Issue 2026-27

CADISON® WORLD

EXPERIENCES & NEWS

ENGINEERING INTELLIGENCE

From Integrated Data to Smarter Plant Design



Image: AI-generated

Integrated & Data-Driven Engineering | Digital Twin | Cloud Collaboration

Legacy Conversion | AI-supported Processes

Index

03 OPENING NOTE

Engineering Intelligence: Shaping What's Next

04 – 05 IN FOCUS

Engineering Intelligence: From Integrated Data to Smarter Plant Design

06 – 07 CADISON 2027

A Preview of the Upcoming Release

CUSTOMER STORY

08 – 10 **Exploring the Gas Network in a Camper**

11 – 13 CASE STUDY

Accelerating Ethanol Plant Engineering with a Data-Centric Approach

14 – 15 CADISON OVERVIEW

Modules & Interfaces

16 – 18 CUSTOMER STORY

From Engineering Islands to a Connected Network

19 – 21 CASE STUDY

From Engineering Complexity to Connected Workflows

21 CUSTOMER VOICES

What Our Customers Say

22 CORPORATE NEWS

Plant Engineering in a Hybrid Team: Neilsoft & CADISON

23 CADISON EVENTS

Meet. Connect. Exchange.

24 CONTACT

Our Offices

Imprint

Publisher: ITandFactory GmbH · **Managing Director:** Ajit Joshi · **Responsible for Content:** Ajit Joshi
Editorial Team: Daniela Konrad, Valeriia Didovyk, Saurabh Dharkar, Simran Bazaz

Engineering Intelligence: Shaping What's Next


Ajit Joshi


Michael Brückner


Stephan Weidenfeller


Stefan Kraus


Dr. Heiko Hosse

Photos: ITandFactory GmbH

Dear CADISON Customers,

Plant engineering is becoming increasingly complex, with more disciplines, stakeholders, and engineering data – alongside growing pressure to deliver faster, better, and more cost-effectively without compromising quality. Digital technologies, automation, and AI are playing an increasingly important role. We continue to evolve CADISON to deliver the Engineering Intelligence our customers need to meet these challenges and transform industrial plant design and construction.

The upcoming CADISON release will be iconic in many ways. Alongside significant productivity enhancements, we are advancing towards AI-powered CADISON, with a strong focus on customer value, cost control, and security. We are further enhancing our encryption capabilities, while making ease of use a key priority for the next two years.

Another major milestone is CADISON with a built-in AutoCAD OEM engine, eliminating the need for separate AutoCAD licenses.

Our new product, Share2Review, has been enthusiastically received by customers, and we are building on this success with enhanced capabilities and added intelligence.

Thanks to your continued trust and support, CADISON's global presence is expanding. We have strengthened our sales and technical teams across North and South America and are seeing promising growth in Africa, particularly in mining. Together with the Neilsoft Munich team, we remain committed to supporting our DACH and European customers, especially in intelligent Scan-to-CADISON legacy conversion, backed by local expertise.

Looking ahead, our commitment remains unchanged: helping you achieve greater engineering efficiency, stronger collaboration, and successful digital transformation.

We sincerely value your partnership and look forward to continuing this journey together.

Sincerely,

The CADISON Executive Team

Engineering Intelligence: From Integrated Data to Smarter Plant Design

Building the connected foundation for the future of plant engineering

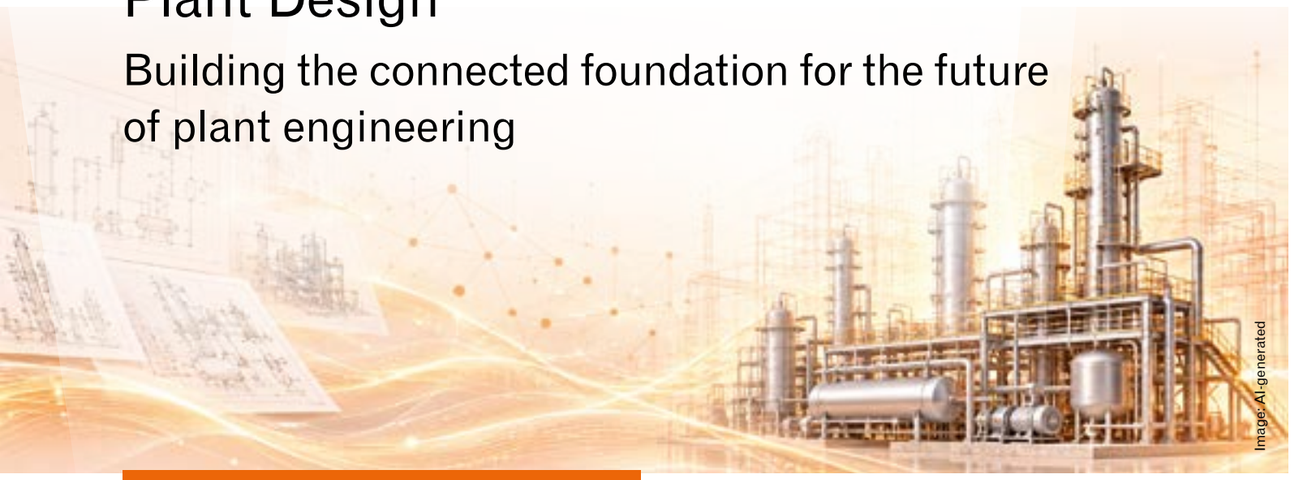


Image: AI-generated

Plant engineering is moving beyond digital documents toward connected intelligence. As integrated data, cloud collaboration, digital twins, automation, and AI reshape engineering workflows, the foundation remains the same: better connected engineering information.

Plant engineering is becoming increasingly complex, involving more disciplines, stakeholders, and information. At the same time, automation, cloud technologies, digital twins, and AI are transforming engineering workflows.

Yet technology is only as effective as the information behind it. This is where Engineering Intelligence begins: connecting engineering data, processes, and people to enable smarter decisions and more efficient workflows.

FROM DIGITAL DOCUMENTS TO CONNECTED DATA

Engineering has moved from paper to digital, but digital information is not necessarily connected information. Data can still be spread across drawings, PDFs, spreadsheets, applications, and project folders, leaving engineers to search for information, check versions, transfer data, or recreate information that already exists.

The next step is not simply to digitize more information. **It is to connect it.** When engineering information is structured and connected, its relationships become visible. A pump is not just a database entry; it has a process role, connects to piping, relates to instrumentation and electrical systems, and appears across multiple deliverables. That context turns data into engineering knowledge.

THE ROAD AHEAD

The evolution can be viewed as:

Legacy Information → Digital Documents → Integrated Data → Connected Workflows → Digital Twin → Engineering Intelligence → AI-enabled Engineering

INTEGRATION, LEGACY KNOWLEDGE, AND COLLABORATION

Plant engineering is inherently multidisciplinary. A change to one equipment item can influence process information, piping, instrumentation, electrical requirements, documentation, and procurement. In disconnected environments, understanding these relationships can require manual effort.

Integrated, data-driven engineering provides a different approach – one where information and its relationships are maintained as part of the engineering environment. This is one of the principles behind **CADISON**, which brings multidisciplinary engineering information, design processes, and project data into an integrated environment. Software integration connects applications; engineering integration connects information, relationships, and workflows.

Valuable engineering knowledge may also be stored in PDFs, 2D drawings, scanned documents, spreadsheets, and archived projects. **Legacy conversion** can turn this information into usable engineering data, making it more accessible, structured, and reusable. The goal is not to start over, but to bring existing knowledge into the connected engineering environment.

As engineering becomes more distributed, **cloud collaboration** can extend this foundation across teams and locations, giving stakeholders access to the right information and workflows while maintaining revision control.

FROM CONNECTED ENGINEERING TO DIGITAL TWINS

As engineering information becomes more structured and connected, it can provide the foundation for **digital twins**. A digital twin is more than a 3D representation of a plant. Its value comes from the information behind the model – the equipment, systems, relationships, and specifications that describe the physical asset.

With a connected engineering foundation, digital twins can help maintain continuity between design and the physical plant, supporting operations, maintenance, and future projects.

PREPARING ENGINEERING FOR AI

Artificial intelligence is opening new possibilities for engineering: faster information retrieval, automated analysis, pattern recognition, content generation, and decision support. But AI needs context. Fragmented information limits what AI can understand and accomplish, while structured and connected engineering data provides a stronger foundation.

This makes AI an important next step in Engineering Intelligence – not the starting point. A stronger information foundation creates greater potential for intelligent automation and AI-enabled engineering.

MAKING ENGINEERING MORE INTELLIGENT

Automation should not simply be about doing engineering faster. It should reduce work engineers should not have to do: searching for information, re-entering data, checking repetitive information, reconciling versions, or recreating existing content. Reducing these activities gives engineers more time for design decisions, problem-solving, innovation, and engineering judgment.

That is the purpose of Engineering Intelligence – not replacing expertise but amplifying it.



Image: AI-generated

CADISON 2027: A Preview of the Upcoming Release

Enhanced document conversion, new review capabilities and simplified engineering workflows

Making better use of existing engineering information, simplifying design tasks and connecting people across disciplines: CADISON 2027 introduces a range of enhancements that address practical challenges throughout the plant lifecycle.

In plant engineering, reliable technical information is essential – from initial design to ongoing operations. Yet valuable data often remains locked in legacy documents, scattered across different systems or difficult to access when needed. The upcoming CADISON release addresses these challenges with enhanced tools for document conversion, engineering reviews and everyday workflows. A new AutoCAD OEM option also provides greater flexibility in software deployment.

FROM LEGACY P&ID TO STRUCTURED ENGINEERING DATA

For operators of existing plants, digitalization often starts with drawings created years or even decades ago. Turning these documents into structured data is an important step towards maintaining accurate plant information and supporting future modifications.

With CADISON 2027, PDF2PID gains improved recognition capabilities. Optical character recognition (OCR) automatically populates properties of pipelines, components and equipment, while enhanced detection rules help identify pipelines in existing P&IDs. This reduces manual data entry and makes legacy information easier to maintain and reuse – particularly in brownfield projects.

The release also simplifies PDF generation. Multi-page documents can be created without additional third-party software, except for PDF/A output. Hyperlinks allow users to navigate between pages and related objects, while nested document groups are supported. As a result, technical documentation becomes easier to navigate, even outside CADISON.



ITandFactory GmbH

Stefan Kraus
Director - Software & Product Development
ITandFactory GmbH

NEW CAPABILITIES FOR ENGINEERING REVIEWS

Making engineering information available is one thing; sharing and reviewing it efficiently across disciplines is another. This is where the enhancements to CADISON's collaboration platform Share2Review come into play.

Users can open multiple drawings and models simultaneously, follow cross-references and switch directly between 2D and 3D representations. An improved Walk Mode makes navigating plant models easier. Files and photographs can now be attached to review comments, while links from CADISON documents provide direct access to the corresponding drawings or models in Share2Review.

Together, these features make it easier to locate relevant information, understand design relationships and coordinate modifications – particularly in complex brownfield environments.

A new Project Management Console supports system, project and user administration, while the Configuration Manager simplifies server setup. Multi-language browser support facilitates international collaboration. Share2Review can also be used with standard AutoCAD, extending its availability beyond CADISON, Autodesk Plant 3D and Autodesk Revit.

IMPROVEMENTS IN DAY-TO-DAY ENGINEERING

Alongside these developments, CADISON 2027 introduces a series of smaller changes that can make a noticeable difference in daily work. User accounts are created automatically at first use. In CADISON Designer, placement functions such as Hypersnap and Inline Explorer Mode activate automatically, while familiar AutoCAD interactions – including double-click editing – simplify object handling. Components can also be placed from the dockable tree without pressing the ALT key.

Design assistants require less preparation, too. Steel Layout Assistants for staircases, ladders and handrails are ready to use without additional configuration, while vessel and nozzle assistants automatically create the corresponding database objects.

In piping engineering, new assignment rules and a symbolic 3D representation of welds make automatically generated welds easier to verify and their assignments easier to adjust. Further improvements include color coding in Visio Designer and Dark Mode for CADISON Engineer, Project Manager, Navigator and Designer, as well as Share2Review.

CADISON INTRODUCES AUTOCAD OEM OPTION

Another development concerns the underlying software environment. With CADISON on AutoCAD OEM, the system can run on an included AutoCAD OEM engine, eliminating the need for a separate AutoCAD license in this configuration.

For existing customers, this offers an alternative deployment option that may simplify software provisioning and licensing. For companies considering CADISON for the first time, particularly those without an AutoCAD infrastructure, it removes an additional licensing requirement and lowers the barrier to adopting an integrated engineering system.

Beyond individual features, CADISON 2027 addresses a fundamental challenge in plant engineering: making technical information accessible, consistent and reusable – from existing documentation and design modifications to ongoing plant operations. Taken together, the enhancements support more efficient workflows and greater continuity of engineering information throughout the plant lifecycle. Whether digitalizing existing facilities or planning new ones, the focus remains on making better use of engineering data while reducing manual effort.

CADISON 2027 – MAIN HIGHLIGHTS AT A GLANCE

1. **PDF2PID**
   Convert P&IDs from PDF to structured data.
2. **PDF Generation**
   Multi-page PDFs, hyperlinks, nested groups.
3. **Share2Review & Visio**
   Multi-view reviews, cross-references, and color coding in Visio.
4. **Collaboration & Administration**
   Comments, project management, and configuration.
5. **Designer, UX & Dark Mode**
   Faster design, smarter placement, improved usability, dark mode.
6. **Design Assistants**
   Steel layout, nozzle database, and more.
7. **Weld Handling**
   New weld assignment rules, symbolic 3D welds.
8. **AutoCAD OEM**
   Integrated option without separate license.

Exploring the Gas Network in a Camper

How GASCADE, together with ITandFactory and Neilsoft, reimagined its facility documentation



In the background: the Greifswald landfall station and LNG terminal

All Photos: GASCADE

How do you digitize thousands of plant details across a vast, extensive pipeline network? GASCADE relies on a strong partner network: Together with ITandFactory, Neilsoft, and the CADISON engineering platform, a scalable solution was created that takes data quality, efficiency, and collaboration to a new level.

It's morning, somewhere between fields and forest paths. The vehicle is parked at the edge of a remote route. No office, no desk – just safety boots, a helmet, and a tablet. Florian Jeß closes the door of his camper, glances at the next station, and sets off.

What sounds like a road trip was actually part of one of GASCADE's largest digitalization projects. "Most stations aren't located in urban areas," Jeß recalls. "You spend a lot of time on the road, and sometimes you're pretty much on your own." Encounters with passersby, curious glances, and the challenge of finding the right access road were as much a part of the job as surveying, inspecting, and documenting facilities. After four years and over 32,000 kilometers, the result was a completely revamped digital facility inventory.

MORE THAN JUST DIGITIZATION

The impetus for the project did not stem solely from internal requirements. With the EU Methane Regulation, network operators must systematically record, document, and verify emissions for the authorities. Above all else, this requires reliable, up-to-date, and structured facility data. GASCADE quickly realized that the existing documentation landscape was insufficient for this purpose.

Therefore, the "Asset Digitization" project was deliberately conceived on a larger scale. The goal was not merely to digitize existing plans but also to create a new, comprehensive database to support operations, planning, and future requirements.

CADISON AS THE COMMON DENOMINATOR

Technically, GASCADE relied on the established engineering platform CADISON. Became the central data hub for all plant information, including P&I diagrams, component data, and photos. The advantage is an integrated data model that provides different perspectives on the same plant. An object always remains the same, regardless of whether it is represented in a P&ID, 3D model, or bill of materials.

GASCADE brought experienced partners on board for the implementation. ITandFactory handled project coordination and methodological leadership for CADISON. Neilsoft, an international engineering service provider, contributed additional capacity for detailed data capture and modeling.

COLLABORATION ACROSS CONTINENTS

What appeared to be a clearly structured project on paper turned out to be highly dynamic in practice. Teams collaborated across national borders, exchanged data via secure IT infrastructures, and worked out coordination processes as they went along. "Initially, the focus was on developing a shared understanding," says Jeß. "How detailed does a P&ID need to be? How do we document specific components? And how do we ensure that everything fits together in the end?"



Block valve and pigging station on the NOWAL pipeline in northern Germany

This coordination was crucial. After all, the goal was a complete and consistent database, which is a prerequisite for efficiently meeting future requirements, such as methane monitoring. ITandFactory played a central role as the interface between GASCADE's requirements and their implementation by the international team. With structured processes, clear communication channels, and digital tools, ITandFactory succeeded in managing the complexity.

GO WHERE THE DATA IS GENERATED

A key factor in the project's success was a simple principle: don't digitize from a desk, digitize on-site. Existing documents were often incomplete or outdated. The actual condition of the plant differed in many details, especially with smaller components. So, the team went out into the field. "We didn't just check whether a fitting was present," Jeß explains. "We recorded every detail, right down to individual screw connections."

This level of detail was new, and it made all the difference. It was only through this comprehensive documentation that a reliable digital representation of the systems could be created, which is the prerequisite for clearly identifying and assessing emission sources in the future. This approach was supported by extensive photographic documentation. Around 30,000 images were taken and linked directly to the corresponding objects in CADISON. For engineering

colleagues, this means more context, better clarity, and faster decision-making.

WHEN DATA BECOMES REAL ADDED VALUE

Data becomes real added value when it is recorded uniformly in the system. However, the true value will only become apparent in day-to-day operations. For operations, the new database means one thing above all else: clarity. Information is quickly accessible, clearly organized, and always up to date.

Digitalization is also paying off in engineering. Renovations and expansions can be planned much more effectively because the source data is reliable. Surprises caused by outdated documentation are reduced, which is a decisive advantage, especially for brownfield projects.

At the same time, the structured database lays the groundwork for seamlessly incorporating regulatory requirements, such as methane monitoring, into existing processes rather than viewing them as an additional burden.

LESSONS LEARNED FROM THE PROJECT

A project of this magnitude is not without its challenges. In addition to technical implementation, organizational issues were the main factor.

- INTERNATIONAL TEAMS
- FLEXIBILITY
- COORDINATION
- COLLABORATION

International teams, different working styles, and high IT security requirements demanded clear structures and extensive communication. It also became clear how important flexibility is because the scope and level of detail of the project continued to evolve as it progressed.

“There were many things we could only truly understand once we were in the thick of the project,” says Jeß in retrospect. “Then, we had to find solutions that worked for everyone.” Close collaboration with ITandFactory and Neilsoft proved to be a key factor in the project’s success. What started as a traditional client-service provider relationship evolved into a true project team.



Block valve station with a valve assembly on the JAGAL pipeline



GASCADE piping designer Florian Jeß incorporating redline markups into a P&ID in CADISON

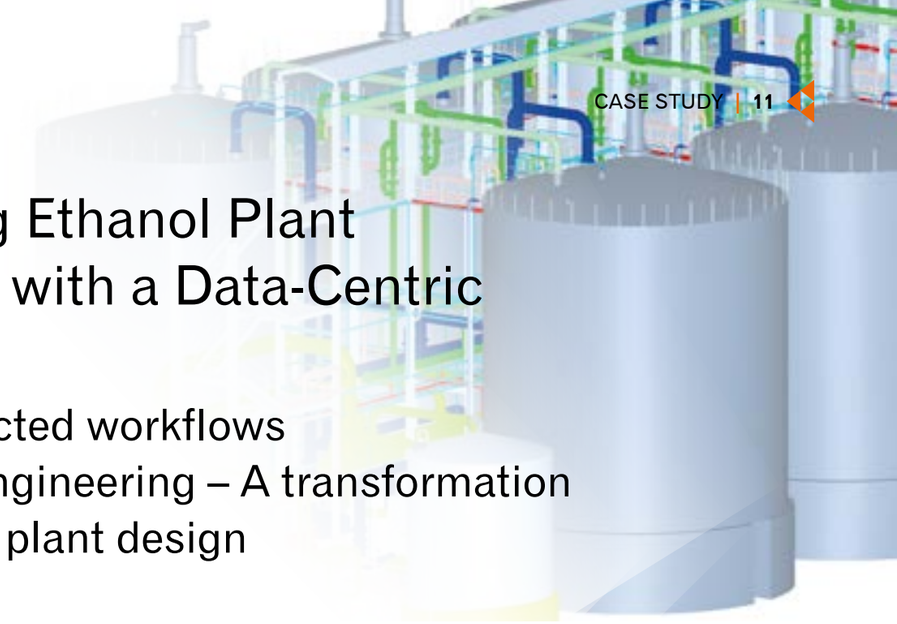
Around 30,000 images were taken and linked directly to the corresponding objects in CADISON.

For engineering colleagues, this means more context, better clarity, and faster decision-making.

LOOKING AHEAD

With the digitization of its assets, GASCADE has reached an important milestone. However, this project is not the end goal. Rather, it marks the beginning of a new way of working. The database has been created, and the focus is now on keeping it up to date and further developing it. In the future, digital tools and new processes will ensure that changes are recorded and integrated directly.

For Florian Jeß, one thing stands out above all: “The project was bigger than it seemed at first.” Perhaps it was more intense, too. After all, not many digitization projects start with a view of a pipeline from a camper door.



Accelerating Ethanol Plant Engineering with a Data-Centric Approach

From disconnected workflows to integrated engineering – A transformation story of biofuel plant design

For MEDAS, managing engineering changes across complex plant projects meant more than simply updating drawings. With CADISON, the company is moving toward a connected, data-centric engineering workflow that reduces repetitive tasks, improves consistency, and minimizes manual intervention.

In complex process engineering, change is inevitable. A revised P&ID can affect equipment lists, piping lists, layouts, bills of materials (BOMs), and other engineering documentation. As the number of projects and engineering deliverables grows, keeping all this information aligned and up to date can become increasingly time-consuming and error prone.

For MEDAS EnggDesign Pvt. Ltd., a leading provider of process engineering solutions for the alcohol and ethanol, food and beverage, dairy, and fruit-processing industries, this had become an important area for improvement. The company needed to maintain high engineering quality while reducing manual effort, inconsistencies, and errors across drawings and documentation.

WHEN ENGINEERING INFORMATION BECOMES DIFFICULT TO MANAGE

The challenge was not the complexity of individual drawings. It was the relationship between them.

When engineering information is managed through disconnected systems and manual processes, a change made in one place can require corresponding updates across multiple deliverables, including layouts, BOMs, reports, and other engineering documentation. This requires additional engineering effort and increases the risk of inconsistencies between drawings and documentation.

For MEDAS, the need was clear: **engineering data had to become more connected.**

The company was looking for a more integrated approach that could automate BOM generation—particularly for piping components, reduce manual intervention and maintain data consistency across engineering disciplines.

MOVING BEYOND DRAWING TOOLS

CADISON connects engineering information through a centralized database, enabling synchronization between P&IDs, design layouts, and engineering documentation.

For MEDAS, this meant that engineering teams could spend less time repeatedly entering, checking, and updating information.

Consistent and accurate data helped reduce redundancy and minimize manual errors, while CADISON’s familiar CAD-based environment helped make adoption easier for the engineering team.

TURNING CONNECTED DATA INTO ENGINEERING EFFICIENCY

The impact became particularly visible when MEDAS leveraged CADISON, along with dedicated CADISON-based engineering services, to deliver a 500 KLPD ethanol distillery project within an accelerated timeline of just four months.

The project involved developing 30 intelligent P&IDs covering the fermentation and distillation sections, along with detailed 3D models for foundations, civil and structural elements, equipment, and piping. The team also produced isometric drawings to support fabrication and installation.

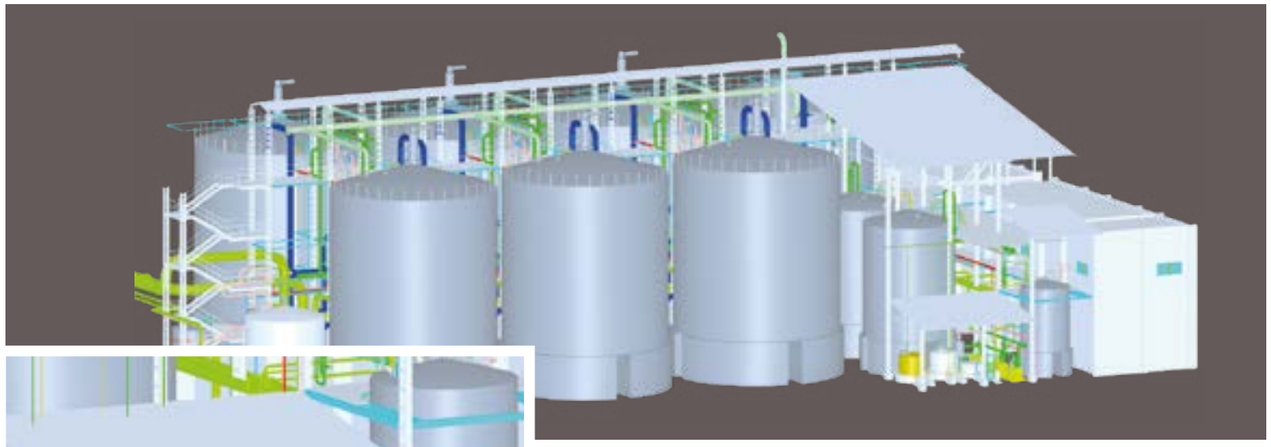
In total, the project included engineering of more than 1,000 pipelines across the fermentation and distillation sections, 16 major tanks with associated layouts, and more than 80 equipments with tank and tank outlets.

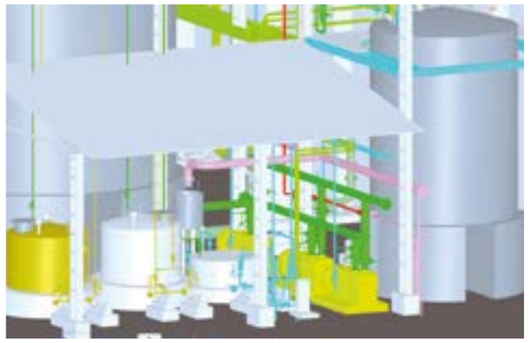
The scale of the project demonstrated that the value of integrated engineering was not simply in handling a greater volume of design work. It was in keeping large volumes of engineering information aligned and consistent as the project progressed.

STANDARDIZATION WITHOUT LOSING FLEXIBILITY

An important part of MEDAS's transition was configuring and implementing CADISON to align with its internal engineering standards and project requirements.

CADISON was configured with P&ID templates containing more than 100 intelligent symbols, tailored isometric templates, customized reports and catalogs, tagging philosophies, pipe specifications, report formats, and isometric styles.





This enabled MEDAS to standardize repetitive engineering activities while retaining flexibility to adapt the system to project-specific requirements.

The result was a more structured engineering workflow without forcing the company into a one-size-fits-all approach.

THE IMPACT: LESS MANUAL WORK, MORE CONTROL

The value of the change is reflected in how MEDAS can now approach engineering projects.

Greater consistency across engineering deliverables improves confidence in project data, while better coordination between disciplines supports faster decision-making and more efficient project execution.

500,000 liters per day
ethanol distillery project

4 months
accelerated project timeline

30+
Intelligent P&IDs

1,000+
Pipelines

16
Major tanks

80+
Equipment's units

MORE THAN A DESIGN TOOL: A BETTER WAY TO ENGINEER

For MEDAS, the value of CADISON is not defined by any single feature. It comes from the way design, data, and documentation work together.

When engineering information is connected, changes can be managed more effectively. When repetitive tasks are automated, engineers can focus on higher-value activities. And when project data remains consistent, teams can make decisions with greater confidence.

As MEDAS continues to expand its engineering capabilities, CADISON provides a foundation for delivering projects with greater speed, consistency, and control—turning connected engineering data into a practical business advantage.

EARLY OUTCOMES INCLUDE:

- Faster project delivery through a connected, data-centric engineering workflow
- Reduced rework through synchronized design updates and automated BOM generation
- Improved cross-disciplinary collaboration through consistent, up-to-date engineering data
- Faster user adoption through a familiar CAD-based engineering environment

"Our experience working with CADISON has been very positive. The team provided strong support, training, and guidance. Their responsiveness and expertise made the implementation process smooth."



— Abhay Chaudhari, Managing Director, MEDAS EnggDesign Pvt. Ltd.



All Images: MEDAS EnggDesign Pvt. Ltd.

CADISON®

Modules & Interfaces

CADISON Project Engineer:

A CAD-independent solution for project management, cost estimation, document management, and workflow throughout the plant design lifecycle, enabling tracking from concept to commissioning with built-in 3D graphic previews.

CADISON P&ID Designer

A spec-driven module for creating intelligent PFDs/P&IDs and instrumentations, supporting equipment sizing, standards compliance, validation, and process documentation to streamline design and operations.

CADISON 3D Designer

A 3D plant design module for piping, layout, equipment modeling, drawings, Isometrics and reports, with P&ID synchronization and web-based collaboration.

CADISON Electrical Designer

A complete solution for electrical design, documentation, and management, featuring 2D/3D layouts, sizing calculations, automated drawings and reports.

CADISON Steel Layout

A wizard-driven module for designing 3D steel structures, configurable to standards, with SDNF export for Tekla and Advance Steel integration.

CADISON MATPIPE

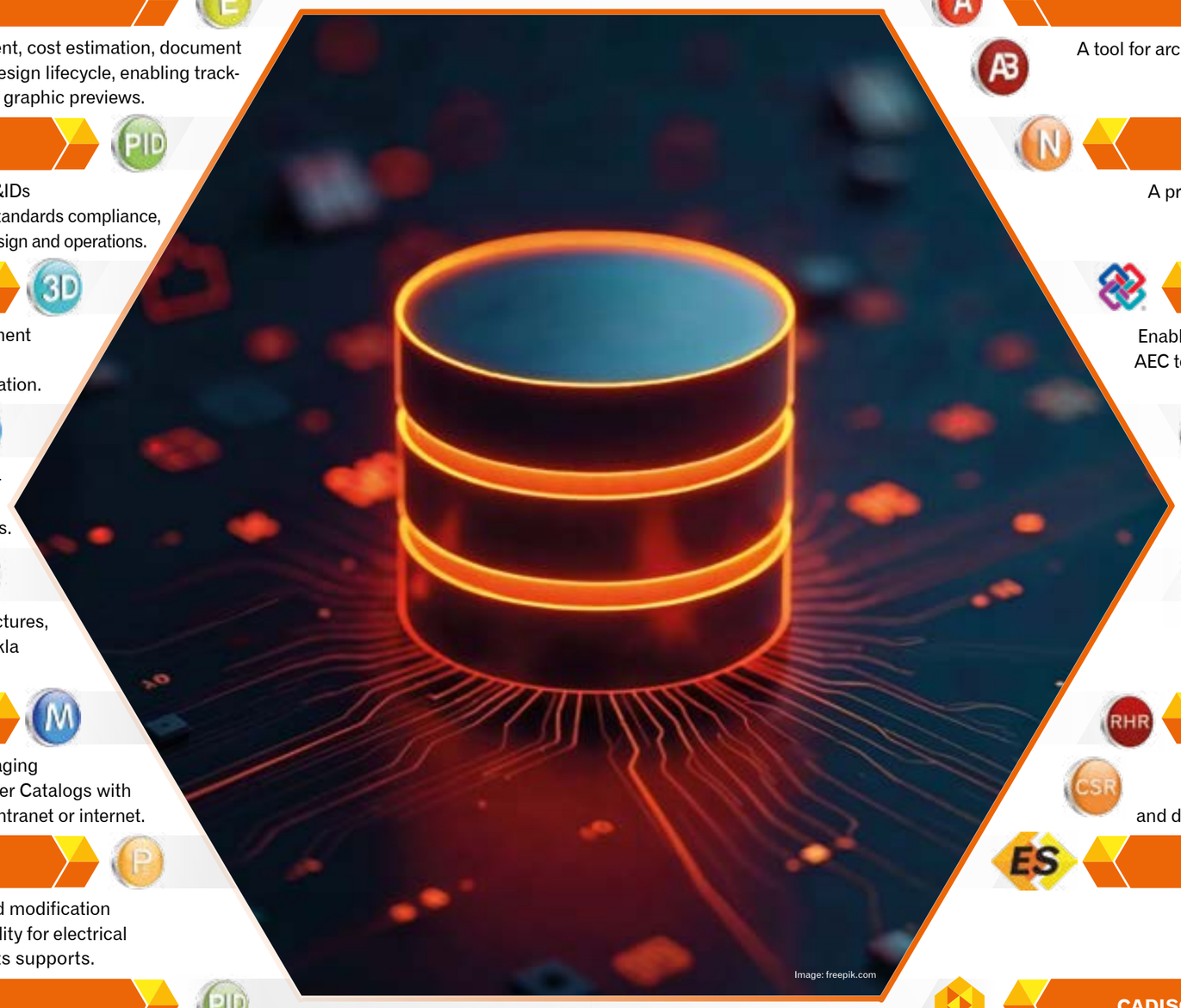
A Parametric Catalog Engine for creating and managing Pipe Classes, 3D Catalog Objects, and Manufacturer Catalogs with option for centralized, multi-site management over intranet or internet.

CADISON Pipe Support Modeler

An intelligent wizard that simplifies the creation and modification of standard pipe supports, with extended functionality for electrical cable trays, HVAC ducting systems, and bus-ducts supports.

CADISON P&ID Designer for Visio

A spec-driven tool for creating intelligent PFDs/P&IDs in MS Visio with support for pipe and pump sizing, report generation & real-time integration with other CADISON modules.



Share2Review

A CAD – independent platform to publish and share lightweight 2D and 3D models for seamless review, annotation, and approval of plant designs.

CADISON Archiver & Browser

A tool for archiving and browsing completed CADISON projects, enabling easy viewing, knowledge management, and project restoration for future use.

CADISON Project Navigator

A project data navigation and review tool with a familiar interface, supporting paperless documentation and plant operation and maintenance.

CADISON IFC Interface for BIM Solutions

Enables import and export of graphics and data between AEC tools and CADISON 3D Designer, supporting IFC2x3 and IFC4.x with full object property mapping.

CADISON Inventor Interface

Allows importing and updating Autodesk Inventor parts or assemblies with properties into CADISON as native objects (included in 3D Designer).

CADISON ERP Interface

Connects CADISON with ERP systems like SAP or others for dynamic data exchange, enabling direct order release and workflow integration.

CADISON ROHR2 / CAESAR II Interface

Neutral Export for CADISON 3D pipeline systems to ROHR2 or CAESAR II for fast, accurate static and dynamic piping analysis with complete data transfer.

CADISON Equipment Simplifier

A wizard for simplifying large equipment models from various CAD formats by up to 90% and exports them as DWG for CADISON.

CADISON Application Programming Interface (API)

Enables integration of CADISON engineering workflows with business systems and document management, allowing external access and dynamic data exchange.



Image: AI-generated

From Engineering Islands to a Connected Network

How Kuraray Europe and ITandFactory are connecting engineering disciplines through a shared platform

Connecting engineering teams that work with different tools and separate data takes more than new software. Kuraray Europe is building those connections step by step. Together with ITandFactory, the company is using CADISON, digital redlining, and AI-assisted workflows to create a shared foundation for plant engineering.

“Islands in the Pacific” is the image André Ziese likes to use when describing engineering disciplines. Each island works on its own, with its own language, tools, and data. Between them lies a lot of open water. The tools used on those islands are as varied as the coral on the Great Barrier Reef: a colorful ecosystem, but one where information struggles to travel from one island to the next.

For the Engineering Manager at Kuraray Europe in Frankfurt, the bridge is clear: the intelligent piping and instrumentation diagram (P&ID). Together with ITandFactory, Kuraray continues to develop its engineering processes, from digital redlining and collaborative reviews to the AI-assisted development of an intelligent plant data foundation. What made the difference was both partners’ willingness to learn together and explore approaches neither had tried before.

MORE THAN A SOFTWARE DECISION

When Kuraray began looking for a new engineering platform, the first step was a practical evaluation. Several systems were assessed before the company selected CADISON from ITandFactory. Its capabilities mattered, but the openness of the system was especially important. There was plenty to connect: electrical, instrumentation, and control engineering in ProDOK, maintenance data in IBM Maximo, and years of manually maintained CAD drawings in MicroStation. Each was an island with its own data.

Interfaces to existing systems such as ProDOK and IBM Maximo, along with the ability to connect process engineering with electrical, instrumentation, and control engineering, fit Kuraray’s digitalization strategy.

The implementation soon developed into something more.

“Communication is crucial. Good projects happen when both sides collaborate openly and learn from each other.”

Jürgen Brandt, *Director Technology at Kuraray Europe*



Photo: Kuraray Europe

Working as equal partners became a key factor in the project’s success. Practical requirements fed directly into new functionality, while users discovered ways to reshape established workflows with the software.

LEARNING THROUGH REAL PROJECTS

The early projects showed that digitalization cannot be fully defined in a fixed requirements document. “We set off without knowing exactly what modes of transportation would become available along the way,” says Ziese.

The journey was not always smooth. Since the joint kickoff in October 2023, the team has learned that many tasks take longer than expected. The effort needed to maintain the data was easy to underestimate at first. Above all, the “basement” needed cleaning out: inconsistencies that had accumulated over the years had to be resolved before a reliable data foundation could take shape. These lessons,



Image: AI-generated

Ziese explains, can only be learned in a real project.

The initial focus was on digitizing existing P&IDs. New technologies such as AI soon opened up further possibilities. Work that required days of manual effort just a few years ago can now be prepared much faster using automated and AI-assisted methods. Existing PDF documents are converted into structured engineering data. Engineers remain responsible for technical validation: they check the results, add missing information, and resolve inconsistencies. For Kuraray, the value of any new technology depends on how it helps with everyday engineering work.

THE P&ID BECOMES A SHARED WORKSPACE

This is particularly evident in redlining. In many brownfield projects, changes still circulate on paper or in PDFs. Comments travel by email between project managers, drafters, and operations teams, while competing document versions increase the effort needed to coordinate revisions.

With Share2Review, a solution for digitally commenting on and tracking drawing changes, Kuraray now takes a different approach. Comments are added directly to the digital P&ID, tasks are assigned to individual team members, and changes remain traceable throughout the process. The web-based interface also brings project managers, operations engineers, and external engineering partners into the review process without requiring them to work in CADISON themselves.

“I’m no longer the mail carrier between everyone involved,” says Ziese, describing the biggest advantage.

> **“Information stays attached to the object, tasks can be tracked, and the entire process becomes much more transparent.”**
>
> ***André Ziese,*** *CAE Digitization Project Manager, Kuraray Europe*



Photo: Kuraray Europe

This is especially valuable when modifying existing facilities. “We’re renovating the house while we’re living in it,” Brandt says of the situation in operating chemical plants. Operations and project teams use the same documentation at the same time. Digital review processes make changes visible early, before diverging documentation becomes a problem.

DEVELOPING THE NEXT STEPS TOGETHER

The collaboration continues beyond each software release. Workshops, pilot projects, and feedback sessions feed new requirements directly into ongoing development. Kuraray gains solutions that make daily work easier, while ITandFactory receives valuable input directly from users.

“We don’t develop in a vacuum,” says Daniela Konrad of ITandFactory.

> **“Only by working together on a project do we really understand which features add value in everyday work.”**
>
> ***Daniela Konrad,*** *Head of Marketing, ITandFactory GmbH*



Photo: ITandFactory GmbH

THE JOURNEY CONTINUES

The next steps are already taking shape:

- digitizing more P&IDs,
- connecting additional documentation systems,
- introducing AI-assisted functions,
- preparing for plant shutdowns.

Digital redlining will continue to be refined along the way. For Brandt, one insight remains particularly important: “The journey is the destination. Digitalization happens through many steps that build on one another, rather than through a single large project.”

What began as a software implementation has become a partnership. Step by step, Kuraray’s archipelago of separate engineering disciplines is becoming a connected network. The islands are still there, but the bridges between them are growing stronger.



AI SUPPORTS THE CONVERSION. ENGINEERS VALIDATE THE RESULTS.



Image: freepik.com

From engineering complexity to connected workflows

How Ercros is improving engineering data management and project coordination with CADISON



Photo: Ercros, S.A.

For Ercros’ Pharmaceuticals Division, managing engineering documentation across multiple drawings, revisions, software versions, and project deliverables requires consistency, version control, and effective coordination. With CADISON, Ercros is bringing design information, documentation, and engineering workflows together within a more connected environment—supporting greater consistency, control, and efficiency as implementation progresses.



Photo: Ercros, S.A.

MANAGING COMPLEXITY ACROSS ENGINEERING DOCUMENTATION

Ercros is one of Spain’s leading chemical and pharmaceutical manufacturers, headquartered in Barcelona, with an international presence spanning more than 90 countries. Its three main business divisions cover chlorine derivatives, intermediate chemicals, and pharmaceuticals.

Within its Pharmaceuticals Division in Aranjuez, Ercros manufactures Active Pharmaceutical Ingredients for pharmaceutical companies worldwide, combining technical expertise, high-quality standards, and regulatory excellence.

For an organization operating in a complex engineering environment, maintaining accurate and consistent engineering documentation is critical. Before implementing CADISON, Ercros faced challenges in efficiently managing and updating engineering documentation across multiple drawings and revisions.

Ensuring version control and maintaining consistency across layouts could be time-consuming. Coordinating design changes and extracting accurate information from drawings also presented challenges. In addition, the use of different software versions created compatibility issues and made software license management more difficult.

The need was therefore not simply for another design tool, but for a solution that could bring greater control, consistency, and efficiency to the engineering workflow.



Image: freepik.com



Image: freepik.com

"CADISON has helped us centralize engineering data and bring design information, documentation, and engineering workflows together. This has improved consistency across our project deliverables, reduced manual work, and strengthened revision control as we manage complex engineering tasks."

Laura García Alberola,
Process Engineer, Pharmaceuticals Divison, Ercros, S.A.

CHOOSING A SOLUTION THAT WORKS FOR THE TEAM

For Ercros, the solution also needed to be practical from an implementation and adoption perspective.

The team was looking for an engineering platform that was intuitive and easy to adopt, helping minimize the learning curve and reduce the time required for training. Cost was another important consideration, with the company looking for a solution that could meet its business requirements while providing excellent value for money.

These factors were important not only for selecting the technology, but also for ensuring smoother implementation and faster adoption within the engineering team.

CREATING A CONNECTED ENGINEERING ENVIRONMENT

CADISON is helping Ercros address these challenges by bringing engineering data, documentation, and workflows together within a connected engineering environment.

By integrating project information and engineering workflows, CADISON helps reduce dependence on disconnected information and manual updates, while improving consistency across project deliverables.

Design information and documentation can be managed within an integrated engineering environment, improving consistency across project deliverables. This also helps reduce manual work and minimize the potential for errors.

Another important advantage is the way CADISON supports engineering changes. Design changes can be reflected throughout the project documentation, helping improve revision control and reducing the effort involved in maintaining multiple documents and layouts.

For Ercros, this creates a more structured approach to managing complex engineering tasks while improving collaboration across disciplines.

FROM MANAGING DRAWINGS TO MANAGING ENGINEERING WORKFLOWS

The value of CADISON for Ercros goes beyond drawing creation.

By connecting design information, documentation, and engineering workflows, CADISON provides a more coordinated environment for managing engineering projects. Instead of spending time reconciling information across different drawings and revisions, engineering teams can manage changes more efficiently while maintaining greater consistency across project documentation.

As Ercros continues its implementation and migration from its previous engineering software, this connected approach is expected to support greater efficiency, data consistency, and collaboration.

BUILDING THE FOUNDATION FOR MORE EFFICIENT ENGINEERING

Ercros is currently implementing CADISON and migrating data from its previous engineering software. As a result, it is still too early to report specific measurable results. However, the implementation is progressing well, and the company expects to see further benefits as adoption continues.

For Ercros, the focus is on establishing a structured engineering environment that can support its teams in managing engineering information and coordinating workflows more effectively.

A POSITIVE EXPERIENCE WITH CADISON

Ercros' experience with CADISON has been positive, with the solution supporting the team throughout the implementation and data migration process.

As implementation progresses, CADISON is supporting Ercros in enhancing the way engineering information is managed, and engineering workflows are coordinated.

Customer Voices



SALTX TECHNOLOGY

"CADISON has helped us streamline our workflow and bring speed and accuracy to the development of our process systems, supporting the transition from innovative technology concepts to scalable industrial solutions.

Kristof Meir
Process Engineering Lead,
SaltX Technology AB

Photo: SaltX Technology AB



ERCROS

"Chemical manufacturing demands engineering precision at every stage, particularly when processes, equipment and plant requirements evolve over time. CADISON has helped us bring greater consistency in maintaining our P&IDs, engineering information and workflows. This makes it easier for our teams to manage change while maintaining the quality and reliability of the deliverables.

Laura García Alberola
Process Engineer, Pharmaceuticals Divison,
Ercros, S.A.

Photo: Ercros, S.A.

Plant Engineering in a Hybrid Team: Neilsoft & CADISON

Local engineering expertise, international resources, and a shared data foundation – how cross-location plant engineering can be delivered efficiently



Image: AI-generated

Increasing project requirements, limited skilled resources, and growing time pressure are creating major challenges for companies in the process and plant engineering industry. How can engineering capacity be expanded flexibly without creating additional interfaces and coordination effort? Neilsoft addresses this with a hybrid team model that combines experienced engineers in Germany with engineering and design teams in India. CADISON serves as the shared working platform.



Photos: ITandFactory GmbH

Two Locations – One Team

At the Munich location, experienced engineers are responsible for project management, technical coordination, and quality assurance. They serve as the main point of contact for customers, lead design reviews, and ensure compliance with German and European standards. The teams in Pune support engineering and design tasks—from calculations and specifications to P&IDs, 3D models, and isometrics.

A Shared Data Foundation with CADISON

The technical foundation is CADISON: both locations work within the same project on a common, object-oriented data model. Information from P&IDs, 3D models, and technical lists is interconnected and consistently available across the disciplines involved. This reduces manual data transfer, simplifies coordination, and improves traceability of changes.

Flexible, Scalable Capacity

Depending on the project phase, capacities can be adjusted flexibly. Especially during labor-intensive detail engineering, companies can draw on additional resources without having to permanently expand their own teams.

Also Valuable for Brownfield Projects

This approach also offers clear advantages for the modernization of existing facilities. Legacy drawings and plant data can be digitized and transferred into a structured engineering environment. The result is better transparency, greater consistency, and a stronger basis for future modifications and documentation.

The Result

A single point of contact, flexibly available engineering capacity, and a consistent data foundation across locations and disciplines. In this way, the hybrid model combines proximity to the customer with the resources of an international engineering team—from the initial planning phase through technical documentation.

www.neilsoft.com

Neilsoft

Meet. Connect. Exchange.

Praxis Update Leipzig



7 October 2026
Leipzig, Germany

Explored AI-supported PDF-to-P&ID conversion, intelligent plant models and digital workflows for future-ready Plant Engineering.

Carbon Capture Technology World Expo



21–23 October 2025
Hamburg, Germany

Presented CADISON to international CCS experts, highlighting connected engineering workflows for hydrogen and carbon capture projects.

Harmonizing a Digital Symphony



12–13 November 2025
Frankfurt am Main, Germany

Customers, partners and industry experts exchanged insights and explored the future of intelligent Plant Engineering at CIC 2025.

Praxis Update Industriepark Höchst



16 June 2026
Frankfurt am Main, Germany

Explored AI-supported PDF-to-P&ID conversion, Digital Twins and connected engineering workflows, with practical insights from Kuraray Europe.

Global ChemShow



18–19 December 2025
Mumbai, India

Showcased our Process and Plant Engineering solutions, including Ajit Joshi's session on "The Magic of Data-Driven Engineering."

CADISON University India



10–11 February 2026
Pune, India

Customers, industry experts and business leaders explored how digitalization is transforming modern engineering workflows.

ChemTECH World Expo



3–6 February 2026
Mumbai, India

Presented CADISON and our software portfolio, demonstrating the benefits of integrated, data-driven Plant Engineering.

Photos: ITandFactory GmbH

ITandFactory GmbH
Auf der Krautweide 32
65812 Bad Soden
Germany
Tel: +49 6196 93490-0
Fax: +49 6196 93490-49
Email: info@itandfactory.com

ITandFactory AG
Quellenstrasse 37
4310 Rheinfelden
Switzerland
Tel: +41 61 833-3050
Fax: +41 61 833-3051
Email: info@itandfactory.com

Neilsoft GmbH
Werner-Eckert-Str. 2
81829 München
Germany
Email: info@itandfactory.com

Neilsoft Limited
120 Holborn, Holborn
London, EC1N 2TD
UK
Email: info@cadison.com

Neilsoft Inc.
6830, N. Haggerty Road
Canton, MI 48187 Detroit
USA
Tel: +1 734 459 1100
Email: info@cadison.com

Neilsoft G.K.
H1O Nihonbashi Kayabacho, #308
12-10 Nihonbashi Kayabacho 2 Chome,
Chuo Ku, Tokyo, 103-0025
Japan
Tel: +81-3-6661-2902
Email: info@cadison.com

Neilsoft Limited
2275 Lakeshore Blvd West,
Units 505-506,
Toronto, Ontario, M8V3Y3
Canada
Tel: +1 416 503 3663
Email: info@cadison.com

Neilsoft
Pride Parmar Galaxy 8 Floor
10/10 + A, Sadhu Vaswani Chowk
Pune - 411001
India
Tel: +91 20 6706-2200
Tel: +91 20 2605-3003
Email: info@cadison.com

Neilsoft
406, Embassy Centre
11 Crescent Road
Kumara Park (E)
Bangalore 560001,
India
Tel: +91 80 2226 7786
Email: info@cadison.com

Neilsoft
605, Chiranjiv Tower
43, Nehru Place
New Delhi 110019
India
Tel: +91 11 4108 6157
Tel: +91 11 4108 6158
Email: info@cadison.com

Neilsoft
411, Rupa Solitaire, Building A1,
Sector 1
Millennium Business Park
Mahape, Navi Mumbai 400710
India
Tel: +91 22 27780373
Tel: +91 22 27780370 / 71
Email: info@cadison.com

it and factory solution provider

Neilsoft

FOLLOW US!

Stay connected with CADISON and the ITandFactory team. Get the latest updates, insights, and news on our LinkedIn channels.

ITandFactory

CADISON

ITandFactory believes the information in this publication is correct as of its publication date. As part of continued product development, such information is subject to change without prior notice and is related to the current software release. ITandFactory is not responsible for any inadvertent errors. CADISON® is a registered trademark of ITandFactory. All other trademarks, brand names, trade names, product names and logos of third parties which are shown in this publication belong to their respective owners.