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# CRYO STAR MAGAZINE

issue #36 - autumn 2020

PURCHASING, A STRATEGIC ELEMENT

CRISIS MANAGEMENT

REASON FOR BEING

## ***Turning a crisis into opportunity***

This issue of our magazine addresses two subjects that are related to one another. The first main topic is our company's "Reason for being," and the second is how Cryostar experienced and handled the early days of the Covid-19 pandemic.

The "Reason for being" (see article on page 7) emphasizes the need to articulate, formalize, and unite around our company's greater purpose, and how we perceive its existence and usefulness to society. Cryostar has been able to weather this very serious global crisis by relying on our loyal staff who have risen to the challenges of continuing our activity and ensuring client satisfaction while simultaneously adapting to various health-related and organizational issues.

During this period, we have been forced to reconsider the fundamentals of how we work together, prioritizing the safety of our teams and the community as a whole by striving to minimize the spread of the virus. One key strategy was a widespread transition to remote work in every possible division of the company, even

when doing so challenged certain assumptions and forced us to leave our "comfort zone" - a process that is, after all, fundamental to progress. After an adjustment period, thanks to the loyalty and commitment of our employees and partners, remote work has proven to be a success.

That being said, we will not be functioning entirely remotely in the future. I believe the ideal solution will be a careful balance between this new way of working and a more traditional style in which our employees are physically present in the workplace. The latter is essential in order to preserve and develop the company culture that unites us. After all, we are human beings, before all else.

For Cryostar, the next step is to consolidate all the knowledge we have gained from this experience and use it to come up with a reasonable, sustainable model for the future. It is incumbent upon us to turn this crisis into an opportunity (for more, see article on page 2) to become better prepared to face the challenges that undoubtedly await us in the future.

**Samuel Zouaghi**

**PRESIDENT**

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# CRISIS MANAGEMENT

For Cryostar, the fight against the spread of Covid-19 began on Sunday, March 15th, the day after the Prime Minister's speech presenting the foundations for "social distancing" and the lockdown measures for the weeks to come. We had to act quickly, as the lockdown went into effect at 12 pm that Tuesday, March 17th.

**D**etailed, precise measures and regulations regarding how to move forward were discussed and defined with the executive team over the course of the day on Sunday, then shared in a company-wide meeting that evening at 8 pm. We decided to proceed as follows.

Nearly all our office staff were asked to start working from home. Only a very small minority of our employees continued to work on site. A few employees were already accustomed to working from home, but this unprecedented crisis required 90% of our staff to acquire the necessary equipment and familiarize themselves with working remotely from one day to the next. Monday, March 16th saw a never-ending ballet of cars coming and going in our parking lots as staff came in to pick up the IT equipment they would need and set up VPNs on their laptops or desktop computers in order to be able to connect remotely. This enabled 400 employees to start working from home by the following day, Tuesday— an impressive feat considering the amount of IT equipment

needed by some departments, such as the Research & Development team.

In order to create optimal safety conditions for our production staff, starting on Tuesday, March 17th, we established two separate production teams (on a purely voluntary basis) with no contact between them, thus reducing the number of people on site at any given time. The teams worked from 6 am to 1 pm, and 1:30 pm to 8:30 pm. This was not ideal for productivity, but ensured that production would be able to continue all the same, albeit at a lower speed. Right from the start of the lockdown, 40 to 50% of the production team chose to stay on site and continue working— while respecting the rules of physical distancing and the other health regulations our HSE team had already started to deploy over the previous few weeks, of course.

Other consequences of the lockdown included the cancellation of visits (by clients, suppliers, etc.), a switch to remote meetings held by phone or video conference, and the closing of the company cafeteria.



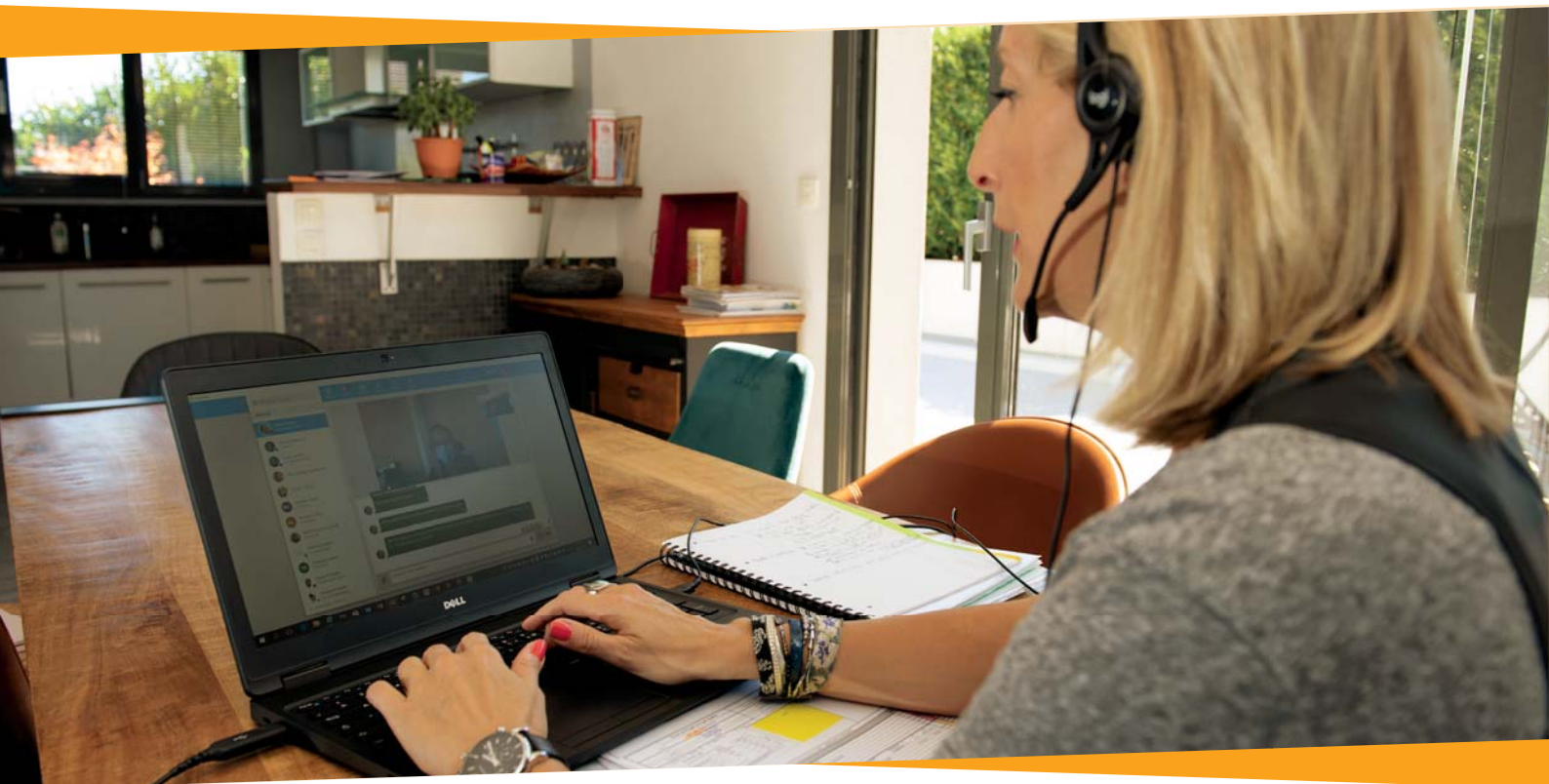
The first two weeks of the lockdown corresponded to the peak of the epidemic in the Mulhouse region, which was the most severely affected by the spread of the virus. There was a climate of anxiety throughout the region, and Cryostar staff was no exception.

We had to take this into account and provide as much reassurance as possible, ensuring that our staff felt safe and secure. The HSE team was present on site every day from

the start of lockdown, taking crucial actions to ensure we were able to continue operating. Members of management also took shifts being available to engage with our employees. Communication was key. We took care to remain in contact with our remote workers, too, who were at risk of feeling isolated and out of the loop on company activity. Every ten to fifteen days, management communicated directly with the entire Cryostar France team, as well as

with middle managers to help them maintain crucial links within their teams. Obviously, our business centers were also included, via a weekly meeting between Samuel Zouaghi and the managers.

The health measures and organization of the first two weeks evolved over time based on our experiences, collective treatment of emerging problems, and the climate of trust established within our staff.



Members of our production and testing teams showed a strong commitment to the company, as by the fourth week of the lockdown, still on a voluntary basis, 60% of our team had returned to work, and by the end of the lockdown on May 11th, 80% were back on site. Protective measures have, of course, been maintained since the end of the lockdown. Hydroalcoholic gel is available throughout our facilities, a distance of three meters is kept between each person, and our

employees wear masks, which Cryostar has always had in ample supply, thanks in part to a shipment of masks from Cryostar China and a delivery of more than 20,000 masks from the Groupe Linde. Continuous production led to the emergence of a new concern, that certain suppliers might be unable to deliver necessary components. Our purchasing and supplies departments were quickly mobilized to activate or reactivate the supply chains, all while remaining in close

contact with our partners. Along the same lines, some visits were allowed to resume, on a case-by-case basis, for interventions such as calibration, required maintenance, and inspections linked to projects.

The results speak for themselves. Thanks to our uninterrupted production, we achieved a turnover of around 75 million euros during lockdown.

Most of our employees were working remotely and thus communicating within the company and with third parties via “Rainbow,” a collaborative work tool we deployed around one year ago. Rainbow proved to be highly useful, allowing us to hold both internal and external video conferences and teleconferences. To make all of this possible, a second VPN network had to be installed to support the increased number of connections, and bandwidth had to be increased by 80% to accommodate the sizes of the files being transferred.

The sales departments of our various BUs were also forced to adapt. All meetings, whether internal or with clients or third parties, were held online. Sales negotiations, project launch meetings, design tests, and remote equipment inspections continued uninterrupted. Factory acceptance tests were accomplished thanks to the implication of certain volunteers.

On-site maintenance calls, in particular to install and start up our machines, were significantly slowed for several weeks, in particular due to travel bans and border closures, even within Europe.

Our China business center was able to resume work in late April, but was only allowed to operate

within the country at first. The same was true for Cryostar Capdenac, which was able to resume on-site maintenance calls to certain locations starting in May.

For our administrative staff, who were working remotely, we had to establish shifts for employees to come in to process invoices and pick up mail and necessary documents, for example to submit supplier invoices to accounting. Along the same lines, the physical presence of some HR employees was essential for payroll processing. The IT department was in high demand. It has been indispensable in coping with the current situation, adapting tools over time and dealing with an increasing number of hacking attempts. One weak point when working remotely is data security, as the system goes from having just a few entry points to several hundred! Our teams are currently hard at work on this issue.

This new model, in which working from home plays a much larger role, has worked very well, thanks to employee solidarity. Our strong company culture has been instrumental in ensuring a successful transition, which has made our employees more aware of their responsibilities and given them more independence than ever before.

## WHAT LESSONS HAVE WE LEARNED FOR THE FUTURE?

**T**he health crisis and accompanying economic crisis will propel companies and employees into an unprecedented era in which working from home becomes a regular part of everyday life. Here at Cryostar, we must start by con-

sidering feedback from the weeks of lockdown and identifying any issues (isolation, lack of separation between work and home life, communication, etc.), then adapt our new work flow accordingly, building on what has been successful so far.

During this global crisis, our employees' commitment and professionalism have enabled Cryostar to weather the storm without suffering any serious long-term effects by ensuring our business activity never came to a halt. Cryostar and its employees have distinguished themselves within the Linde groupe as well as in the eyes of the local economy and political authorities.

We wish to thank all of our employees, who have demonstrated their loyalty to the company by their hard work and dedication throughout this crisis.



We must also ask ourselves certain questions: how can we reinforce our processes? How can we secure the supply chain? How can employees continue to work remotely without putting the company at risk of being hacked?

Working remotely implies certain changes in the company: the management by objectives style will alter relationships, while our culture of trust, meaning, autonomy, and independence will be preserved. But the human aspect of remote work must

not be neglected. Might working from home cut down on the feeling of belonging, decrease team spirit and the sharing of ideas, and lead to the dissolution of social ties?

Working remotely improves quality of life for our employees, but being physically present in the office encourages a sense of community and of working as a team, as well as allowing employees to interact with their colleagues and embrace the company lifestyle.

This is a new challenge for Cryostar. We will need to find the right balance in order to preserve social ties and a sense of community despite the distance—and, most importantly, to decide how our employees will continue to work remotely in the future.

## A SERVICE CALL FROM A CLIENT

In mid-May, Cryostar received an urgent service call from a client when a turbine cartridge broke due to the presence of a foreign body inside the compressor of one of our machines.

The client's site, in Eastern Europe, provides 80% of the medical oxygen supply for the country's hospitals. At the peak of the pandemic, it was critical that the broken turbine not be allowed to interrupt the supply chain. Despite European travel restrictions and the lack of

commercial flights, Cryostar was able to provide support in a matter of days. Local authorities deemed that the strategic importance of the maintenance call outweighed the need to uphold quarantine measures, and a service engineer was given special dispensation to travel to the site. Within a few days, the defective unit had been replaced and production resumed, allowing the client to continue supplying oxygen to hospitals and health care centers all over the country.

Cryostar's employees, and those of the client, demonstrated a great sense of duty by helping the country continue the fight against Covid-19.





# Our reason for being

**These days, the way companies are perceived by the public has changed. Their purpose is closely linked with how they conduct business on a day-to-day basis, in the sense that they are being held responsible for the impact of their decisions and activities on the environment and on society as a whole.**

This has led to the introduction of regulations establishing the foundations for “Corporate Social Responsibility” (CSR.) The French legislature has given companies the option to incorporate a reason for being into their articles of association to describe their CSR strategy and embrace a goal other than the assumed purpose of any company, that of turning a profit.

The reason for being describes the role the company chooses to play in society beyond simply its economic activity, and can touch on subjects such as global warming, inclusion, wellness in the workplace, and local impact. It is a long-term plan in which the company’s primary activity is only one of many interlocking pieces.

For years, Cryostar has focused on developing a company culture that prioritizes the personal fulfillment of a diverse pool of employees. The legal framework offered by the integration of a reason for being into the company’s objects presented us with an opportunity to think about Cryostar’s own reason for being.

To come up with our reason for being, we had to consider what we aim to achieve as a company. We asked ourselves the following questions, keeping sustainable development in mind:

- Why does our company exist?
- What does it contribute to society?
- How would the world be different without our company in it?

In a way, we aim to create meaning by developing socially responsible processes.

The entire management team, including representatives from all departments, got to work defining the company’s mission and purpose. It was important to take into account everything that makes the company unique. The final text had to include the human aspect of how we interact with our employees, as well as our company culture and company values, which are an undeniable force—if not the core of our very being! It also had to mention Cryostar’s innovation in manufacturing high-efficiency machines that respect the environment.

After much reflection, we agreed on the following phrase, which summarizes all these key principles:

**”  
TO ACT TOGETHER TO ACHIEVE RESPONSIBLE  
HUMAN FULFILLMENT BY CREATING INDUSTRIAL  
EQUIPMENT THAT IMPROVES ENERGY EFFICIENCY**

Our reason for being is intended to resonate with everyone: our employees, our partners, our clients, and our suppliers.

By defining our reason for being, the company has given its activity greater scope. The reason for being adds substance to our company’s overarching purpose and provides a counter-balance to the traditional, financially driven approach. Our reason for being acts as a compass and a beacon, guiding the company and keeping us on the right path. It is what sets us apart. It is perfectly aligned with our company strategy and vision, as well as the spirit and ambition that drive us. It defines us and characterizes us. Putting this reason for being into words has also given us a chance to reconsider how we define our DNA. This reason for being unites us around a shared vision.



A portrait of Christophe Onkel, a man with glasses and a blue shirt, smiling slightly. The background is dark with some faint, illegible text.

# A day with Christophe Onkel, an integral part of the Purchasing department

The next article in our workday series focuses on Christophe Onkel, a purchaser who has been with the company for 30 years. Cryostar has chosen to focus in-house hiring on certain key functions, leading to the creation of an extensive network of suppliers and subcontractors from a wide range of complex, highly technical sectors. Over the years, as Cryostar has grown, the Purchasing department has become increasingly important, due to its focus on technology, quality, and costs.

## The role of the Purchasing department and Purchasing policy

The Purchasing department, which reports directly to senior management, is separated into two categories: direct or production purchasing, and indirect (non-production) purchasing. Direct purchasing is further separated into four subsections: two dedicated to machine parts, one dedicated to subcontractors, and one dedicated to Customer Service/Automation/Business Centers. In addition to these, we also have an indirect purchasing subsection with a team of Commodity Managers.

The three pillars of purchasing are cost, quality, and deadline control. Our relationships with our primary suppliers are equal partnerships based on a policy of **co-development**, **globalization**, and **rationalization**.

This requires that suppliers be involved from the outset, starting with the design of the product or service, and that they be given space to be proactive and innovate. Our overall goal is to improve cost containment and risk anticipation. The creation of a streamlined network of trusted suppliers requires a careful selection of the best vendors. This, in addition to globalization, leads to an increased volume of orders from certain suppliers, which has a positive impact on both product costs and administrative costs, as we have a smaller pool of suppliers to manage. This policy also requires the establishment of contracts and price lists for both shorter and longer periods of time.

Another factor Cryostar takes into consideration when choosing companies to include in its network of loyal, reliable suppliers and subcontractors is social and environmental responsibility. Cryostar prioritizes working with socially conscious suppliers that respect the environment and follow the regulations and conventions of the International Labour Organization.

## A typical day

Over the course of a normal day, purchasers handle both everyday operational tasks, and longer-term background projects. The operational side is focused primarily on purchasing, and more precisely the management of pending orders. Purchasers start by analyzing the list of items to





be ordered, which is updated daily. Next, they create an invitation to tender based on the technical specifications provided. Whenever possible, we call on suppliers from our existing network. If that is not possible, we enter a “sourcing” phase, during which we work closely with the head of the relevant market segment. This invitation to tender is handled through e-mail or through the E-Procurement platform.

The next step is to analyze the tenders. We start with a pre-selection phase, during which we narrow the list down to suppliers who meet the basic specifications (price, quality, delivery time.) This is followed by a negotiation phase, which results in the final choice of a supplier. Details regarding the order are updated digitally so that suppliers/ procurement officers can process and handle the order.

In addition to day-to-day administrative tasks, the Purchasing department also handles longer-term projects such as invitations to tender for specific markets in order to gather all the different references for a particular line of products (motors, electric cabinets, sluice gates, etc.), evaluate the purchasing volume, and identify the turnover rate for said items. The benefit of this exercise is that we are able to gather as many references as possible and work with high purchasing volumes, thereby giving us more leverage when it comes to negotiating, thanks to the globalization of needs and the introduction of contracts with lower prices and faster delivery times. All our purchasers participate in monthly meetings focused

on different segments (machining, casting, motors, control cabinets, valves, etc.) During these meetings, the head of the relevant sector provides updates from the different purchasing departments (sourcing, new supplier development, progress on prototypes, etc.) and a review of the KPI’s (through a dashboard with indicators for quality, price, and delivery time.) These meetings offer a chance for market players (purchasers, procurement officers, and quality professionals) to communicate with the manager of a particular segment about any day-to-day issues they may be facing and come up with action plans to resolve those problems.

## Problem solving

In order to prevent unexpected issues, in particular delivery delays and non-compliance that could result in delays for clients, Cryostar uses tools such as corrective actions for suppliers, quality audits, and the development of a trusted supplier network to better handle increasing business.

Cryostar is active on the global market and deals with clients from all around the world. The increasing technical and administrative complexity of our projects is an ongoing challenge for Cryostar, as is the need to meet the regulations of recipient countries. We continue to rise to the challenge by increasing international sourcing and continuing our search for one-in-a-million suppliers that are able to fulfill complex technical requirements in a timely manner.





## The purchaser : a point of contact

Purchasers are important points of contact, and as such, they must know how to communicate in a high-speed industrial world using a variety of methods. Contact with suppliers usually occurs during invitations to tender through the E-Procurement platform. During the negotiation phase and when we need to discuss technical or quality issues, we rely on video conferencing using our 'Rainbow' tool, which has come in very handy during the lockdown.

Purchasers also travel to meet suppliers during sales visits. Being able to visit suppliers is very helpful, as it offers purchasers a chance to meet with their contacts face-to-face, get a better sense of the company and its production tools, better understand any issues the supplier may be struggling with, and help them solve said problems.

For some years now, Cryostar has been organizing an annual meeting, "The Supplier Meeting", which takes place at the Salle de la Comète in Héringue. It offers an opportunity for the Global Purchasing department and some 200 suppliers to gather and discuss future plans, the Buying strategy, and issues related to quality and the environment. The morning is dedicated to open discussion, while the afternoon is set aside for more specific meetings.

## Purchasing : a cross-disciplinary job

The Purchasing department is in constant contact with many other departments in the company. First, they work closely with the **Research and Development and Machine Design and Development departments** to come up with technical specifications for invitations to tender, as well as later on in the process, when it comes to resolving any technical issues with suppliers.

They also communicate with **PMs (Project Managers)** about project budgets and updates regarding invitations to tender and orders for specific projects.

With the **sales team**, discussions are primarily focused on new potential orders and the capacity of our suppliers to meet those new demands, as well as support for budget estimates for certain parts.

For **production and testing**, communication usually goes through the logistics/scheduling department and is focused on deadlines and delivery dates. During this phase, purchasers are in touch with the procurement officers, who track deliveries from our suppliers and create reports when deliveries are delayed.

Purchasers are in touch with the **quality department** for two primary reasons. When it comes to **product quality**, they must provide suppliers with the list of requirements resulting from the combination of client needs and technical specifications as designated by the R&D and MD&D departments. Discussions about supplier quality focus on supplier performance in terms of delivery compliance, which is reflected in a monthly performance indicator. In the case of recurring or major issues, the two departments (supplier quality and purchasing) work together to come up with a mutually acceptable solution. Supplier quality also assists purchasers with validation audits and qualification renewals within the existing supplier network, as well as the validation of new suppliers.

## Being a purchaser with Cryostar : a wonderful opportunity

Christophe feels fortunate to work for a company that is known all over the globe for its high-tech products. In today's constantly evolving world, purchasers must be able to adapt and get out of their comfort zones in order to evolve along with the company. In his own words:

**"Cryostar has given me the opportunity to grow in an environment in which individual career paths and work as a team are given equal importance, resulting in professional success and personal fulfillment."**

# NEWS

## THE NEW SRP 35/38 PUMP

Cryostar's usual quality at an optimized cost.

Cryostar is pleased to announce the official launch of its new SRP 35/38 piston pump. After two years of development and the attribution of a patent, this pump is now ready to join our line of tried and tested piston pumps. The SRP has all the best features of the MRP, offering a machine that is capable of filling 300 bar bottles at a budget-friendly price.

This machine was designed to meet our clients' budget constraints while maintaining our usual high standards for construction. Its unique, robust design allows for fast, easy maintenance and meets our clients' operational requirements perfectly, for both medical and industrial applications. Our network of partners has already been trained on how to use and maintain this machine. Cryostar has put everything in place to ensure your continued success in the face of present and future challenges.



### MEDIUMS :

O<sub>2</sub>, LN<sub>2</sub>, LAr, LCO<sub>2</sub>, LN<sub>2</sub>, LNG

### PERFORMANCE :

**2.6 to 13.2 l/min @ 380 bar**  
(~245 to 640 Nm<sup>3</sup>/h of O<sub>2</sub>)  
➔ 300 bar cylinders

**2.6 to 15 l/min @ 280 bar**  
(~245 to 700 Nm<sup>3</sup>/h of O<sub>2</sub>)  
➔ 150 & 200 bar cylinders

## THE CMC4-C

A new gen compressor

The CM4-C is the new generation of compressors for LNG carriers, and is used to supply gas to engines.

Due to the many innovations in this compressor, the R&D department conducted dynamic simulation testing with IAS maker Yokogawa in order to consolidate the software and confirm the feasibility of the new logics before start-up.

The issue of Covid-19 complicated the situation somewhat, but in the end, we were able to rise to the challenge and conduct the simulations remotely in cooperation with Korea—an unprecedented technique!

The Gas Trial was then completed successfully, thanks in part to the consolidation of the software.

## CRYOSTAR EMPLOYEES RETIRED

Recently, our following colleagues have retired.

We thank them for their contribution and wish them a long and peaceful retirement.

NAME		RETIREMENT DATE	JOB TITLE	SENIORITY / YEARS
DALLER	RENE	30/06/2020	Engineer Turbomachinery	19y 5m
HELL	LILIANE	30/09/2020	Senior Export Coordinator	43y 7m
WILHELM	MICHEL	30/09/2020	Fitter	15y 2m





*more than*  
**CRYOGENICS**

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**BRAZIL**

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**CHINA**

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**FRANCE**

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**INDIA**

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**RUSSIA**

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**SINGAPORE**

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**UNITED KINGDOM**

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**UNITED STATES**

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