EuPro
Gigant

EuProGIGANT.

Magazine for sovereign data usage.

Group photo from the EuProGigant Open House Day on 4 October 2022 in Vienna.

The production internet of tomorrow

Smart and sovereign use of data in manufacturing

4

CO_2 footprint in the product development process

Digital guide for green product design

Thematic working group

6

Validation platform

Predictive maintenance: joint set-up and use of a database

Thematic working group

8

Stronger together

Meet our project partners!

10

Mobile processing machine

Securing the transport infrastructure via networked systems with mobile working machines

Thematic working group

12

Dear reader,

EuProGigant is a special project in many ways: 16 project partners from Germany and Austria are committed to using data in the manufacturing industry safely and sovereign as specified in the principles defined by Gaia-X.

As the first Gaia-X lighthouse project, EuProGigant has demonstrated the connection to the new European data infrastructure and has thus garnered great interest from target groups across various domains.

Three committees support the project and ensure that all developments are discussed at an early stage and meet the needs of the industry as well as the expectations of society.

This magazine highlights what tangible results the consortium has already achieved and explains the individual use cases in detail. It provides insights into the diverse activities and impressively demonstrates how lively the project is developing with everyone's participation.

If you have any questions or would like to get involved, please do not hesitate to contact us!

We hope you enjoy reading it.

Your Project Management

Viktor Berchtenbreiter

Project Management
Germany

Institute for Production
Management, Technology
and Machine Tools
TU Darmstadt

Dr Claudia Schickling

Project Management
Austria

Pilot Factory Industry 4.0
TU Wien

The production internet of tomorrow
EuProGigant on the right track

Guided by the vision of a smart, resilient and sustainable European manufacturing industry, the European Production GigaNet (hereinafter referred to as 'EuProGigant') is continuously working on building a location-independent, digitally networked production ecosystem. Using the European data infrastructure Gaia-X, this will create the 'production internet of tomorrow', enabling companies to exchange data and services securely and confidently.

EuProGigant is based on the needs of the industry and illustrates how data can support the industrial value creation process. At the same time, the project describes the usefulness of data-driven business models and thus supports the relocation of production sites back to Europe.

A research project with radiance

Since the start of the project in March 2021, EuProGigant (as well as Catena-X, Smart Connected Supplier Network (SCSN), Structura-X, EONA-X, Mobility Data Space and agdatahub) has become a Gaia-X flagship project specifically for the European manufacturing industry. Currently, EuProGigant is taking a pioneering role, as the project is the first – and so far the only one – to be Gaia-X-compliant according to the current rules of the Gaia-X Trust Framework.

EuProGigant regularly exchanges information with the Gaia-X AISBL and other projects and participates in various working groups: on the one hand through its own work packages, e.g. on the topic of use case and business model development, and on the other hand through the project partners Software AG and A1 Digital via the parent company Telekom Austria AG as Gaia-X members.

Right on schedule

The project team at EuProGigant is proud of the positive, on-schedule progress of the project: all three milestones, M1 to M3, were successfully achieved. Key findings from the project phase on the respective milestones have already been prepared and published in various articles for different target groups. The milestone meetings were used by the project partners to provide updates on the project status and discuss additional ways to realign the project. They also used these opportunities to outline subsequent workshops to specify the tasks for the next project phase. This promotes strong project cohesion and clear goal orientation, which is reflected in the project outcome.

Visibility motivates

The strong commitment of the project partners has distinguished EuProGigant right from the start. The pioneering role among the Gaia-X lighthouse projects has further fuelled this commitment. Especially after its presence at the Hannover Messe trade fair (see pages 16–17), where a use case was demonstrated for the first time, EuProGigant is increasingly on the radar of various target groups. Small and medium-sized enterprises, industry associations, political institutions and Gaia-X hubs were interested in the research project at lectures, presentations, demo sessions or panel discussions at the Hannover Messe, the Trendforum Textil of Bayern Innovativ, the International Exhibition for Metal Working "AMB Stuttgart" or even the European Forum Alpbach – to name a few. Activities for 2023 are already on the calendar; it's worth checking euprogigant.com periodically!

The Gaia-X Trust Framework is a set of rules that defines the minimum requirements for participation in the Gaia-X ecosystem. It regulates data protection, transparency, security, portability and the flexibility of the ecosystem as well as sovereignty and European control. Furthermore, the Trust Framework ensures shared management and interoperability of the ecosystems, while users retain full control over their data and services.

Business model development within the EuProGigant project

The business model describes the basic logic according to which an organisation creates, conveys and holds values. It thus represents the link between a technical solution and the economic interests of one or more companies. The development of an incentivising business model for all relevant stakeholders is an important prerequisite for acceptance of a product or service in industrial practice. Consequently, the area of business model development is also considered in greater detail in the EuProGigant project. It is a cross-cutting issue that permeates all the reviewed use cases.

A transferable process model for business model development as part of Gaia-X could be derived within the framework of the already completed activities. It represents an important milestone within the project and has already been presented to an international audience of experts at the '3rd Conference on Production Systems and Logistics' (CPSL) in Vancouver, Canada. The process model facilitates a systematic and structured approach to the development of new business concepts and incorporates the special features of digital, multi-platform ecosystems.

Compared to traditional business approaches, these procedures are mainly distinguished by regular and recurring customer contacts with a simultaneous consistent exchange of services. Moreover, pricing is based on the customer's utility value, and economic growth is particularly dependent on the size of the user group and its activity. The underlying business model architecture also features very strong networking of numerous, interdisciplinary partners.

A special stakeholder in this context is the so-called 'Federator', who supports compliance with the Gaia-X guidelines on digital sovereignty of the participating partners. This central role and its integration into a sustainable business model will particularly shape the future efforts in the project.

Contact partner

Felix Hoffmann
PTW, TU Darmstadt
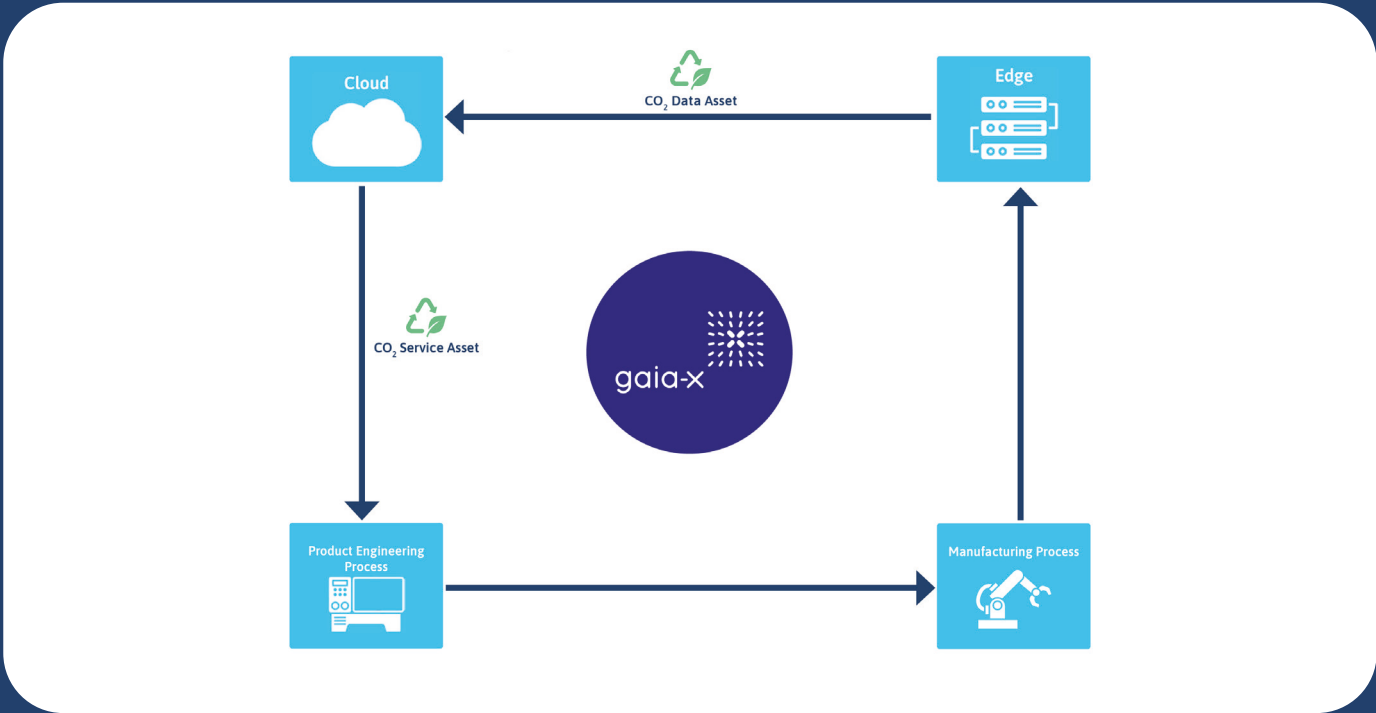f.hoffmann@ptw.tu-darmstadt.de

Reading tip

This and other publications by our
EuProGigant partners can be downloaded here:

Digital guide for green product design
Thematic working group
'CO$_2$ footprint in the product development process'

The future is green

With the 'Green Deal' programme, the European Union has presented specific proposals for new transport, energy, tax and climate policies to pave the way for complete climate neutrality by 2050. Original equipment manufacturers (OEMs) such as Volvo or Mercedes-Benz as well as consumer goods manufacturers such as Procter & Gamble are stepping up the pace in their commitment to climate change and plan to achieve net-zero status as early as 2040.

The more comprehensive consideration of emissions is a part of it – with the company looking at its own emissions as well as its partner companies and their products along the supply chains. The Greenhouse Gas Protocol distinguishes between direct emissions from the company's own sources such as its vehicle fleet (Scope 1), indirect emissions from the use of purchased energy such as electricity or heat (Scope 2), and indirect emissions that occur along the value chain (Scope 3). Large companies like Volkswagen evaluate their global suppliers and their emissions using their own 'Sustainability Rating'.

The Supply Chain Act, which will be enforced in stages starting in January 2023, is pushing this development further and affects almost 3,000 German companies. In the future, they will have to ensure that their national and international suppliers

comply with environmental protection requirements and occupational safety principles. The CO$_2$ equivalent (CO$_2$e footprint) is becoming increasingly important as a key figure for recording emissions.

Availability of relevant CO$_2$ equivalent and energy data

Companies that want to remain competitive in the long run and secure financing in the future ('sustainable finance') must already start handling their own CO$_2$e footprint and that of their products. A major lever for reducing greenhouse gas emissions is already offered in the product development process.

An example: product engineers can choose between different materials and manufacturing processes (including injection moulding, 3D printing or machining) for the production of a retaining clip used to hold and clamp tools in magazines of machining centres. Data sets from different sources and a uniform calculation methodology are needed for a perfect combination of these factors with the lowest CO$_2$e footprint.

However, many companies face the challenge of missing data and lack digital networking with external partners and suppliers. The reasons for this can be manifold and range from a lack of data collection to internal company requirements or a lack of secure data infrastructure.

Transparent and fair data exchange

The Austrian-German Gaia-X lighthouse project EuProGigant with its thematic working group 'CO$_2$ footprint in the product development process' sheds light on possibilities to record, provide and use relevant CO$_2$e emission and energy values around material selection and manufacturing processes.

The foundation for the methodological approach is provided by standards such as the standard on framework conditions, requirements and preparation of a life cycle assessment, including reporting, DIN EN ISO 14040 and 14044, as well as the standard on determination of the product CO$_2$e footprint (Product Carbon Footprint, or PCF for short) DIN EN ISO 14067. Using interfaces, this data is made available via cloud solutions, which in turn are part of the new European data infrastructure Gaia-X.

Specifically, this is the EuProGigant portal, which the project partner A1 Digital provides via the cloud infrastructure 'Exoscale'. In the future, companies will be able to offer their data and service offerings (such as algorithms) securely and Gaia-X-compliant via the portal. Other companies in the EuProGigant ecosystem have the option of using this portal after concluding a data usage agreement. Until then, the data remains in the IT system environment of the respective owners.

Digital networking within the framework of Gaia-X

The focus of the working group 'CO$_2$ footprint in the product development process' is on components, for which producers can already have a major impact on the ecological footprint during the design phase by choosing the right material and manufacturing process. Taking the retaining clip as an example, the project team is developing a methodology that enables recording of CO$_2$e emissions (including energy consumption) from different systems. A subsequent forecast of the CO$_2$e footprint reveals the optimum combination of material and manufacturing process.

In the future, this assessment will be retrieved via a specially developed web application, which is available via the EuProGigant portal as a Gaia-X service offering. It accesses different data sources and ensures secure exchange of data. This creates a network of companies and data suppliers, such as laboratories or material manufacturers, who can in turn offer their material parameters for use against payment. EuProGigant will thus contribute to future data-driven business models related to Gaia-X that facilitate exchange of information for compilation and optimisation of CO$_2$e balances. The concept can be transferred to many other manufacturing industries.
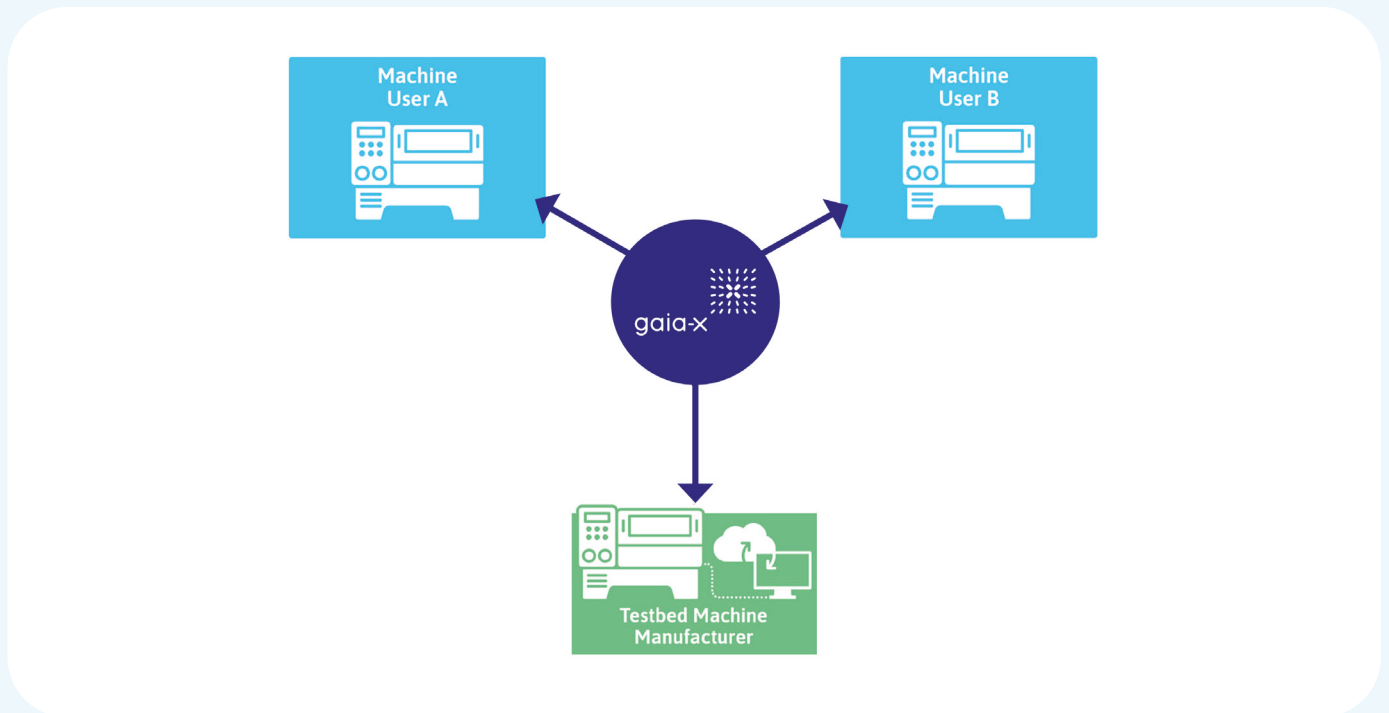
Contact partner

Tobias Koch
PTW, TU Darmstadt
t.koch@ptw.tu-darmstadt.de

Partners involved in this working group

7

Predictive maintenance: joint set-up and use of a database
Thematic working group
'Validation platform'

Industry 4.0 makes its way into production halls

With the Industry 4.0 initiative, led by the office of the Industry 4.0 Platform, the German government is helping the industry prepare for the future: products are being customised, customers and business partners are being integrated into value-added processes, and entire value-added networks are being streamlined and optimised in real time using intelligent monitoring and decision-making processes.

One of the most tangible applications of Industry 4.0 is predictive maintenance, in which process and machine data are evaluated and used for proactive maintenance of plants. The goal of predictive maintenance is to identify maintenance needs at an early stage, to plan maintenance as precisely as possible in advance and to avoid unexpected plant failures. This is a better way to plan resources and prevent unplanned, usually costly machine malfunctions through plannable maintenance appointments. A potentially longer service life and increased plant safety are among the other benefits.

Acquisition and processing of large data volumes

Since the aggregation and evaluation of machine data is generally carried out using artificial intelligence methods (e.g. with machine learning algorithms), predictive maintenance often requires the processing of large amounts of data about machine condition and environment, such as temperature or humidity. The diversity of data and their formats is large – as is the required quantity, which is important for reliable statements.

In order to build a corresponding database for continuous analysis by intelligent algorithms, companies need several plants of the same machine type. This is a challenge for small and medium-sized companies because they often lack the required number of identical machines and the means for evaluating the existing data quantities.

Joint set-up and use of a database

With the thematic working group 'Validation platform', the Austrian-German Gaia-X lighthouse project EuProGigant is looking at ways to overcome this issue by connecting stakeholders so they can collaborate across company boundaries to create such a database. The validation platform developed in the process is part of the EuProGigant ecosystem and enables companies to exchange data securely in line with the Gaia-X vision. In doing so, the validation platform functions as a federated marketplace for data and services based on the Gaia-X federated catalogue, on which companies can find themselves as data suppliers and users. It makes it possible to build a common database and establish new, data-driven business models.

Currently, the validation platform is represented in the form of the EuProGigant portal by the project partner A1 Digital and the associated cloud infrastructure 'Exoscale'. A significant advantage in terms of data security is the compute-to-data principle on which the validation platform is based. According to this principle, the data remain permanently in the IT system environment of the respective owners even after the purchase transaction and the conclusion of the data use agreement.

With a view to predictive maintenance, software providers, among others, are dependent on a continuous supply of operating data to create the algorithm. In the future, they will be able to find and acquire these required data sets via the validation platform. Each individual data supplier (manufacturing company) determines which data sets of the machines are evaluated and offered via the platform. This opens up new business models and collaboration opportunities for all participants.

Software providers can develop reliable models by combining different data sets from several companies. They can then offer them for use via the validation platform.

In the future, especially small and medium-sized companies will be able to tap into new sources of income with their operating data and reap the benefits of predictive maintenance despite a limited machine fleet. After all, based on the results of the condition monitoring model, the machine operator receives an assessment of the machine condition via the validation platform. If the remaining service life of a component drops below a certain threshold, the maintenance manager is notified immediately.

Networking via the validation platform

The EuProGigant project team is testing the concept of the validation platform on several machine tools of the same type, which are located at different sites. By networking the machines, the machine operators and maintainers act equally as data suppliers and users. During operation and maintenance of the machines, both actors generate condition-relevant data such as control deviations, drive currents or wear limits, which are either stored on the company server or with a trusted service provider (e.g. cloud provider).

Contact partner

Torsten Dehnert
IGH Infotec AG
torsten.dehnert@infotec-ag.de

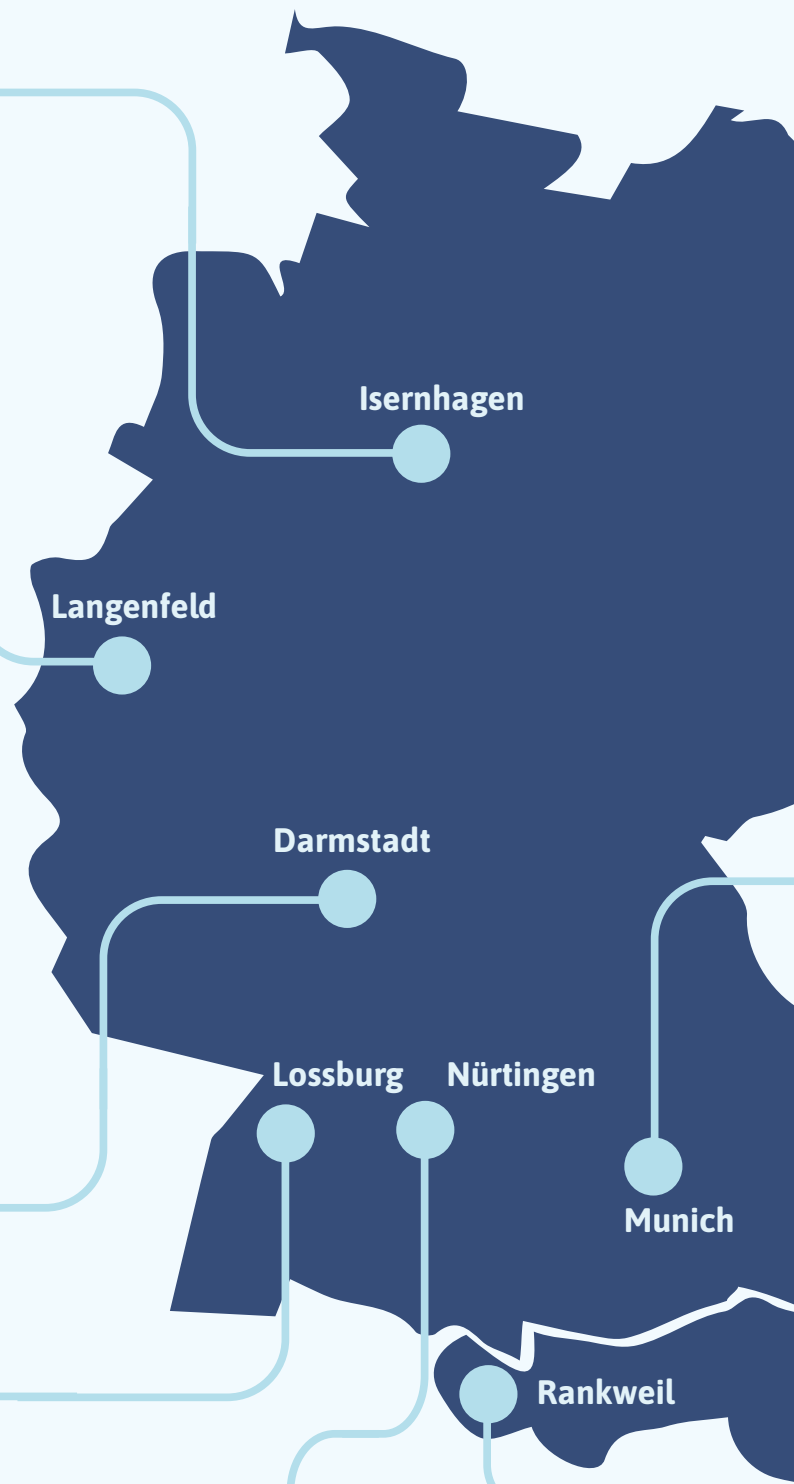**Benjamin Brockhaus**
PTW, TU Darmstadt
b.brockhaus@ptw.tu-darmstadt.de
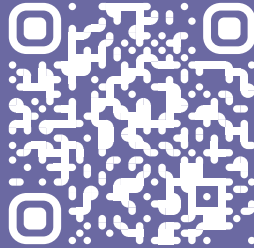
Partners involved in this working group

EuProGigant project partner

Isernhagen

Langenfeld

Darmstadt

Lossburg   Nürtingen

Munich

Rankweil

Science and industry for the European Production Giganet: four scientific institutions and 12 companies are committed to it. The companies contribute valuable feedback from industry and user perspectives to the project work and thus complement the science.

Learn more about our partners, their roles and tasks at EuProGigant and why the project is important to them:

Linz

Vienna

A¹ Digital

CONCIRCLE
manufacturing consultants

craftworks

eit Manufacturing
CLC EAST

Co-funded by the
European Union

TU WIEN   Pilotfabrik
Industrie 4.0

Plasser & Theurer

MTU
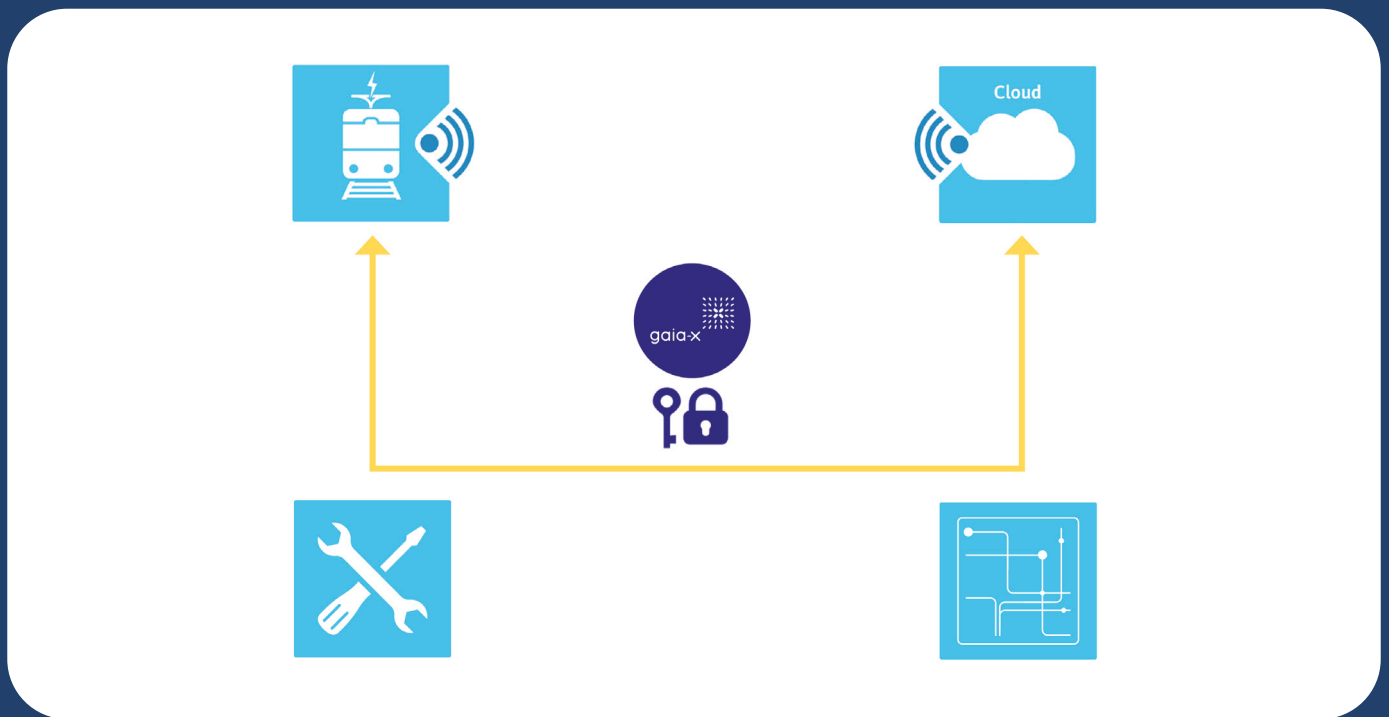Aero Engines

ROEMHELD
HILMA ▪ STARK

WFL
MILLTURN TECHNOLOGIES

The possibility of mobile production
Thematic working group
'Mobile processing machine'

The machine comes to the workpiece

Mobile machining of workpieces is one of the promises of the digital age of production. With new technologies like 5G making the Industrial Internet of Things (IIoT) and fast data communication possible, there is the prospect of a new kind of production.

The term 'mobile processing machine' is coined in the EuProGigant project through the use of measuring wagons and track construction machines for surveying, maintenance, servicing as well as track construction. However, the consortium considers the mobile processing machine beyond this very specific application.

Due to the increasing demands on flexibility and adaptability of production, it can be safely assumed that, in the future, the mobile processing machine will not only be found outside but also inside production facilities.

In this forward-looking assumption, the workpiece does not come to the machine, as is customary in the manufacturing industry. The machine is mobile and comes to the workpiece.

Synchronising large amounts of data in difficult circumstances

In this use case, the 'workpieces' are the positions or sections of the railway track infrastructure to be processed.

This scenario requires further, specific solutions. On the one hand, the local and temporal synchronisation of large amounts of data in the network from several different systems and sources over long distances must become possible. On the other hand, secure, cross-system data exchange is needed, even in situations where the data connection is partially unreliable or not available at all.

Enabling mobile production

With digital technologies, digital images – so-called 'digital twins' – can be created based on precise recordings of measurement results. Therefore, much of what used to require on-site presence can be moved to the back office. The digital twin is created by merging and correlating the data generated from a multitude of mobile processing machines moving around in a global track network of the railway infrastructure.

In order for this data to come together, services are used to prepare, aggregate and transmit it to local IT target systems such as data centres, where it can then be processed. Generally, data pre-processing takes place close to the data source – on the computer unit in the mobile processing machine, the edge. The data stream flows in both directions and returns data as well as services such as algorithms to the machine. This direct and sovereign data exchange thus enables faster and more effective maintenance of the infrastructure.

The consortium plans to implement a demo presentation using a new type of track surveying machine that will be equipped with appropriate edge technology for monitored, secure data exchange. The use of 5G technology is envisaged.

Data ecosystem for satellite data to be integrated into Gaia-X Federation Services

Important information when viewing and evaluating data from decentralised, cyber-physical systems is the most accurate possible time at which measured values were recorded and the precise location from where these measured values originate. Exact time and location data is needed to enable precise synchronisation of time and location. They can be generated by GNSS satellites (Global Navigation Satellite System). In this scenario, information from the 'Differential Global Positioning System' (D-GPS) is used, which can significantly increase the accuracy of position determination.

However, the position in relation to the track body and the route and track kilometre information based on it is important for observations of the mobile processing machine. The measurement is initiated using a known starting point in the form of a line, track, track kilometre or distance. From there, the calculation is continued by counting and adding up so-called distance pulses. This makes it possible to determine the exact path and distance when the GPS satellite signal is not available or only available to a limited extent.

A mobile processing machine contains system controls, measuring systems, sensors, a local data centre on the processing machine and an edge device. The onboard edge device has been upgraded with the tmSYNC process in order to synchronise these components and data sources with regard to time and location. This process is the central master for time and location information or time and path pulses to all installed systems that collect measurement data. This ensures that the merged measurement results can be evaluated together.

The mobile processing machine is also connected to the back office via the edge device, which enables data synchronisation in the event of a data connection. If the connection is lost, the data is temporarily stored onboard – buffered.

The data is consolidated and further processed in a cloud-based data ecosystem. The ecosystem designed for this purpose can be integrated into the EuProGigant ecosystem thanks to the implementation of Gaia-X Federation Services.

Other implementation examples in the context of mobile working machines include driverless transport systems that enable a flexible arrangement of assembly workstations and travelling robot systems that can perform machining and handling tasks at different locations in production. Furthermore, the collected data from the track and infrastructure area of the railways can provide the basis for a variety of use cases for digital and data-driven business models.

Contact partner

Gerald Lobner
Plasser & Theurer
gerald.lobner@plassertheurer.com

Wolfgang Obenaus
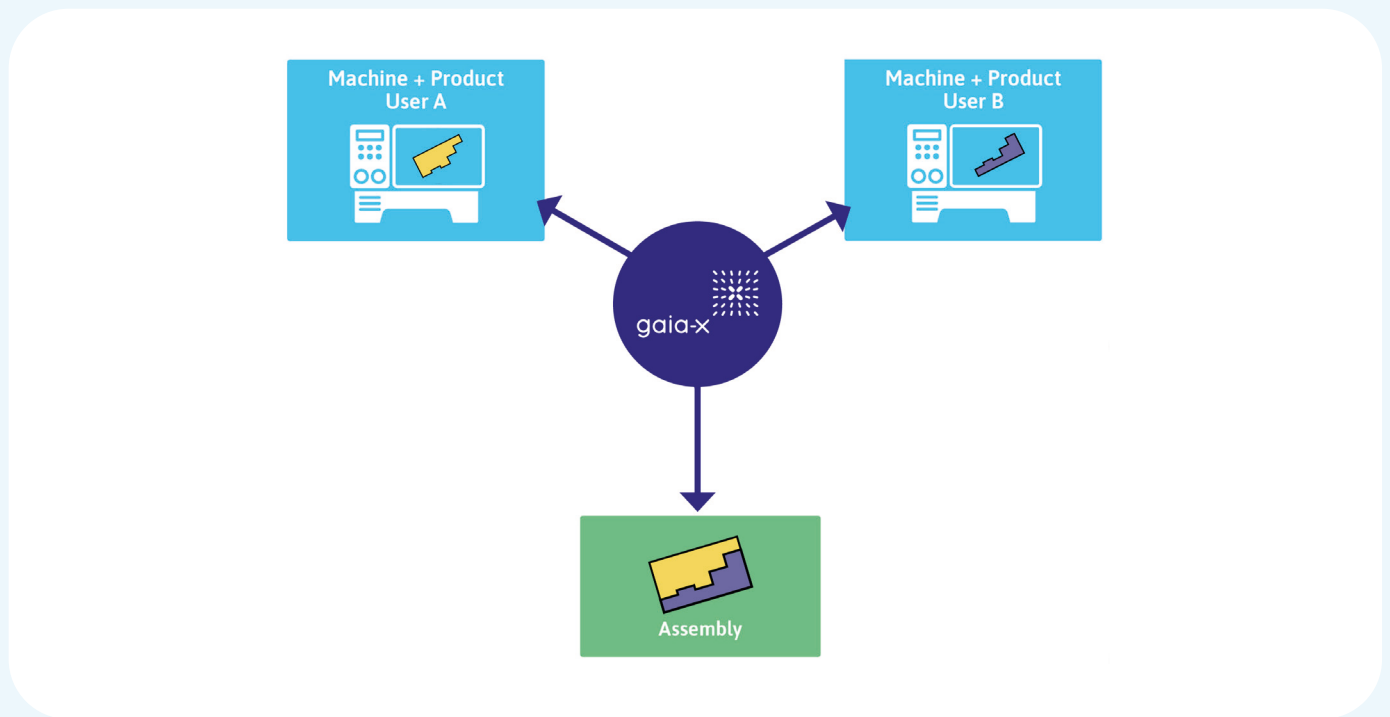Track Machines Connected
wolfgang.obenaus@tmconnected.com

Partners involved in this working group

Plasser & Theurer

tmc
Track Machines Connected

TU WIEN
Pilotfabrik
Industrie 4.0

The missing part of resource saving
Thematic working group
'Ideal component matching'

Mismatched components cause waste through overproduction

Components are usually manufactured by different companies. After ordering and delivery, these components are assembled into the actual part. The components must fit perfectly together so that the final product can be assembled smoothly. In this context, clients determine the acceptable tolerances that other companies must observe when they are manufacturing the matching components. In most cases, there is not much leeway in manufacturing.

Depending on the company's digital equipment and production management, these margins are communicated to the machine-operating personnel (e.g. via component drawings) who then carry out process planning based on these margins. This can also be done with computer assistance.

Sometimes components manufactured by different companies deviate from the tight tolerances to different degrees. In these cases, rework must be carried out to achieve the required accuracy. In other cases, incongruous components have to be stored so that they can perhaps be used later.

In other words, there is waste due to overproduction. Other processes are needed to save resources and to produce more efficiently and in a more environmentally friendly way.

Tight tolerances for supplied parts

For the production of a precisely fitting component pairing, very high demands (in the form of tight tolerances) are placed on the pairing components to be joined. Tolerances are often intentionally tight to ensure that variations in quality can be compensated. In some cases, manufactured and supplied components must fit and be matched to within a thousandth of a millimetre.

Increasing efficiency and saving resources thanks to digital technologies

With the thematic working group 'Ideal component matching', the EuProGigant project team is working on a demonstrator that highlights the potential of using measurement data in product creation.

Components that are better matched thanks to the use and analysis of measurement data are manufactured more efficiently and save resources. Overproduction and warehousing of non-matching components decrease. This approach can also reduce rework costs: if components fit perfectly, one major assembly step is eliminated – namely the reworking of the components.

Currently, however, many companies are reluctant to share their measurement data. Data is often uploaded to the cloud completely and unedited. Companies, especially SMEs, lack the resources to clean and analyse their measurement data. Sharing this raw data also means that all data is transferred to other companies and stored there.

component matching service. The data not only ensures a precision fit but also traceability and transparency. Thanks to working with the measurement data, tuning rings no longer have to be constantly assembled, measured and machined. This rework can be avoided.

The concept opens up opportunities for providing matching service that can also be applied to many other processing industries.

Efficiency and fair service thanks to transparent data exchange

Transparent data exchange can be a solution here. Specifically, this working group is building a demonstrator of a 'component matching service' that will achieve data sovereignty as defined in Gaia-X. A data set will only be uploaded after it has been requested and it will always be transmitted in a secure, sovereign manner. This transaction is also transparent: it is logged each time a set is requested and transferred.

In the application, the outer bushing and inner bushing of a multifunction spindle are manufactured at two locations. Together with parts from other parts suppliers, the spindle is assembled in Germany. In the course of this process, all relevant data, such as serial numbers and measured values, are entered into the

Contact partner

Clemens Neuwirth
concircle Austria
clemens.neuwirth@concircle.com

Partners involved in this working group

CONCIRCLE
manufacturing consultants

HELLER

PTW
TU DARMSTADT
Institut für Produktionsmanagement, Technologie und Werkzeugmaschinen

IGH
INFOTEC AG

WFL
MILLTURN TECHNOLOGIES

ROEMHELD
HILMA ■ STARK

TU WIEN
Pilotfabrik
Industrie 4.0

Plenty of radiance
Successful trade fair debut in Hanover

How can value chains be streamlined for the future? What options are there to record and reduce the CO_2 footprint, and how can the resilience of supply chains be reinforced and expanded? These and other questions around production and digitalisation were the focus of exciting discussions at this year's Hannover Messe, where EuProGigant celebrated a successful trade fair debut.

From 30 May to 2 June, visitors to the EuProGigant trade fair booth were able to immerse themselves in the world of the new Gaia-X data infrastructure. Furthermore, the 'validation platform' demonstrator allowed them to experience on site how the data from two CNC machines (ProfiTrainer from HELLER) at different locations flowed together via the platform and were made available securely and decentralised via deltaDAO's Minimal Viable Gaia-X (MVG) demonstrator.

Tool analysis through data exchange

Specifically, the project team addressed the question of how medium-sized companies with an often small machine park can benefit from a cross-company, superior exchange of information and optimise their machining processes, especially with regard to tool wear and workpiece quality. With the demonstrator 'validation platform', the team illustrated how two identically constructed CNC machines at different locations carry out an identical machining process to produce a demo component. Booth visitors were able to follow the status data of the CNC ProfiTrainer live on an instrument panel, including speed and torque curve, limit values, etc. Another display panel provided real-time display of the CNC data on the company premises of IGH Infotec in Langenfeld.

A data record was generated for each manufactured workpiece and made available via the EuProGigant Gaia-X portal. This record could be used after concluding a data usage agreement. The data set remained in the IT system environment of the data owner until the final purchase was concluded.

In the example of the EuProGigant use case, the data sets generated from the machining processes served as training data sets for detection of tool condition anomalies. With the help of an algorithm, which was also available via the EuProGigant Gaia-X portal, a model was created from the process information of the machine data, which enabled evaluation of the tool condition (intact or defective). This evaluation was presented as a results report in PDF format. This way, companies can benefit not only from a timely tool change but also from the security of a qualitatively well-manufactured component.

Appealing digital content was used at the EuProGigant booth to provide a more in-depth explanation of the 'Business Process View' (i.e. the steps an operator has to go through in order to apply these functionalities on a machine tool).

Showing how it can work

Under the title EuProGigant - Gaia-X lighthouse project and pioneer for digitally connected production ecosystems, Markus Weber from the Institute for Production Management, Technology and Machine Tools (PTW) of the TU Darmstadt and Kai Meinke from deltaDAO gave valuable insights into the EuProGigant ecosystem and the Minimal Viable Gaia-X (MVG) demonstrator. During the 25-minute presentation on the Tech Transfer Conference Stage at the Hannover Messe, visitors were able to learn more about the importance of

Gaia-X as a European data infrastructure and ask questions about the production internet of tomorrow.

As a lighthouse project, EuProGigant successfully demonstrated the current state of technology implementation according to Gaia-X and thus contributed to a professional, public discussion about the development status of the European data infrastructure. The project team was able to impress booth visitors by successfully demonstrating the benefits for the manufacturing industry of a sovereign exchange of data and services between companies in the Gaia-X ecosystem – namely increased value creation.

Minimal Viable Gaia-X (MVG) demonstrator

In order to demonstrate a technically sovereign and decentralised data exchange to the participants of the Hannover Messe, the project team secured the support of the experts from deltaDAO. Together with the Hamburg-based specialists in distributed ledger technologies (DLT), the validation platform was expanded to include the Minimal Viable Gaia-X demonstrator (MVG). It uses Ocean Protocol and thus prototypically realised Gaia-X federation services – which stand for secure and sovereign data exchange – and enables

insights into digital ecosystems with a decentralised data economy in line with the Gaia-X vision. In five simple steps, trade fair visitors were able to register on site for access to the MVG demonstrator and then find the previously generated data packages of the CNC processing machines in the public Gaia-X test network.

Experience Gaia-X
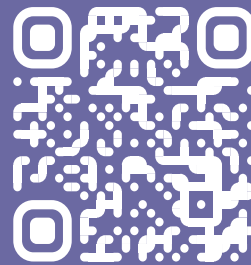
Tage der digitalen Technologien 2022

29–30 August 2022, Berlin, Germany

The EuProGigant project team was invited by the German Federal Ministry for Economic Affairs and Climate Action (Bundesministerium für Wirtschaft und Klimaschutz; BMWK) to the Tage der digitalen Technologien 2022, which took place under the motto 'Shaping sustainability digitally'. Impressive results from the ministry's technology programmes in the funding area 'Development of Digital Technologies' were presented at the bcc Berlin Congress Centre.

With the demo presentation of the 'validation platform', which was expanded in collaboration with deltaDAO, the team reverted to the successful concept of the Hannover Messe. Two CNC professional trainers from the HELLER company, one of them on site, produced the same workpiece. With the help of an algorithm from the project partner craftworks, it was possible to show whether the process was running properly.

During the two-day congress, the EuProGigant demonstrator was one of the main attractions of the event. Around 600 stakeholders from business, research and politics took the opportunity to discuss current topics with the participating project teams.

AMB - International Exhibition for Metal Working

13–17 September 2022, Stuttgart, Germany

After the 2020 edition of the International Exhibition for Metal working (Ausstellung für Metallbearbeitung; AMB) was cancelled due to the pandemic, almost 65,000 visitors made their way to the Stuttgart Trade Fair Centre in September this year.

Visitors to the biennial trade fair were also able to learn more about EuProGigant on site. The project was represented at the booth of project partner WFL Millturn Technologies and provided exciting insights into current use cases with the EuProGigant portal.

The AMB is considered the leading trade fair for the metal working industry and is one of the most important trade fairs for machining technology. Numerous EuProGigant project partners–including Brinkhaus, HELLER, IGH Infotec, STARK Spannsysteme and WFL Millturn Technologies – were among the exhibitors. Several members of the industry committee were also present at the exhibition grounds.