



CONNECTED
TECHNOLOGIES
FOR A **SMARTER**
WORLD

ACTIVITY REPORT

2017

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ACTING
RESPONSIBLY
TOWARDS ALL
OUR STAKEHOLDERS



**KEY
ISSUES**

WHAT WILL
TOMORROW'S
SMART WORLD
LOOK LIKE?

TOMORROW

What will the SMART WORLD look like?

IN AN INCREASINGLY URBANIZED, DIGITALIZED WORLD, NEW MARKETS ARE EXTENSIONS OF PAST MARKETS WHICH ARE NOW DRIVEN BY USAGE, TRANSPARENCY, AND IMMEDIACY.

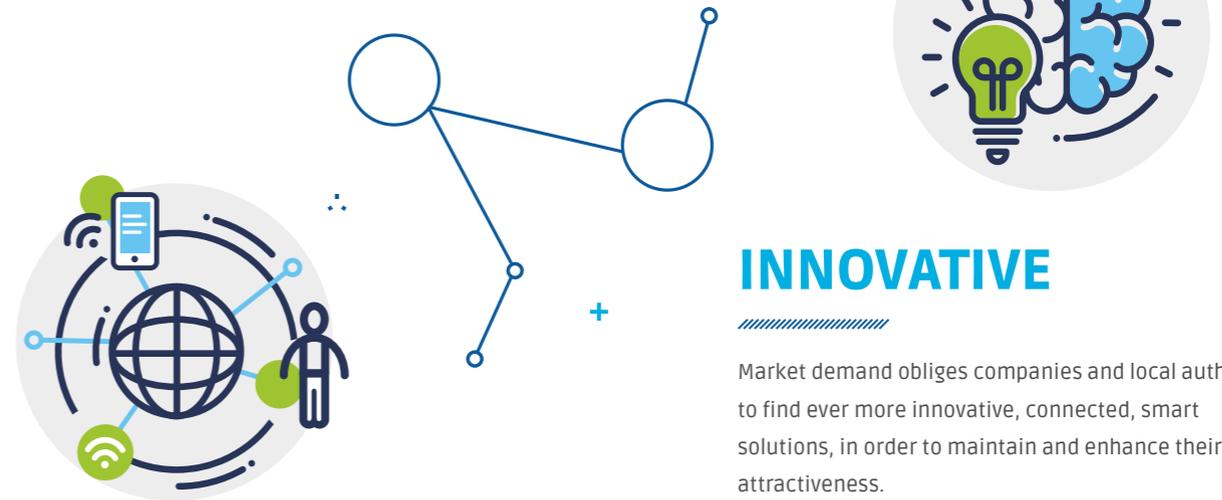


CONNECTIVITY

LACROIX designs applications that may seem to be very different: electronic cards, energy, water and flow management systems, signage and road equipment, public lighting. But all our systems share a common purpose, namely to connect humans and machines to help create a smarter world.

LACROIX has extensive experience and expertise with disruptive technologies such as mobile Internet, advanced robotics, renewable energy and autonomous vehicles, which are changing society as we know it.

At LACROIX, we have a "Connected Technologies" culture that supports our identity as a supplier of smart systems.



DIGITAL

As a result of new information and communication technologies, LACROIX's activity as a technological equipment provider has entered the digital age. With one priority: to create Smart Industry in a Smart Environment with Smart Mobility.

LACROIX's range integrates the latest digital technology to improve the performance of operations and the connectivity of equipment. LACROIX's growth and recent acquisition of Neavia confirm the success of this strategy. Aware of the security issues associated with digitization, LACROIX also places cybersecurity at the heart of its research and development strategy.

INNOVATIVE

Market demand obliges companies and local authorities to find ever more innovative, connected, smart solutions, in order to maintain and enhance their attractiveness.

Capitalizing on its market knowledge and its OEM expertise, LACROIX offers more efficient, more relevant, better-performing technological solutions, working with its customers to innovate and build the bridge between the world of today and tomorrow. LACROIX is committed to the creation of a Smart World through its three activities.



INTEROPERABILITY

In the past, systems were isolated and provided a single piece of information. Today, they are connected and can adapt and integrate disruptive technologies; LACROIX systems are also interoperable.

By creating new uses, they will make the cities of tomorrow smarter.

Scalable and interoperable equipment provide a guarantee that local authorities can contribute to the attractiveness of their region, manage their public spending budget and prepare for the future.

RESPONSIBLE

In an increasingly urban, connected world, as movements of populations intensify and resources become scarcer, it is essential that they are better managed.

The world's population should reach 9.7 billion by 2050, and 70% of these people will live in urban environments. Only technological equipment can reconcile mobility and preservation of the environment.

With a presence close to its customers, LACROIX has an in-depth understanding of the requirements of different markets and thus offers them equipment solutions for a smarter, more responsible world.

AMBITION

PUTTING OUR
TECHNICAL
& INDUSTRIAL
EXCELLENCE IN
THE SERVICE OF A
CONNECTED,
RESPONSIBLE WORLD

"We act, we innovate, we invest and we prepare for the future"

Interview with Vincent Bedouin,
Chairman of the Board of the LACROIX Group



The LACROIX Group is evolving. You have ambitious plans for the future. How would you describe them?

Let's start with what we are: a mid-market company, which gives us the flexibility and agility that is essential in a constantly changing technological environment. We are also a family-owned group that takes a longer-term view of investment and planning for the future. We have solid international experience and our activities are at the heart of the digital revolution.

We are therefore at the crossroads of major changes, and we have stuck firmly to our positioning as technological equipment provider. We are taking up the challenge to contribute actively to creating and consolidating the "Smart World", which will provide more services, greater security, and consume less energy, while at the same time respecting people and the environment.

The LACROIX Group tagline is "Connected technologies for a smarter world". What does this mean in terms of strategy?

All our activities involve the connected objects revolution, and so we are directly contributing to the creation of a smarter environment. To take some examples: LACROIX City designs and manufactures equipment that directs, optimizes and secures the flow of vehicles and people (signage, lighting and traffic management). LACROIX Sofrel develops equipment for the

monitoring and remote management of drinking water, sanitation, heat and energy. LACROIX Electronics designs and manufactures smart, connected electronic equipment for its customers in the electronics industry ecosystem of the future.

Connected objects feature in all of the Group's activities. Beyond its own product lines, LACROIX is now established as a technological OEM in the IoT industry, and so I think we can say, in terms of strategy, that we really are providing *"connected technologies for a smarter world"*.

Can you explain the origin of this strategy?

This increased connectivity is just the beginning of a vast upheaval. It has created a growing demand in terms of electronics, intelligence and communication, and thus a natural convergence between our markets that reflects changing societal needs regarding the environment, mobility, industrial renewal, etc.

The vision of our mission as a **provider of connected technological equipment** has thus evolved naturally. The products that we made yesterday have become smart products, that meet our customers' requirements, enabling them to optimize their existing infrastructure, reduce spending on supervision, maintenance and civil engineering, and find new uses based on sustainable, cybersecure solutions.

In an increasingly digital world where data is constantly flowing and multiplying, the operation of these products is complex but offers our clients limitless possibilities. We believe that an understanding of our clients' activities is vital to helping them evolve. Our role is to facilitate the uptake of technologies and all the Group's resources are focused on this task.

How do your teams support this profound transformation?

The entire Group and its teams have demonstrated tremendous commitment.

We have enhanced our organization so as to create regular opportunities for discussion. Today, the teams communicate fluidly between themselves, and with their partners and customers. We have opened up such exchanges, creating real pride in being part of our Group.

I would also mention our recent acquisitions which demonstrate the importance of the LACROIX approach. They have all adopted our values and ambitions while at the same time further developing their own expertise. LACROIX City, for example, has perfectly integrated NEAVIA's experience in connectivity, and SOGEXI's in lighting. LACROIX Electronics has begun an active collaboration with our partner Firstronic, launching our presence in the US.

Getting back to your activity, how are you preparing for the future?

First of all by the development of transversal partnerships. In this connected world, we work increasingly on a partnership basis (customers, suppliers, start-ups). We are also developing new skills in idea-generation teams focusing on uses. They give us more agility and keep us ahead of changes in the market, and enable us to develop Proofs of Concept (PoC) with our customers.

We go further with the LACROIX Lab team, which is dedicated to this idea-generation phase, complementing the teams in charge of product platforms and industrialization. The two approaches can nurture each other but have to be kept separate. For the IoT, PoCs or functional prototypes are not enough to develop new business, because the constraints on the use of the equipment in real situations need to be integrated, and these can be very significant, such as life cycles, standards, interfaces, etc.

With regard to the historical signage and traffic management market that has become LACROIX City, we are now developing a model similar to that of LACROIX Sofrel, based on interoperable, communicating equipment that enables us to implement smart road solutions adapted to our customers' requirements. Our acquisitions have been successfully integrated into this activity (SOGEXI for the control and connection of public lighting; the Spanish company DSTA, for dynamic road signs; and Néavia for traffic management and the connection of vehicles that are gradually becoming autonomous) thereby consolidating our positioning in the urban and inter-urban smart mobility market.

"We are equipped to respond to our vocation, i.e. designing and industrializing connected, innovative equipment and technology to enable our customers to make the world more intelligent and responsible"

For LACROIX Electronics, the transition to the industry of the future (Industry 4.0) is fully integrated into our investment strategy, with a single ERP system, data centralization and the standardization of processes,

connection between production units, etc. We have greater flexibility, and have absorbed the increased load, while controlling costs and maintaining the quality of our teams' working conditions. We are able to meet the



requirements of the connected objects market in the professional field, which generates a broader product mix and a more versatile demand.

How is the offer evolving?

The Group is interested in the notion of smart data, i.e. the ability to remotely manage data in the sensors and platforms that we offer. We believe that there will be intermediate levels of information processing to enable the management of the data mass. Intelligence will not be totally concentrated in the cloud, or in the sensors. It is at these intermediate levels that we also wish to position ourselves, to provide value, in collaboration and in a complementary fashion with our major customers.

We will of course remain true to our core activities, the installation and operation of networks are our customers' responsibility, we provide them with the equipment. We are also integrating the training of their teams, which remains a key factor in facilitating the dissemination of new technologies, particularly in sectors for which they represent major change.

What are the main constraints that you encounter in the IoT and electronics market?

Customers have real difficulties in clearly formulating their needs, which is understandable in this rapidly evolving environment. Our role is to help them.

Another difficulty stems from the multitude of projects. A start-up may have a great idea, but to get from a PoC to the deployment of a solution in a professional market requires in-depth knowledge of the market and financial

resources. The costs of industrialization and the mobilization of an industrial supply chain are considerable.

A critical issue is cybersecurity in the IoT, and even more so when it is a matter of critical infrastructures such as water, energy or transport. This is a crucial factor in the deployment of IoT technology in professional markets, and is at the heart of our approach.

In conclusion?

The shift to connected objects is reflected in the strategy of this mid-sized family business with 4000 employees, created 80 years ago.

We have given considerable thought to our strategic approach and have created our Ambition 2020 development programme to build bridges between the markets and the company's core activities. In a connected world, objects are part of an infrastructure. It is therefore important to identify the opportunities and risks associated with potential adjacent markets from the start, which requires a broad overview.

This evolution has obliged the Group to develop agility in its internal processes, and with our customers and suppliers, in order to integrate new practices and remain at the heart of the ecosystem.

Every day we see that our teams and our business environment are dedicated to achieving these ambitions, which for me is a very promising sign.

THE SUPERVISORY BOARD



Jean-Paul BEDOUIN
Chairman of the Supervisory Board



Hugues MEILI
Member
Chairman and CEO of Niji Consulting and Technology in the service of the digital transformation of companies



Hubert de BOISREDON
Member
Chairman and CEO of ARMOR International specialist in ink chemistry and printing technologies.



Pierre TIERS
Member
Executive Board of CM-CIC Investment Funds and M&A Consulting



Muriel BARNÉOUD
Member
Director of CSR of La Poste Group



Ariane MALBAT
Member
Director of Human Resources of the SERIS Group

2017 Views from the Executive Committee

CREATED IN 2017, THE EXECUTIVE COMMITTEE CONSISTS OF 8 MEMBERS; HOSTED BY THE EXECUTIVE BOARD, IT COMBINES THE GENERAL MANAGEMENT OF ACTIVITIES AND THE FUNCTIONAL MANAGEMENT OF THE LACROIX GROUP.



« We act, we innovate, we invest and we prepare for the future »

VINCENT BEDOUIN

Président du Directoire



“2017 marked the launch of the transformation programme for financial operations, with the unification of management and reporting data, and the beginning of dematerialization projects.

Part of the Operational Excellence theme of our Ambition 2020, these projects will contribute to the overall efficiency of teams, and the improvement of our WCR”

NICOLAS BEDOUIN

CFO



“With its new-generation S4W remote management terminal, LACROIX Sofrel's offer now fits into an ecosystem that further facilitates and secures the management of water and energy networks. 2017 also saw the successful intensification of our commercial approach at the international level, especially in the ASEAN zone. ”

CATHERINE FAILLIET

Managing Director LACROIX Sofrel



“With the acquisition of a stake in the North American company FIRSTRONIC LLC, LACROIX Electronics moved up a level in terms of international development, and is now able to meet the requirements of strategic customers by becoming multi-continental. ”

STÉPHANE KLAJZYNGIER

Managing Director LACROIX Electronics



“We have launched a transversal programme to support collaborative work. This enables direct sharing of our digitization efforts while optimizing resources. ”

LOÏC GOULARD

Information Technology Director



“This has been a rich year in terms of innovation with LACROIX Tech, a horizontal R&D and marketing community; the creation of LACROIX Lab to catalyse innovation, and the launch of a growing number of open innovation projects”

STÉPHANE GERVAIS

Director of Innovation



“ LACROIX is now recognized as a key player in the Smart World with an international impetus. The brand's visibility is well-established with elected officials, administrations and the media. ”

LANDRY CHIRON

Communications Director



“The Ambition 2020 transformation programme deployed in 2017 puts Human Capital at the heart of the LACROIX Group's development. Each employee has a role to play in the realization of this programme”

THOMAS LESORT

HR Director



“The creation of the Executive Committee has provided a positive vector for the exchange of information and given a coordinated impetus to best practices within the group. 2017 has helped to improve visibility and contractual management of the Group's commitments. ”

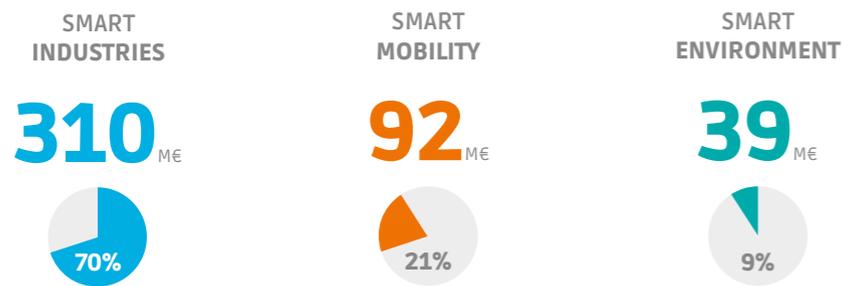
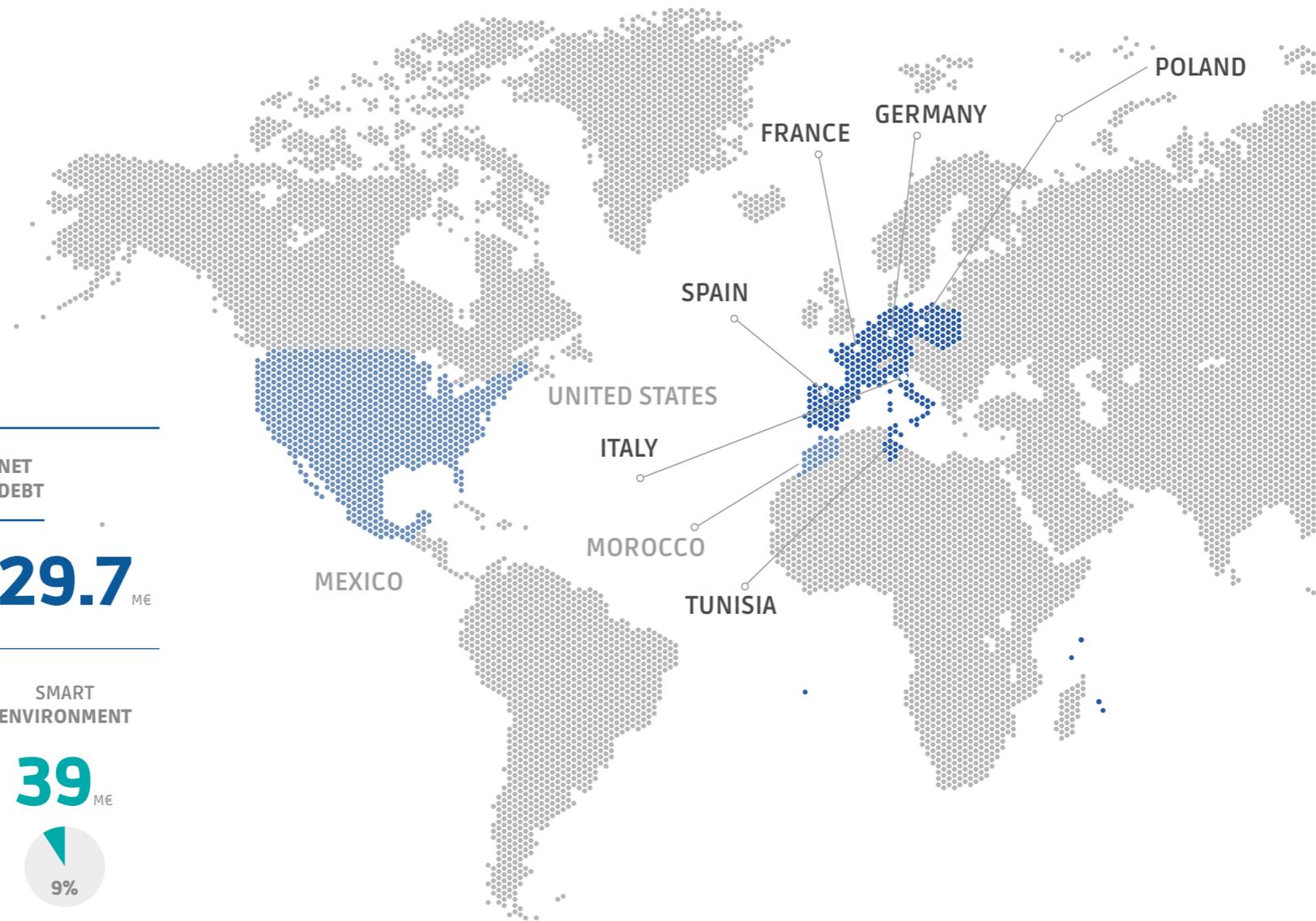
FRANCK LEGRAND

General Counsel

MARKET PENETRATION

A multi-continental presence

IN 2017, LACROIX PUSHED AHEAD WITH ITS PLANS TO ACCELERATE ITS INTERNATIONAL EXPANSION. EQUITY PARTICIPATION IN THE NAFTA ZONE, THE STRUCTURING OF COMMERCIAL ACTION IN THE ASEAN ZONE AND THE STRENGTHENING OF ITS PRESENCE IN AFRICA MEANS THAT THE GROUP IS NOW PRESENT ON SEVERAL CONTINENTS.



4,000
EMPLOYEES WORLDWIDE



09
INDUSTRIAL SITES



09
R&D CENTERS

AMBITION 2020

Solid, targeted growth

WINNING MARKETS

A customer-oriented organization focused on the sale of the value

2020 Objectives:

60% of activities through strategic clients

25% more revenue by sales representative

INTERNATIONAL DEVELOPMENT

Further development in high-growth areas

2020 Objectives:

70% of activity outside France

X 3 outside Europe

INNOVATION & DESIGN

Accompany the industrial IoT wave and new uses with our ecosystems

2020 Objectives:

30% of revenues via new products

10 new collaborative projects per year



OPERATIONAL EXCELLENCE

Transformation to the industry of the future: digitization and real-time fluidity

2020 Objectives:

-25% order processing time

+ 5 points AV on personnel costs

HUMAN CAPITAL

Teams operating in an entrepreneurial corporate culture

2020 Objectives:

75% internal satisfaction

25% employee shareholders

SMART WORLD

LACROIX connected for the acceleration and implementation of the 2025 plan

2020 Objectives:

10% of activity through partnerships

50% of digital customer and supplier relations

HIGHLIGHTS

High points in the year



WINNING MARKETS



INTERNATIONAL DEVELOPMENT



INNOVATION & DESIGN



OPERATIONAL EXCELLENCE



HUMAN CAPITAL



SMART WORLD



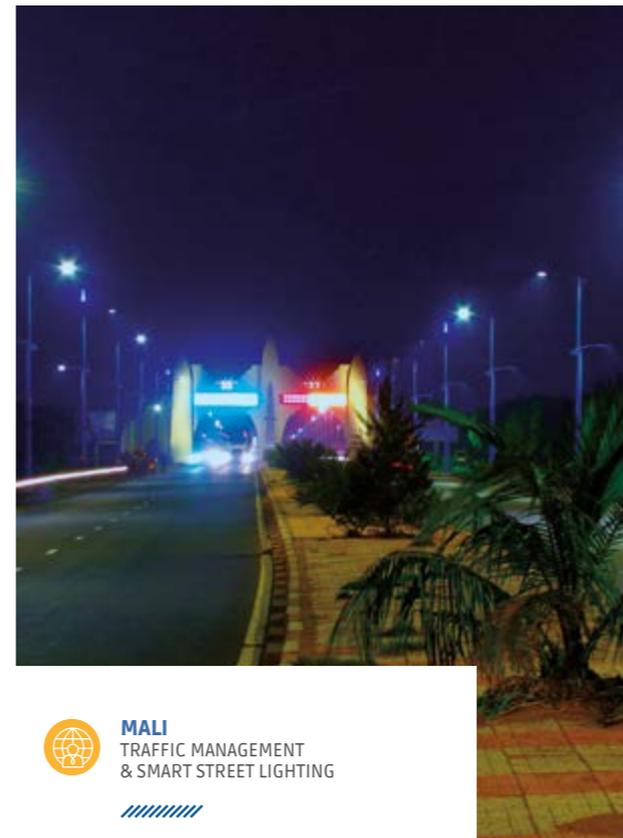
UNITED STATES
ACQUISITION OF STAKE IN THE ELECTRONIC SUBCONTRACTOR FIRSTRONIC LLC

A structural step that gives the Group a multi-continental dimension, through the factories IN THE US and Mexico, and which makes it possible to provide support for existing customers in these regions.



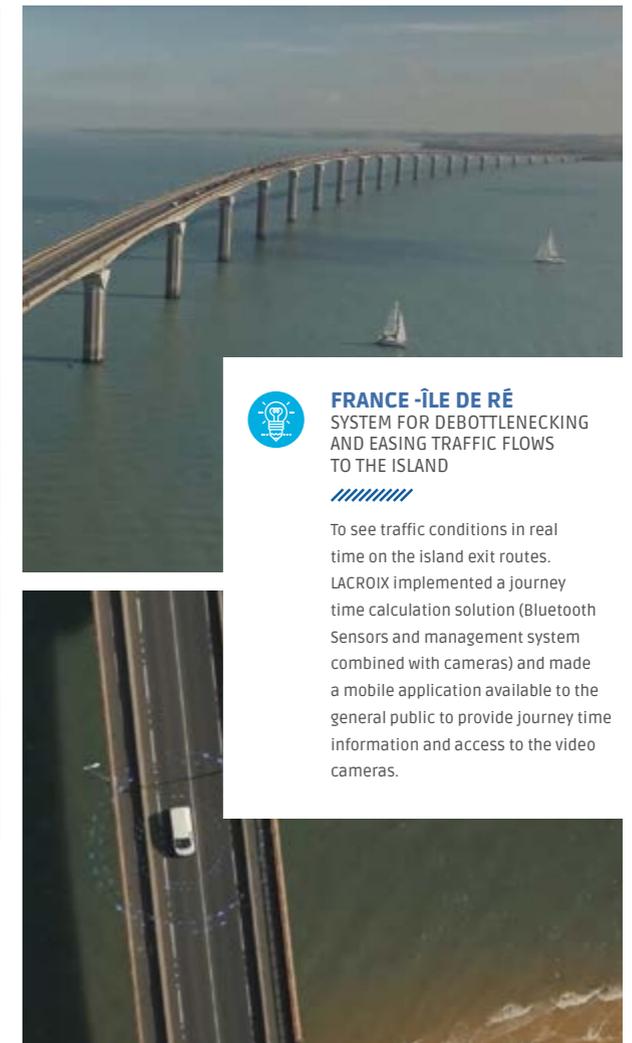
ITALY
REMOTE MANAGEMENT OF AN IRRIGATION NETWORK RECYCLING WASTE WATER

The originality of this project lies in the fact that it uses treated waste water from a water treatment plant mixed with untreated water in order to obtain water of satisfactory quality for irrigation.



MALI
TRAFFIC MANAGEMENT & SMART STREET LIGHTING

In this project, in addition to the provision of 12 intersections with traffic lights, LACROIX supplied equipment for smart management and power for public lighting, with connection products enabling significant energy savings and facilitating the maintenance of the installations.



FRANCE - ÎLE DE RÉ
SYSTEM FOR DEBOTTLENECKING AND EASING TRAFFIC FLOWS TO THE ISLAND

To see traffic conditions in real time on the island exit routes. LACROIX implemented a journey time calculation solution (Bluetooth Sensors and management system combined with cameras) and made a mobile application available to the general public to provide journey time information and access to the video cameras.



FRANCE
PASSIVE SAFETY

Passive safety is becoming widely available with the Mx4 smart support. Hundreds of masts have been deployed in France to improve road safety. A real success for this technically very innovative product that was released in 2016 in response to urban and interurban issues with the management of roadside obstacles.



ASEAN
CONSOLIDATION OF COMMERCIAL AMBITION

Because of its lack of natural resources, Singapore is a visionary country when it comes to Smart Environments. Now regarded as a benchmark reference in ASEAN, numerous companies and authorities visit Singapore to study and share their experiences in terms of energy saving and water collection and treatment.



ANGERS
LACROIX FLAGSHIP FOR FRENCH ELECTRONICS INDUSTRY OF THE FUTURE AT THE WEF

International delegations from the World Electronics Forum came to see the French vision of the Smart World. Perceived as a land of innovation after its impressive contingent of start-ups at the Las Vegas CES, they also discovered the power of an associated industrial base that makes France a leader in Europe.



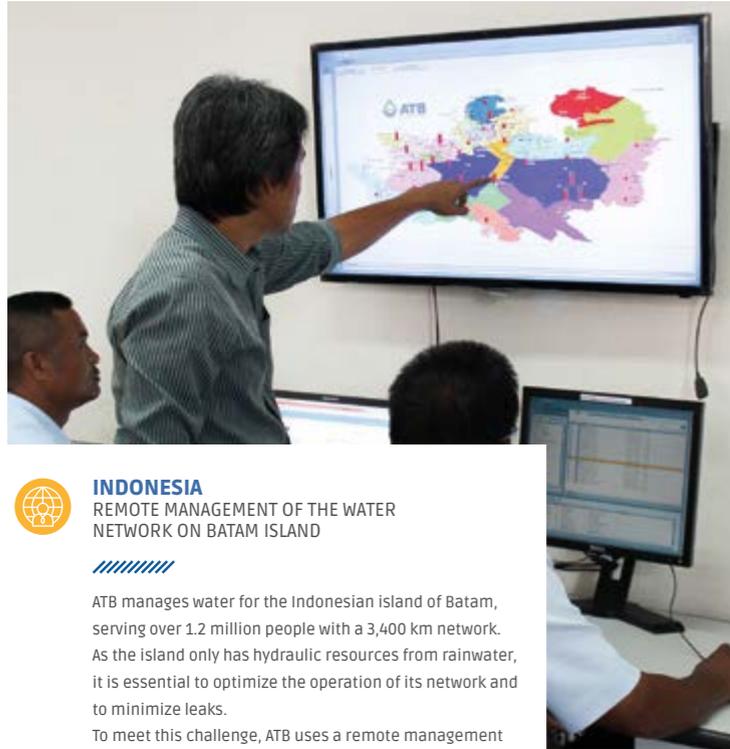
UNITED STATES
CONNECTED, AUTONOMOUS VEHICLES

Winner of the Ubimobility programme to explore the U.S. market As a leader in innovative smart mobility, specializing in connected transport infrastructure and multi-sensor systems - LACROIX was selected to take part in the UBIMOBILITY Connected Cars France 2017 programme organized by Business France and Bpifrance.



SPAIN
INAUGURATION OF NEW OFFICES AND FACTORIES

To create synergies between its activities stemming from organic growth and companies that have joined the group in recent years. Spain is also becoming a stepping-stone market for the Group's development in Latin America.



INDONESIA
REMOTE MANAGEMENT OF THE WATER NETWORK ON BATAM ISLAND

ATB manages water for the Indonesian island of Batam, serving over 1.2 million people with a 3,400 km network. As the island only has hydraulic resources from rainwater, it is essential to optimize the operation of its network and to minimize leaks. To meet this challenge, ATB uses a remote management system consisting of more than 150 LACROIX Sofrel terminals.



FRANCE
ACCIDENT PREVENTION THROUGH DETECTION OF WILDLIFE MOVEMENT

A system of masts to detect animals (IR detectors and cameras) was installed in the nature reserve at the end of Lake Annecy to analyse movements, with warning masts equipped with signs activated by the detectors to warn road users. This solution is totally energy independent.



EUROPE
FACTORIES OF THE FUTURE

LACROIX is intensifying digitization and automation in its electronics production sites in Europe, developing its Smart industry approach



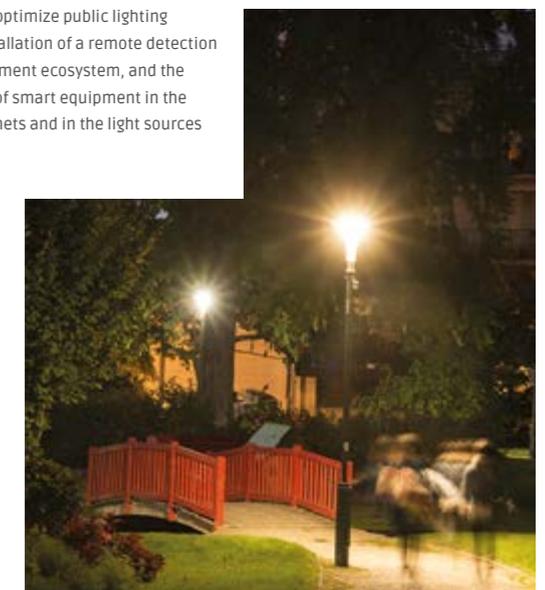
FRANCE
REMOTE MANAGEMENT OF HEATING FOR APARTMENT BUILDINGS

Vendée Habitat is a public agency that manages 15,000 housing units, 60% of which are in apartment buildings. Part of its role is to ensure energy efficiency, while also improving the living environment and comfort of the occupants. To achieve this, it has equipped all the boiler rooms and sub-stations in its heating network with LACROIX Sofrel remote management devices.



FRANCE
GENERAL ENERGY POLICY IN THE FRENCH TOWN OF AGEN

Initiative to optimize public lighting with the installation of a remote detection and management ecosystem, and the installation of smart equipment in the control cabinets and in the light sources themselves.



INNOVATION

Freeing creative energy



LACROIX TECH - A COMMUNITY, AND LACROIX LAB - A CATALYST

Inaugurated in September, LACROIX Lab aims to:

- Create the right conditions for innovation,
- Free creative energy,
- Generate meetings and discussion,
- Enhance our capacity to innovate and to attract innovative partners and talent,
- Learn what we have yet to learn about.



DOUBLING OF THE MARKETING TEAMS THIS YEAR

In a rapidly changing world, an in-depth understanding of today's and tomorrow's markets is essential.

LACROIX has therefore increased investment in new marketing talent in all of its activities.

EXPERIMENTS IN NEW USE CASES



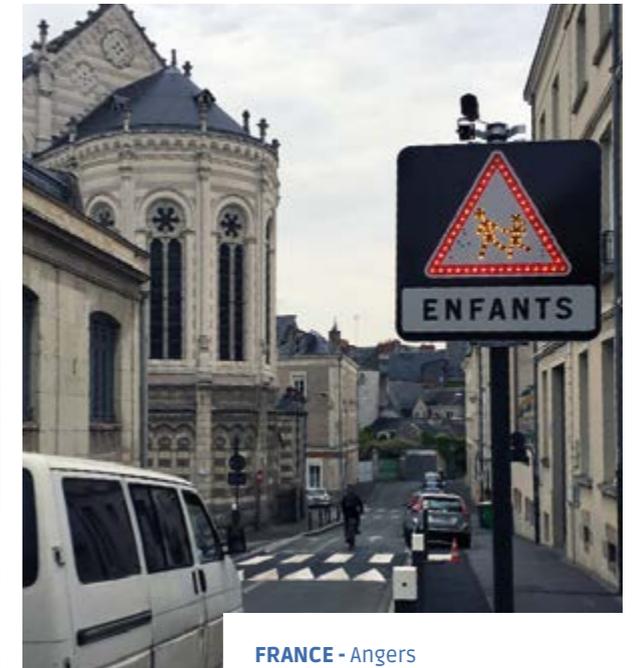
FRANCE FIRST SCALING-UP OF VEHICLE/ ROAD INFRASTRUCTURE CONNECTED CORRIDORS

SCOOP is a project to deploy interurban connected infrastructure in France. Coordinated by the ministry of transport, five regions will deploy V2X technology for use with the first Renault and PSA connected vehicles. With this technology, GPSs can become smarter and more responsive, thereby contributing to improving road safety.



TORNADO PROJECT AUTONOMOUS, SHARED MOBILITY SERVICE FOR RING-ROADS

The Tornado project offers a new form of transport for the last few kilometres of journeys in areas that are not densely populated. Selected for FUI23 government funding, the project meets major issues faced by the Rambouillet region which will be served by Renault and Easysmile autonomous vehicles. Supported by academic and industrial partners, LACROIX will provide V2X systems and sensors for the various routes, thereby ensuring that the journey is safe and comfortable for users.



FRANCE - Angers AN ORIGINAL APPROACH TO MAKING A CROSSING NEAR A SCHOOL SAFE

The PAVIC experiment aims to set up systems to detect pedestrians and cars to automate road safety near schools and reduce power consumption and the need for management, while maintaining a high level of safety and comfort for the user.

AMBITION



RENAULT / SANEF PROJECT
PASSAGE OF 100% AUTONOMOUS VEHICLES THROUGH A TOLL STATION.

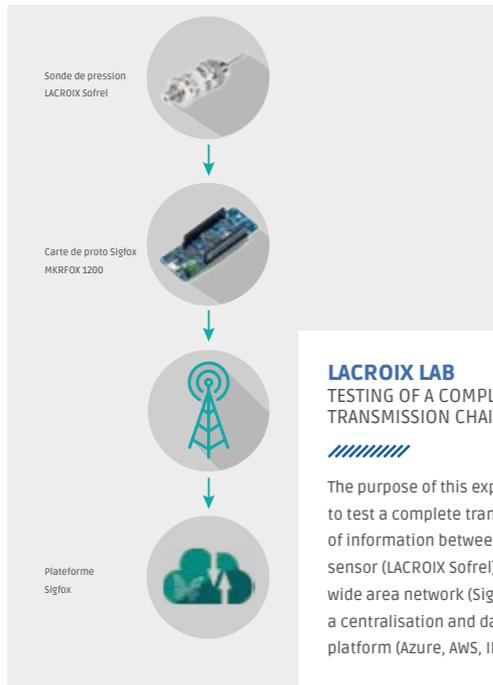


About a kilometre before the toll station, a LACROIX City V2X wifi antenna is installed by SaneF. This tells the vehicle which toll lines are available, with the approach route to cross the toll. The vehicle gradually slows down as it approaches the toll and heads for a free toll line. At this point, the car can no longer steer by reading the road markings, because the road becomes wider and the white lines disappear.

SPAIN
INTELLIGENT MANAGEMENT OF PUMPING BASED ON FORECASTS OF ENERGY PRICES



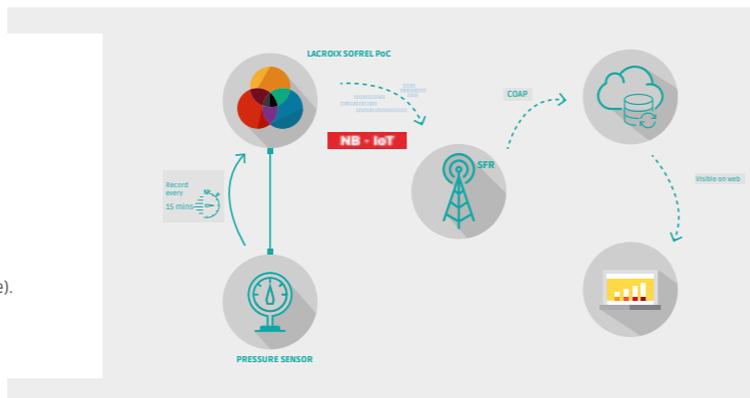
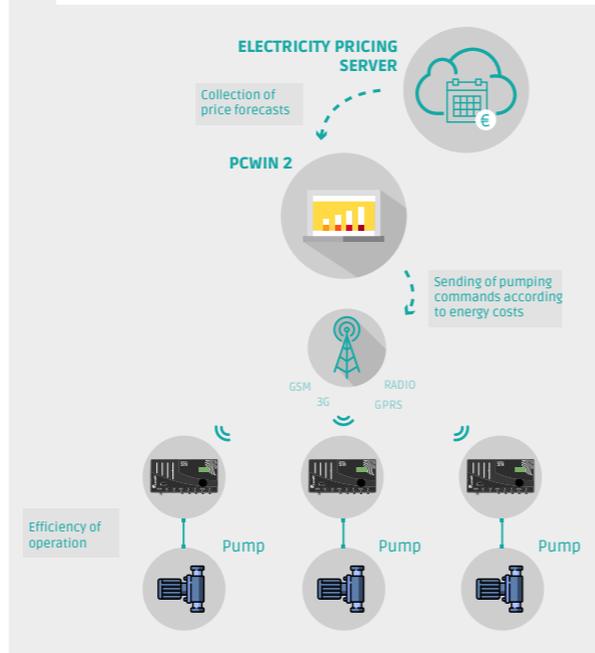
Acciona, a LACROIX Sofrel España customer, has developed an application based on the Sofrel PCwin2 software that enables the optimization of pumping costs by anticipating variations in the costs of purchasing electrical energy, thereby making 50% energy savings.



LACROIX LAB
TESTING OF A COMPLETE TRANSMISSION CHAIN



The purpose of this experiment was to test a complete transmission chain of information between a pressure sensor (LACROIX Sofrel), a low-power wide area network (Sigfox or LoRa) and a centralisation and data analysis platform (Azure, AWS, IBM Blue Mix).



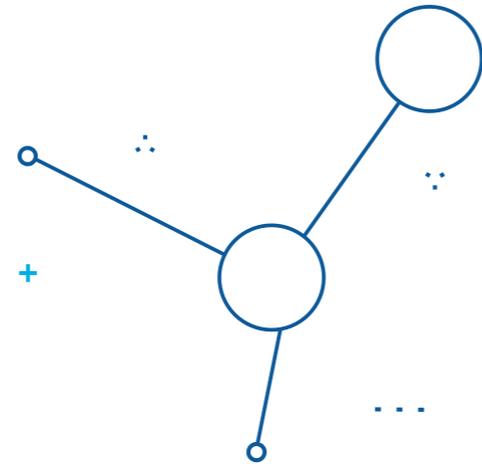
POC TECHNOLOGY WITH VEOLIA & SFR
TRANSMISSION OF PRESSURE MEASUREMENTS USING NB-IOT TECHNOLOGY.



Realization of a Proof of Concept with VEOLIA (water system operator), SFR (NB-IoT network operator) and LACROIX Sofrel (measurement and data transmission equipment supplier). Advantages: low-energy consumption solution and good communication coverage (use of GSM network infrastructure).



MEETING
NEW USE
CHALLENGES
WITH
ELECTRONIC
INNOVATION

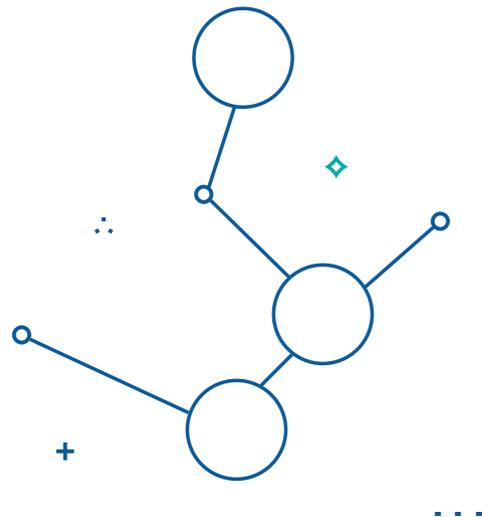


HELPING TO BUILD A Smart world

RESPONDING TO ISSUES IN SMART ENVIRONMENTS, SMART MOBILITY AND INDUSTRIES, LACROIX PLAYS A DIRECT ROLE IN THIS SMART WORLD, HAVING TRANSFORMED ITS EXPERTISE SO AS TO BE ABLE TO DESIGN, INDUSTRIALIZE AND MANUFACTURE ELECTRONIC EQUIPMENT SUITED TO THESE NEW USES.

In France alone, the market for connected objects in the fields of housing, transportation and healthcare is worth billions of euros. All sectors will be affected and transformed by these new technologies. Traditional activities are becoming less compartmentalized and more connected: this is the emergence of the Smart World and its inevitable acceleration directly concerns industry in France and worldwide, which must embrace these changes. As a technological equipment provider, and having already begun its digital transformation, LACROIX has unique advantages: Innovative DNA and the open LACROIX Tech community, complementary expertise with nine R&D centres and a solid industrial culture that is supported by nine factories and the LACROIX Fab community.

Only connected systems can ensure performance at all levels, and in tomorrow's world this will become standard. A connected object begins with a connected industry. "Inseparable from the digital industry, the electronics industry has a key role to play in the construction of this new smart world. To conform to the new connected world, you have to be open, interconnected and prepared to collaborate. We must now build the electronics industry of the future, because without it there will be no industrial base for the new digital world." explains Stéphane Klajzyngier, CEO LACROIX Electronics.

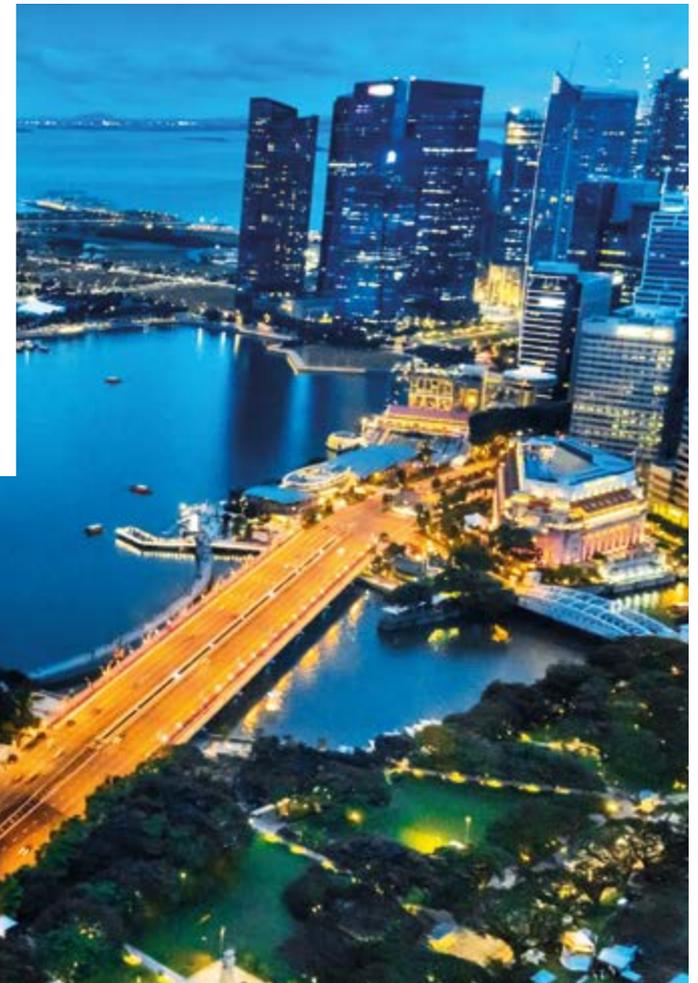


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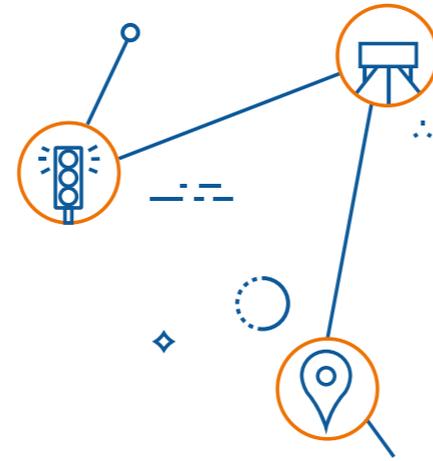
BILLION CONNECTED INDUSTRIAL OBJECTS INSTALLED IN THE WORLD IN 2017

x 2.5

BY 2020 CORRESPONDING TO THE IMPLEMENTATION OF MORE THAN 7.6 BILLION CONNECTED OBJECTS IN THE BUSINESS AND INDUSTRIAL WORLD



A COMMITMENT TO Smart mobility



LACROIX INNOVATES, ON A SOLID BASE OF EXPERTISE AND EXPERIENCE.

LACROIX CITY HAS WORKED WITH COMMUNITIES AND BUSINESSES FOR DECADES THROUGH ITS DEVELOPMENT OF SMART ROAD SOLUTIONS

REAL EXPERTISE AND EXPERIENCE HAS GIVEN LACROIX AN IN-DEPTH UNDERSTANDING OF ROAD SYSTEMS AND MOBILITY.

This experience and expertise provide a solid base for the design of the connected equipment and technologies of tomorrow, that will enable the flow of people and vehicles to be directed, optimized and safe. With five R&D centres, LACROIX City has made major contributions to innovation, as demonstrated by three examples, SensyCity: the first communicating detection ecosystem dedicated to public lighting / Mx4: the first passive safety support, for a more forgiving road environment / NEAVIA: the V2X range that prepares the necessary infrastructure for autonomous, connected vehicles. Regions and local authorities are faced with a complex challenge. The need to share the streets and roads, taking into account the requirements of all concerned has not changed, what is new is the need for greater efficiency. Road safety must be improved, but with less public funding, using less energy, taking care of natural environments, and all on a long-term, sustainable basis! This is a global

issue and the infrastructures of Paris, Casablanca or Madrid are integrating smart technology into urban mobility, public lighting, and the safety and quality of life of their citizens. As a solution to this challenge, LACROIX is developing interoperable ecosystems. To make this concept of smart, connected road systems possible by reducing installation costs, LACROIX City offers a range of products and open, interoperable ecosystems that adapt to the equipment and infrastructure already in place. The cities of tomorrow will be built in as a function of gradual transformations (technological, ecological, societal, etc.), LACROIX City interfaces with this connected world with immediate results: improved safety and quality of life, with social and environmental responsibility!

LACROIX CITY IS COMMITTED TO OFFERING SMART ROADS AND MOBILITY.

Major complementary areas of expertise: First, urban traffic. Traffic signals regulate the flow of traffic and control intermodal solutions in cities. Sensors and smart road systems provide the data needed to regulate traffic,

integrating the desired conditions: schedules, traffic flows, pollution, etc.

Public street lighting becomes smart lighting that benefits users, municipalities and the planet. "The right lighting, in the right place, at the right time". It makes things safer, more comfortable and saves energy and maintenance costs.

Interurban traffic requires technical expertise when it comes to connected information on the roads and with vehicles.

Road signage is needed to complete the digital information of tomorrow and ensure safety and security. This is the historical core business of LACROIX City, which has continued to grow while also integrating innovations to provide safe, well-marked roads.

An open mindset to making progress in smart road solutions.

LACROIX CITY REINVENTS THE CITY OF TOMORROW the Smart City, with its partners. It has established itself as a market leader, collaborating with local authorities, start-ups, clusters, schools and research centres.



1st

COMMUNICATING DETECTION ECOSYSTEM FOR PUBLIC LIGHTING

+7,000

LACROIX INTERSECTION CONTROLLERS REGULATING TRAFFIC



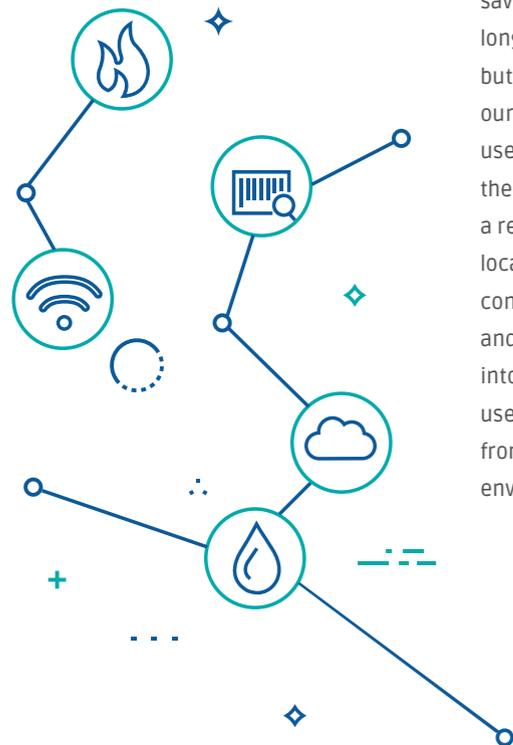
CREATING A Smart environment

FOR THE LACROIX GROUP
THE ENVIRONMENTAL AND
CLIMATE ISSUE RAISES TWO
QUESTIONS

First, how does the LACROIX Group, through its activities and products, help to improve environmental conditions? This is a question that any company must ask itself as part of its CSR policy. The other question, and this is what makes LACROIX different, is what will the environmental impact be of the long-term use of its products. For example, should we focus solely on the environmentally-friendly design of a remote management product or on the water and energy savings it will generate during its long years of use? Both, of course, but it's clear that the true benefit for our environment will come from the use of our products. In this sense, the LACROIX Group can be seen as a real partner, working closely with local authorities, energy and water companies, motorway operators and cities to put their CSR policies into practice. Businesses that use LACROIX products all benefit from added value in terms of environmental use.

LACROIX SOFREL, CREATOR OF A SMART ENVIRONMENT

The scarcity of water, energy and raw materials requires communities to make real efforts and to take concrete action. The first is to optimize use of the resource, thereby reducing its consumption; this is a key issue. The second is to improve the efficiency of water and energy distribution networks. This is important, for as both the operators and users know, failing to address problems now costs more than providing a solution, which makes it even more essential to take immediate action. Water losses in networks constitute additional financial and environmental costs. Save, optimize, intelligently manage water and energy: this is LACROIX Sofrel's mission. Based on three core fields of expertise: electronics, automation and telecommunication, its teams identify the best technologies to develop innovative, simple, reliable connected devices that are based on the transmission



40%
OF THE WORLD'S POPULATION
FACE WATER SHORTAGES BY 2050

20%
OF FRANCE'S DRINKING WATER IS LOST DUE TO LEAKING
PIPES

and the analysis of large quantities of complex data, such as levels, pressures, flow rates, qualities, and temperatures, collected continuously for the optimal management of installations and infrastructures. LACROIX Sofrel's international growth has enabled environmental contributions in many countries which, regardless of their level of development, realise the importance of managing their energy and water resources in order to improve the quality of life of users. It is therefore both a mindset and concrete actions that make LACROIX Sofrel an international leader in the development of smart environments.



A PIONEER IN Smart industries

INNOVATE, DESIGN, AND MANUFACTURE.

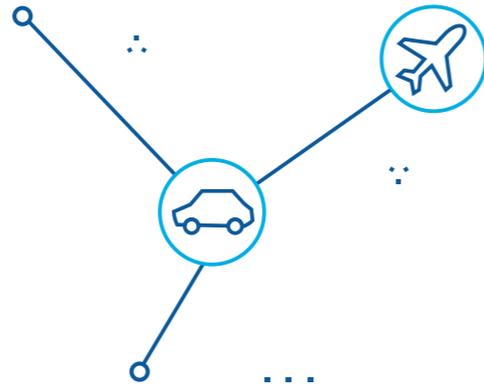
WITH NINE FACTORIES IN FIVE DIFFERENT COUNTRIES, THE LACROIX GROUP HAS ITS OWN INDUSTRIAL RESOURCES, ALL OF WHICH COMPLY WITH THE LATEST INDUSTRY STANDARDS.



In 2017, the Group invested xx million euros to adapt and modernize its sites with solutions at the forefront of new technologies. For example, the transformation and modernization project at the Group's French electronic factory led to it being recognized as a "Showcase for the Industry of the Future" by the French government. Its transformation to an Industry 4.0 factory now serves as a benchmark. LACROIX has also taken on several more engineers and technicians, to strengthen the Group's industrial expertise. The LACROIX Group has chosen to make its products near its European markets to ensure the necessary flexibility and agility. This has proved to be a good decision, leading to more and closer collaborations with our customers.

LACROIX ELECTRONICS, A PIONEER IN SMART INDUSTRY

LACROIX Electronics designs and produces embedded systems and connected industrial objects for the major industrial sectors, in France and internationally. This is a growth market with massive increases in electronic equipment requirements in all fields.



In 2016, the company became the first in its field to receive the "Showcase for the Industry of the Future" government award. LACROIX Electronics operates in a totally connected world, building digital, collaborative relationships. Employees, working methods and technologies are being put in place today to ensure that LACROIX Electronics' ecosystem is able to develop new, more solid relationships. Digitalization is an accelerator of communication and exchanges. Services can be optimized, adapted and customized to perfectly meet the customer's requirements, from design to serial production. It is the whole value chain that benefits: customers, suppliers, and LACROIX Electronics' partners. Digitalization is already very present, at LACROIX Electronics the four factories are interconnected with a single information system, a unified certification process, a single process mapping, and one language...

Automation is also part of Smart industry. LACROIX Electronics stays competitive while ensuring that its customers receive a customized, high-quality service, thanks to its acquisition and implementation of the latest technologies with the automation of collaborative workstations, new optical sensor tools, the automation of component counting by X-ray, and digital logistics simulation and project cooperation tools. These initiatives improve competitiveness and embrace the growing trend of "nearshoring".

Recognized by leaders in the industry in France and Europe, who are also very concerned with digital, transparent and collaborative methods, LACROIX Electronics is looking to "Smart Industry" for the future. It is a springboard to digital synergies between its factories and its ecosystem.



21

ACTIVE PROJECTS RELATED TO SMART INDUSTRY

500,000

REQUESTS FOR QUOTATIONS PER YEAR



NEW PRODUCTS

Freeze-frame

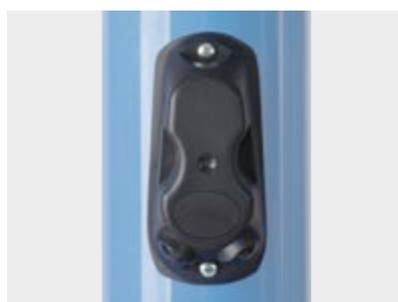


S4W

LACROIX Sofrel

Designed to meet the new requirements of water network operators. Beyond being a compact, connected, robust industrial product, it offers a complete remote network management solution. This Industry 4.0 remote management solution of course comes with strong security requirements.

In a world in which cybersecurity is becoming a fundamental concern (water operators are known in France as "Operators of Vital Importance"), the S4W incorporates a very high level of protection and security: authentication of users and connected systems, encryption of communications, electronic certificates, traceability of access, software signatures.



SENSYCITY

LACROIX City

The first smart sensor, it adapts urban public lighting to the use and safety of citizens. The SensyCity ecosystem operates with sensors that detect movements of pedestrians, cyclists and cars, and adapts urban lighting to the users' activities or requirements. This patented solution enables energy savings, safety for users and contributes to preserving the environment, in particular with a reduction in light pollution. The adjustment of lighting to the presence of a pedestrian, cyclist or vehicle saves up to 80% energy and generate a real reduction in electricity costs and carbon footprint.



V2X

LACROIX City

The V2X leader with the deployment of roadside units (RSUs) on 2,000 km of roads. Building on its success in France, with a view to making transport and the adoption of autonomous vehicles safer, through the management of the connectivity of traffic lights, autonomous shuttles, passage through toll stations and even road connectivity with the first autonomous taxis, LACROIX City presents its new roadside unit dedicated and compliant with US market requirements. Offering an efficient road service, it is capable of providing reliable data to traffic management centres, improving safety and traffic flow, and managing polluting emissions.

COMMITMENTS

ACTING RESPONSIBLY TOWARDS ALL OUR STAKEHOLDERS

TO our employees

Believing talent to be its greatest asset, LACROIX has made human capital a core priority and an important part of its Ambition 2020 programme. The Group implements a proactive policy for well-being at work, embracing all the Group's values, it strives to give meaning to Boldness, Commitment, Openness, Teamwork and Respect for all its employees.

TRAINING AND SUPPORT

LACROIX continued to provide internal training in 2017 for its specialized activities with the opening of a dedicated centre at the LACROIX City site in Saint Herblain (France, Loire Atlantique). LACROIX Electronics, which has had its own training centre since 2007, will continue to provide training not only for its staff but also for its customers, which is transferable to any other electronic company, since it is based on the various IPC standards and experience acquired over many years. The in-house development of training has enabled the creation of a classification based on several skill levels.

In parallel, the independence of workers is also encouraged. At the LACROIX City site in Chères (France, Rhône), the digitization of assembly processes makes the operation of assembly stations very intuitive, enabling employees without specific training to be operational immediately.

EXPLAINING, GIVING MEANING AND STIMULATING

After the presentation of the Ambition 2020 Strategic Plan in January 2017, Vincent Bedouin visited all of the Group's sites to share this Ambition programme with the various teams, explaining it in detail and discussing local initiatives, which are strongly encouraged.

To bring together its teams and accelerate its worksites, LACROIX Sofrel dedicated a full day of collaborative work to mobilizing all of its talent to achieve the progress targets set in Ambition 2020.

Human communication is a key factor for the LACROIX Group; to stimulate innovation proposals and the generation of projects, the Group has set-up the Yammer social network (Microsoft), which has proven to be fruitful. Work groups have emerged, notably for cobot and autonomous vehicle projects. To stimulate creativity, physical collaboration spaces have been created on various sites such

as LACROIX Electronics in Willich (Germany), with colourful seating, a relaxed atmosphere and the possibility of writing on whiteboards, to facilitate the sharing of ideas and knowledge and motivate cooperation between teams.



A commitment to ethical conduct

The LACROIX group is resolutely committed in the areas of ethics and compliance. Its Ethical Code defines a complete set of rules and procedures, including for its relations with its stakeholders (customers, suppliers, subcontractors, partners, etc.). Its codes of conduct programme contributes to informing each employee of these requirements, through an adhesion charter, training and communication initiatives.



24

NEW PROJECTS created in relation to the development of human capital in 2017



251

NEW TALENTS joined LACROIX in 2017, including 37 managers

TO our customers

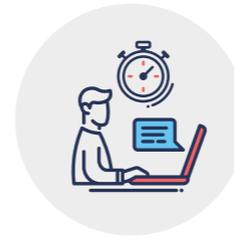
LACROIX's activities are governed by a single ambition: to become its customers' preferred partner. To work together as closely as possible so as to better understand and satisfy their requirements, to offer them a comprehensive range of equipment and services, to anticipate their needs by continuously striving to innovate and improve operational performance, with a view to delivering high-quality projects on budget and within the required time frames.

A CONNECTED ECOSYSTEM

This means placing customers, partners and suppliers at the heart of LACROIX's internal processes. The goal is to move towards connected, paperless communication, in real time. LACROIX Electronics received the "Showcase for the Industry of the Future" award for its French production site, and is very much a part of the French Fab movement, but this approach is not limited to France. The industry of the future is not only a matter of connections between machines and between factories, but also with the supply chain, with customers and even the customers of our customers. The approach is digitization at all levels and the gradual elimination of the physical barriers between the factory and its environment. For LACROIX, this is already the case, with interoperable equipment, interconnected factories with a single information system, a unified certification process, a single process mapping, and one language.

LISTENING

In a changing world, LACROIX must anticipate and understand new uses and new technologies so as to be able to work as closely as possible with its customers, and with them construct an increasingly connected and responsible world. In 2017, the Group invested in recruiting new Marketing talents for its strategic, technological, and markets and products activities, no less than nine new team mates arrived, to strengthen each of the three activities. A lab has been set up near Rennes to accelerate innovation within the Group in relation to the local ecosystem: schools, research laboratories, start-ups, SMEs and large groups. LACROIX Lab currently employs three people from LACROIX's three activities, each offering a specific business skill. The latter focus on communicating electronic products, of mechanical design, and software for everything relating, among other things, to data management and user interfaces.



100%

CONNECTED EMPLOYEES
the group uses a common collaborative platform (O365).

(email, interactive exchanges, collaborative spaces, social network, intranet)



25%

REDUCTION
in order processing time by 2020

Smart industry

A springboard to digital synergies between its factories and its ecosystem, LACROIX Electronics appointed a Smart Industry Manager in 2017 and is counting on digitization and automation for the future.



TO the environment

Connected objects that consume less energy in our fields of applications (auto, aero, home automation, industrial, health), smart road systems for greater safety and traffic fluidity, and the management of public lighting, and water and energy networks to optimize and preserve resources. All of these examples illustrate the strength of LACROIX's environmental commitment, which is an integral part of its DNA.

AUTONOMOUS, SMART PRODUCTS

Applying new technologies, LACROIX's teams design increasingly smart products. These enable, for example, the reduction of light pollution in cities, better management of vital resources such as water, energy savings while providing additional services, and products that are energy self-sufficient and last longer. All of the equipment designed by LACROIX in these fields consist of objects that are more and more environmentally friendly.

CLEAN ACTIVITY

In addition to its various certifications, LACROIX is committed to an ongoing process of improvement and protection of the planet. On all of its sites, Quality, Safety and Environment officers participate in raising teams' awareness. This approach is reinforced by regular monitoring of environmental performance indicators, of which one of the main ones is the energy

consumption of industrial sites. In 2017, the LACROIX Group set itself an ambitious target in terms of reducing its energy consumption. To achieve this, LACROIX decided to work with a service provider who suggested the implementation of an Energy Performance Contract, with the site that consumed the most energy as a pilot. The result was a 13.2% saving by focusing on two aspects: modifying equipment so that it required less energy to operate, and optimizing and managing energy consumption.

RESPONSIBLE PURCHASING

The choice of suppliers that we work with not only takes into account their economic performance, but also their ethical code, with a view to this being compatible with our desire to pursue a sustainable development approach. On this basis, our suppliers are assessed according to Safety and Environmental Quality criteria (taking into account their certifications,

organizations specifically established to guarantee the quality of their products and services, and measures taken to reduce their impact on the environment).



The challenges involved in water management are massive, with a global population likely to exceed 7 to 9 billion people by 2050

Even today, there are a billion people who do not have access to clean drinking water, which is the leading cause of death on our planet. Economic growth is also part of the equation, requiring a sharing of resources. Finally, global warming has to be taken into account, bringing water stress and violent weather conditions.

LACROIX Sofrel is committed to meeting these challenges: water will be global issue for the coming decades, which must be resolved on a daily, local basis. It is a resource that needs to be widely distributed but is difficult to transport; to succeed, supplies must be designed and managed on a local basis.



1st

SMART DETECTOR

dedicated to public lighting that ensures energy-saving, safety for users, and reduces light pollution.



13.2%

ENERGY SAVINGS

on the road signs manufacturing site.



**United Nations
Global Compact**

In 2017 the LACROIX Group joined the world's largest corporate sustainability initiative, becoming a member of the United Nations Global Compact.

We are particularly aware of the importance of encouraging the development and dissemination of environmental-friendly technologies, one of the ten main principles of the Global Compact.

www.LACROIX-group.com

