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5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin
Grant Agreement No 101133716

5G4LIVES D1.3_5G4LIVES MIDTERM MEETING

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5G4LIVES D1.3. 5G4LIVES midterm meeting	
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REVISION TABLE

Version	Date	Comments
1.0	30/05/2025	Initial version
1.1	10/06/2025	The midterm meeting included
2.0	30/06/2026	Final version

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5G4LIVES ABSTRACT

In an era where technology is advancing at an unprecedented pace, the project takes centre stage as an initiative committed to harnessing innovation for the greater good. This project unfolds its transformative vision across two distinct geographic clusters, Latvia and Italy. It strategically leverages 5G connectivity alongside cutting-edge technologies such as Unmanned Aerial Vehicles (UAVs or drones) and alternative hydrogen power. With a dual mission of enhancing public safety and environmental health, the project unfolds a narrative where data-driven forecasting and real-time aerial situational awareness become the bedrock of a more secure, efficient, and sustainable future.

At its core, the project seeks to enable optimal emergency management and data-driven forecasting, a mission encompassing the entirety of public safety. Through the dynamic fusion of 5G connectivity and UAVs, this initiative aims to provide real-time aerial situational awareness and automatic vulnerability assessment for at-risk areas. The project's scope extends beyond traditional rescue operations, pushing the boundaries of innovation to safeguard both human lives and the environment.

The project in Latvia involves using drones and 5G technology for monitoring and rescue operations, especially at Vecaku Beach and Kisezers Lake in Riga. This approach aims to enhance police efficiency, particularly in challenging terrains. In Turin, the focus is on developing a 5G-enabled service for situational awareness and vulnerability assessment to counter natural disaster threats. This includes testing anti-drone hacking technology, integrating satellite data, and improving pilot-drone command for better emergency response. The project also includes research in Riga on safety protocols and procedures for urban drone operations and beyond-visual-line-of-sight (BVLOS) flight methodologies with EU-wide relevance. A significant aspect of the project is to engage in extensive communication to inform and educate local, national, and EU networks about these technological solutions.

By leveraging 5G and drones, the project promises quicker and more effective emergency response, addressing staff shortages in law enforcement and expanding their skill set. In Latvia, the use of drones and 5G connectivity will empower law enforcement to intervene more swiftly, addressing staff shortages and expanding the skill set of police officers. In Italy, the project will mitigate the threat of natural disasters and test innovative anti-drone hacking technologies, leading to more efficient emergency responses. Additionally, developing safety protocols and procedures for urban drone flights and validating BVLOS flight methodologies will set new standards for public safety and security. The project emphasises community involvement and knowledge sharing, ensuring that the benefits of these technological advancements extend beyond immediate emergency management to foster a more resilient and informed society.

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EXECUTIVE SUMMARY

Tasks 1.1-1.4, report, including report. The report will be submitted on M18. The conference will be organised based on project results in the midterm, a significant milestone representing a midway check on the project's progress. As a public report (PU), it serves to inform stakeholders and the public about the project's status and future directions.

This report consolidates the outcomes and insights of the three core consortium meetings held during the first 18 months of the 5G4LIVES project: the **Kick-off Meeting**, the **Torino Plenary Meeting**, and the **Mid-term Meeting**. These gatherings represent key governance and coordination checkpoints under **Tasks 1.1 to 1.4** of Work Package 1, and collectively support the effective monitoring, internal alignment, and external communication of project activities. The report also supports Deliverable D1.3, which is due in Month 18, and is classified as a public deliverable (PU), promoting transparency.

The **Kick-off Meeting**, held in **Riga on 29–30 January 2024**, served as the formal launch event for the project. It gathered representatives from all consortium members to establish the foundational project vision, clarify roles and responsibilities, and agree upon governance structures. Work Packages (WPs) were introduced with initial objectives and milestones, while interactive sessions and a visit to the pilot site at Ķīšezers Lake provided practical grounding in the project's ambitions. A dedicated session on visual identity ensured coherent communication strategies across the project's public-facing materials.

The **Torino Plenary Meeting**, conducted in **January 2025**, focused on technical and implementation progress across all six work packages. WP leaders delivered presentations with a focus on achieved results, encountered challenges, and upcoming actions. The meeting also featured structured workshops that fostered inter-WP collaboration, particularly in pilot planning and cross-border interoperability. Dedicated stakeholder and end-user discussions further supported ecosystem alignment in both demonstration cities: Riga and Turin. The event reinforced synergies and clarified the path towards the second implementation phase.

The **Mid-term Meeting**, hosted by **LMT in Riga on 10 June 2025**, marked a pivotal milestone. It was structured as a hybrid event.. The internal meeting enabled each WP to present its status and outline its contribution toward the overall project objectives. Discussion among partners addressed coordination, risk mitigation, and upcoming integration efforts.

Collectively, these three meetings demonstrate the project's steady progression and the operationalisation of its governance model.

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INTRODUCTION

This report documents and evaluates the coordination, monitoring, and review mechanisms implemented during the first half of the project lifecycle. It focuses specifically on the major events carried out under Tasks 1.1 to 1.4, including the Kick-off Meeting, the Torino Plenary Meeting, and the Midterm Meeting. These activities collectively contribute to the achievement of Milestone 18 and the successful delivery of Deliverable D1.3. As a public (PU) deliverable, the report also serves to inform stakeholders, policymakers, and potential replicators about the project's progress and governance model.

The coordination and governance structure of the 5G4LIVES project incorporates a well-defined schedule of regular meetings and evaluation activities designed to ensure continuous collaboration and progress monitoring throughout the project lifecycle. These activities are organised across multiple levels—monthly, semi-annual, annual, and work package-specific—reflecting the project's commitment to transparency, accountability, and effective communication among partners. Monthly online meetings are organised by the Riga Digital Agency (RDA), serving as the project's coordination authority. These sessions facilitate continuous information exchange, task alignment, and issue resolution across all consortium members. In addition to these, internal assessments are scheduled every six months.

The project also includes Annual General Assemblies, which serve as high-level milestones for strategic review and partner coordination. The first general assembly after the **kick-off** meeting is planned in **Turin**. The second general assembly is scheduled for September 2025 or January 2026, to be hosted by VEFRESH in Riga, again with associated online and in-person sessions to maximise participation, together with **Demo days**. A **midterm meeting** is set to take place in June 2025, led by Latvijas Mobilais Telefons (LMT). This session will be crucial for evaluating the implementation of use cases and preparing stakeholders for upcoming demonstrations.

Additionally, a final **training** for end-users is scheduled for **June 2026 in Turin**, ensuring that local authorities, emergency services, and technical personnel are fully equipped to operate and sustain the deployed 5G-based solutions.

The project will conclude with a **Final Meeting and General Assembly in December 2026**, hosted by RDA, summarising the results, impacts, and forward-looking strategies of 5G4LIVES.

Throughout the project, Work Package (WP) meetings will be independently organised by the respective WP leaders, enabling focused technical collaboration and milestone tracking in alignment with the overall project timeline.

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1. KICK-OFF MEETING

The Kick-off Meeting of the 5G4LIVES project marked the formal launch of the initiative and was held in Riga, Latvia, from 29 to 30 January 2024. Organised by the project coordinator Riga Digital Agency (RDA), the event convened all project partners and external guests, including representatives from public authorities, research institutions, and industry. The purpose of the meeting was to establish a shared understanding of the project's objectives, structure, governance model, and initial implementation roadmap.

The two-day event included plenary presentations by each Work Package (WP) leader, introductory sessions from all partners, and a dedicated use case site visit to Ķīšezers Lake—one of the planned pilot locations. The meeting also featured a visual identity session, communication planning, and a 5G-enabled rescue demonstration conducted by the Riga Municipal Police. This early demonstration helped to frame the societal relevance and real-world applicability of the project's technological components (Annex 1, Annex 4).

The agenda commenced with a welcome and refreshments session at 09:30, followed by an official welcome address from the Vice Mayor of Riga, Linda Ozola. At 10:10, H.E. Alessandro Monti, Ambassador of Italy to Latvia, delivered the opening keynote. At 10:15, Inga Barisa, Adviser at the Riga Digital Agency, presented the project overview, including a video introduction. This was followed by a session outlining European Commission expectations, led by Oana Bodron from the Health and Digital Executive Agency. At 11:00, the project needs were introduced by Andrejs Aronovs, Deputy Chief of Riga Municipal Police, and Gianfranco Todesco, an expert in air mobility and former Commander of the Turin Local Police. Subsequently, a partner roundtable introduced all project partners, with a maximum of 5 minutes per presentation. This included Riga Digital Agency, Riga Development Department, Riga Municipal Police, Latvijas Mobilais Telefons (LMT), VEFRESH NGO, Comune di Torino, Torino Municipal Police, Wind Tre S.p.A., Politecnico di Torino (POLITO), and VAS Elektroniskie Sakari (VASES). After a group photo session and lunch break, the afternoon focused on technical and communication aspects. At 13:30, VEFRESH presented the project's visual identity. This was followed by workshops for WP1 (led by Riga City Council) and WP2 (led by Comune di Torino). The official program ended at 16:00, after which participants had free time before a guided historical tour of Old Riga and a networking dinner at Restaurant Pētergailis.

During the kick-off meeting of the 5G4LIVES project, Inga Barisa, Adviser at the Riga Digital Agency, delivered a presentation outlining the project's foundations, partners, and strategic direction. The consortium includes key partners from both Latvia and Italy, such as Riga City Council (Municipal Police, Digital Agency, and Development Department), Latvijas Mobilais Telefons, VEFRESH NGO, VAS Elektroniskie Sakari, Comune di Torino, Wind Tre S.p.A., and Politecnico di Torino (POLITO). The presentation emphasised the deployment of 5G connectivity, drones, and hydrogen-based power systems across both countries (Figure 1). In Latvia, the activities focus on real-time monitoring and rescue operations using drones connected to a 5G network at Vecāķi Beach and Ķīšezers Lake, providing low-latency data transmission critical for emergency response. In Italy, the emphasis is on real-time disaster mitigation services, which incorporate anti-drone hacking technologies and satellite data integration to support robust and scalable emergency systems.

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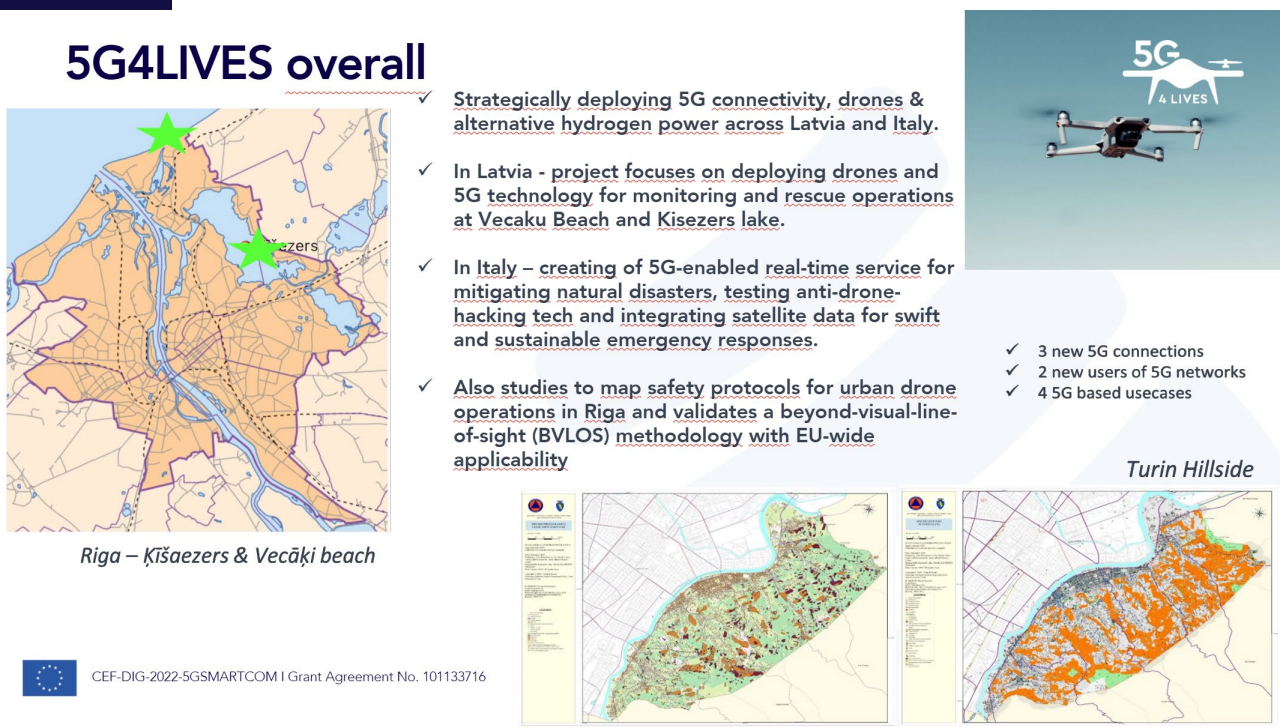

FIGURE 1. 5G4LIVES OVERALL SLIDE

The project also includes research on safety protocols for urban drone operations in Riga, and it aims to validate a BVLOS (Beyond Visual Line of Sight) methodology with potential for EU-wide application. The Work Plan overview details the timeline and interrelation of technical and operational tasks. Barisa highlighted the project's initial achievements and strong external feedback and concluded with the message that the project is following a "humble road to success," emphasising collaboration, innovation, and societal value creation through digital transformation.

During the 5G4LIVES kick-off meeting, Andrejs Aronovs, Deputy Chief of the Riga Municipal Police (RMP), presented an overview of the operational integration of unmanned aerial vehicles (UAVs) in municipal law enforcement and the strategic framework underpinning the project. He emphasised that RMP, in close collaboration with the State Police, is responsible for overseeing and executing drone operations within the Riga airspace. UAVs are actively used in day-to-day policing to enhance the efficiency and reach of municipal services. Specific applications include public safety management during mass events, road traffic monitoring, and the inspection of otherwise inaccessible or hazardous areas. Furthermore, drones support the search for missing persons or fugitives, particularly in abandoned or remote zones, and are instrumental in enforcing environmental protections, including the surveillance of protected natural territories, the prevention of poaching, and the monitoring of ice safety on water bodies during winter.

Aronovs detailed the overarching objectives of the 5G4LIVES project, which aim to transform lifesaving, surveillance, and emergency management capabilities through the deployment of 5G-enabled UAVs and digital platforms. Key goals include improving the effectiveness of rescue and emergency operations in large or difficult-to-reach areas, such as public beaches and inland waters, during both summer and winter seasons. The project seeks to enhance decision-making and reaction times for lifeguards and emergency personnel through the application of big data analytics, 5G connectivity, and artificial intelligence. In addition, the initiative supports the expansion of gigabit-level communication infrastructure to drive innovation, sustainability, and resilience in public services. A core ambition is the development and validation of a scalable Service of General Interest (SGI) model that public authorities can sustain beyond the project duration. Risk prevention relating to land, water, and hillside environments is to be improved through enhanced real-time monitoring and integrated assessment capabilities. The project also seeks to establish a validated methodology for BVLOS (Beyond Visual Line of Sight) drone operations applicable at the European level, promoting regulatory harmonisation and operational safety across borders.

The expected outcomes of 5G4LIVES, as presented, include measurable improvements in emergency service precision, particularly in critical lifesaving and rescue scenarios. The project will deliver a replicable

BVLOS flight planning and validation framework suitable for urban deployment in EU member states. Environmental benefits are also foreseen, particularly using clean, locally produced renewable energy for UAVs and related infrastructure, contributing to a reduction in greenhouse gas emissions. Public education and awareness campaigns will accompany the technical implementations to increase citizen understanding of 5G and UAV benefits in public health and safety contexts. Moreover, the project fosters deeper collaboration between public and private partners in Riga and Turin, encouraging new business models, job creation, and technological innovation. Enhanced data analytics and operational coordination capacities within municipal police departments are expected to improve resource allocation and strategic decision-making, ultimately leading to a higher overall quality of life for urban residents.

After all departments and partners presented during the kick-off meeting of the 5G4LIVES project, a comprehensive overview of institutional capacities, technical capabilities, and strategic ambitions was shared by consortium members from Latvia and Italy, each contributing to the realization of a transnational public safety and urban innovation initiative enabled by 5G, UAVs, and AI technologies. The Riga Digital Agency, represented by Director Arnis Gulbis, introduced its transformation into one of Latvia's leading ICT institutions, supporting 27,000 clients, predominantly in education. The agency's focus lies on digital transformation through interdisciplinary methods, public safety pilots, and Smart City services. In the context of 5G4LIVES, it leads WP1 on project coordination and management, aiming to deliver infrastructure that enhances emergency responsiveness, enables predictive analytics, and fosters replicable 5G-based services in urban governance. The Riga City Development Department, represented by Klāvs Balamovskis-Kalniņš, detailed its Smart City strategy, focusing on spatial planning, geospatial intelligence, and innovation ecosystems. Notably, its three "Living Lab" zones in Riga provide testbeds for urban mobility, climate neutrality, and 5G pilot projects. The department contributes to multiple work packages, particularly in methodology development and cross-sectoral integration for UAV use in complex urban environments. The Electronic Communications Office of Latvia (VASES), through Director Māris Aleksandrovs, presented its spectrum management infrastructure, regulatory experience, and drone-based RF testing systems, including the unique UAV-mounted platform Skudra. As the leader of WP5, VASES is responsible for evaluation, scalability, and replication, as well as policy alignment. The agency plays a pivotal role in defining operational thresholds for 5G coverage and safety protocol implementation during drone-assisted search-and-rescue operations. Wind Tre S.p.A., Italy's largest mobile operator, contributes core infrastructure through the deployment of a 5G Mobile Private Network in pilot zones. With over 20,000 "5G-ready" transmission sites and high-reliability connectivity (5G coverage of 95.4%), Wind Tre is responsible for implementing 5G connectivity in Turin's use cases. Its objective is to validate the effectiveness of private 5G in supporting mission-critical aerial services. Politecnico di Torino (POLITO), represented by Dr. Stefano Primatesta, brings its expertise from the Department of Mechanical and Aerospace Engineering. The university leads the development of a novel EU-wide methodology for the planning and validation of BVLOS (Beyond Visual Line of Sight) drone operations, contributing to all project work packages. POLITO aims to demonstrate the safety and utility of UAVs in public missions and to promote societal acceptance of drone-based services through validated experimental protocols. The City of Torino presented its dual innovation frameworks—Torino City Lab and CTE Next—as urban testbeds for emerging technologies. It is the leader of WP2, coordinating use-case design, service architecture, pre-demonstration sandboxing, and technology integration. Torino is also responsible for real-time emergency management pilots and satellite-drone data fusion studies. The city emphasised the importance of regulatory readiness for BVLOS operations, conditional on approvals from aviation authorities. Finally, VEFRESH, represented by Viesturs Celmiņš, highlighted its role as an urban mobility innovation hub in Riga, coordinating WP6 on communication, dissemination, and exploitation. With links to EIT Urban Mobility and living lab infrastructures, VEFRESH accelerates solution deployment by fostering collaboration between startups, cities, and industrial actors. Collectively, these presentations reflected a unified commitment to demonstrating how next-generation connectivity and UAV technologies can improve urban safety, enhance decision-making in emergencies, and establish scalable, environmentally aligned digital services across the EU.

At 12:15 on January 29, 2024, the agenda of the 5G4LIVES kick-off meeting included a dedicated session titled "5G4LIVES Family Photo" (Figure 2), during which all project partners gathered for an official group photograph. This symbolic activity served not only to document the inaugural event but also to visibly affirm

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the collaborative spirit and shared commitment of the multi-partner consortium. The family photo marked a moment of cohesion, capturing representatives from public institutions, municipalities, academic partners, network operators, and innovation hubs from both Latvia and Italy, united under the shared mission of advancing 5G-enabled life-saving technologies and public safety solutions. This group photo session reinforced the identity of the consortium and highlighted its international and interdisciplinary composition.

FIGURE 2. 5G4LIVES FAMILY FOTO

The WP1 session, led by Dr.sc.ing. Laila Zemīte of the Riga Digital Agency focused on project management and coordination. The session outlined WP1's overarching role in ensuring the timely, ethical, and financially sound execution of the entire project. It was emphasised that WP1 will oversee administrative and financial coordination (T1.1), technical management in close cooperation with the Riga Municipal Police and other WP leaders (T1.2), and quality and risk assurance through regular reviews and internal assessments (T1.3). Ethical data handling and compliance with EU-level data protection regulations are also central components, particularly through the development of a robust Data Management Plan (D1.2) (T1.4). Regular communication mechanisms—monthly virtual meetings, biannual internal assessments with the HaDEA project adviser, and general assemblies—were presented as core instruments to support internal alignment. Additionally, synergy-building actions with other CEF initiatives and Smart Community frameworks were introduced.

The WP2 workshop, presented by Lorenzo Pessotto and Elena Cacciotti of the City of Torino, concentrated on the specification of the 5G4LIVES system concept and requirements. This work package (M1–M22) aims to design and validate four distinct use cases (two in Riga, two in Turin), serving as foundations for the reference architecture. Tasks include Riga and Turin use case development (T2.1, T2.2), end-user requirement gathering and regulatory mapping (T2.3), and technical studies on essential 5G network coverage parameters (T2.4). A structured co-design process, literature reviews, and stakeholder engagement activities will inform the final technical and regulatory specification deliverables (D2.1–D2.4). The workshop also defined internal reporting schedules, task leadership confirmations, and timelines for synchronisation with other WPs, with bi-weekly WP2 coordination calls to be maintained.

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The WP3 session, led by Artūrs Lindenbergs of Latvijas Mobilais Telefons (LMT), introduced the core goal of developing and integrating a comprehensive 5G4LIVES monitoring platform. WP3 is tasked with translating the specifications and architectural outputs from WP2 into a functioning, interoperable system that includes 5G connectivity, UAV control systems, digital tools for lifeguards, and mission-critical safety protocols. Specific activities include the deployment of 5G systems and UAVs (T3.3, T3.4), integration of rescue-specific safety procedures in Riga (T3.5), and deployment of the Turin use case (T3.6). The monitoring platform will also integrate LMT-developed solutions for computer vision-based person detection, drone detection, and network coverage prediction to maintain seamless communication in coastal and inland water rescue operations. Strategic pilot sites include Ķīšezers Lake and Vecāķi Beach.

The presentation of WP4 – 5G4LIVES Demonstration Across Technologies and Scenarios was delivered by representatives of the Riga City Council, which leads this work package. WP4 will operationalise the 5G4LIVES concept through a series of cross-border pilot demonstrations in Riga and Turin. The presentation emphasised that WP4 serves as the central validation stage of the project, covering both summer and winter scenarios in Latvia, as well as real-time emergency management and automatic aerial monitoring pilots in Turin. The work package is structured into six main tasks, starting with coordination and baseline assessments (T4.1), the establishment of a pre-demonstration sandbox environment (T4.2), seasonal rescue and observation operations in both warm (T4.3) and cold (T4.4) weather conditions, and concluding with evaluation and synthesis of lessons learned (T4.6). A special focus was placed on BVLOS (Beyond Visual Line of Sight) regulatory readiness, and the dependence on WP2 and WP3 outputs for platform and system integration. Demonstration activities are scheduled to begin after month 14 of the project and will continue until month 34.

WP5 – Dr. Iveta Cīrule presented evaluation and Assessment, Replication and Scalability Potential from the Electronic Communications Office of Latvia (VASES). As the leader of WP5, VASES is responsible for developing and applying a comprehensive evaluation framework that measures the technological, environmental, economic, societal, and regulatory impact of the project. The presentation outlined the structure of WP5, which includes six tasks ranging from training package development (T5.1) to impact assessment strategy design (T5.6). Key activities include mapping key indicators (T5.2), preparing a replication and scalability roadmap (T5.3), evaluating stakeholder acceptance (T5.4), and analysing regulatory barriers (T5.5). WP5 will rely on both qualitative and quantitative data collection across three reporting rounds—scheduled for January 2025, January 2026, and December 2026—to assess the evolving impact of 5G4LIVES interventions. The presentation highlighted that all partners would contribute input across these tasks, and that evaluation results will inform the final strategic recommendations for EU-wide adoption.

The session was dedicated to WP6 – Communication, Dissemination, Exploitation, and Standardisation, presented by Viesturs Celmiņš of VEFRESH, which leads the work package. WP6 is designed to ensure that project outcomes are effectively communicated to relevant stakeholders, strategically disseminated, and positioned for exploitation and long-term sustainability. The presentation detailed six major tasks: the development of a unified communication and dissemination strategy (T6.1), management of intellectual property and innovation (T6.2), a commercialisation roadmap (T6.3) led by WindTre, and efforts to enhance European technological value chains (T6.4). The City of Turin will support tasks related to standardisation (T6.5) and liaison with EU initiatives (T6.6). The workshop emphasised the need for consistent branding, engagement with standardisation bodies, and identification of market entry pathways. It also sets expectations for milestone reports and deliverables, including joint communication campaigns and exploitation blueprints.

At the 5G4LIVES kick-off meeting, the project's visual identity was formally introduced by Kristīne Kalvāne, Communication Lead at VEFRESH, who is responsible for leading the communication and dissemination work under WP6. The presentation outlined the coherent design language and branding strategy that will be used across all communication, dissemination, and exploitation activities of the project.

The visual identity was developed to reflect the project's core themes of resilience, environmental protection, and technological innovation. A carefully curated colour palette was unveiled, featuring shades such as #77B0E7 (air), #0A0046 (water), and #41424C (mountains), in addition to white and black. These colours symbolise the natural elements and operational environments in which the project's 5G- and UAV-based solutions are deployed.

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The project's logo and key visual motifs were presented, including stylised graphic elements that evoke motion, digital connectivity, and layered geographic textures. A dedicated typography suite based on the *Avenir* font family (Medium, Book, Black) was adopted to ensure a clean, professional, and accessible appearance across all materials.

To support consistency and recognizability, a range of ready-to-use templates was introduced. These include:

- Presentation slide templates for internal and external meetings,
- Word document templates for reports and deliverables,
- Social media templates—in both light and dark modes—to be used for public outreach and campaign visibility.

At 14:00 on 30 January 2024, following the technical work package sessions, the 5G4LIVES project team conducted a site visit to Ķīšezers Lake (Figure 3), one of the designated Latvian pilot locations for future testing and demonstrations. This activity represented a key practical highlight of the kick-off meeting, offering participants an opportunity to observe real-life operational contexts where 5G-enabled drone technology will be deployed during the project. The visit was organised in collaboration with the Riga Municipal Police, who provided a live demonstration of ice rescue operations, including surface and subsurface procedures, utilising the drones currently in active use by the force. This hands-on display exemplified the baseline capabilities of existing technologies. It provided a tangible preview of how future 5G-integrated solutions will enhance situational awareness, response time, and mission safety in harsh weather and complex terrains.

FIGURE 3. KISEZERS SITE VISIT

The 5G4LIVES Kick-off Meeting brought together a wide and diverse group of project participants representing institutions from Latvia, Italy, and the European Commission. A total of 58 individuals were listed in the official participant register, with most attending in person, while a number joined remotely or participated only on the second day. The participant list featured representatives from the City of Riga, including numerous departments such as the Riga Digital Agency, City Development Department, and Riga Municipal Police, indicating the city's comprehensive institutional engagement in the project. Key individuals included Inga Barisa (project lead coordinator), Arnis Gulbis, Kristīne Kalvāne, and Laila Zemīte, all of whom

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played active roles in the organisation and technical leadership of the event. The Latvian national institutions were well represented, including experts from the Electronic Communications Office (VASES), such as Aleksandrs Vērdiņš, Iveta Cīrule, and Raimonds Nitiss, as well as representatives from Latvijas Mobilais Telefons (LMT), including Artūrs Lindenbergs, Alina Mezciema, and Ilona Viļumsone. From the Italian side, the City of Turin, Wind Tre, and Politecnico di Torino (PoliTo) contributed delegates both on-site and online. Notable Italian participants included Lorenzo Pessotto, Elena Cacciotti, Federico Dellanoce, and Stefano Primatesta, along with representatives from Wind Tre, such as Benoît Hanssen, Gianluca Motta, and Massimo Motta.

A highlight of the participant list was the presence of H.E. Mr. Alessandro Monti, Italian Ambassador to Latvia, who attended in person and was formally invited by the City of Riga to deliver a welcome address during the opening ceremony. The ambassador's presence underscored the international and diplomatic significance of the 5G4LIVES initiative as a flagship Latvia–Italy cooperation project under the CEF Digital programme.

Additional partners included members from VEFRESH, the European Commission, and observers from related national organisations. A few entries were handwritten, including Vladimirs Petrovs and Viktors Demidovs, representing academic or governmental institutions.

The Kick-off Meeting successfully established the operational foundation of the 5G4LIVES project. Key outputs included a detailed overview of each Work Package's scope, confirmation of governance and coordination mechanisms, and the initial scheduling of meetings, deliverables, and reporting obligations. The meeting also reinforced the importance of stakeholder engagement and interdisciplinary collaboration in achieving the project's mission. This meeting set the stage for effective project execution by fostering cohesion, clarity, and commitment among consortium members while simultaneously demonstrating the project's public value through its real-world use case orientation.

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2. TORINO PLENARY MEETING

The first Annual General Assembly and Plenary Meeting of the 5G4LIVES project was held from 15 to 17 January 2025 in Turin, Italy (Annex 2, Annex 5), hosted by project partner Comune di Torino. The event took place at Torino City Hall and the Environment Park innovation centre, combining in-person and online participation to ensure inclusive and effective engagement. The meeting brought together representatives from all consortium members to present progress across Work Packages (WPs), evaluate milestones, and align strategic directions for the upcoming implementation and demonstration phases. The primary objective of the Torino Plenary Meeting was to conduct a detailed technical and managerial assessment of the first project year, including coordination and risk management. Each WP leader presented progress, achievements, and encountered challenges, followed by interactive discussions. Additionally, side sessions focused on preparatory tasks for upcoming pilots, ethics and data protection, and dissemination strategies. The event also included workshops and collaborative technical sessions aimed at refining workflows between partners, planning stakeholder involvement in pilot actions, and strengthening the visibility of project impacts at the city level. This was further reinforced through field visits to local stakeholder locations and pilot-related demonstrations (Figure 4).

FIGURE 4. TORINO PLENARY MEETING PARTICIPANTS

The first day of the assembly, 15 January 2025, was dedicated to formal consortium coordination and internal project review. It began with participant registration, including the signing of attendance and image consent forms, followed by welcoming remarks delivered by Elena Deambrogio and Lorenzo Pessotto. These introductory comments emphasised the importance of maintaining strategic coherence across work packages and pilot sites. Each work package (WP1–WP6) was subsequently reviewed through individual sessions consisting of 15-minute presentations and 15-minute discussions.

WP1, presented by Arnis Gulbis, focused on overall coordination, including administrative compliance, financial progress, and partner feedback. Financial matters were addressed with input from Laila Zemite, who joined the session remotely.

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During the **5G4LIVES General Assembly in Turin**, a comprehensive overview of **WP1 – Project Coordination and Management** was presented by the coordination team led by the **Riga City Council**. This presentation provided a structured update on the first year of project implementation, emphasising strategic alignment for the upcoming phases. It reinforced the administrative and financial management responsibilities shared across the consortium.

The WP1 session began by reaffirming the project's overarching objectives, which include enhancing lifesaving and health protection services using 5G connectivity, UAV integration, AI-based decision support systems, and digital monitoring platforms. These services are being developed and validated by the municipal police forces in **Riga** and **Turin**, aiming to improve operational effectiveness in hard-to-reach environments such as **public beaches, lakes, and urban zones at risk of natural hazards**.

Key milestones were reviewed, including the **successful submission of all Year 1 deliverables** and the finalisation of the **first annual progress report**. The presentation emphasised that **financial reporting** (detailed cost reports and timesheets) for the period **01.01.2024 to 31.12.2024** must be submitted by **24 January 2025**. It reminded all partners to ensure that financial data and staff declarations are fully aligned.

WP1 also provided an outlook for the **second project year**, describing it as a "challenging year full of opportunities." Specific deliverables and milestones scheduled for early 2025 include:

- **D3.1 and D3.2** on 5G and UAV system implementation (LMT and Riga City Council),
- **D4.2** and the second baseline report (Riga City Council),
- **Start of WP5** (01.02.2025),
- **Launch of summer demonstration period** (01.06.2025),
- **Conclusion of WP2** (31.10.2025), and
- **Transition to winter demonstration period** (01.11.2025).

The presentation outlined the **overall progress reporting structure** for the full project lifecycle:

- Progress Report No. 1 (Months 1–12): Submitted January 2025.
- Progress Report No. 2 (Months 13–18): To be submitted in July 2025, accompanied by the **interim payment request**.
- Progress Report No. 3 (Months 19–24): Submission in January 2026.
- Progress Report No. 4 (Months 25–36): Submission in January 2027.

Further coordination activities highlighted in the presentation included preparations for UAV procurement and training sessions, especially because of the **midterm meeting and end-user training** organised by LMT.

At the **5G4LIVES Annual General Assembly** in **Turin (15–17 January 2025)**, the status and progress of **Work Package 2 (WP2) – Use Case Definition and System Specification** were presented by **Lorenzo Pessotto** from the **Municipality of Turin**, which serves as the WP2 lead. The presentation offered a comprehensive update on the WP's objectives, completed deliverables, technical progress, and next steps within the project's system design and regulatory preparation phases.

The session began by restating the overall objectives of WP2, which include:

- The definition and consolidation of use cases for 5G-enabled UAV operations in Riga and Turin.
- The preparation of the system requirements and functional specifications needed to support those use cases.
- Ensuring that all developments comply with EU regulations, especially regarding BVLOS (Beyond Visual Line of Sight) drone operations.

The WP2 team reported that two deliverables were successfully submitted:

- D2.1 (M5): This deliverable mapped the relevant technologies, existing legal frameworks (e.g., SORA methodology, EASA regulations), and provided the initial descriptions of the Latvian and Italian use cases.
- D2.2 (M7): This focused on identifying the minimum network requirements for supporting UAVs using mobile (5G) networks, including signal strength thresholds, latency limits, and coverage needs.

The presentation emphasised that both Latvia and Italy have now achieved important milestones in regulatory engagement. Latvia has already obtained SORA-based operational authorisations for UAV flights in coordination with the national CAA (Civil Aviation Agency), while regulatory discussions in Italy are ongoing to enable similar deployments.

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Regarding the technical scope, WP2 has advanced in:

- Preparing detailed risk assessment frameworks aligned with the expected operations.
- Designing reference system architectures for real-time UAV–5G integration.
- Outlining interoperability requirements across different UAV platforms and public safety IT systems.

The current focus is on the preparation of the following deliverables:

- D2.3 (due M18): First version of functional service specifications and co-creation results, led by Riga City Council.
- D2.4 (due M22): Final system architecture and requirements documentation, to be delivered by the Municipality of Turin.

The team also noted the importance of **cooperation with WP3 and WP4**, as system specifications must align with technical capabilities and demonstration plans. Additionally, the WP2 lead confirmed the **resumption of bi-weekly technical calls** to ensure timely deliverable completion and better coordination across partners.

At the **5G4LIVES General Assembly in Turin**, **WP3 – System Development and Integration** was presented by **Vladimirs Petrovs** from **LMT**. The session provided a focused update on the technical development of the **5G4LIVES Lifeguard Platform**, which integrates **UAVs**, **5G connectivity**, and **AI-based decision support tools**. The WP3 team outlined progress in system architecture design, UAV integration, and connectivity setup for both Riga and Turin pilot sites. In Riga, **5G NR Band N78** is being used for coverage at pilot locations such as **Ķīšezers Lake**, while in Turin, a **mobile BTS unit** mounted on a van ensures 4G/5G coverage via a microwave backhaul. Initial UAV specifications have been defined, with procurement underway. Riga will deploy fixed-wing and quadcopter UAVs, while Turin will focus on integration with civil protection infrastructure. Development of the **Remote Operation Control Centre (ROCC)** and automation systems is in progress. Pending deliverables include **D3.1** and **D3.2**, addressing platform integration and performance. The team also noted risks related to drone certification and integration timelines.

At the **5G4LIVES General Assembly in Turin**, the progress and results of **Work Package 4 (WP4) – Demonstration Across Technologies and Scenarios** were presented by **Stanislavs Stasko**, who leads this work package. The presentation provided an update on the implementation and coordination of pilot activities in Riga and Turin, focusing on the deployment, operation, and evaluation of 5G-enabled life-saving services. WP4, running from Month 1 to Month 34, builds directly on the outputs of WP2 and WP3 by translating defined scenarios and system architectures into field-tested demonstrations. The Riga use case has progressed through scenario detailing, the pre-demonstration phase, and the beginning of full-scale demonstration operations, accompanied by systematic analysis of performance and outcomes. In Turin, the use case is entering its full demonstration phase, designed to validate technical readiness and operational effectiveness for emergency management and disaster prevention. A significant achievement was the establishment of a **high-TRL technology sandbox** in Riga (Task 4.2), serving as a controlled environment to showcase and test the full range of 5G4LIVES technologies. This site supports continuous interaction with the system through real-world demonstrations, public engagement, and stakeholder workshops. Flight operations have been authorised by the **Civil Aviation Agency (CAA)** in Latvia, with long-term restricted areas designated as EVR53 (Ķīšezers) and EVR54 (Vecāķi). These airspaces are now officially classified for both manned and unmanned aircraft operations. The Riga Municipal Police will conduct drone-supported missions in these zones, including search and rescue (SAR) activities such as detecting individuals on ice or in water, and identifying unauthorised vessels or behaviour in restricted areas. Further developments include the ongoing restructuring of the command-and-control centre (scheduled for completion in March 2025), finalisation of procurement procedures, and active contributions to the preparation of Deliverable D4.2.

At the **5G4LIVES General Assembly in Turin**, the **kick-off of Work Package 5 (WP5) – Evaluation and Assessment, Replication and Scalability Potential** was formally presented by **Monta Baltā** from the **Electronic Communications Office of Latvia**, which leads this work package. WP5 will operate from **February 2025 until December 2026**, encompassing 22 months and consisting of **six tasks**, **seven deliverables**, and **two key milestones**. The presentation emphasised the **primary objective** of WP5: to ensure the **acceptance of the 5G4LIVES concepts and tools by both operational and social stakeholders**, including emergency services, regulatory authorities, and the public. WP5 will develop and apply an **impact assessment framework** capable of measuring the project's achievements against defined targets. Initial focus areas include the definition of

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evaluation criteria, indicators, and methodologies to quantify the effectiveness, replicability, and scalability of the deployed solutions. Special attention was drawn to the dependency on WP2 and WP4 results, which will provide critical input for the formulation of assessment strategies. Key deliverables scheduled for 2025 include reporting on:

- Strategic assessment methodologies,
- Measurable outcome indicators,
- Qualitative and quantitative impact metrics,
- Replication models applicable to other EU cities or contexts.

The presentation introduced a Gantt chart for WP5 and highlighted important tasks underway, such as preparing Deliverables D5.5 and D5.7, and coordinating a bi-weekly WP5 update cycle. It also called for input from all partners, particularly regarding data reporting processes, digital solutions for impact documentation, and replication pathway proposals. A specific open question to the Municipality of Turin was raised regarding the possible subcontracting arrangements for the final project evaluation and replication activities, requesting insights from their previous experience with similar initiatives. In conclusion, WP5 was formally launched as the evaluation backbone of the project, ensuring that the innovative services developed within 5G4LIVES are rigorously assessed, validated through measurable impact, and positioned for scaling across the EU beyond the two pilot cities.

At the 5G4LIVES General Assembly in Turin, Work Package 6 (WP6) – Viesturs Celmiņš presented communication and Dissemination from VEFRESH, the lead partner for WP6. The session provided an overview of completed dissemination tasks in 2024, outlined deliverables, and presented the strategic communication roadmap for 2025. WP6 encompasses six tasks, ranging from traditional communication planning to exploitation strategies, IPR management, contribution to standardisation, and liaison with European initiatives. Achievements in 2024 included the successful delivery of:

- D6.1: Communication and Dissemination Plan,
- D6.2: Establishment of social media presence and public materials,
- D6.3: Initial business and exploitation plan.

Highlights from 2024 included the creation of the 5G4LIVES visual identity, production of the kick-off video, and active participation in 5GTechritory 2024 and the Smart Cities World Expo (SCWE), where the project contributed to panel discussions and workshops. VEFRESH also collaborated with the IPROMO project on innovation procurement, with multiple joint events and seminars. Looking ahead to 2025, WP6 will focus on:

- Delivering D6.4 in June 2025, covering communication, market exploration, and standardisation progress.
- Expanding cooperation with thematically related projects (e.g. CITYAM, URANUS, RASTOOL-DOS);
- Documenting and disseminating use case deployment in Riga and Turin through filming and social media.
- Representing the project at major events such as the Mobile World Congress, European Drone Forum, XPONENTIAL Europe, ITS Congress, and others.

The presentation concluded with a reminder to all partners to contribute to the C&D activities tracking table actively, ensure use of the official hashtag #5G4LIVES, and share information on upcoming publications, conferences, and media outputs. WP6 is positioned as a key enabler for impact visibility, stakeholder engagement, and the scaling potential of the project's outcomes across Europe.

The second day, 16 January 2025, was dedicated to a thematic workshop and external webinar, focused on urban use case innovation and the future of urban air mobility (UAM). The morning began with a keynote address by Daniele Brevi from the LINKS Foundation, who outlined the enabling role of 5G and beyond-5G networks in deploying urban innovation scenarios. Two technical panels followed. The first panel, moderated by Stefano Primatesta, showcased medical and aerospace-related use cases, including drone-based organ transport (Regional Transplant Centre), smart capsule solutions (ABzero), and aerospace district testing (Piedmont Region). The second panel, moderated by Enrico Ferrera, featured intelligent mobility and integrated sensor applications, with contributions from Reply, Leonardo, and Eagleprojects.

In the afternoon, a webinar and roundtable discussion, moderated by Lorenzo Pessotto, brought together institutional and academic perspectives, featuring contributions from Fondazione Piemonte Innova,

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LINKS Foundation (Capri Project), Politecnico di Torino (POLITO), and COTO & CIM4.0. These discussions focused on the regulatory, methodological, and technical dimensions of drone integration in complex urban environments. The session concluded with two company pitches—DigiSky and DM-AirTech—highlighting private sector innovation in UAM technologies. The day ended with a networking reception ("Aperidinner") to facilitate cross-sector dialogue among participants.

The third and final day, 17 January 2025, featured a study visit to the Municipal Civil Protection headquarters in Turin (Protezione Civile, Via delle Magnolie 5). Participants were transported by bus from the city centre, coordinated by the Municipality of Turin. During the visit, attendees received a guided tour of the control room and a briefing on emergency response procedures, UAV operations, and coordination protocols. Presentations were delivered by Federico Dellanoce and Davide Giuseppe Ture, who emphasised the operational challenges and integration requirements for public safety missions supported by unmanned systems.

The 5G4LIVES General Assembly brought together a total of 50 named participants representing a diverse range of project partners, including municipal authorities, technology providers, telecom operators, innovation agencies, and research institutions from Latvia and Italy. Of these, 35 participants were present on 15 January 2025, which hosted the primary plenary and technical sessions. The following day, 23 participants attended the sessions on 16 January 2025, focused on workshops and bilateral coordination. Additionally, 21 participants confirmed their presence at the joint networking aperitif dinner held on the evening of 16 January, supporting consortium cohesion and informal exchange.

The Torino Plenary Meeting represented a key project milestone, confirming the successful execution of early-phase tasks and solidifying coordination mechanisms across the consortium. Presentations from WP leaders highlighted progress in system architecture development, use case refinement, and preparatory technical activities for pilots in Latvia and Italy. The integration of vertical partners (e.g., police, emergency services, and urban governance) was emphasised as a major achievement. Overall, the Torino meeting served as a critical checkpoint to evaluate the implementation trajectory, adjust WP-level planning where needed, and ensure cohesive progress towards the project's societal and technological objectives.

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3. MID-TERM MEETING

The **5G4LIVES Midterm Meeting**, held on **10 June 2025**, represented a significant checkpoint in the project's implementation timeline, serving both as an internal coordination event. The primary purpose of the Mid-term Meeting was to evaluate progress against the original objectives, ensure alignment with the Grant Agreement, and identify challenges and opportunities as the project transitions from planning and development into pilot deployment and demonstration activities. Presentations were delivered by WP leaders and key technical experts, covering the status of all six work packages (WP1–WP6), with particular attention to use-case readiness, technical integration, and user engagement. The meeting format was designed to foster both horizontal (inter-WP) and vertical (partner-specific) alignment, enabling each consortium member to present their forward-looking plans. LMT, as the meeting coordinator, facilitated the preparation of a unified presentation format and ensured focused dialogue on risk mitigation, quality assurance, and interdependency management across WPs. The second part of the event invited local stakeholders and public representatives, extending the project's reach and reinforcing its commitment to transparency and community engagement. Organised in a **hybrid format**, the meeting was hosted in person at the **LMT Brīvības centrs** in Riga, Latvia, with additional participants joining remotely via Microsoft Teams. The event was coordinated by **Evija Plone (LMT) and moderated by Laila Zemite** (Annex 3, Annex 6), ensuring alignment between in-person and virtual attendees. The **partner session** of the meeting was scheduled for two hours and structured in two main parts. First, a **joint presentation** was delivered, providing a concise and consolidated overview of the project's progress across all work packages. This segment, coordinated by LMT, highlighted achievements to date in system development, pilot preparation, and stakeholder coordination, reflecting the consortium's commitment to achieving its technical and strategic objectives. The second segment involved **individual partner contributions**, during which each partner presented their forthcoming activities for the remaining 18 months of the project. These contributions followed a standardised format provided by LMT, ensuring coherence and comparability. The focus was placed on upcoming technical deliverables, coordination challenges, risk mitigation strategies, and pathways to replication and sustainability. Discussions also addressed interdependencies between work packages and the integration of results into the upcoming pilot activities in Riga and Turin (Figure 5). The meeting was introduced by Iveta Cīrule (LMT) and Riga Digital Agency director Arnis Gulbis.

FIGURE 5. 5G4LIVES FAMILY AT MID-TERM MEETING

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Work Package 1 (WP1), titled *Project Management and Coordination*, was presented by representatives from RCC and Riga Digital Agency (RDA), namely Laila Zemīte and Aija Vule. The presentation provided a detailed overview of WP1's objectives, interdependencies with other work packages, current progress, and forthcoming deliverables. Key achievements highlighted during the presentation included the successful completion of Milestone 1, which established the project's communication infrastructure and quality management plan. Ongoing tasks encompass administrative and technical coordination (T1.1 and T1.2), quality and risk oversight (T1.3), and ethical and data exchange protocols (T1.4). The session also outlined the WP1 deliverables due by Month 18, including the D1.3 Midterm Meeting documentation and the upcoming D1.5 Progress Report. The latter includes both technical and financial reporting, with clearly defined submission deadlines: Part A by 15 July 2025, Part B by 22 July 2025, and the consolidated financial report thereafter. Drafts and templates were prepared and shared with all partners in advance to support accurate and timely contributions. Finally, coordination activities such as monthly online meetings, semi-annual internal evaluations, and the scheduling of major assemblies were reiterated. The presenters emphasised that WP1 not only ensures compliance with the Grant Agreement but also serves as the enabler for effective collaboration, knowledge sharing, and strategic alignment across the consortium.

At the **5G4LIVES Midterm Meeting,** each work package leader presented the status and results of their respective work packages. These presentations offered a comprehensive view of the project's implementation progress, challenges encountered, and the coordination efforts required to meet upcoming milestones.

Work Package 2 (WP2), focused on *Requirements and System Specification*, was presented by **Lorenzo Pessotto**. The presentation provided an overview of stakeholder and end-user needs collected during the first project year. These were translated into technical requirements for system components and cross-border operational scenarios. The presenter highlighted the completed mapping of interfaces and emphasised the necessity of collaboration with WP3 and WP4 to ensure seamless integration of technological components. WP2 deliverables were progressing on schedule, with scenario refinements to be updated based on pilot results.

Work Package 3 (WP3), focused on *5G Infrastructure and Integration*, was presented by **Vadims Petrovs** from **Latvijas Mobilais Telefons (LMT)**. The presentation detailed the deployment of 5G infrastructure at the pilot sites in Riga and Turin, including coverage analyses and data transmission performance. Vadims Petrovs outlined the technical validation of 5G signal strength under real-use conditions. They emphasised ongoing collaboration with drone operators to enable Beyond Visual Line of Sight (BVLOS) flight operations. The presenter also described interactions with airspace regulators and shared lessons learned from early integration tests.

Work Package 4 (WP4), dealing with *UAV Integration and Use Case Validation*, was presented jointly by **Ilona Platonova** from **Riga Digital Agency** and **Stanislavs Seiko** from the **Riga Municipal Police**. The presenters reported on pilot activities at Ķīšezers Lake and Vecāķi Beach, where drones were tested under various rescue and surveillance scenarios. Specific tests included assessing 5G signal performance at different flight altitudes, capturing aerial video data, and rehearsing pre-programmed patrol routes. The presenters also discussed the current configuration of the Command-and-Control Centre and its interface with existing emergency infrastructure.

Work Package 5 (WP5), focused on *Impact Assessment, Roadmapping, and Evaluation*, was presented by **Monta Baltā** from the **Electronic Communications Office of Latvia (ECO)**. The presentation summarised methodologies developed for impact assessment, the status of deliverables such as the Impact Assessment Strategy (D5.1), and preparations for the upcoming Roadmap deliverable (D5.3). Monta Baltā stressed the relevance of quantifying both societal and environmental benefits derived from the pilot implementations and the importance of cross-WP coordination, particularly with WP2, WP3, and WP4, for collecting performance and usage data.

Work Package 6 (WP6), covering *Dissemination, Exploitation, Standardisation and Training*, was presented by **Viesturs Celmiņš** from **VEFRESH**. The presentation outlined communication activities conducted since project inception, including visibility at international events such as the Mobile World Congress, EUROCITIES, and the Drone Summit. Viesturs Celmiņš also introduced the first completed training package, which featured educational materials designed for non-specialist users, leveraging video demonstrations to

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explain complex technologies. He highlighted planned stakeholder outreach activities and the preparation of a digital platform that will centralise future training and dissemination efforts.

During the Midterm Meeting, each 5G4LIVES project partner presented their upcoming plans and strategic directions for the next 18 months, with a focus on achieving the project's core objectives and milestones. The Riga City Council (RCC) presentation, delivered by Laila Zemīte, provided a structured overview of upcoming project activities. The presentation focused on ensuring a smooth implementation process, timely coordination among all partners, and preparation for the second half of the project. The LMT team, represented by Vadims Petrovs, outlined forthcoming developments within WP3. Emphasis was placed on real-time risk assessment capabilities, remote drone operation, and integrating secure communication frameworks based on 5G infrastructure. Monta Baltā presented ECO of Latvia's upcoming contributions. Key areas included further technical refinements for drone operations, risk-based path planning validation, and quality assurance for mission-critical tools. The Municipality of Turin (MoT), represented by Lorenzo Pessotto, described its strategic role in managing the Italian pilot site. Upcoming activities include the operational coordination of UAV-based civil protection services, integration of control centre infrastructure, and continued collaboration with Wind Tre for communication deployment. Planned deliverables include D2.4, D4.8, D4.9, and D6.5. Politecnico di Torino (PoliTO), presented by Dr. Stefano Primatesta, shared plans for completing the web-based application for BVLOS mission planning. The tool is intended to support both Turin and Riga pilots with risk-aware routing, SORA integration, and real-time validation modules. Algorithm development and integration tasks are expected to conclude between September and November 2025. VEFRESH, represented by Viesturs Celmiņš, confirmed their responsibility as WP6 leader and coordinator of dissemination and training activities. Upcoming efforts include the finalisation of Training Package 2, delivery of dissemination deliverables (D6.5), and preparations for the annual meeting in January 2026. Their activities aim to support both end-user engagement and community building across the project's ecosystem. Domenico Spanò presented Wind Tre's next steps. Their priorities include the finalisation of deliverables D5.3 and D5.4, evaluation of the 5G mobile network's performance under drone operation scenarios, and exploration of commercialisation strategies for project outcomes. Collaboration with the Municipality of Turin will remain critical to facilitate network access and technical deployment.

As part of the midterm meeting programme, a hands-on workshop was conducted in the afternoon at the LMT Brīvības centrs, bringing together members of the 5G4LIVES consortium in a collaborative and interdisciplinary setting. The workshop was moderated by Ņikita Kazakēvičs (LMT) and organised by LMT Innovations. It served a dual purpose: firstly, to facilitate structured engagement with stakeholders through a moderated panel discussion, and secondly, to foster ideation and scenario-building among consortium partners using service design methodologies. The session began with a panel discussion involving representatives from emergency services, municipal authorities, and technical stakeholders. This segment provided an opportunity to share preliminary project outcomes, collect practical feedback, and identify operational synergies for future collaboration. Participants reflected on the real-world applicability of current pilot activities and highlighted needs for interoperability, data security, and institutional engagement.

The second half of the event transitioned into a highly interactive workshop format. Using service design principles and hands-on prototyping tools—including physical cutouts, area maps, and 3D mock-up materials—participants were encouraged to visualise and expand upon the future use cases of 5G-enabled drone infrastructure (Figure 6). The session actively stimulated creative thinking, with consortium members proposing potential extensions such as integrated systems for fire prevention, environmental monitoring (including water quality and temperature tracking), and smart city surveillance networks. The extensive 5G connectivity already planned within the pilot area served as a conceptual foundation for these new scenarios.

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FIGURE 6. WORKSHOP RESULT

This collaborative exercise not only surfaced new application areas but also strengthened a shared vision for transforming the pilot zone into a multifunctional, resilient, and digitally augmented urban environment. The workshop concluded with a consensus on the importance of continuing such iterative design activities to ensure that technical development remains aligned with real-world user needs and strategic societal objectives.

A total of **36 named participants** were registered in the attendance list, reflecting the strong interdisciplinary and transnational collaboration characterising the project.

The **morning partner session (10:00–12:00)** was attended by **at least 43 participants**, many of whom held key technical or managerial roles within their respective organisations. Participation included representatives from **Latvijas Mobilais Telefons (LMT)**, which hosted the event, as well as members from the **Electronic Communications Office of Latvia (ECO)**, the **Riga City Council (RCC)**, **Vefresh**, and representatives from **Turin and Wind Tre**. The **networking lunch (12:00–13:30)** was attended by **approximately 27 individuals**, with participants selecting from three menu options.

The Mid-term Meeting successfully validated that the project remains on track towards its objectives, with substantial progress reported in all technical and coordination domains. WP1 reported the consolidation of the overall management structure and dissemination activities, while WP2 through WP5 presented the current development status of pilot use cases, data flow architectures, and system integration strategies. WP6 elaborated on evaluation frameworks, end-user feedback loops, and planned KPI assessments for the second half of the project. During the Partner Session, each consortium member provided a 10-minute overview of their upcoming tasks, identifying interdependencies and proposing adjustments where needed. The discussion segment enabled proactive issue resolution and promoted the coordination of demonstration activities across pilot sites in Rīga and Torino. The afternoon Stakeholder Meeting and moderated workshop served to bridge the technical aspects of the project with public expectations and regulatory dimensions. Discussions addressed user readiness, societal impact, and technology transfer mechanisms. In conclusion, the Mid-term Meeting provided both strategic and operational validation of the project's direction, reinforcing consortium cohesion and laying the groundwork for successful second-phase implementation and stakeholder impact realisation.

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CONCLUSIONS

The coordination and governance activities conducted within the first 18 months of the 5G4LIVES project have demonstrated a high level of organisational maturity, stakeholder engagement, and inter-partner collaboration. The three major events—Kick-off Meeting in Rīga (January 2024), Plenary Meeting in Torino (January 2025), and the Mid-term Meeting in Rīga (June 2025)—have collectively ensured transparency, consistency in communication, and continuous alignment with the project's strategic objectives.

The Kick-off Meeting, attended by 58 registered participants, established a common operational framework, clarified the role of each Work Package, and strengthened the consortium's understanding of project priorities. The field visit to Ķīšezers Lake and the early demonstration of drone-supported rescue operations illustrated the project's real-world relevance. They underlined its focus on public safety and emergency response.

The Torino Plenary Meeting engaged over 50 representatives from 11 organisations and marked a critical checkpoint for assessing progress across technical and administrative domains. Work Package leaders presented consolidated findings and aligned on future milestones. The hybrid format ensured wide accessibility, and the accompanying workshops provided a venue for hands-on coordination of demonstration activities.

The Mid-term Meeting, held in a hybrid format and hosted by LMT, involved 43 in-person participants and additional remote attendees. It confirmed that the project is proceeding according to plan, with significant progress achieved across all six Work Packages. The Partner Session enabled detailed planning for the second half of the project lifecycle, while the Stakeholder Workshop enhanced public outreach and contextualised technical advancements within broader societal goals. A structured presentation format, coordinated by LMT, facilitated knowledge exchange and risk assessment among partners.

Quantitatively, the participation figures from all major events reflect strong engagement across the consortium. A total of 151 unique in-person engagements were recorded across the three meetings, complemented by continuous remote participation. The adoption of hybrid formats throughout these events ensured inclusivity, resilience, and adaptability to varying logistical and regulatory contexts.

In summary, the outcomes of the coordination and governance activities not only validate the project's implementation strategy but also position the consortium for effective pilot deployment, user training, and final impact assessment. The learnings and results documented herein will be formalised in Deliverable D1.3, submitted at Month 18. They will also inform the organisation of a scientific and stakeholder-facing conference in alignment with the project's public dissemination commitments.

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ANNEX 1. KICK-OFF MEETING

AGENDA

5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin

Kick-Off Meeting 29-30 January 2024

Venue: Riga City Council, Rātslaukums 1, hybrid mode, Moderator: Ilona Platonova

29 January 2024 – Day 1: Getting together, introducing and framing the project

Time Schedule	Topic	Responsible
9.30 -10.00	**Welcome and refreshments**	
10.00-10.10	Official welcome	Vice Mayor of Riga, Linda Ozola
10.10-10.15	Opening keynote	Ambassador of Italy to Latvia - Alessandro Monti
10.15-10.30	Project Overview	Presentation/video, Adviser, Riga Digital Agency – Inga Barisa
10.30-11.00	GA and EC expectations + Q&A	European Commission Health and Digital Executive Agency representative - Oana Bodron
11.00-11.15	Introduction of the project needs	Riga Municipal Police Deputy Chief - Andrejs Aronovs, Former Commander of the Technological Investigations Department of the Turin Local Police and expert in Air Mobility - Gianfranco Todesco
11.15-12.15	Getting together – partners and participants round table introduction (with 5 min each partner max), all partners.	1. - Arnis Gulbis - Director, Riga Digital Agency, 2. Riga Development Department, 3. Riga Municipal police, 4. LMT, *5.VEFRESH, 6. Citta di Torino,* 7. Torino Municipal police, 7. Wind3, 8. Polito, 9. VASES
12.15-12.30	5G4LIVES Family photo	All partners
12.30-13.30	**Lunch**	
13.30-14.30	Project a unique visual identity	Vefresh
14.30-15.15	WP1 opening and workshop	RCC (Laila Zemīte, Aija Vule)
15.15-16.00	WP2 opening and workshop	CITTA DI TORINO (LORENZO PESSOTTO, Davide TURE, Federico DELLANOCE)
16.00-18.00	**Free time**	
18.00-19.00	Guided tour in the Old Riga Historical Centre. Starting point: Entrance of RCC. End point: Restaurant	RCC
19.00	Project diner	Centre of Riga @restaurant Pētergailis, https://petergailis.com/home/, Address: Skārņu str.25, Riga, Latvia

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30 January 2024 – Day 2: Becoming more productive: Work packages and planning		
Time Schedule	**Topic**	**Responsible**
9.30 -10.00	**Welcome and refreshments**	
10.00-10.45	**WP3 opening and workshop**	**LMT**
10.45-11.30	**WP4 opening and workshop**	**RMP**
11.30-12.15	**WP5 opening and workshop**	**VASES**
12.15-13.00	**WP6 opening and workshop**	**Vefresh**
13.00 - 13.15	**Next actions and concluding remarks**	**RCC**
13.15-14:00	**Lunch**	
14.00-16.30	**The project use case visit**	**Riga Municipal Police, Ķīšezers lake - one of the pilot locations for future tests (Plāvu 16)** **Demonstration of rescue works on & and under ice, including using the drones currently available to the police.** *Bus Transfer from St. Peter's church Square, located 200 m from the Riga City Council entrance.* *The bus will bring everybody back to St. Peter's Church Square.*
16.30-18.00	**Free time**	
18.00	**Common free activities (optional)**	

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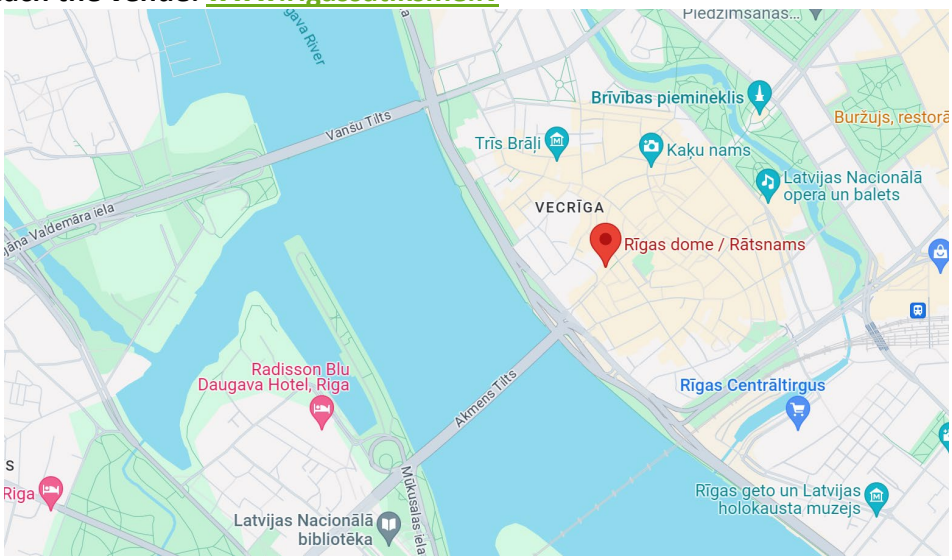
5SMARTCOM program under Grant Agreement No 101133716

Venue address: Riga, Ratslaukums 1, https://maps.app.goo.gl/aMpUTdXvgy8TboJy6

How to reach the venue: www.rigassatiksme.lv



PROJECT KICKOFF MEETING MINUTES

LOCATION	DATE	TIME
Riga City Council, Rātslaukums 1, hybrid mode	29-30 January, 2024	9:30-18:00
PROJECT		MINUTES PREPARED BY
5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin		Mrs. Aija Vule

Attendees List: A copy of the Attendance List is attached
Agenda: A copy of the Agenda is attached

PROJECT AGENDA	NOTES	PRESENTED BY
Official welcome		Vice Mayor of Riga, Linda Ozola
Opening keynote		Ambassador of Italy to Latvia - Alessandro Monti

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Project Overview		Presentation/video, Adviser, Riga Digital Agency – Inga Barisa
GA and EC expectations + Q&A		European Commission Health and Digital Executive Agency representative - Oana Bodron
Introduction of the project needs		Riga Municipal Police Deputy Chief - Andrejs Aronovs, Former Commander of the Technological Investigations Department of the Turin Local Police and expert in Air Mobility - Gianfranco Todesco
Getting together – partners and participants round table introduction (with 5 min each partner max), all partners.		1. - Arnis Gulbis - Director, Riga Digital Agency, 2. Riga Development Department, 3. Riga Municipal police, 4. LMT, 5. VEFRESH, 6. Città di Torino, 7. Torino Municipal police, 7. Wind3, 8. Polito, 9. VASES
Project a unique visual identity.	*The content of the report in the presentation* Confirm Project 5G4LIVES Branding materials	Vefresh
WP1 opening and workshop	*The content of the report in the presentation* Confirm roles, responsibilities, timetable and results for the project.	RCC (Laila Zemīte, Aija Vule)
WP2 opening and workshop	*The content of the report in the presentation*	CITTA DI TORINO (LORENZO PESSOTTO, Davide TURE, Federico DELLANOCE)
WP3 opening and workshop	*The content of the report in the presentation*	LMT
WP4 opening and workshop	*The content of the report in the presentation*	Riga Municipal police
WP5 opening and workshop	*The content of the report in the presentation*	VASES
WP6 opening and workshop	*The content of the report in the presentation*	VEFRESH
Next actions and concluding remarks		Riga Digital Agency
The project use case visit	*Inspection of the existing equipment of the Police of Riga City*	Riga Municipal Police, Ķīšezers lake - one of the pilot locations for future tests (Plāvu 16)

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		Demonstration of rescue works on & and under ice, including using the drones currently available to the police.

DECISIONS
1. Note the information presented at the meeting. 2. Approve the Project implementation plan and expected results. 3. Additional project implementation risks are not identified. 4. Delegate representatives in the Project structures. 5. Create a contact list of responsible people.
NEXT STEPS
1. Project Management Team meetings are scheduled regularly, once per month. 2. The work package leader organises meetings separately with the experts involved in the WP. 3. Create a unified Project document storage channel in MS Teams.

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ANNEX 2. ANNUAL GENERAL ASSEMBLY IN TORINO

Annual general assembly in Torino

Jan 15th-16th-17th, 2025

Day 1 General Assembly

VENUE: CTE Next, Corso Unione Sovietica 216 Torino

https://ctenext.webex.com/ctenext/j.php?MTID=m00d69e4e32b180a0b1e29b952fad9138

10.00 - 10.30	Welcome Coffee	Collection of signatures and image consent and release forms
10.30 - 10.45	Introduction	Elena + Lorenzo
10.45 - 11.15	WP1 15'+15'	Arnis Gulbis: , Aija online Financial status, focus? Questions to the audience?
11.15 - 11.45	WP2 15'+15'	Lorenzo + Klavs: focus? Questions to the audience?
11.45 - 12.15	WP3 15'+15'	Vladimirs: focus? Questions to the audience?
12.15 - 13.30	Lunch break	
13.30 - 14.00	WP4 15'+15'	Stanislavs: communication with CAA, flight zones, C&C center preparation etc. Questions to the audience?
14.00 - 14.30	WP5 15'+15'	Monta (kick off with expected tasks, results and partner engagement will be presented)
14.30 - 15.00	WP6 15'+15'	Viesturs: focus? Questions to the audience?
15.00	End of Day - Debriefing Coffee	

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Day 2 Workshop and Webinar

VENUE: CTE Next, Corso Unione Sovietica 216 Torino

https://ctenext.webex.com/ctenext/j.php?MTID=mee865efd602ffe6e3b1c3009cb7b477c

9.30 - 9.45 Arrival	Collection of signatures and image consent and release forms	
9.45 - 10.15 Key Note Speech	5G and beyond networks as technology enablers for innovative urban use cases - Links Foundation	DANIELE BREVI
10.15 - 10.45	Coffee Break	
10.45 - 12.00 Urban testing scenarios pt.1 Moderator: STEFANO PRIMATESTA 3UCs: each 15' presentation 10' discussion	INDOOR - usINg Drones fOr Organ tRansportation - Regional Transplant Centre	FEDERICO GENZANO BESSO
	Smart Capsule - ABzero | Life Saving Partner	GIUSEPPE TORTORA (ONLINE)
	Aerospace District - Piedmont Region	FULVIA QUAGLIOTTI
12.00 - 13.30	Lunch Break	
13.30 - 14.45 Urban testing scenarios pt.2 Moderator: ENRICO FERRERA 3UCs: each 15' presentation 10' discussion	TRIPS - Transport Intelligence Platform for Safe Mobility - Reply	FABIO LIMARDIO, LIUDMILA DOBRIAKOVA
	Sumeri Moderni - Leonardo	GIANPAOLO CONTE
	5GBRAINs - BRidge Advanced Integrated Network of Sensors	Eagleprojects (TbC) ONLINE
14.45 - 15.15	Coffee break	
15.15 - 16.00 Webinar Moderator: LORENZO PESSOTTO	Round table - what's next? FONDAZIONE PIEMONTE INNOVA FOR PIEDMONT REGION LINKS: project Capri POLITO: urban area regulatory perspectives COTO & CIM4.0: urban area operational perspectives	 VERONICA SPADONI FRANCESCO SOTTILE STEFANO PRIMATESTA GIANFRANCO TODESCO, ALICE ANTONELLI
16.00 - 16.30 Insights from local companies on future perspectives on Urban Air Mobility Moderator: ELENA DEAMBROGIO 2Cs: each 10' pitch 5' discussion	DigiSky DM-AirTech	PAOLO PARI SUMAN HALDER (ONLINE)
16.30 - 17.00	Q&A	
17.00 - 19.00	Aperidinner	

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Day 3 Study visit (optional)

VENUE: Protezione Civile, Via delle Magnolie 5 Torino

9.30 - 10.00 Transfer	Transfer from the city centre, Piazza Palazzo di Città 1	MOT
10.00 - 11.00 Municipal Civil Protection Introduction	Mission, Operations, Drone Unit	FEDERICO DELLANOCE, DAVIDE GIUSEPPE TURE
11.00 - 12.00 Study Visit	Civil Protection Control Room	FEDERICO DELLANOCE, DAVIDE GIUSEPPE TURE
12.00 - 12.30 Transfer	Transfer back to the city centre, Piazza Palazzo di Città 1	MOT

ANNEX 3. MID-TERM MEETING

MIDTERM PARTNER MEETING

5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin
Midterm Meeting 10 June, 2025
Format of the event: hybrid
Location for in-person attendance: LMT Brīvības centrs, Ģertrūdes iela 12, Rīga
Remote access: MS Teams link, which will be sent to participants by email
Coordinator: Evija Plone (LMT)

Time Schedule	Topic	Responsible
9.30 -10.00	Welcome and refreshments	
10.00-10.05	Official welcome	LMT
10.05-10.25	WP1: current status	RCC
10.25-10.45	WP2-WP5: current status	RCC, All
10.45-11:00	WP6: current status	Vefresh
11:00-12:00	Next steps. Discussion on prevention.	One representative from each partner (10 min per partner)

Note: Each partner must prepare the information by the 6th of June according to a specific format, which will be sent out.

Location for in-person attendance: LMT Brīvības centrs, Ģertrūdes iela 12, Rīga

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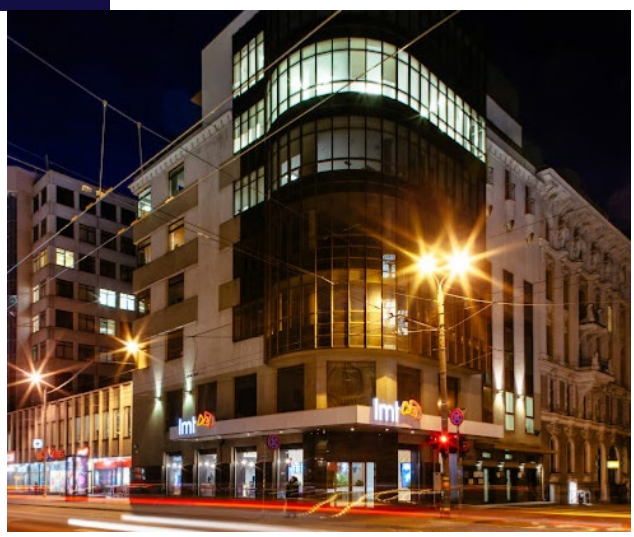
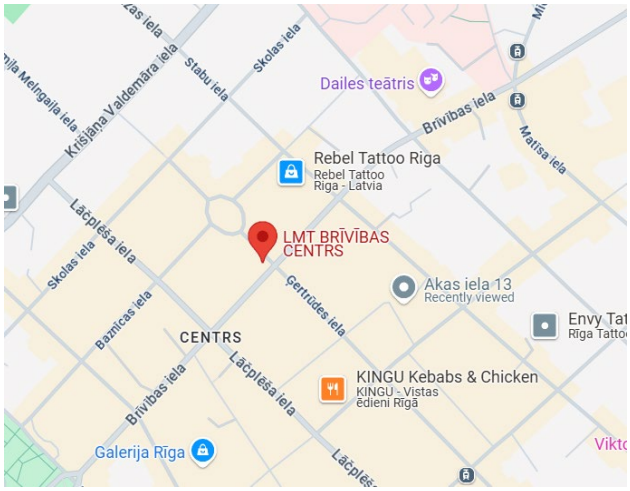
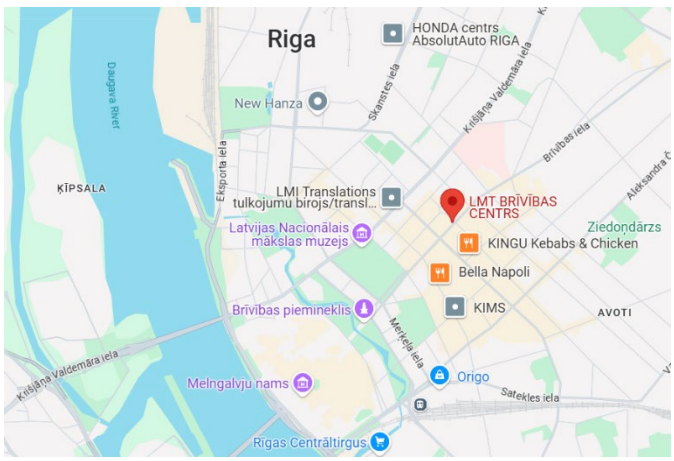


How to reach the venue:





MIDTERM WORKSHOP

5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin

10 June, 2025

Location: LMT Brīvības centrs, Ģertrūdes iela 12, Rīga

Coordinator: Evija Plone (LMT)

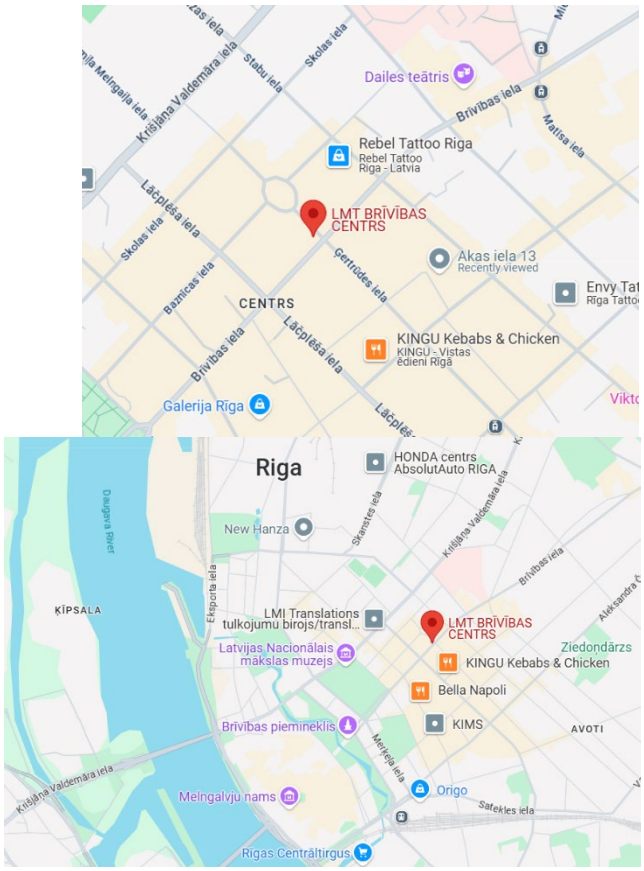
5G4LIVES project has received funding from European Unions CEF DIGITAL 2022
5SMARTCOM program under Grant Agreement No 101133716

Time Schedule	Topic	Participants
9:30-10.00	**Welcome and refreshments**	
10.00-12.00	**Midterm Meeting** moderated by L.Zemīte (RCC)	5G4LIVES consortium members
12:00-13.10	**Lunch time**	
13.10-13.20	**Workshop** moderated by Ņ.Kazakēvičs (LMT)	5G4LIVES consortium members

5G4LIVES project has received funding from European Unions CEF DIGITAL 2022
5SMARTCOM program under Grant Agreement No 101133716

Location for in-person attendance: LMT Brīvības centrs, Ģertrūdes iela 12, Rīga

How to reach the venue:



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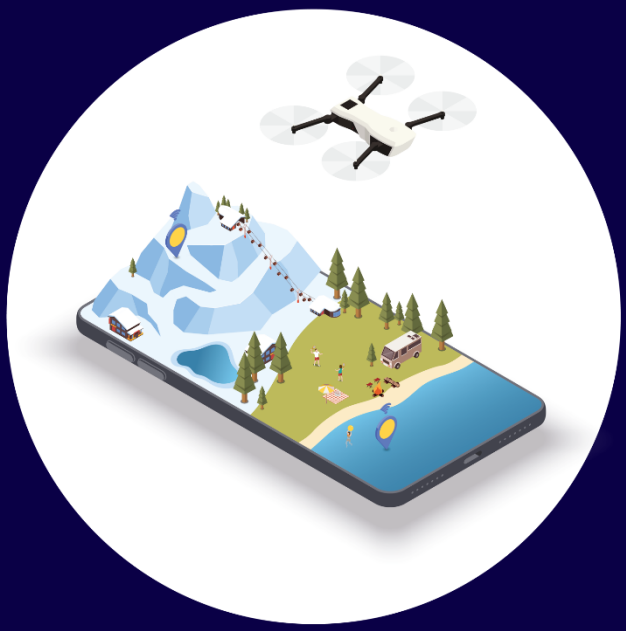
ANNEX 4. KICK-OFF MEETING PRESENTATION'S KEYNOTES

5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin



Kick-off meeting's key notes

January 29th – January 30th, 2024

5G4LIVES project has received funding from European Unions CEF DIGITAL 2022
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Project Partners

- ✓ RIGA CITY COUNCIL –MUNICPAL POLICE, DIGITAL AGENCY, DEVELOPMENT DEPARTMENT
- ✓ LATVIJAS MOBILAIS TELEFONS
- ✓ VEFRESH NGO
- ✓ VALSTS AKCIJU SABIEDRĪBA ELEKTRONISKIE SAKARI
- ✓ COMUNE DI TORINO
- ✓ WIND TRE SPA
- ✓ POLITO

5G4LIVES main data

Project number:	101133716
Project name:	5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin
Acronym:	5G4LIVES
Call:	CEF-DIG-2022-5GSMARTCOM
Topic:	CEF-DIG-2022-5GSMARTCOM-WORKS
Type of action:	CEF-INFRA
Service:	HADEA/B/01
Starting date:	1 January 2024
Project duration:	36 months

CEF-DIG-2022-5GSMARTCOM I Grant Agreement No. 101133716

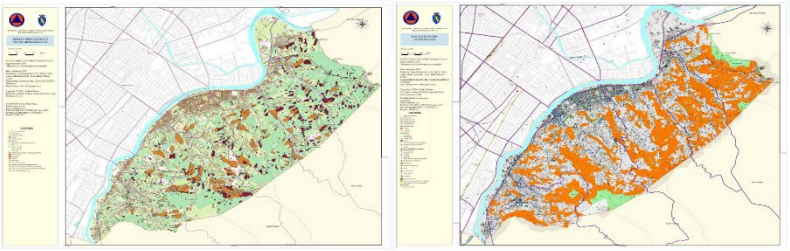
5G4LIVES overall

Riga – Ķīšaezers & Vecāķi beach

- ✓ Strategically deploying 5G connectivity, drones & alternative hydrogen power across Latvia and Italy.
- ✓ In Latvia - project focuses on deploying drones and 5G technology for monitoring and rescue operations at Vecaku Beach and Kisezers lake.
- ✓ In Italy – creating of 5G-enabled real-time service for mitigating natural disasters, testing anti-drone-hacking tech and integrating satellite data for swift and sustainable emergency responses.
- ✓ Also studies to map safety protocols for urban drone operations in Riga and validates a beyond-visual-line-of-sight (BVLOS) methodology with EU-wide applicability

- ✓ 3 new 5G connections
- ✓ 2 new users of 5G networks
- ✓ 4 5G based usecases

Turin Hillside



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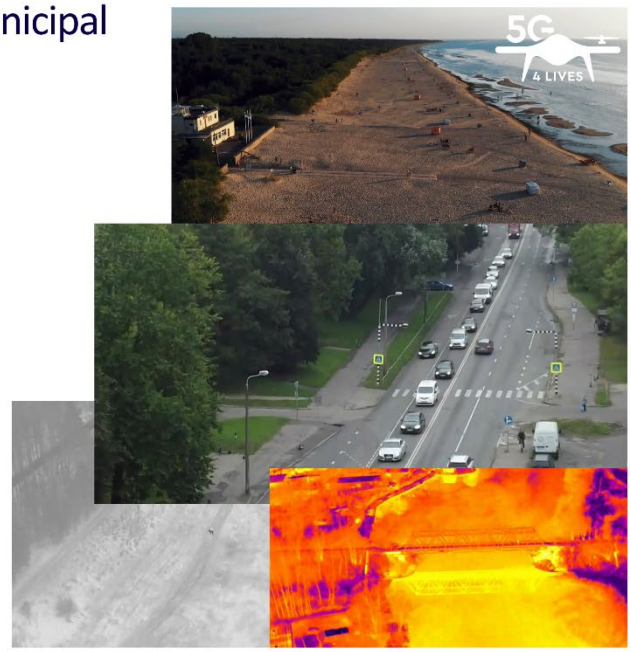
UAV in a daily work from Riga Municipal Police

- ✓ **RMP in cooperation with the State police is in charge of drone piloting control in Riga air space**
- ✓ **Carrying out daily tasks drones are used by RMP to perform:**
  - **Public safety during big events**
  - **Road traffic control**
  - **Inspection of unavailable (un accessible) territories and objects**
  - **Searching for lost persons, including criminals hiding in abandoned areas**
  - **Control of environmental and natural resource protection zones**
  - **Poaching control**
  - **Control on restriction to go on ice**



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5G4LIVES goals

- ✓ **PO1:** To improve the effectiveness of life-saving, rescue operations, and prevention of life-threatening situations in hard-to-reach places and large areas, including public beaches and bodies of water, the Riga and Turin Municipal Police, both a critical service provider, is seeking innovative solutions. The aim is to enhance emergency response and enable efficient operations during both winter and summer seasons.
- ✓ **PO2:** To enhance life-saving and health protection services provided by lifeguards through the use of digital platforms and tools. By leveraging big data processing under 5G technologies and elements of Artificial Intelligence, the project aims to improve decision-making and reaction time in situations where every second counts. Specifically, the project will focus on developing tools and technologies to help lifeguards operate more precisely in hard-to-reach places and large areas - public beaches, waters and hillsides.
- ✓ **PO3:** To deploy 5G systems that will provide access to high-capacity networks, driving socio-economic development through gigabit interoperability. This will facilitate the transition to the European Gigabit Society and allow for the penetration of Artificial Intelligence, resulting in innovative, efficient, and sustainable public services.
- ✓ **PO4:** Designing, implementing and evaluating a novel SGI in view of its scalability into a continued service offered by public authorities for increased public and environmental health.
- ✓ **PO5:** Effective prevention towards land, water-derived and hill-slide risks through improved monitoring and risk assessment capabilities benefitting from the integration of 5G and UAVs technology.
- ✓ **PO6:** Enhanced coordination at the operational level as a result of 5G connectivity for improved quality of streaming and data elaboration.
- ✓ **PO7:** Novel methodology for the validation of BVLOS flight at the EU level.

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Partner information

Riga Digital Agency -
- ✓ Riga one of the largest ICT organizations in LV
- ✓ 27 k clients, ~80% educational institutions

Reorganization to a Digital Agency
- ✓ Riga as a digital transformation pioneer
- ✓ Flattening of org structure
- ✓ Emphasis on interdisciplinary activities

Main challenges:
- ✓ Aging technical stack vs. increasing demand
- ✓ Interoperatibility
- ✓ Procurement standards

Main strategic aims:
- ✓ Digital transformation via a product-oriented approach
- ✓ SmartCity climate neutrality initiatives
- ✓ Nation-wide digital competency strengthening

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Partner information

Riga local government City Development Department:

Main areas of focus

- ✓ City development at a strategic level
- ✓ Supervision of construction processes
- ✓ Spatial planning and architectural service
- ✓ Implementation of urban development projects
- ✓ Geospatial data solutions and Smart City development

Geomatics and Smart City division:

Main areas of focus

- ✓ Pilot projects and development of Riga's living labs
- ✓ Fostering innovation ecosystem - industry, the government, municipalities, academia and citizens
- ✓ Innovation projects - Climate neutrality, Smart mobility, IoT and 5G solutions, etc.
- ✓ Policy makers - Development of smart city guidelines
- ✓ Geospatial data competency centre - 3D data, open data, all accessible - **georiga.eu**

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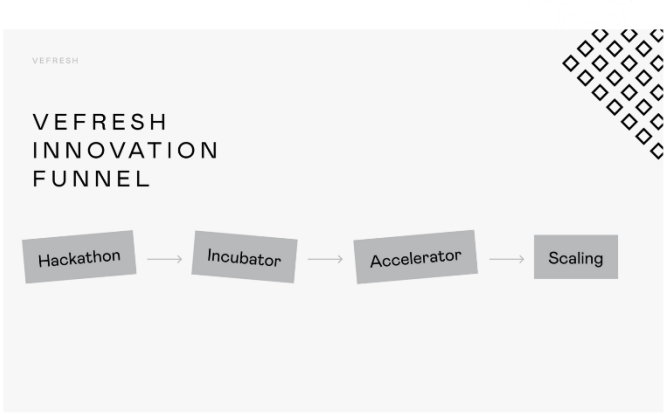
Partner information - Vefresh

1. EIT Urban Mobility Lead Partner in Latvia

1. Supporting innovation for cities, startups and corporations

1. Scaling innovation to new markets



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CITY OF TORINO

Within the broader context of boosting innovation and growth towards the intertwining of the physical, biological and digital, the Innovation and EU Funds Department of the city has developed solid experience in the testing of emerging technologies across industries and domains. Main Innovation
"umbrella" Initiatives:

- Torino City Lab (2018): to promote, develop and test innovative solutions applied to real-life situations facilitating the shaping of an ecosystem for startups, SMEs, industrial partners and the scientific community
- CTE Next - House of Emerging Technologies (2021): to scale up the urban testing and acceleration approach of Torino City Lab by making available funding, stress test areas, technology assets, co-working spaces and a network of experts to an ecosystem of innovative start-ups and SMEs

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ELECTRONIC COMMUNICATIONS OFFICE OF LATVIA

Radiofrequency spectrum management authority of Latvia

- ✓ Spectrum planning
- ✓ Spectrum monitoring
- ✓ Elimination of harmful interference
- ✓ Radio equipment conformity assessment
- ✓ International cooperation

SPECTRUM MANAGEMENT **EXPERIENCE 30 YEARS**

HIGH FUNCTIONALITY **INFRASTRUCTURE**

QUALIFIED STAFF **ENGINEERS** WITH SPECIFIC SKILLS AND KNOWLEDGE

INNOVATION BASED APPROACH TO SPECTRUM MANAGEMENT

COLLABORATION WITH **MILITARY SECTOR**

CEF-DIG-2022-5GSMARTCOM I Grant Agreement No. 101133716

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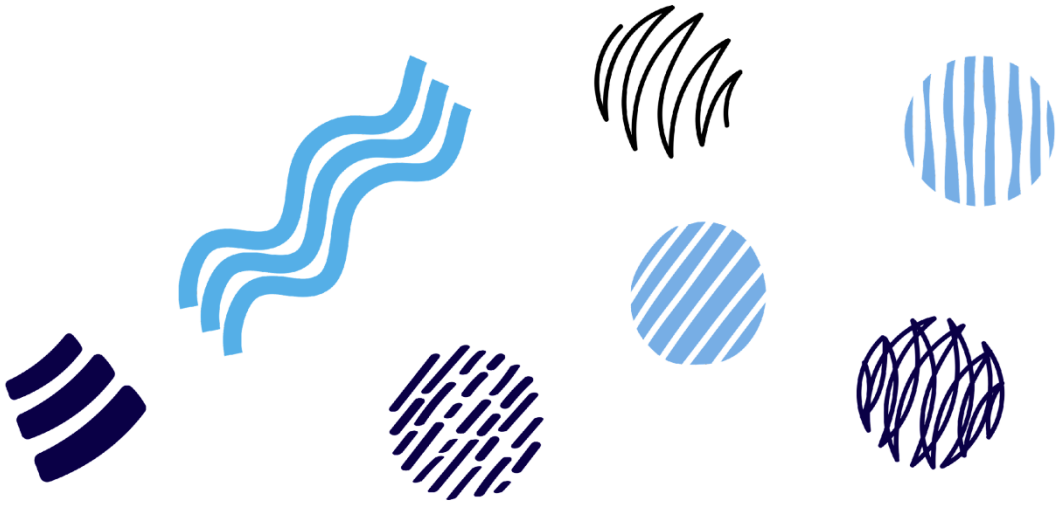
Visual identity - Logo design

Main colors

Extra tone

Visual identity - Graphic elements



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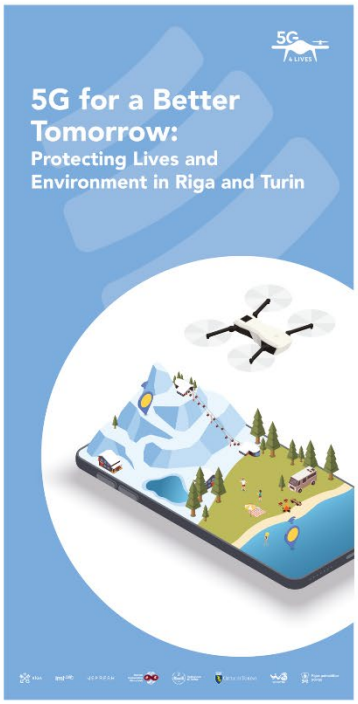
Visual identity - Key visual



Inputs and outputs for WP1

- WP1 will assure the management, the coordination and the ethics requirements of the overall project.
- The main objective of this WP is to tackle all the necessary central management functions in order to achieve all the objectives defined in the Grant Agreement and to coordinate by organizing regular networking meetings and annual assemblies.
- WP1 will be responsible to elaborate the data management plan (DMP) ensuring that the EU and national data protection rules are respected.
- WP1 responsibility is to ensure that all project activities are performed efficiently, in a coordinated and integrated manner, within schedule and budget and in a way that the high research, scientific, technological and stakeholders' expectations are fully met by RCC, acting as Project Coordinator and will bring in its experience from various previous projects to guarantee a successful communication within the Consortium.
- RCC will be the WP1, T1.1, T1.2, T1.3, and T1.4 leader. The rest of the Consortium Partners will participate as contributors in the project management activities.

5G4LIVES project has received funding from European Unions CEF DIGITAL 2022
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Inputs and outputs for WP2

Deliverable No	Deliverable Name	Lead Beneficiary	Type	Dissemination Level	Due Date	Description
D2.1	Technology analysis, regulatory framework and use cases' descriptions	RCC	R	PU	M5	Results of Task 2.1, Task 2.2 and Task 2.3, details of use cases defined and described.
D2.2	Study on the essential minimum requirements for 5G mobile network coverage	VASES	R	SEN	M7	Task 2.4 final study version.
D2.3	5G4LIVES services co-creation, functional specifications and reference architecture (1st and final version)	RCC	R	PU	M18	Tasks 2.5-2.7 of model specification and challenges for certification
D2.4		MoT	R	PU	M22	

MS2

Use cases and requirements definition (MoT)

The initial situation is described, the rules that must be met for the implementation of 5G4LIVES are defined [M5].

PoAs

MS3

Functional specifications and reference architecture (MoT)

The specification according to use cases is defined and tested. [M22]

CEF-DIG-2022-5GSMARTCOM I Grant Agreement No. 101133716

CITTA' DI TORINO

WP3 - Objectives

- The main objective of WP3 is to develop and implement a monitoring platform, which will act as the central hub connecting all technologies and solutions according to the 5G4LIVES concept
- WP3 aims to integrate the proposed Reference Architecture and functional specifications from WP2 into a fully interoperable and interconnected system, consisting of innovative lifesaving solutions, digital platforms and tools for lifeguards, a tool for 5G4LIVES system operation, safety protocols and procedures, services for lifesaving, and a monitoring tool
- The monitoring platform will also implement security protocols and procedures to ensure the efficiency and effectiveness of search and rescue operations
- The monitoring platform will perform connectivity services for 5G

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Milestones and outputs for WP4

Milestones and deliverables (outputs/outcomes)						
Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date	Means of Verification
MS7	Demos elaboration	4	VASES	Locations are ready for starting demonstrations.	M17	D4.4 submitted, demos prepared for use cases.
MS8	Summer season use case	4	RCC	Summer season use case finished, results achieved.	M22	D4.5 submitted, observation and search and rescue operations realised.
MS9	Winter season use case, Turin case demonstration finished	4	RCC	Winter season use case finished, results achieved.	M27	D4.6, D4.8., D4.10 submitted, observation and search and rescue operations realised.
MS10	Verification of the use case results	4	VASES	Use cases results are calibrated, verified and 5G4LIVES concept operation is proved.	M32	D4.7, D4.9 submitted, all use cases results are finished.

Inputs and outputs for WP5

Milestones and deliverables (outputs/outcomes)						
Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date	Means of Verification
MS11	Stakeholders training completion	5	VEF	Training realised and feedbacks collected.	M28	Deliverables 5.2 and 5.4 submitted, training realised.
MS12	Roadmap and 5G4LIVES evaluation	5	VASES	Roadmap, toolkit and impact assessment finished.	M36	Deliverable 5.5, D5.7 submitted.
Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date	Description
D5.1	Training package (1st and final)	5	VEF	R	PU	M13	After finishing pre-demo stage first end users training will be performed and after two seasons the second version for wider entangled persons will be educated for use 5G4LIVES concept in observation, search and rescue operations.
D5.2		5	VEF	R	PU	M28	
D5.3	5G4LIVES evaluation results (replication/scalability roadmap and toolkit, multi-dimensional impact assessment, regulation assessment)	5	Wind3	R	SEN	M22	1st version will be evaluated, 2nd and final version –will summarise all evaluation results and implement WP2 and WP4 results.
D5.4		5	Wind3	R	SEN	M28	
D5.5		5	Wind3	R	SEN	M36	
D5.6	Impact assessment strategy	5	VASES	R	PU	M17	Impact assessment strategy will explain the methodology behind the impact assessment logic.
D5.7	Impact assessment final report	5	VASES	R	PU	M36	Impact assessment final report will prove the project year 1, 2 and 3 measured impact based on T5.6 and D.5.6 (Impact assessment strategy).

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WP 6 Goals & Tasks

1. Work Package 6 is dedicated to
   -the dissemination;
   -the exploitation;
   -the standardisation of the results of the 5G4LIVES project to stakeholders

1. This will involve the development of a comprehensive dissemination and exploitation strategy, which will be implemented throughout the project

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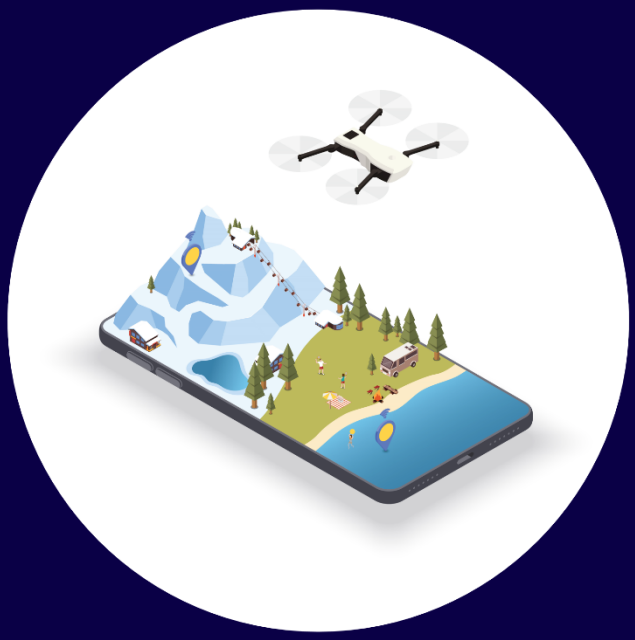
ANNEX 5. TORINO PLENARY MEETING PRESENTATION'S KEYNOTES

5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin

Torino Plenary meeting's key notes
15th January – 17th January, 2025



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Project goals

- ✓ **Enhance** the effectiveness of life-saving and rescue operations in hard-to-reach places and large areas, including public beaches and bodies of water, through innovative solutions by Riga and Turin Municipal Police.
- ✓ **Improve** life-saving and health protection services by lifeguards using digital platforms, 5G technologies, and AI for better decision-making and reaction times in critical situations.
- ✓ **Deploy** 5G systems for high-capacity networks to drive socio-economic development and facilitate innovative, efficient, and sustainable public services.
- ✓ **Design**, implement, and evaluate a scalable novel SGI to enhance public and environmental health as a continuous service by public authorities.
- ✓ **Improve** prevention of land, water-derived, and hillside risks through enhanced monitoring and risk assessment using 5G and UAV technology.
- ✓ **Enhance** operational coordination with 5G connectivity for improved streaming quality and data processing.
- ✓ **Develop** a novel methodology for validating BVLOS (Beyond Visual Line of Sight) flights at the EU level.
- ✓ **Studies** to map safety protocols for urban drone operations in Riga and validates a beyond-visual-line-of-sight (BVLOS) methodology with EU-wide applicability

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Activities

Work Packa	Deliverable	Deliverab	Deliverable Name	Description	Lead Be	Type	Disseminati	Due Date	New Due Date	Delivery Date	Approval Date	Status	
WP1	D1.1	D1	Project quality and management Hi	Tasks 1.1.-1.3., report, English or Latvian. Th...	RCC	R	SEN	29 Feb 2024		10 May 2024		Submitted	
WP6	D6.1	D35	Communication and dissemination p	D6.1 is a deliverable that outlines the communi...	VEFRE'	R	PU	31 Mar 2024		10 May 2024		Submitted	
WP1	D1.2	D2	Data management plan	Task 1.4, data management plan, deliverable wil...	RCC	DMP	PU	30 Apr 2024		10 May 2024		Submitted	
WP4	D4.1	D17	Baseline Assessment Report _1	Planning, Measurement/Verification data and ass...	RCC	R	SEN	30 Apr 2024		15 May 2024		Submitted	
WP2	D2.1	D9	Technologies analysis, regulatory fr	Results of Task 2.1, Task 2.2 and Task 2.3, det...	RCC	R	PU	31 May 2024		31 May 2024		Submitted	
WP6	D6.2	D36	5G4LIVES public places and social n	D6.2 5G4LIVES public places and social media is...	VEFRE'	DEM	PU	31 May 2024		05 Jun 2024		Submitted	
WP2	D2.2	D10	Study on the essential minimum rec	Task 2.4 final study version. This sensitive de...	VASES	R	SEN	31 Jul 2024		31 Jul 2024		Submitted	
WP4	D4.3	D19	Use cases preparation, base line an	Configuration and parameterization of different...	VASES	R	SEN	30 Sep 2024		27 Sep 2024		Submitted	
WP6	D6.3	D37	Initial business and exploitation pla	D6.3 Initial business and exploitation plan des...	WIND '	R	SEN	31 Oct 2024		15 Nov 2024		Submitted	
WP1	D1.5	D5	Progress reports_1	Reports will be based on the Task T1.1 and subm...	RCC	R	SEN	31 Dec 2024				Pending	
WP3	D3.1	D13	5G4LIVES technologies integration c	Following the results of Task 4.1 and WP2, and ...	LMT	R	PU	28 Feb 2025				Pending	
WP3	D3.2	D14	Technologies implementation	The deliverable will include the results of WP2...	RCC	R	SEN	28 Feb 2025				Pending	
WP4	D4.2	D18	Baseline Assessment Report_2	Planning, Measurement/Verification data and ass...	RCC	R	SEN	28 Feb 2025				Pending	

All deliverables for the first year have been successfully submitted!
The progress report is ready, and we kindly await the submission of all injurred costs for the first year from you.

Thank you to all our partners for your valuable contributions and continued collaboration!

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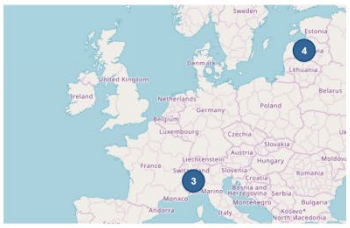
Visibility of project



EU Funding & Tenders Portal

Welcome | 5G for Smart Communities Support Platform

5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin (5G4LIVES) | Shaping Europe's digital future

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WP2 OVERVIEW

- **Work Package Leader**: Municipality of Torino
- **Duration**: M1-M22
- **Focus**: Defining specifications, requirements, and use cases for integrating 5G and UAV technologies in emergency response and public safety

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WP2 DELIVERABLES OVERVIEW

- **Completed Deliverables**

D2.1: Technologies analysis, regulatory framework, and use case descriptions (delivered M5)
D2.2: Study on the essential minimum requirements for 5G mobile network coverage (delivered M7)

- **Upcoming Deliverables**

D2.3: services co-creation, functional specifications and reference architecture (1st version)
DUE M18 | RESPONSIBLE PARTNER RCC
D2.4: services co-creation, functional specifications and reference architecture (final version)
DUE M22 | RESPONSIBLER PARTNER MoT

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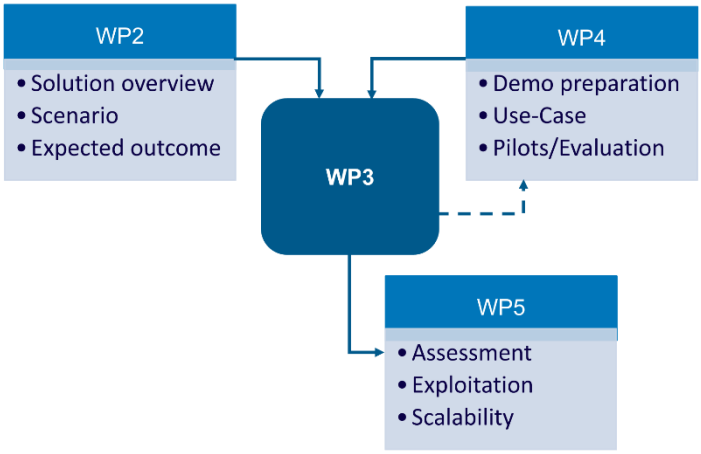
WP 3 Architecture



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WP3 upcoming outcomes

- D3.1 in progress
- D3.2 in progress
- D3.3
- D3.4

5G4LIVES technologies integration concept
Technologies implementation

5G4LIVES concept ecosystem

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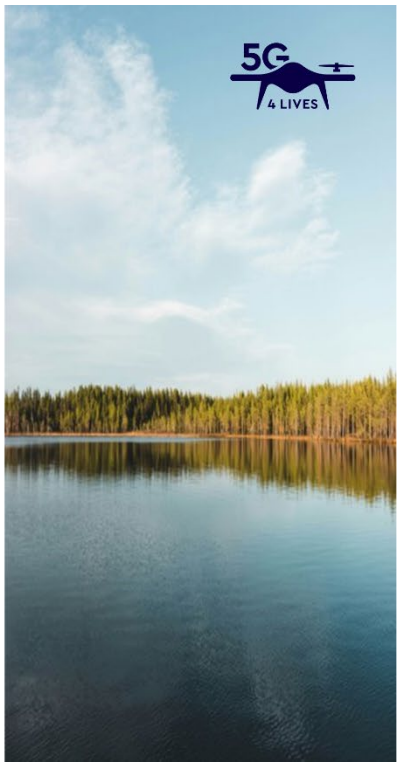

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Work Package 4: 5G4LIVES demonstration across technologies and scenarios
Duration: M1- M34

Main objective

Overall planning, implementation and management of the 5G4LIVES service across scenarios and technological solutions

- WP4 benefits from WP2 and WP3 - the definition of the scenarios as well as the technological architecture, its deployment and integration.
- **Riga use case:**
  -scenario detailing, pre-demo stage, full demo operation, and analysing and evaluating the results.
- **Turin use case:**
  demo stage to ensure the correct functioning of all elements that will test the effectiveness and performance for effective management of ongoing emergencies and monitoring for disaster prevention.

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WP4 CAA approved flight zones

Long-term restricted areas (for manned aviation) - EVR53 KISEZERS and EVR54 VECAKI, as well as UAS geographical areas (for unmanned aircraft) - UAS KISEZERS and UAS VECAKI were established.

The flights will be employed to detect offenses and for rescue operations:

- person in the water
- person on ice
- person in certain area
- boat in certain area
- SAR

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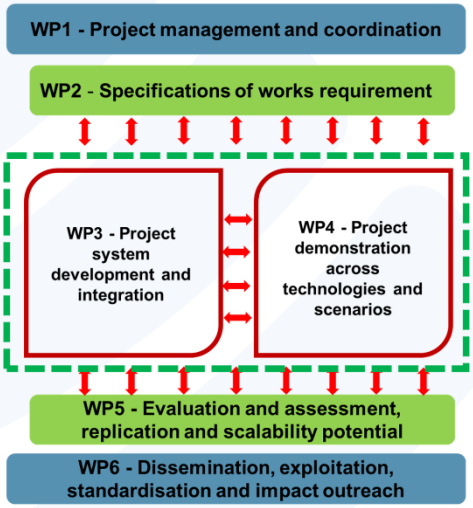
WP5
Evaluation and assessment, replication and scalability potential

✓**LED BY** ELECTRONIC COMMUNICATIONS OFFICE OF LATVIA

✓**DURATION** FEBRUARY 2025 – DECEMBER 2026 (22 MONTHS)

✓**7** DELIVERABLES, **6** TASKS, **2** MILESTONES



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WP5
OBJECTIVE

Evaluate & assess:

1) the overall impact of project results on organizational to international level

2) potential to scale and replicate the results achieved in the use cases

replication scenarios of the outcomes, providing a replication and scalability roadmap

ACCEPTANCE OF THE 5G4LIVES CONCEPTS AND TOOLS BY THE STAKEHOLDERS + SOCIAL STAKEHOLDERS

framework: technological, economic, societal, environmental, regulatory perspective

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WP6 Communication & Dissemination Deliverables

DELIVERABLES:

✓ - **D6.1** – Communication and dissemination plan (month 3)

✓ - **D6.2** – 5G4LIVES public places and social media (month 5)

✓ - **D6.3** – Initial business and exploitation plan (month 10)

D6.4 – Communication, dissemination, exploitation and market exploration, standardisation and community building _1 (**June 2025**)

D6.5 – Communication, dissemination, exploitation and market exploration, standardisation and community building _2 (Dec 2026)

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ANNEX 6. MIDTERM MEETING PRESENTATION'S KEYNOTES

5G for a Better Tomorrow: Protecting Lives and the Environment in Riga and Turin

Midterm meeting's key notes
10.06.2025

5G4LIVES project has received funding from European Union's CEF Digital programme 5G for Smart Communities under grant agreement no. 101133716

Reached for 5G4LIVES

Work Pack	Deliverabl	Deliverat	Deliverable Name	Description	Lead Be	Type	Disseminat	Due Date	New Due Date	Delivery Date	Approval Date	Status	
WP1	D1.1	D1	Project quality and management l	Tasks 1.1.-1.3., report, English or Latvian. Th...	RCC	R	SEN	29 Feb 2024		10 May 2024		Submitted	
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WP3	D3.1	D13	5G4LIVES technologies integratior	Following the results of Task 4.1 and WP2, and ...	LMT	R	PU	28 Feb 2025		13 Mar 2025		Submitted	
WP3	D3.2	D14	Technologies implementation	The deliverable will include the results of WP2...	RCC	R	SEN	28 Feb 2025		25 Mar 2025		Submitted	
WP4	D4.2	D18	Baseline Assessment Report_2	Planning, Measurement/Verification data and ass...	RCC	R	SEN	28 Feb 2025		11 Mar 2025		Submitted	
WP4	D4.4	D20	Use cases preparation, base line a	Configuration and parameterization of different...	VASES	R	SEN	31 May 2025		30 May 2025		Submitted	

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WP 1 Current Status & Progress

Milestones Completed:

✅MS 1: Internet based communication platform and repository; Quality and management plan 10/05/2024

Ongoing Tasks:

🔄T1.1 Administrative coordination, internal communication and financial management

🔄T1.2 Technical coordination

🔄T1.3 Quality and risk management

🔄T1.4 Ethics, exchange requirements specifications and data management

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WP2 Current Status & Progress

Milestones Completed:

✅MS2 - Use cases and requirements definition: the initial situation is described, the rules that must be met for the implementation of 5G4LIVES are defined. Achieved in M5, verified by submission of D2.1

Ongoing Tasks:

🔄T2.5 Novel model for public health and life protection

🔄T2.6 Use cases technological architecture design

🔄T2.7 Assessment of technical, societal, regulatory barriers

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WP2 Risks & Next Steps

Challenges & Risks & prevention:

- **Market readiness and technological availability of the solutions to be adopted (native 5G drones or 5G dongles)**
- **For the upcoming months main risk could be delays in demos implementation that might jeopardizing the final validation of the technological architecture in D2.4**

Upcoming Activities & Next steps:

- **D2.4**

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WP 3 Current Status & Progress

Milestones Completed:

✅ **MS4** (Preparation of systems and technologies for the implementation process)

Ongoing Tasks:

🔄 T3.5 Implementation of safety protocols and procedures for search and rescue operation in Riga

🔄 T3.6 Turin's use case technology integration and deployment

🔄 T3.7 5G4LIVES monitoring platform development

KPIs/ Metrics:

TECH1 Innovative solutions (5G network solution, monitoring platform);

TECH3 5G4LIVES technologies integration concept

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WP 3Risks & Next Steps

Challenges & Risks & prevention:

- Riga-Case: delay in the launch of the full 5G4LIVES platform demo (drone delivery).
- Torino-Case: deviations from the scenario (5G drone)

Upcoming Activities & Next steps:

- Riga-Case: the drone solution has been selected; interaction with the supplier is ongoing to obtain early access to technical and operational information.
- Torino-Case: communication with Italian partners regarding solutions for the identified deviations.

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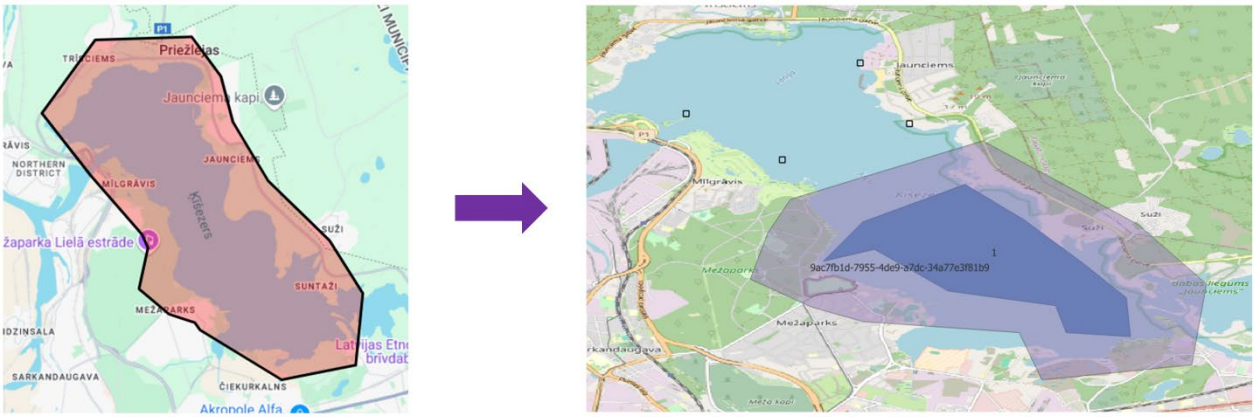
WP4 progress

Changes in operational & restricted air space



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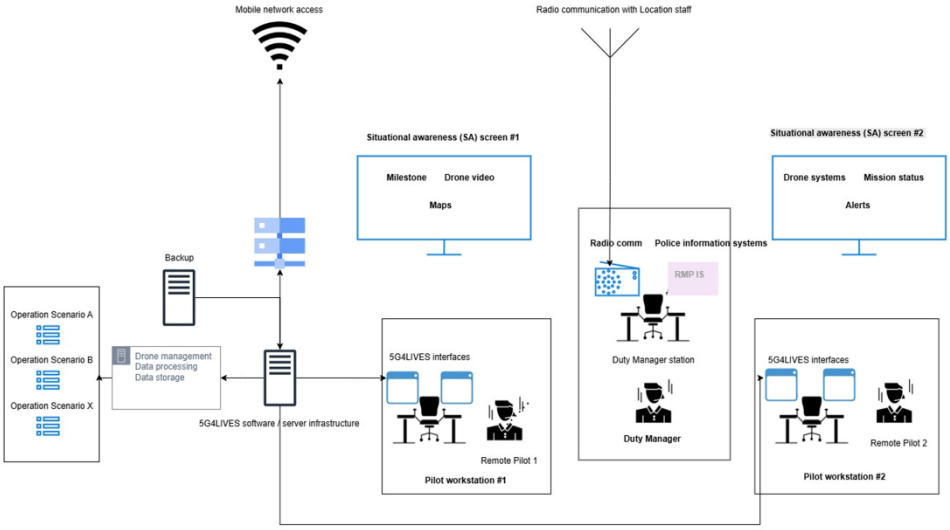
WP4 progress

Structure of Command & Control Center confirmed



WP 5 Current Status & Progress

Milestones <u>to be Completed in M18</u>:

✅ D5.6. «Impact Assessment Strategy» (led by ECO)

✅ D5.1. «Training package_1» (led by Vefresh)

Ongoing Tasks:

- T 5.1. «TRAINING PACKAGE» (Vefresh)
- T 5.2. MAPPING OF TECHNOLOGICAL, ENVIRONMENTAL, FINANCIAL AND ECONOMIC ASPECTS AND INDICATORS (MoT)
- T 5.3. ROADMAP AND TOOLKIT ON THE SCALABILITY AND REPLICABILITY AT EU LEVEL (MoT)
- T 5.4. ANALYSIS TOWARDS ACCEPTANCE AND MARKET UPTAKE (Wind3)
- T 5.5. REGULATORY ASSESSMENT OF THE 5G4LIVES TECHNOLOGIES AND CONCEPT (LMT)
- T 5.6. IMPACT ASSESSMENT STRATEGY (ECO)

D5.3. Due in October 2025 (Wind3)

KPIs/ Metrics:

Based on Impact Assessment Strategy, WP5 will complete:

- Completion of **2 trainings**
- Developed **roadmap for commercialization** of project outcomes
- **1 assessment** of quantitative and qualitative indicators on value generated by services/functions
- *(Led by Windtre, linked to Task 5.4)*
- **4 systematic lifecycle analyses (LCA)** with recommendations
- *(Led by Municipality of Torino and RCC)*

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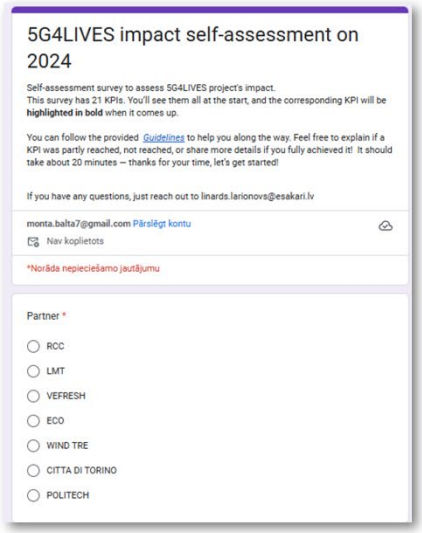
WP 5, self-assessment example


5G4LIVES impact self-assessment on 2024

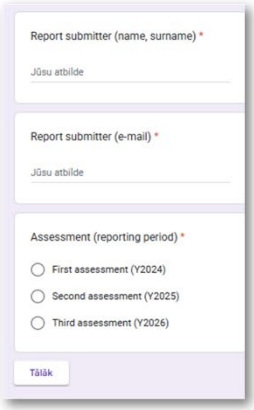
Self-assessment survey to assess 5G4LIVES project's impact.
This survey has 21 KPIs. You'll see them all at the start, and the corresponding KPI will be **highlighted in bold** when it comes up.

You can follow the provided *Guidelines* to help you along the way. Feel free to explain if a KPI was partly reached, not reached, or share more details if you fully achieved it! It should take about 20 minutes – thanks for your time, let's get started!

If you have any questions, just reach out to linards.larionovs@esakari.lv

monta.balta7@gmail.com Pārslēgt kontu
Nav koplietots
*Norāda nepieciešamo jautājumu

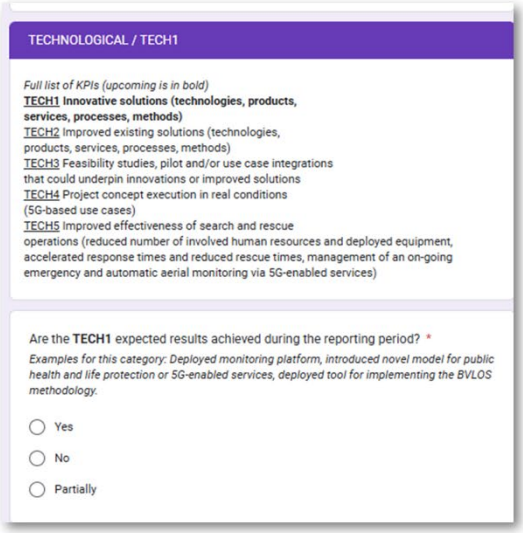
Partner *
- RCC
- LMT
- VEFRESH
- ECO
- WIND TRE
- CITTA DI TORINO
- POLITECH


Report submitter (name, surname) *
Jūsu atbilde

Report submitter (e-mail) *
Jūsu atbilde

Assessment (reporting period) *
- First assessment (Y2024)
- Second assessment (Y2025)
- Third assessment (Y2026)

Tālāk


TECHNOLOGICAL / TECH1

Full list of KPIs (upcoming is in bold)
TECH1 Innovative solutions (technologies, products, services, processes, methods)
TECH2 Improved existing solutions (technologies, products, services, processes, methods)
TECH3 Feasibility studies, pilot and/or use case integrations that could underpin innovations or improved solutions
TECH4 Project concept execution in real conditions (5G-based use cases)
TECH5 Improved effectiveness of search and rescue operations (reduced number of involved human resources and deployed equipment, accelerated response times and reduced rescue times, management of an on-going emergency and automatic aerial monitoring via 5G-enabled services)

Are the **TECH1** expected results achieved during the reporting period? *
Examples for this category: Deployed monitoring platform, introduced novel model for public health and life protection or 5G-enabled services, deployed tool for implementing the BVLOS methodology.
- Yes
- No
- Partially

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WP 5

RISKS

Risk	Prevention / Mitigation Measure
Misunderstanding of KPI responsibilities	Provide clear guidelines with KPI self-assessment tool; offer Q&A support
Delayed responses due to summer leave	Assign backup personnel in each team for June–August, if necessary
October deliverable (D5.3) timely coordination	Set up biweekly summer sync meetings across all 3 involved partners (Wind3, LMT, Torino)
Overambitious or unclear KPI targets from grant agreement	Reevaluate and redefine KPIs through group and individual consultations
Inconsistent KPI reporting and evaluation in future rounds	Use a standardized assessment template and tracking method
Missed deadlines for KPI inputs or report submissions	Set early internal deadlines; issue reminders and centralized collection of inputs
Partners unaware of their expected contributions to impact strategy	Share a finalized KPI table with specific expectations per organization

NEXT STEPS

Timeline	Action
This Week	Send KPI self-assessment tool + instructions
By Next Tuesday	Submit self-assessment (~20 min)
June	Submit both deliverables (Training + Strategy)
Summer	Biweekly meetings for October deliverable (D5.3)
Jan–Feb 2025	2nd KPI Evaluation for progress report
End of Project	Final KPI Evaluation

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WP6 + Training Package 1
Current Status & Progress

Milestones Completed:

✅ 13: Communication and dissemination:
D6.1 (M3, VEFRESH), D6.2 (M5, VEFRESH), D6.3 (M10, WindTre) - SUBMITTED
D6.4 Communication, dissemination, exploitation and market exploration, standardisation and community building _1(M18, Citta di Torino) – IN PROGRESS

✅ 11: Stakeholders training completion
D5.1 Training Package 1 (M18, VEFRESH) – IN PROGRESS

Ongoing Tasks:

- T5.1 Training Package
- T6.1 Communication and dissesmination plan (C&D tracking table / KPIs)
- T6.2 Exploitation, IPR and innovation management
- T6.3 Market diffusion and comercialization roadmap
- T6.4 Creation and improvement of Eruopean technological value chains with the potential for international cooperation and market exploration
- T6.5 Contribution to standarts
- T6.6 Liaison with other projects and synchronisation with European initiatives

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WP6 Current Status & Progress

C&D activities tracking table

TASK	TARGET	UP TO 09-06-2025	COMMENTS
Project webspace	1	1	
Social media	>30	42	
Promotional materials	>5	6	2 x roll-up banners, flyers, kick-off video, SCWE video
Press releases/interviews in traditional media	>3	16	
Project webinars	2	2	
Workshops	2	2	
Project identity templates	1	1	
Scientific articles	1	3	
Participation in conferences	3	6	

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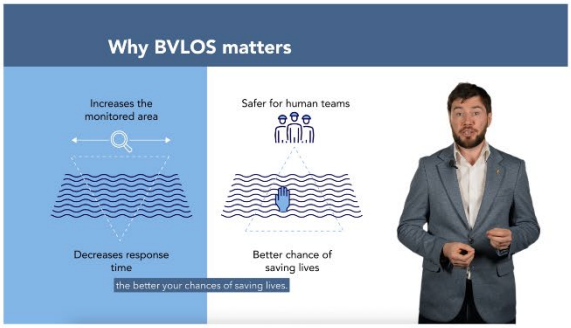
WP5 / T5.1 & D5.1 Training Package 1

Behind the scenes & first preview



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Planned Work & Objectives

Role in 5G4LIVES:
RCC (Riga Local Government) plays a central role in the 5G4LIVES project as the Project Coordinator.
Key Objectives for Next 18 Months:

- **WP1**: (leader) all tasks and deliverables
- **WP2**: accordingly T2.5 and T2.7, with participation in T2.6
- **WP3**: T3.4, T3.5, T3.7: UAVs implementation and monitoring platform (MS6), D3.3, D3.4 participation
- **WP4**: (leader) Demo days, 2+1 demonstration seasons in warm and cold seasons:

✓ T4.2, T4.3, T4.4, T4.6;
✓ MS8 (M22, summer season), MS9 (M27, winter season), D4.5, D4.6, D4.7

- **WP5**: participation in all tasks
- **WP6**: participation in all tasks

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Planned Work & Objectives

Role in 5G4LIVES:

LMT is focusing on the 5G network solution and ensuring connectivity for all components of the 5G4LIVES platform that support drone operations and data transmission to users within the 5G4LIVES ecosystem; the solution also includes CV/ML-based data processing.

Key Objectives for Next 18 Months:

- Tasks: T3.5; T3.6; T3.7;
- Contribution: T4.3; T4.4; T4.6; T5.1; T5.2; T5.3; T5.4; T5.5; T5.6
- Deliverables: D3.3; D3.4
- Milestones: MS6

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Planned Work & Objectives

Role in 5G4LIVES:

- ECO (ex VASES) serves as **the lead partner for WP5 "Evaluation and assessment, replication and scalability potential"** from now until the end of the project.
- Additionally, ECO has played a significant expert role across multiple work packages, especially WP2, WP4 and WP5.
- We led the **study on minimum 5G coverage requirements** for B-VLOS drone flights.
- We developed a harmonized **methodology for 5G performance measurements** using drones, validated it through field tests, and plan on **working with ECC to scale it to the EU level**.
- Additionally, we are actively engaged in RF regulatory barriers analysis to support 5G deployment and drone operations.

Key Objectives for Next 18 Months:

WP5 lead,

Lead of 4 deliverables, reaching 2 milestones

Contribution to other Tasks under WP2,WP3, WP4, WP6

ECC methodology WG on EU level

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Planned Work & Objectives for Vefresh

Role in 5G4LIVES:

- Lead of WP6 Dissemination, exploitation and standartisation (M1 – M36)
- Lead of Task 5.1 Training Package (Part 1 & 2)

Key Objectives for Next 18 Months:

- Dissemination of Training Package 1
- Development & dissemination of Training Package 2
- Regular social media content
- Participation in conferences, events + synergies with other projects
- Hosting of Annual partners meeting (Jan 2026) + webinar + workshop
- Deliverables: D5.2 (M28) & D6.5 (M36, together with Torino)

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Expected Results, Resources & Contribution for Wind Tre

Key Expected Results:

Finalization of the deliverables 5.3 and 5.4: to identify the impact and the effectiveness of the project.

Critical Resources Committed

By Wind Tre side therefore the list of critical resources are:

- *BTS*
- *Microwaves backhauling*
- *Ground occupation => allowance has to be provided by MoT*
- *Sanitary allowance*

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Planned Work & Objectives

Role in 5G4LIVES:

The Municipality of Torino plays a central and strategic role within the 5G4LIFE project, particularly as the lead implementer of the Italian pilot site. Their responsibilities span planning, coordination, deployment, and public communication around the use of UAVs for civil protection in the Turin metropolitan area.

Key Objectives for Next 18 Months:

- **Operational Coordination of the Italian Use Case:** T2.5, **T2.6**, T2.7 | **D2.4**, **MS3**
- **Infrastructure Deployment and Control Center Management: T3.6**, **T4.5** | **D4.8**, **D4.9**
- **Training and Operational Capacity Building:** T5.1, **T5.2** (dependent on PoT), **T5.3** (dependent on PoT), T5.4, T5.5, T5.6
- **Public Communication and Dissemination:** T6.1, T6.2, T6.3, T6.4, **T6.5**, **T6.6** | **D6.5**, **MS14**
- **Administrative Management, Regulatory and Ethical Stewardship:** T1.1, T1.2, T1.3, T1.4

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Planned Work & Objectives

Role in 5G4LIVES:

*- The main activity of PoliTO is the design and the development of a methodology for BVLOS mission planning and validation (**Project Objective PO7**).*
- Support Municipality of Turin for the mission preparation and mission planning for the demonstration phase

Key Objectives for Next 18 Months:

The key activity is the development of the Web-app implementing the methodology for BVLOS mission planning and validation (activity included in T3.6)

Workplan

1. *Definition of the methodology (DONE – T2.4)*
2. *Implementation of the algorithms for risk-map generation, risk-aware path planning, path validation (DONE – Described in D3.2)*
3. *Web-app development*
   - 3.1. *Risk-map integration, Risk-aware path planning, Route Validation (partially done (85%) – by June 2025)*
   - 3.2. *SORA integration (work in progress – by September 2025)*
   - 3.3. *Online risk assessment; Online risk-aware Path Planning (by October 2025)*
   - 3.1. *Validation (by November 2025)*

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