

#### ΑI

Artificial Intelligence in Software Development

#### C2000

Successful Nationwide Rollout of eOCS in the Netherlands

#### **eDESKc**

GS Certification for Highest Security Standards



## How can we stay "afloat" despite unpredictable weather and climate change?

In a world increasingly impacted by erratic weather and climate change, businesses face a pressing question: what can we do to increase our resilience? The answer lies in **sustainable practices** and the **strategic use of Artificial Intelligence** (AI).

### SUSTAINABILITY AND CLIMATE NEUTRALITY AS KEY PRIORITIES

Headlines like "Once-in-a-Century Floods Are the New Normal," "Climate Neutrality," and "Renaturation" underscore the reality that climate change impacts us all. Together with our customers, we are witnessing the increasing unpredictability of extreme weather events.

Recent floods in Bavaria, for example, emphasize the growing frequency and intensity of such crises. Emergency response centers, in close collaboration with meteorological services, are working diligently to anticipate and manage these surges in demand. In today's climate, resilient infrastructure and strategic emergency preparedness have never been more essential.

Not only do control centers ensure 24/7 support, but we as service providers do as well. To meet the challenges ahead, we must plan and utilize our human resources efficiently. Our focus is on two key areas:

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JUAYAUW Jürgen KAPPACHER – CFO

#### 1. Addressing Climate Change

eurofunk, like many companies, recognizes the urgency of reducing its environmental impact. We are committed to sustainability practices, such as adhering to the Supply Chain Act, promoting a circular economy, reducing resource consumption, and encouraging eco-friendly business travel. Additionally, we prioritize the use of renewable energy. These efforts not only support climate protection but also create a sustainable future for the company and our clients.

#### 2. Making the most of Artificial Intelligence

Al helps reduce the workload on employees and makes **processes more efficient**. Our goal is to optimize operations and streamline workflows in control centers. While Al is not new, the technology available today allows for smarter decisions and more efficient workflows than ever before.

The extent to which AI should be allowed to make decisions has long been a topic of fascination and debate. The philosophical "Trolley Problem," first posed in 1930, highlights the ethical dilemmas associated with such decisions: A runaway tram is headed towards five people. By switching a lever, the tram could be redirected onto another track where one person is standing. Should a machine make a decision to sacrifice one person to save five others? Governments around the world are actively working to address these ethical questions.



#### Overcoming Challenges Together

While we face many challenges, we also recognize abundant **opportunities**. Together with our customers, we are committed to overcoming these challenges. Our innovative products and tailored services are designed to support your success. Let's collaborate to build a **sustainable**, **forward-thinking** future.





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## Finding the best response teams with eOCS

#### An insight into selected tactical features of eOCS to ensure rapid and optimal assistance.

In the fast-paced environment of control centers, timing is crucial. Different scenarios call for different response teams, and the challenge is to swiftly and effectively identify and deploy the right teams. This is where eOCS proves invaluable.

eOCS is a cutting-edge system designed to help control centers locate and deploy response teams efficiently. Featuring an intuitive user interface and advanced algorithms, eOCS allows dispatchers to quickly adapt to evolving situations and select the most appropriate response teams.

## EFFICIENCY AND PRECISION IN RESOURCE DISPOSITION WITH eOCS

eOCS transforms resource disposition by integrating advanced technologies and user-friendly features to assist control centers in making the best possible decisions. Here are some key features of eOCS that influence optimal resource allocation:

#### Resources Status

The status of a resource defines whether a vehicle is stationed at the base, involved in an operation, or unavailable. The statuses used in eOCS can be individually defined and adjusted to meet specific needs.

#### Resource Attributes

eOCS analyzes the properties and equipment of vehicles. This enables the precise assignment of vehicles with the required attributes to specific operational scenarios.

#### Qualifications of Personnel

eOCS takes into account the qualifications of staff members. When used with the eurofunk resQnect app, which assigns staff to vehicles, the system knows which personnel with specific qualifications are available on which vehicles. Examples of qualifications include dog handlers, language skills, or specialized training.

#### Jurisdiction / Area Assignments

eOCS allows you to set which department is responsible for which area. This ensures that the appropriate emergency personnel are selected for the respective operational area.

#### Routing

eOCS offers flexible configuration, enabling assignment of stations to specific areas, ensuring optimal resource allocation for each operational zone.

The system dynamically prioritizes and combines features based on predefined calculation logic, adapting to various scenarios. Key functionalities include:

- Manual resource search using an intuitive overview
- Identification of the nearest available resource
- Automated resource dispatch

#### **AUTOMATIC DISPATCH IN eOCS**

A key feature of eOCS is its flexible integration of Alert and Response Orders (AAO). This functionality is organized into three main areas:

- Storing Defined Alert Plans: The system can store practical alert plans based on the event type (incident keyword), location, and time. This allows for customized planning of the AAO for the entire operational area.
- 2. Determining Incident Requirements: When the location and details of the incident are entered, the system identifies the required resources according to the stored AAO and immediately displays them for the operation.
- **3.** Calculating Optimal Resources: Using definable calculation logics, eOCS determines the most suitable resources for the respective requirements.



Andreas EDER eOCS Product Manager

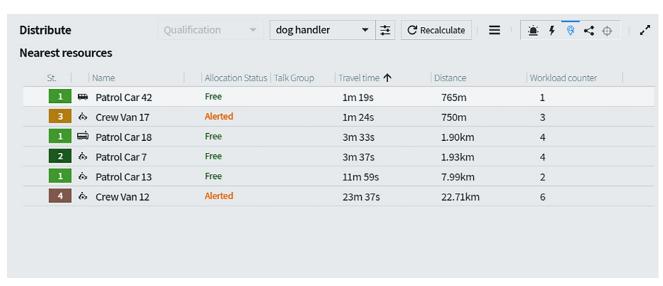
#### SUPPORT FOR ADDITIONAL RESPONSE TEAMS

Predefined Alert and Response Orders (AAO) might not cover every situation in a dynamic operational scenario. If additional response teams are needed, eOCS provides quick and efficient solutions:

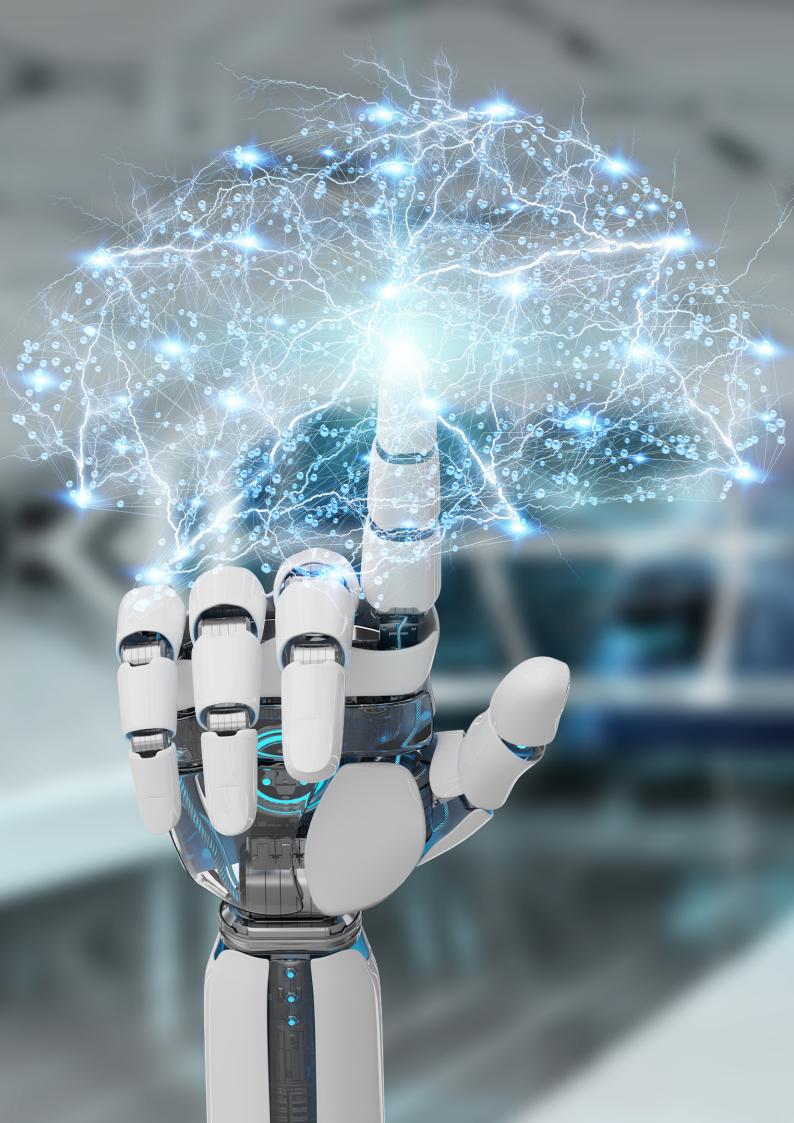
With the "Nearest Resources" module, users can swiftly deploy extra resources based on predefined search criteria. This feature enables quick identification and integration of specific needs—such as the nearest ladder trucks, dog handlers, or specialized teams—with just a few clicks.

Whether dealing with a major fire, a medical emergency, or a police matter, eOCS ensures that the right response teams are deployed to the right location at the right time. Control centers can rely on eOCS to recommend the most suitable resources for any situation.





Example: Searching for a resource currently assigned to someone with the qualification of a dog handler



# How Artificial Intelligence is Redefining Software Development



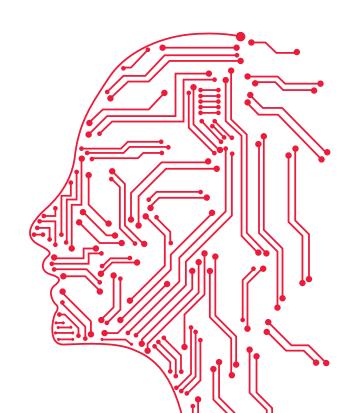
Martin JÖRG Head of Division Products Command and Control

Recent advancements in Artificial Intelligence (AI) are set to significantly impact our lives. For instance, new AI products can create impressive videos from just a few lines of text (https://openai.com/index/sora/). Established applications, such as text-to-speech and translation services, also demonstrate remarkable quality thanks to AI. Clearly, AI is already proving to be both practical and effective in real-world applications.

But not everything that glitters is gold. When AI-generated images depict people with six fingers, or produce absurd texts in graphics, the extent of the problems becomes immediately clear. These issues are often referred to as "AI hallucinations," which sounds better than calling the results "garbage."

Similarly, AI is increasingly valuable in software development, particularly for generating unit tests that verify the functionality of custom code. It can also assist with code generation and software design. However, the output requires careful scrutiny, as AI models are trained on diverse sources of varying quality. Moreover, crafting effective prompts demands skill, and for some developers, writing code directly may be quicker than formulating detailed prompts.

Development is advancing rapidly. A tool that was evaluated last week might already be outdated by the following week, and there's always a new trend to consider. We're keeping a close eye on these developments, staying engaged while critically assessing quality and maintaining a strong focus on security and privacy.



## corpuls Introduces the Tele-Emergency Doctor to Bavaria

eurofunk is responsible for establishing tele-emergency doctor workstations and facilitating seamless communication with integrated control centers and emergency services.

### INTRODUCTION OF A GROUNDBREAKING SYSTEM

After GS Elektromedizinische Geräte G. Stemple GmbH ("corpuls") from Kaufering won the tender from the Bavarian Ministry of the Interior as a system supplier, the largest federal state in Germany will benefit from a new era in medical emergency assistance. As a subcontractor, eurofunk will provide all IT technology, digital radio connections, and the most modern 24/7 eDESKc control center desks along with the associated furniture for the three planned tele-emergency doctor control centers in Bavaria.

#### PROJECT START AND EXPANSION

The first tele-emergency doctor control center is expected to be operational by late 2024 or early 2025 in Bogen, near Straubing. By that time, ambulances will begin utilizing the support of a centrally located tele-emergency doctor. Over the following years, two additional tele-emergency doctor locations will be established, with approximately 800 ambulances being gradually equipped for tele-emergency doctor support.

eurofunk is excited to contribute to this significant advancement in emergency medical assistance and to help ensure statewide tele-emergency doctor support across Bavaria in collaboration with corpuls.



Emergency doctors will benefit from a telemedical and ergonomic workspace through the eurofunk eDESKc



During an emergency operation, paramedics maintain contact with a teleemergency doctor via corpuls.mission, allowing the doctor to monitor all vital parameters and trends through live data transmission © corpuls



Leo OBERAIGNER Senior Sales Director

### UNIQUE FEATURES OF THE TELE-EMERGENCY DOCTOR PROJECT

According to the Bavarian Ministry of the Interior, this "nationwide unique tele-emergency doctor project" aims to equip all 800 Bavarian ambulances with telemedical devices. This setup will enable communication with tele-emergency doctors at the TNA location using Corpuls' tele-emergency doctor software.

eurofunk will supply critical IT technology and integrate status and alert systems between the integrated control centers and the emergency doctor control center. The tele-emergency doctor will be managed as a resource within the integrated control center, which will facilitate alerts during ambulance operations and allow for handling multiple operations simultaneously. These solutions were developed and implemented in collaboration with the project team.

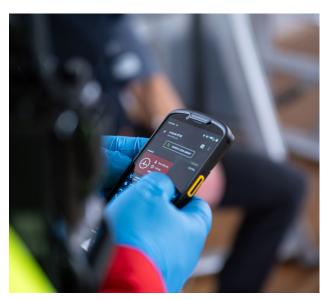
The standardized system technology across the three teleemergency doctor locations will enable mutual support and substitution, improving the efficiency of emergency rescue services through this advanced digital resource.

#### **HEART OF THE SOLUTION**

At the heart of the solution is the medical communication platform corpuls.mission, which seamlessly connects all units involved in the operation. The existing corpuls defibrillators in Bavarian ambulances work in conjunction with the corpuls.mission software.

"With the introduction of the tele-emergency doctor, patients receive faster medical assistance, and the shortage of emergency doctors is effectively addressed. On-site personnel can access the expertise of the tele-emergency doctor in real-time, who is integrated into the medical care process. The doctor receives critical medical data such as ECG readings, videos, and photos directly from the scene or the ambulance, with the patient's consent," explains Christoph Graumann, head of the corpuls division.

Following the initial implementation at the East location in Bogen near Straubing, two additional locations are planned across Bavaria.



corpuls facilitates this connection with the tele-emergency doctor through mobile phone communication © corpuls

»We at eurofunk are exciting to partner with corpuls in delivering cutting-edge tele-emergency doctor services across Bavaria, ensuring rapid and innovative medical support where it's needed most.«



Christian Kappacher CEO

# Design System The Key to Quality, Innovation and Efficiency

#### Your First Step to Excellence.

In today's fast-paced and intricate world, the ability to act swiftly and efficiently is crucial for the success of businesses, organizations, and public institutions alike. Enter the eurofunk Operation Center Suite—a cutting-edge solution designed with innovation at its core. But what tangible advantages does it offer to our customers?

#### CONSISTENCY AND USER-FRIENDLINESS

Products developed with a design system offer a seamless and well-thought-out user experience. Recognizable interaction patterns and a consistent look and feel enable users to complete tasks intuitively and efficiently. This means faster learning, easier navigation, and increased productivity.

#### **CUSTOMIZATION OPTIONS**

Our design system offers a variety of customization options. Users can adjust color schemes (e.g., day-night mode), font sizes, languages, and content density according to their preferences. This is particularly advantageous in changing or diverse operational environments, as well as for role-dependent needs, significantly enhancing user-friendliness.

#### INNOVATION AND RAPID PROTOTYPING

By seamlessly integrating design and interaction elements, our developers can channel their efforts into crafting creative and innovative solutions. Through a user-centered design process – encompassing research, ideation, and evaluation – we create technically advanced, thoroughly tested products that are perfectly aligned with user needs.

### FASTER IMPLEMENTATION AND EFFECTIVE COMMUNICATION

A design system fosters synergy across disciplines and products, streamlining communication and accelerating the implementation of requirements. By automating processes and reducing the need for extensive coordination, teams collaborate more efficiently. With a shared language and a centralized knowledge base, we achieve faster project delivery and continual product enhancement.

## ADHERENCE TO STANDARDS AND ACCESSIBILITY

By centrally defining and maintaining design patterns, we guarantee that our software upholds the highest accessibility standards. This not only enhances usability but ensures a seamless experience for all users, including those with disabilities or impairments.

#### THE PATH TO SUSTAINABLE SUCCESS

Products developed with a design system offer high consistency, scalability, and continuous innovation. This accelerates project implementation, improves collaboration, and generates intuitive solutions.





#### What is a Design System?

A design system is a comprehensive framework that includes all reusable components and standards for designing and developing user interfaces (UI) in software projects. It includes:

- Style Guidelines: Colors, typography, spacing, and other visual elements
- Design Principles: Principles for consistent and usercentered design
- UI Components: Buttons, input fields, navigation, and other interactive elements
- Documentation: Guides and best practices for developers and designers
- Common Language: Unified terminology and communication in software development
- Single Source of Truth: Central assets and knowledge base for all design and development processes

By using a design system, it is ensured that all products have a consistent appearance, are easy to use, and can be developed and adapted more quickly due to a high degree of reusability.



Emil HATUNIC UX Expert



#### Modular Structure and Comprehensive Framework

- Atomic Elements: The smallest elements of user interfaces that define the appearance of a component.
- **2. Composite Components**: Elements that frame related information, such as headers or footers.
- Generic Units: Elements and components that fulfill a basic function, such as "form" or "data brick."
- **4. Templates**: Abstract units that schematically describe the composition of the entire content.
- **5. Final Layout Instances**: Actual user interfaces with which users interact.

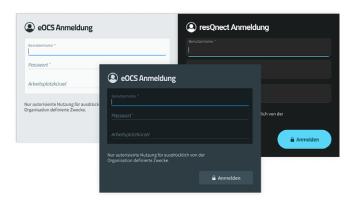


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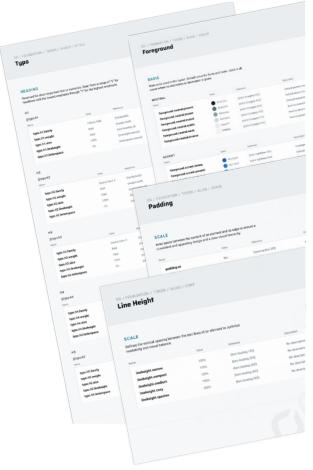


Schematic Representation – Components, Interactions, and Impact on UI Screens

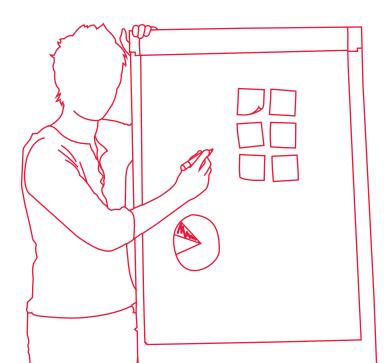


#### Advantages at a Glance

- Consistency: Uniform look and feel of products
- Higher Product Quality: Improved usability and accessibility
- Continuous Innovation: More time for creative and user-centered solutions
- Customizability: Adaptable layouts for specific user needs
- Faster Implementation: Efficient communication and shorter project timelines
- Efficient Development: Faster development through reusability and synergy effects
- Scalability: Easy adjustment and expansion of projects
- Improved Work Culture: Increased motivation and initiative among employees
- And more



Specification of Style Elements



Contact us today and discover how our design system-based products can boost your productivity and efficiency.

## The Latest Innovations and Features of ELDIS 3



Martin JÖRG Head of Division Products Command and Control

The digital transformation of control centers is accelerating rapidly, with cutting-edge solutions reshaping how workflows are managed. Leading this revolution is ELDIS 3, a platform packed with powerful features designed specifically for the public, industrial, and airport sectors.

In recent months, we've invested tens of thousands of hours into perfecting ELDIS 3, ensuring it's not only ready to meet today's complex demands but to anticipate tomorrow's challenges. Beyond routine maintenance for security and compatibility, we've introduced an array of innovative functions that push the boundaries of what control centers can achieve. Below, we spotlight some of the most exciting enhancements.

#### **INTERFACE TO THE nora-APP**

The nora app, Germany's official emergency call app, has recently attracted a lot of attention. Due to cases of misuse, the app was temporarily unavailable and could not be reinstalled. However, existing installations remained functional and continued to enable emergency calls to be made. The app is now available again, but can only be used if you identify yourself using the POSTIDENT procedure. To enhance efficiency, ELDIS 3 now features a direct interface for dispatchers, enabling them to manage Nora app calls without the need to constantly monitor the separate Nora control center app.

#### **RESPONSE TIMES FOR RESOURCES**

A highly anticipated feature is now available: The latest release allows you to set specific response times for resources, enabling even more precise automatic dispatching when combined with routing.

#### INTEGRATION OF KATRETTER

An ever-growing array of first responder apps is now at our fingertips in app stores, and the latest addition to ELDIS 3 is KATRETTER. This integration allows for seamless incident initiation directly through ELDIS 3, with real-time feedback from first responders displayed in the control center. This means dispatchers can provide optimal support for first responders without the hassle of switching between external systems, enhancing efficiency and collaboration in critical situations.

#### INTEGRATION OF DIASweb

There is also news regarding the integration of systems for structured emergency call handling: DIASweb from NoraTec can now be integrated into ELDIS 3.

#### **INTERFACE TO WinGuard**

For customers who need extensive functionalities for building management and hazard management systems, an interface to Advancis WinGuard is now available. This allows not only the creation of operations in ELDIS 3 from WinGuard events but also the control of data points in WinGuard via actions and measures through ELDIS 3.

#### **INTERFACE TO Siveillance**

Siemens has unveiled a dedicated interface for its increasingly popular Siveillance intrusion detection systems. This innovative addition allows for seamless signaling of detector events and efficient control of detectors, enhancing overall security management.

#### **NEW Web.GMT-Converter**

Beyond these targeted function enhancements, we're pleased to introduce universal data interfaces that elevate ELDIS 3 to new heights. For instance, our cutting-edge Web.GMT-Converter now enables seamless integration with external systems via webhooks, allowing vital information and deployment data to flow directly into ELDIS 3. This innovation means that emergency calls made through Austria's widely used DEC112 app can now be efficiently flagged in ELDIS 3.

And that's just the beginning! We're gearing up for an exciting expansion of ELDIS 3's capabilities in the coming months. By year's end, you can anticipate advanced routing features through Rescuetrack for dispatching, alongside a host of other innovative updates. Stay tuned for a powerful evolution in emergency response!



# Celebrating 25 Years of Innovation: The Partnership Between Industripark Höchst and eurofunk

The emergency response control center of the Höchst Industrial Park has been modernized with state-of-the-art technology.

25 years ago, eurofunk was awarded the contract to equip the emergency response control center of the Industriepark Höchst in Frankfurt with an integrated command and control system. The project was implemented with the visionary goal of integrating all systems required for the operation of a control center into a homogeneous and intuitively operable infrastructure. "eurofunk was awarded the contract because of their extensive expertise as a full-service control center outfitter, with well-known references in the industrial sector," said Mr. Krüger, then head of the command and control center.

The successful integration of alarm and communication systems played a pivotal role in securing the contract for this project. We expertly combined interfaces for diverse fire and hazard alarm systems, cutting-edge video surveillance, and elevator emergency call systems into the robust eurofunk management system. Our comprehensive project scope encompassed command computers, advanced communication technology, ergonomic control center desks, radio systems, site-wide siren alarms, innovative media technology, and security alarms for the plant fire department.

Industriepark Höchst, a sprawling 460-hectare hub, hosts over 90 companies primarily in the chemical and pharmaceutical industries, employing around 22,000 professionals. This vibrant park features 120 production facilities and 980 buildings dedicated to research, laboratories, and administration. Since 2000, Industriepark Höchst has attracted approximately 8.5 billion euros in investments, solidifying its status as a cornerstone of innovation and industry.

The dynamic evolution of Industriepark Höchst is propelled by our relentless pursuit of excellence in control center technologies. By prioritizing the integration of cutting-edge solutions, we've made it a point to embrace the latest innovations at every turn. A highlight of this journey has been our successful migration to IP technology for telephony and radio communication systems, alongside the continuous enhancement of the ELDIS command and management software to keep pace with evolving functional and procedural demands—ensuring it remains a leader in modern technology.

Our key initiatives underscore this commitment: we've seamlessly integrated public safety digital radio for the plant fire department, rolled out a new alarm management system, and implemented a mission-critical communication system for PTT operations over 5G networks. These advancements exemplify our dedication to boosting the capabilities of our control center.



Stefan HUTTER Sales Manager

Recently, we revitalized the IT infrastructure for the eurofunk IDDS UCiP IP-based communication system and the ELDIS command and control system. This modernization guarantees high availability of essential technology for emergency response operations, ensuring reliable performance for the years ahead.

Mr. Thomas Krüger has been a pivotal force in shaping these initiatives. Dr. Markus Bauch, head of the plant fire department at Infraserv Höchst, reflects on Mr. Krüger's impact: "His exceptional organizational and technical expertise, along with a strong spirit of innovation and dedicated commitment, has played a crucial role in advancing our command and control center. This facility plays a crucial role that goes far beyond emergency response."

As Mr. Krüger looks toward retirement at the end of the year, he shares a sincere wish to leave behind a modern, secure, and optimal working environment for his successor, Mr. Sven Handloser.

At eurofunk, we would like to express our heartfelt gratitude to Mr. Krüger for 25 years of unwavering dedication and collaboration. We wish him all the best as he embarks on this exciting new chapter of his life, and we extend a warm welcome to Mr. Handloser as he steps into this vital role

»I wanted to ensure that my successor and their team received a well-functioning, modern, and operationally secure system for the emergency response control center and through this to leave behind a positive working environment.«

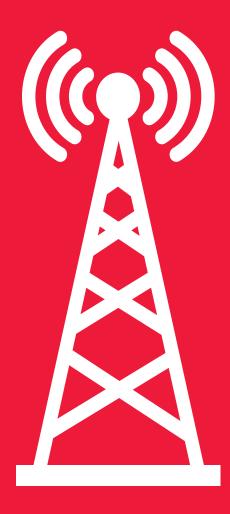
Mr. Thomas Krüger, Head of the Emergency Response Control Center and Emergency Manager



from left to right: Mr. Handloser, Mr. Krüger, Dr. Bauch

## LKA München: Complexity of Functional Processes in Digital Radio

Digital radio in Germany is a sophisticated ecosystem that facilitates smooth communication between radios, the TETRA network infrastructure, and control centers. However, the diverse array of technologies and solutions provided by various manufacturers, combined with a multitude of configuration options, introduces significant challenges in the integration of all components. Additionally, country-specific regulations and organizational guidelines add layers of complexity to this intricate landscape.





Harald VIEHAUSER Head of Products Communications

- 1. Radios and Programming: Effective radio programming is essential for optimal functionality. Different types of end devices from different manufacturers behave differently, which increases complexity.
- TETRA Network and Control Center: Communication is facilitated through the TETRA network to the control center, requiring careful attention to various interfaces, such as those between the communication system and the TCS server.
- 3. TCS and FRT Connection: The control centres use both TCS connections (standard operation) via wire and FRT connections (fixed radio terminals) at fallback level. The features vary depending on the connection type. For example, the subscriber tracking function of radio devices, which is essential for the control centre, is not possible via the FRT connection.
- **4. Guidelines and Recommendations:** The BDBOS (Federal Agency for the Digital Radio of Authorities and Organisations with Security Tasks) provides clear guidelines for important operational processes, including emergency calls.
- Country-Specific Regulations: Each federal state may have additional or modified requirements, which can add complexity.
- 6. Connection options: We offer multiple connection options, including direct LS2 connections to the TCS server, digital radio plugs from various manufacturers, and the new TAIRA variant with LS1 (audio interface) over IP. While integrating components from different manufacturers can lead to different system behaviors.

- 7. Uncertainty About Features: Sometimes network features are available but cannot be used due to lack of commissioning. We develop manufacturer-proprietary solutions to enable, for example, "Dynamic Group Number Assignment (DGNA) with Group Attachment" through alternative means.
- 8. Software Updates: Network software updates can have an impact on functionalities. In the past, for example, it meant that a group combine that had been created could no longer be resolved.

Authorized authorities in each country recognize their critical role in maintaining smooth operations for users. The Landeskriminalamt (State Criminal Police Office) in Munich has tasked eurofunk with establishing a connection to the TETRA network for control centers, offering both wired options via TCS-API and wireless solutions through FRT. This initiative enhances the LKA's testing capabilities, bridging control centers to radios effectively.

Choose eurofunk for innovative, future-ready solutions that guarantee seamless and efficient communication in digital radio. Rely on our expertise to elevate safety and streamline operational efficiency for a smarter tomorrow.

## Commissioning of ILS Augsburg

The ILS Augsburg is embarking on a promising new chapter at the historic Glaspalast Augsburg. This move will create the necessary space to accommodate the rising number of emergency calls and operations. At the same time, the modernization of technology will ensure that help continues to be provided quickly and reliably in the future.

The Glaspalast, with its striking glass architecture and airy interiors, beautifully fuses tradition with modernity. Once a hub of industrial innovation, this extraordinary building has been thoughtfully renovated to accommodate a diverse array of companies, start-ups, and creative offices, fostering a lively and inspiring atmosphere. With its spacious layouts and cutting-edge technical amenities, the Glaspalast provides an ideal setting that perfectly meets the needs of the ILS.



Stefan Würz, head of the ILS Augsburg, gave us insights into the background and goals of the upcoming move in an interview:

Mr. Würz, since 2008, you've been at the helm of the Office for Fire and Disaster Protection at Fire Station 1 on Berliner Straße. What prompted the exciting transition to the new building?

One reason was the size of the premises but other factors contributed as well.

First, since 2008, the volume of operations has surged dramatically—emergency rescues alone have risen by around 50%. Our catchment area's population has expanded by approximately 90,000, bringing the total to 940,000 residents. This population boom naturally correlates with the spike in operational demand, necessitating a larger workforce.

Additionally, we've taken on new responsibilities, including TETRA digital radio, IT security, and a significant push toward digitization in operational management. All of these advancements require more personnel and, consequently, more space to function effectively.

### Since when have the planning and preparations been underway?

In line with the directives of the Bavarian State Ministry of the Interior (BayStMI), the hardware components in our integrated control centers must undergo regular updates to meet evolving technical standards and ensure optimal performance. This significant hardware overhaul is accompanied by our exciting transition to new premises.

Planning and preparations for the move to the Glaspalast have been in full swing since 2022, with seamless collaboration between us—the client—the building's landlord, the specialist planning office, and notably, our technology partner, eurofunk Kappacher GmbH. The success of this ambitious project hinges on the intensive cooperation among all stakeholders. From the outset, we engaged in workshops, face-to-face discussions, thorough reviews of planning documents, and joint site inspections to ensure every detail is meticulously executed.

### How are the new premises in the Glaspalast designed, and how many workstations are there?

In addition to the technical facilities, the Glaspalast also houses the administration offices as well as training, social, and rest rooms. In total, we have about 1,400  $\rm m^2$  of space available. The heart of the control center is the 350  $\rm m^2$  operations room. There, a total of 16 dispatch workstations (ELP) and two decentralized workstations (AAP) are provided for handling approximately 105,000 emergency rescue operations, 13,000 fire brigade operations, and around 60,000 patient transports annually. In addition, there is one dispatch workstation and six decentralized workstations (AAP) at Fire Station 1 of the professional fire brigade, which we can additionally staff in special situations to handle the increased number of emergency calls. These are connected to the Glaspalast via a so-called dark fiber connection.



**Johann FRITZ** Project Manager

### What does the technical equipment of the new ILS look like, and in which areas are there technical advances?

With our move to the new premises, we're making some important upgrades. Our new IT infrastructure, based on virtualized servers, will enhance performance, availability, and fail-safety, ensuring that the ILS can effectively handle its responsibilities even in challenging situations.

We're also updating our central communication system, fully transitioning to IP technology (IDDS UCiP).

The new telephone system is designed with redundancy, supporting both administrative calls and serving as a backup for emergency call handling. Additionally, the emc<sup>2</sup> radio control system provides another reliable option (NE2) on the latest hardware. Operations will now utilize modern notebooks with touch screens for better efficiency.

Finally, our media technology has been redesigned, featuring six large screens that display mission-relevant information for dispatchers.

In the event of a large-scale power outage, we are provided with two independent UPS systems, and a feed-in for an emergency power system (NEA) has been installed. This allows us to maintain the operation of the ILS until public supply is restored.

Last but not least, modern room and climate technology will contribute significantly to improving our working environment. The new eurofunk eDESKc control center desks are designed, among other things, to effectively reduce noise levels, thus contributing to a pleasant working atmosphere.



Glaspalast Augsburg

Mr. Würz, thank you for the insightful information. We wish you continued success with the upcoming move.

## Successful Completion of the Nationwide Rollout of eOCS in the Netherlands



Christoph DIHANITS Head of Customer Delivery Management

#### Modernization of Communication Infrastructure in the Netherlands.

In recent years, the Netherlands has undertaken a significant modernization of its communication infrastructure. This effort involved a complete upgrade of the existing TETRA network (T2000), the paging network (P2000), and the associated communication technology (C2000). As part of this project, eurofunk delivered eOCS - an innovative solution for C2000 and equipped both existing and new control centers with advanced workstation hardware.

In April, a major milestone was reached when the last control centers began operations with eOCS, successfully completing the nationwide rollout. This achievement adds an important chapter to the history of eurofunk Kappacher.

eOCS is a web-based system that utilizes the latest technologies to ensure smooth operation 365 days a year. Key components for connecting to the TETRA and PAGING networks were installed at two central locations, functioning as a "private cloud solution" accessible from various control center workstations.

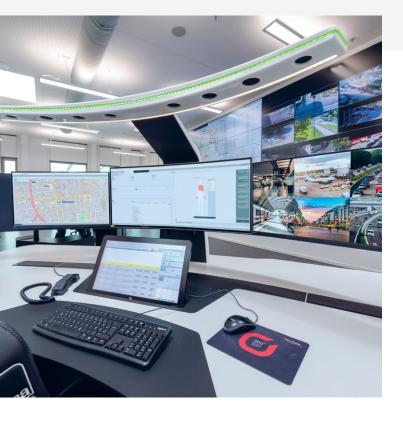
To communicate with field units, control centers can choose between two options: a permanently installed audio solution as part of the workstation hardware or a flexible Web-RTC solution that uses the PC's microphone and speaker, enabling support for remote workstations as well.

The comprehensive configuration in the Netherlands encompasses:

- 3 centrally and independently installed systems
- 13 control center locations
- 650 workstations in the control centers
- additional remote workstations

These remote workstations provide a flexible and scalable solution for unforeseen incidents. The "free-seating" concept allows emergency organizations to respond effectively, enabling them to access the system from any location when needed.

With the nationwide rollout of eOCS for all emergency organizations - fire departments, rescue teams, and police forces – in the Netherlands, we can continually enhance control centers with new features through regular updates. This ongoing commitment aims to improve satisfaction with the latest control center technology and reflects the progress we've made in addressing recent challenges. We look forward to further deepening our partnership with the ministry and the involved organizations, working together with dedication.



eurofunk Kappacher - Innovation and reliability for a safe future. PRODUCTS 23

# eDESKc Receives GS Certification: Highest Safety Standards Guaranteed



Georg BOMMER
Production
Manager/Planner

eurofunk introduces eDESKc, an innovative and modular product family designed for control room workstations, currently utilized in over twenty control rooms.

The eDESKc is designed to meet the highest quality standards, providing a safe and functional control room desk that can be tailored to your specific needs. In addition, eurofunk has subjected the eDESKc to voluntary certification by the TÜV (Technical Inspection Association), which goes beyond the legal requirements and places strict quality demands on the product, such as regular monitoring of the production environment on site. Curious why the eDESKc falls under machine regulations? This article explains.

This highly functional desk offers ample space for technology and features up to four electric motor adjustment options in its maximum configuration, ensuring ergonomic comfort. Since it operates with a motorized drive rather than manual effort, it is classified as a machine, which necessitates a thorough risk analysis and compliance with various EU regulations and standards.

As a product sold in the European Economic Area, the eDESKc adheres to EU-wide requirements for safety, health, and environmental protection. eurofunk has conducted an extensive conformity assessment, resulting in detailed internal and external documentation, including over 90 pages of testing protocols that must be satisfied. This assessment covers potential risks during intended use and foreseeable misuse, along with measures to mitigate those risks. Additionally, the conformity of purchased parts used in the product must also be demonstrably ensured, such as the chemical composition of the composite materials used.

The eDESKc has passed an independent "tested safety" (GS) evaluation, confirming its quality through external validation. eurofunk also performed mechanical tests to assess the desk's durability, simulating the demanding conditions of a work environment. Improvements to the quality assurance system have made the production process more efficient. The GS test mark awarded by TÜV refers to the basic product. To a certain extent, the geometry of this design basis can be adapted to special customer requirements and is then still subject to the safety aspects of the product family.

eurofunk's voluntary testing increases product safety, speeds up the product development process and ensures environmental sustainability throughout the entire life cycle of the eDESKc. Following this successful certification, all future desks in the eDESKc family will be designed to the latest standards and verified for compliance with applicable safety, health, and environmental regulations.



24 PRODUCTS

## Visualizing Time-Sensitive Map Data



Michael LECHNER Product Owner

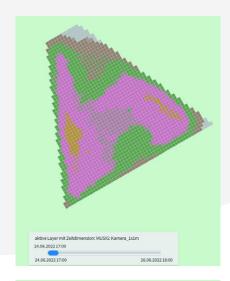
#### Discover the new possibilities of data visualization with eOCS!

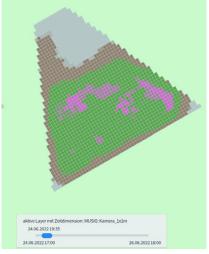
With eOCS, users could already visualize static data like background and topographic maps, along with dynamic elements such as operations and resources. Now, the groundbreaking research project "MUSIG" introduces a game-changing enhancement: the ability to visualize time-dependent and variable data directly within the map component!

To leverage this feature, the data must be formatted correctly, allowing for tailored map layers to be configured for specific user roles in any eOCS system. When a time-dependent layer is activated, a sleek time slider pops up, enabling users to easily select their desired time and view the corresponding data.

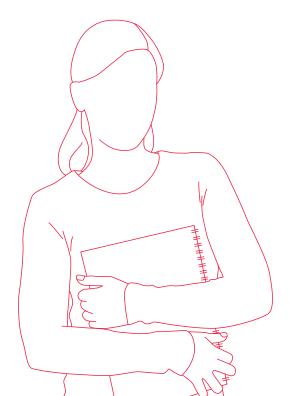
A striking example of this capability is the visualization of population density at Vienna's Donauinselfest (Danube Island Music Festival), where approximately 2.5 million visitors gather at varying times. The time slider provides a quick and intuitive way to observe how population density shifts across various zones throughout the festival, facilitating timely interventions if certain areas become overcrowded.

The potential applications for visualizing time-dependent, variable data are vast. Depending on client needs and available data, numerous scenarios come to mind, such as tracking current water levels in flood zones, monitoring the spread of toxic gas in a chemical facility, or analyzing movement patterns during a demonstration.





Visualisation of the density of people at Vienna's Donauinselfest (Danube Island Music Festival) at two different times



PRODUCTS 25

## eurofunk Successfully Completes the Eighth MCX Plugtests

Norbert EVERS Product Owner

## Organized by the European Telecommunications Standards Institute (ETSI)

Málaga: eurofunk, along with 110 other participants, conducted interoperability tests with various MCX product manufacturers.

Mission Critical X – abbreviated as MCX – is a standard for several specialized communication services in the LTE network and represents the future of communication between all authorities and emergency services worldwide. The "X" stands for the three main use cases:

- MCPTT Voice communication (Push to Talk)
- MCData Data transmission in the form of status, text, and images
- MCVideo Video transmission

Mission Critical Broadband EcoSystem

"UE Interface"
Room
Room
Sidelink
MCX Berver
USB
Sidelink
MCX Server
USB
Bluetooth
TETRA

Schematic representation of an MCX connection from the control centre to the terminal device

At Plugtests, developers come together to explore the interoperability of their products with those from other manufacturers, all based on the MCX-ETSI standards. This year marked the eighth iteration of the MCX Plugtests hosted by ETSI at the University of Málaga.

The event drew a remarkable crowd of 110 participants from 62 organizations, featuring over 30 suppliers across diverse sectors, including MCX clients, dispatchers, servers, mobile radio, and 5G networks. Additionally, more than 20 observer organizations added to the dynamic atmosphere.

In preparation for the main event, participants completed essential activities such as registration, VPN integration, and network tests. The week before the event, preliminary tests were conducted remotely in Spain to ensure that all went smoothly.

From October 9th to 13th, the heart of Málaga buzzed with activity as various MCX solutions were rigorously tested. eurofunk sent a trio of specialists who successfully collaborated with industry leaders like HMF, Motorola, Nemergent, StreamWide, and TASSTA.



Die Teilnehmer der 8. MCX Plugtests

The eurofunk MCGa (MCX gateway) has now been further developed so that the first productive solution can soon be put into operation at eurofunk customer Infraserv GmbH & Co. KG Frankfurt will soon go live. This innovative solution harnesses a multitude of functions in tandem with the eurofunk command and control system.

- Group calls
- Individual calls
- Status and text messages
- Long-term and short-term voice documentation
- Audio monitoring
- Emergency group calls
- Emergency individual calls
- Location queries from the location server

eurofunk reaffirms its commitment and expertise in developing advanced communication solutions for emergency organizations and anticipates the successful integration of MCX solutions into the systems of numerous clients in the future.

## NIS2: The New Era of Cybersecurity



Lukas KULMITZER

The ongoing digitalization shapes our lives in almost all areas. However, alongside numerous advantages, it also brings new challenges and risks, particularly in the field of cybersecurity.

The European Union is taking significant strides to bolster the security of critical infrastructures with the introduction of the Network and Information Security (NIS) Directive. As we look ahead, the upcoming "NIS2" promises to expand the scope, impacting a greater number of organizations than its predecessor. The transposition of the EU directive into national law has already been decided in Germany with the NIS2UmsuCG. In Austria, we are still waiting in vain for the transposition into national law, which should take place in the coming months.

NIS2 builds upon the foundation laid by the original NIS Directive from 2016, aiming to enhance cybersecurity across the continent. It establishes stringent minimum security standards and compels affected organizations to elevate their protective measures. A notable addition is the mandatory reporting of security incidents and enhanced cooperation among EU member states.

For eurofunk's clients, particularly those operating BOS control centers, the implications are profound. These centers are pivotal in emergency response coordination and planning, making their security paramount. With the advent of national NIS2 laws, the bar for information security is being raised, necessitating advanced technical and organizational measures to detect and respond to anomalies and cyber threats. Future NIS2 audits will assess these enhancements.

The rollout of the NIS2 Directive signifies a vital advancement in the EU's cybersecurity framework. Affected

organizations must brace for heightened scrutiny and make essential investments to counter increasing threats. The successful implementation of NIS2 is vital for safeguarding the security and resilience of our society in a world that is becoming increasingly digital.

eurofunk stands ready to assist clients in navigating this new landscape. With extensive experience in NIS audits, we offer expert support to help organizations meet NIS2 requirements. Our services range from on-site guidance by IT security specialists to the evaluation and implementation of critical security solutions, including SIEM systems and vulnerability scanners.



Choose eurofunk as your trusted partner to elevate your cybersecurity posture and effectively tackle the challenges posed by NIS2.

# WIKARUS 2024: Where Innovations Take Flight



Christian REPASKI Product Manager Innovations

And no, this doesn't refer to anything airborne; we are delighted to announce that eurofunk has recently earned its symbolic wings with a groundbreaking innovation!



The WIKARUS award, celebrated annually, stands as one of the most prestigious accolades honoring exceptional entrepreneurial and innovative achievements in Austria. In the "Innovation" category, it recognizes companies that are not just trendsetters but also bring groundbreaking products and services to market – products that have already proven their transformative impact.

Judged on criteria such as "Innovation" (novelty, originality, and development challenges), "Entrepreneurial Performance" (risk-taking and cost management), and the innovation's impact on customer benefits, society, and the environment, the competition is fierce.

This year, eurofunk's resQnect – a cutting-edge mobile app enhancing digital communication and data connection between control centers and emergency services – was one of just five projects nominated from a pool of around 50 submissions.

The award ceremony, attended by distinguished figures from business, politics, and media, was electric with anticipation: Would resQnect claim a podium spot? As the names of fifth and fourth place were announced, the excitement among the eurofunk team intensified. But as third place was revealed and still no mention of eurofunk, the suspense reached a crescendo.

Finally, the moderator declared: "... second place in the Innovation of the Year 2024 category goes to: eurofunk with resQnect!"

We couldn't be prouder of our dedicated innovative team and extend our heartfelt congratulations to all the remarkable companies recognized in the "Innovation" category!

A special thank you goes out to our early supporters and emergency services who played an integral role in resQnect's journey – especially the Salzburg Professional Fire Brigade and the Red Cross of Upper Austria for their invaluable assistance in creating the product video.



From left to right: Mag. Martin Hagenstein MAS (Managing Director of Salzburger Nachrichten), Michael Rockenschaub, Daniel Gappmaier, Christian Repaski, and Christian Kappacher (all eurofunk) at the award ceremony

## People shape culture – Our HR Mission

In an ever-evolving, diverse work environment, our HR team is driven by a clear mission: to cultivate a vibrant corporate culture that reinforces our unity. This culture is shaped by the unique actions, interactions, and behaviors of every eurofunk employee. Embracing our ethos of "one team – one eurofunk" calls for empathy, awareness, and a willingness to listen. These essential qualities, along with many others, empower our HR team to support employees, leaders, and the organization as a whole in reaching their highest potential.

#### #wellbeing@eurofunk

At the heart of our success lies a commitment to health and mutual care – essential pillars of our well-being and performance. We strive to cultivate a vibrant, health-promoting workplace where everyone can thrive.

Introducing the wellbeing@eurofunk series: a dynamic collection of health tips, activities, and challenges, alongside enriching workshops and seminars. Our Health Talks feature experts delving into pressing topics like "Prevention is Better than Cure — Understanding Mental Health." Additionally, we offer occupational psychological counseling and invigorating fitness breaks, providing our employees with refreshing pauses for both body and mind.



#### #social health

Our team is a vibrant mosaic, with employees from **30 nations** bringing a wealth of cultural backgrounds, perspectives, and experiences. This rich diversity sparks innovative ideas and cultivates a creative work environment.

Our proactive **Diversity & Inclusion Task Force** is committed to exploring various initiatives that champion inclusivity. To help our new international colleagues feel at home, our Cultural Partners share their insights and expertise.

In our engaging **Culture Talks**, we delve into discussions about cultural differences, diversity, and inclusion, fostering understanding and respect while actively working to break down prejudices.





Birgit MACHATSCHEK Head of Human Resources and Talent Center



#### #corporate health

Successful collaboration isn't just a happy accident; it's the product of deeply held values. Together, we've crafted our Collaboration Principles, which celebrate respect, trust, honesty, helpfulness, and team spirit. We're dedicated to fostering an environment where every voice resonates and every perspective is valued.



#### #leadership

Exceptional leadership is the cornerstone of personal development. Our monthly Leaders Talks create a vibrant space for leaders to share insights, draw from one another's experiences, and refine their leadership toolkit.

Key themes like self-reflection, clear communication, empowerment, team development, and effective questioning are vital as we navigate the complexities of an increasingly digital and interconnected workplace.



#### #focus on people

In the face of evolving challenges, particularly with technology and digitalization, our unwavering priority is to keep people at the center. At eurofunk, our employees are the heartbeat of the organization.

Only when individuals can harness their potential, feel challenged and supported, and pursue both personal and professional aspirations can we reach peak performance. This not only drives economic success but also enhances motivation and satisfaction. The growth of each person is paramount.

In a world of constant change, one truth remains: People shape culture. Our HR mission is to nurture and empower this transformative process.

We live together "one team – one eurofunk".

# eurofunk Shines in EcoVadis Sustainability Rating



Melina BERGER
Quality Management
Consultant

As sustainability becomes increasingly important for both society and businesses, understanding and improving the ecological and social impacts of our actions is essential.

EcoVadis, a leader in sustainability ratings, provides companies worldwide with the opportunity to evaluate their sustainability performance. These evaluations promote transparency and build trust among customers and partners.

#### WHAT IS EcoVadis?

Since its founding in 2007, EcoVadis has focused on assessing companies against international sustainability standards, including the Global Reporting Initiative (GRI), the United Nations Global Compact (UNGC), and ISO 26000. Their comprehensive methodology addresses four key areas: environment, labor and human rights, ethics, and sustainable procurement.

#### eurofunk's COMMITMENT TO SUSTAINABILITY

In spring 2024, eurofunk underwent the EcoVadis evaluation to enhance the transparency of its sustainability initiatives and encourage ongoing improvement. The evaluation analyzed various aspects of the company, including efforts to reduce  $\mathrm{CO}_2$  emissions, promote diversity and inclusion, uphold ethical business practices, and ensure supply chain responsibility.



EcoVadis Badge

With an impressive score of 53, eurofunk KAPPACHER GmbH has earned the prestigious Committed Badge, highlighting its strong dedication to sustainable and responsible practices.

#### THE IMPORTANCE OF EcoVadis RATINGS

The EcoVadis evaluation allows eurofunk to recognize its strengths in sustainability and affirm its dedication to a sustainable future. Customers and partners can rely on eurofunk for innovative solutions while also trusting in its responsible practices. The rating helps identify further opportunities for optimization and action.

Sustainability ratings are becoming a key competitive factor for companies, influencing reputation and long-term success. It's an ongoing commitment that requires continuous effort and transparency. eurofunk exemplifies how economic success and responsible action can coexist.

Together, we can work toward a more sustainable future.



To learn more about sustainable corporate management, visit the EcoVadis website!



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