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# Newsletter #26

May 2024

# efnms



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# INTRODUCTION

Dear Colleagues and Partners,

I am delighted to connect with you as the Secretary of the European Federation of National Maintenance Societies (EFNMS). Our latest newsletter is packed with insightful updates and developments within the field of maintenance and asset management.

In this issue, we have a range of important topics to cover. Firstly, we are excited to announce that Global Maintenance Day will be celebrated on June 9th, 2024. This day underscores the vital role of maintenance in our daily lives, from ensuring safety and efficiency to promoting economic benefits and sustainable development. Organized by the Global Forum on Maintenance & Asset Management (GFMAM), this initiative brings together stakeholders worldwide to honour maintenance professionals and educate the public about the importance of maintenance.

We are also looking forward to EuroMaintenance 2024, one of the major international events in the maintenance sector, scheduled to take place in Rimini, Italy from September 16 to 18. This event will bring together leading experts and professionals to discuss the latest trends, technologies, and strategies in maintenance and asset management.

Our newsletter highlights several significant publications from EFNMS, including the first version of the EFNMS Maintenance Body of Knowledge (BoK), available for download. This comprehensive resource is designed to support maintenance

professionals by providing essential knowledge and best practices in the field.

We are proud to announce the launch of a new Railway Maintenance Committee, chaired by Uday Kumar. This committee aims to unify railway maintenance standards across Europe, enhancing safety, reliability, and sustainability through superior maintenance practices.

Additionally, we feature the European Maintenance and Asset Management Survey (EMAM 2024), which aims to analyse trends in European maintenance and asset management. The survey results will be presented at EuroMaintenance 2024, providing valuable insights into the current state of the industry.

Our partnership with the World Partners in Asset Management (WPiAM) is another highlight, aimed at standardizing asset management qualifications globally. This collaboration will enhance the professional development of our members through access to certifications like the Certified Asset Management Assessor (CAMA).

In the realm of technology, we explore the use of drone inspection technology by the Elefsina Industrial Complex of Hellenic Petroleum RSSOPP S.A. This innovative approach enhances safety and efficiency in maintenance operations, particularly in hazardous environments.

Lastly, we celebrate the achievements of Mingxin Li from TU Delft, who won the Ph.D. Thesis Award 2024 for his work on closed-loop maintenance logistics for offshore wind farms. His research addresses the unique challenges of maintaining offshore wind farms and introduces adaptive maintenance policies.

We invite you to participate in the activities and initiatives planned for Global Maintenance Day and to join us at EuroMaintenance 2024. Your involvement and support are crucial in promoting the value of maintenance and ensuring its recognition globally.

Best regards,

Diego Galar, PhD  
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## EVENTS

Find the major international maintenance related events at:

<http://www.efnms.eu/events/>

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EuroMaintenance 2024 is coming!





## Opening Day A.I.MAN. and EuroMaintenance 2024 at Camozzi Plant in Milan

*Successful Opening Day sets the stage for the major event in Rimini (September 16-18): ticket sales now open*

Milan, May 16, 2024 – The Camozzi Plant (Via Rubattino – Milan) hosted, on Friday, May 16, the Opening Day of A.I.MAN. and EuroMaintenance 2024. It was a day full of contents driven by the 8 thematic sections of A.I.MAN.: **Service, Transport, Training, Safety, Sustainability, Infrastructure, Digitalization, and OEM & Distribution**. These same sections will also be the topics on which **EuroMaintenance 2024** will be based: the only fair and congress for Maintenance in Europe will be held at the Rimini Palacongressi, from September 16 to 18.

The invitation-only event, with a selected audience, saw the participation of numerous excellences, both suppliers and end-users, partners of the A.I.MAN. network towards EuroMaintenance 2024. Among the associations present in the room, FEDERTEC, AIAS, and Federmacchine contributed with significant speeches, highlighting the importance of collaboration and networking among the various realities of the production chain. Notable among the speeches was the one by Bianchi Industrial, sponsor of the day, where Giuseppe Lomonaco, Deputy Commercial Director, presented a talk entitled *"Maintenance is Life"*.



One of the highlights of the day was the official kick off of the **"Maintenance's House"**, which kicked off the proceedings, accompanied by a symbolic house placed on the stage, that was signed by all the speakers. The innovative format conceived by A.I.MAN. will be fully unveiled on **May 23** during the EuroMaintenance Month.

Another pivotal moment featured **"Mannie"**, the official mascot of EuroMaintenance 24, which will accompany the audience towards the September event and directly to the Palacongressi during the 3-days event.

During the day, the official opening of the **accreditation for the tickets** for the **Exhibition** and the **Congress** of EuroMaintenance was also announced, available at the link: [Accreditation](#). The Exhibition will be accessible with a free ticket, while the Congress has a dedicated fee.

The event wrapped up with a guided tour of the **Camozzi Plant**, which aroused great interest among the over 100 participants. The initiative represented an important networking opportunity in view of EuroMaintenance 2024, which promises to be an unmissable event for all maintenance enthusiasts and professionals.



The day was led by **Cristian Son**, A.I.MAN.'s External Relations Manager, along with the Association's President, **Giorgio Beato**, who guided the audience through substantial content and speeches.

Now the appointment is directly for EuroMaintenance24... towards the **Maintenance show!** The event will be fully available on **May 31 at 10:00 AM** on the concluding day of the EuroMaintenance Month ([registration here](#)).

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## Global Maintenance Day

### What, When, and Why We Celebrate This Day

Global Maintenance Day is an annual event celebrated to highlight the critical importance of maintenance in various industries. This day is dedicated to recognizing the efforts of maintenance professionals, raising awareness about maintenance practices, and promoting the role of maintenance in ensuring safety, economic efficiency, and sustainability. Initiated by the Global Forum on Maintenance & Asset Management (GFMAM) where EFNMS is member, Global Maintenance Day brings together professionals, organizations, and stakeholders from around the world to celebrate and promote the value of maintenance.

<https://globalmaintenanceday.org/>

### When is Global Maintenance Day?

Global Maintenance Day is celebrated on the second Sunday of June each year. For 2024, it will be observed on **June 9th**. This date is strategically chosen to provide a mid-year reflection point, allowing organizations to review their maintenance practices and make necessary adjustments to improve their operations for the remainder of the year.

## **What is Global Maintenance Day?**

Global Maintenance Day serves as a platform to:

- **Recognize Maintenance Professionals:** Acknowledge the hard work and dedication of maintenance professionals who ensure the smooth operation of machinery, infrastructure, and facilities. Their efforts often go unnoticed, but their impact is significant in preventing accidents, reducing downtime, and extending the lifespan of assets.
- **Raise Awareness:** Highlight the importance of maintenance activities in various sectors, including manufacturing, transportation, energy, and healthcare. Maintenance is crucial for ensuring the safety, reliability, and efficiency of equipment and infrastructure.
- **Promote Best Practices:** Share knowledge and promote best practices in maintenance management. This includes the adoption of preventive and predictive maintenance strategies, the use of advanced technologies like IoT and AI for maintenance, and the implementation of standards and guidelines to enhance maintenance efficiency.
- **Encourage Collaboration:** Foster collaboration among maintenance professionals, organizations, and stakeholders. Global Maintenance Day provides a platform for networking, knowledge exchange, and the sharing of success stories and challenges in maintenance management.

## **Why Celebrate Global Maintenance Day?**

The celebration of Global Maintenance Day is driven by several key objectives:

- **Safety:** Maintenance plays a vital role in ensuring the safety of workers, equipment, and the environment. Regular maintenance checks and repairs prevent accidents, equipment failures, and environmental hazards, contributing to a safer workplace and community.
- **Economic Efficiency:** Effective maintenance practices reduce operational costs by minimizing downtime, extending the lifespan of assets, and preventing costly repairs. Organizations that prioritize maintenance can achieve significant cost savings and enhance their competitiveness.
- **Sustainability:** Maintenance contributes to sustainability by reducing waste, energy consumption, and resource depletion. Well-maintained equipment operates more efficiently, consumes less energy, and produces fewer

emissions, aligning with global efforts to combat climate change and promote sustainable development.

- Innovation: The field of maintenance is continuously evolving, with new technologies and methodologies emerging to improve maintenance efficiency and effectiveness. Global Maintenance Day encourages the adoption of innovative solutions, such as predictive maintenance, digital twins, and automated maintenance systems, to enhance maintenance practices.

In summary, Global Maintenance Day is more than just a day of celebration; it is a call to action for organizations, professionals, and stakeholders to recognize the importance of maintenance and invest in effective maintenance practices. By celebrating Global Maintenance Day, we acknowledge the critical role of maintenance in ensuring safety, economic efficiency, and sustainability. It is an opportunity to honour the contributions of maintenance professionals, raise awareness about the value of maintenance, and promote a culture of continuous improvement and innovation in maintenance management. As we look forward to June 9<sup>th</sup>, 2024, let us join hands to celebrate and elevate the field of maintenance, ensuring a safer, more efficient, and sustainable future for all.

For more information contact [info@globalmaintenance.org](mailto:info@globalmaintenance.org) and get involved!!!



## EFNMS PUBLICATIONS

Take a look at our new efnms-webpage, the Publications page <http://www.efnms.eu/publications/>

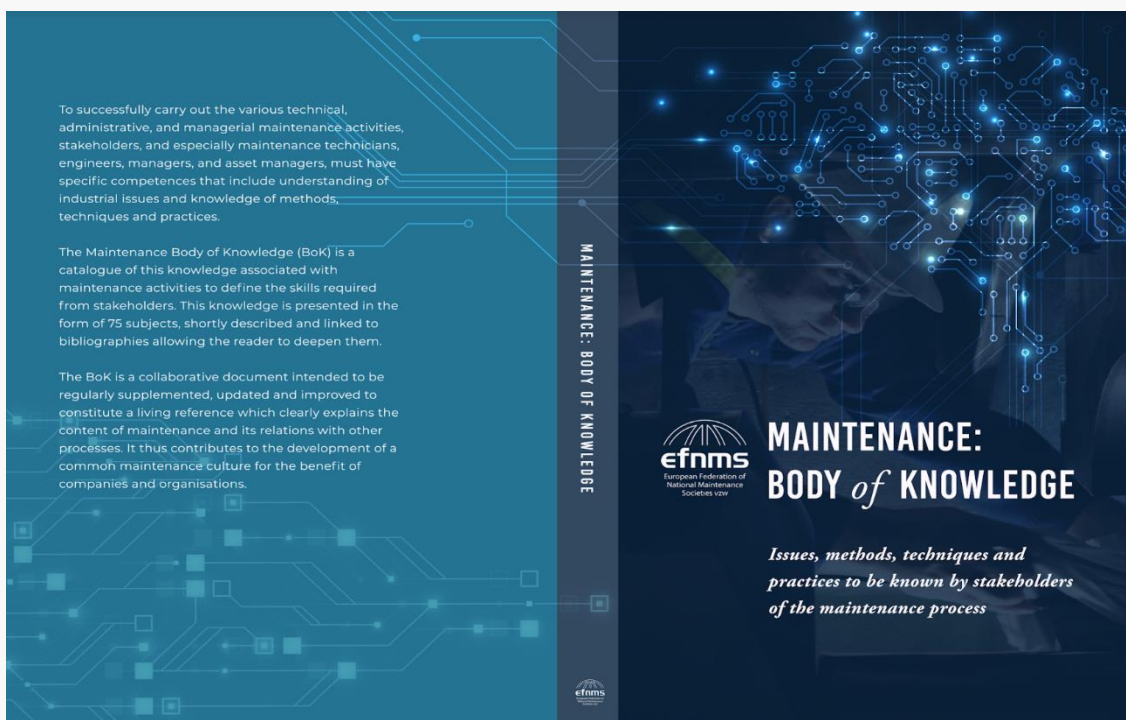
We are proud of the collection of EFNMS work. These publications should be considered as support to Maintenance professionals in Europe and world-wide. These are work of authors within the EFNMS Committees but reviewed by their Committee before publishing.

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## Body of Knowledge

A first version of the EFNMS Maintenance Body of Knowledge (BoK) is available in the EFNMS bookshop: <https://efnms.mycashflow.fi/product/3/body-of-knowledge>

BoK is a PDF-book, and it could be downloaded after registration.



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# NEWS

Find the EFNMS news at: <http://www.efnms.eu/blog/>

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## Track to the Future: EFNMS Launches New Railway Maintenance Committee

The European Federation of National Maintenance Societies (EFNMS) has recently unveiled its new Railway Committee, chaired by the distinguished Uday Kumar, marking a significant step in unifying railway maintenance standards across Europe. This committee is established with a vision that transcends national borders, recognizing the interconnected nature of European railway transport and the collective benefits of enhancing safety, reliability, and sustainability through superior maintenance practices.

The role of the Railway Committee within EFNMS is crucial and multifaceted. It not only advises but actively participates in shaping robust policies and standards that have a far-reaching impact on maintenance strategies throughout the continent. This collaborative approach brings together the brightest minds from various sectors within the maintenance community, fostering a culture of innovation and efficiency that is vital for tackling the unique challenges faced by the European railway sector.

Effective railway maintenance is indispensable for ensuring operational excellence and extending the service life of critical assets. It significantly mitigates the risk of accidents and unplanned service disruptions, thereby boosting the reliability and attractiveness of rail transport. Moreover, by enhancing the efficiency and competitiveness of railways, it presents a compelling, eco-friendly alternative to more polluting transport modes, aligning with broader European goals of reducing carbon footprints and promoting sustainable transport solutions.

Under the visionary leadership of Uday Kumar, who brings extensive expertise from his tenure at the Luleå Railway Research Center, the committee is poised to lead revolutionary changes in the sector. Kumar's leadership is instrumental in harnessing cutting-edge technologies such as predictive maintenance tools and smart infrastructure solutions. These technologies are crucial for modernizing European railways, making maintenance more proactive, and significantly enhancing safety and efficiency.

The committee's commitment extends beyond immediate technological advancements. It serves as a strategic think tank, advocating for the continuous evolution of maintenance practices and facilitating the integration of innovative tools, technologies, and methodologies. These initiatives are meticulously designed to align with the evolving demands of railway maintenance, ensuring sustainable and effective strategies that cater to the future needs of European transportation.

As the committee aligns its ambitious goals with the overarching objectives of EFNMS, it is set to profoundly influence the future of European railways. Through its expert-driven initiatives, the committee not only aims to enhance the operational efficiency and sustainability of railway systems but also ensures that these systems are capable of meeting the evolving demands of modern transportation and stringent environmental standards. This work underscores the committee's pivotal role in shaping a resilient and sustainable railway infrastructure that supports the seamless movement of goods and people across Europe, driving economic growth and environmental stewardship in equal measure.



## EMAM Survey 2024

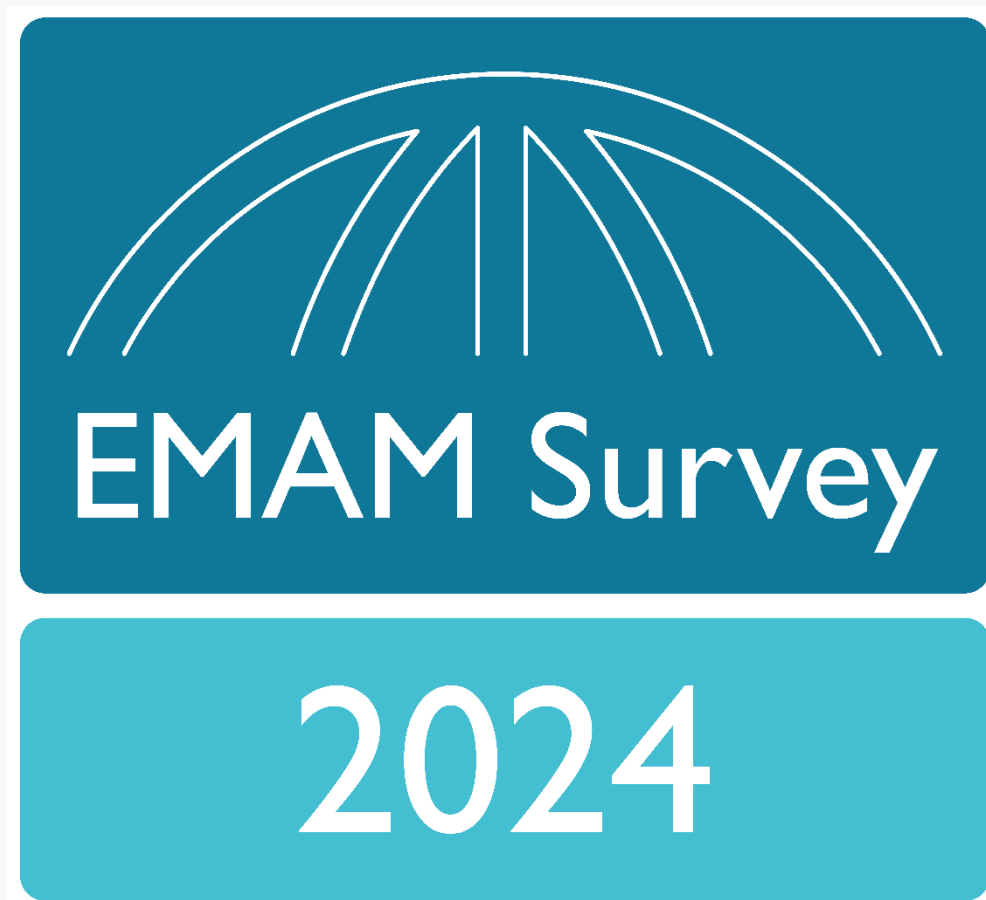
The goal of the European Maintenance and Asset Management Survey (**EMAM 24 Survey**) is to recognize and analyze the trends in European maintenance and asset management.

The survey results will be published during the Euromaintenance 2024 event in Rimini, Italy 16 - 18 of September 2024 (<https://www.euromaintenance24.com/>). The respondents will get a copy of the 24 survey report after the results have been published.

Thanks in advance for your valuable input!

Here the link to survey <https://link.webropol.com/s/emam24-survey-eng>

The survey is managed by the European Federation of National Maintenance Societies (EFNMS, <https://www.efnms.eu/>).



# Global Standards, Local Excellence: EFNMS and WPiAM Revolutionize European Asset Management

The European Federation of National Maintenance Societies (EFNMS) has long stood at the forefront of advancing comprehensive asset management across Europe, focusing particularly on the strategic stewardship of physical assets to optimize value throughout their life cycles. This focus underscores the vital role that effective asset management plays in enhancing operational efficiency, reducing lifecycle costs, and ensuring sustainability within various sectors.

With a mission deeply rooted in promoting excellence and innovation in maintenance and asset management, EFNMS emphasizes the need for a systemic approach to managing physical assets. This approach not only ensures the operational reliability of assets but also contributes significantly to achieving environmental sustainability goals by minimizing waste and energy use. Recognizing the increasingly global nature of asset management, and the need for universally accepted standards of practice, EFNMS has strategically aligned with the World Partners in Asset Management (WPiAM). This strategic alignment has been significantly facilitated by the dedicated efforts of the Asset Management Committee within EFNMS, under the leadership of its chairman. The chairman has been at the forefront of orchestrating this pivotal partnership, ensuring that the collaboration aligns with the strategic objectives of EFNMS and enhances its global standing in asset management. The committee's active engagement and leadership have been crucial in bridging European standards with global best practices, paving the way for a seamless integration of international asset management protocols.

WPiAM is a global consortium committed to the professionalization of asset management and standardization of qualifications. The partnership marks a pivotal step for EFNMS in expanding its influence beyond European borders, fostering a more standardized global framework for asset management practices.

This collaboration offers tangible benefits, particularly in terms of professional development. Through WPiAM, EFNMS can now facilitate access to the Certified Asset Management Assessor (CAMA) certification for its members. CAMA certification is globally recognized and is a benchmark for professionals in the field, designed to assess an individual's competency in asset management according to international standards.

The significance of this partnership extends beyond professional certification. It represents a commitment to elevating the quality of asset management across industries, ensuring that European professionals are equipped with the knowledge and skills that meet international standards. This alignment not only enhances the competitive edge of European asset managers but also contributes

to the broader goal of ensuring that asset management practices globally are effective, sustainable, and capable of meeting the challenges of a rapidly changing technological landscape.

By fostering a standardized approach to asset management, EFNMS and WPiAM are setting the stage for a future where asset management is recognized as a key driver of business success and sustainability. This strategic alliance not only underscores the importance of global cooperation in asset management but also ensures that EFNMS continues to be at the cutting edge of industry developments, championing innovation and excellence in asset management across Europe and beyond.



# Eliminating Risks Through the Use of Drone Inspection Technology

In the context of the continuous improvement of HSE related practices, the **Elefsina Industrial Complex (EIC) of Hellenic Petroleum RSSOPP S.A.** (part of [Helleniq Energy Group of companies](#)) has adopted several applications of unmanned aerial vehicles (UAVs, commonly known as “drones”).

In particular, EIC (refinery) has successfully used drones:

1. For **monitoring HSE related activities during Turnaround** (general maintenance) of its process units. Utilizing tethered drones -and thus multiplying “flight duration” by an order of magnitude- equipped with optical and thermal high resolution cameras (payload), EIC was able to detect unsafe situations and practices in time to take corrective action and thus prevent work related incidents.
2. For **inspecting confined spaces** with inherent hazards for personnel entry (e.g. coker reactor). Utilizing special drones for confined spaces (Helios) EIC was able to “map” the coke formation internally and to visually inspect for refractory damages, thus (a) preventing the exposure of personnel to potentially harmful substances and risks and (b) at the same time providing the cleaning and maintenance crews with the necessary information in order to plan the work in hand on time.
3. For **inspecting elevated equipment** (e.g. flare stacks, lightning rods, lighting pillars etc.) without the need for scaffolding and/or lifting equipment (and thus minimizing the related cost, time and risks). It should be noted that ultrasonic (UT) thickness measurements with drones are also presently available.

In addition, EIC has successfully used drones (in limited scope “pilot” projects):

4. For **conducting Emergency Response Drills**, where drones are used to relay “live video feed” as well as to record the drill for debriefing purposes (drill evaluation). It should be noted that these drills have proven that (free or tethered) drones can be used during actual emergencies to provide live data (video feed, thermal imaging during poor visibility, optical gas imaging for vapor cloud identification).
5. For **detecting Volatile Organic Compound (VOC) emissions** for safety and/or environmental purposes (and to create “general deviation alarms-reports” using optical imaging in conjunction with data analytics and AI).
6. For **inspecting underwater equipment** (e.g. pumps, pipelines) and structures (e.g. piers, docks) using ROVs”

**A.Lialios**

HSE Director

Elefsina Industrial Complex

Hellenic Petroleum RSSOPP S.A.



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## R&D

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Mingxin Li (TU Delft) wins Ph. D. Thesis Award 2024:  
Towards Closed-loop Maintenance Logistics for  
Offshore Wind Farms: Approaches for Strategic and  
Tactical Decision-making

This thesis addresses maintenance issues in a very important, fast-growing part of the Dutch and European economy, offshore wind farms. In the coming decade, the installed base of these windfarms will increase multifold and so will the challenges involved in maintaining them well. The location of these assets at sea creates unique, and therefore underresearched, challenges for maintenance. It takes considerable time and effort for transport to these windturbines, and it requires also good weather conditions. Uncertainties and associated risks abound. Because this is a relatively new industry, we know very little about optimal maintenance policies across the life cycle of windturbines and wind parks. This Ph.D. thesis rises to these challenges, and introduces the notion of adaptive maintenance policy, so-called close-loop maintenance logistics. Here, as time goes by, the maintenance policy mix is evaluated and, if appropriate, updated.

Mingxin Li looks at these new and fascinating issues from a hybrid perspective, including both technical and managerial factors. He properly employs a variety of operations research methods to perform the analyses required. Indeed, this is research that is at the same time well grounded in truly significant real world maintenance issues of today and in sound scientific research methods.

In September, Mingxin Li will compete against other European Thesis Award winners in Rimini during EuroMaintenance. The European award will be presented there by the EFNMS and Salvetti Foundation.

*Editor's note*

*The Dutch jury consists of: Jan Braaksma (UT), Chris Rijdsdijk (MinDef), Jan Stoker (SSAM) Scholte Strikwerda (Gasunie) and Henk Akkermans (TüV).*



# Legal notice

**Dear Reader of our EFNMS Newsletters!**

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Best regards,  
EFNMS Newsletter Team

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With Maintenance Greetings

EFNMS Chairman

***Cosmas Vamvalis***

EFNMS – European Federation of National Maintenance Societies

Editors

**Diego Galar**  
**Lovro Frković**



European Federation of National Maintenance Societies vzw



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