

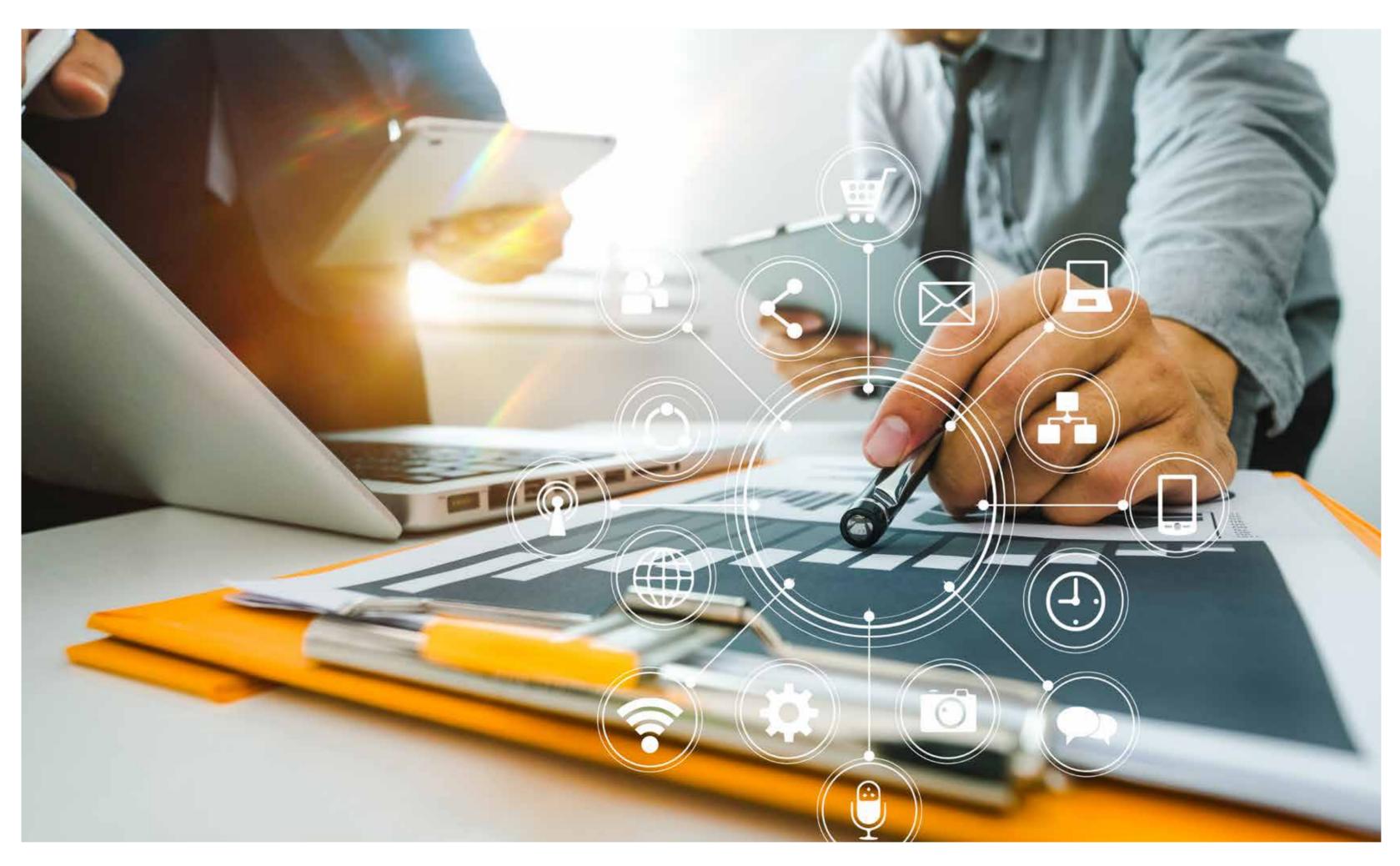


## Collaboration in Tomorrow's Digitalised World

All about collaboration and projects with applied universities, universities, OEMs, partners, and customers ...



## Advantages of Collaboration ...



### Dear readers!

We are exceptionally pleased to welcome you personally to our "evon up2date" customer event. Welcome!

#### Efficiency thanks to digitalisation

Previous years have shown just how essential digitalisation is for the working world. As a software company, we are always integrating new ideas into the world of automation and work with you to incorporate the advantages into your projects.

#### Collaboration taken a step further

Digitalisation also creates new possibilities for collaboration. The modularity and openness of the systems enable new partnerships to be forged. For example, we already have a number of partners who have established their own systems using evon XAMControl as a basis for their own market focus.

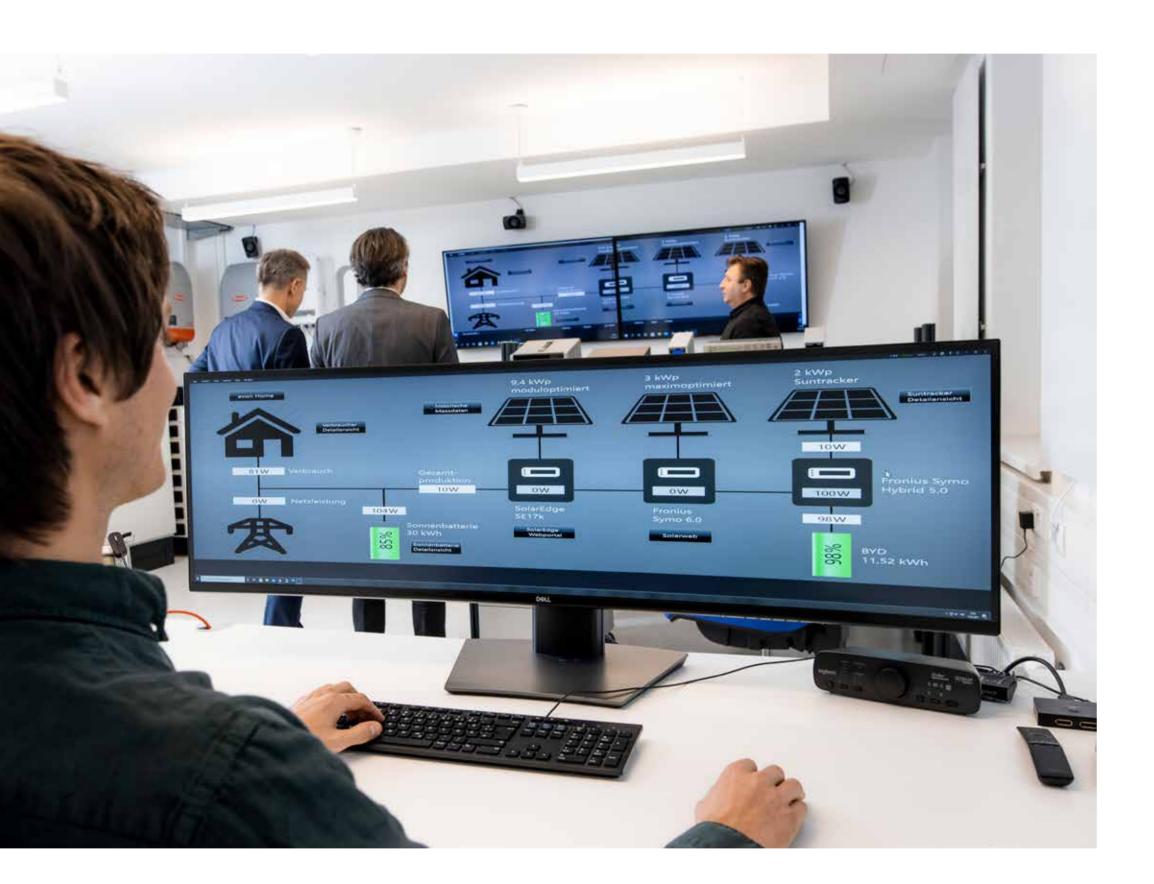
#### A glance at exciting projects

This edition places great emphasis on collaboration supplemented by peeks into exciting projects and news involving evon XAMControl.

All the best, Andreas Leitner

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## School of Automation





Thanks to the collaboration with evon, students at the FH CAMPUS 02 in Graz can conduct research into the challenges of the future using the latest technology.

The CAMPUS 02 - Fachhochschule der Wirtschaft GmbH (University of Economics) offers a variety of opportunities in both part-time and full-time education and provides training for academic entrepreneurs, key staff, and management in the business world.

The FH CAMPUS 02 not only offers a part-time Bachelor programme for Automation Technology and the Master programme Automation Technology and Business, since 2021 it also offers a full-time Bachelor programme Smart Automation in English language. The main focus is placed on the fields of information technology and electronics. The goal is to implement and position the huge topic of digitalisation, Industry 4.0, in the context of automation technology.

#### **Cutting-Edge Laboratory Infrastructure Thanks to evon**

The study programme Automation Technology possesses comprehensive laboratory infrastructure in their "House of Automation" consisting of five expert laboratories. The study programme has laboratories that include robotics, additive manufacturing technology and electronics, and since 2020, its own electro-technological energy laboratory (EAS Lab) that is equipped with evon XAMControl and evon Smart Home.

#### **Current and Future Collaboration**

evon XAMControl is also being used within the scope of the internationally funded project I-Greta. The aim of the project is to design and develop a prototype of an inter-regional energy system and to test and evaluate it under laboratory conditions in the Energy Analytics & Solution Labs (EAS-Lab) in Kapfenberg and Graz. evon XAMControl plays a crucial role in the networking of both laboratories with cloud-based ICT platforms and is used to integrate a range of different simulation models.

#### **Smart Home Energy Management**

The next collaborative project is already taking shape: the development of an integrative energy management system (EMS) for smart homes. This is currently a very important topic in the areas of sustainability and energy transition with guaranteed high levels of visibility in the public and political arenas.



Course Director Udo Traussnigg and Laboratory Manager

Gernot Hofer in the EAS-Lab.

- → Decentralised electrical energy technology laboratory at two locations (Graz, Kapfenberg)
- → Collaboration between FH CAMPUS 02 and FH Joanneum
- → Versatile infrastructure consisting of renewable energy generation plants, hybrid networks with energy storage, charging possibilities for electro-mobility and appropriate components for measurement and automation
- → Building automation and process management systems from the company evon (already incorporated and being taught)
- evon Smart Home: Control of laboratory infrastructure (shading, lighting, wall boxes, mains sockets, etc.)
- evon XAMControl: Connection of the entire laboratory infrastructure (energy storage, PV systems, instrumentation, etc.)
- Control of the laboratory infrastructure and energy-related optimisation via load flow optimisation
- Connection and development of forecasting and simulation models to increase efficiency
- → Main focus of R&D: Energy optimisation, building automation, instrumentation, and data analysis, IoT applications
- → Management of nationally and internationally funded projects as well as contract research and development



**Matthias Primas** CAMPUS 02

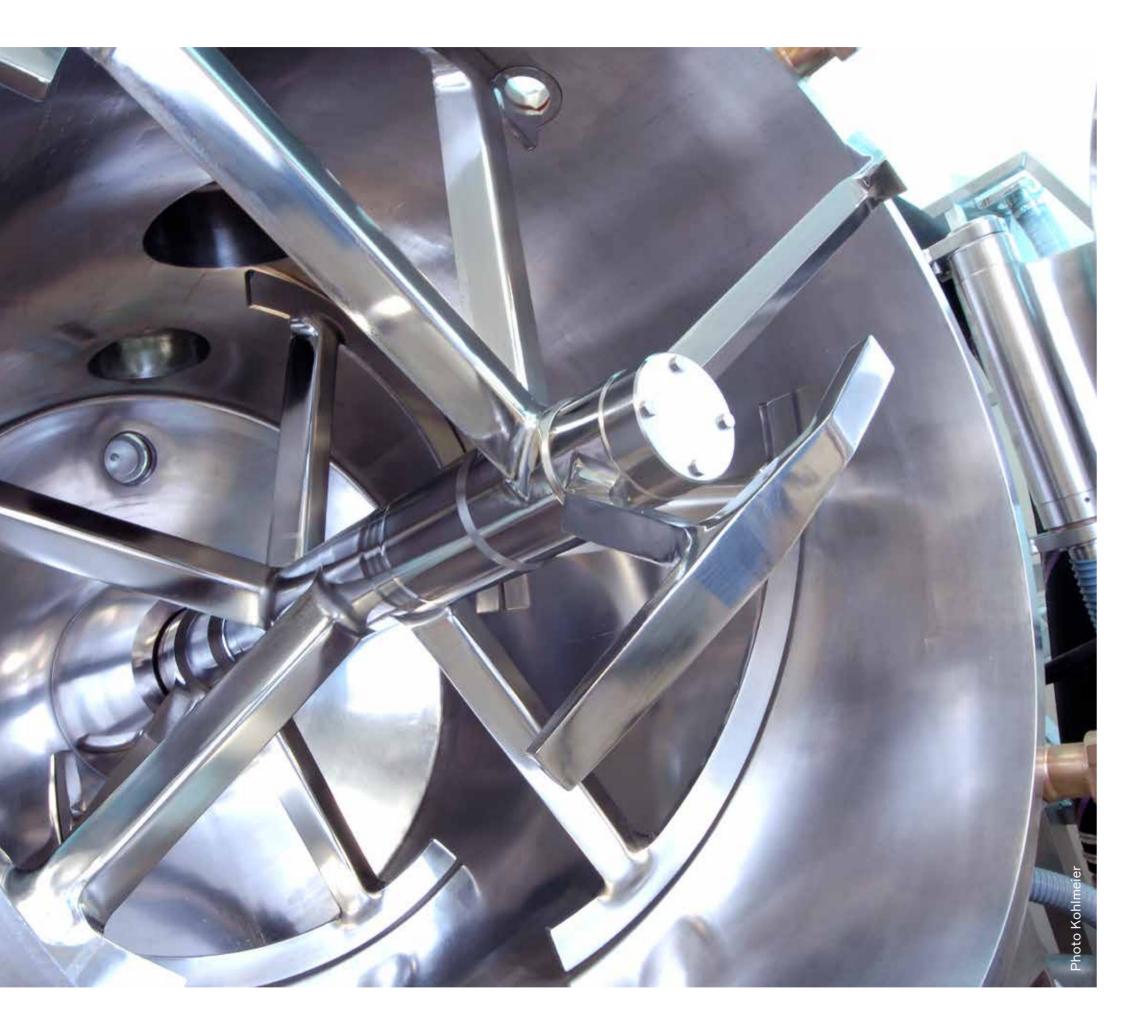


Martin Sipek Application development evon GmbH

Project Manager I-Greta

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### Granulation 4.0



Modernisation Project in the field of Granulation and Mixing-Sieving (PLS Granulation)



Get the dose right®

The existing production management system in the manufacturing area of granulation, mixing and sieving no longer corresponded to the state-of-the-art. The maintainability and availability of hardware and software components was also no longer ensured. This was the starting point in the middle of 2020 for a collaboration with an automation partner of many years, Grübl Automatisierungstechnik, to work out a concept for a replacement solution.

One of the main requirements for the system was to implement the existing pharmaceutical functionality and the transparency of the manufacturing process with its associated maintenance. The company evon with its system XAM-Control were recommended to us as the supplier for the new production management system.

After completion of a successful initial test of the XAMControl system, the project was continued in the area of granulation. Due to the pandemic, no visits were possible to reference sites of customers who already use XAMControl. Once the total overall costs and the complexity had been determined it was obvious that refurbishment in parallel to running production was not going to be possible. Hence the decision was taken to implement the project in multiple stages.

Stage 1 of the implementation was planned for 2021 and the requirements for the entire system were compiled in the first quarter. Then work began on the server solution and the preparation of software functionality for the TOPO-granulation, the measurement and weighing stations.

In autumn of 2021, the preparations had reached the stage where control-related refurbishment could begin on the first system. The work was accompanied by the prescribed steps for the installation and operation qualification and computer validation. The bottlenecks in resources caused by the pandemic meant that trial runs to prepare the recipes for batch production could only be started in the third quarter of 2021.

After an intensive test and optimisation phase as well as completion of the qualification activities, production with the first refurbished TOPO-granulator could finally begin in March 2022. The first manufactured batch fulfilled all quality requirements. To date, the new system has been able to work perfectly regarding recipe preparation and automatic contract fulfilment. A few adaptations are required to further improve the already clear and well-structured user interface.

Preparations for the refurbishment of further systems are ongoing and the milestones have been roughly defined. However, due to the current long delivery times for hardware components, the plan needs to be continually adapted. The refurbishment of all TOPO-granulators to use XAMControl is planned for completion by the end of 2022. In parallel to this, preparations are underway for the further refurbishment of the systems in the production area of mixing-sieving.

HERMES PHARMA is expecting this modernisation project to result in an integrated automation solution that simultaneously fulfils future requirements in the direction of digitalisation and regulatory guidelines.



Andreas Dunst
Procurist
GRÜBL Automatisierungstechnik GmbH



René Hirschmugl
Procurist, Head of Business
Unit for Industry
evon GmbH

HERMES PHARMA is THE expert for the development and production of user-friendly oral dosage forms, for example effervescent and chewable tablets, lozenges, instant drinks, direct granulates, and the recently developed HERMES NutriCaps. For over 40 years, the company has produced medicines and food supplements for healthcare companies the world over in the Wolfsberg factory.

The factory was established in 1946 and acquired by HERMES Arzneimittel GmbH in 2003. Since then, the site has been invested in: In the expansion in 2008, investment reached 40 million Euros, and a further 16 million Euros were invested in the refurbishment and expansion in 2019.

The portfolio of products manufactured in Wolfsberg include calcium, magnesium, iron, and vitamin supplements. In the meantime, HERMES PHARMA is one of the largest manufacturers of direct granulates in Europe with an export quota of over 90%. The factory is certified to GMP and covers an area of over 18,000 square metres. It contains an 8,000 square metre cleanroom and a fully automatic high-bay warehouse. HERMES PHARMA trusts in modern technology such as hot-melt coating, TOPO and continuous flow granulation.

# Traditional meets Modern at the Ku'damm



Thanks to its architecture, the NEO office on Berlin's Kurfüstendamm is able to blend optimally into the historical quarter and has been equipped by evon's partner HOSCH Gebäudeautomation with the latest technology based on evon XAMControl.



Becken, a real estate company, is developing a multi-tenant office building on an almost 2,000 m2 plot of land in Knesebeck-straße near the Ku'dam in Berlin that will have 8,000 square metres of rentable space over seven floors and commercial space on the ground floor.

There are parking places for 62 cars and 150 bicycles and electrical charging stations in the two lower floors. The building's façade of lightly coloured natural stone, the use of high-value materials, and individual details result in a distinguished appearance. The experience is enriched by the green inner courtyard and its fountain, which all provide the future office occupants with a place of tranquillity in the immediate vicinity of Ku'damm. The architect for the new office building is Nöfer Gesellschaft von Architekten.

#### **HOSCH Building Automation & evon XAMControl**

HOSCH Gebäudeautomation Neue Systeme GmbH (building automation new systems) is one of the largest system integrators in Berlin/Brandenburg. Thanks to the programming efficiency of evon XAMControl, the control of the entire building systems in this project could be implemented in evon XAMControl.

#### evon XAMControl & rigentoBSK

rigento is a modern smoke and heat extraction system developed by HOSCH Neue Produkte GmbH. rigentoS3 has been designed for the entire smoke extraction control, rigentoBSK solely for the fire damper control system. Both systems are certified to TÜV and offer a series of safety-relevant advantages. The high-value rigentoBSK modules were used for all motor-driven fire dampers in this project. Thanks to evonXAMControl's openness, all new components can be quickly and efficiently integrated and fit perfectly into the familiar visualisation.



Christian Hofer Senior Sales Manager D-A-CH Building Management Systems evon GmbH



The southern end of the well-known Charlottenburger Knesebeckstraße, with its buildings dating back to between the 30s and the 80s, struggles to compete with the splendour of the Kurfürstendamm. However, plots 62 and 63 are experiencing a rebirth. The new office building brings the lush plasticity typical for the Kurfürstendamm and its side streets into the street's aura, and yet without denying a relationship to the neighbouring buildings from the 30s and 50s. The large proportion of glass, the horizontal banding, and the generous ground floor zone emphasize the qualities of these modern office buildings. At the same time, the relationship of the building to the opulent palaces from the early 20th century is established via the magnificent chandelier in the two-storey entrance hall. The building genre with its courtyard and two cores house a large range of office and commercial floor space. Access to the rear development with its second address is via the two-storey entrance area and the green courtyard. The firewall to the south in the form of a windowed north façade completes the courtyard of the neighbouring listed Knesebeck Ensemble.

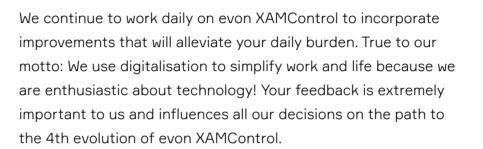
The project with its opulent architectural expression, the exquisite materials, and its anthropomorphic physiognomy understands itself to be a contribution to the search for western Berlin according to the specific architectural expression.

Project description and graphics:
Nöfer Gesellschaft von Architekten mbH

## Ready for the Future



On the path to Evolution 4 of evon XAMControl, we have added waypoints in the current development such as XAMTicketing and the newly simplified updates.



#### Ticketing Replaces the System Book

A first step on this path is the extension of the system book to the XAMTicketing system. The new system is already undergoing tests in operation at VMIS2 and will be used for OTIM (the OSMO Ticket Management System). In the future, XAMTicketing will replace the existing system book. What is new? Apart from freely definable checklists and states, it is possible to define links (to other tickets, XAMIris documents, instances, alarms, hyperlinks, etc.) and an arbitrary number of additional characteristics. Alongside a detailed description, there will also be comment function. Every edit and change to a ticket is completely traceable (ticket history functionality). It is also ensured that only one operator can work on a ticket at one time. The modular construction of the XAMTicketing system enables individual functions to be completely customised for the operation and display in XAMIris and adapted to each customer request. The ticketing system is also ready for web visualisation thanks to the use of cutting-edge technologies in the backend.





Bernhard Dienstl Product Management evon GmbH



#### **Updates Will Be Simpler and More Flexible**

Updates to evon XAMControl in the future will be simpler to effect and more flexible. Thanks to the separation of evon XAM-Control into individual components, these can even be individually updated within a patch. In order to simplify the update procedure and to make updating to a new version as easy as possible for the operator, the existing update service will be equipped with a whole range of new functions and the existing update plugin will be completely reworked. This will make evon XAMControl ready for the future so that new features and improvements can be released and employed quicker.

#### Why Updates?

In addition to dealing with safety issues, updates also contain new or extended functions that simplify the daily operation of evon XAMControl and which have been implemented by our team from deep within their hearts and souls. Updates ensure compatibility with new operating systems, applications, and frameworks. Updates in small intervals minimise the risk of unexpected investments when migrating from older versions to a current version.

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## e-HCP & emsyst 4.0

These abbreviations stand for energy management and a system for grid optimisation, both built on the solid basis of evon XAMControl.









Dennis Ganaus
Divisional Management Energy
Efficient Plant Technology
R.I.E.MPP Industrieservice
Elektrotechnik GmbH



enlynx e-HCP and emsyst 4.0 are both products from the R.I.E.MPP group. emsyst is an OEM product built on an evon XAMControl platform with customer-specific branding. e-HCP on the other hand, is a hardware product that filters the mains and saves up to 25 % power with software again based on evon XAMControl.

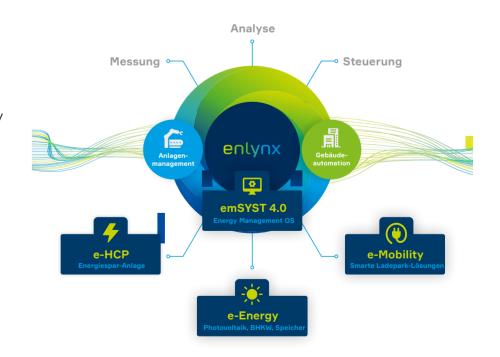
#### Based on mutual expertise

R.I.E.MPP Industrieservice Elektrotechnik GmbH and its associated company ZIMMERMANN Industrieservice Elektrotechnik GmbH, both based in Baden Württemberg, have been evon partners for many years. The wide spectrum of services ranges from electrical installation to lighting systems, from repeated legislative checks (DGUV) to machine relocations, service and maintenance of machines and plant, power lifting technology and light barriers. During the partnership, evon was able to gradually raise the existing emsyst 4.0 software product capability to a new level and increase the success of a separate software product on the market, whereby the focus was placed on energy management. It soon became clear that evon XAMControl provided an ideal starting point for this. Today, almost all R.I.E.MPP projects are implemented with emsyst 4.0, as the new product is called. evon XAMControl's sister product naturally has the complete scope of functionality and is supplied with the same updates. Over and above this, all extensions in the ACCStore are available to emsyst customers.

#### **Grid Optimisation via Power Recycling**

The good experiences made together during this software project meant that evon XAMControl also became the software basis for e-HCP. The new e-HCP technology filters impurities from the power grid and stores the energy from the harmonics providing it as useful power within a few milliseconds. This reduces electricity costs by up to 25 %.

e-HCP is available as an add-on for the infrastructure in the switching cabinet, or as a practical outdoor all-in-one solution in a container. You can read more about this directly from our partner or here www.e-hcp.de.



## The Plus for Environmental Technical Equipment





How evon's Partner INAUT Automation GmbH successfully updates environmental plant the world over using Invilution, a smart product based on evon XAMControl.







Martin Liehl, MSc Managing Director **INAUT Automation GmbH** 

INAUT Automation GmbH has partnered evon for many years. During the partnership, the idea was born to develop an efficient and affordable product to fulfil the requirements of environmental technology. It didn't take long to discover that evon XAMControl could provide the basis for this new product.

**Andreas Leitner** 

evon GmbH

Managing Director

#### Invilution – The Automation Solution for Environmental **Technology**

The many years of experience gathered by INAUT Automation GmbH in the field of environmental technology showed that customer requirements pointed in the same direction for almost plant: a modern system, fast, efficient, cutting edge, and with the most complete set of features possible, yet individually adaptable to each plant. The product Invilution was born out of these requirements. A total package with four areas of focus: Biogas, water, wastewater, and compost. This focus on market sectors means that Invilution offers clear cost advantages. The scope of the system reaches from a dashboard for all KPIs, power management for the optimisation of efficiency, up to a system book for commissioning, maintenance, alarm notification, trends, and reporting.

#### The 4-in-1 Solution

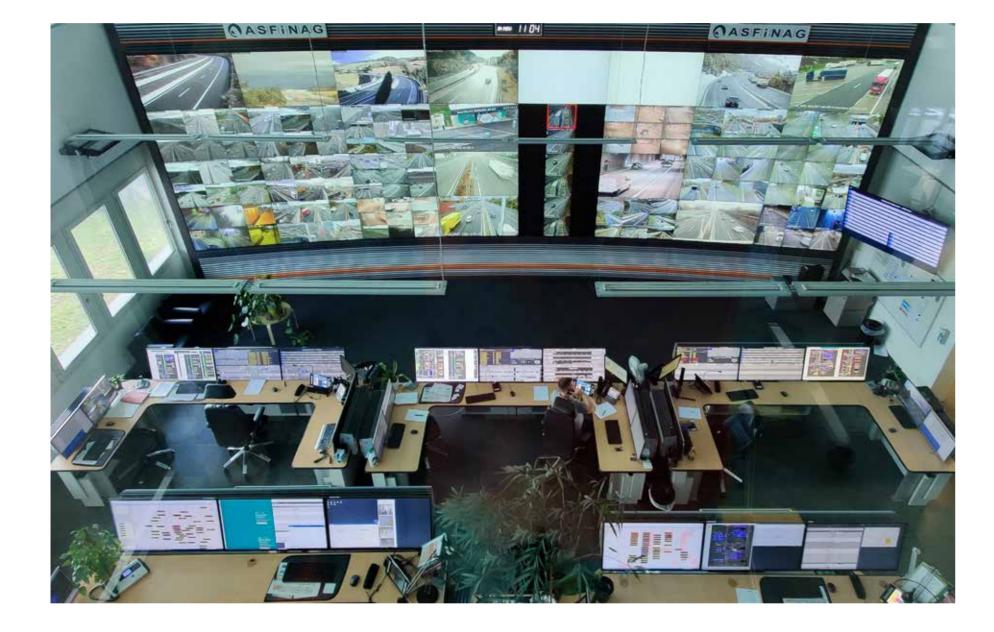
Customers not only benefit from the scope of the solution, but the specialisation also provides significant advantages. Invilution Biogas is an intelligent system for the control of complete biogas plants (from feeding in, via the pumping processes, up to automatic operation of the mixing equipment and optimisation of the processes). Invilution Water is the choice for water supply plant and water preparation plant, and eminently suitable for a retrofit of existing plant. The solution for wastewater plant, independently of whether the plant is old or new, is Invilution Wastewater. And finally, Invilution Compost is the modern solution for composting plant.

#### **Global Success Story**

Today, the various Invilution solutions are used in more than 75 plants worldwide. The safe and efficient control of the plant is appreciated in China, India, Russia, Columbia, USA, Turkey, Australia and almost all European countries. The positive feedback received from customers confirms the chosen path and the partnership with evon.

### VMIS2 on Track

After successful completion of the test phase, VMIS2 will be rolled out step by step throughout Austria and, over the course of digitalisation, will open up the ASFiNAG world to new systems such as Car2X





Daniel Seewald
Divisional Management Traffic
Technology
evon GmbH

VMIS2, one of the largest and most modern traffic management centres in the world and commissioned by ASFiNAG, constructor and operator of motorways and expressways in Austria, is making huge steps forwards

After the commissioning of the first tunnel in April 2021 in Vienna, the next step was the integration of the VBA/Outdoor Resources in the pilot system in Vienna. On the 10th of March 2022, the VBA/Outdoor Resources was switched live in the region of St. Michael im Lungau. In the middle of the year, the rVMZ Klagenfurt with all 23 tunnel systems, 42 auxiliary systems (parking, pumping stations, etc.), and 600 km of free routes will be switched live to VBA/Outdoor Resources.

All VBA/Outdoor Resources are controlled using the new control model in accordance with MARZ 2018. This control model is thus in productive use in Austria for the first time. The model is a part of the digitalisation of motorways and expressways and enables C-ITS (Co-operative Intelligent Transport Systems). This will enable ASFiNAG to transfer information about current events on the motorways to third party systems such as Car2X.

#### **Continuous Improvement**

Since the pilot system was commissioned in Vienna, a series of improvements have been implemented to the user interface and the control model. This continuously improves the operator's work and simplifies operation. The different views of the ASFi-NAG's route network (route view as a linearised representation of motorways, network view as a map, detail views) mean that the requirements of a range of users is optimally covered. A major milestone in the project was the connection of tunnels and open road. To achieve this, an interface to VMIS2 was developed that enables interaction with the tunnels.

#### Outlook

Further steps in the project include the development of additional interfaces to a range of different ASFiNAG systems (such as the event database EDB, ticketing systems, etc.). In addition, further modules will be developed and optimised to continue the improvement of VMIS2 as a central system and to provide different operators with the functions required for efficient and safe work in a single user interface.

Q4/2022

Conversion Tunnel and VBA/Open Road rVMZ St. Jakob am Arlberg

Q2/2023

Conversion VBA/ Open Road rVMZ Plabutsch

Q4/2023

Conversion Tunnel rVMZ Plabutsch

Q4/202

Conversion Tunnel rVMZ Ardning

Q1/2023

Conversion Tunnel and VBA/ Open Road rVMZ Wels

Q3/2023

Conversion Tunnel rVMZ St. Michael im Lungau

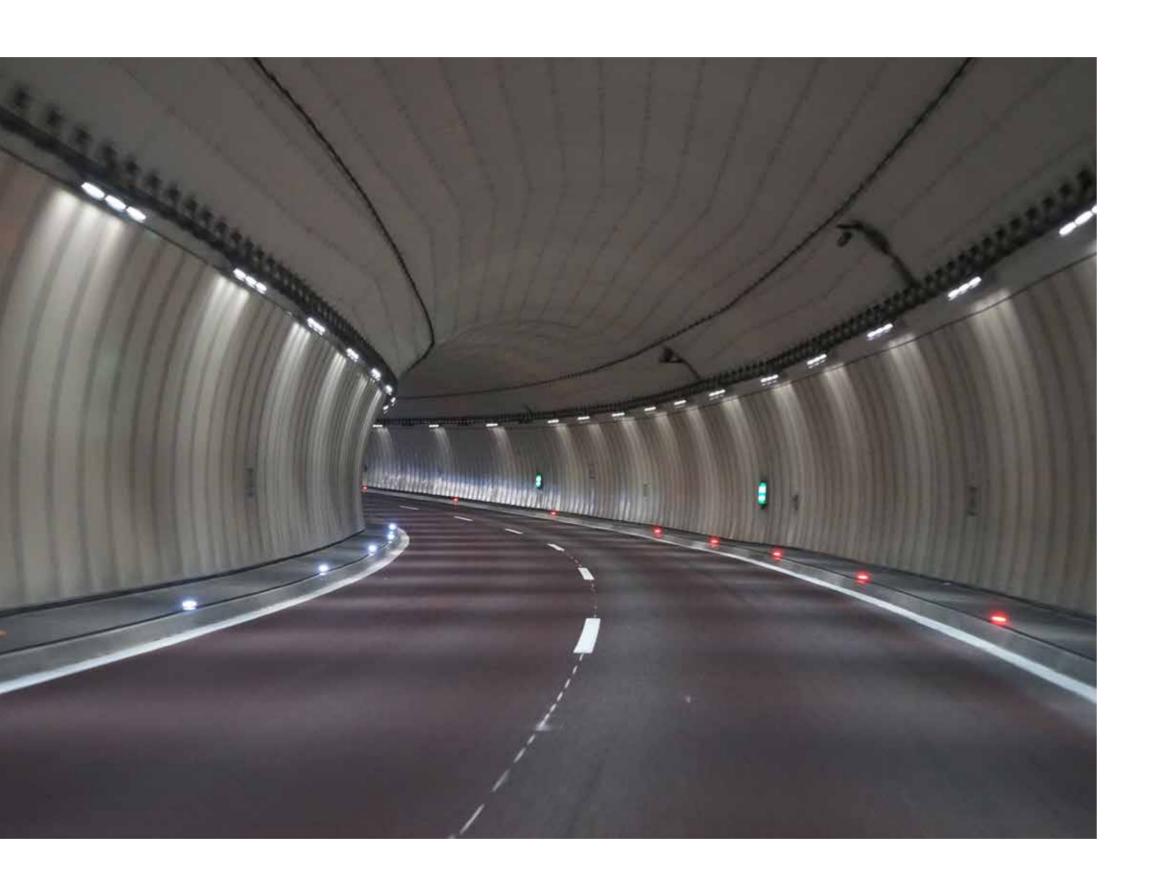
Q2/2024

Conversion Tunnel rVMZ Bruck an der Mur

2/2025

Conversion Tunnel rVMZ Hohenems

## The Ticket System for 27 Tunnels



SPIE OSMO has equipped the new control centre in Leverkusen with a modern ticketing system based on evon XAMControl.

SPIE OSMO, a company with more than 300 employees in Georgsmarienhütte in Niedersachsen, uses evon XAMControl for their ticketing system in their newly constructed control centre in Leverkusen. The system manages alarms, faults, and the maintenance of the roads and 27 tunnel systems in Nordrhein-Westfalen.

#### OTIM – The OSMO Ticket Information and Management System Based on evon XAMControl

OTIMS is connected via OPC UA to the existing control system. The tickets are also displayed in the control system according to priority or operator definition. Each type of alarm has an associated emergency plan or AGAP. Each ticket has allocations to the tunnel and to the equipment (such as fire, ventilation, traffic management system, etc.). The predefined groups and measures determine who internally and which company externally is to be notified, and which items are to be worked on to close the ticket (to-do list). Over and above this, any required documents are automatically attached to the ticket.

All steps are automatically documented (who did what or called who). Notes and documents can be supplemented by the operator at any time.

#### **Integrated Maintenance Calendar**

Thanks to the integration of the maintenance calendar, maintenance for all 27 tunnel systems can be organised, managed, and even fault tickets can be created for maintenance activities. The blackboard function makes information pertaining to tunnel system visible to all operators.

#### **Modern Communication**

The direct connection of the telephone systems enables calls from OTIMS' address management. The calls are automatically documented and can be annotated.

In order to simplify shift handover, there is a dashboard that enables the shift manager to display targeted information to his operators: Either for a defined period of time, or until the specified operator acknowledges, naturally with a comment function for the operator.

Thanks to the predefined evaluation of the tickets, operators are able to create and send evaluations with a single click. If required for data protection reasons, certain areas of the report can be blacked out.



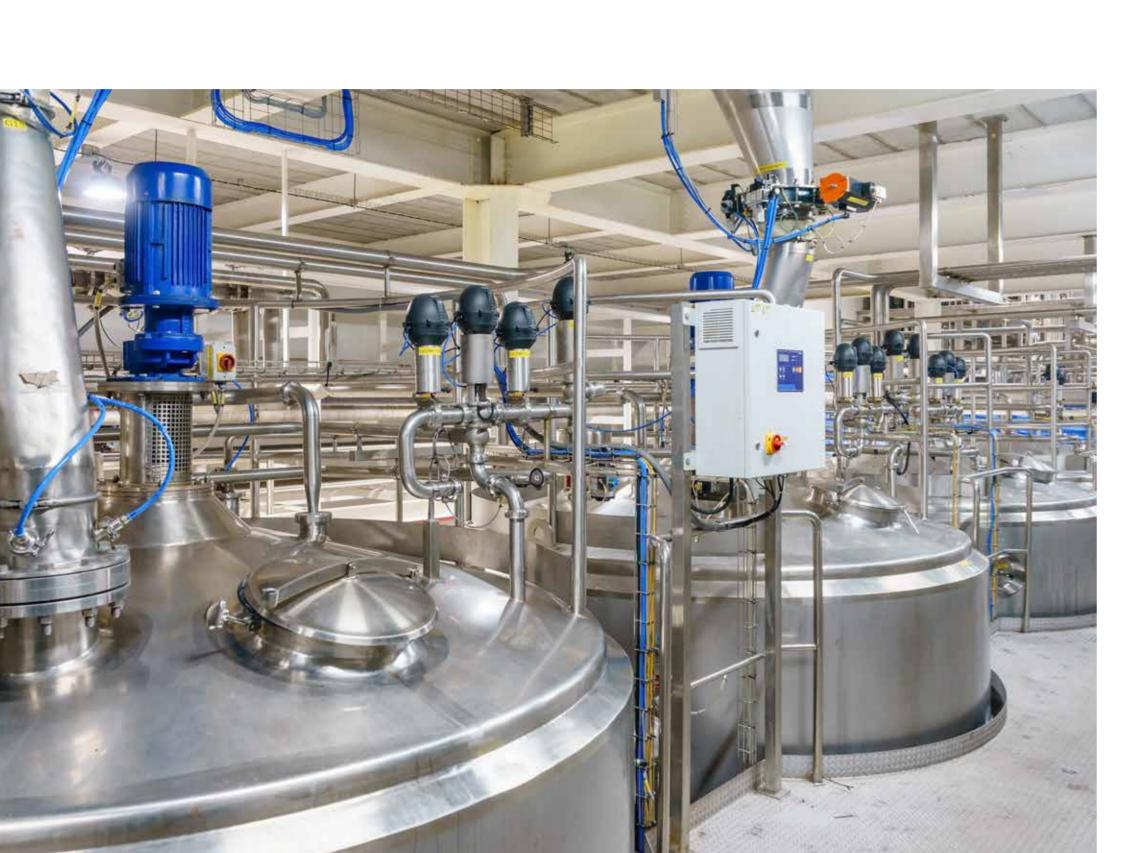
Ingo Eichmann
Group Lead Automation
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SPIE OSMO GmbH



Daniel Seewald
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Control Technology
evon GmbH



## Step 3: PharmComplete



How new technologies based on evon XAMControl can make processes in the pharmaceutical industry predictive, intelligent, and environmentally friendly.





Supported by official initiatives, scientific advances, and driven by the goal of reducing costs for medication, the pharmaceutical industry is undergoing a transition towards more efficient and controlled processes. This consists of the application of process monitoring, continuous process control and advanced process monitoring. Although in the meantime there are continuous systems available from different system builders on the market, particularly in the area of tabletting, the transition to completely monitored and automated processes is progressing very slowly. Process data is still mainly used for manual interventions and bad products are ejected out of the process. Model-based, predictive controllers are hardly used in an industrial environment. Elaborate quality checks at the end of production, variations in product quality, and poor exploitation of resources are still widespread.

#### Step 1: PharmControl

In a first step, (project PharmControl), a controlled, fully automated, and continuous process was created. This was used to implement the manufacturing of tablets from melt-extruded pellets or via direct compacting from powder from raw materials. The mechanistic models created within the scope of this project enabled simulation studies to be conducted, which considerably reduced the commissioning time for the plant.

#### Step 2: SynthesisControl

The subsequent project SynthesisControl implemented a monitoring concept with automation for the synthesis process. This goes beyond conventional recognition of bad products and their ejection. An automatic control strategy reacts to minor deviations in the process before the quality of the product is affected. To this aim, models are generated based on fundamental process understanding that enables predictive control. A significant amount of process data is acquired in real-time and converted to information about the process that provides a basis for any controller action. The process models also adapt themselves based on the

process data thus enabling a further optimisation of the process. The monitoring concept was implemented and trialled in a multi-stage sample process for the synthesis of a common active ingredient on a laboratory scale.

The goal of the PharmComplete project, which is still active, is the development of a digital twin for an integrated pharmaceutical production line from the synthesis of the active ingredient, via the preparation, up to the manufacturing of tablets. Particular emphasis is placed on the simplification of models to make them easier to exploit in an industrial application. This includes the use of machine learning. The digital twin is embedded in an automation environment including sensors. This enables both the simulation of the processes and their control. All process steps are controlled using model-based control strategies and the combination of continuous and batch process is automated and optimised. Alongside process digitalisation, the process is also significantly simplified compared to the conventional route.

After the successful PharmControl and SynthesisControl projects, this is the last step towards the complete automation of the entire production chain. The combination on a site enables independent and flexible production, even in times of crisis, and a drastic reduction in climate-damaging emissions, and the optimum use of resources. The intelligent control, based on process information that is generated in real-time from a variety of process data, results in a robust process, a reduction of rejects, and high levels of product quality that is guaranteed even during the process.



Gerald Hirschmann Procurist, Sales Manager evon GmbH



Sacher Stephan Principal Scientist RCPE GmbH

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## **Smart** Office

evon Smart Office is a flexible, individual room control solution based on evon XAMControl.



As a flexible, individual room control solution, evon Smart Office combines all the advantages of evon XAMControl such as the simple configuration and the hardware independency with a user-friendly operating interface for lighting, shading and climate control that can be configured directly in the visualisation according to individual requirements.

#### The Highlights

- → Integrated interfaces: BACnet, KNX, Modbus, DALI, SMI, EnOcean and many more.
- → Configuration via axis concept: An axis forms the smallest control unit and covers the three basic functions climate, lighting, and shading.
- → Devices such as a presence detector or a light are simply allocated to the appropriate axis and are immediately integrated in the control.
- → Depending on requirements, room axes can be merged so that, for example, two areas can be merged to a large office space without any further programming effort.
- → Simple import and configuration possibilities support you in implementing flexible solutions.
- → Smart Desk: Logging in to a workplace is easily done via QR code. A dashboard provides an overview of current occupation. The occupied desks are highlighted in colour to prevent double occupation and to optimise cleaning effort.



Christian Leitner
Divisional Management Building
Automation
evon GmbH



Christopher Steinberger Project Manager Building Automation evon GmbH



# Electro-Axles with DAM & evon Expertise



evon's partner DAM has started operation with the fourth assembly line using evon XAMControl in Bruneck in South Tirol





Robert Fandler
DAM – Dynamic Assembly
Machines Anlagenbau



Andreas Leitner Managing Director evon GmbH

DAM – Dynamic Assembly Machines
Anlagenbau GmbH is the world's leading
supplier of assembly and test systems for
modern powertrains in the automotive
industry. For the fourth time, a complete
assembly line is now in operation using
evon XAMControl. The system located at
GKN Driveline Bruneck AG in South Tyrol
is a complete assembly line including
end-of-line cells (EOL) and assembles
electro-axles for a renowned automotive
manufacturer.

#### **Tested Quality**

The assembly line operates with a cycle time of 2 minutes. This results in approximately 120,000 units produced per year. All steps from simple assembly up to inverter control are managed in evon XAMControl. Complete data recording is guaranteed with more than 5,000 results

and status information values per product. Data traceability of 100 % is guaranteed despite a range of different data concepts (RFID, barcode scanner, manual handling).

The 30 soft-PLCs with a cycle time of up to 20 ms ensure robust communication with the field level. Customer support is conducted by DAM support in close cooperation with evon even after final acceptance.

#### Forwards to Number 5

The next assembly line is already on the starting blocks. This will include improved concepts with even more customisation possibilities for the end customer.

## From Building Management to Operational Data Acquisition



The full potential of evon XAMControl is shown by the cooperation between Brüggemann and the carton specialist Friedrich Wenner



Brüggemann in Westfalen is an evon Partner and expert for efficient systems in technical building equipment. For years, the more than 150 employees have focussed their work on international food producers and logisticians. The example of carton specialists Friedrich Wenner Versmolder Vollpappen-Verarbeitungswerk GmbH shows how well cooperation can develop over many years.

#### From TGA via BDA to OEE

The cooperation between Brüggemann und Wenner was based on a partnership from the very start and began with systems for technical building equipment (TGA) and software for building automation. The growing mutual trust resulted in Brüggemann being given the opportunity to also use evon XAMControl in the area of operational data acquisition.

Today, there are 18 machines (2 pressure machines, 7 stamps and 9 gluing machines) connected to the operational data acquisition (ODA) in evon XAMControl and, via the dashboard, provide current data regarding the machine states, their load, and efficiency in a neat display. The machines are connected via OPC UA and via a

database exchange with the enterprise information system.

#### Planning and Evaluation

The evaluations have been gradually extended (machine states, downtimes, overall equipment effectiveness (OEE); etc.) and supplemented by shift planning. Today, evon XAMControl provides the reliable control of all areas of GLT and is a central element in the carton specialist's operational data acquisition.



René Hirschmugl
Procurist, Head of Business Unit for Industry
evon GmbH

# The spam problem will be solved in two years' time

Bill Gates, Co-founder of Microsoft, 2004