

EBOOK

CUSTOMER SUCCESS STORIES IN MANUFACTURING



CLEVR



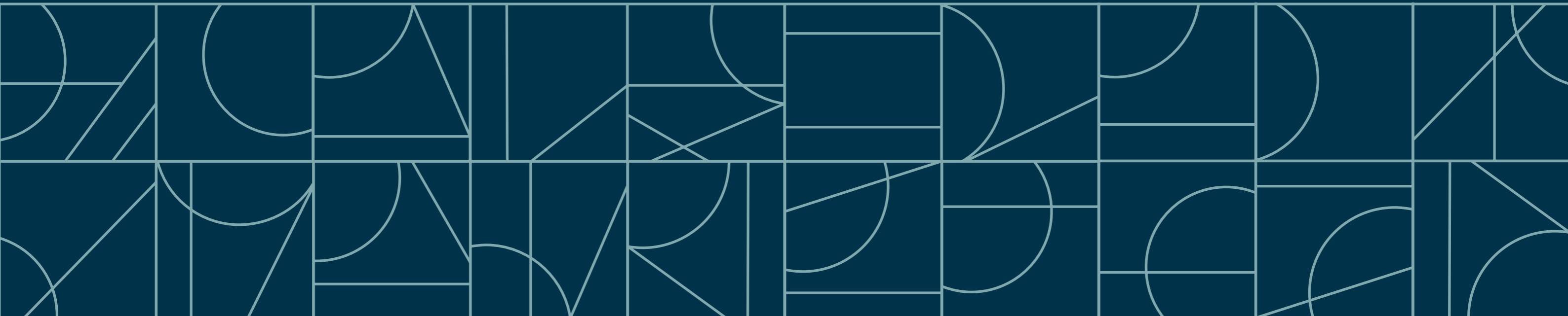
CLEVR.COM

This is not a story about digital transformation.

Certainly, it is not a story about digital transformation for its own sake. This is about building better products, with better processes. It is about innovating in sales and providing better services. In short, this is about how you can survive and thrive in an era of rapid change.

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ABOUT CLEVR

WHO IS CLEVR?

At CLEVR, our philosophy is simple: it's not what the technology can do, it's what we do with the technology for you. We are always answering the question: 'So what?'

In this eBook, you will find stories from CLEVR's customers. We outline the challenges they faced, and the solutions they found partnering with us. Many of them are leading brands in retail and manufacturing. Some of them are manufacturers who are also retailers. They face many of the same challenges that you do.

[Get in touch](#) to find out how our unique combination of business strategy, domain knowledge, and market-leading software can ignite your digital transition.

GET IN TOUCH

Smart companies recognize that complexity is a killer. Complex processes wrap around an operation like a python, squeezing the life out of a business. Our solutions keep things simple, smart, and scalable. So that you can spend less time managing processes, and more time building and selling the products of the future. Boosting efficiency to drive growth.

While you face similar challenges to industry competitors, every business is at a different point in its digital transformation and organizational development. In the stories to come, you will see the importance of tailoring a glove fit to:

- ✓ Reduce waste and unlock value.
- ✓ Cut down on errors.
- ✓ Use digital twins to test and optimise products.
- ✓ Accelerate time to market.
- ✓ Deliver a smooth digital sales experience.
- ✓ Meet evolving consumer expectations.

CLEVR has helped customers make the above a reality. Our domain expertise and industry knowledge – be it in fashion and retail, manufacturing, or field services – means we can marry function and strategy. [Get in touch](#) to find out how our unique combination of business strategy, domain knowledge, and market-leading software can ignite your digital transition.



The Twitter exchange above illustrates a simple truth – the importance of strategically deployed software solutions for any business, or businessperson, that hopes to be a leader in their field.

SUCCESS STORY

BETTER PRODUCTS AND MORE EFFICIENCY FOR NEXANS

“We need to remain at the highest level when it comes to quality and competitiveness. With the high costs in Norway, it is absolutely essential that we find ways to produce the cables as efficiently as possible. Only in so doing will our customers continue to find us attractive.”

Arne Häll, project engineering director, Nexans

THE GOAL

Nexans is one of the world's largest cable suppliers, with 25,000 employees in 40 countries. It supplies all kinds of cables, for aerospace, wind farms, data and telecoms, and many other uses. In Norway, where Nexans has 1,550 employees, the company's Halden facility supplies high-voltage and control cables for the offshore oil and gas industry. Most cables manufactured at Halden are custom solutions and often consist not only of the cable itself, but also the connective equipment at either end.

The company was using several different IT systems to manage its construction and development process, some of which were outdated legacy systems. Data was often unreliable and needed to be double-checked. Nexans needed a better way to manage information such as drawings and product descriptions so they would be easy to share throughout the organisation. The company approached low-code and no-code expert CLEVR to handle this project and move the company's processes on to Siemens Teamcenter product lifecycle management (PLM) platform.

THE APPROACH

The first step was to get a clear idea of exactly how the existing system worked. Many people used different methods to accomplish the same task, which made it hard to determine the best way to do things. CLEVR worked with Nexans to analyse its processes and determine where changes would be most beneficial. It interviewed employees to gain a greater understanding of what works well and what should be improved. Meanwhile, Nexans worked with Accenture consultants to analyse its whole organisation, from management to operations, with a focus on maintaining quality and competitiveness.

These projects allowed CLEVR to achieve a detailed understanding of Nexans and helped test and verify Teamcenter as the ideal solution. The next phase involved workshops with Nexans employees at various levels of the organisation, both to determine the best order in which to implement the project and to begin to establish new working methods that would fit with a PLM system.

Teamcenter will be used primarily by Nexans engineers, but some project organisers will use it too, while other staff will need it on a read-only basis. The software will roll out to all staff at the same time, but it will take two years to complete the transition because only certain parts of the system will be used at first. As each new function is successfully adapted into the workflow, more will be added.

THE RESULTS

Teamcenter will bring Nexans better access to information for staff across the whole organisation. It will improve data quality and reliability, eliminating the need to double-check information. The new system also standardises working methods, so everybody accomplishes tasks in the same way. This eliminates potential problems that can arise when staff take unexpected shortcuts and provides a simple paper trail for all tasks. Overall, it will allow Nexans to work faster, with greater accuracy, and deliver better products in a more efficient way.

SUCCESS STORY

ENABLING CREATIVITY WITHIN A SEAMLESS IT FRAMEWORK FOR ESSENZA

ESSENZA

“We work with prestigious companies and we must have our purchasing and design in perfect order. That is why we engaged CLEVR.”

Willem van Steenberg, purchasing and planning coordinator, Essenza Home

Helping a leading supplier of home furnishings to streamline its design and production processes

THE GOAL

A leading European manufacturer and supplier of home furnishings, Essenza Home has been creating refined, high-quality interior products, centred around textiles for bedrooms and bathrooms, for over 60 years.

Founded in the Netherlands, Essenza Home has a subsidiary in Germany and distributors in England, France, Denmark, Switzerland, Italy and Scandinavia. It delivers directly to shops and department stores across Europe, as well as offering online purchasing.

In addition to its popular own brands, Essenza and Covers & Co, Essenza Home develops products and collections for licensed brands including PiP Studio, Lief!, Stapelgoed, At Home with Marieke and Miffy. To make the launch of a home collection for the leading fashion label Marc O'Polo as well as a collaboration with the iconic Dutch designer Marcel Wanders as successful as possible, Essenza Home needed a solution that would help it further professionalise and streamline the process of collection design and production.

THE APPROACH

Essenza Home's licensed brand collections have come a long way since it first launched a range for Playboy in the early 2000s. While it has continued to produce successful branded collections since, these are becoming more

labour intensive as designs undergo multiple alterations between original sample to production, which has consequences for the ultimate retail price.

CLEVR brought its expertise in no-code and low-code Software-with-a-Service (SaaS) solutions to bear and developed the Create IT software system. Interweaving creative and IT functions, it links to Reflecta, Essenza Home's in-house enterprise resource planning (ERP) system, and allows the user to easily view the development of collections and the status of individual items without having to manually retype data.

“Essenza Home needed a solution that would help it further professionalise and streamline the process of collection design and production.”

THE RESULTS

Create IT saves time across the process and also allows users to make use of formatting and colours. Where each item had to be created manually – a laborious task – this can now be done in 10 seconds. Thanks to built-in formulas, the cost price is automatically calculated by entering the purchase and sales prices. This has significantly reduced the margin of error.

SUCCESS STORY

USING ROBOTS TO AUTOMATE WELDING PROCESSES FOR LEIRVIK



“CLEVR had three months to prove that they could rise to the challenge, and they more than succeeded: they surpassed themselves.”

Morten Bjelland, head of technology & digitalisation, Leirvik

THE GOAL

Leirvik is a Norwegian aluminium engineering, procurement and construction (EPC) specialist working with on- and offshore clients. Originally a boat repair company, it has been a leading provider of prefabricated aluminium living spaces for the offshore oil and gas sector for more than 40 years. As an end-to-end project specialist, Leirvik not only has its own design department but also its own shipyard big enough to assemble some of the largest aluminium structures in the world.

It hired low-code and no-code experts CLEVR to help it automate some aluminium welding processes using robots. The aim was to turn the world-beating knowledge of Leirvik's expert welders into code as the first phase of the ARoW (automatic robot welding) pilot project. The aim of ARoW was to improve efficiency and cut costs to help Leirvik remain competitive into the future in its existing markets, as well as any new ones it enters.

THE APPROACH

The majority of Leirvik's work is for custom and tailored designs, and the company has only a small number of standardised products. However, it realised there were repetitive processes during each manufacturing process which were well suited for automation. It identified these by breaking down the products into the individual aluminium profiles used in the different production stages. The key was to find out exactly what could be done by robots and then build a program which told them exactly how to perform.

Essentially, CLEVR creates a digital representation of the robot cell, places the product in a digital twin and programs the tasks that the robot performs. If the simulation is accurate, the process is saved as a robot code. This is then uploaded as a job package and becomes the robot's job description. The code enables the robot to repeat the job again and again.

THE RESULTS

For the project's validation phase, CLEVR generated automatic welds in 3D based on standardised rules and made fully automatic cutting sketches for the different parts that need to be cut out and put together. The project started by automating the simplest welds. But even these involve complex processes that can only be perfected through much trial and error. This meant producing a series of mock-ups to help identify and address errors until everything was correct. Many challenges had to be overcome when converting the theory of automatic welding into practice. For example, in the digital world, everything is perfect and standardised. In reality, that is not the case. To address this, a laser sensor was used that allowed the robot to auto-correct its welding.

This laser sensor collects live data to allow the robot to adjust its processes according to what is actually in front of it. It can check, for example, whether the object about to be worked on is positioned correctly and adjust the robot if not. The automatic welding robots were good enough for Leirvik to proceed with the second phase of ARoW, where it further developed the solution in conjunction with CLEVR.

SUCCESS STORY

PROVIDING A SECURE WEB AND APP-BASED SYSTEM FOR MOURIK

“I am thrilled with the result. This project in collaboration with CLEVR is a flywheel for more development. CLEVR helps us secure the necessary knowledge within our own organisation and inspires us with the platform’s possibilities.”

Jaap van der Welle
Corporate IT manager, Mourik

THE GOAL

Mourik is a Dutch construction company whose expertise includes infrastructure, industrial and utility construction, industrial services, catalyst handling, environmental technology, and project development. The family company employs around 2,000 people around the world with offices in the Netherlands, the United Kingdom, Qatar, Venezuela, and the US. This global reach created challenges for Mourik in relation to its enterprise resource planning system (ERP) because it wasn't flexible enough to enable the firm to automate the process from work planning to time registration. This meant construction site workers had to fill in a timesheet, which was then passed from the foreman to the administration team, and then on to the accountant, before being entered into the ERP system ready for checking and payment. The complicated system meant the whole process was slow, there was greater scope for errors, checking the hours was almost impossible, and there was a disconnect with the planning process.

Mourik wanted to automate the entire system and create a secure web and app-based time registration process as part of a flexible layer to its existing ERP system.

THE APPROACH

Mourik had mapped out key requirements in advance, around security, integration flexibility and future collaboration, which helped CLEVR quickly design a new desktop and mobile application – the Mura app – allowing production staff and foremen to digitally track and approve their hours. Thanks to a link with the ERP system, employees also have direct access to planning information so they can keep up to

date with any project changes and amend their timesheets accordingly. And CLEVR's no-code and low-code approach allowed Mourik to develop a system that does not require it to set up its own software development department, and in which some updates can be carried out internally. Working alongside Mourik's IT team, CLEVR helped develop the app before testing directly with the teams that will be using it.

THE RESULTS

Within just four months, the Mura app was successfully launched and has successfully automated and improved time registration as well as offering more insight into and control of project costs.

Paper job sheets and manual actions are now a thing of the past, and the results of the digital transformation project were above expectations. The margin of error in the number of registrations has fallen to 5-10 per cent and Mourik is now saving around 68 hours a week across all departments and employees, which works out as around €80,000 annually. And as well as the financial benefits, the end users are delighted as they were involved in the entire development process from design to testing – and have become the system's greatest ambassadors.

As next steps, Mourik is working on a significant transformation project that will see the entire infrastructure being outsourced, as it works to understand what the Internet of Things and robotisation could mean for its future. Whatever the upshot, it is certain that CLEVR and its expertise will not be far away.

SUCCESS STORY

DIGITAL EXCHANGE OF COMPONENT INFORMATION FOR ODDA TECHNOLOGY

“This project will allow us to analyse what is needed for customers to deliver fully digital packages that we can import so that our set-up procedure is fully automated.”

Ingvald Torblå, CEO, Odda Technology

THE GOAL

Odda Technology is a Norwegian-based global turnkey supplier of high-accuracy metal products for industrial use. It is a company drawing on a long history of industrial expertise. CLEVR has world-class expertise in product lifecycle management (PLM) system integration. An innovative project saw the two companies partnering to establish an industry standard where manufacturers use 3D models as the basis for production.

Odda Technology had started to digitalise the process that took products with a low-production volume from design to being ready for manufacturing start-up. This project was supported by Innovation Norway – a state-owned company encouraging entrepreneurship – with partners being large engineering companies that design equipment and components for the oil and gas industry. Odda Technology needed support in streamlining the process from customer drawing board to initiating production in a way that maintained high quality levels. CLEVR provided the expertise in this digital transformation.

THE APPROACH

Odda Technology faced the challenge that low-cost countries usually beat Norway on hourly rates for personnel. It is one of the reasons why the Norwegian industry is not a big player in mass production. It does, however, lead the way in producing parts and components in smaller series where very high demands are placed on quality, accuracy and precision – for example the production of coupling components for the subsea industry. This incorporates deliveries to the offshore industry, which has made Norway a world leader in underwater technology.

Odda Technology produces numerous products that are roughly the same, but unlike regular series production, each product is uniquely tailored to suit a specific facility on the seabed. This type of production is often referred to as one-piece flow, or continuous flow. Each product must be designed, calculated, described and documented in meticulous detail before it can be produced. There was a need to streamline this process. The existing processes were highly labour-intensive and required a lot of specialist knowledge. But there was a desire to develop this expertise further to ensure it contributes to even greater improvements in efficiency and create a fully automated setup procedure. Achieving it paves the way for developing a new standard for the digital exchange of component information – from design to finished parts.

CLEVR also supported this digital transformation project through technology solutions and highly specialised consulting services.

THE RESULTS

Large, future-focused engineering companies that design equipment and components for the oil and gas industry recognised the value of this project and were keen to be involved. The project has the potential to give the industrial sector a genuine competitive edge. Norway is already a world leader in the development and production of advanced industrial parts. The next big step in industrial systems manufacturing is the digitalisation of this type of process. It will help the broader industry work smarter and more efficiently, and stay ahead in terms of competence and expertise. The project will also bring synergies in other industries and is considered to have global scalability.

CONTACT

HOW CAN WE HELP?

Get in touch to find out how our unique combination of business strategy, domain knowledge, and market-leading software can ignite your digital transition.

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GET IN TOUCH

