News

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CM25: a new industrial cycle for Europe's space industry

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Francisco-Javier Benedicto Ruiz
ESA Director of Navigation

INTERVIEW
Diana Morant Ripoll
Spain's Minister of Science, Innovation and Universities and President of the Spanish Space Agency (AEE)

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Letter from the president

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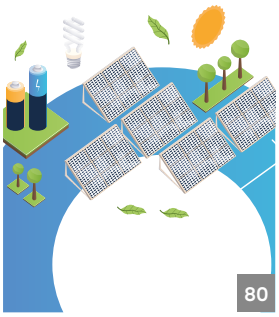


CM25: a new industrial cycle for Europe's space industry

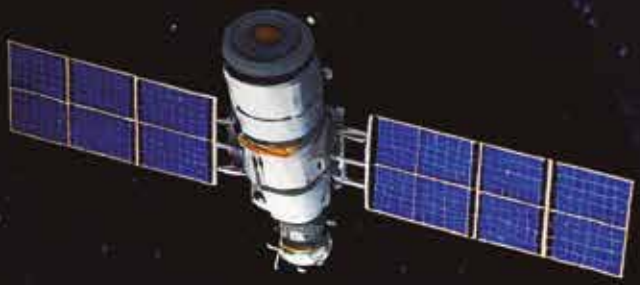
The 2025 Council Meeting at Ministerial Level (CM25) of the European Space Agency (ESA) marked a turning point for Europe's space industry. With €22.32 billion committed by its member states, ESA secured the largest funding package in its history, ushering in a new cycle clearly focused on strengthening strategic autonomy, industrial competitiveness, and the resilience of Europe's space infrastructure.

Beyond this headline figure, the outcomes of CM25 signaled a significant shift from CM22. While that council meeting was shaped by the need to safeguard the continuity of major programs in the wake of the pandemic, CM25 focused on consolidating space as a cornerstone of European industrial policy—backed by a strong commitment to critical capabilities, operational programs, and tangible industrial return.

Against an international backdrop defined by intensifying technological rivalry, orbital congestion, the rapid expansion of commercial constellations, and growing dependence on space-based services across strategic sectors, Europe chose to raise its level of ambition. The political and industrial message emerging from Bremen was clear: space was no longer seen solely as a domain of scientific exploration, but as critical infrastructure underpinning Europe's economy and security.

FROM 2022 TO 2025: A QUANTITATIVE AND QUALITATIVE LEAP FORWARD

Comparisons between CM22 and CM25 reveal substantial increases in both financial volume and strategic orientation. In 2022, total commitments reached around €16.9 billion in a context of ongoing economic uncertainty and the need to maintain the continuity of existing programs. Three years later, this figure surpassed



€22 billion, marking an upswing of over 30%.

This growth is not merely a matter of budget. More fundamentally, it reflects a recalibration of priorities. ESA has clearly reinforced domains that underpin Europe's critical capabilities: autonomous access to space, satellite navigation, Earth observation, space safety, and secure communications. The aim is to provide Europe's space industry with stability, long-term visibility, and sufficient critical mass to compete in an increasingly concentrated global market.

CM25 solidified ESA's ongoing shift toward a more explicit role as an instrument of European industrial policy. The Agency is not only funding programs; it is acting as a catalyst for an industrial ecosystem capable of overcoming top-priority technological, economic, and geopolitical challenges.

OVERALL OUTCOMES AND MEMBER STATE COMMITMENTS

The agreements reached in Bremen reflected strong political backing from ESA's member states. Germany cemented its position as the top contributor, with a significantly increased commitment compared to 2022. France and Italy

"CM25 marks a turning point for Europe and Spain. With more than €22.3 billion approved, 32% more than the previous one, Europe is reinforcing space as strategic infrastructure for security, resilience, and competitiveness.

Spain is supporting this momentum by increasing its contribution from €300 million to €455 million annually over the next three years, nearly tripling the 2019 amount. This effort strengthens our influence in ESA programs and consolidates the Spanish industry as a structural player, in line with its growing technological maturity.

The economic impact will be significant. According to the ESA, the 2022 Ministerial generated approximately 20,000 job-years and nearly €1.3 billion to Spanish GDP. With the new commitment and the current context, an even greater effect is expected.

In short, investing in space means betting on technological sovereignty, advanced industry, and long-term prosperity."

Juan Carlos Cortes

President, Portuguese Space Agency

“CM25 marks the start of an ambitious new cycle for European space, and the UK is ready to play its full part.

Our £1.7 billion commitment secures backing across the programmes that matter most — from launch and space safety to science and connectivity — and builds on the strongest national space funding package the UK has ever seen.

Every pound invested in ESA returns £7.49 to our economy, so this is both strategically sound and commercially vital.

With British engineers, scientists and entrepreneurs embedded in missions that will define the coming decade, I am confident we will continue to shape Europe’s space future together.”

Dr. Paul Bate

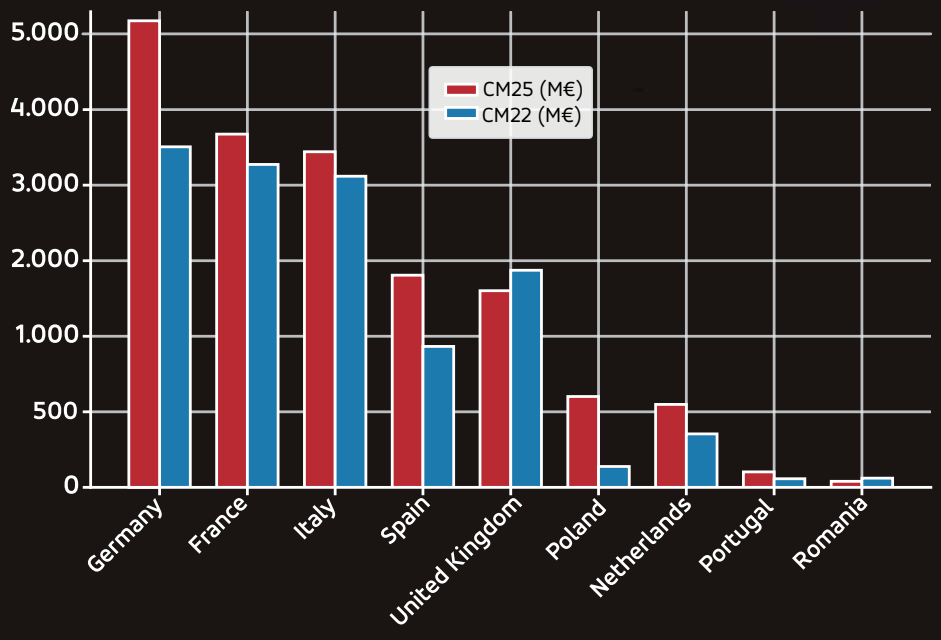
CEO de la Agencia Espacial de Reino Unido

maintained their leadership positions, ensuring continuity in their role as key industrial anchors within ESA.

With an investment of €1.871 billion, Spain was responsible for one of the most notable shifts at the meeting. Its contribution nearly doubled compared to CM22, enabling it to move up to fourth place in the ranking of contributions. This step change strengthens the position of Spain’s space industry within the ESA ecosystem and opens up new opportunities for leadership and industrial return.

Other countries, such as Poland and Portugal, also recorded significant upticks, pointing to stronger engagement from states that have traditionally played a less prominent role. Although the United Kingdom reduced its level of support slightly, it reaffirmed its commitment to participating in key programs and maintaining its industrial base.

This distribution of contributions has a direct impact on Europe’s industrial landscape. Greater commitments from certain countries expand their opportunities for industrial return, support the formation of more balanced consortia,



and help strengthen the continent's overall technological and industrial base.

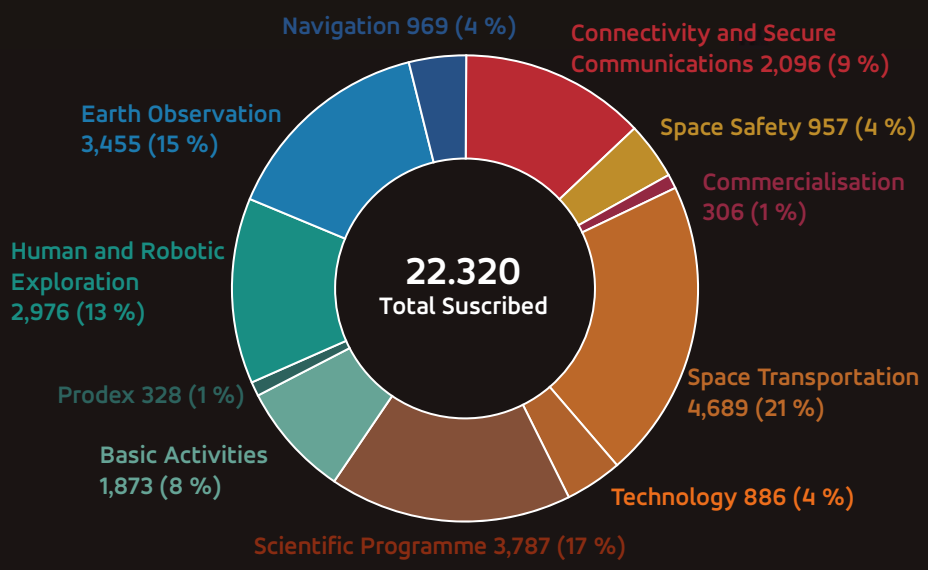
PRIORITIES BY DOMAIN AND ALLOCATION OF CONTRIBUTIONS

The domain-level breakdown approved at CM25 confirms a clear shift toward programs with direct industrial impact. Space transportation received the largest budget allocation, with more than €4.4 billion, compared to around €2.8 billion approved in 2022. This increase reflects the strategic importance of autonomous access to space and the need to strengthen Europe's competitiveness in the launch sector.

The scientific program maintained a high level of funding, at close to €3.8 billion, ensuring the continuity of flagship missions that remain one of ESA's historical pillars. Earth observation exceeded €3.4 billion and further consolidated its role as a key driver of economic and industrial return, with a growing emphasis on operational services and dual-use applications.

Human and robotic exploration reached nearly €3.0 billion, while connectivity and secure communications exceeded €2.0 billion. Of particular note is the sharp upturn for satellite navigation, which rose from just over €350 million at CM22 to almost €1 billion at CM25, representing a 2.6-fold expansion in available resources.

Space safety and critical technologies also saw substantial gains. Investment in the former stood at around €950 million, strengthening capabilities in space surveillance, traffic management, and debris mitigation. Technology programs exceeded €880 million, laying the groundwork for the development of next-generation enabling technologies.



"Increasing Poland's financial contribution to the European Space Agency (ESA) is of substantial importance for the development of the national space and high-technology sectors.

A higher contribution enables greater participation of Polish companies in international tenders and projects carried out under ESA programmes. This, in turn, provides enterprises with access to advanced technologies, specialized expertise, and stable long-term contracts.

Investments in the space sector also stimulate innovation across other branches of the economy, including electronics, information technology, and materials engineering. For Poland, such engagement is particularly significant, as it strengthens technological sovereignty, enhances national security, and reinforces the country's position and credibility as a reliable partner in ambitious scientific and technological initiatives."

Dra. Ewa Wachowicz

President, Polish Space Agency

> “ESA’s 2025 Ministerial Council has clarified what Europe expects from its space programme: capabilities that are usable, resilient and delivered at pace, with a clear path from research to operational services and industrial growth.
>
> Portugal’s €204.8 million subscription, the highest to date, brings greater predictability for the years ahead, strengthening the national participation in ESA programmes across Earth Observation, navigation and telecommunications, and space safety. Attention now turns to implementation, particularly to building strong partnerships across Europe, aligning with the European Union’s space priorities, and ensuring Portuguese companies and research teams are well-positioned in ESA programmes, capable of investing in skills and test capacity to reduce development time and risk.
>
> Space is increasingly seen as a critical infrastructure, underpinning services that societies and economies rely in every day. The 2026-200 cycle is Portugal’s opportunity to strengthen national capabilities and industrial participation through ESA programmes and to be a reliable contributor to European independence and resilience.”

Ricardo Conde

President, Portuguese Space Agency

A CLEARLY INDUSTRY-DRIVEN AGENDA

Overall, the budget allocation and domain breakdown point to a distinctly industry-oriented agenda. The combination of financial stability, long-term programs, and priorities aligned with Europe’s strategic needs creates a favorable environment for investment, innovation, and industrial consolidation over the medium to long term.

Unlike previous cycles, the emphasis is no longer solely on defining new missions, but on building sustainable technological and industrial capabilities. The growing weight of operational programs, security-related activities, and critical infrastructure reflects a clear intent to translate public investment into durable strategic assets capable of generating economic return, high-skilled employment, and technological autonomy.

In this context, ESA is reinforcing its role as a catalyst for Europe’s industrial ecosystem, acting as a central coordinating layer across member states, prime contractors, mid-caps, high-tech SMEs, and centers of excellence. The traditional logic of industrial return is now complemented by criteria centered on resilience, global competitiveness, and reduced external dependencies—at a time when access to critical technologies has become a decisive geopolitical factor.

GMV IN ESA’S NEW CYCLE

This new framework opens a particularly favorable phase for GMV. The priorities and objectives defined at CM25 are closely aligned with the areas in which the company plays a key role: satellite navigation, space safety, human spaceflight, operations, ground segment, critical technologies, and advanced services.

The strengthening of navigation programs places GMV in a prime position to continue leading strategic initiatives such as Celeste IOD, expected to become one of the pillars of Europe’s future navigation architecture. Alongside it, programs such as NAVISP, GENESIS, NovaMoon, and Opstar form a coherent portfolio aligned with the company’s technological capabilities.

Across other space system domains, the approval of programs such as CAT IOD, CREAM-IOD, and RAMSES; new opportunities within space safety, Earth observation, and space transportation; momentum behind the future ERS resilience framework; subscriptions to the GSTP and ARTES technology programs; and the development of the LEO segment of IRIS² all accelerate GMV’s progress in

operations, ground segment, space safety, exploration, human spaceflight, robotic systems, mission leadership based on critical technological capabilities, and guidance, navigation, and control (GNC).

The combination of budgetary stability, programmatic ambition, and stronger commitment from member states creates a favorable environment for steady industry growth. GMV is approaching this new cycle with determination and is ready to take on greater responsibilities, lead end-to-end missions, and play a decisive role in advancing Europe's space capabilities.

A PIVOTAL DECADE FOR EUROPE'S SPACE LEADERSHIP

ESA's 2025 Council Meeting at Ministerial Level set new funding records and redefined the role of space as a tool of European industrial policy. The emphasis on critical capabilities, operational programs, and industrial return marked the start of a new cycle in which industry will be key to shaping the continent's space future.

The focus now shifts from budget negotiations to execution. The real challenge will be to translate financial commitments into tangible capabilities: competitive launch systems, resilient navigation architectures, secure infrastructure, operational services, and enabling technologies that reinforce Europe's strategic autonomy. In this process, schedule discipline, talent availability, and supply chain stability will be critical success factors.

At the same time, the new cycle opens a window of opportunity to consolidate the global positioning of Europe's space industry. Growing demand for space-based services; the convergence of civil, commercial, and security applications; and the emergence of new business models linked to the NewSpace economy point to a high-growth environment, but also to intensifying international competition.

Against this backdrop, CM25 can be seen as the start of a pivotal decade. If Europe can successfully execute the approved programs, coordinate its institutional instruments, and sustain a coherent industrial vision, space will become one of the continent's key engines of competitiveness, innovation, and technological sovereignty. For Europe's space industry—and for companies like GMV—the challenge is no longer simply to participate, but to lead this new cycle with ambition, discipline, and a long-term outlook.

"Looking ahead, we see considerable opportunities for the Romanian space industry to enhance its technological capabilities, foster stronger public–private partnerships, and integrate more deeply into international value chains. By building on existing expertise and encouraging collaboration between research institutions, industry, and government, Romania is well positioned to expand its role in advanced satellite applications, downstream services, and emerging space technologies.

ROSA encourages sustained investment in research and development, as well as in talent cultivation, to ensure a highly skilled workforce capable of meeting the sector's evolving demands. Strengthening industrial competitiveness will be essential for enabling Romanian entities to participate in complex, high-value projects and to contribute meaningfully to international ambitions in space exploration and utilization.

We remain committed to supporting our national stakeholders in leveraging these opportunities, fostering an environment that promotes innovation, resilience, and sustainable growth in the years to come."

Daniel-Eugeniu Crunteanu
Director General, Romanian Space Agency (ROSA)

Opinion

Europe's Journey in Satellite Navigation

Francisco-Javier Benedicto Ruiz
ESA Director of Navigation

Europe has become a leader in Satellite Navigation with EGNOS and GALILEO, two of the most advanced satellite navigation systems, reaching over 5 billion users Worldwide.

Satellite Navigation is critical infrastructure for Europe's economy, society and security, underpinning transport, secure connectivity, energy networks, scientific research and emergency services. As digital mobility and security challenges intensify, it is essential not only to sustain current systems but also to anticipate and prepare for future needs.

With a very ambitious portfolio of programmes approved at the last ESA Ministerial Council in November 2025, Europe has stepped to the forefront and is shaping the future of satellite navigation, ensuring Europe's long-term leadership and autonomy in this strategic field. ESA's Navigation programmes represent Europe's driving force for innovation and resilience in space-based positioning, navigation and timing (PNT).

> “Europe has stepped to the forefront and is shaping the future of satellite navigation, ensuring Europe’s long-term leadership and autonomy in this strategic field ”

NAVISP, the Navigation Innovation and Support Programme, focuses on developing industrial capabilities across the entire value chain, supporting product development and de-risking R&D activities to strengthen the competitiveness of the European PNT industry.

FutureNAV matures and demonstrates forward-looking system concepts and upstream technologies, including Celeste (LEO-PNT), Genesis, OpSTAR, Novamoon and Future PNT Demonstrators, ensuring Europe remains a global leader in resilient PNT solutions on Earth and beyond, supporting Lunar exploration.

Celeste, ESA’s LEO-PNT mission will see its first in-orbit demonstration satellites launched this year, adding a powerful new multi-layer dimension to Europe’s satellite navigation. ESA’s Celeste will prepare an institutional EU LEO-PNT future operational system, with Galileo at its core, and will open new market opportunities worldwide.

The impact and success of EGNOS and Galileo, and ESA’ s unique and diversified portfolio of PNT R&D programmes, are an extraordinary collective achievement embodying core European values for the benefit of science, economy, society, security, and which supports the implementation of national and European policies.

Satellite Navigation is a true European success story, the result of three decades of trusted partnership among institutions and industry, each contributing their unique expertise. We shall collectively ensure that Europe’s satellite navigation capabilities remain reliable, competitive and strategically autonomous for decades to come.

Diana Morant Ripoll

Spain's Minister of Science, Innovation and Universities and President of the Spanish Space Agency (AEE)

She holds a degree in Telecommunications Engineering from the Universitat Politècnica de València, and her profile combines strong technical training with extensive experience in public management and institutional politics, particularly in areas related to innovation, knowledge, and regional development.

She began her political career as a city councilor in Gandía from 2011 to 2015 and later served as the city's mayor from 2015 to 2021. During that time, she promoted policies focused on administrative modernization, the digitalization of public services, and economic revitalization, with a strong emphasis on innovation, tourism, and sustainability. She also served as a member of Valencia Provincial Council from 2015 to 2017.

Morant held a position on the Valencian government's Tourism Board from 2015 to 2021, as well as on the Regional Council of the Spanish Federation of Municipalities and Provinces (FEMP). She was a member of the Board of Directors of the Valencian Port Authority from 2020 to 2021 and sat on the governing body of the Spain Convention Bureau between 2016 and 2019.

As minister, she has placed science, innovation, and knowledge at the center of the public agenda, strengthening RDI funding, improving working conditions for research staff, and promoting knowledge transfer to the productive sector. She has also played a key role in the creation and consolidation of the AEE, where she is advancing efforts to strengthen national capabilities and enhance Spain's position in European programs.

The 2025 Council Meeting at Ministerial Level (CM25) of the European Space Agency (ESA) marked a turning point for Europe's space industry, with the largest budget allocation in its history. As both minister and the president of the AEE, what are your thoughts on the outcomes of this meeting?

First and foremost, it's important to recognize that Spain has become a leading player in European space policy. We've secured a position as the fourth-largest contributor to the ESA, alongside Germany, France, and Italy, and for the first time ahead of the United Kingdom. Our contribution amounts to 8.46% of the total budget.

This step forward goes hand in hand with increased investment and a clear commitment by the Spanish government to the space industry, in line with efforts to strengthen our strategic autonomy. For the 2026–2030 period, we're talking about an average annual contribution of €455 million. This represents an investment more than 50% higher than in the previous period and triples what we were contributing in 2017. It also means that Spain is involved in the major European programs that are shaping the future of space—navigation systems such as Galileo, new secure communications constellations like IRIS^2, and Earth observation programs that are essential to understanding and safeguarding our planet.

We're strengthening our capabilities for access to space, supporting major European launch vehicles such as Ariane and Vega, and opening a new strategic line with small launchers. In fact, in the new European program, one of the four selected projects is Spanish.

CM25 confirmed a shift in our country's positioning. Today, Spain is not just at the table. It influences, makes decisions, and leads in the European space industry. We're solidifying the role of our scientific teams and our industry in a high value-added sector where Europe's technological autonomy is at stake.

Spain's financial effort has been significant, placing it among the countries with the largest contribution increases. What factors drove this decision, and what industrial, technological, and strategic return does Spain expect from this commitment?

Moncloa's financial undertaking is both significant and ambitious. I should stress that this is a political decision made at the national level: to build on what we already do well while strengthening the capabilities that underpin Spanish and European technological autonomy.

Spain is already strong in science, Earth observation, and navigation. Now we're stepping up our involvement in the most demanding European programs, especially the ESA's optional programs, which ultimately determine industrial and technological leadership.

We're also taking another step forward in strategic areas such as secure communications and autonomous access to space.

In science, we're increasing our contribution in order to support major international missions and ensure that our research groups remain at the forefront—participating in projects such as LISA and ATHENA, and spearheading our own initiatives such as ARRAKIHS.

In addition, we're bolstering programs such as PRODEX, which translate that science into instrumentation and technology developed in Spain.

In Earth observation, we're advancing programs such as ESCA+ as part of a broader European effort to scale up resilience and security, improving our ability to anticipate and manage emergencies. In space sustainability, we're addressing a critical challenge: the growth of orbital traffic and space debris. Spain is contributing through dedicated deorbiting missions and through space surveillance and tracking programs.

> "The CM25 confirms a change in our country's position. Today, Spain is not just at the table. It influences, makes decisions, and leads in the European space industry"

In space transportation, we're supporting both major European launch vehicles and new small launchers, with Spanish actors already involved in key initiatives.

In parallel, we're also driving technology programs such as GSTP, ARTES, and NAVISP, which help mature technologies and bring them into practical use across industry.

I always like to say that an astronaut's mission doesn't end until they return to Earth. In the same way, if you'll allow the analogy, investment in aerospace doesn't truly end until it strengthens us as a country. There's an industrial return, as our companies gain access to contracts and integrate into European value chains; a technological return, as we develop our own capabilities in strategic areas; and a strategic return, as we reduce dependencies and gain autonomy in a future-critical sector.

The creation of the AEE has restructured the country's space policy. Following its participation in CM25, do you believe Spain now approaches major European decisions from a stronger position?

For the first time, we have an organization that brings together the country's full range of aerospace capabilities—research, technological development, industry, and international engagement—and allows us to lay out a

shared strategy. This brings greater clarity and consistency to our decision-making.

In preparing for CM25, this change was decisive. We were able to approach the process from a broader perspective, looking beyond the immediate return of each program and focusing instead on the role we want to play as a country in the European space industry. This enabled us to secure a stronger negotiating position and deliver a contribution that stands out not only for its scale, but also for its strategic intent.

> “Spain no longer plays a supporting role but has taken the lead in strategic programs”

CM25 appeared to push towards a clearer focus on operational programs, strategic autonomy, and resilience. How well does this approach align with the priorities Spain has been advocating in the space industry, and how is it reflected in the AEE’s strategy and action lines?

It fully aligns with the priorities we’ve been advocating in recent years, including within the framework of ESA’s 2040 Strategy: to deploy our industrial capabilities and address society’s real needs.

Strengthening Europe’s position has been advanced in key areas such as navigation, secure connectivity, Earth observation, space traffic management, and autonomous access to space. These are the central pillars of Europe’s current mission. The AEE now has the role of translating these priorities into concrete decisions: investment, participation in programs, and the development of industrial capabilities.

The AEE emphasizes the need to strengthen critical national capabilities in areas such as navigation, Earth observation, secure communications, space surveillance, and launch systems. How can the outcomes of CM25 accelerate this objective, and what role should Spanish companies play in this new European industrial cycle?

They provide a clear boost to Europe’s industrial capabilities. This new cycle is particularly relevant for Spain. And yes, the outcomes of CM25 allow us to focus that effort on critical capabilities, prioritizing areas where a technological and industrial base already exists. This opens up a clear opportunity for our companies and reinforces their role within the European space ecosystem.

One of the recurring messages in the European debate is the importance of connecting space investment to a direct impact on society, whether in security, the green transition, connectivity, or public services. How should this connection be structured so that space is seen as a strategic investment in the service of the public?

As I said earlier with the astronaut analogy, the mission doesn’t end until

they return to Earth. And I don't mind repeating that all space investment improves our lives here and now. Satellite data are already an essential tool for anticipating and managing disasters, monitoring the impact of climate change, and improving security and connectivity. In a country particularly exposed to these risks, their usefulness is direct and part of everyday life.

For this connection to be better understood, we need to take a long-term approach—for example, through educational programs and teaching resources that encourage careers in STEM. We need to ensure that space is no longer seen as something distant, but as a strategic investment with a real impact on our daily lives.

Spain's space industry has already proven its capacity to lead highly complex European programs. What conditions do you consider essential to consolidate and expand that leadership, and to ensure that Spain plays an increasingly prominent role in major European space programs?

Spain's space industry has proven its capabilities. The challenge now is to cement our role in a context where leadership depends on complete systems, not just components. This means expanding capabilities in ground segments, services, and applications as well, with clear opportunities in areas such as the Internet of Things and autonomous mobility.

It will be key to deliver on the commitments made at CM25 and to take advantage of the upcoming 2028–2034 Multiannual Financial Framework, which foresees an increase in European funding for space and defense, particularly in critical areas such as communications, miniaturization, and non-terrestrial networks. At the same time, we must make it easier for more companies, especially SMEs, to get involved in European programs.

Looking ahead, where would you like Spain to be in the European space ecosystem in the coming years, and which strategic objectives do you consider a priority for the industry and for the country?

We are no longer a secondary player and have become a leader in strategic programs, driving next-generation technologies and providing Europe with autonomy. Proof of this is Celeste, the ESA's program to demonstrate an additional low Earth orbit (LEO) navigation layer to complement Galileo and EGNOS, improving the precision, resilience and security of Europe's PNT services. GMV has played a leading role in this project, and was responsible for one of the recently launched demonstration satellites.

Today we participate, influence, and contribute, with a voice of our own grounded in greater investment, stronger technological capabilities, and a rapidly transforming industry. A more robust ecosystem has emerged in just a few years' time, with companies developing technology and competing in international programs. From launchers to Earth observation and communications, this progress is translating into skilled employment, talent attraction, and greater autonomy in strategic areas. What's the next step? To continue with the same level of ambition: to trust in our talent and our capabilities, to keep expanding our presence in major European programs, to achieve a more innovative industry, and to reinforce a position that is no longer aspirational but a reality already delivering results.

GMV hosts first workshop to update EDA´s Strategic Research Agenda on Air Domain

The meeting brought together more than twenty European entities and ministries to advance in the definition of future technological priorities in this strategic area and to reinforce coherence between the needs of the Member States and the European industrial base

On 25–26 February, GMV hosted at its headquarters the first in-person workshop dedicated to the update of the European Defence Agency (EDA) Strategic Research Agenda (SRA) in the field of defence aerial platforms and systems.

The project, awarded to GMV in consortium with Airbus Defence and Space GmbH, the Łukasiewicz Research Network – Institute of Aviation (ILOT), and the Royal Netherlands Aerospace Centre (NLR – Nationaal Lucht- en Ruimtevaartcentrum), aims to assess the current state of the art of the European defence technological and industrial base in the field of aerial systems. Based on this analysis, the consortium will define a structured roadmap outlining priority short- and mid-term technological actions to guide future collaborative defense programmes.

A key objective of the initiative is to ensure alignment between the operational needs of EU Member States and the capabilities of the European defense industrial ecosystem. This alignment is essential to promote coherent investment, strengthen technological sovereignty, enhance interoperability, and maximise the impact of future European development projects.

As an active contributor to the drafting of the updated Strategic Research Agenda, GMV plays a relevant role in shaping the technological priorities that will underpin next-generation European defense capabilities. Hosting this first physical workshop, which was attended by representatives from more than 20 European entities and ministries, reinforces GMV's position as a strategic actor in the European defense innovation landscape, enabling high-level technical exchanges, fostering new partnerships, and contributing to the definition of future collaborative initiatives.

The project officially kicked off in the last quarter of 2025 and will run until the end of 2026. A series of additional workshops will be organised at the facilities of the other consortium members, complemented by structured online discussions across the different Technology Building Block (TBB) communities.

GMV's IOD-1 satellite, part of ESA Celeste mission, successfully launched from New Zealand

The in-orbit demonstrator (IOD) represents the program's first phase and will validate key LEO-PNT technologies in flight ahead of potential future operational deployment

Celeste IOD-1, developed by GMV and Alén Space under the European Space Agency's (ESA) Celeste In-Orbit Demonstrator (IOD) program, was successfully launched on March 28 from Rocket Lab's Launch Complex 1 in Māhia, New Zealand. The two satellites – built respectively by GMV and Thales Alenia Space - were launched at 10:14 CET and separated from the launcher about an hour later. This marks the beginning of their early operations phase, during which mission control gets them ready for life in orbit.

Celeste is ESA's strategic program to demonstrate the benefits of an additional low Earth orbit (LEO) navigation layer that complements Galileo and EGNOS, with the goal of improving the accuracy, resilience, and security of positioning, navigation, and timing (PNT) services in Europe. The in-orbit demonstrator (IOD) represents the program's first phase and will validate key LEO-PNT technologies in flight ahead of potential future operational deployment.

The Celeste IOD phase is being carried out in parallel by two European consortia and will include a total of eleven satellites plus one in-orbit spare. As one of the prime contractors, GMV is responsible for the end-to-end mission for six of the demonstrator satellites, including system definition and design, the space and ground segments, the user segment, and operations.

The Celeste program will begin with two demonstrator satellites, IOD-1 and IOD-2, aimed at securing registered frequency allocations and testing representative navigation signals through the end of the year. The mission will demonstrate precise autonomous orbit determination without relying on ground infrastructure, as well as stronger radionavigation signals in the L- and S-bands from low Earth orbit.

By demonstrating the advantages of integrating LEO capabilities into a multi-orbit architecture alongside Galileo (MEO), Celeste aims to improve resilience to interference and expand advanced navigation services. Operating at altitudes between 500 and 560 km, the Celeste demonstrators will assess how a complementary LEO layer can enhance Europe's Galileo system in medium Earth orbit.

Eight additional, larger satellites are currently under development to extend the capabilities of the initial demonstrators. These will form part of the full fleet (eleven operational spacecraft and one spare) and will pave the way for subsequent launches starting in 2027.

GMV was selected in 2024 by the European Space Agency (ESA) to lead one of the parallel contracts for the development of Celeste. The first satellite in the constellation, a 12U CubeSat named Celeste IOD-1, was jointly developed by GMV and Alén Space. In recent months, Celeste IOD-1 has undergone a complex assembly and integration process, as well as rigorous environmental and system testing. The results of these tests, carried out at GMV's facilities, confirmed that the satellite was ready for launch, as well as for initial LEOP (Launch and Early Orbit Phase) operations and in-orbit experimentation activities.

In December 2025, GMV successfully completed the Flight Readiness Key Point (FRKP), a milestone aimed at verifying Celeste IOD-1's readiness for launch. The milestone was overseen by an ESA delegation, which confirmed in the cleanroom at GMV's headquarters that the satellite was fully assembled and ready for transport. During the visit, ESA inspected the satellite in its final configuration and toured the operations room and the Celeste mission control center, from which the satellite will be operated once in orbit. This demonstrated that both the satellite and the full operational support infrastructure are ready for the mission's next phase. The latest results from navigation performance tests were also reviewed, confirming compliance with mission objectives.

EUSPA awards GMV stage 2 of the Service Data Access Facility (SDAF) project

The European Union Agency for the Space Programme (EUSPA) has awarded GMV Stage 2 of the Service Data Access Facility (SDAF) project, following a thorough evaluation process in which the company achieved the highest score in the assessment of the contractual performance of Stage 1.

The Service Data Access Facility will be a key component of the EGNOS (European Geostationary Navigation Overlay Service) infrastructure, having as a general objective to group in a secure and controlled manner the unique point of access to EGNOS data through the Internet.

EGNOS is a satellite-based augmentation system (SBAS) that enhances the accuracy, reliability, and integrity of GPS signals across Europe, primarily benefiting aviation, maritime, and land-based navigation.

During Stage 1, GMV carried out the initial design definition and prototyping of the Service Data Access Facility (SDAF) infrastructure, establishing the architecture, interfaces, and operational and maintenance concepts that form the technical foundation of the system. In Stage 2, the complete development and implementation of the system will be undertaken, including its integration, verification, and factory certification, deployment at the operational site, and connection with the EGNOS V2 infrastructure, as well as on-site acceptance and the start of maintenance and warranty activities.

This achievement reinforces GMV's strategic position within the EGNOS program and the global navigation sector. As the incumbent provider of the platform currently offering the EGNOS Data Access Service (EDAS), GMV will play a key role in the development of the SDAF, ensuring it meets the highest quality and security standards; a milestone that demonstrates GMV's commitment to innovation in satellite navigation and its leadership in cutting-edge European space projects.

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GMV contributes to international discussions of PNT technologies

From February 4th to 6th, GMV attended the PNT2026 event in Sydney, Australia, along with other organizations and companies operating in the space industry. This is a major gathering dedicated to positioning, navigation, and timing (PNT) technologies, jointly organized by the Australian Institute of Navigation (AIN) and the International Global Navigation Satellite Systems (IGNSS) Association.

This year's event brought together experts from around the world, to discuss the latest new developments and challenges for PNT technologies, including alternative PNT solutions, global navigation satellite system (GNSS) resilience, and potential risks for these systems such as jamming and spoofing.

GMV was represented by José Caro, Manager of the Augmented Navigation Systems and Services unit, and also by two of the company's satellite navigation engineers, Antonio González and Inés Fandos. In his presentation, Mr. González discussed some of the latest advances in jamming and spoofing detection and localization, which are using techniques based on artificial intelligence, while Ms. Fandos addressed the current and future precise point positioning (PPP) capabilities of SouthPAN, which is the Australasia region's GNSS augmentation system. Mr. Caro gave two presentations, one regarding a 2022-2025 performance assessment of the SouthPAN system, and the other emphasizing the operational advantages of dual-frequency, multi-constellation (DFMC) SBAS services, including their resilience when faced with extreme ionospheric phenomena.

These presentations given by GMV, together with those contributed by the other attendees, helped to enrich the dialogues that took place on the subject of PNT technologies, including their applications in a diversity of fields such as industry, research, and defense, the challenges posed by their use, and the latest innovations.

UK Invests in Satellite Timing Infrastructure to Strengthen National Resilience

Through a competitive process, GMV were selected to enhance the UK's national capabilities in delivering nationally assured, secure, and continuous Position, Navigation and Time (PNT) services for critical infrastructure, defence, and the broader economy.

GMV are leading the design, development, and testing of a Two-Way Satellite Time and Frequency Transfer (TWSTFT) system under the TOUCAN (TWSTFT Capability Demonstration) project. The contract, funded by the UK Space Agency and supported by the UK National PNT Office, is managed through ESA's navigation programme, NAVISP.

TOUCAN strengthens GMV's position as a leading provider of advanced time and frequency solutions. The project draws on the team's deep expertise in time transfer and system-level engineering, reinforcing the company's role in supporting the Government's Framework for Greater PNT Resilience.

TOUCAN complements efforts to reestablish a UK Enhanced Long-Range Navigation (eLoran) system, which will serve as a terrestrial backup to satellite-based services. A critical goal is to ensure that this system operates independently of the more vulnerable Global Navigation Satellite Systems (GNSS).

The project's primary objective is to establish an accurate, independently verifiable TWSTFT link between the eLoran transmitter and the National Physical Laboratory (NPL), the UK's official timekeeping authority. This new link will address GNSS-dependence within eLoran, maintaining a time traceable to UTC (NPL).

In addition, the system will provide a TWSTFT connection to a facility that operates an R&D timescale, a secure reference that will one day be essential for synchronising operations, maintaining communication integrity, and supporting mission-critical systems.

GMV are delivering the design, integration, and operational demonstration of the system, building on its proven track record in delivering secure national timing products and infrastructure. Project partner Viasat are supplying satellite bandwidth, as well as supporting GMV in analysing some innovative TWSTFT technology evolutions.

GMV awarded ESA's PRONTO project to enhance reliable positioning through 5G satellite networks

GMV has been awarded the PRONTO (Protocol for 5g Integrated Networks to Enhance Reliable Positioning) project, an initiative of the European Space Agency (ESA) funded under the ARTES 4.0 strategic programme line. Led by GMV in UK, with the University of Surrey as subcontractor, the project focuses on advancing the secure and efficient delivery of GNSS assistance data through 5G satellite networks.High-accuracy Positioning, Navigation and Timing (PNT) increasingly relies on timely assistance data to achieve enhanced precision, integrity, and rapid convergence. Within terrestrial 5G networks, the 3GPP LTE Positioning Protocol (LPP) already provides a robust, secure mechanism for distributing this information.

The evolution toward 5G Non-Terrestrial Networks (NTN) expands these capabilities globally. With continuous coverage and low-latency links, 5G-NTN can deliver trusted assistance and authentication data to remote or infrastructure-poor areas. This creates new opportunities across autonomous transportation, maritime operations, environmental monitoring, and resilient timing distribution.

Adapting 5G positioning protocols for satellite use demands innovation in secure data handling, protocol optimisation, and performance evaluation under space-segment constraints. Combining 5G and GNSS technologies will enable a more resilient and globally available PNT ecosystem, ensuring integrity and continuity of both positioning and synchronisation services.

The objective of PRONTO is to design and develop a simulation testbed for the secure delivery of GNSS assistance data over 5G-NTN. The activity will assess how 5G protocols and architectures can be tailored to support high-accuracy, integrity-critical applications, leveraging the reliability, low latency, and strong security features of 5G. The project includes defining representative use cases, implementing a configurable 5G-NTN simulator, and evaluating end-to-end system performance.

Ultimately, PRONTO will establish a validated technical baseline for 5G-enabled GNSS assistance dissemination and deliver a roadmap for future technological evolution and commercial exploitation.

GMV shares its expertise in space sector automation at RoboCon 2026

From 10 to 13 February, Helsinki hosted the 2026 edition of the Robot Framework Foundation's RoboCon. The event has emerged as a leading forum for the community using Robot Framework, an open-source automation environment widely used for automated testing and robotic process automation (RPA). As in previous years, experts and professionals in test automation and software quality had the opportunity to share real-world experiences, advanced use cases, and best practices in different industrial sectors.

GMV participated actively in the event, represented in the technical program by José María Martín, Domain Area Head Verification & Validation EST/SED, and Bruno Calvo, GMV´s Satellite Navigation Systems Division Head AIV & Operations Services. Together, they presented a session focused on how Robot Framework can be applied in the space sector, specifically in projects with stringent security, auditing, and compliance requirements.

During the presentation, both experts demonstrated how test automation has been implemented in operational systems and satellite data processing through a real project at the control center. They also addressed the main challenges of working in regulated and safety-critical environments and explained how requirements managed in tools such as DOORS can be linked to automated tests, ensuring consistency, traceability, and auditability throughout the entire system lifecycle. They concluded the presentation by sharing frequent challenges they face, as well as lessons they've learned over the course of their careers.

GNSS performance monitoring for EUSPA: extending operations and maintenance toward system evolution

Since 2016, GMV has supported the European Union Agency for the Space Programme (EUSPA) in the development and operation of the Galileo Reference Centre (GRC) in Noordwijk, the Netherlands. The GRC provides independent monitoring of Galileo services and other GNSS systems, assessing signal-in-space performance, data dissemination, and service quality against declared performance levels. It provides EUSPA, as the Galileo service provider, with an independent means of evaluating the performance of the Galileo Service Operator (GSOp) and the quality of the signals in space. It is fully independent of the system and the GSOp with respect to both the technical solution (HW, SW, reference products, etc.) and operations.

On 1 February, a one-year extension of both operations and maintenance activities for the GRC kicked off under a common framework contract aligned with the system's evolution, referred to as GRC V2. This contractual approach ensures continuity of service provision while preparing the transition toward the next generation of the platform.

The baseline version of the system remains fully operational and will continue delivering periodic monitoring, performance analysis, and reporting at least until GRC V2 passes its Acceptance Review milestone, currently scheduled for December 2026.

The operations team continues to manage the current version of the system on a daily basis, guaranteeing stable service provision and consistent performance reporting. In parallel, GMV's development team in Madrid performs corrective and adaptive maintenance, implementing targeted enhancements. Since 2016, the system has evolved significantly from monitoring Galileo Open Service (OS) and GPS civilian services. The baseline system is now capable of monitoring Galileo services, including the Public Regulated Service (PRS), High Accuracy Service (HAS), and OS Navigation Message Authentication (OSNMA), as well as open services of other GNSS, including GPS, GLONASS, and BeiDou. Recent updates include extensions to GNSS monitoring capabilities addressing the needs of the aviation community.

The evolution of the GRC will introduce a modernized infrastructure and expanded capabilities, enabling monitoring of new Galileo services as well as additional GNSS constellations, through both batch processing and real-time performance assessment.

This extension reaffirms EUSPA's confidence in GMV's expertise and secures operational continuity while the GRC advances toward its next evolutionary stage.

GMV leads the development of the future Galileo Ground Segment platform

GMV has been selected by the European Space Agency (ESA) to lead ARGOS (AI-enabled Resilient Ground-segment Operations & Security), a key study aimed at defining and demonstrating an advanced, service-oriented platform for future ground segment infrastructure. This contract, carried out under the Horizon Europe framework, represents a strategic milestone for the company, consolidating its role as a benchmark in mission control systems, cybersecurity, and advanced artificial intelligence-based solutions.

The ARGOS project aims to develop a scalable, sovereign, service-oriented Platform-as-a-Service (PaaS) infrastructure, designed to decouple infrastructure from applications and to enable a cloud-native and DevSecOps model capable of supporting future Ground Segment operations with the highest levels of resilience, automation, and cybersecurity. The solution will be built on state-of-the-art cloud technologies and will follow cloud-native architecture principles, automated operations, and continuous evolution.

To achieve this, GMV will lead a top-tier consortium comprising T-Systems, ImmediaIT, Two Impulse, and Wiser, combining complementary capabilities in sovereign cloud platforms, DevSecOps engineering, artificial intelligence, advanced automation, and critical application development. The solution will be deployed on a sovereign cloud infrastructure based on the Open Sovereign Cloud (OSC), ensuring technological independence, enhanced security, and compliance with European digital sovereignty requirements.

ARGOS will integrate advanced artificial intelligence (AI) capabilities to support operations, intelligent diagnostics, knowledge management, and cybersecurity. These capabilities will enhance early anomaly detection, incident resolution, and overall operational efficiency of the Ground Segment.

In addition, the project will demonstrate the automatic and secure deployment of representative GSEG applications for satellite constellation monitoring and control systems, validating their scalability, resilience, and operational continuity even during maintenance, upgrade, or incident recovery activities, and enabling operational scenarios involving hundreds of satellites.

With ARGOS, GMV and its partners will take a decisive step towards future navigation ground infrastructure, laying the foundations for a more secure, agile, automated infrastructure ready to address the operational challenges of the coming decade.

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This project is performed under the Horizon Europe activity reference HE-ESA-0272: Advanced Technologies Breadboarding for Low-Complexity Sensor Stations. Views and opinions expressed in this article are however those of the author only and and do not necessarily reflect those of the European Commission, EUSPA or ESA, which are not responsible for any use that may be made of the information contained herein.

GMV strengthens international presence at Space-Comm Expo 2026

GMV once again took part in Space-Comm Expo in London, a landmark event on Europe's annual calendar for the space and defense industries. Held on March 4 and 5, the expo brought together more than 240 exhibitors, 200 speakers, and 5,400 attendees from governments, institutions, and organizations around the world.

Miguel Ángel Molina, Deputy CEO of EST Space Systems at GMV, spoke on the panel "Spain in Orbit: Showcasing Innovation and Industry in the Space Sector." The discussion explored how Spain's space industry is turning innovation into operational reality by developing technologies that support missions, bolster security, and enable next-generation space services. During his remarks, Molina highlighted GMV's most notable satellite navigation projects, emphasizing the company's presence in the United Kingdom, where it has been operating for more than ten years in collaboration with organizations such as the UK Space Agency (UKSA).

The panel, supported by the Spanish Space Agency (AEE), brought together several Spanish companies and served as a forum for collaboration and joint participation aimed at strengthening partnerships with the United Kingdom and international markets.

GMV also took part in the exhibition area with a stand showcasing its latest solutions in space technology, security, and satellite systems.

GMV reinforces Galileo's cybersecurity with the integration of SECMON

TSIX has awarded GMV a contract for supporting the integration of the so-called Monitoring Entities (ME) with the SECMON system, the central monitoring and security threat-detection component of the Galileo program. This new contract strengthens GMV's role as a major player in the development of the ground segment of the European navigation system.

The project involves the integration of all the critical MEs developed by GMV as prime contractor: The Galileo Control Segment (GCS), the European GNSS Service Center (GSC), the Galileo Second Generation Test Bed (G2STB), the Search and Rescue Service Return Channel (SAR-RLSP) infrastructure and High Accuracy Data Generator (HADG), covering multiple phases of the program, as well as the currently planned evolutions of the system.

Integration with SECMON is essential to ensure Galileo's security, as it will allow each Monitoring Entity to provide complete and validated logs that SECMON can analyze to detect threats, anomalies and the critical security scenarios defined for each system. The process comprises all phases of the integration cycle: interface definition (IDP), factory integration (FIIS), VAL environment integration (VIIS) and operational environment (OIS), following a progressive approach based on integration campaigns and system maturity.

The project foresees the use of advanced tools such as MALICE, which allows generating realistic cyber-attack scenarios and validating detection against complex threats in a controlled and repeatable manner.

With a planned duration of 21 months, starting in December 2025 until August 2027, this new contract is a key element in consolidating the security of the Galileo system as it evolves towards its second generation. As such, GMV reinforces its technological leadership and its commitment to the security, resilience, and operational excellence of the European satellite navigation program.

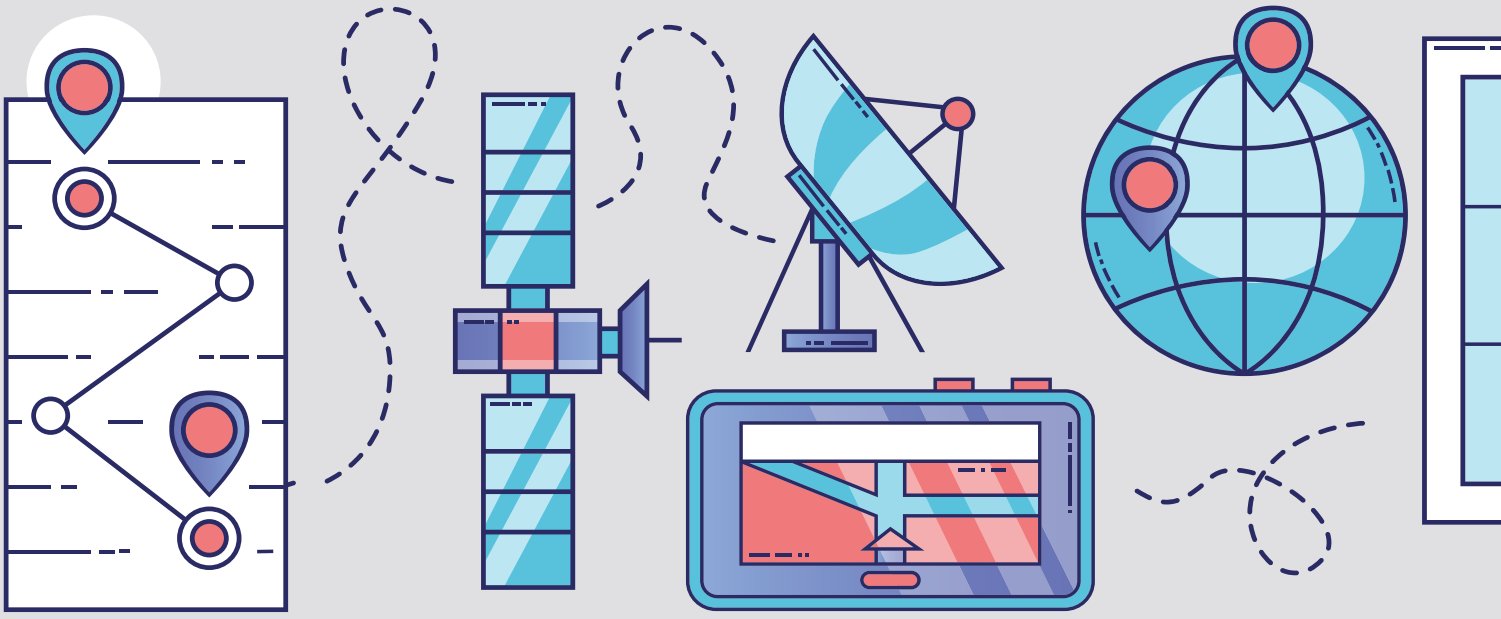
Opinion

Redefining high-precision GNSS positioning with factor graph optimization

High-precision GNSS has reached remarkable levels of maturity. Techniques such as Precise Point Positioning (PPP) and Real-Time Kinematic (RTK) are capable of routinely delivering centimetre level accuracy under favourable signal conditions. Yet the environments that increasingly matter, such as urban areas, dense and partially obstructed environments, remain fundamentally challenging. Multipath, signal attenuation, intermittent satellite visibility and cycle slips can severely degrade positioning engines built on traditional recursive estimation architectures.

A well-established mitigation strategy is the integration of complementary sensors such as inertial measurement units, vision systems, or LiDAR. Multi-sensor fusion undoubtedly enhances resilience. However, sensor augmentation alone does not fully address the core issue: how GNSS measurements themselves are modelled, weighted, and exploited within the estimation framework. There is significant potential in rethinking the estimation architecture to extract more information and more robustly from the same carrier-phase and code observations.

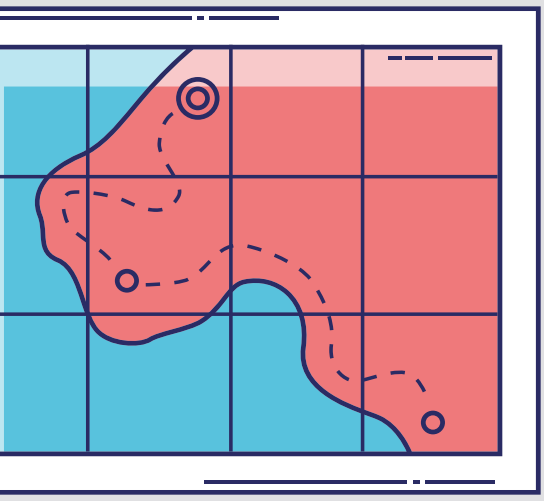
FASCINATE was conceived to address precisely this challenge: to redesign the estimation backbone of high-precision GNSS positioning using factor graph optimization, enabling a more consistent multi-epoch



"Factorial graphs provide a more flexible and scalable framework for high-precision positioning"

treatment of carrier-phase and code measurements and improved handling of non-Gaussian and time-correlated errors.

Factor graph optimization, already widely adopted in robotics, simultaneous localization and mapping (SLAM) and visual–inertial navigation, formulates estimation as a structured probabilistic inference problem. Measurements are represented as factors, states as nodes and temporal relationships are explicitly encoded across epochs. This contrasts with classical Extended Kalman Filter (EKF) approaches, where linearization and state propagation are performed recursively and locally. By retaining multi-epoch correlations and exploiting sparsity in the underlying structure, factor graphs provide a flexible and scalable framework for high-accuracy navigation.



Within the GNSS domain, this paradigm is gaining increasing attention. Recent research has demonstrated improved robustness to multipath, faster convergence in PPP and enhanced ambiguity resolution performance in RTK when adopting graph-based strategies. A key advantage lies in the explicit modelling of temporal correlations and measurement consistency across epochs. FASCINATE leverages the graph structure to encode these multi-epoch relationships directly, allowing the estimator to maintain solution coherence over time, better manage intermittent signal conditions and preserve continuity even in the presence of partial satellite outages.

Equally important is robustness in adverse signal conditions. Instead of relying solely on measurement rejection schemes, the graph framework allows the introduction of robust cost functions and adaptive weighting mechanisms, mitigating the impact of outliers without destabilising the solution.

Elisa Benedetti,
Head of Algorithms & Performance Monitoring Section
GMV´s satellite Navigation Systems

FASCINATE therefore represents more than an algorithmic refinement. It reflects a structural evolution in how high-precision GNSS engines are conceived: a transition from purely recursive filtering toward optimization-based architectures better aligned with the complexity and resilience requirements of modern operational environments.

RIPTIDE trials boost maritime navigation resilience in the Black Sea

As global shipping grows ever more dependent on satellite navigation, the vulnerabilities of GNSS have become a pressing concern. From commercial cargo vessels to smaller non-SOLAS ships, maritime operations rely heavily on PNT data for safety and efficiency. However, GNSS signals remain inherently fragile—susceptible to both accidental interference and deliberate jamming or spoofing. With low-cost interference devices and AI-driven signal generation tools now widely accessible, the risks are escalating, particularly in areas affected by overlapping military activities.

RIPTIDE aims to tackle this challenge head-on in one of Europe's most sensitive maritime regions: the Black Sea. Developed under the European Space Agency's NAVISP Element 3 program, RIPTIDE PHASE 2 has demonstrated a novel "monitor-and-protect" architecture designed to enhance the resilience of civil maritime PNT services.

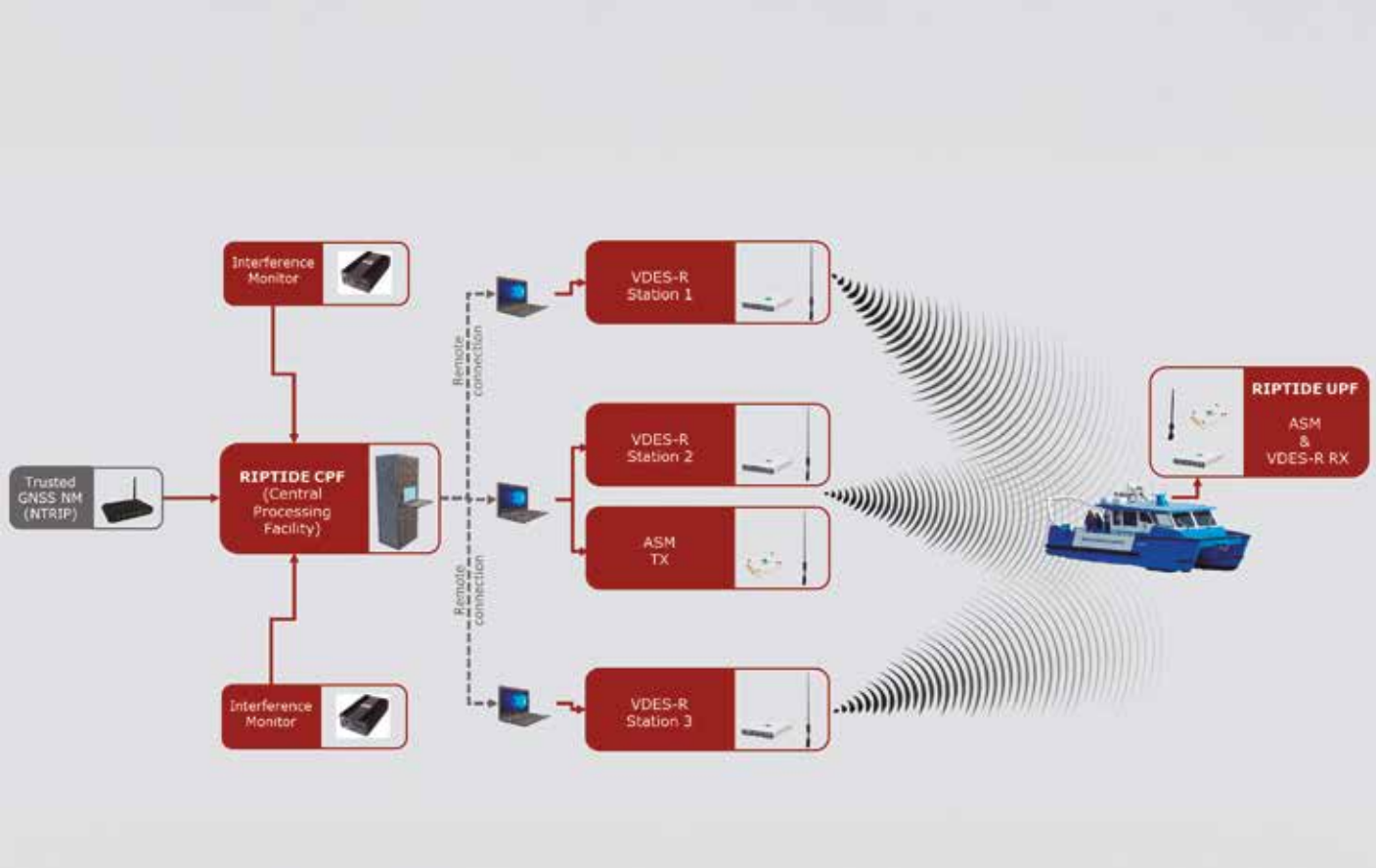
Rather than relying solely on GNSS, the system integrates multiple complementary layers. These include real-time GNSS radio frequency interference monitoring, alternative positioning through VDES-R (VHF Data Exchange System - Ranging), and the secure distribution of authenticated GNSS navigation messages via AIS/VDES application-specific messages. This approach makes optimal use of existing maritime infrastructure while adding redundancy and trust mechanisms.

RIPTIDE is led by the GMV team in Romania with support from GMV UK. The project also involves partnerships with the Maritime Hydrographic Directorate and the Romanian Space Agency Research Centre.

Field trials in the Black Sea tested a demonstrator under both nominal and interfered conditions. VDES-R performed strongly as an alternative positioning source, achieving position errors of less than 10 meters in cases with adequate geometry and signal power.

Future phases will address independent VDES-R synchronization, extended coverage, and additional features, laying the groundwork for full operational deployment.

This work is carried out under the European Space Agency's Navigation Innovation and Support Program (NAVISP).



Galileo First Generation GCS faces final operational validation

GMV has now completed deployment of version 3.1 of the ground control segment (GCS) in the validation environment (VAL) of Galileo's control centers in Italy and Germany, representing a new breakthrough in the progressive rollout of this version of the Galileo First Generation (G1G) system.

After a successful initial operational validation campaign at the backup site in Italy (VAL-I) at the end of 2025, activities in the first months of 2026 have focused on the installation, configuration and full integration of the system in the main validation chain in Germany (VAL-D) as an essential step before addressing its final deployment in the operational chain. This milestone required exhaustive coordination between the engineering, software development, integration, infrastructure and cybersecurity teams, ensuring technical consistency between environments and the correct preparation of the system.

The completion of the VAL-I and VAL-D deployment not only confirms the technical maturity of GCS 3.1, but also prepares the system for the decisive phase of the program: the final operational validation. This next stage, which will begin in the coming weeks, is aimed at the validation of the new version by the system operators. The activities to be performed in this phase include verification of the end-to-end behavior of the system in an environment fully representative of the actual operation, ensuring compliance with all functional, performance and safety requirements.

Once this final validation is completed, the final operational deployment will proceed with the objective of having this version fully operational for the next Galileo launch scheduled for the end of 2026.

This new achievement reaffirms GMV's ability to lead complex ground-segment deployments and its ongoing commitment to the evolution and robustness of the Galileo system.

The European Union activates GOVSATCOM with GMV leading the Hub, the central element of the system

Awarded by EUSPA to GMV in 2024, at the head of a European industrial consortium, GOVSATCOM Hub is considered a critical element for the operation of the system that makes possible the efficient, resilient and coordinated provision of the program services

The European Union has taken a decisive step towards strategic autonomy in space with the start of GOVSATCOM operations, the European Union Governmental Satellite Communications Programme. The system now enables EU Member States to access secure, encrypted communication services under European control.

At the core of this architecture is the GOVSATCOM Hub, the node that makes it possible to deliver these services in an efficient, resilient, and coordinated manner. In 2024, the European Union Agency for the Space Programme (EUSPA) awarded GMV a key contract to lead a European industry consortium for the design, development, and deployment of this Hub, which is considered a critical element for the system's operation. It is a multi-year contract with a budget of €107 million.

GOVSATCOM currently integrates satellite capabilities contributed by various EU Member States, with a total of eight satellites operated by five countries and foresees the progressive integration of new capabilities. The system has been designed to meet a broad spectrum of needs, ranging from crisis management and border and maritime surveillance to critical infrastructure protection and support for operations in remote environments and polar regions.

GMV leads the GOVSATCOM Hub, heading a consortium that includes Indra and Hisdesat, together with other European companies that have actively contributed to the system's development. The Hub aims to ensure optimal provision of satellite communications services through the aggregation and intelligent management of space and terrestrial resources. Its architecture enables medium-term planning of communication needs while also allowing the system to respond to dynamic and urgent requests arising from unforeseen scenarios, always under strict requirements for security, resilience, and sovereignty.

The project builds on GMV's expertise in space systems and cybersecurity, Indra's technological leadership in communications and command and control systems, and Hisdesat's operational track record in secure governmental communications.

In addition to managing the resources currently contributed by the EU Member States, the Hub is ready to integrate in the future the services of IRIS², the European Union's multi-orbital secure communications satellite constellation, whose deployment is planned for the coming years.

GOVSATCOM is one of the five components of the EU Space Programme, alongside Galileo, Copernicus, EGNOS, and Space Situational Awareness. It constitutes a key strategic enabler for the European Union's preparedness and resilience objectives towards 2030, as well as a fundamental pillar of Europe's strategy to strengthen its capacity for autonomous action and advance towards greater interoperability in defence and security.

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GMV strengthens its role in European human spaceflight

GMV has extended its participation in the Columbus Support Contract, reinforcing its key role within both the DLR/ESA Integrated Team at the Columbus Control Center (COL-CC) and the ALTEC-led TLO contract at the European Astronaut Centre (EAC). These renewals demonstrate the strong confidence placed in GMV's operational excellence, engineering capability, and long-standing commitment to Europe's Human Spaceflight programme.

At COL-CC, GMV provides a broad spectrum of mission-critical services to DLR ensuring the smooth and safe operation of the Columbus laboratory on the International Space Station (ISS). GMV teams continue to deliver high-value contributions in Flight Operations, Ground Operations, Ground Segment System Engineering, Subsystem Engineering, and the development and maintenance of Operations Support Tools used daily by engineering and operations teams across Europe. These capabilities are a clear demonstration of GMV's technical depth and its role in maintaining Europe's presence in low Earth orbit.

Under the ALTEC-led TLO contract at EAC, GMV supports training services for astronauts and ground personnel, ensuring readiness for current and future missions. Under this contract GMV also provides Operations Engineering Services to ESA Human Infrastructure Operations Team, supporting not only ongoing ISS operations but also future-oriented developments such as the LEO Cargo Return Service (LCRS), Gateway and future Low Earth Orbit Destination Projects.

GMV teams under these contracts have already begun preparations for the upcoming Gateway mission, which will succeed the ISS as the cornerstone of human exploration in the post-ISS era. GMV´s early work on Gateway builds on its established expertise and extends our support to our partners into the next generation of human spaceflight missions.

These contract extensions are a testament to the strong collaboration between GMV and its partners and the steady commitment of GMV teams in delivering high-quality support to Human Spaceflight.

GMV showcases its control solutions at GSAW 2026

From February 23 to 26, GMV took part in the Ground System Architectures Workshop (GSAW) 2026 in Los Angeles, California. This is a premier technical forum for the international ground system community.

GSAW celebrated its 30th anniversary this year under the theme "Ground System Disruption: Reshaping the Status Quo with Commercial Innovation." Discussions focused on how commercial innovation is redefining ground system architectures and their integration into government and civil solutions.

The program included plenary sessions, tutorials, working groups, and technical exhibits, bringing together experts, developers, and researchers to explore emerging trends and share experiences in designing and upgrading ground system architectures.

GMV presented several technical papers and hosted a stand in the exhibition area, where it showcased its range of satellite control products. In addition, José Miguel Lozano, Country Manager of GMV's EST Space Systems in the United States, and Juan Andrés Tejo, Head of EST Space Systems' Ground Planning Systems Division, took part in the conference line-up. During a plenary session, they presented GMV's satellite control solution and its Ground Systems as a Service operating model, and shared lessons learned from real missions—highlighting the company's expertise in developing cutting-edge solutions for increasingly demanding and dynamic space operations.

ESA relies on GMV for the Mission Planning of the Copernicus Sentinel Expansion Missions

At the end of 2025, ESA entrusted GMV with a major strategic responsibility: the development of the operational Mission Planning Functions (MPFs) for the Copernicus Sentinel Expansion Missions. This contract strengthens GMV's long-standing leadership in mission planning and reinforces decades of collaboration with ESA within the Copernicus program.

Earth Observation missions collect hundreds of images every day to support a vast range of applications, from tracking sea-ice and vegetation changes to monitoring natural disasters, supporting agriculture, informing climate research, and guiding infrastructure and urban development. Managing this constantly evolving acquisition plan—while balancing competing priorities—is a complex challenge at the heart of every Earth Observation mission.

This is where the Mission Planning Functions come into play. MPFs generate optimized acquisition and downlink plans by considering resource availability, mission constraints, orbit information, instrument characteristics, and other mission-specific factors. By orchestrating all these variables, they ensure efficient use of satellite and ground resources while meeting mission objectives.

ESA's confidence in GMV is backed by extensive experience. Over the past decades, GMV has developed, operated, and maintained mission planning systems for several core Copernicus missions—including Sentinel-1, Sentinel-2, Sentinel-3, Sentinel-6, and CO2M—covering the full lifecycle from specification and design to implementation, validation, and maintenance.

Under this new contract, GMV will lead the overall activities with the support of Alia Space Systems as subcontractor, and will be responsible for developing and maintaining the MPFs for two Copernicus Expansion Missions: CRISTAL and ROSE-L

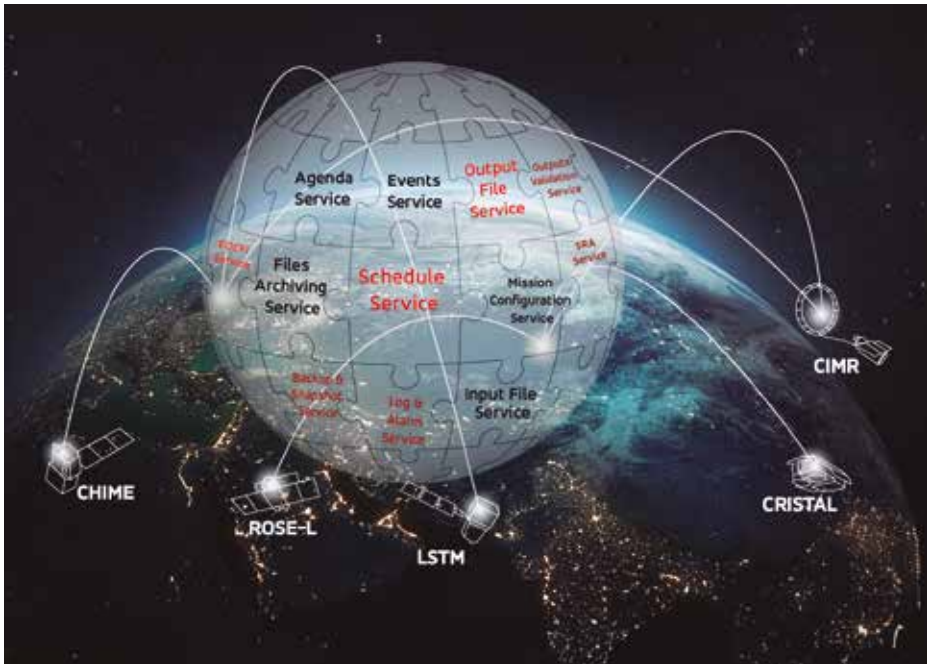
GMV's role extends beyond development. For the remaining missions—LSTM, CHIME, and CIMR—the MPFs will be procured through an Open Competition process based on tender documentation prepared by GMV itself. GMV will manage the full procurement cycle and supervise the execution and maintenance carried out by the selected subcontractors.

The contract foresees detailed development of each MPF, along with optional maintenance and potential evolutions to meet future ESA requirements, ensuring long-term adaptability of the mission planning systems.

Each MPF will be integrated with the Sentinels Mission Planning Framework (SMPF)—the generic, common mission planning layer also developed by GMV and Alia Space Systems under a separate ESA contract—to form the complete mission planning system for each Sentinel Expansion Mission.

SMPF is ESA's strategic component for current and future Copernicus Missions, providing a homogeneous Mission Planning concept of operations and improving overall systems efficiency.

Through this strategic responsibility, GMV continues to reinforce its position as a key technological partner to ESA and as a leader in mission planning for Earth observation missions. The company's expertise, reliability, and innovation will play a central role in enabling the next generation of Copernicus missions to deliver their full potential.



GMV expands global coverage of the *Focusear* system with a new contract

GMV has been awarded the FOCUSEAR-GEO-NE project by CNES (Centre National d'Études Spatiales) under the EU SST programme, in the context of the Financial Support to Third Parties Innovative Commercial Sensors, cascading grant EUSST2023-26 Project.

This contract will enable the deployment of a passive RF sensor network outside EU territory, strengthening Europe's capability to monitor geostationary (GEO) satellites transmitting in Ku-band across currently uncovered regions. The new network will consist of four stations delivering Time Difference of Arrival (TDoA) measurements with high accuracy (ca. 3 metres) and low latency (15 minutes), significantly extending the reach of the Focusear system already operational in Spain.

Focusear, fully developed by GMV, is an innovative passive sensor system that has proven to be an efficient, reliable, and cost-effective solution for continuous tracking of active satellites, even in the presence of frequent manoeuvres. The system currently operates three stations in Madrid, Valladolid, and Barcelona, delivering over 2,800 tracks per day.

The award of FOCUSEAR-GEO-NE consolidates GMV's position as a European leader in advanced space surveillance technologies, reinforcing its partnership with CNES and strategic role within the EU SST initiative. It also opens the door to future expansions of the system to new regions and applications, including low Earth orbit (LEO) tracking.

With this project, GMV continues to drive European technological autonomy in Space Surveillance & Tracking, actively contributing to a safer and more sustainable space environment.

The Focusear system, developed entirely by GMV, is an innovative passive sensor solution that enables automated and continuous tracking of all satellites broadcasting in Europe from geostationary orbit (approximately 36,000 kilometers from Earth) in Ku-band, the same band used for satellite television and communications. GMV provides data from this system to both civil space surveillance systems (such as EU SST) and satellite operators themselves, strengthening monitoring and control of the orbital environment.

GMV demonstrates its commitment to space sustainability at Space Debris Conference in Riyadh

GMV recently participated in the Space Debris Conference 2026 event, an international gathering organized by the Saudi Space Agency (SSA) and held on January 26th and 27th in Riyadh, Saudi Arabia. The conference brought together space agencies, satellite operators, industry representatives, and experts from around the world, to address one of the main challenges facing the space industry: sustainability for the space environment.

This conference has become established as a leading forum for analysis and discussion of the threats associated with space debris and space traffic management, providing opportunities for sharing strategies, technologies, and cooperative frameworks, with the aim of ensuring a safe and responsible use of space.

GMV had a presence in the technical program, with participation in two major sessions. On January 26th, Miguel Ángel Molina, GMV's Assistant Manager of Space Systems EST, participated in the panel discussion entitled "From Vision to Action: The Next Frontier in Active Debris Removal", which was focused on the evolution of initiatives for active space debris removal, and the steps needed to advance these capabilities beyond the conceptual phase and into real operations.

The following day, Alberto Águeda, GMV's Manager of Space Traffic Surveillance and Management, was part of the panel discussion entitled "Tracking the Threat: Space Debris and Traffic Coordination". In this case, the participants analyzed the current challenges related to space traffic surveillance and coordination, as well as the role of advanced systems for space monitoring and decision-making support for preventing collisions in orbit.

Spanish Air and Space Force and GMV Agree to Install Satellite Tracking Antenna

The Spanish Air and Space Force, on behalf of the Ministry of Defence, and GMV have signed an agreement to install a ***Focusear*** system antenna at Morón Air Base in Seville, dedicated to satellite tracking.

Through this agreement, the Space Operations and Surveillance Center (COVE) of the Space Command (MESPA) within the Spanish Air and Space Force will also gain access to data from GMV's ***Focusear*** system. These data will reinforce COVE's current monitoring and control capabilities, whose Space Situational Awareness and Control System (CCSE) was recently delivered by GMV, based on its ***Ecosstm*** software.

The ceremony was presided over by the Chief of Staff of the Spanish Air and Space Force (JEMA), Air General Francisco Braco Carbó, and served as the framework for signing the agreement between the Ministry of Defense and GMV on space surveillance matters. The agreement provides for the installation of a passive radiofrequency receiving antenna at Morón Air Base, Seville, a milestone that strengthens national capabilities in tracking satellites in geostationary orbit and consolidates public-private collaboration in this strategic domain. From the Ministry of Defense, the agreement signing was also attended by Major General Isaac Manuel Crespo Zaragoza, Commander of Space Command (MESPA); Brigadier General Enrique Cuenca-Romero Jiménez, Chief of the JEMA Cabinet; and Colonel Ignacio Sánchez González, Deputy Commander of the Spanish Air and Space Force Headquarters Group.

Representing GMV were the company's CEO, Jesús B. Serrano; GMV's Director General for Defense and Security, Manuel Pérez Cortés; and GMV's Director of Space Surveillance and Traffic Management, Alberto Águeda.

GMV develops satellite launch tracking algorithms to back up the NSpOC

GMV has been awarded a contract by the UK Space Agency (UKSA) to develop advanced algorithmic capabilities for space launch monitoring, supporting the analytical requirements of the UK National Space Operations Centre (NSpOC).

The activity focuses on the development and demonstration of data processing algorithms designed to detect, identify, and characterise space launch events using heterogeneous observational data sources. The work contributes to the continual enhancement of the UK's Space Domain Awareness (SDA) capability, enabling more timely detection of catalogue changes and improved understanding of launch-related activity.

The award builds on GMV's established expertise in Space Surveillance and Tracking (SST), Space Situational Awareness (SSA) and mission-critical systems.

The work is being delivered as part of the UK Space Agency's Contracts for Innovation programme, which fosters rapid development of novel R&D solutions with the potential to inform future operational capabilities. GMV's activity will focus on algorithm development, technical validation and assessment of applicability to existing analytical workflows, providing a foundation for potential follow-on development and integration into the NSpOC.

GMV awarded contract to study the future European SST Marketplace

In 2025, GMV was awarded a new contract by the Spanish Space Agency (AEE) for consultancy activities on the need and definition of a Marketplace for Space Surveillance and Tracking (SST) services. The contract, linked to tender 2024/00000063, will help lay the foundations for a more dynamic and competitive commercial SST market in Europe.

During the execution of the recently completed project, the need, potential benefits, challenges, and implementation options for a digital platform centralizing access to commercial SST services across Europe were assessed. The initiative responds to priorities identified by the European Commission and the EU SST Industry and Start-ups Forum (EISF), in which AEE leads the Working Group on Services.

GMV has explored three levels of Marketplace complexity: from a basic directory of services (Level 1) to a fully integrated platform hosting provider software and managing secure transactions (Level 3). The study has also assessed technological solutions, industrial interest, user needs, and potential roles for institutional actors such as the EU SST and national space agencies.

This award reinforces GMV's leadership in the European space domain, building on its extensive experience in SST services, sensor development, and data processing systems.

Funded by the European Union

This project has received funding from European Union programmes under contract EUSST2023-2026GA. Views and opinions expressed in this article are solely those of the author and do not necessarily reflect those of the European Union or the Spanish Space Angeny, which are not responsible for any use that may be made of the information contained herein

The Netherlands Space Operations Centre relies on GMV to strengthen its SDA capabilities

The Netherlands Space Operations Centre, a branch of the Royal Netherlands Air and Space Force, will incorporate GMV technology to strengthen its Space Domain Awareness systems. Specifically, the center will integrate ***Ecosstm®*** software, GMV's advanced solution for Space Surveillance and Tracking (SST) control centers, Space Domain Awareness (SDA), and Space Traffic Management (STM), into its operational architecture. Among other functionalities, it will provide space object catalog maintenance, overflight events detection, re-entry monitoring, and collision avoidance management.

Ecosstm® covers the entire operational chain, from sensor planning and allocation to the provision of advanced services to end users, including the generation and maintenance of a space objects catalog.

The technology that the Netherlands Space Operations Center will now adopt is already operating in other demanding environments. These include the German military Space Domain Awareness Center (Weltraumlagezentrum), the Spanish military Space Operations and Surveillance Center (COVE), the civilian space surveillance systems of several countries, such as Romania and Greece, GMV's commercial space surveillance operations center, ***Focusoc***, and the new Space Safety Portal of the Space Data Association. This track record validates the maturity and reliability of the solution.

The adoption of ***Ecosstm®*** by the the NLD Defence Space Security Centre strengthens European cooperation in space security and reinforces GMV's position as a leading provider of space surveillance, command, and control systems, with proven experience in both civil and military applications.

GMV participates in 1st edition of EMACOT Cultural Week

From February 2nd to 6th, GMV participated in the 1st edition of the Cultural Week event held at the Cuatro Vientos Air Base near the city of Madrid, organized by the Spanish Air and Space Force's Technical School for Command, Control, and Telecommunications (EMACOT).

GMV took part in a panel discussion dedicated to the space industry, where it was represented by Alberto Águeda, the company's Manager of Space Surveillance and Space Traffic Management. He explained GMV's capabilities in the fields of defense and space, with an emphasis on space surveillance, and he also participated in a related colloquium along with Colonel Francisco Rubio (Head of the Aerospace Observation Systems Center – CESAEROB), Lieutenant Colonel Manuel Olmos (Head of the Space Surveillance Operations Center – COVE), and Cristina Perez (Director of the Spanish Space Agency's Space Surveillance and Tracking Operations Center – S3TOC).

This event has been designed for students who are completing their final year at the EMACOT school, as part of its focus on providing specialized training to military personnel in the areas of aerospace command and control, communication and information technologies and systems (ICT/CIS), electronics applied to ICT, electronic warfare, and IT and cyberdefense systems.

GMV leads the integration of an Autonomous Collision Avoidance system under the ESA Space Safety Programme

GMV is leading a new activity aimed at deploying an integrated ground-based Autonomous Collision Avoidance system, addressing the growing operational challenges posed by space debris and the rapid increase in satellite numbers.

Today, more than 30,000 space objects bigger than 5 cm are catalogued and routinely tracked, including more than 10,000 operational satellites, while hundreds of thousands of smaller debris objects are estimated to exist in Earth orbit. This rapidly evolving environment represents a significant and increasing risk to space infrastructure, particularly for large fleets and satellite constellations.

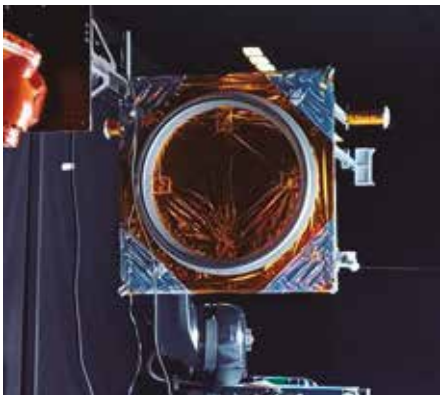
To mitigate collision risks, public institutions, such as the US Space Force 19th Space Defense Squadron (19SDS) and the European Union Space Surveillance and Tracking (EUSST) consortium, provide collision risk assessments to satellite operators worldwide. These services are complemented by private initiatives, including GMV, which deliver commercial space situational awareness and collision risk analysis. While collision assessment has become a routine operational activity, the growing number of alerts, mainly due to the new mega-constellations of satellites, makes traditional processes increasingly impractical and costly. This creates a clear need for reliable, end-to-end automation.

In this context, the new activity led by GMV, with the support of Guardtime and Politecnico di Milano as subcontractors, focuses on the integration and deployment of a fully automated collision avoidance system. It will therefore deliver a new integrated version of the system ready for shadow operations, enabling satellite operators to test advanced autonomous functions within their own operational environments and provide direct feedback ahead of operational adoption.

This activity will integrate core software elements developed in previous ESA's Space Safety Programme projects: AutoCA, the autonomous collision assessment and avoidance software developed under CREAM#1; AutoSTM, the coordination platform to coordinate collision avoidance between satellite operators developed under CREAM#3; and STCM, developed under CREAM#4 to support monitoring of coordination processes. The integrated system will support automated decision-making, secure data exchange and coordinated manoeuvre planning between operators.

The activity will demonstrate and mature decision-support and coordination capabilities for collision avoidance manoeuvres, supporting safer and more scalable satellite operations in increasingly congested orbits.

With the EROSS-IOD project, GMV achieves TRL 6 for key space robotics technologies



The final demonstration for the project known as EROSS-IOD (European Robotic Orbital Support Services - In Orbit Demonstrator) recently took place at the German Aerospace Center (DLR), marking completion of the project. This milestone represents a decisive step forward along Europe's on-orbit servicing roadmap, with validation of technologies that will be fundamental elements of future missions for autonomous servicing, resupply, and assembly.

During the demonstration, the technologies developed by GMV fulfilled the main objective of advancing the technical readiness of strategic European technologies, with a TRL 6 maturity level achieved for ERGO (autonomy), ESROCOS (robotic control operating system), ROB_DFF (data fusion), and Model-Based Tracking (autonomous computer vision).

In the middle of 2025, the project passed the TRB for the Servicer Vision System, by using life-sized models and representative materials to successfully demonstrate the use of computer vision during the critical approach phase of the last 10 meters.

Then, on December 18th, delegations from the European Commission and member countries attended a Robotic Capture & Assembly Demo at the German Aerospace Center. During this demonstration, tests were performed for capturing a prepared satellite and an unprepared satellite, along with use of the CAESAR arm to assemble orbital replaceable units (ORUs). The results of this demonstration were a great success for the technologies developed by GMV: ERGO was able to orchestrate a fully autonomous capture, and thanks to ROB_DFF, the controller was able to receive precise information from the CAESAR arm's onboard sensors, with both of these elements operating on the ESROCOS platform.

With completion of the EROSS-IOD project, GMV has strengthened its contribution in the field of space servicing, giving Europe's space industry the capabilities needed for sustainable and autonomous operation in the new orbital economy.

Funded by the European Union

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GMV strengthens its position in navigation and New Space at the Munich Space Summit 2026

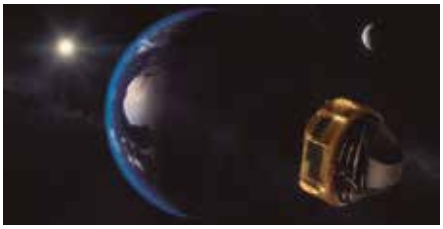
From 23 to 27 March GMV participated in the Munich Space Summit 2026, held in Munich's Alte Kongresshalle. This week-long meeting brought together the main stakeholders in Europe's New Space ecosystem, GNSS experts, and leaders in resilient positioning, navigation, and timing (PNT) technologies.

This year marked the first time two key events—the Munich Satellite Navigation Summit and the Munich New Space Summit—were held together, establishing the resulting conference as a key forum for addressing the future of commercial space, emerging applications, satellite navigation, security and critical infrastructure protection, all while fostering the exchange of ideas and driving new initiatives in the sector.

GMV played a prominent role in this year's edition as a "Constellation" sponsor of the Munich New Space Summit and "Platinum" sponsor of the Munich Satellite Navigation Summit, in addition to running a stand where it showcased its technological capabilities and strengthened its position in the European market.

GMV also actively participated in the technical program. Mattia Moscardino, GMV's general manager in Germany, participated in the "Innovation Spotlights - Industry Perspectives" panel, which addressed key trends from the industry's point of view, while Víctor Pozo, director of GMV's Navigation Systems Ground Control Segment, participated in the SATNAV 4 session on "Optical, Quantum and AI Technologies as Game Changers," which focused on the impact of emerging technologies such as optics, quantum, and artificial intelligence on the evolution of navigation systems.

GMV Advances toward System Critical Design Review for ESA's Flagship Mission ARIEL



ESA's ARIEL (Atmospheric Remote-sensing Infrared Exoplanet Large-survey) mission is reaching a key milestone as the program moves towards its System Critical Design Review (CDR) at the end of June. A successful review, in which ESA experts will scrutinize every aspect of the critical subsystems to ensure they allow the mission objectives to be met, will confirm that the satellite design is mature, robust, and ready to enter the next phase of development toward manufacturing and system-level testing. GMV's AOCS/GNC team is playing a central role in this achievement.

ARIEL, is scheduled for launch in 2031 to inspect the atmospheres of a thousand exoplanets orbiting stars beyond our Solar System. This will provide unprecedented insight into the composition, formation, and evolution of distant worlds.

At the heart of this scientific endeavor lies the spacecraft's Attitude and Orbit Control System (AOCS), responsible for ensuring that the main payload, the infrared spectrometer, AIRS, maintains exceptional stability and precision pointing toward its targets, maximizing the quality of the scientific data. Along with Airbus Defence and Space, which serves as both AOCS prime and prime contractor for the satellite, GMV's team in Portugal is co-responsible for the AOCS, a significant contribution to one of the mission's most demanding subsystems. GMV also supports the integration of the AOCS into the spacecraft's Central Software (CSW), contributing to the coherence and robustness of the onboard architecture. This underscores GMV's strategic involvement in the mission.

In preparation for this milestone, GMV successfully delivered the first version of the software last year and is preparing the second version while ensuring that all functional, operational, and performance requirements are rigorously verified ahead of the review. Next, GMV will continue supporting integration and validation activities on increasingly complex avionics benches, addressing new technical challenges as the mission advances toward launch.

With the CDR now in sight, GMV's contribution to ARIEL highlights the company's expertise in guidance, navigation, and control systems for ESA's missions.

GMV strengthens its role in the space industry with participation at the SSSIF 2026 event

From February 17th to 19th, GMV participated in the 2026 edition of the Small Satellites & Services International Forum (SSSIF 2026), which is a major international gathering focused on the space industry. During the three-day event, experts and representatives from more than 170 companies met in the Spanish city of Málaga, to explore the latest developments and technological advances related to small satellites, and to emphasize the role of activities in space for protecting society and strengthening European industry.

As a sponsor of the event and leader in the space industry, GMV participated in various panel discussions, covering topics such as resilience and space security, the role of satellites in Earth observation, innovation and dual-use technologies with civilian and defense applications, and the importance of talent in the space industry.

Enrique Fraga, GMV's General Manager for Space Systems EST, was responsible for inaugurating these discussions, which were distributed throughout the three days of the event. Other representatives from GMV who gave presentations included Miguel Ángel Molina, the company's Deputy General Manager for Space Systems EST; Juan Carlos Gil, Head of Innovation for Satellite Control and Mission Planning; Emanuele di Sotto, Head of Products for the Flight Segment Business Unit; Amaya Atencia, Head of the Mission Data Systems and Products Division for Space Systems EST; and Mariella Graziano, Manager of Science, Exploration, and Transport Strategy and Business Development for Space Systems EST.

Beyond participating in the panel discussions, GMV also hosted a booth in the exhibition area where it gave demonstrations of its solutions to the more than 400 scientists, designers, developers, and aerospace engineers in attendance. GMV subsidiary Alén Space was also on hand to present its latest developments in Software Defined Radio (SDR) platforms and products for nano- and microsatellites, and to share the first results from SATMAR, the satellite it placed into orbit this past June.

GMV supports the success of Artemis II, the historic crewed mission back to the Moon

NASA's Artemis II mission successfully launched on April 1 at 11:35 pm CET from Launch Complex 39B at the Kennedy Space Center in Florida, marking a new milestone in human space exploration.

The mission is part of the international Artemis programme, which brings together more than 30 countries and hundreds of companies worldwide. Led by NASA, it includes key contributions from agencies such as the European Space Agency (ESA), the Japan Aerospace Exploration Agency (JAXA) and the Canadian Space Agency (CSA).

Artemis II will send four astronauts on a 10-day journey orbiting the Moon, in the first crewed mission to the lunar vicinity in more than half a century since the Apollo missions carried out between 1969 and 1972. The mission´s main objective is to test the Orion spacecraft's life support systems with crew onboard for the first time, a crucial step toward future missions aimed at establishing a sustained human presence on the lunar surface.

As part of ESA's contribution to the Artemis II Mission, GMV has participated in ground systems engineering activities at DLR, including the definition of mission requirements, supporting the preparation of one of the most complex human spaceflight missions of the decade.

One of GMV's main contributions towards ESA for Artemis II is the development of the mission anomaly management tool, a critical system designed to report, analyse and resolve potential incidents during mission operations. This capability is essential to ensure mission safety and continuity and builds on GMV's extensive experience in developing operational

support solutions for human spaceflight and complex space missions.

In addition, GMV's training team under the ALTEC TLO contract for ESA travelled to Houston to train astronauts in the use of EveryWear, an application that is designed to monitor nutrition and medical intake, manage questionnaires and enable medical messaging during the mission. The system provides ground teams with valuable insights to support astronaut wellbeing throughout the flight.

GMV professionals will also form part of the ground control team, providing real-time operational support during Artemis II. This involvement highlights the crucial role played by European — and particularly German — expertise in NASA's return-to-the-Moon programme and underlines the importance of international cooperation in advancing human space exploration.

The mission plays a key role in advancing the next phase of space exploration, while highlighting international cooperation as a cornerstone for addressing the technological and operational challenges of long-duration human spaceflight.

GMV attends ninth annual GOVSATCOM conference

On February 26, Luxembourg hosted the latest iteration of GOVSATCOM, a high-level international forum focused on trends in secure government satellite communications. GMV took part as a Gold Sponsor, reaffirming its commitment to innovation and security in the SATCOM communications domain.

This year's program delved into the constantly evolving threats to critical infrastructure and the growing need for secure and resilient communication systems. The event brought together satellite operators, military users, government officials, and technology innovators to examine the EU GOVSATCOM initiative and its role in crisis management, cyberdefense, and space situational awareness amid rapid geopolitical change.

The agenda featured keynote presentations, panel discussions, and an exhibition area showcasing next-generation radiofrequency signal solutions and secure hosting services. GMV hosted a stand where it presented its most advanced solutions for government, institutional, and defense missions, aimed at strengthening the resilience, protection, and operational capability of critical communications.

In-Orbit Servicing for Large Space Antennas: GMV Concludes TRL Raise as TRACTOR Laboratory Is Successfully Inaugurated

As part of the In-Orbit Assembly of Large Antennas (IOANT) project, GMV has reached a key milestone by successfully inaugurating and demonstrating the new TRACTOR laboratory to the European Space Agency (ESA). This achievement marks a significant step forward in raising the technology readiness level (TRL) of the GNC technologies being developed for future large in orbit assembled antennas.

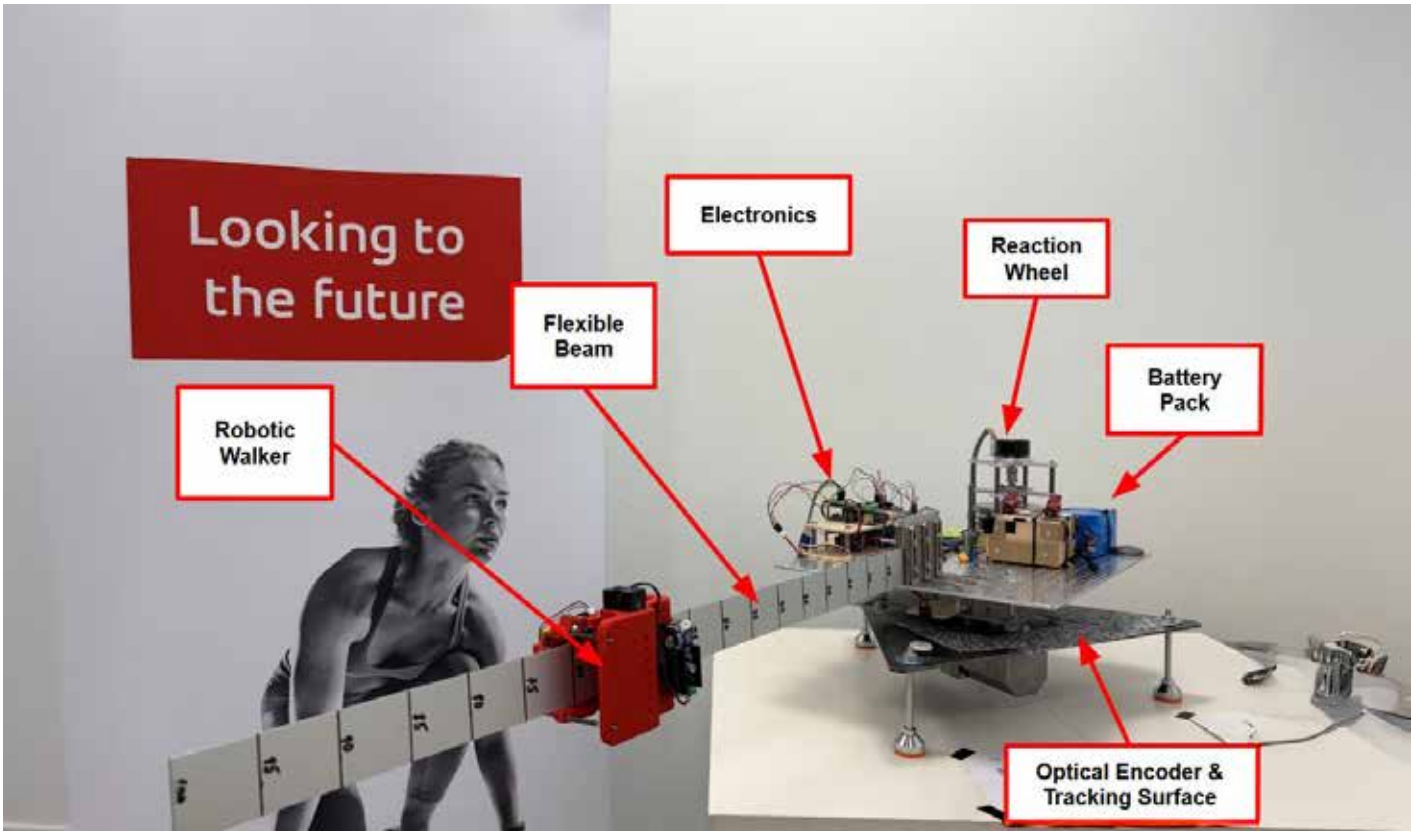
TRACTOR (Test Rig for Analysis and Control of Travelling Oscillations in a Resonant Beam) is a unique experimental laboratory designed and built by GMV to replicate, on the ground, the dynamic challenges faced during in orbit servicing, assembly and manufacturing (ISAM) missions.

The testbed comprises a low friction rotating platform, a flexible beam, and a robotic walker that can move along the structure, changing its inertia and bending characteristics in real time. This enables representative testing for spacecraft undergoing continuous configuration changes during assembly.

The platform's space-representative actuation (reaction wheel), custom sensing solutions, and fully wireless architecture provide an exceptionally clean environment for advanced GNC experimentation. Additionally, a complete digital twin developed in MATLAB/Simulink enables seamless transitions between simulation, software in the loop, processor in the loop, and full hardware in the loop testing. This rapid prototyping pipeline significantly accelerates controller development and validation.

During the ESA demonstration, GMV showcased TRACTOR's full capabilities, including exciting flexible modes, conducting system identification campaigns, and implementing closed-loop control with both fixed and gain scheduled controllers. The results clearly demonstrated the platform's ability to emulate the complex, time varying dynamics expected in future in orbit assembly missions.

Now that TRACTOR is fully operational, GMV is strengthening its leading role in enabling next generation space infrastructure through innovative, experimentally validated GNC technologies.



RAMSES successfully completes critical design review

The RAMSES mission, developed by the European Space Agency (ESA) in cooperation with JAXA, has successfully completed its critical design review (CDR), marking a major milestone in the program. The campaign took place over several weeks in January and February, during which the review board conducted a rigorous and comprehensive assessment, concluding that all objectives had been fully achieved.

The CDR confirmed that the detailed design of the RAMSES spacecraft complies with all technical, scientific, and programmatic requirements. This shows that the system architecture, development approach, and implementation schedule are all aligned with the mission's objectives, marking a significant accomplishment for the integrated teams from ESA, OHB Italia S.p.A., OHB SE, and GMV.

With this milestone, the project has passed the midpoint of its development and is now entering the final phase of implementation and integration of all technological elements. This stage will continue until the test readiness review (TRR), at which point the system will be ready for full testing.

The RAMSES mission is designed to rendezvous with the asteroid Apophis, whose close approach to Earth in 2029 represents a unique opportunity to advance planetary defense capabilities. The mission will enable detailed observation of how an asteroid responds to Earth's gravitational influence, providing critical data to inform future risk mitigation strategies.

GMV's strategic role involves developing the guidance, navigation, and control (GNC) systems for the main spacecraft and one of its two CubeSats, contributing its extensive expertise in this area – one of the company's core specializations for planetary defense missions.

RAMSES' GNC builds on previous GMV developments for the Hera mission,

while incorporating a new operational phase known as "hovering," which will be essential for carrying out the planned observations of Apophis with the required level of precision. Following the successful completion of the CDR, RAMSES is moving decisively forward on its path toward Apophis, reinforcing Europe's capabilities in planetary defense.

Hera successfully completes key maneuver on path to Didymos system

The Hera mission of the European Space Agency (ESA) successfully completed a two-phase deep space maneuver in February, marking a critical milestone in its journey toward the Didymos binary asteroid system, which it is expected to reach in November 2026. The operation adjusted the spacecraft's trajectory, ensuring it will intercept the asteroid later this year—ahead of schedule.

Deep space maneuvers are propulsive operations carried out once a spacecraft is far from Earth, during its interplanetary cruise phase. They are a type of advanced trajectory control and navigation technique used to fine-tune the flight path and ensure maximum precision at the point of intercept. In Hera's case, this correction was essential not only to ensure the spacecraft's arrival at Didymos, but also to bring that arrival forward, thereby extending the mission's overall duration.

Since its launch in 2024, GMV has played a key role in the Hera mission, leading an international industrial consortium. The company is responsible for designing and developing the guidance, navigation, and control (GNC) system, as well as conducting mission analysis near the target asteroids. GMV is also collaborating with France's CNES (Centre National d'Études Spatiales) in Toulouse on the CubeSat Flight Dynamics and Science Operations Centre, which will manage the control, planning, and execution of Hera's CubeSats, including Juventas. GMV has been instrumental in developing Hera's operational simulator and providing mission control support.

Following this maneuver, the Hera team will carry out the mission's most extensive asteroid operations validation campaign, with the goal of rigorously verifying all procedures to be executed during the mission in order to achieve its ambitious scientific objectives. To support this effort, GMV experts will be deployed to ESA's European Space Operations Centre (ESOC) in Darmstadt, Germany, where they will work on site alongside the Hera team, actively contributing to the execution of operational rehearsals. Their involvement is critical to ensuring the correct performance of the GNC system and the validation of navigation parameters in the vicinity of the asteroid.

The Hera mission represents a major step forward in planetary defense, as it will conduct a detailed study of the effects of the kinetic impact previously carried out by NASA's DART mission. At the same time, it will deliver valuable scientific data on the formation and evolution of asteroids and, by extension, the solar system.

MYRIAD, an initiative that will revolutionize the analysis of satellite imagery for defense, starts up

The MYRIAD research project (Multi-source information sYstem based on Remote sensing aI Analytics to support the strategic Defence domain), funded by the European Defence Fund, has officially commenced, bringing together a European consortium with the objective of developing advanced multi-source satellite imagery analysis technologies using artificial intelligence for strategic defense applications.

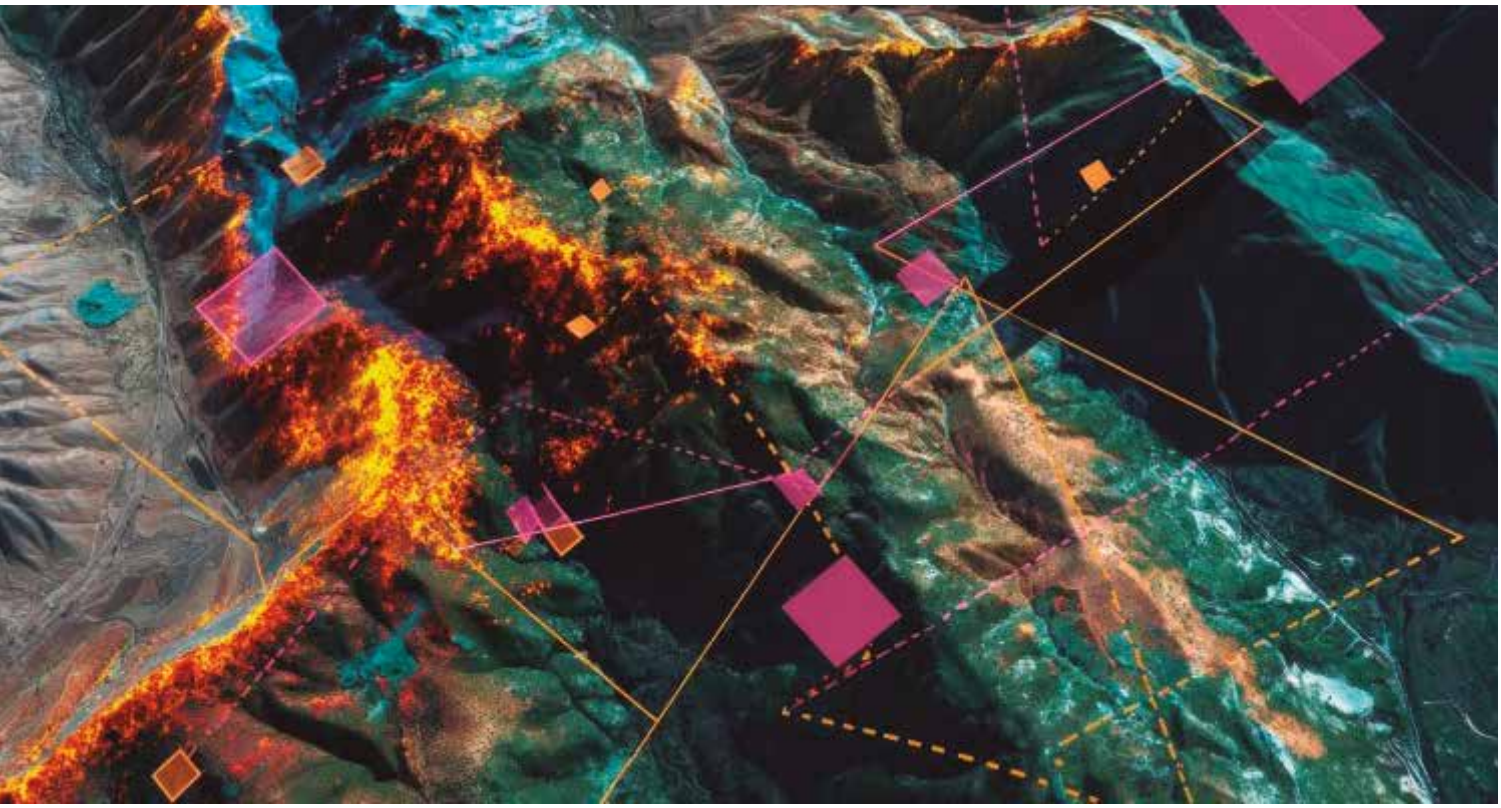
With a planned duration of 48 months and a total budget of nearly €5 million, MYRIAD is being developed by a consortium of nine European partners coordinated by GMV, involving leading organizations in applied research, artificial intelligence, space technologies, and geospatial analysis.

The project, which addresses a European technological challenge and seeks to improve the accuracy, speed, and reliability of analyses for defense applications through satellite imagery analysis, will be developed over four annual innovation cycles. During these cycles, a group of experts from European Ministries of Defence will provide feedback to ensure that the technological solutions are useful in real-world operations and can be deployed within the infrastructure of the European Union Satellite Centre (SatCen).

To achieve this, MYRIAD will focus on three key areas: development of advanced optical and radar imagery analysis technologies using artificial intelligence, evaluation and validation of their performance, and operational demonstrations with end-users to ensure effectiveness and relevance in real-world scenarios.

As project coordinator, GMV leads overall management, feasibility studies, and technical specification definition, as well as implementation of solutions through a workflow that will enable activation of analytical modules based on input data during various test campaigns.

The remaining consortium partners contribute key complementary capabilities, including expertise in compact space sensors and radiometric calibration, artificial intelligence algorithm and data analysis development, real-time processing and secure communications, multi-sensor data fusion tools, analytical workflow integration, and creation of datasets for AI model training.



Opinion

The role of Earth observation in public health

For decades, public health has relied on a reactive model predicated on symptom onset and patient arrival at healthcare facilities. However, this model, already strained and clearly limited, is growing increasingly inadequate as climate, environmental, and health crises have ceased to be exceptional events and have instead become the new normal. Climate and environmental phenomena, such as heatwaves, air pollution, floods, droughts, and shifts in disease vector distribution, exert direct and measurable impacts on population health, significantly elevating risks of respiratory, cardiovascular, and infectious diseases, as well as mental health conditions. Yet these early warning signals remain largely excluded from formal public health decision-making processes.

It is here precisely that Earth Observation, through satellite data combined with advanced analytics and artificial intelligence, can catalyze a decisive paradigm shift. By enabling continuous monitoring of critical environmental variables, such as air pollution, surface temperature, humidity, vegetation, and the extent of bodies of water, these data, together with increasingly accurate weather forecasts, provide early insight into risk factors. This capability makes it possible to identify patterns, trends, and anomalies preceding health impacts, allowing societies to anticipate, prepare for, and mitigate consequences rather than merely react to them.

International projects in which GMV participates and leads demonstrate that this approach is not merely theoretical and is advancing decisively toward operational implementation. Examples include EO4Health Resilience, which demonstrates how Earth Observation data can anticipate risks associated with vector-borne and water-borne diseases, and AIR4HEALTH, which explores integrating air quality data and environmental indicators with health information to enable risk assessment and more informed decisions regarding population exposure to air pollution.

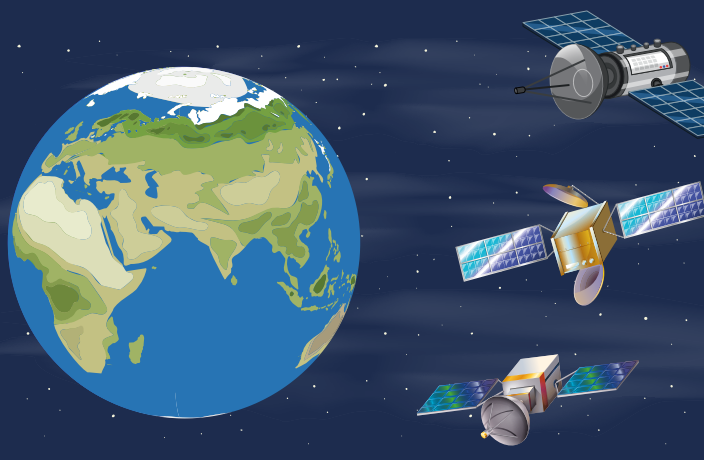
The challenge, therefore, is no longer primarily technological, but above all institutional and cultural. Integrating environmental data into health decision-making requires dismantling sectoral silos, fostering collaboration among scientific communities, and accepting that prevention begins long before contact with the healthcare system. It also means recognizing that investment in anticipation is, in fact, investment in resilience and in the effective response capacity of our societies.

In a world where climate and environmental pressures will inevitably intensify, persisting with a purely reactive model is to accept increasingly high and unsustainable human, social, and economic costs. Earth Observation data offers the opportunity to approach public health in a broader, more integrated, and preventive manner.

Filipe Brandão,
Senior Project Manager – Remote Sensing and Geospatial Analytics Division

"Earth Observation makes it possible to identify patterns, trends, and anomalies preceding health impacts, allowing societies to anticipate, prepare for, and mitigate consequences rather than merely react to them"

The question, then, is no longer whether we should use these data, but how swiftly we can integrate them effectively into the decisions that shape population health.



GMV strengthens its strategic position at the 18th European Space Conference

GMV strengthened its role as a key industrial player in the European space sector during the 18th edition of the European Space Conference, held on January 27 and 28, in Brussels. The event, one of Europe's main forums for political and industrial debate on space matters, brought together institutional leaders, agencies and industry representatives to address the challenges of sovereignty, security and industrial transformation of space in Europe.

As a sponsor of this edition, GMV played a prominent role in the program, actively contributing to strategic debates on industrial competitiveness, technological innovation and sustainability of the European space ecosystem.

Jesús B. Serrano, GMV's CEO, took part in the panel discussion on the competitiveness and preparedness of the European space sector for the next decade, where he stressed the importance of European space programs as critical infrastructure and as a driver of industrial consolidation. During his speech, he highlighted the need to preserve a diverse industrial ecosystem and to foster collaboration and partnerships as key elements for developing competitive and sustainable solutions in the long term.

GMV's vision was also present in the debates on satellite navigation, connectivity, exploration, space security and space traffic monitoring and management, with the participation of Miguel Romay, general manager of Satellite Navigation Systems, Enrique Fraga, general manager of EST Space Systems and Mariella Graziano, GMV's Director of Strategy and Flight Segment.

In parallel with the conference program, GMV participated in the signing of a new agreement aimed at strengthening collaboration between established and emerging space ecosystems in Europe, contributing to the development of a more integrated, competitive, and resilient industrial environment.

The European Space Conference was attended by senior representatives of European institutions, including the European Commission and the European Space Agency (ESA), who stressed the need to accelerate the transition from planning to execution to ensure the deployment of critical space capabilities in Europe.

GMV participates in the second edition of IESE Aerospace Day

On February 4, the University of Navarra's business school, IESE, held the second edition of IESE Aerospace Day, a strategic meeting that brought together leaders from the aerospace sector to analyze the main challenges and opportunities that will shape the future of the industry. GMV, which was one of the event's sponsors, played a prominent role in the program of speakers and moderators.

Under the title IESE Aerospace Day 2026, the conference offered a comprehensive overview of key issues such as technological sovereignty, open innovation, international cooperation and the evolution of airport infrastructure, promoting the exchange of knowledge and strategic reflection among attendees.

Representing GMV, Enrique Fraga, the company's general manager for Space Systems, took part in the panel discussion “Beyond Limits: Leadership and Vision for the Future,” where he shared his vision of the evolution of the European space sector. During his speech, he highlighted the importance of advancing leadership and industrial cooperation models that enable larger projects to be undertaken and strengthen the sector's competitiveness in the international context.

Amaya Atencia, head of GMV's Mission Data Systems and Products (MDS) division, moderated the round table discussion “Open Innovation: Emerging Technologies,” which focused on the role of open innovation and emerging technologies as drivers of competitiveness in the aerospace sector.

EO4Health resilience successfully concludes

The European project EO4Health Resilience, led by GMV in Portugal, has come to an end, marking a significant milestone in the application of Earth Observation (EO) data to the field of public health. Funded by the European Space Agency (ESA) under the Future EO Resilience framework, EO4Health Resilience assesses how environmental information derived from satellite data, combined with advanced data analytics and artificial intelligence techniques, can support the monitoring, modelling, and anticipation of health risks associated with environmental factors.

The project addresses a growing need for innovative, independent, and scalable tools that complement traditional health surveillance systems and enable progress towards more resilient, informed, and proactive systems, in the context of climate change, increasing environmental pressures, and the emergence of new disease patterns.

EO4Health Resilience has successfully demonstrated that EO data can play a concrete and operational role in public health, supporting early risk detection and more informed decision-making. The project focused on three main areas of relevance to public health: vector-borne diseases, water-borne diseases, non-communicable diseases and urban health.

Within the framework of the project, the consortium developed the EO4Health Virtual Observatory, a unified and user-friendly environment that provides access to information without requiring specialized knowledge of EO or geospatial analysis. This significantly lowers barriers to adoption for public health authorities, researchers, and other stakeholders.

SatCen visits GMV to review progress of project MUSO

GMV recently welcomed representatives from the European Union Satellite Centre (SatCen) to its Lisbon offices for a one-year progress review of MUSO (Multisource Analytical Assessments) project. The visit provided an important opportunity to assess achievements, discuss challenges, and strengthen collaboration under this strategic framework contract.

Project MUSO plays a pivotal role in bolstering security and situational awareness initiatives by leveraging advanced remote sensing, geospatial analysis, and open-source intelligence integration. The constructive dialogue held during the visit confirms the strong partnership between GMV and SatCen, as well as their shared commitment to delivering high-quality, reliable, and impactful analytical products.

The meeting brought together SatCen representatives and the MUSO consortium partners to review operational performance, production workflows, validation cycles, and service indicators collected over the first year of activity.

During the session, GMV presented the organizational structure supporting MUSO, including its geospatial production workflows, satellite imagery procurement processes, knowledge management tools, and validation tracking systems. The discussion also addressed lessons learned from previous activations and opportunities to streamline reporting cycles and enhance service responsiveness.

The visit included a guided tour of GMV's production facilities, which gave SatCen colleagues a first-hand view of the teams, infrastructure, and technological capabilities behind MUSO deliverables. This exchange reinforced transparency, trust, and alignment between operational teams..

Alén Space leads an ESA project for the detection of radio frequency interference from space

An international consortium led by Alén Space, with the participation of GMV (Spain and Poland), WideNorth and Universidad Politécnica de Madrid (UPM), has been selected by the European Space Agency (ESA) to develop a project focused on the detection and monitoring of radio frequency interference (RFI) from space.

The initiative is carried out under the FutureEO programme and funded by the ESA, with the objective of developing a prototype capable of identifying and geolocating interference sources on the Earth's surface across a wide frequency range, from 1 to 40 GHz.

The project, which is already underway and has a planned duration of 24 months, addresses one of the current challenges of the sector: protecting the radio spectrum against interference that can compromise the operation of Earth observation satellites and other critical space systems. To this end, the consortium will develop a CubeSat-format satellite prototype, conceived exclusively for ground validation.

Alén Space is responsible for the overall coordination of the project. Its activities include the preliminary design of the platform, the manufacture of the payload and the satellite laboratory prototype, and the development of the on-board application for interference detection and identification. Alén Space will also carry out the validation of the functionality of the payload, based on TREVO, the company's high-performance SDR.

The consortium brings together entities from Spain, Norway and Poland. WideNorth is responsible for the design, manufacturing and verification of the RF front-ends that will form part of the payload prototype; GMV Poland is in charge of mission analysis and end-to-end system simulation; GMV Spain is responsible for defining ground segment algorithm requirements and conducting test campaigns; and Universidad Politécnica de Madrid (UPM) will design and develop the interference geolocation algorithms for the ground segment.

Alén Space confirms SATMAR satellite tests in the Bay of Algeciras

Alén Space confirms the completion of the first demonstrator pilot campaign of VDES (VHF Data Exchange System) technology aboard its SATMAR satellite. In December 2025, several use cases were tested in a real maritime environment in cooperation with Egatel and with the support of the Port Authority of the Bay of Algeciras.

The first demonstrator pilot enabled message exchange between a vessel and the port control center to optimize transit times, reduce emissions, and improve port coordination. A second pilot validated the transmission of environmental and oceanographic data from a drifting vessel (simulating an offshore buoy) illustrating the type of applications that VDES technology will enable using low-cost equipment and a secure communications channel specifically designed for the maritime domain.

In addition, Alén Space conducted a demonstration of long-range reception of AIS (Automatic Identification System) messages from the SATMAR satellite, allowing vessel tracking even when ships are operating beyond the coverage of coastal stations.

The final pilot was carried out with the collaboration of Oritia & Boreas, which installed a VDES transmission terminal at one of its meteorological stations in the Bay of Algeciras. Alén Space, together with Egatel and other partners, will continue to conduct additional demonstration campaigns across different ports and use cases in the coming months.

The project has been funded through the Ports 4.0 program, an innovation-driven initiative for the maritime sector promoted by Puertos del Estado and the Spanish Port Authorities.

The main goal of SATMAR is to open a new chapter for the maritime sector by demonstrating the feasibility of the VDES communication standard in orbit.

Alén Space successfully launches the ETRISat satellite for South Korea's ETRI

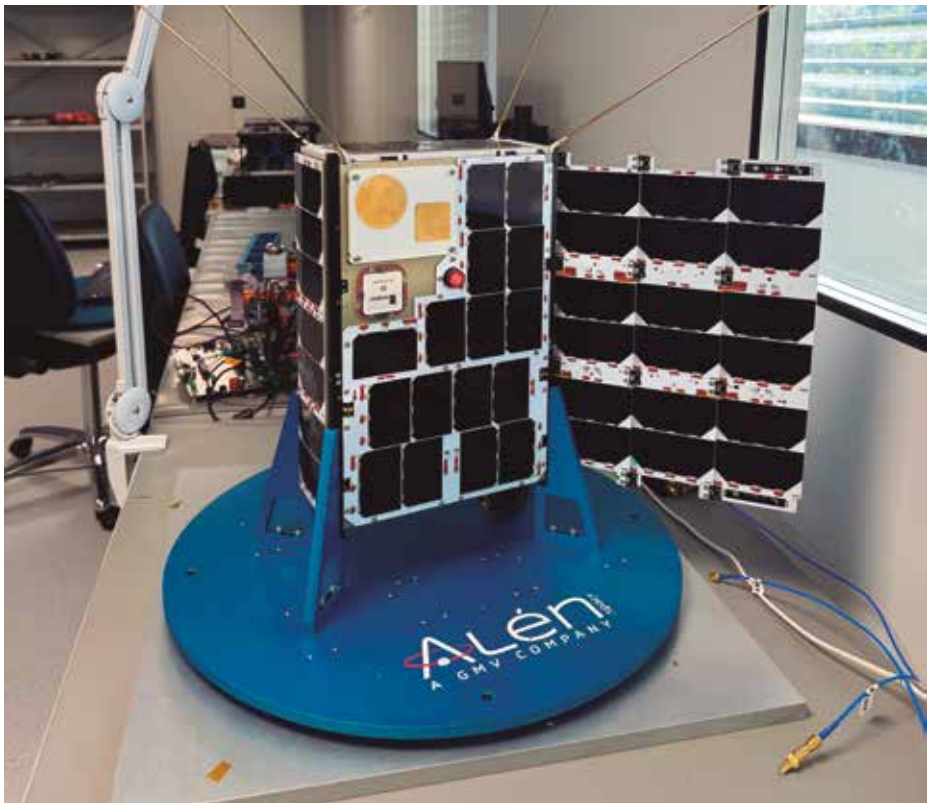
Alén Space has successfully completed the manufacture and launch into orbit of ETRISat, a 6U CubeSat fully developed at its facilities in Nigrán (Spain) for the Electronics and Telecommunications Research Institute (ETRI), one of South Korea's leading public research organisations.

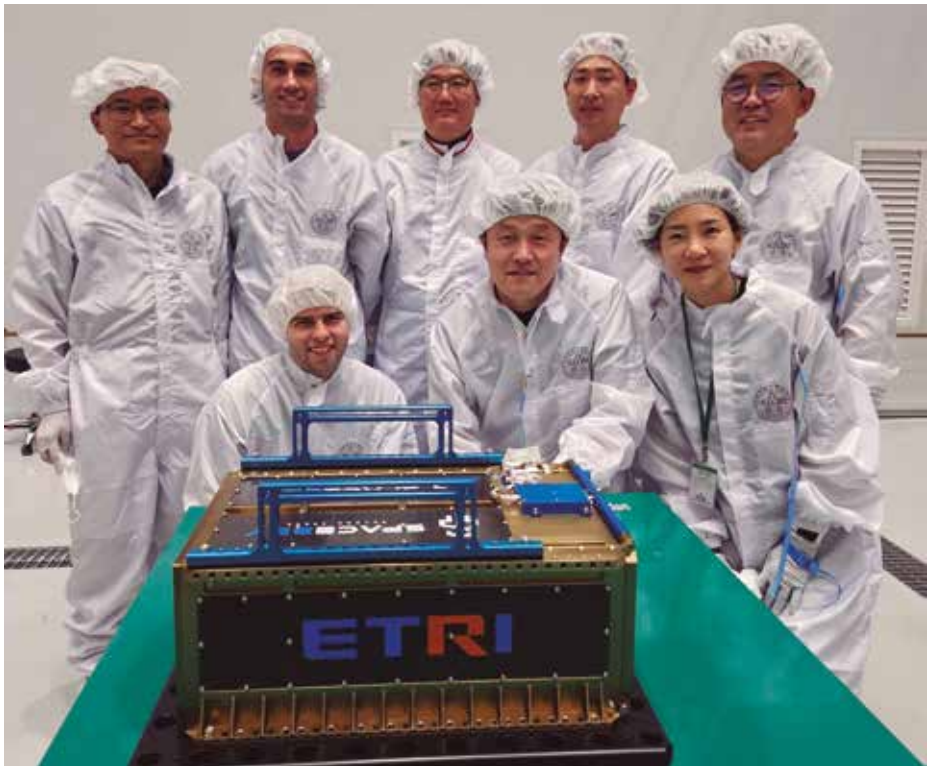
The satellite was launched from the Naro Space Center aboard a Nuri (KSLV-II) rocket operated by the Korea Aerospace Research Institute (KARI). Following this milestone, the mission now moves forward into its next operational phases.

ETRISat's primary objective is the in-orbit demonstration (IOD) of communications technologies, aligned with ETRI's initiatives focused on the evolution of next-generation satellite and maritime communication networks. One of the mission's challenges is the verification of signal transmission via ocean buoys equipped to collect data such as seawater temperature and wave height. During the mission, these signals will be relayed to ETRISat and subsequently transmitted to ground stations, enabling the evaluation of their effectiveness for real-time climate and ocean condition monitoring.

The satellite carries a payload based on TREVO, Alén Space's high-performance software-defined radio (SDR). Two independent applications run on this hardware: one developed by ETRI, focused on validating advanced communications solutions, and another implemented by Alén Space for the transmission of AIS (Automatic Identification System) signals used in maritime traffic management worldwide. This flexible architecture enables the customer to deploy its own solutions on a robust, flight-proven platform.

Alén Space has delivered ETRISat as a turnkey project, covering all stages from mission design and AIV to comprehensive test campaigns, the implementation of its Mission Control Software (MCS), and the initial in-orbit operations (LEOP). The Alén Space team's ability to adapt to ETRI's specific requirements, together with the experience gained in previous missions, made it possible to successfully accelerate the satellite's development timeline.





GMV and EM&E Group sign collaboration agreement for the development of ATP howitzers and SILAM

This pooling of capabilities will optimize the digitization of artillery platforms, ensuring that both the future ATP system and the SILAM rocket launcher feature cutting-edge technology

GMV and EM&E Group have signed a strategic collaboration agreement to combine their industrial and technological capabilities in the development of Special Modernization Programs for the supply of Self-Propelled Artillery Systems on Wheels and Tracks (ATP), the program for the nationalization of the High Mobility Rocket System (SILAM) and associated ammunition, as well as future projects in the field of weapons and ammunition systems.

This alliance, formalized in January, comes at a time when the Spanish defense industry is gaining momentum, and collaboration between companies is key to the development of new technological capabilities. In this regard, GMV will collaborate on the ATP project by contributing its latest technology in fire control and guidance systems, as well as its capabilities for integration with the national artillery command and control system (TALOS). In the case of SILAM, it will also be responsible for the launcher's fire control and guidance system, as well as the navigation module for guided rockets.

This pooling of capabilities between GMV and EM&E Group will optimize the digitization of artillery platforms, ensuring that both the future ATP system and the SILAM rocket launcher feature cutting-edge technology designed and maintained entirely in Spain. Both companies thus guarantee not only the operational autonomy of the Armed Forces, but also security of supply and total control over critical systems, avoiding external dependence.

Manuel Pérez Cortés, GMV's general manager for Defense and Security, said: "This agreement with EM&E Group reinforces GMV's commitment to the development of critical defense capabilities, providing advanced command and control, navigation and fire control solutions that ensure the operational autonomy and technological sovereignty of artillery systems."

Meanwhile, Javier Escribano, president of EM&E Group, pointed out: "Ambitious programs such as ATP and SILAM require the union of the best national capabilities. With this alliance, we add GMV's technological excellence to our productive capacity to ensure the success of the artillery of the future."

GMV Makes Further Progress on Developing Europe's Artillery Munitions of the Future

At the end of 2025, GMV hosted the first general assembly (GA) meeting for the FIRES2 project (Future Indirect fiRes European Solution 2), at the company's headquarters in the city of Tres Cantos near Madrid. This is a project supported by the European Defence Fund (EDF), and during the two-day meeting, the consortium's members reviewed the progress made on the project during its first year and laid out its roadmap for the next two years.

In addition to the general assembly meeting, specialized workshops were held to review the concepts of operation, functional architectures, and system requirements, to establish a baseline that will guide the ongoing design work for the various subsystems. GMV is playing a key role in the project, as the design authority for the rocket artillery system and leader for the guidance, navigation, and control (GNC) subsystem, with the priority of improving accuracy in GNSS degraded and electronic warfare environments.

The FIRES2 project has a duration of 36 months, and it is built upon the work completed during the FIRES1 project, which was part of the European Defence Industrial Development Programme (EDIDP). The overall aim is to make further progress on designing Europe's future artillery munitions, including prototyping and testing of key elements such as the seeker, GNC, and propulsion subsystems.

The FIRES2 consortium is made up of 21 companies from 13 different countries, and its members gave GMV a very positive appraisal for its organization of this latest event. They also agreed to continue with the current collaboration dynamic by holding another workshop in the near future, as well as having a meeting with the panel of experts and end users from the participating member countries, to present them with the design decisions adopted.

Co-funded by the European Union

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GMV took part in El Confidencial's Third Defense Challenges Forum

On January 29, GMV participated in the third edition of the Defense Challenges Forum, organized by El Confidencial and held in Córdoba under the title "Operational Deterrence: The Security Architecture in the New Era"

The meeting brought together prominent leaders of the Spanish and European defense ecosystem to analyze the main strategic challenges of continental defense in a context marked by hybrid threats, war in Europe and accelerated technological transformation.

Manuel Pérez Cortés, GMV's General Manager of Defense and Security, took part in the round table "Multidomain deterrence. Strategies, projects and objectives of the sector in the great transformation of continental defense", in which industry representatives addressed the strategic and technological challenges that will mark the evolution of the sector in the coming years.

During his speech, Perez stressed the need for defense and security investment to remain significant, predictable and sustained over time, as a key element to ensure the continuity of industrial, technological and innovation capabilities. He also stressed the role of the defense industrial fabric as a technological and economic engine, a driver of R&D&I and a generator of qualified employment, contributing to strengthening the competitiveness and technological sovereignty of Spain and Europe.

The forum was addressed by the Secretary of State for Defense, Amparo Valcarce, and brought together political leaders, commanders of the three armies, representatives of European and Atlantic institutions, industry executives and defense experts, who discussed operational deterrence in the Land, Sea and Air domains, the European roadmap towards operational sovereignty and key technological capabilities in the space domain, among other issues.

European Defense Fund PRECISE project officially launched

Coordinated by GMV, the project will develop an advanced AI and physics-based toolbox for automated 3D structural modelling and effect prediction over critical infrastructure and heavily built up areas in support of defense and dual use cases.

The European Defense Fund (EDF) research project PRECISE (Prediction and Response of Effectors on Critical Infrastructure and Structural Environments) has officially started, bringing together a strong European consortium to develop advanced technologies for automated structural modelling of infrastructures and effect prediction in predominantly built-up environments.

Coordinated by GMV, PRECISE is a four-year research action involving nine partners and two affiliated entities from five EU Member States: Belgium, France, Greece, Italy and Spain.

COTESA, FlySight, GMV, IKH, Indra, Indra Space, MEWS Partners, MEWS Labs and XenomatiX, together with the Royal Military Academy of Belgium and the Barcelona Supercomputing Centre, will work together to study the challenge, develop and integrate knowledge, and design the PRECISE toolset.

GMV will act as the project's integrator and coordinator and will lead the Systems Integration work package and the demonstration of the PRECISE solution. In addition, GMV will contribute to other work packages by leveraging the expertise gained in previous projects, such as the development of a Digital Twin for the FRONTEX agency and the development of effect analysis (weaponeering) applications for the Spanish Air and Space Force.

The project addresses a growing operational need to better assess critical infrastructure and urban terrain in both defensive and offensive military use cases, as well as in civilian and dual-use contexts.

PRECISE will develop a cutting-edge European toolbox combining multi-source data collection, AI-based structural modelling, and hybrid AI and physics-based effect prediction models. By exploiting satellite imagery, aerial and ground collected data, from EO, SAR, LiDAR and other sensors, the project will enable the automated generation of detailed 3D structural models and the simulation of interactions between those structures and different physical effectors. This capability will support more informed decision-making, helping to improve optimized operational planning while reducing uncertainty and potential collateral effects.

With the Project kick-off process completed, PRECISE enters its initial phase focused on work package synchronization, requirements definition, data collection planning and system architecture design.

Co-funded by the European Union

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GMV presents its solutions at the BACSI exercise held in Albacete

On 18 and 19 March GMV participated in the BACSI exercise held at the Albacete Air Base as part of the Spanish Air and Space Force's Connected, Sustainable, and Intelligent Air Base (BACSI) project.

One of the highlights of GMV's participation was the demonstration of the SAGA system, an aircraft tug with autonomous capabilities, presented by José Luis Delgado, head of GMV's Defense and Security Section. The demonstration showcased an advanced aircraft towing system with supervised autonomous guidance, capable of performing safe maneuvers in an airport environment through obstacle detection and intelligent trajectory planning. This solution is a major step forward in the automation of ground operations, improving the efficiency, safety, and resilience of air bases.

BACSI events have established themselves as platforms for technological demonstrations and applied innovation, aimed at validating cutting-edge solutions in a real-world operational environment and fostering collaboration between institutions, research centers, universities, and companies in the technological and industrial fields. This second edition featured live demonstrations, technical sessions and use-case presentations focused on strategic areas such as infrastructure digitalization, advanced connectivity, sustainability, automation, cybersecurity, and smart operational support systems.

GMV participated as a sponsor and had a stand where it showcased its capabilities in navigation, autonomous systems, and operations support, with special focus on the digitalization and automation of defense environments.

The systems on display included the ***ISNAV*** and ***ISNAV mini*** family of navigators, featuring advanced PNT (Positioning, Navigation, and Timing) capabilities and the option of integration with Galileo PRS. The company also presented systems that complement soldiers' capabilities, such as the ***LGB10/11*** ruggedized minicomputers, designed for hostile operating environments that require compact size and low power consumption. GMV also presented flight-proven solutions for unmanned aircraft and navigation systems such as ***NERVA***, designed to operate in GNSS-denied environments and slated for integration into the SIRTAP system.

In addition, Vicente de Ayala, the technical manager of the SAGA system, participated in a technical round-table discussion on "Digitalization- specific solutions" as part of the "Autonomous systems and government vehicles" section of BACSI Academic Conference. This technical and discussion-oriented forum addressed issues such as the application of artificial intelligence (AI) in operations, maintenance and ground support, autonomous systems and government vehicles, the ethical and operational limits of automation, and the management of smart warehouses.

GMV's stand was visited by leading authorities, including His Majesty King Felipe VI of Spain; the minister of defense, Margarita Robles; the secretary of state for defense, Amparo Valcarce; the director general of Weapons and Material, Admiral Aniceto Rosique; the executive director of the European Defense Agency, André Denk; and the president of the regional government of Castilla-La Mancha, Emiliano García-Page, who got a first-hand look at the company's technological capabilities and its contribution to the digitalization, automation, and resilience of air bases.

GMV signs the framework agreement for the maintenance of the Spanish army's *TALOS* command and control system

GMV has won the framework agreement for the "Maintenance of the ***TALOS*** command and control system" awarded by the Army Logistic Support Command (MALE). The contract, signed last December, will have a duration of three years, with the possibility of extension for an additional year.

This framework agreement establishes the contractual framework that will regulate future contracts based on the execution of specific system support and evolution activities, allowing the activation of different contracts throughout its term, depending on the operational needs of the Army.

The scope of this contract includes a comprehensive set of activities aimed at ensuring the operability and continuous updating of ***TALOS***, including software development, system security, integration of new equipment, training, technical assistance, support for international meetings, support for military maneuvers and support for engineering tasks.

Developed since 2010 for the General Directorate of Armament and Material of the Ministry of Defense, ***TALOS*** is GMV's C4I system for planning, conducting and executing military operations at tactical level. It enables the integration of various combat functions (command, firepower, intelligence, logistics, and communications), as well as comprehensive management of the fire support cycle. In addition, it facilitates interoperability with the allied countries' firing support systems that are part of the ASCA group (Belgium, Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Romania, Spain, Sweden, Turkey and the United States), strengthening multinational cooperation and

operational effectiveness in joint environments

With the signing of this contract GMV consolidated its position as a strategic technological partner of the army in the field of advanced command and control systems, helping to modernize and sustain its operational capabilities.

GMV showcases its technological capabilities at inaugural BEDEX

From March 12 to 14, Brussels hosted the first Brussels European Defense Exhibition & Conference (BEDEX), a new forum designed as a strategic platform for dialog among Europe's leading defense stakeholders. Companies, institutions, and representatives from the ministries of defense of EU and NATO countries took part in the event, which launched at a time of far-reaching change in European security and a growing need for enhanced cooperation across the continent.

BEDEX was supported by the Belgian Ministry of Defense, the Belgian Armed Forces, the European Defense Agency (EDA), and the European Commission.

Over the course of three days, the program included conferences, panel discussions, and meetings focused on the sector's key challenges and opportunities. The exhibition also featured interactive showcases, some 200 exhibitors, and more than 35 international delegations.

GMV took part in BEDEX with its own stand and through the stand of TEDAE, the Spanish Association of Defense, Security, Aeronautics, and Space Technology Companies. In both areas, GMV showcased its technological solutions across the space, aeronautics, defense, and security sectors, including multidomain command and control systems; intelligence, surveillance, and reconnaissance (ISR) solutions; resilient positioning, navigation, and timing (PNT) technologies; and space systems.

BEDEX also provided participants and attendees with the opportunity to hold meetings at exhibitor stands, both with industry players and representatives from European institutions. GMV welcomed several high-level visitors to its stand, including Miguel Ivorra, Director General for Defense Industry Strategy and Innovation; André Denk, Chief Executive of the EDA; and Türkiye's Deputy Minister of Defense.

New contracts expand GMV's role in MARSURIII

GMV's position as a leading contributor to maritime surveillance in Europe has been further solidified with the awarding of new European Defence Agency (EDA) contracts for the MARSURIII project. This expands the scope of the existing framework agreement and solidifies the company's role in the operational and technological evolution of the MARSUR network, which provides support for maritime missions and operations as part of the European Union's Common Security and Defence Policy (CSDP).

Some highlights of these new contracts include a renewal of annual maintenance services for the system, with GMV continuing to provide comprehensive operational support for all member countries of the MARSUR community. These services will include tasks focused on deployments, incident response, and analysis of software vulnerabilities, which will help ensure the reliability and security of the network.

Another contract awarded to GMV involves the addition of new functionalities, defined on the basis of the Standard Operational Procedures (SOP). The purpose of these upgrades is to align the system's capabilities with the actual needs of the operators, while also enhancing the system's interoperability and operational value by using new pre-operational services to strengthen interactions with the EU's Common Information Sharing Environment (CISE).

There is also another contract focused on improving interoperability, with GMV responsible for integrating the consumption capacity from the NVG standard. This will make it possible to receive information from the NATO systems while also expanding data exchange capabilities for maritime surveillance in multinational environments.

Finally, GMV will participate this year in NATO's CWIX26 exercise, which will take place in June in Bydgoszcz, Poland. In this case, GMV will perform data exchange testing using multiple protocols and formats (OTH, NMEA0183, and NVG). This will provide opportunities to validate the new capabilities in a real operational environment and to strengthen interoperability between the MARSUR system and other international networks and standards.

These new contracts can be added to those previously secured by GMV as part of its ongoing expansion in the field of maritime security in Europe. They also strengthen the coverage and effectiveness of the MARSUR network, which now benefits from the participation of 16 European countries and the European Union Satellite Centre (SatCen).

GMV participates in CISD plenary meeting held in Asturias, Spain

On February 17th, the Committee for Defense Industries and Services (CISD) held a plenary meeting at the town of Trubia in the Spanish region of Asturias. This event brought together some of the country's most important participants in the area of national defense.

For the members of the committee, the meeting provided opportunities for sharing knowledge and networking, as a key gathering for the Spanish Ministry of Defense's Directorate General of Weapons and Material (DGAM), the Defense Armaments and Materials Industries (IAMD), and other parties involved with the PECAL/AQAP auditing and certification system.

Some of the matters addressed during the meeting included updated information from the Ministry of Defense, follow-up procedures for the Working Groups on Software Quality and PECAL Non-Conformities, and a review of upcoming activities.

As part of the meeting's agenda, the attendees were also given a tour of the GDELS-SBS facilities, where the 8x8 Dragón vehicle is being produced. This is a strategic program for the Spanish armed forces, with GMV participating as the supplier of the ***ISNAV*** navigation system.

GMV was represented at the meeting by Manuel A. Lea, Assistant Manager of its Quality and RAMS department, who was able to reaffirm his company's commitment to the latest quality standards and some key programs for the defense industry, while also reinforcing GMV's ongoing role as a leading supplier of defense software development and maintenance services.

GMV delivers new SMACS system upgrades to the Spanish Navy

GMV has successfully provided the Spanish Navy with the latest version of the SMACS system, which is an adapter for the Navy's node of the European Union's Common Information Sharing Environment (CISE). This will further enhance the role of this maritime surveillance system as a key tool for interoperability between the Navy and other Spanish and European information exchange environments.

The new version delivered is fully compatible with the new services being provided by version 2 of that CISE node. This upgrade also adds new capabilities that include, among others, the ability to transmit and receive large volumes of data regarding the positions of vessels, by taking advantage of the service architecture and infrastructure of the CISE network to significantly improve the availability and updating of operational information.

Other highlights of the new version include the ability to monitor the network status from the adapter itself, which gives the operators more effective oversight of the system. The CISE message signing mechanism has also been updated, to ensure compatibility with upcoming evolutions of the node, while also ensuring operational continuity and security for the information being exchanged.

Another significant improvement from an operational perspective is an enhanced report module that expands upon the previously existing capabilities. It now offers additional report generation options, which were added in response to a specific need expressed by the Maritime Surveillance Operations Center (COVAM), and it also provides new analytical capabilities and expanded decision-making support.

The SMACS system was initially developed as an adapter to allow information exchanges among Spanish entities such as the Navy's COVAM, the Fisheries Monitoring Center (CSP), and the Operational Coordination Center (CECOP). However, over the years it has evolved to become an essential element for interoperability, giving the Spanish Navy the ability to act as a connection point between the European Union's CISE network and MARSUR military maritime surveillance network.

With this new delivery, GMV and the Spanish Navy have continued to expand their collaboration, for developing advanced technological solutions that are improving interagency cooperation and strengthening maritime security, with the SMACS system now providing essential support for the daily maritime surveillance and monitoring work performed by the operators.

GMV kicks off a new EMSA study to support safe and resilient autonomous maritime navigation

GMV has officially kicked off a new strategic project for the European Maritime Safety Agency (EMSA) focused on autonomous navigation, communication and connectivity for Maritime Autonomous Surface Ships (MASS). The study (Framework contract number – 2025/EMSA/2024/OP/0035) will provide technical foundations and regulatory-oriented guidance to support the safe introduction of autonomous and highly automated vessels into European and international waters.

As maritime autonomy continues to advance, the sector faces major challenges related to safety, resilience, and regulatory alignment. Through this project, GMV will analyse how emerging technologies—ranging from advanced navigation algorithms and sensor fusion to hybrid satellite–terrestrial communications—can be safely integrated into future MASS operations, in line with ongoing developments at the International Maritime Organization (IMO).

The study addresses three tightly connected pillars. First, it will assess autonomous navigation systems, reviewing state-of-the-art technologies from maritime, aviation and other transport domains, with particular attention to COLREG-compliant decision-making, positioning robustness, and AI-based approaches. Second, it will analyse communication and connectivity architectures, including satellite and 5G solutions, to ensure reliable, secure and low-latency links for autonomous operations. Finally, the project includes a structured consultation with key maritime stakeholders, enabling validation of technical findings and alignment with operational realities.

A central outcome of the project will be the development of a Goal-Based Guidance for navigation, communication and connectivity for MASS. This guidance will build on the latest draft IMO MASS Code and will include safety objectives, functional requirements, performance expectations, and testing and validation principles, supported by risk-based assessments.

GMV analyzes transformation of the JISR cycle in 3rd edition of CESEDEN's Intelligence Notebooks

Once again this year, GMV has made a contribution to the Intelligence Notebooks series. These are collections of academic articles published by Spain's National Center for Advanced Defense Studies (CESEDEN), which is part of the country's Ministry of Defense. This third edition is entitled La Transformación de la Inteligencia a través de la Innovación (The Transformation of Intelligence Through Innovation), and it features contributions made by authors representing a wide range of entities and organizations, in support of CESEDEN's view that in order to address threats and challenges in a consistent and effective way, intelligence must be seen as an asset that does not belong exclusively to any single organization.

This edition includes an article by Begoña Rojo, a member of GMV's Defense and Security Business Development team, who presents her perspectives on transformation of the joint intelligence, surveillance, and reconnaissance (JISR) cycle in the context of the digital era, which as she explains, is being driven by emerging and disruptive technologies.

The title of her article is "Transformación del ciclo JISR en la era digital: innovación tecnológica para alcanzar la superioridad informativa" ("Transformation of the JISR Cycle in the Digital Era: Technological innovation to achieve information superiority"), and it includes her analysis of how integration of capabilities such as artificial intelligence, distributed sensors, unmanned platforms, edge computing, and space systems is redefining the way in which the intelligence process is being planned, executed, and applied during increasingly multi-domain operations. She examines the impact of these technologies during each of the five steps of the JISR cycle (TCPED), and she discusses some of the challenges derived from their use, including the need to ensure interoperability and data security, manage the risks associated with automation, and address algorithmic biases and vulnerabilities related to cyberattacks.

This third publication in the Intelligence Notebooks series is based on the same concept that gave rise to the project in 2023: the need to address topics that often receive insufficient coverage in publications on military intelligence. The event held to present the release of this third edition of the Intelligence Notebooks took place on February 18th in the CESEDEN main auditorium, moderated by the journalist and author Vicente Vallés.

GMV contributes to CESEDEN course on Advanced Defense Intelligence Studies

In the first quarter of this year GMV took part in the Advanced Defense Intelligence Studies Course (Curso de Altos Estudios de Inteligencia de la Defensa: CAEID), given by the Higher School of the Armed Forces of CESEDEN, with the participation of two of its experts as speakers in various sessions of the program.

This is a course designed to supplement the intelligence and counterintelligence training given to governmental officials and private-sector professionals, covering key subjects related to peace, security, and defense. It also addresses topics such as advising and senior leadership for Spain's Ministry of Defense and the international organizations to which Spain belongs.

On 30 January Ángel Gallego, head of the Military Space Surveillance Section of GMV's EST Space Systems, gave a paper on the growing importance of space surveillance in the military (Space Domain Awareness, SDA). During his presentation, he analyzed the current space environment, characterized by the increase in satellites, the proliferation of debris and growing strategic competition, and explained the full cycle of space surveillance applied to security and decision making. He also highlighted Spain's capabilities in this field, particularly those of the COVE (Centro de Operaciones de Vigilancia Espacial) of the Spanish Air and Space Army, and presented the Space Situation Knowledge and Control System (Sistema de Conocimiento y Control de la Situación Espacial: CCSE), developed entirely by GMV to reinforce Spain's situational awareness and strategic autonomy.

Then, on February 2nd, Pablo Crego, a Defense and Security Project Engineer at GMV, gave an extended presentation centered on data intelligence applied to decision-making in hybrid warfare environments. He also discussed the challenges associated with multi-domain scenarios and information saturation, along with the important role of technologies such as big data, advanced analytics, and artificial intelligence, for transforming large volumes of data into relevant indicators that can provide support for human judgment.

GMV's contribution to this course on Advanced Defense Intelligence Studies was an excellent opportunity for the company to share its expertise and perspectives, especially regarding the use of technology to enhance decision-making in complex and highly dynamic scenarios, with an emphasis on the connections between technological innovation, intelligence, and defense.

Autek expands its presence in the National Cryptologic Center catalog

In one of its most recent updates, the National Cryptologic Center's (CCN) Information and Communication Technologies Security Products and Services Catalog (CPSTIC) added new products from Autek, specifically from the PSTgateways family. The GMV subsidiary thus strengthens its presence in a catalog that serves as a national benchmark.

Also known as the "CCN-STIC 105 ICT Security Guide", the purpose of this catalog is to facilitate the acquisition of reliable security products and services for public administration bodies and private entities deploying ICT systems under the National Security Framework (ENS) or systems handling classified information.

Among Autek's new additions is the complete PSTgateways gateway family, categorized under "secure data exchange gateways", with products grouped by application: general-purpose, military-oriented, or adaptable to specific environments.

Products in each category may incorporate security labeling checks (STANAGs 4774/4778) and include:

General-purpose ***PSTgateways (COTS)*** products:

- ***PSTfile***, automated file transfer services.
- ***PSTmail***,email message transfer.
- ***PSTudp***, UDP packet payload transfer.

Military-environment ***PSTgateways*** products:

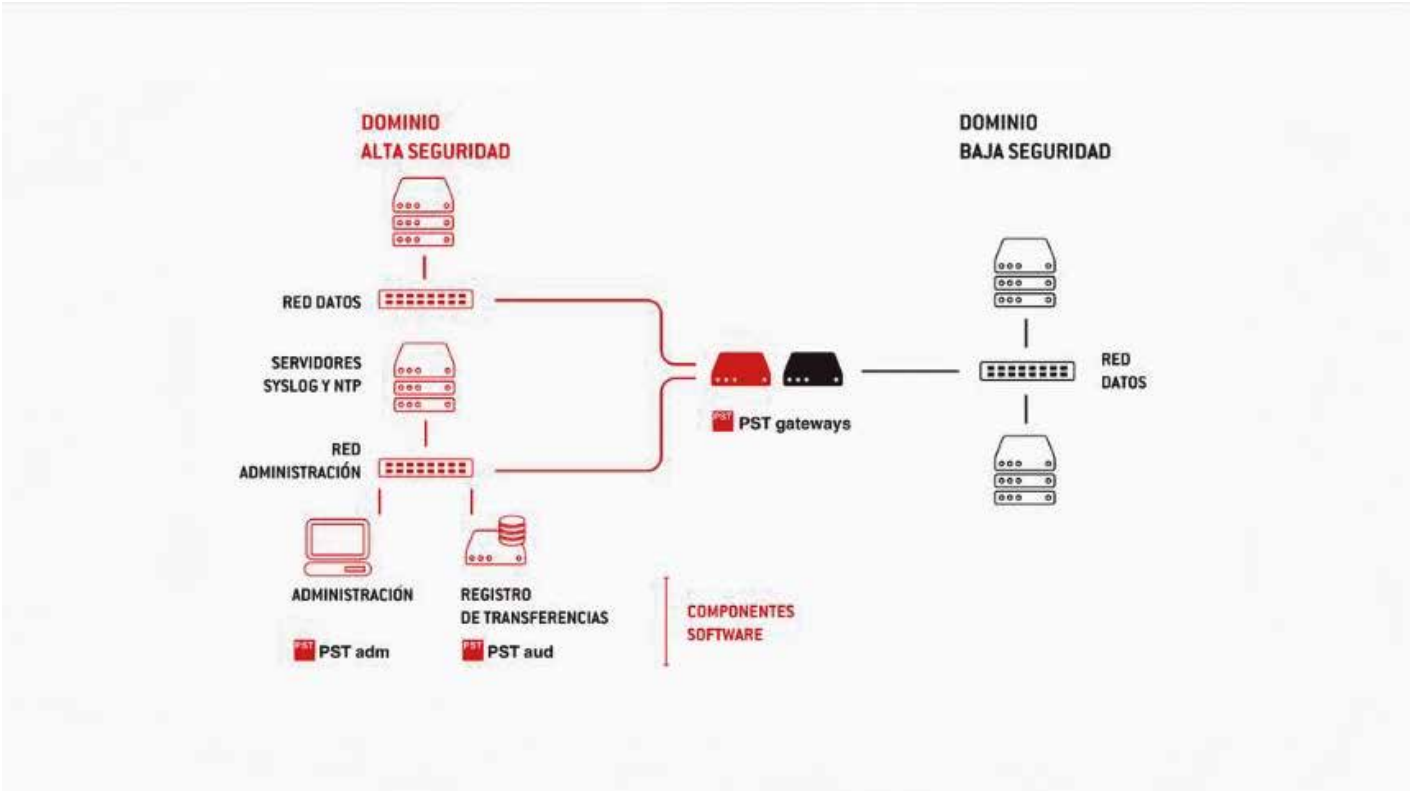
- ***PSTacp***, ACP-127 messaging exchange.
- ***PSTatx***, ASTERIX air surveillance data.
- ***PSTcsd***, JISR information exchange (MAJIIC).
- ***PSTjreap***, tactical data link (TDL) exchange via JREAP-C.
- ***PSTmip***, command and control system information exchange (MIP4).

PSTgateways products adaptable to specific environments:

- ***PSTws***, custom data flows via HTTP/s using REST or SOAP APIs
- ***PSTcustom***, tailored product combining custom services and/or data filters (format and content)

This addition follows the recent certification of the core ***PTSgateways Framework*** to Common Criteria for Information Technology Security Evaluation at EAL4+ (AVA_VAN.5 + ALC_FLR.3).

With this expansion, Autek solidifies its position as the sole cross-domain solution manufacturer listed in the CPSTIC. The company offers an extensive portfolio of certified products in both the "qualified products" category, suitable for ENS systems, and the "approved products" category for handling classified information, enabling secure information exchange between security domains. This capability is critical for defense, public administration, and critical infrastructure sectors.



GMV continues to drive 5G security from SOC5G

GMV will continue to form part of the 5G Security Operations Center (SOC5G) after renewing its contract in this key initiative for protecting Spain's new-generation mobile networks.

The SOC5G was born within the framework of the UNICO 5G Cybersecurity Program, within the Recovery, Transformation and Resilience Plan (PRTR), with a clear mission: to provide the country with a center specialized in monitoring and responding to threats in 5G environments. It is not only about monitoring networks, but also about anticipating risks in an infrastructure that already supports public services, industrial systems, connected mobility and new digital business models.

In addition to monitoring and analyzing threats, the center supports operators and public bodies in the application of the specific National Security Scheme for 5G networks and services, a key element to ensure that the expansion of this technology takes place with homogeneous protection and resilience criteria.

GMV's continuity brings in accumulated know-how and technical capacity in a particularly demanding environment. SOC5G combines advanced surveillance, security controls assessment and operational incident support in a context where 5G exponentially multiplies connected devices, data in circulation and potential attack surfaces.

With this renewal GMV maintains its role in a strategic infrastructure for Spain's digital ecosystem, helping to ensure that the evolution of 5G goes hand in hand with the security guarantees required by the critical communications of the present and future.

GMV unveils the "Cybersecurity Management of Physical Security Systems" guide of the National Cybersecurity Forum

GMV was present at SICUR, the International Security Trade Fair, held in Madrid from 24 to 27 February, consolidating its position as a benchmark in the field of cybersecurity and integral protection. This event brought together leading industry stakeholders to address current and future challenges in four key areas: security, cybersecurity, fire safety and emergency response, and workplace safety, with innovation and technological development as central themes.

GMV played a leading role in this context with the participation of Mariano J. Benito, CISO of GMV's Secure e-Solutions, in the round table of the National Cybersecurity Forum, moderated by Fundación Borredá. The panel was dedicated to the presentation of the guide: "Cybersecurity management of physical security systems. Recommendations and use cases", an initiative developed within Working Group 1 of the National Cybersecurity Forum.

The guide aims to establish a reference framework that facilitates the integration of cybersecurity throughout the entire life cycle of physical security systems: from design and deployment to operation and maintenance. It also provides practical recommendations and use cases that enable organizations to anticipate risks, strengthen resilience and align with current regulatory requirements and best practice standards.

Opinion

The strategic role of the European cyber reserve

The European Commission (EC) and ENISA (European Union Agency for Cybersecurity) have launched the European Cyber Reserve, a key initiative within the Cyber Solidarity Act, which provides an immediate and effective respons e capability to cyber-attacks, including large-scale, high-impact attacks, targeting the European Union (EU), Member States and their critical entities.

The Cyber Solidarity Act, approved by the European institutions in February 2025, lays the foundations for a common framework for detection, preparedness and coordinated response to critical cyber threats. The EU cybersecurity pool is composed of a small group of cybersecurity service providers selected after a rigorous accreditation process.

These vendors are prepared to deploy incident response teams, forensic expertise and recovery services. Its customers will not be ordinary companies, but operators of essential services in critical sectors defined by the NIS2 Directive (energy, transport, healthcare, finance, telecommunications), as well as EU institutions and agencies.

In practice, if a member state is faced with a serious cyber crisis, its national computer security incident response team (CSIRT) or crisis authority can send a request for assistance to ENISA. In the case of the EU institutions, the Cybersecurity Service for the Institutions, Bodies and Organs of the Union (CERT-EU) can do the same. For third countries associated with the Digital Europe program (including the United Kingdom and Ukraine), ENISA will forward applications through the European Commission.

To become part of the cyber reserve, the provider agrees to provide a multidisciplinary team of experts, state-of-the-art security operations centers (SOCs), and extensive experience in managing cybersecurity incidents. It will work closely with European organizations, governments, and other companies to implement advanced services for threat monitoring and detection, incident response, and digital resilience testing.

José María Legido ,
Director of GMV's Secure e-Solutions International Markets

> "The creation of the European Cyber Reserve represents a decisive step toward building a shared capacity to ensure the stability, security, and continuity of essential services"

In a global context marked by the growth of cyber threats, the creation of the European Cyber Reserve represents a decisive step towards building a common capacity to ensure the stability, security and continuity of essential services. Among the accredited suppliers is GMV, with over three decades of experience in cybersecurity and defense. Its collaboration with European organizations, public administrations and key players in the sector guarantee its contribution to this European initiative.

GMV analyzes the impact of the Cyber Resilience Act

The Cyber Resilience Act (CRA) will mark a turning point in the way digital products are conceived, developed and marketed in Europe. Its goal is to ensure that these products are safer, more reliable, and more resilient to cyberattacks. However, its scope goes far beyond a one-off technical improvement, as it introduces mandatory safety requirements that impact the entire value chain: manufacturers, authorized representatives, importers, distributors, integrators and even end customers.

To analyze this new framework, GMV, in collaboration with Red Seguridad, organized a webinar in February titled "CRA: Neither Barbie nor Oppenheimer, Cyber Resilience by Design," featuring experts Mariano J. Benito, CISO of GMV's Secure e-Solutions, and Ángel García-Madrid, Business Continuity Manager of GMV's Secure e-Solutions. who detailed the organizational and cultural impact the standard will have.

First, the standard directly addresses manufacturers, who must integrate cybersecurity throughout the entire product lifecycle: planning, design, development, testing, marketing, delivery and after-sales. Concepts such as "security by design" and "security by default" are no longer just recommended best practices; they have become legal requirements. Along with them, importers, distributors and integrators must guarantee that the products they market or integrate comply with the CRA for years, ensuring traceability and continuous monitoring.

In addition, digital products must incorporate specific security documentation, risk analysis, vulnerability detection and reporting mechanisms and patch distribution for a period of up to ten years. From September 2026, it will be mandatory to report actively exploited vulnerabilities at European level, which will require automated processes for identification, assessment, reporting and remediation.

With the first obligations applicable from September 11, 2026 and the full requirement for new products from December 2027, the timetable is tight. More than a regulatory burden, the CRA can become a competitive opportunity to strengthen confidence in European digital products.

GMV joins the Spanish Association of Companies Against Fraud

GMV has formalized its membership of the Spanish Association of Companies against Fraud (Asociación Española de Empresas contra el Fraude: AEECF), a non-profit organization set up in 2014 with the aim of establishing a collaborative platform to coordinate a Spanish anti-fraud system and consolidate itself as Spain's main anti-fraud business community.

Fraud is one of the main challenges for companies and institutions, with a growing economic and reputational impact. In the words of José María Blanco, director of the Financial Sector in GMV's Secure e-Solutions: "In the financial arena, fraud is evolving with enormous speed and complexity. Our membership in the AEECF allows us to strengthen industry cooperation and bring our technological expertise to raise the level of prevention and detection across the ecosystem."

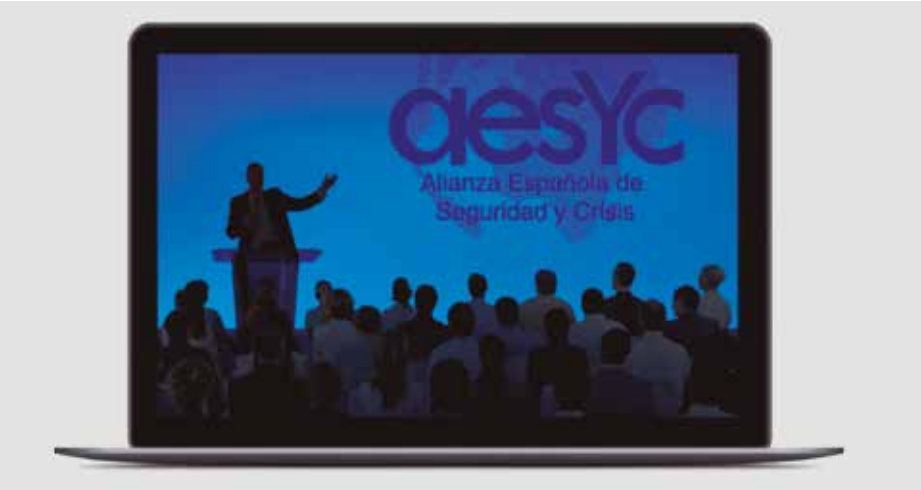
GMV has extensive experience developing specialized solutions designed to detect and prevent digital fraud by means of advanced strategies based on data analytics, artificial intelligence and intelligent systems that enable suspicious patterns to be identified, risks to be anticipated and both organizations and citizens to be protected against fraudulent activities.

By joining the AEECF, GMV will become part of a strategic collaborative environment alongside other companies and organizations committed to integrity, transparency, and security. This framework facilitates the exchange of knowledge, the promotion of best practices and the development of joint initiatives to strengthen the anti-fraud ecosystem at the national level.

GMV joins aesYc to strengthen cybersecurity, intelligence, and crisis management

GMV is now an official member of the Spanish Cybersecurity and Crisis Alliance (aesYc), a non-profit organization dedicated to advancing cybersecurity, intelligence, and crisis management across society.

aesYc works with companies and public authorities to boost their capabilities by connecting experts, training professionals, and driving initiatives that enhance the country's resilience. Attuned to emerging training needs, the Alliance fosters a culture of security in today's globalized world by running specialized programs and creating a community of executives and professionals who share their knowledge and experience.



With this incorporation GMV brings to the Alliance its technological know-how, its innovation capacity and its integral vision of cybersecurity to contribute to a more secure ecosystem that is better prepared to face current and future challenges.

GMV promotes protection against “jackpotting” with its Checker ATM Security solution at the ATMIA US Conference

From February 10 to 12 in Texas (USA). GMV recently participated in the ATMIA US Conference, which is one of the largest international gatherings for the automated teller machine (ATM) industry. The event was focused on analyzing the technological and security challenges that are now being experienced by manufacturers, operators, and financial institutions.

During the conference, the team from GMV emphasized one of the most critical threat vectors now facing the industry: “jackpotting”. This is a type of attack where cybercriminals are able to force unlawful dispensing of cash, by electronically or physically manipulating an ATM.

“Jackpotting” combines advanced techniques of physical intrusion and exploitation of software vulnerabilities. Attackers first gain access to the inside of an ATM, which they do by using physical force or social engineering techniques, and they then install devices or malware to gain control over the cash dispensing function. In other cases, they are able to take advantage of insecure configurations, obsolete operating systems, or deficiencies in the authentication mechanisms or network segmentation.

According to various industry reports, issued by organizations such as the European Association for Secure Transactions (EAST) and ATM Industry Association (ATMIA), these attacks on ATMs have become more sophisticated and coordinated, and they are now targeting independent networks as well as major financial institutions. In addition to generating direct financial losses, incidents of this type can also have an impact on an entity’s operational continuity and reputation, as well as its ability to comply with security regulations.

Against this backdrop, GMV presented the capabilities of Checker ATM Security®, a solution designed to reinforce the integral protection of ATMs against advanced threats such as “jackpotting”, which is already deployed in over 300,000 ATMs in over 70 clients worldwide. Its technology incorporates advanced mechanisms for controlling applications, performing continuous monitoring, and protecting critical processes, to prevent any running of unauthorized software, even in scenarios where an attacker has gained access to the ATM. In addition, its centralized management facilitates monitoring and control for large ATM networks, while also enhancing incident response capabilities.

GMV promotes a collaborative cyber-resilience model at the 5th Andalusia Cybersecurity Congress

GMV participated in the Andalusia Digital Agency's (ADA) 5th Andalusia Cybersecurity Congress, which has emerged as a leading forum in the field of digital security and was held in Málaga on 23 and 24 March.

Jorge Paradela, ADA president and the Andalusian regional government's minister of industry, energy and mines, led the opening event together with the mayor of Málaga, Francisco de la Torre, kicking off an event that highlighted the region's strategic role in the development of advanced cybersecurity capabilities.

During the congress, Ángel García-Madrid, head of resilience services and business continuity manager for GMV's Secure e-Solutions, addressed the growing interdependence between organizations and the need to reinforce the protection of critical infrastructure that underpins essential services such as energy, water, and food supply.

In this context, GMV presented its Comprehensive Cluster Protection Model (MPIC), a solution that drives the shift towards cooperation schemes involving companies, suppliers and public institutions. This approach makes it possible to stay ahead of threats, share capabilities, and improve incident response in increasingly interconnected environments.

The initiative is aligned with the European NIS2 directive, which drives a common framework to strengthen resilience and ensure the continuity of essential services in Europe, establishing collaboration as a key element in addressing today's cybersecurity challenges.

GMV discusses cybersecurity in island regions to mark Safer Internet Day

To mark Safer Internet Day, the Digital Islands project organized a webinar on February 10 titled "Cybersecurity on Islands: Risks, Responses, and Practical Solutions," an initiative focused on analyzing the specific challenges faced by island territories in the digital sphere and presenting effective responses through public-private partnerships.

The meeting brought together international experts to address an increasingly relevant scenario: the growing exposure of islands to cyber risks in a context of accelerated digital transformation. Participants included Joan Antoni Malonda, GMV's Tourism Business Development, who contributed the company's vision of risk management and infrastructure protection in environments with unique geographical and operational characteristics.

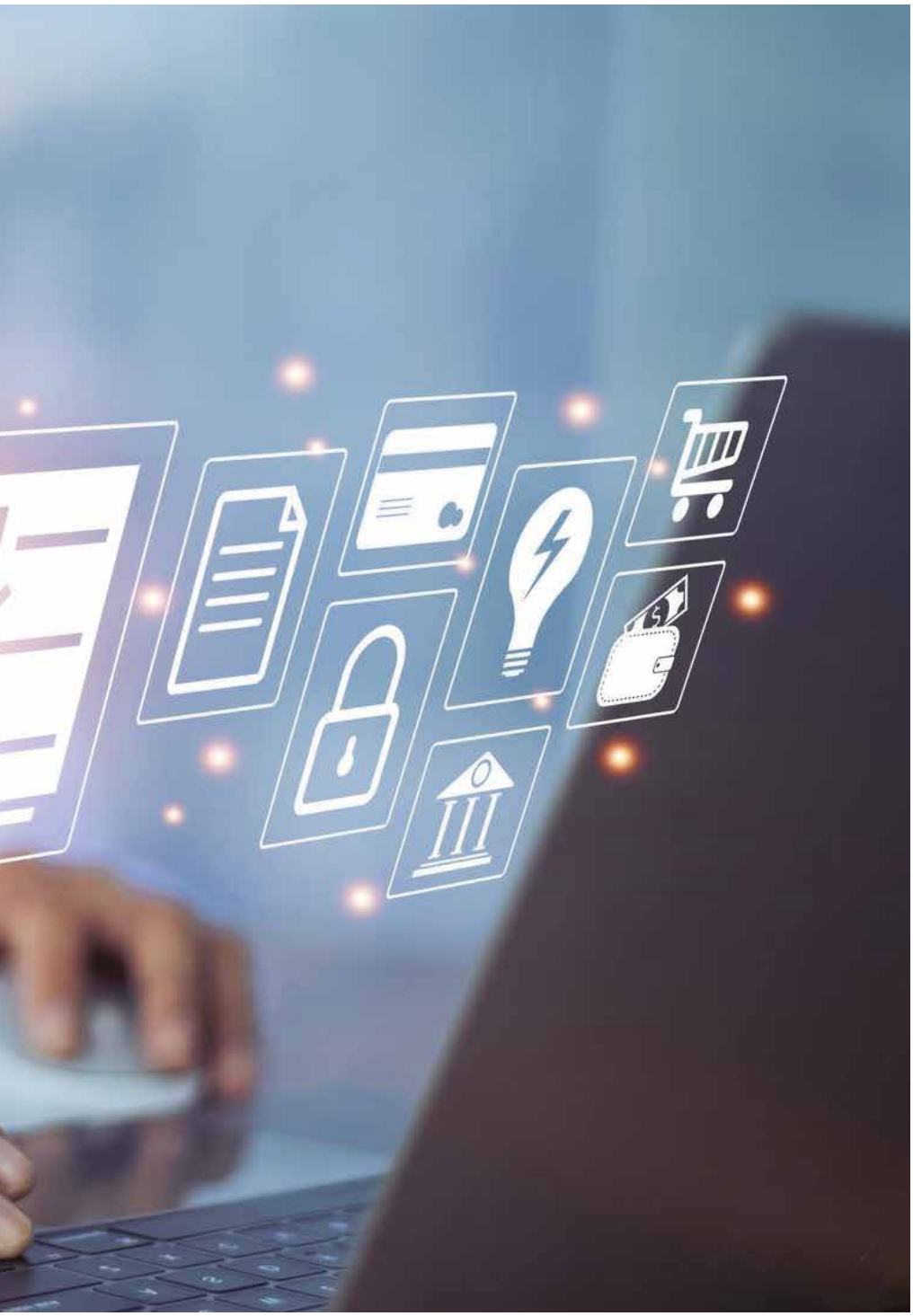
The webinar addressed key questions such as what factors make island territories particularly vulnerable from a cybersecurity standpoint, how cyber risks spread differently in these environments, and what technical and organizational measures can be implemented to mitigate such threats. The dependence on limited critical infrastructures, the concentration of essential services, the high seasonality in sectors such as tourism or the connectivity conditioned by insularity are some of the elements that amplify the potential impact of a cyber incident.

Under the focus "Cybersecurity in Island Territories: expanded risks, threat landscape and mitigation strategies", the conference explored how these risks materialize in real incidents and what best practices can be adopted to strengthen digital resilience. The lines of action include the strengthening of governance, the improvement of detection and response capacity, and the implementation of strategies adapted to the particularities of each territory.

Castilla y León turns to GMV to reinforce the cybersecurity of its healthcare system

The Regional Health Management Office of Castilla y León (Gerencia Regional de Salud de Castilla y León: SACYL) has awarded GMV a contract for setting up and running an integral cybersecurity service to protect all its digital infrastructures. The project covers the licensing, supply, installation and maintenance of security infrastructures, as well as the provision of advanced managed security services.

The scope of the service responds to the dimension and criticality of the Community's healthcare environment: interconnected hospital complexes and health centers, corporate data infrastructures and a wide ecosystem of users, devices and applications that require secure and continuous access.



Added to this are interconnections with third parties, such as other government agencies and the shift toward hybrid environments with an increasing presence in the cloud, which increases the attack surface and operational complexity.

The solution deployed by GMV covers perimeter protection, secure connections with external organizations, access to corporate and non-corporate Internet, and security in data centers, the cloud, and hospital environments. It also includes specific services designed to address the primary entry points for threats, such as web browsing, email, and the DNS (Domain Name System), with advanced malware prevention and detection capabilities.

One of the strategic axes of the contract is the operation of a managed security service from a security operations center (SOC) with uninterrupted availability. GMV is responsible for continuously monitoring the network, collecting and indexing logs, correlating events using SIEM (Security Information and Event Management) technology, and analyzing and handling security incidents.

The service is articulated around demanding service level agreements, with response and resolution times defined for different scenarios and is developed under strict compliance with the National Security Scheme (ENS) and data protection regulations, guaranteeing the confidentiality, integrity and availability of clinical and administrative information.

GMV is recognized as a benchmark technological partner in the cybersecurity field, contributing its expertise in the protection of critical infrastructures and the operation of high availability managed security services.

AI and health data spaces: GMV inspires future biomedical engineers

GMV participated in the Tenth Biomedical Engineering Career Fair (JEIB), organized by the State Council of Biomedical and Health Engineering Students (CEEIBIS) at Carlos III University of Madrid (UC3M), reaffirming its commitment to young talent and innovation in health technologies.

As part of this collaboration, formalized through an agreement between GMV and CEEIBIS, the company had its own booth at the event and presented a talk led by Carlos Royo, GMV's Director of Healthcare Strategy, and Carlos Illana, GMV's Product Manager, who shared with the students the company's vision regarding the role of artificial intelligence, data spaces, and privacy technologies in the transformation of the healthcare sector.

During their speech, they highlighted how biomedical engineering is consolidating as a key field for the development of solutions based on advanced data analysis, interoperability and cybersecurity, with applications ranging from personalized medicine to collaborative clinical research.

Participating in the JEIB gave students a firsthand look at how technology can transform healthcare through the projects and solutions GMV is working on, bringing together talent, knowledge, and purpose.

TARTAGLIA, powered by GMV, among the world's 100 AI projects with the greatest social impact

The TARTAGLIA project, promoted and led by GMV, has been recognized by the IRCAI Global Top 100, the international index that recognizes the one hundred artificial intelligence (AI) initiatives with the greatest potential for social, ethical and sustainable impact on a global scale. The ranking is promoted by the International Research Centre on Artificial Intelligence (IRCAI), a center under the auspices of UNESCO, and distinguishes projects aligned with the United Nations Sustainable Development Goals (SDGs).

The inclusion of TARTAGLIA in this international index places it among the most transformative technological developments in the field of AI applied to healthcare. The project has developed a federated health data network that allows hospitals and research centers to collaborate and analyze large volumes of clinical information without sensitive data leaving each institution.

Using advanced cryptographic techniques and federated learning models, algorithms are trained where the data are located, preventing their transfer and preserving patient privacy. In this way, knowledge is shared, but clinical information remains protected. This approach facilitates more agile, secure and scalable research, especially relevant in a context of increasing regulation and sensitivity around health data.

Thanks to this technological infrastructure, the consortium has driven advances in AI-based diagnostic tools in areas such as Alzheimer's, prostate cancer, diabetes and cardiometabolic diseases. The project thus contributes to several SDGs, including health and well-being (SDG 3), reduction of inequalities (SDG 10), gender equality (SDG 5) and innovation (SDG 9).

TARTAGLIA, whose budget exceeds €7.5 million, has received funding from the Artificial Intelligence R&D Missions program under the Spain Digital Agenda 2025, as part of the Recovery, Transformation, and Resilience Plan – NextGenerationEU. The consortium is made up of 16 reference entities in health, research and technology, including regional health services, biomedical institutes and supercomputing centers.

This international recognition consolidates Spain's position as a benchmark in innovation applied to health with global impact.

GMV develops a solution for the governance and supervision of artificial intelligence in healthcare

Artificial intelligence (AI) is transforming healthcare: it improves diagnostic accuracy, anticipates the evolution of chronic diseases, optimizes hospital management and accelerates clinical research by analyzing multimodal data (medical imaging, medical history, genomic data or environmental information).

However, when an algorithm is involved in clinical decision-making, the standards for oversight, accountability, accuracy, and transparency are extremely high. Against this backdrop, GMV has assembled a multidisciplinary group of legal, scientific, and technical experts to develop a comprehensive AI governance and oversight solution specifically tailored to the healthcare sector.

The proposal combines a methodological framework aligned with ISO/IEC 42001 and the European Artificial Intelligence Regulation (AI Act), together with a technology platform based on IBM watsonx. governance. The objective is to cover the entire lifecycle of the model, from its initial evaluation and validation -both in-house and third-party developments- to its deployment, continuous monitoring and retirement.

The solution allows capturing training and production use metadata, ensuring clinical data traceability and monitoring key metrics such as fairness, predictive quality, data drift and explainability.

This approach has been applied to a model to support the detection of suspicious areas of breast cancer in mammograms, validated on a local population and under human supervision.

With this initiative GMV is reinforcing its commitment to groundbreaking, safe and patient-centered healthcare AI.

Technology for Healthcare Efficiency at the Sixteenth AVISA Conference

On February 27 and 28, the Sixteenth Technical Conference of AVISA (Valencian Association of Health Informatics) was held in Castellón, a leading forum on information and communication technologies applied to healthcare, at which GMV was in attendance.

The meeting brought together professionals from the healthcare and ICT sectors to analyze how to optimize resources and improve efficiency in a context marked by healthcare pressure and equipment shortages. During the conference, real experiences and solutions aimed at transforming clinical and management processes were discussed, with special attention to the impact of emerging technologies.

Artificial intelligence applied to diagnostic imaging and pathological anatomy was one of the central themes of the program, highlighting its potential to improve accuracy, reduce response times and support clinical decision making.

GMV's presence at AVISA helped to strengthen relations with sector professionals and organizations and to continue promoting a constructive dialogue on the role of technology as a strategic ally for moving towards a more efficient, sustainable and patient-centered healthcare system.

GMV renews its contract with Los Angeles until 2030

GMV strengthens its two-decade partnership with the City of Los Angeles to upgrade DASH and Commuter Express with groundbreaking technology, advanced digital signage and improvements in security, accessibility and real-time information

GMV has been awarded a $43 million contract by the City of Los Angeles to continue serving as the technology partner for the City's DASH and Commuter Express transit services through 2030, extending a collaboration that spans more than 20 years.

DASH and Commuter Express are essential components of Southern California's regional mobility network, delivering more than 15 million passengers annually in the nation's second-largest city. Since 2008, GMV has benefited these services by providing transit technology hardware, software, and operational support. What began as a limited bus-tracking pilot program has grown into a comprehensive Intelligent Transportation System now deployed across more than 400 vehicles operating from five depots. Awarded through a competitive procurement process, the new contract ensures the continued evolution of this system to support reliable, efficient, and accessible public transportation across Los Angeles.

As part of the project, LADOT will upgrade its full fleet with GMV Hub, GMV's latest-generation rugged onboard computer designed specifically for transit operations. Built to perform in complex environments,

GMV Hub delivers long service life and robust performance while simplifying onboard technology.

The onboard equipment communicates with Sync, GMV's cloud-based dispatch and fleet management platform, enabling real-time fleet monitoring, dynamic route detours, improved service management, and accurate, real-time arrival predictions for passengers.

In addition, the project includes the deployment of more than 300 solar-powered digital information signs at key bus stops throughout Los Angeles.

Los Angeles is where GMV began its North American operations, and as the company has expanded to support transit agencies in more than 100 cities worldwide, it continues to maintain a strong partnership with its hometown transit system in the United States. This new contract phase positions both GMV and the City of Los Angeles to support transportation planning and logistics for major upcoming global events, including the 2026 FIFA World Cup and the 2028 Summer Olympic Games, helping millions of residents and visitors move efficiently throughout the city.

GMV showcases its solutions at IT-TRANS 2026

From March 3 to 5, GMV took part in IT-TRANS 2026, the foremost international congress and exhibition on the digitalization of public transportation and urban mobility, held at Messe Karlsruhe in Germany.

The event brought together transit operators, public authorities, industry leaders, and international experts to address the main technological and strategic challenges facing public transportation. Key topics included artificial intelligence, advanced payment and digital ticketing systems, cybersecurity in mobility networks, data management, standards, and integrated smart mobility solutions.

GMV hosted a stand where it presented its latest intelligent transportation systems (ITS) solutions, reinforcing its position as a key technology partner in digitally transforming the public transit sector. Among the solutions on display were the DTD200 multifunction driver console, the TV100 external validator, the EP200 onboard unit, and the eco-driving display—technologies designed to optimize operations, enhance the passenger experience, and boost energy efficiency.

The DTD200 integrates sales and validation functions, a computer-aided dispatch / automatic vehicle location (CAD/AVL) system, onboard information via screens and public address announcements, video surveillance, and efficient driving support.

The TV100 complements external validation systems, while the EP200 manages key functionalities such as the CAD/AVL system, passenger information, and video surveillance. These solutions integrate with fleet management and passenger information systems, as well as with planning and optimization tools for timetables, services, and shift schedules.

GMV's participation in IT-TRANS 2026 continues the company's presence at this leading European forum, where it has already played a prominent role in previous years, reinforcing its commitment to advanced technological solutions that help drive more efficient, safer, and more sustainable public transportation.

ITS Workshop on Public Transport

GMV participated as a sponsor in the “ITS Workshop on Public Transport,” held on 29 January in Madrid and organized by ITS Spain, the Forum for New Transport Technologies. The event aimed to analyse the latest trends, technological solutions and challenges in the field of Intelligent Transport Systems (ITS) applied to public transport.

The meeting brought together representatives from the public sector, transport authorities, operators, technology companies and smart mobility experts to foster innovation and sustainability in urban and metropolitan environments. Key topics addressed during the workshop included the digitalisation of transport services, interoperability of payment and ticketing systems, advanced fleet management, improved passenger information and operational efficiency.

In this edition, Antonio Blanco, Head of Business Development for Spain, Portugal and Morocco in GMV’s Intelligent Transport Systems division, delivered a presentation entitled “Ticketing Trends in Public Transport,” in which he analysed the evolution of these systems and the main challenges associated with their deployment. During his speech, he highlighted the importance of moving towards interoperable, secure and user-centric solutions capable of facilitating access to public transport and enhancing the travel experience.

GMV presents its EMV payment technology, finalist for the “Transport Ticketing Awards 2026”

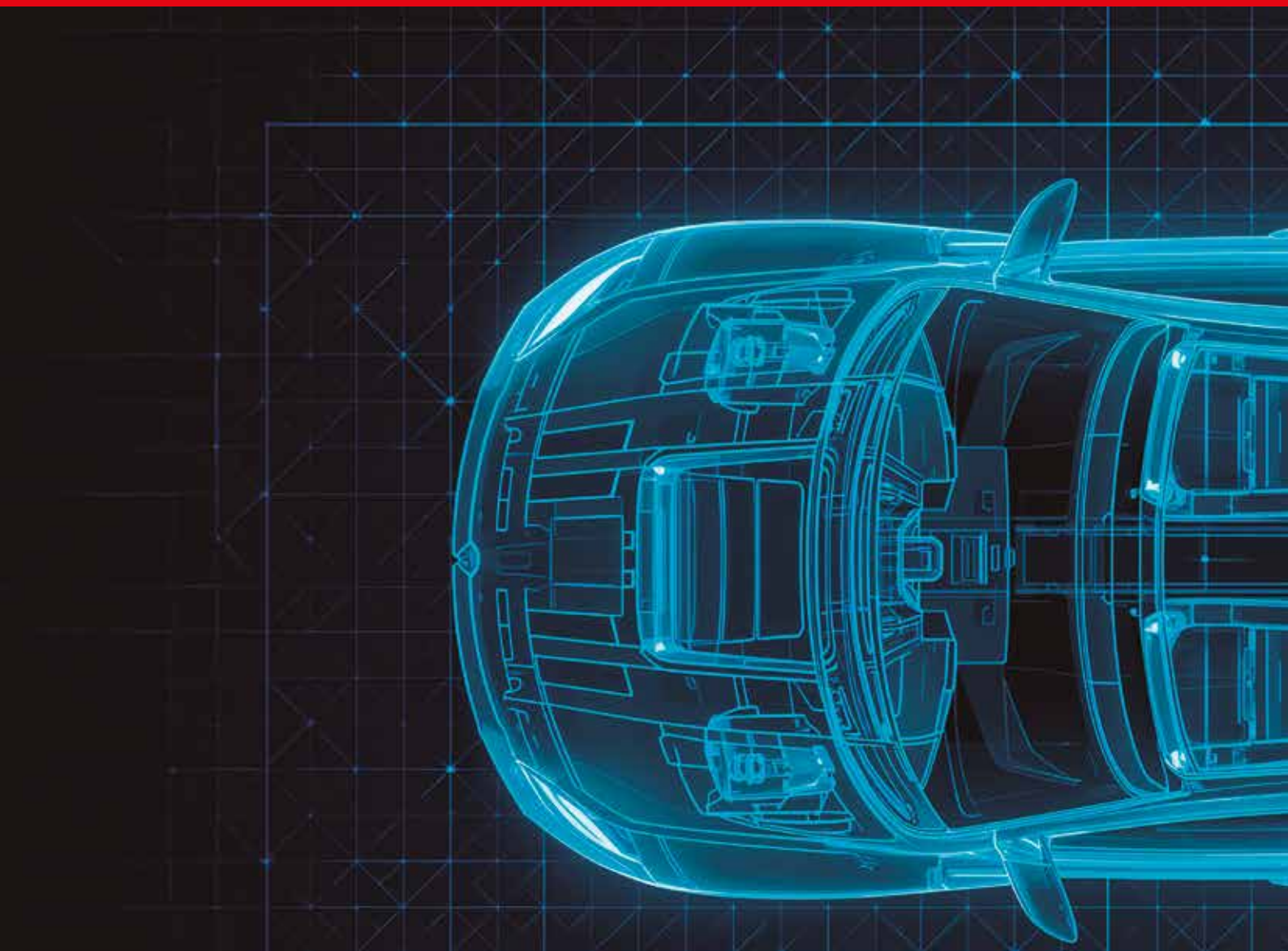
GMV once again participated in Transport Ticketing Global, an event held March 17-18 in London that stands as one of the leading international gatherings dedicated to smart ticketing, mobility, and public transportation. Over the course of two days, the event served as a premier international forum for knowledge exchange and collaboration among the various stakeholders in the transportation ecosystem.

The event brought together transit operators, government authorities, mobility policy leaders, systems integrators, and technology providers from around the world, with the goal of analyzing current industry challenges and sharing experiences on implementing more efficient, digital, and user-centered mobility solutions. The agenda featured a series of conferences, technical presentations, real-world case studies, and roundtable discussions focused on key topics such as contactless ticketing systems, interoperability, fare digitalization, smart payments, Mobility as a Service (MaaS), and the use of data to enhance the passenger experience.

Within this context, GMV, together with the Regional Transport Consortium of Madrid (CRTM), presented its open-loop EMV payment system, which was selected as a finalist for the “Transport Ticketing Awards 2026” in the “Regional Integrated Ticketing” category.

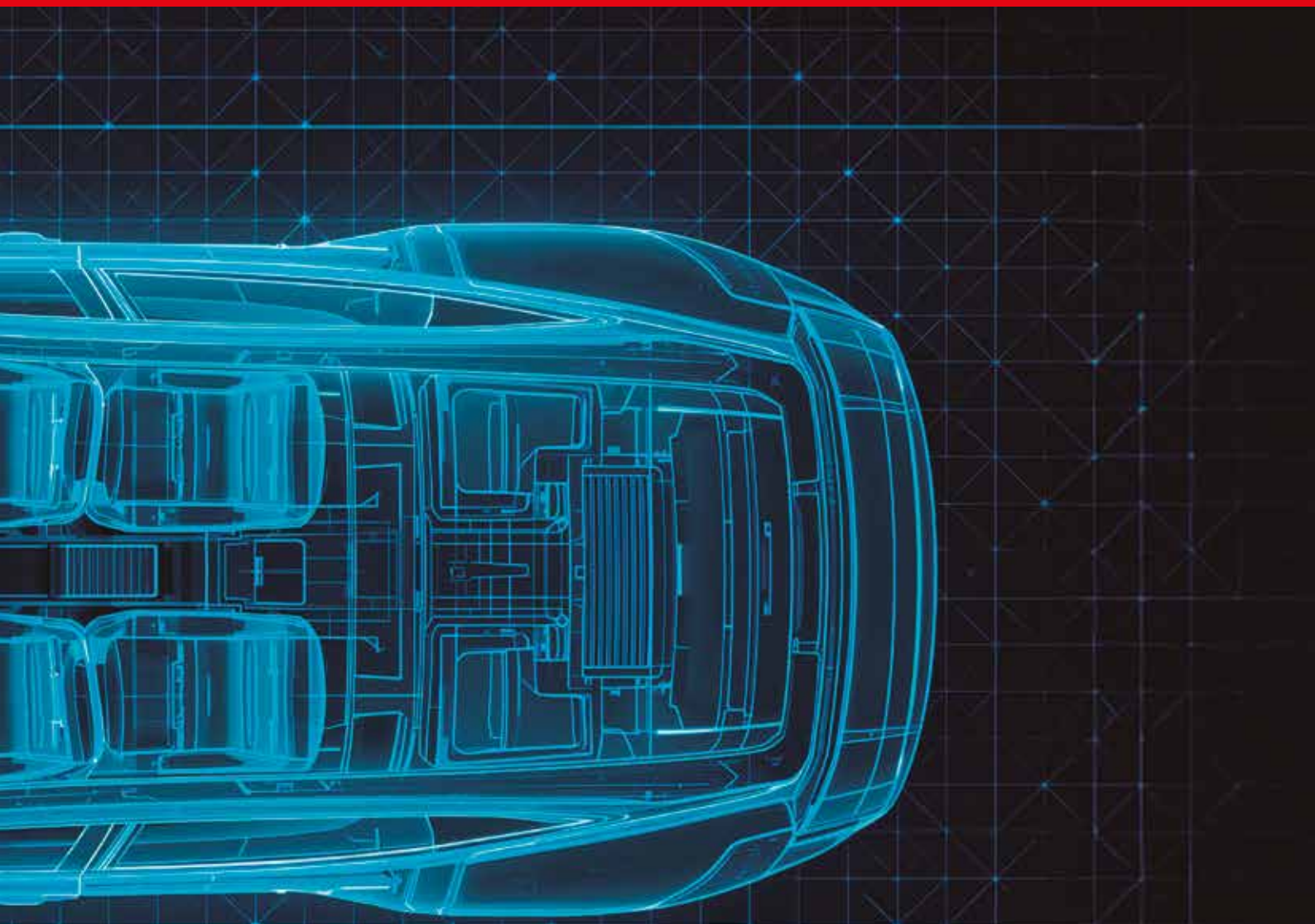
This system, deployed across the Community of Madrid and fully operational since July 2025, enables the use of contactless EMV bank cards, enhancing the user experience, streamlining bus access, and promoting public transit usage.

GMV also hosted an exhibition stand, through which attendees had the opportunity to explore the latest trends in ticketing solutions, including proprietary onboard equipment, Account-Based Ticketing (ABT) systems, EMV payments via credit card or NFC, and back-office tools, all designed to connect systems, accelerate payments, and make mobility more seamless and intuitive for passengers.



GMV develops an intelligent solution to reinforce vehicle interior security

This initiative, built on the expertise GMV has gained across other sectors, reinforces the company's commitment to safer, smarter mobility that is ready to meet future regulatory challenges



As part of its inhouse innovation activities in the automotive area GMV has developed an ICMS (In-Cabin Monitoring System) solution for intelligent vehicle interior monitoring. This system seeks to reinforce active safety by means of on-board artificial vision techniques that make it possible to interpret occupant behavior in real time.

Currently, the solution integrates three main capabilities. First, occupancy detection, based on 60GHz radar, makes it possible to determine which seats are occupied, with special attention to differentiating between front and rear seats, by detecting the vital signs of the different occupants. Secondly, using infrared cameras, two additional use cases are addressed: detection of cell phone use by the driver and verification of the correct use of seat belts by all occupants. All features are supported by lightweight artificial intelligence (AI) models capable of identifying misuse cases that cannot be detected by traditional sensors. The system architecture is also designed to incorporate new and evolving functionalities, aimed at expanding intelligent in-cab monitoring capabilities and responding to future regulatory and safety requirements.

The solution is ready to execute on-board hardware platforms and has been designed to meet current GSR (General Safety Regulation) requirements and Euro NCAP assessment protocols. This initiative builds on GMV's knowhow acquired in other sectors such as defense, space and public transport and consolidates GMV's commitment to a safer, smarter automotive industry, ready for the regulatory challenges of the future. This technology is also expected to be integrated into GMV's internationally deployed public transport solutions, providing advanced monitoring capabilities to boost safety and operational efficiency in this area.

GMV joins ES-ISAC Automoción to strengthen industry's cybersecurity

GMV has become an official member of ES-ISAC Automoción, an INCIBE-driven information sharing and analysis center (ISAC) aimed at bolstering cybersecurity and resilience across Spain's automotive industry. The company joins the initiative through the Castilla y León Automotive and Mobility Cluster (FACYL), a key organization that brings together the region's automotive ecosystem.

With this move, GMV is now part of Spain's leading collaborative forum for cybersecurity in the automotive industry—an environment designed for sharing industry intelligence, anticipating threats, and stepping up the protection of critical infrastructure, systems, and assets.

Established in 2025, the initiative aligns with international ISAC models and with the public-private collaboration approach promoted by INCIBE in strategic sectors.

ES-ISAC Automoción aims to raise the level of cybersecurity across the automotive industry by analyzing and disseminating targeted, high-value information, as well as providing support tools to enhance prevention and response capabilities in the face of cyber threats. The center's vision is built on three pillars: the exchange of timely, actionable intelligence; the creation of a secure and trusted environment for information sharing; and the development of a specialized forum in which members collaborate and coordinate to mitigate risks.

By joining this ecosystem, GMV is reaffirming its commitment to sector-wide collaboration and to safeguarding connected vehicles in an increasingly digitalized landscape.

GMV boosts its visibility in the European autonomous mobility ecosystem

GMV participated in the 2026 edition of "Tech.AD Europe", held March 23–24 in Berlin. Every year, this premier European forum brings together automotive industry experts and leaders to discuss advances in autonomous driving and advanced driver assistance systems (ADAS).

This year's discussions focused on the validation and testing of autonomous technologies, sensor integration including LiDAR and radar, the use of artificial intelligence (AI) for environmental sensing, and the challenges of developing software for advanced automotive applications, reflecting the complexity and rapid evolution of the sector.

GMV played a prominent role at the event, reinforcing its standing as a key player in the advancement of safe, connected mobility. The company had a stand that became a strategic meeting point for original equipment manufacturers (OEMs) and Tier 1 suppliers, and it also gave a presentation by Sara Gutiérrez Lanza, director of GMV's Automotive business unit.

In her talk, "Trustworthy GNSS: Unlocking the Full Potential of Autonomous and Connected Vehicles", Gutiérrez Lanza highlighted the critical role of high-precision, high-integrity GNSS as a cornerstone of autonomous and connected driving. Beyond navigation, she emphasized the importance of reliable positioning with quantifiable confidence levels to enhance safety in ADAS and automated systems. She also underscored how this capability not only supports the vehicle safety case but also enables cooperative V2X services and location-based applications such as electronic toll collection, establishing itself as strategic infrastructure for the software-defined vehicle (SDV) and the future of mobility.

GMV renews SATELISE® support and maintenance contract for AUTEMA

SATELISE®, a Cintra (Ferrovial) product developed by GMV for infrastructure toll payment using GNSS technology and smartphones, is deployed on the AUTEMA (Sant Cugat–Terrassa–Manresa Highway on the C-16) and provides users with a dynamic highway toll payment system based on satellite navigation technology.

In 2025, SATELISE® has been used as one of the ways for local highway users to obtain 100% discounts associated with essential travel, that is, trips, typically taken daily along a fixed route, that are made to perform work-related, educational, or essential service-related tasks.

SATELISE® can also be used to apply high-occupancy discounts to all cars traveling on the highway on weekdays, thus supporting carpooling and reducing traffic and congestion on the highway.

In general terms, the discount service linked to essential travel has led to a significant increase in the number of users using the service on a daily basis in 2025. SATELISE® currently has 48,000 registered users. Among them, daily active users generate an average of 6,800 trips per day.

SATELISE® has become a simple tool for administrations to manage and promote forced mobility, optimizing high-capacity roads, improving the decongestion of conventional roads, and increasing safety and reducing accidents.

Opinion

Autonomous inspection and smart O&M: keys to energy resilience and sustainability

Photovoltaic solar energy has established itself in recent years as one of the main drivers of the energy transition in Spain. The growth of installed capacity has accelerated over the last five years, from just over ten gigawatts to well over thirty gigawatts in grid-connected plants, with a clear upward trend. This massive rollout has made solar power plants critical infrastructure, both because of their contribution to the energy mix and because of the need to ensure their long-term availability and performance.

Photovoltaic plants are characterized by large extensions, thousands of distributed modules, kilometers of roads and fences, as well as constant exposure to demanding environmental conditions. Traditional manual inspection, based on periodic campaigns and spot checks, is becoming increasingly difficult to scale and sustain in terms of operational cost, safety and data reliability.

Among the main challenges are the early detection of hot spots in the modules, progressive degradations, incidents in wiring or connections, localized dirt that penalizes performance, mechanical failures in solar trackers or damage after extreme weather events. When these

> "Robot orchestration platforms allow you to plan inspection routes, define periodic frequencies or on-demand missions, monitor execution in real time and centralize results in a single environment"

anomalies are not identified in time, their impact translates into production losses, increased corrective interventions and a reduction in the useful life of the assets.

In this scenario, autonomous inspection based on robotics and advanced sensors emerges as a natural evolution of the operation and maintenance (O&M) model. Autonomous vehicles equipped with visual and thermal sensors make it possible to travel through the plant in a systematic, repeatable and safe way, capturing homogeneous and comparable data over time. However, the value lies not only in the capture of information, but also in its correct orchestration and operational exploitation.

Robot orchestration platforms allow you to plan inspection routes, define periodic frequencies or on-demand missions, monitor execution in real time and centralize results in a single environment. This means that inspections are no longer a one-time process but rather a continuous flow of information that informs maintenance decision-making.

This is where uPathWay comes in, GMV's intelligent platform for the orchestration, management, and optimization of heterogeneous robots and autonomous vehicles in complex industrial environments, such as photovoltaic plants and other energy facilities.

Eric Polvorosa
Marketing and Communications at GMV Secure e-Solutions

Ángel Lázaro
Head of Robotics and Automation for the Industrial Sector at GMV's Secure e-Solutions division

This approach offers clear benefits. On the one hand, it reduces energy losses by shortening the time between the occurrence of a fault and its detection. On the other hand, it helps optimize costs by automating extensive patrols and freeing up human resources for tasks with higher added value. Finally, it facilitates smarter and prioritized maintenance, based on objective evidence and real impact on production and safety.

Q-MIND consortium celebrates start-up of quantum project

GMV has celebrated in its head office the kickoff of Q-MIND (Quantum Madrid for Innovation and New Developments), an ambitious project that aims to consolidate an industrial quantum ecosystem in the Madrid region.

Sponsored by the Regional Ministry of Education, Science, and Universities of the Community of Madrid, it brings together a public-private consortium comprising BBVA, Repsol, QDynamics, QoolNet, Inspiration-Q, the Spanish National Research Council (CSIC), Tecnalia, the Complutense University of Madrid, the University of Alcalá, and the Polytechnic University of Madrid.

During the kickoff meeting Luis Fernando Álvarez-Gascón, general manager of GMV's Secure e-Solutions, stressed that "Spain's current quantum ecosystem is the fruit of collaboration between the scientific community and industry". He also noted that GMV began working in this field in 2017, in an environment driven by the Association of Electronics, Information Technology, Telecommunications, and Digital Services and Content Companies (AMETIC), and emphasized that the experience gained in projects such as CUCO now allows us to "take another step forward with Q-MIND, bringing research closer to the final product and strengthening the role of Madrid's innovation ecosystem in this technological transformation."

With a three-year duration and a budget of more than €5.3 million, Q-MIND aims to consolidate an industrial quantum ecosystem in Madrid with national and international projection, placing the region at the forefront of the transition to a quantum-ready economy and cybersecurity.

GMV and Scoobic recognized at 35th CEL Awards for contribution to sustainable logistics

At the 35th CEL Awards for Logistics Excellence, held in Madrid by the Spanish Logistics Center, the Scoobic MED project received top honors in the Sustainable Logistics category in recognition of its innovative and sustainable contribution to addressing the challenges of urban last-mile delivery. Nearly 250 logistics and transportation professionals came together for the ceremony, which highlighted the industry's vitality and commitment to more efficient and sustainable models that support the digital transformation of the supply chain.

The Scoobic MED project, the result of a collaboration between Passion Motorbike Factory - Scoobic and GMV, represents a significant technological advancement by offering an electric, autonomous, and 5G-connected logistics vehicle designed to redefine last-mile logistics in urban environments. This solution provides a viable alternative that combines environmental sustainability and operational efficiency with the deployment of cutting-edge technologies, including 5G connectivity, perception sensors, artificial intelligence, and advanced autonomous navigation systems. Together, these capabilities make it possible to optimize delivery operations with zero emissions and minimal human intervention.

Winning the "Sustainable Logistics" award highlights the importance of initiatives that pursue technological innovation with social and environmental criteria, in line with the logistics sector's current strategic priorities. It also reinforces the joint efforts of GMV and Scoobic to advance urban logistics capable of meeting contemporary challenges through technological developments that are proven in real-world contexts and ready to scale.

GMV promotes intelligent orchestration of agricultural robots at “Agricluster Innovation Summit”

On 11 February GMV took part in the “Agricluster Summit Innovation”, a benchmark forum on agrifood innovation, which aims to be a space for technical and strategic reflection on robotics applied to agriculture, operational efficiency, sustainability and technological projects that are driving real changes in the sector.

In this context, GMV contributed its experience with integration and deployment of robotics solutions in complex industrial and agricultural environments. Mauricio Hidalgo, GMV's Head of Robotics Project Installation and Startup for the Industry Sector, took part in the agricultural robotics day, taking part in the round table discussion “The present of robotics in agriculture: current situation and adoption”, invited by HispaRob.

Some of the topics addressed during this session included the current maturity levels for the use of robotics in the field, and the balance that now exists between pilot projects, early adoption, and consolidated operational deployments for specific tasks such as selective weed removal, precision spraying, internal logistics, and inspections based on machine vision. The participants also analyzed some of the main conditioning factors for technological implementation in agricultural operations, such as the robustness of these systems in real farming situations (with the effects of dust, slopes, crop variability, and weather), operational availability, integration with existing processes, and total cost of ownership.

Within this framework, Hidalgo shared various use cases in which GMV is applying ***uPathWay***, the intelligent platform for the orchestration, management and optimization of heterogeneous autonomous robots and vehicles. By integrating sensing, planning, and execution capabilities into a single architecture, this solution also provides the ability to coordinate elements working on the ground and in the air. This approach makes it possible to automate and optimize tasks such as assisted harvesting, sorting by size or ripeness, inspection of agricultural assets, and precision fumigation.

Application of this model during innovative initiatives such as the GreenBot project is already demonstrating the potential of intelligent orchestration for increasing operational efficiency, reducing the use of inputs, and enhancing agricultural sustainability. In addition to individual cases where this type of automation now is being applied, the discussion also emphasized the need to make progress towards connected agricultural environments, with the use of robotics integrated into data-driven strategies with measurable results in terms of productivity, quality, and resilience.

Europe redefines its innovation strategy: GMV participates in AMETIC’s European Forum

In March, GMV participated in the European Innovation and Entrepreneurship Forum organized by AMETIC at the European Commission and Parliament offices in Madrid, a high-level meeting bringing together institutions, companies, and key stakeholders in the innovation ecosystem.

The forum addressed the main challenges and opportunities in Europe in terms of innovation, with the aim of aligning Spanish strategy with the new European architecture, looking ahead to programs such as Horizon Europe, and reinforcing the role of innovation as a lever for technological sovereignty.

Luis Fernando Álvarez-Gascón, general manager of GMV’s Secure e-Solutions, participated in the round-table discussion on strategic innovation, deep tech, and quantum technologies, analyzing the role of these capabilities in Europe’s technological positioning and in the development of solutions with significant added value.

The event highlighted the need to strengthen collaboration between industry, institutions, and research centers to accelerate knowledge transfer and establish a more competitive and resilient innovative ecosystem.

The European Commission visits GMV to find out about its space and defense capabilities

In March GMV's Madrid headquarters received two institutional visits from the European Commission, giving various representatives of this body a first-hand look at the company's technological capabilities in the space and defense fields.

The first of these took place on March 10, with the visit of Lorena Boix Alonso, Deputy Director General of the Directorate General for Defense Industry and Space (DG DEFIS), and Pedro Romero Fernández, Policy Officer of the European Commission. On 17 March GMV then received María Fernández Molinero, Head of Space Policy and Launchers (DEFIS) in the European Commission, accompanied by Isabel Martínez Ponte, Deputy Director of Aerospace Policy and Strategy at the General Secretariat for Innovation of the Ministry of Science, Innovation, and Universities.

Both delegations toured some of GMV's most advanced installations. These included the Galileo Room, a replica of the operations center of the European satellite navigation system, where the company's capabilities in the Ground Control Segment (GCS), a critical element within the program whose maintenance and evolution GMV is leading, were presented. The tour also included the Multimission Room, a facility designed for the simultaneous control and operation of multiple space missions, highlighting GMV's expertise in the integral management of complex systems. The institutional representatives also visited the space robotics laboratory, where they learned about the company's capabilities in robotics for exploration, satellite control, secure connectivity and technological applications in defense, as well as the avionics laboratory, broadening the vision of its developments in on-board systems for launchers.

Both visits provided an opportunity to highlight GMV's close collaboration with the European Commission to strengthen the competitiveness of the European space sector. GMV plays a pivotal role in major EU programs such as Galileo, Copernicus, GOVSATCOM, and EUSST, supporting the enhancement of Europe's space capabilities in an increasingly strategic and competitive environment.

GMV hosts students from Space Command's Advanced Space Operations Course

On March 11, GMV welcomed students from Space Command's Advanced Space Operations Course (MESPA) at its Madrid headquarters. Space Command is a structure within the Spanish Air and Space Force responsible for the space domain within the Spanish Armed Forces. During their visit to the company's facilities, the students gained firsthand knowledge of GMV's capabilities applicable to space operations. This visit complemented the active participation of GMV expert personnel who teach various modules of this training course, designed to enhance understanding of the space environment and how space missions are operated and protected in real-world environments.

The day began with a presentation by Pedro J. Schoch, GMV's Director of Corporate Development, Marketing, and Communications, who provided a comprehensive overview of the company's activities and key aspects. Following this, Daniel Montero, Head of GMV's Defense and Security Avionics Systems Division; Miguel Ángel Molina, Deputy General Manager of GMV Space Systems; Alberto Águeda, Director of Space Surveillance and Traffic Management at GMV; Manuel Toledo, Director of Navigation User Segment & PRS of GMV´s satellite Navigation Systems; and Fernando Gandía, Division Head Robotics and On-Board Autonomy, presented their most notable projects, as well as the main achievements and challenges in their respective areas.

The visit continued with a tour of GMV's facilities to see the spaces where numerous space missions and associated projects are developed: the Galileo room, a replica of the operational control center for the European satellite navigation system; the mission control center for ESA's Celeste robust navigation mission in LEO; and the robotics laboratory, where robotic systems for space exploration are developed and validated.

The day concluded at the Focusear antenna, a system installed within GMV's headquarters building that enables automated tracking of satellites in geostationary orbit for multiple users, including the Space Surveillance Operations Center (COVE) of MESPA, thereby reinforcing the protection and security of assets in orbit.

The National Security and Technological Sovereignty Committee makes progress in strengthening strategic defense capabilities

AMETIC, a member of the Advisory Council, was represented by Luis Fernando Álvarez Gascón, chairman of the Defense Dual Technologies Committee and general manager of GMV's Secure e-Solutions

On February 16, the second meeting of the Advisory Council of the National Committee for Security and Technological Sovereignty was held, chaired by the Minister of Defense, Margarita Robles, together with the Secretary of State for Defense, Maria Amparo Valcarce. The meeting focused on analyzing the progress of the Industrial and Technological Plan for Security and Defense and on aligning the sector's proposals with the Government's strategic objectives.

The session focused on identifying key strategic capabilities and strengthening the national industrial and technological base in areas considered critical for the country's strategic autonomy and resilience. The meeting allowed progress to be made in the definition of technological priorities and in the promotion of initiatives aimed at consolidating a competitive industrial ecosystem in the field of security and defense.

AMETIC, a member of the Advisory Board, was represented by Luis Fernando Álvarez-Gascón, chairman of the Defense Dual Technologies Committee at AMETIC and general manager of GMV's Secure e-Solutions, thus reinforcing the company's active involvement in the main strategic definition forums linked to security and technological sovereignty.

The creation of the National Committee for Security and Technological Sovereignty was agreed by the Council of Ministers on April 22, 2025, within the framework of the aforementioned Industrial and Technological Plan. Reporting to the Office of the Prime Minister and structured as a collegiate body functioning as a working group, the Committee's mission is to promote Spain's security in a changing geopolitical and technological environment, strengthen its role in the European Union and the North Atlantic Treaty Organization, and foster innovation and reindustrialization in the field of dual-use technologies that contribute to modernizing the national industrial base.

GMV drives discussion on European strategic autonomy

On March 16, GMV took part in the Expansión Defense Industry Meeting, an event held in Madrid and organized by the newspaper Expansión. Now in its second year, the meeting was presented under the title "Europe, strategic autonomy, and investment" at a pivotal moment for Spain. The country continues to increase its defense investment with the aim of bolstering national security, improving the operational capabilities of its Armed Forces, and fostering a robust industrial and technological foundation nationwide.

For the second consecutive year, GMV sponsored the meeting, which brought together defense sector professionals and institutional, business, and financial leaders to address the challenges of a European future in which industrial sovereignty, cyberdefense, artificial intelligence, and innovation will play an increasingly prominent role.

Jesús B. Serrano, CEO of GMV, took part in the "Expansión Dialogs," a session focused on innovation and industrial capabilities in Spain. During his remarks, he highlighted the growing strength of these capabilities, as well as the need to invest in them, given their importance for the continent's security. He also emphasized the need to make optimal use of these capabilities and to avoid unnecessary duplication.

The "Expansión Dialogs" were followed by a program of panel discussions covering a range of current topics, including the role of defense as a pillar of the European Union, the importance of aerospace strategy for European strategic autonomy, and the defense sector's AI-driven transformation.

GMV brings together the aerospace startup ecosystem for a day on the challenges facing new ventures

On March 3, GMV hosted the event "What no one tells you: Successes and failures of aerospace startups" at its headquarters, a networking day focused on the challenges facing entrepreneurship in a sector as demanding and strategic as aerospace. The initiative brought together startups, institutions, and experts to share practical experiences and strengthen the innovation ecosystem.

The event was held in collaboration with Redes de Emprendimiento Digital, a project led by the Regional Government of Madrid, through the Regional Ministry of Digitalization, as part of RETECH (Territorial Networks of Technological Specialization), an initiative launched by the Secretariat of State for Digitalization and Artificial Intelligence, and financed by the European NextGenerationEU funds within the Recovery, Transformation and Resilience Plan.

The day was opened by Pedro J. Schoch, GMV's Director of Corporate Development, Marketing and Communications, who welcomed attendees, the Mayor of Tres Cantos, Jesús Moreno, and the Councilor for Economic Development, Ana Isabel Pérez, who joined us for the inauguration of the event. Following his remarks, the Mayor highlighted the strength of Tres Cantos' innovative business fabric and the role of the local environment as a catalyst for talent, investment, and public-private collaboration.

His words gave way to a roundtable discussion moderated by Javier Romero, Director of Innovation at the Aerospace Node, featuring Schoch himself; Miguel Ángel Molina, Chairman of GMV's Space Council; and José Prieto, Director of Business Development and Institutional Relations for Defense and Security at GMV, in which the speakers shared their experience and addressed the challenges facing startups in the aerospace sector.

The discussion allowed for an in-depth exploration, from a business perspective, of what distinguishes a one-time supplier from a strategic partner, what the requirements are for operating in critical environments such as defense and space, and what mistakes startups typically make when scaling. The debate underscored that, beyond technology, the key to establishing oneself in this field lies in credibility, operational maturity, and the ability to generate long-term trust. Javier Romero participated on behalf of RETECH, reinforcing the institutional commitment to technological specialization and the consolidation of a robust regional ecosystem in the space sector.

The event featured the participation of startups including H2 Dron Energy, Systratec Instruments, Usyncro, Cedrion, Invicsa Airtech, Eye4Sky, 3Top, Vigsecdrone, Hydra Space, 40º West, Hispansion, Net2Fly, and Global Zone Objectives, who, following the roundtable, gave a brief presentation of their activities and technological focus.

Record intake at the start of the 2026 Global Internship Program

GMV has kicked off 2026 with record figures in its Global Internship program. So far this year, 156 people have joined GMV, and a further 16 are expected to start in April.

These young professionals, graduates of engineering and vocational training programs, have joined teams across space, aeronautics, defense and security, cybersecurity, intelligent transportation systems, automotive, healthcare, telecommunications, and information technologies, as well as corporate areas such as IT systems and information security. The internships combine training with participation in cutting-edge projects, enabling participants to acquire and develop key skills for their future careers in a technologically innovative environment. The program goes beyond being a training period; it is a catalyst for professional development. The figures speak for themselves: 7 out of 10 interns subsequently go on to be hired by the organization. In this context, the Global Internship program is firmly established as a strategic growth driver for the GMV Group.

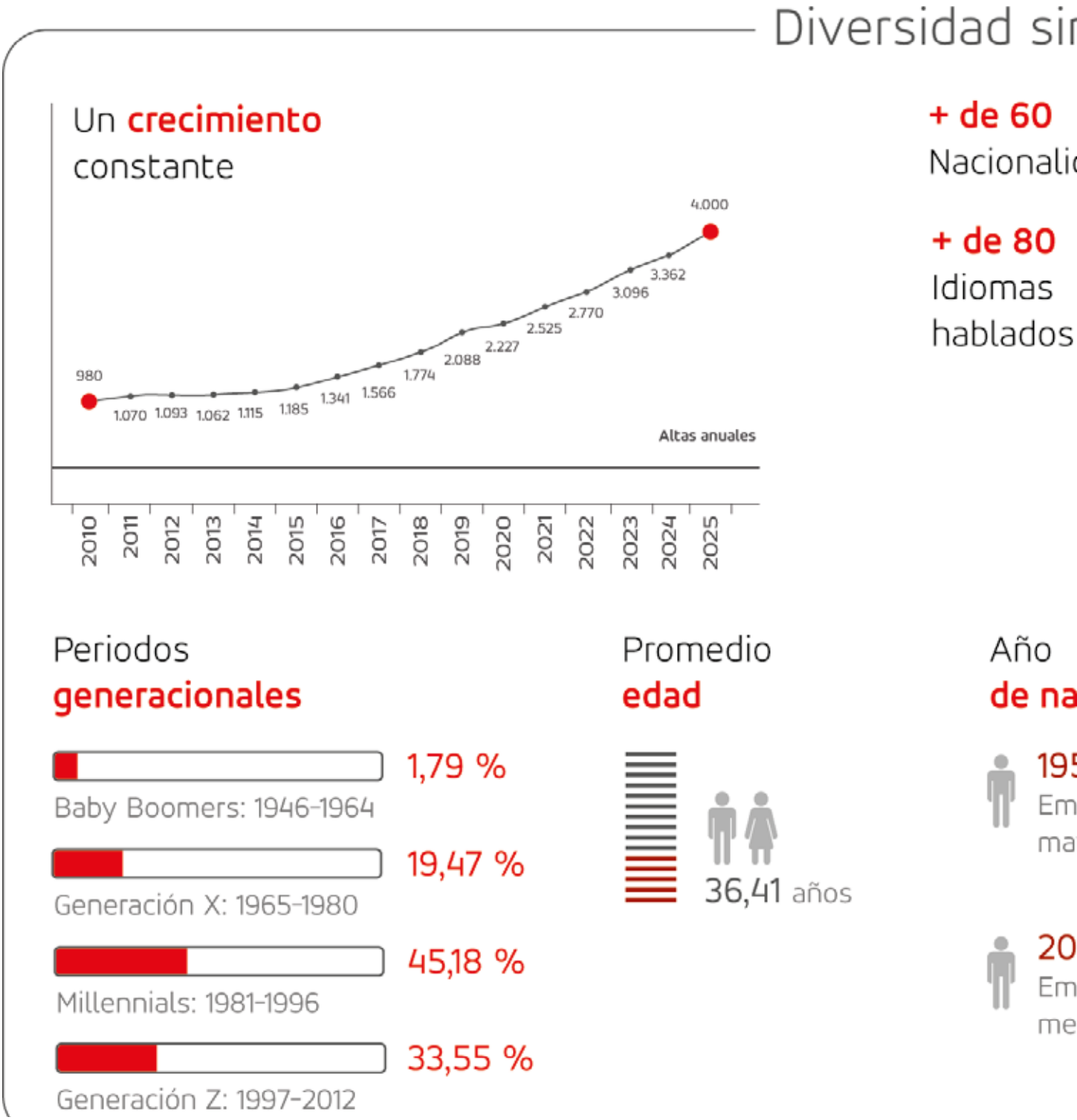
STEM talent without labels

Every 11 February marks the International Day of Women and Girls in Science, a date that reminds us that STEM also has a female name. This year at GMV, Mariella Graziano, Daciana Bochis and Ana Ramírez shared their reflections on their scientific vocation. All three agreed that what drove them to pursue what they do today was their own curiosity and determination.

Neither heroines, nor extraordinaries, nor specials. Under this premise, GMV highlights a necessary reflection: behind advances in artificial intelligence, satellite control systems, or space sustainability, there are no unattainable qualities or exceptional talents reserved for a few, but rather skills that any girl can develop with motivation, education, and perseverance.

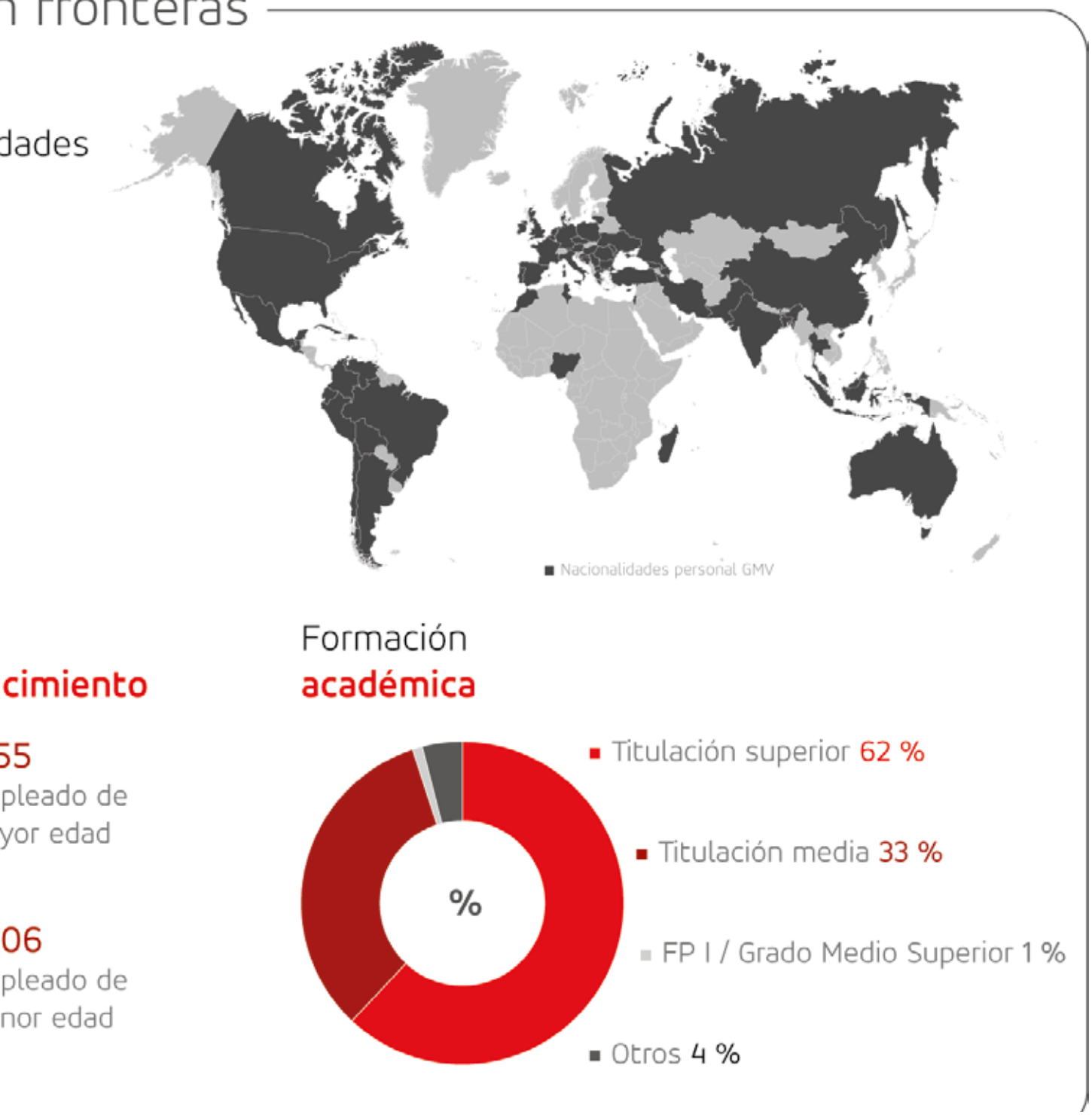
On the occasion of this celebration, more colleagues joined the goal of inspiring and conveying to young talent that science is also their place. In collaboration with six schools in Madrid (Spain) and Munich (Germany), 271 boys and girls took part in activities aimed at fostering scientific and technological vocations from an early age.

In addition, Cristina Luna, Project Manager in GMV's Robotics and Autonomy division, took part in the seminar "Women in Extreme Environments: Skill, Science and Space", organized by the Ibero-American Network of Space Agencies. A forum for dialogue focused on scientific and technological advances to address current and future challenges in space exploration from the fields of engineering, aerospace medicine, analogue environments, and space habitability, with special emphasis on women's contributions.



GMV, or the history of a small team that grew to 4,000 people

When Professor Juan José Martínez founded GMV in 1984 from a small working group at the Technical University of Madrid, few could have imagined that 42 years later that small team would grow into a major company with over 4,000 professionals. GMV has reached this symbolic milestone in employee numbers following four decades of



steady growth, driven by a passion for participating in cutting-edge technological projects and a desire to make a lasting impact.

Today GMV is no longer the startup that emerged from the Madrid School of Aeronautical Engineering in the 1980s. Its 4,000 professionals are distributed across the company's offices in 12 countries around the world. Its structure is more complex and all of GMV's teams are much more diverse. However, whether we're talking about a dozen young students led by Juan José Martínez, the company's founder, or the more than 4,000 people who make up GMV today—representing 65 different nationalities and ranging in age from 20 to 71—the company's core values remain the same. Professionalism, technical quality and confidence are as present in GMV today as they were 42 years ago.

The company is involved in major projects in sectors such as space, cybersecurity, intelligent transportation systems, and defense and security and, backed by the 4,000 professional experts who make up GMV, the goal for the future is to continue building a better world.

Manuel Pérez Cortés

Defense and Homeland Security General Manager

Marina-Cristiana Preda

Quality Engineer

"No memory without change; no change without memory"

Defense and Homeland Security General Manager Manuel Pérez Cortés is GMV's most senior employee. Satellite Navigation Systems Quality Engineer Marina-Cristiana Preda is one of the company's newest hires. More than 40 years and 4,000 colleagues separate their arrivals at GMV. However, they share the same passion for what they do.

Manuel Pérez Cortés's records indicate that he joined GMV on 1 December 1985, but as he likes to put it, "I was here before GMV was GMV." Pérez Cortés was in the small group of School of Aeronautical Engineering students at the Technical University of Madrid who were part of the Flight Mechanics Group led by Professor Juan José Martínez. This group would soon become what is now GMV. "We were a tiny group with limited resources, but our ambition and confidence in our abilities made up for any shortcomings. If someone said, 'this is going to work,' it worked. And if it didn't work the first time, we kept trying until it did," Pérez Cortés says.

Forty-two years have gone by and GMV has grown significantly. Even so, technical excellence, respect for clients, responsibility, and professional ethics have remained intact within the organization from day one. "Our pride remains as well. Before, it was the pride of pulling off a project against all odds. Today, it's the pride of seeing GMV compete and win on top-level international stages," says Manuel Pérez Cortés.

Marina-Cristiana Preda, on the other hand, joined GMV's Bucharest, Romania site as a quality engineer for satellite navigation systems. Unlike Pérez Cortés, she joined GMV when it had already surpassed 4,000 professionals. "Being part of such a large company means that there is a tremendous amount of knowledge and experience within the organization. For someone at the start of their career, it's a great opportunity for growth and professional development," she says.

GMV's 4,000-strong workforce includes people of many different ages. Far from being a problem, this generational diversity is a great asset in GMV's teams. "We younger people bring fresh ideas and new perspectives, driven by curiosity and a strong desire to learn," says Marina-Cristiana Preda. Pérez Cortés, meanwhile, believes that "we seasoned employees bring calm when things get difficult. When you've lived through several stages, you learn that challenges are part of the journey. If I've learned anything in these 40 years, it's that GMV has grown when it's been able to bring together expertise and new blood. No memory without change; no change without memory. Our generational balance is probably one of our greatest strengths."

Pérez Cortés argues that, despite the age difference, all the people who are part of GMV share something very valuable: "our enthusiasm when it comes to participating in cutting-edge technological projects and our desire to bring real value to society and transform the world." Marina-Cristiana Preda agrees: "I've always wanted to work on projects that have a real impact on the world, and that's exactly what appealed to me about GMV and made me want to join the team."

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