recuperative burner with indirect combustion



Regenerative burner

[\[Energy | Combustion\] TwinBed™ Regenerative Burner Technology - YouTube](#)



Regenerative burner with indirect combustion



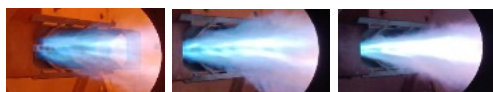
HYDROGEN BURNERS (H₂)

“The widest range of burners available on the market. Already validated in our test centers and by our customers.”



Burners up to 100% of H₂, and up to an output of 50MW (for example with Hy-Ductflam™).

0% vol H₂ 30% vol H₂ 50% vol H₂

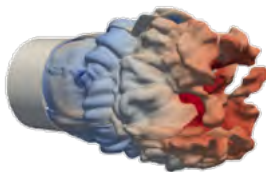


70% vol H₂ 90% vol H₂



Temperature (K)

1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000



Aix-Marseille
UNIVERSITÉ
Sociétélement engagée



Hydrogen combustion does not emit CO₂, so it is of major interest in decarbonizing our customers' heating needs.

Thanks to **more than 40 years' expertise in hydrogen combustion**, collaborations with leading universities, and its **two dedicated combustion test centers** (Piacenza and Cleveland), Fives knows how to rise to the challenges of hydrogen combustion:

- Maintaining **good heating quality and efficiency** for the industrial process
- Offering **hydrogen burners** or hybrid gas-hydrogen burners, **already validated in our test centers and by our customers.**
- Limiting pollutant emissions

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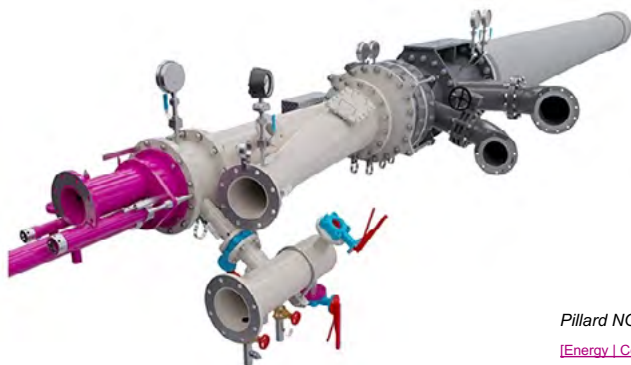
ENERGY | COMBUSTION – FIVES PILLARD & FIVES ITAS ; STEEL – FIVES STEIN

BIOMASS AND WASTE COMBUSTION



We offer **ASF (alternative solid fuel) burners** - which correspond to biomass or waste - for power ratings of up to 160MW, particularly in cement plants.

Thanks to the Fives design, **substitution rates can reach 80% and more**, for an average benefit of **decarbonizing 40% of combustion on 160 MW burners.**



Pillard NOVAFLAM® Evolution

[\[Energy | Combustion\] Pillard NOVAFLAM® Evolution : Invest in the future - YouTube](#)

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ENERGY | COMBUSTION – FIVES PILLARD

05 ELECTRIFICATION

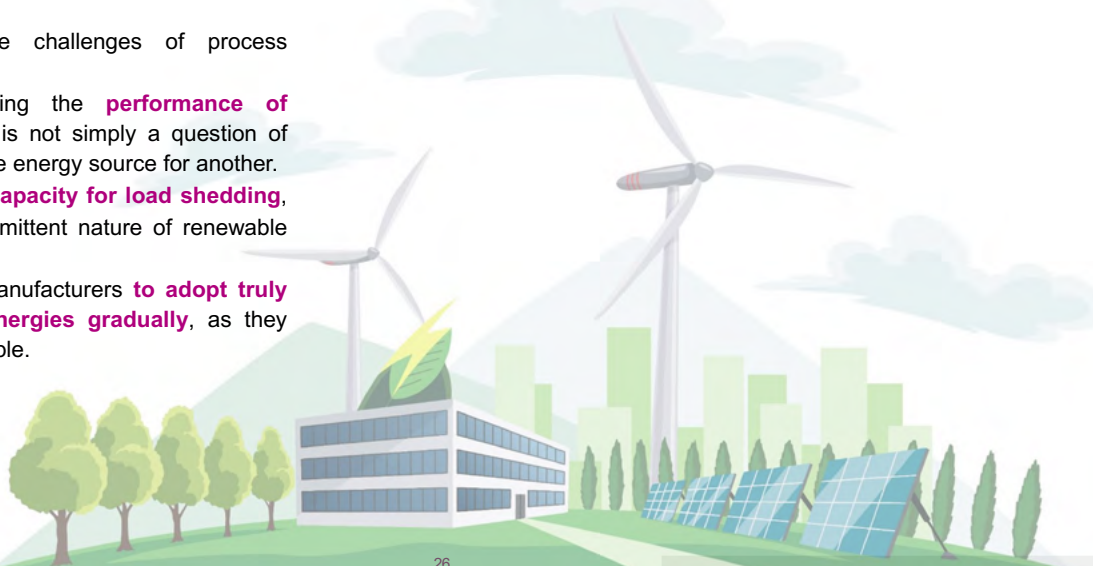
ELECTRIFICATION



When decarbonized electricity is available to a manufacturer, **switching from fossil fuels to electricity means emitting less CO₂ overall.**

Fives meets the challenges of process electrification

- By guaranteeing the **performance of processes**. It is not simply a question of substituting one energy source for another.
- By offering a **capacity for load shedding**, given the intermittent nature of renewable energies.
- By allowing manufacturers **to adopt truly low-carbon energies gradually**, as they become available.



ELECTRIC AND HYBRID GLASS MELTERS

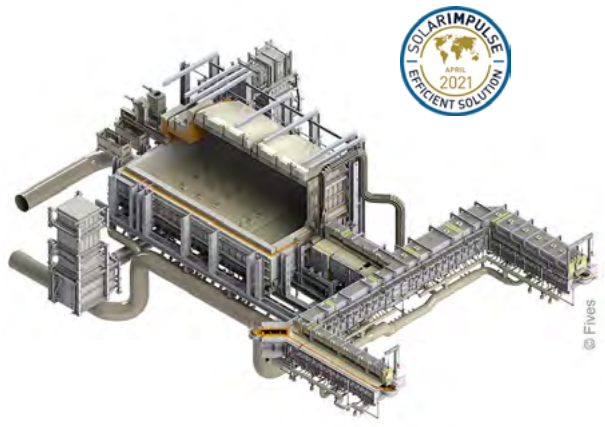


Fives has recognized expertise in glass melting that enables glass producers to reduce emissions while offering operational flexibility and meeting glass quality expectations:

- **Prium® E-Melt**, electric melting technology
- **Prium® Eco-Flex**, hybrid melting technology

Moreover, Prium® Eco-Flex can adapt to changing energy prices by **modifying the gas/electricity ratio during operation.**

Prium® Eco-Flex incorporates H.R.A.™ (Heat Recovery Area) technology. This revolutionary design **increases the electrical input by 20% to 80% without affecting the quality of the glass.** This technology has been awarded the Solar Impulse Efficient Solution label in 2021.



Prium® Eco-Flex hybrid furnace

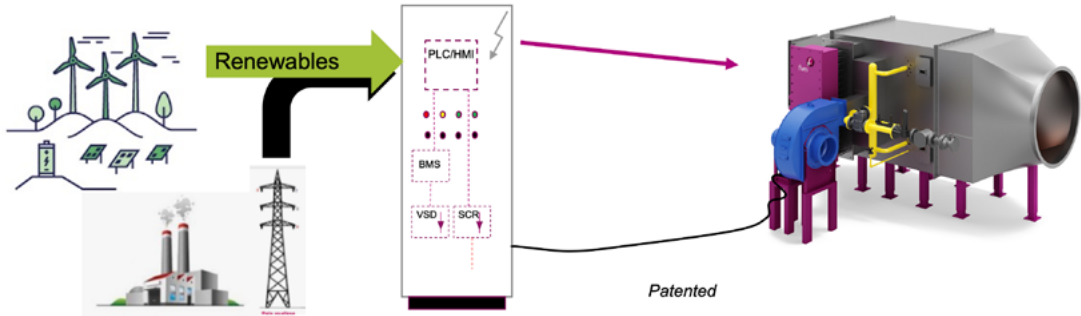
HYBRID GAS/ELECTRICITY BURNER – E-DUCTFLAME™



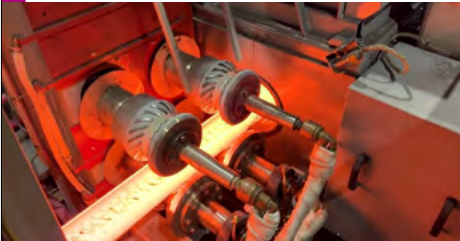
This burner generates heat for low-temperature drying systems (ceramic processes, paper, cardboard, etc.) by **combining the energy of gas combustion and the energy of electrical resistors.**

Fives technology offers many advantages:

- **Flexibility:** managing gas and electricity consumption according to availability, need and price. **Hybrid, 100% gas or 100% electric operation**
- Less CO₂ by using decarbonized electricity, with a **reduction of up to 60% in emissions**
- **Limited footprint:** Same size as the equipment being replaced
- **Easy to install:** Plug & play system



INDUCTION HEATING



CELES inductors

Fives develops **induction solutions for a wide range of industrial applications**: bonding, shrinking, brazing, forging, melting, annealing, hardening, graphitizing, etc.

Induction is a physical principle where Eddy currents flow through any conductive part placed in a variable magnetic field. These induced currents dissipate heat by the Joule effect.

This technology has **multiple environmental benefits**:

- ✓ **Targeted heating of the material**
- ✓ Instant heating at the heart of the material, enabling **very high energy efficiency (up to 90%)**
- ✓ **Up to 70% reduction in CO₂ emissions** by switching from natural gas to induction heating
- ✓ Easy integration into production lines and machines

06 NEW PROCESSES

MILLING SYSTEM – DUFIEUX® MIRROR MILLING STAR



Dufieux® Mirror Milling Star as an alternative to chemical milling

Reducing the carbon footprint of industrial processes also involves **optimizing waste management**.

Dufieux® Mirror Milling Star process has been developed for machining aerospace panels.

Without MMS: Use large quantities of chemical reagents, the production of which generates greenhouse gases. Generates sludge that is difficult to recycle. Electricity consumption of 7 GWh / year for 7,000 panels.

With MMS: **No need to use acids, production of easily recyclable metal chips**. Electricity consumption of 3 GWh / year (-57%) for 7,000 panels thanks to an optimized cycle.



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HIGH PRECISION MACHINES – FIVES MACHINING

REDUCING EMISSIONS FROM A CEMENT PLANT



A cement plant using only Fives technologies would **emit half as much CO₂ as the average European cement plant**.

Average emissions in Europe
(petcoke, VRM, BM, K/C=0.75)
688 kg CO₂ / t cement



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CEMENT, MINERALS & SUGAR – FIVES FCB

CLAY CALCINATION – FCB FLASH CALCINER



Calcined clay is widely recognized as **a substitute for clinker** in the production of cementitious materials. Reducing the use of clinker by 50% and replacing it with calcined clay and limestone has no impact on the final strength of the concrete, but does **reduce CO₂ emissions by 40%**.

The Fives *FCB Flash Calciner* is a clay suspension calcining solution that helps our customers achieve their production and environmental objectives.

Key benefits:

- ✓ Application on a **wide range of clay qualities**, with the possibility of enrichment
- ✓ **Full activation of clay**, leading to a high clinker substitution rate
- ✓ **High flexibility of fuel choice**, especially biomass, thanks to the separation of calcination and color control stages



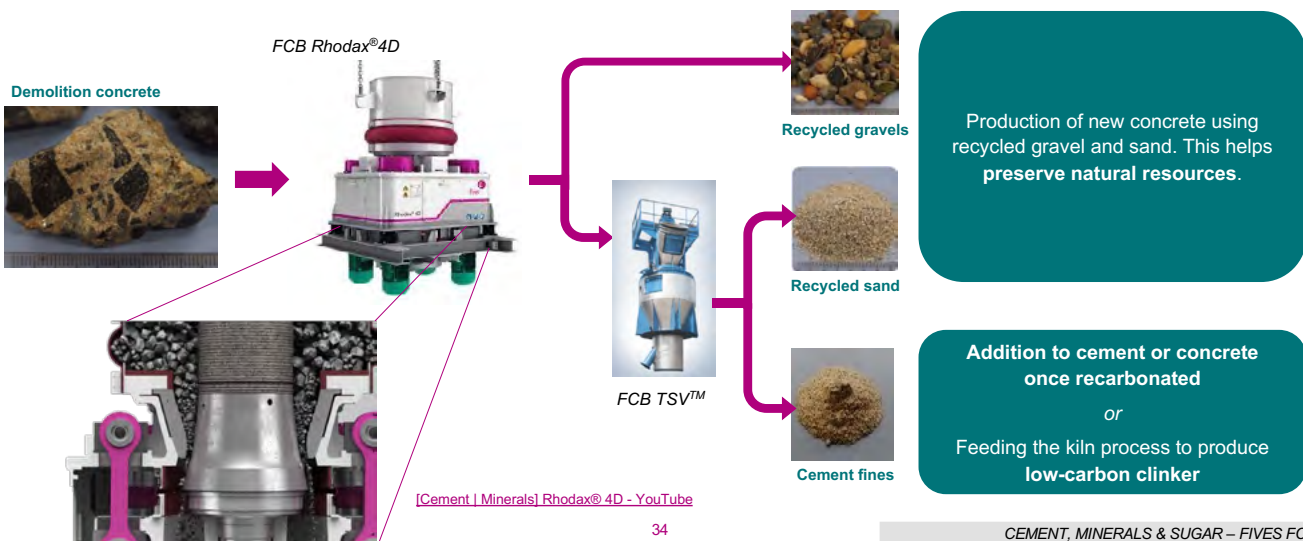
FCB Flash Calciner

CEMENT, MINERALS & SUGAR – FIVES FCB

CONCRETE RECYCLING – FCB RHODAX® 4D & FCB TSV™



FCB Rhodax® 4D is an advanced system based on interparticle crushing and precise control of attrition force. It enables **concrete to be recycled by releasing its three constituent fractions, which are then separated into gravel, sand and cement**.



CEMENT, MINERALS & SUGAR – FIVES FCB

07 CO₂ CAPTURE

CO₂ CAPTURE



To meet industry's decarbonization targets, it is essential to capture **the remaining and unavoidable CO₂ emissions**, and store them.



Diagram explaining CCS, provided by the Global CCS Institute

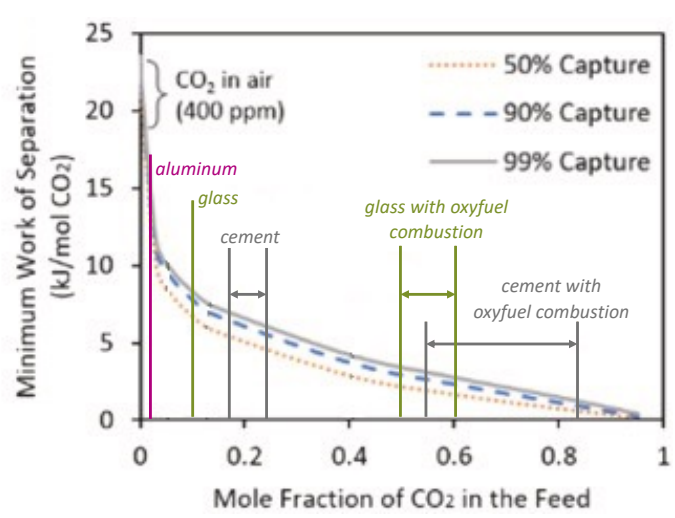
Fives responds to this need:

- through expertise in **adapting industrial processes to capture CO₂**, in particular by concentrating the CO₂ in flue gases
- thanks to **partnerships with the world's leading experts** in CO₂ separation and processing

WHY CONCENTRATE THE CO₂ IN FLUE GASES?



The higher the concentration of CO₂ in the flue gas, the less energy it takes to capture one tonne of CO₂.



With **20% concentrated flue gas**, you need **between 400 and 550 kWh/t.CO₂** (but *theoretically* 85 kWh/t.CO₂).

With **70% concentrated flue gas**, you need **200 kWh/t.CO₂** in the best case (but *theoretically* 30 kWh/t.CO₂).

The concentration of CO₂ therefore offers **considerable energy savings** for the CO₂ capture plant that will have to be built.

Adapted from: Jiang, Yuan, et al. "Energy-effective and low-cost carbon capture from point-sources enabled by water-lean solvents." Journal of Cleaner Production (2023)

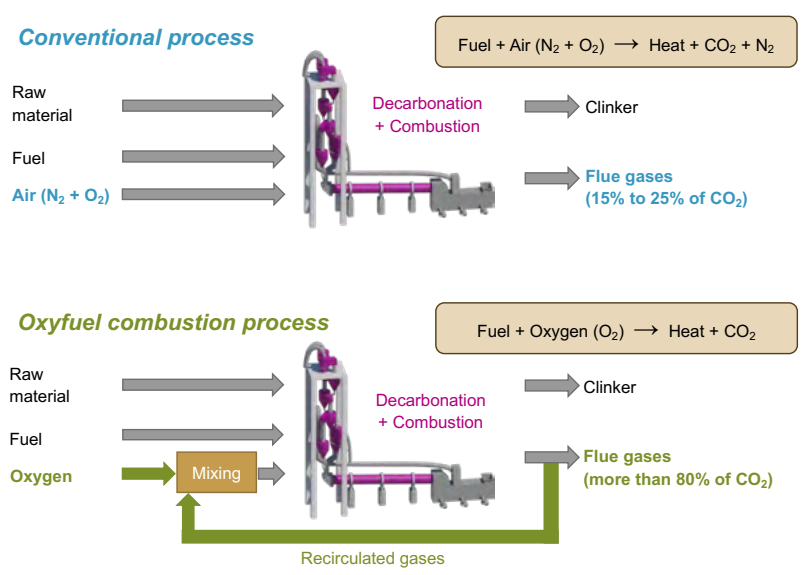
OXYFUEL COMBUSTION IN CEMENT INDUSTRY



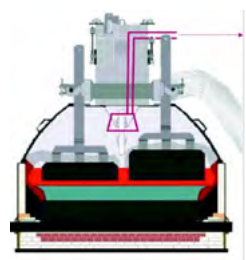
In a cement plant **modified by Fives** so that **it can operate with oxyfuel combustion and be coupled to a CCS process**, the air (oxidant) arriving in the burners is replaced by pure oxygen.

Thus, **the fumes produced by the cement plant contain mainly CO₂**, with the average concentration rising from 20% in the conventional process to 80% in the oxyfuel combustion process.

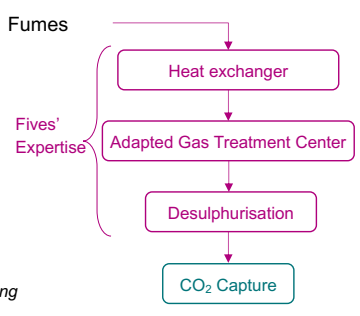
This high concentration of CO₂ makes it easier to capture and **reduces the cost and energy consumption per tonne of CO₂ captured**.



CAPTURING CO₂ IN ALUMINUM INDUSTRY



Adapting the collection and pre-treatment of cell fumes, integrating capture



Direct emissions linked to the production of primary aluminum arise mainly from the electrolysis process, which consumes carbon anodes.

Fives is collaborating with major players in the production of primary aluminum in France (Aluminium Dunkerque, Trimet France and others) to develop a solution aimed at capturing flue gases concentrated in CO₂ (before they are diluted), and thus facilitating carbon capture.



08 LOW CARBON ENERGIES

EQUIPMENT FOR LIQUID HYDROGEN APPLICATIONS



Hydrogen liquefaction is an essential technology for transporting hydrogen. **Fives is involved in liquefaction, transport and distribution.**

LIQUEFACTION OF HYDROGEN

Market leader in liquefaction equipment with over 50 references in this sector



Brazed Aluminum Heat Exchangers to reach hydrogen liquefaction temperature of -253°C

80 degrees Kelvin and 20 degrees Kelvin **cold boxes**: the nerve center of liquefaction plants



TRANSPORT AND DISTRIBUTION OF HYDROGEN



Pumping a liquid tank and filling vehicle tanks at high pressure (450 bar / 900 bar)
Cryomec Hy-Filling™ 450

Transferring liquid hydrogen from tank A to tank B using **low-pressure centrifugal pumps**



SOLUTIONS FOR AUTOMATING ELECTROLYSERS MANUFACTURING



Electrolysers – equipment used to produce hydrogen – are a key element in the hydrogen value chain. Fives offers **solutions to automate electrolyser production lines and improve their performance.**

Design and manufacture of **high-precision laser welding solutions**



Design and production of skids and piping networks for the hydrogen industry



Automated lines for electrolysers tanks and fuel cells gigafactories



Design and automation of solutions **for leak testing for hydrogen tanks**

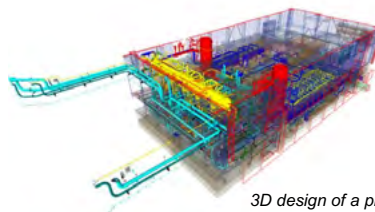
COMPLEX NUCLEAR PIPING



For over 50 years, Fives has been applying its unique expertise in **high-value-added piping** to the maintenance and modernization of **France's nuclear power plants**.

Fives Nordon's expertise is divided into four activities:

- Engineering
- Prefabrication
- Assembly
- Maintenance



3D design of a piping network



Hot bending of a tube

PRODUCTION CHAIN FOR ELECTRIC BATTERIES FOR MOBILITY



Conveyors



Stacking station



Picking robotic cells

With its long-standing expertise in the automotive sector, the e2Motion Business Unit offers automated solutions for e-mobility and its GigaFactories customers:

- **precision robotic systems and automation of complex production flows**, to deliver very high availability rates and performance ratings
- **laser welding, leak testing and sealing processes**, for flexible and scalable assembly lines



Press fitting station



Inspection and laser systems



Cleaning and gluing station

[e2Motion, votre partenaire pour une mobilité durable - YouTube](#)



fives

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