Plan for dissemination and exploitation of results (PDER) – Interim report

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1. Executive Summary

Communication, dissemination and exploitation are crucial to a project's success, ensuring it reaches relevant stakeholders. Communication shares general project information with a broad audience, aiming to raise awareness and increase visibility using accessible language. Dissemination, however, targets a more specialized audience, transferring technical and scientific results that can be applied in research, business, or other professional settings, directly contributing to the project's impact through exploitation, replication, and market deployment. Exploitation refers to the use of project results in further research, product development, or services beyond the project's scope, aiming for concrete societal impact. It involves ensuring that project outcomes are utilized long after the project concludes, creating lasting value.

This deliverable provides a report on the communication, dissemination and exploitation initiatives performed in **ProtAct-Us** during the first half of the project, providing an update to the plan[1], looking ahead into the second half of the project, its needs and ambitions. It intends to provide practical information to guide and support **ProtAct-Us** consortium in designing and implementing communication, dissemination and exploitation activities. It addresses the following points:

- Planning and analysis of the dissemination and communication tools and activities;
- Expected impact of the planned measures;
- Measurement of communication levels and target audiences;
- Roles and responsibilities of communication leads and representatives;
- Project's visibility and awareness through its website and social media page;
- Collaborations with relevant project and initiatives; and
- Plan for the exploitation of project results.

Keywords: Communication, Dissemination, Exploitation, Knowledge Sharing

[1] First version of the plan was submitted on *Deliverable 5.1 - Plan for dissemination and exploitation of results (PDER)*, by M6 (November 2024) of the project.

2. Introduction

ProtAct-Us aims to protect all road user groups from serious injuries and the long-term physical, cognitive and mental-health consequences of road crashes. Through an innovative, interdisciplinary integration of medical, epidemiological, and engineering methods, the project seeks to develop robust assessment tools, define standardized injury data and classification schemes, and design effective countermeasures and post-crash strategies applicable to all modes of road transport: from pedestrians and cyclists to vehicle occupants. In doing so, **ProtAct-Us** addresses the pressing challenge of increasing traffic mobility (including novel micro-mobility transports) in urban and non-urban settings, and the crucial need to reduce the long-lasting social, economic and health burdens posed by road-traffic injuries.

ProtAct-Us' Work Package 5 (WP5) is tasked with defining the communication, dissemination, and exploitation framework that will underpin the project's strategic impact. WP5 sets out to build a strong and coherent project identity, deploy effective outreach and engagement tools, and foster open-science best practices. Its mission is not only to increase the visibility and accessibility of ProtAct-Us' research outputs, but also to enable their uptake by stakeholders thereby supporting exploitation, replication, and long-term sustainability of the project's results.

Communication. Dissemination and Exploitation: definitions

Communication involves sharing general information about the project's activities and results with a broad audience, including the general public. Its goal is to raise awareness of ongoing and upcoming activities, increasing the project's visibility. The language used is accessible, with minimal technical or scientific jargon, to ensure understanding by a wide audience.

Dissemination, on the other hand, focuses on transferring the project's technical and scientific results to a more specialized, professional, and scientific audience. This target group can actively use the results, for instance, in their own research or business plans. Dissemination directly contributes to the project's expected impact by supporting exploitation, replication, and potential market deployment of the outcomes.

According to the European Commission glossary, Exploitation is defined as "The use of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities". The concept standing behind the definition of exploitation, which is also the ultimate feature of the activity itself, is indeed the effective and concrete use of the achieved project outcomes. The exploitation aims at using Research and Innovation actions to create a concrete impact for the society, with the expectation that the exploitable results will be used beyond the lifetime of the project.

WP5 aims to develop a **comprehensive communication, dissemination and exploitation strategy** that enhances the project's visibility and promotes the open science best practices necessary to support the dissemination of innovative solutions, countermeasures, discussed in the challenges:

- *Communication and Dissemination Strategy:* WP5 gives **ProtAct-Us** an attractive identity and communication tools that ensure the project's research outputs reach a broad audience, supporting the objectives of Challenge 1 (Reduction of long-term consequences and related

socioeconomic cost of road crash related injuries for all road users). The strategy also ensure that **ProtAct-Us** research developments are widely shared, raising awareness among stakeholders and ensuring the adoption of new safety measures.

> By M18: **ProtAct-Us** branding has been adopted for the communication materials. The project branding, embedded into a safety and inclusivity mindset, is present through informative and visual contents to announce project initiatives and promote news and findings with its community. *More details are provided in chapter 4.*

- *Fostering Cooperation with Relevant Initiatives:* WP5's goal of fostering cooperation at various levels aligns with Challenge 4 (Implementation of Policy, Regulatory, and Standardisation guidelines focused on long-term consequences from road crashes' injuries), where the project seeks to influence policy, regulatory, and standardization guidelines. By interacting with EU, national, and regional initiatives, the project will ensure that its innovations contribute to shaping regulations that address long-term injury consequences.

> By M18: **ProtAct-Us** is engaging with parallel ongoing projects and initiatives for collaborative efforts towards a safe, inclusive and sustainable European transport. *More details are provided in chapter 5.*

- *Business and IPR Plan:* WP5 will define and develop a business and Intellectual Property Rights (IPR) plan, which is crucial for the exploitation of the project's findings. The plan will ensure that the innovations, safety measures, and injury assessment tools developed in the project can be effectively utilized, commercialized, and standardized.

> By M18: The strategy to evaluate the project exploitable results is being defined, setting the stages and methods to assess the partners' interests and positions in industry sectors, research community, and academia to ensure the availability of the knowledge generated in the project, as well the harmonisation of regulations and requirements to reduce long-term outcomes of personal injuries in road traffic. *More details are provided in chapter 7.*

3. PEDR Strategy - Update

ProtAct-Us partners have planned wide-ranging communication, dissemination, and exploitation actions, articulated in the Plan for Exploitation and Dissemination of Results (PEDR). These actions are directed toward the engagement of relevant stakeholders and end-users across Europe and beyond, in alignment with the objectives of WP5. The PEDR combines both the diffusion of knowledge to the appropriate target groups (as represented in Figure 3-1) and the exploitation of key results outside the consortium and project partner countries.

The PEDR implementation has been structured into three stages:

- **Stage 1** (M1-M6) - Completed

The WP5 lead partner INOVA defined the communication and dissemination strategy and planned concrete PEDR activities. Key research outputs and potential exploitable results were identified. The project branding was designed and adopted (including official logo, templates, and standard communication materials) and the digital presence was successfully established through the launch of the project website and social media channels (LinkedIn and YouTube).

- **Stage 2** (M6-36) – Ongoing

During this period, project findings are being actively disseminated through scientific publications, conference participation, clustering activities and stakeholder-oriented events, and continuous updates via the project website and media channels. In addition, INOVA and partners are working on the development of exploitation pathways and business planning for key exploitable results, ensuring that innovative outcomes can progress toward future adoption and market uptake.

- **Stage 3** (M30-M72) - Planned

The final stage will ensure long-term impact by consolidating commitments toward Communication, Dissemination, and Exploitation (CDE) beyond the project's lifetime. Actions will focus on IPR and knowledge management, strategic networking with related EU and international initiatives, and strengthening collaboration with potential adopters and policymakers. Progress and results will continue to be monitored using Key Performance Indicators (KPIs), allowing the consortium to adapt and implement corrective measures when necessary to maximize impact.

INOVA, with contributions from all **ProtAct-Us** partners, previously delivered the initial PEDR in D5.1, which established the strategic foundations for the project's communication and dissemination efforts. During the first half of the project — corresponding to the reporting period covered by this deliverable — the communication identity has been fully deployed, and promotional materials have been used to support awareness-raising, stakeholder engagement, and visibility of early project actions and findings.

The main objective of the C&D Plan is to ensure effective and strategic communication of project activities, outcomes and impacts to following relevant stakeholders and Target Groups (TG):

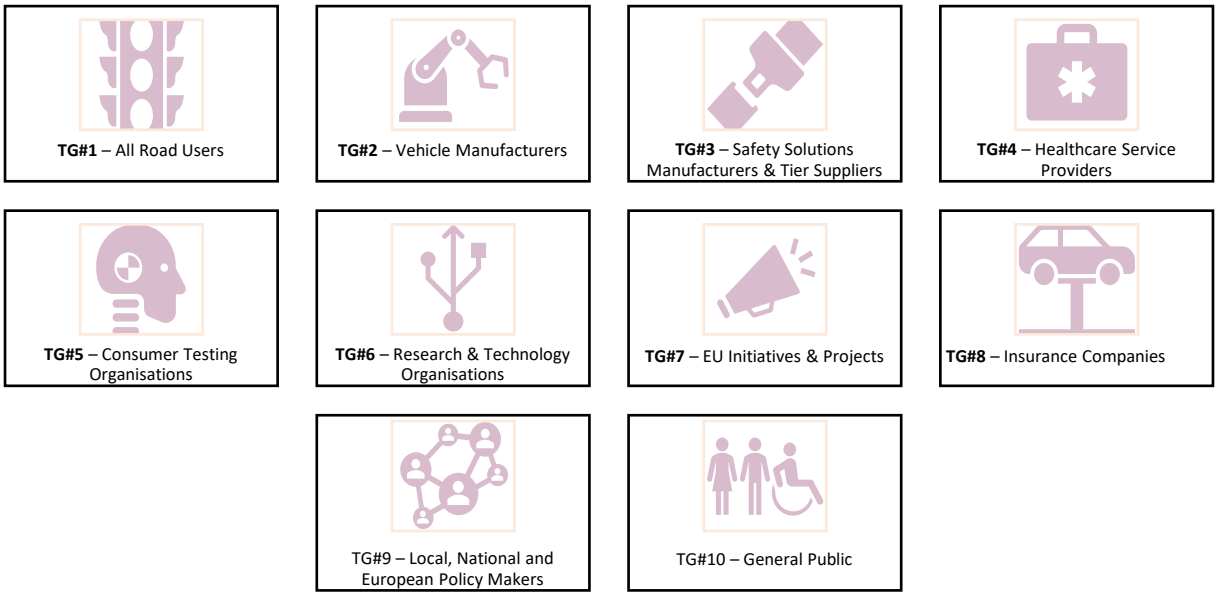


Figure 3-1: ProtAct-Us Target Groups

Each communication activity has been tailored to the specific group and the message to be conveyed. The table below gathers the main information that will be provided to the main TGs identified above.

Table 3-1: Target Groups Key Messages and Outcomes

TG#	Key Messages	Outcomes
TG#1	Research developments in terms of road safety includes education for all road users to adhere to the new proposed countermeasures to improve road safety.	Increased awareness of long-term consequences, greater confidence in new safety technologies, improved collective knowledge for safety measures.
TG#2	Research as an enabler of innovative countermeasures that enhance road safety, and which vehicle manufacturers can use to create safer vehicles with improved protective features and crash response mechanisms.	Integration of the research-driven insights into their vehicle design, resulting in the development of more advanced safety technologies, with enhanced protection for occupants and pedestrians alike.
TG#3	Leverage research outcomes so that safety solutions manufacturers and tier suppliers can develop and provide cutting-edge safety technologies and components that contribute to reducing injuries and long-term consequences resulting from road crashes.	Harness research-driven insights to innovate safety technologies and components.
TG#4	Awareness of healthcare service providers in addressing the long-term consequences of road crashes. Using the knowledge generated from the project research, HealthCare Service Providers can contribute to improved medical understanding, treatment, and rehabilitation methods.	Better treatment outcomes, specialized care for road crash survivors, and improved post-crash management, ultimately reducing the long-term health consequences for all road users.
TG#5	Strengthening the role of consumer testing organisations like EuroNCAP and IIHS, in advancing road safety by evaluating and recommending safety solutions.	This group can improve their ability to assess and recommend effective safety solutions based on research backed insights. This empowers consumers to make informed decisions when choosing vehicles and safety products, leading to increased adoption of safer technologies.

TG#6	Highlight the critical role of research and technology organizations in advancing road safety and generate research-backed insights that contribute to reducing injuries and long-term consequences resulting from road crashes through interdisciplinary collaboration.	Development of groundbreaking safety technologies and solutions.
TG#7	Project key achievements, boost awareness on road crashes; contributions to the road safety industry in line with SDGs and EU initiatives.	This group can beneficiate from innovative tools and methods aligned with EU goals towards a general upgrade in protection for all road users.
TG#8	Emphasize the role of insurance companies in promoting road safety through risk mitigation and support for road crash survivors. By collaborating with research efforts, insurance companies can contribute to the development of effective safety solutions, encourage responsible road behavior.	Insurance companies can leverage research-backed insights to refine their risk assessment models and encourage policyholders to adopt safer driving behaviors.
TG#9	Support policy and decision makers work in shaping road safety regulations and implement evidence-based policies that encourage safe road behaviors; promote the adoption of innovative safety solutions.	They can leverage research insights to develop effective road safety policies that address a wide range of issues, from vehicle safety standards to pedestrian protection, encouraging and enabling the adoption of safety measures.
TG#10	Raise awareness regarding road safety and foster the practice of safe road behaviors.	The general public's active engagement in road safety leads to increased awareness, responsible road behavior, and the adoption of safety measures. This contributes to a reduction in accidents, injuries, and long-term consequences for all road users, fostering a safer road environment.

4. Communication activities performed

For setting the baseline for the communication of the project's mission and objectives to its community, INOVA has developed and published the **ProtAct-Us** website and social media pages. The development of promotional materials and participation at relevant events supported the increase of project's visibility and recognition, tracing the road for sharing **ProtAct-Us** activities and research outputs.

4.1 Project Kick-Off Kit

INOVA started the development of **ProtAct-Us** communication materials with the Kick-Off Kit, which included project branded materials following the colour schemes and lettering fonts defined. This kit was composed by a press release to communicate the project start and its mission, a project presentation template to use in internal meetings and external events, factsheet with an overview of the project (sub-section 4.4.1), a brochure with complete overview of the project ambition and expected results and impacts (sub-section 4.4.2) and a roll-up to display the project identify and key goals in events (sub-section 4.4.3). The kit was complemented with a promotional video (sub-section 4.4.4) to share online a visual introduction to the project to boost project awareness and recognition.

4.2 Project Website

The **ProtAct-Us** website – https://**ProtAct-Us**.eu/ – has experienced consistent and continuous growth over time, reflecting increased engagement and interest from users across various channels. Insights from the latest semester (M13-M18) analytics reports highlight

several key performance indicators regarding user acquisition, retention, and traffic sources. The website has attracted a substantial number of visits, with >*540 visits* recorded during the observed period. The primary sources driving new visitors include:

- Average visit duration of 2 minutes and 25 seconds.
- 91% of visitors enter through desktop, while 9% enter through smartphone.
- LinkedIn page is the main anchor link for visitors to jump into the project website.
- The top 5 European visits are from Germany, Portugal, Greece, Austria, and Spain.
- The website's most viewed pages suggest that users are mostly interested in the project's overview and news, registering >400 views in total.

While the website has been progressively attracting new visitors, retaining users is a challenge which will be addressed for the following months until the end of the project. The Bounce Rate, i.e., the percentage of visitors who navigate away from the website after viewing only one page, is 52%. To respond this challenge, aiming to improve these numbers, the following actions are planned to be implemented in **ProtAct-Us** website: (i) display of interactive features and pre-announcements to encourage returning visits; (ii) availability of project resources, including promotional materials, thematic insights on road safety and innovative transport, key outcomes achieved, and first impacts observed; and (iii) publication of news and announcements regarding organisation and participation on events to disseminate **ProtAct-Us** achievements.

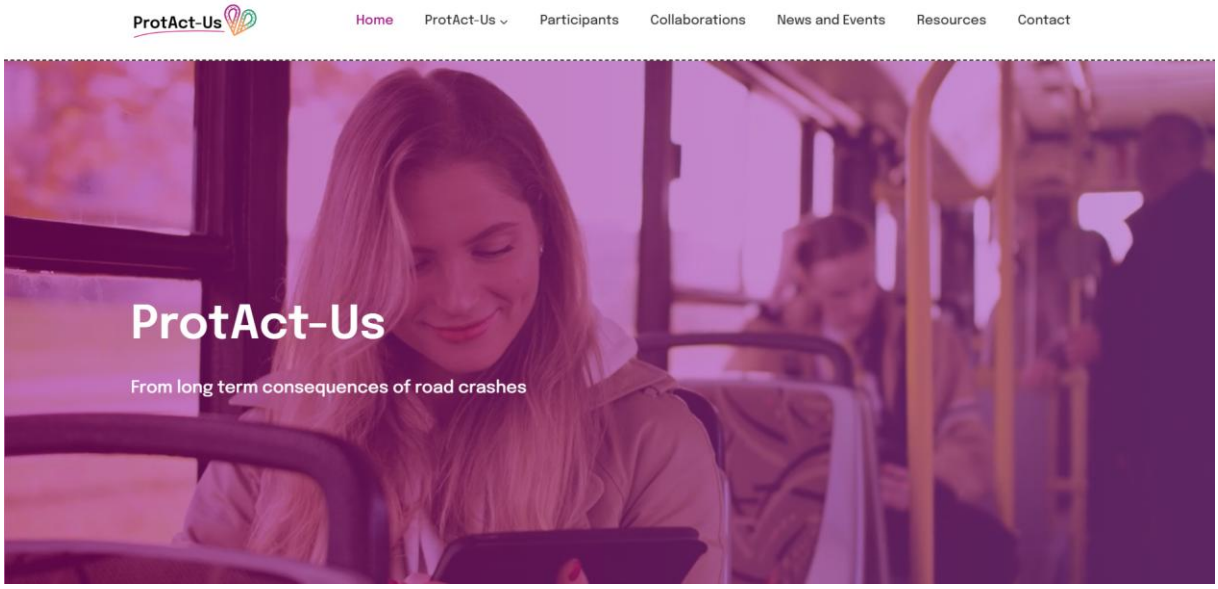


Figure 4-1: ProtAct-Us project website Homepage

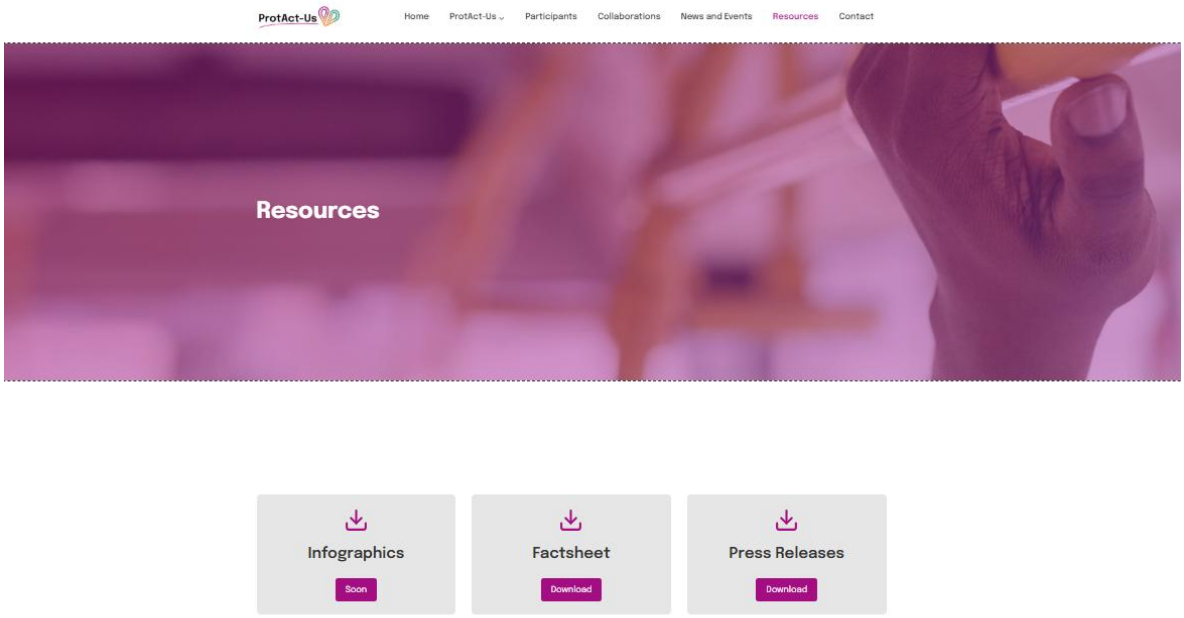


Figure 4-2: ProtAct-Us project website Resources page

Overall, **ProtAct-Us**' website is steadily growing. With refined strategies focusing on user retention and engagement, it has the potential to become an even more impactful digital hub for the project, growing with collaborative initiatives with partners to engage with engineering, psychology and medical topics of interests with project's community, while, in parallel, with external activities such as the *EU Road Safety Cluster*. This collaboration has been announced in **ProtAct-Us** online channels.

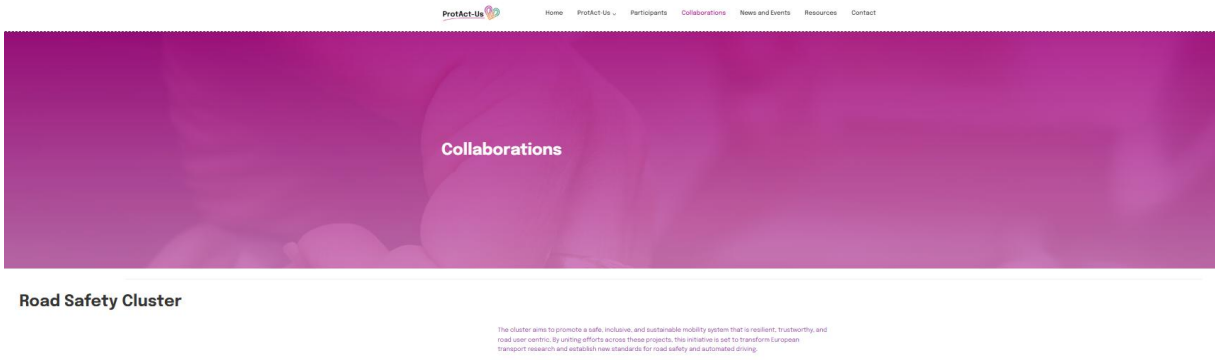


Figure 4-3: ProtAct-Us project website - Collaborations page

4.3 Social Media

4.3.1 LinkedIn page

The **ProtAct-Us** LinkedIn page has been consistently updated with valuable content, effectively disseminating the project's progress, achievements, and key developments in the road safety sector. Over the past year, the page experienced remarkable organic growth, solidifying its recognition and relevance in the industry. Through strategic content sharing, active engagement, and community-building efforts, **ProtAct-Us** has successfully expanded its reach and impact. Key highlights of **ProtAct-Us**' LinkedIn page performance from the last 12 months, include:

- **Follower Growth & Network Expansion: ProtAct-Us**' LinkedIn page has achieved above *>178 followers*, marking significant growth and increased visibility within the road safety ecosystem. The platform has successfully attracted key stakeholders, including industry experts, researchers, and policymakers, fostering a strong professional network. Importantly, the page's reach considerably exceeds the number of followers: between 26 November 2024 and 27 November 2025 (M6–M18), LinkedIn posts and updates reached a total of 10,133 (Figure 4-4Figure 4-4: Members reached Graphic on LinkedIn related to the period between 26 of Nov 2024 - 27 of Nov 2025.), highlighting the effectiveness of the communication strategy in amplifying project messages beyond its direct subscriber base.

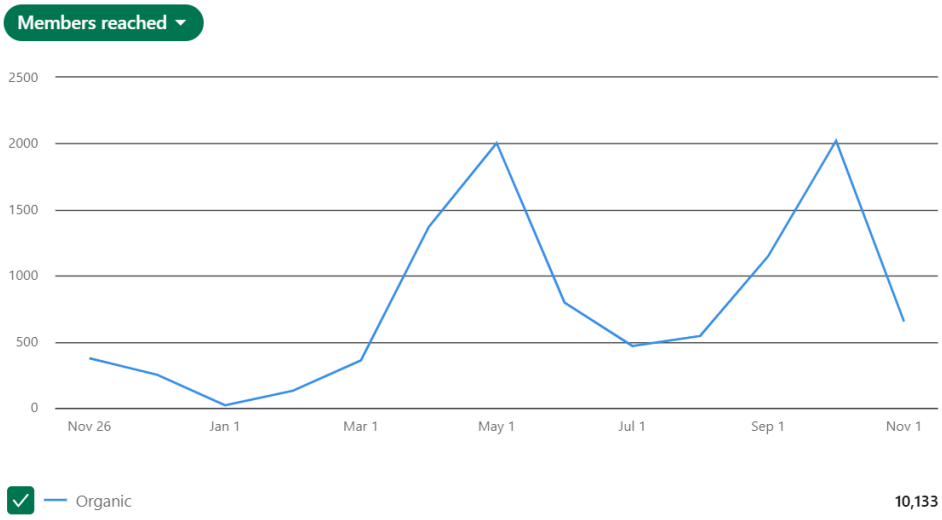


Figure 4-4: Members reached Graphic on LinkedIn related to the period between 26 of Nov 2024 - 27 of Nov 2025.[2]

- **Content Engagement & Visibility:** During the period M1-M18, **ProtAct-Us** has achieved *>21,500 impressions*, reached *>390 page views*, and received *>875 reactions* [3]organically. INOVA, with the support from all partners, will continue attracting new followers and retain existing ones for higher interactions and reach with project updates, industry insights, and breakthroughs in the project.
- **Event & Initiatives Promotion:** LinkedIn page has been instrumental on promoting **ProtAct-Us**' events, key thematic insights, and results achieved. By leveraging targeted posts and interactive discussions, the pages are tacking

[2] Due to LinkedIn Analytics limitations, performance data can only be displayed for the most recent 365-day period.
[3] **Impressions** – Views when the post is at least 50% on screen, or when clicked; **Page Views**: Video views – Two or more seconds of playback while the video is at least 50% on screen. Article views – Each article view is counted when a member completely loads the article page; **Reactions** – Total number of reactions on posts.

diverse target groups, from research, to medical and engineering, bringing the road safety topic spread across **ProtAct-Us** partners' networks.

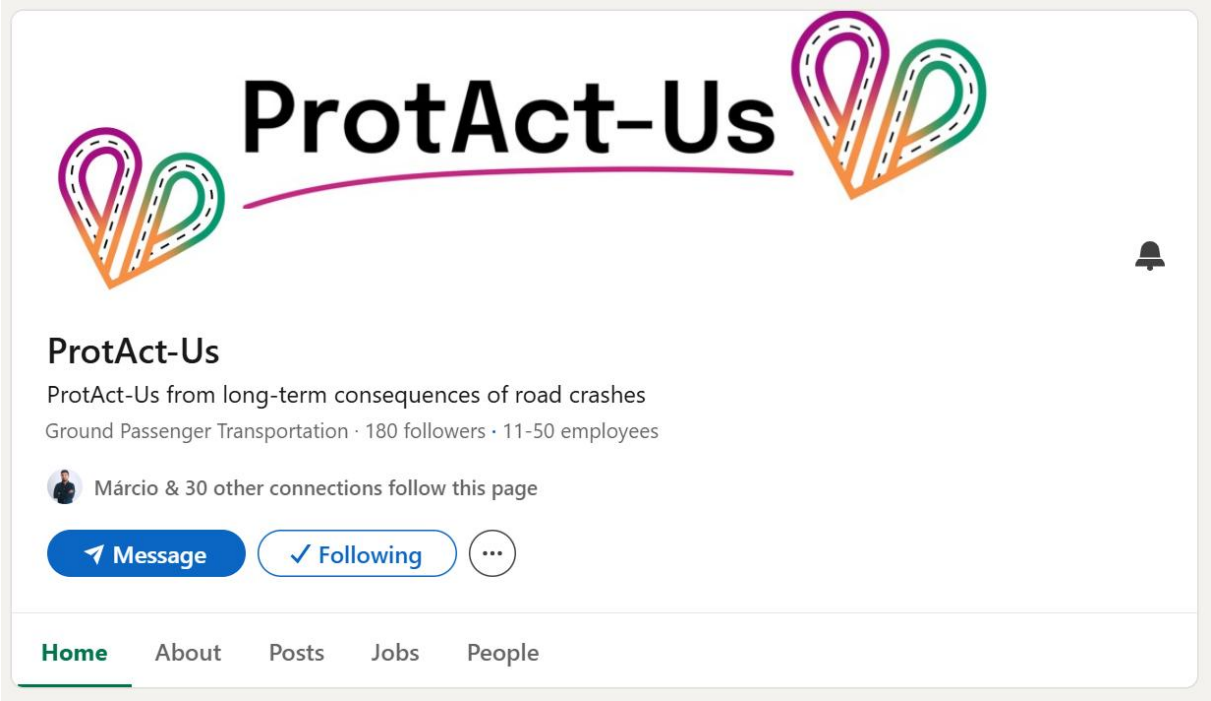


Figure 4-5: ProtAct-Us project LinkedIn Page

4.3.2 YouTube channel

Initially, X (former Twitter) was defined as the additional social media page to reach our community, supporting LinkedIn page to achieve C&D targets. Considering the lack of interest from the project community and in general on X, while recognising the importance of multimedia content in knowledge dissemination, **ProtAct-Us** has launched a YouTube channel for **ProtAct-Us** as a dedicated platform for sharing visual and interactive content about the project, while cancelling the X page out from **ProtAct-Us**' official online channels. For the reporting period, the project has published 15 videos, including a presentation from each partner, as well a promotional video.

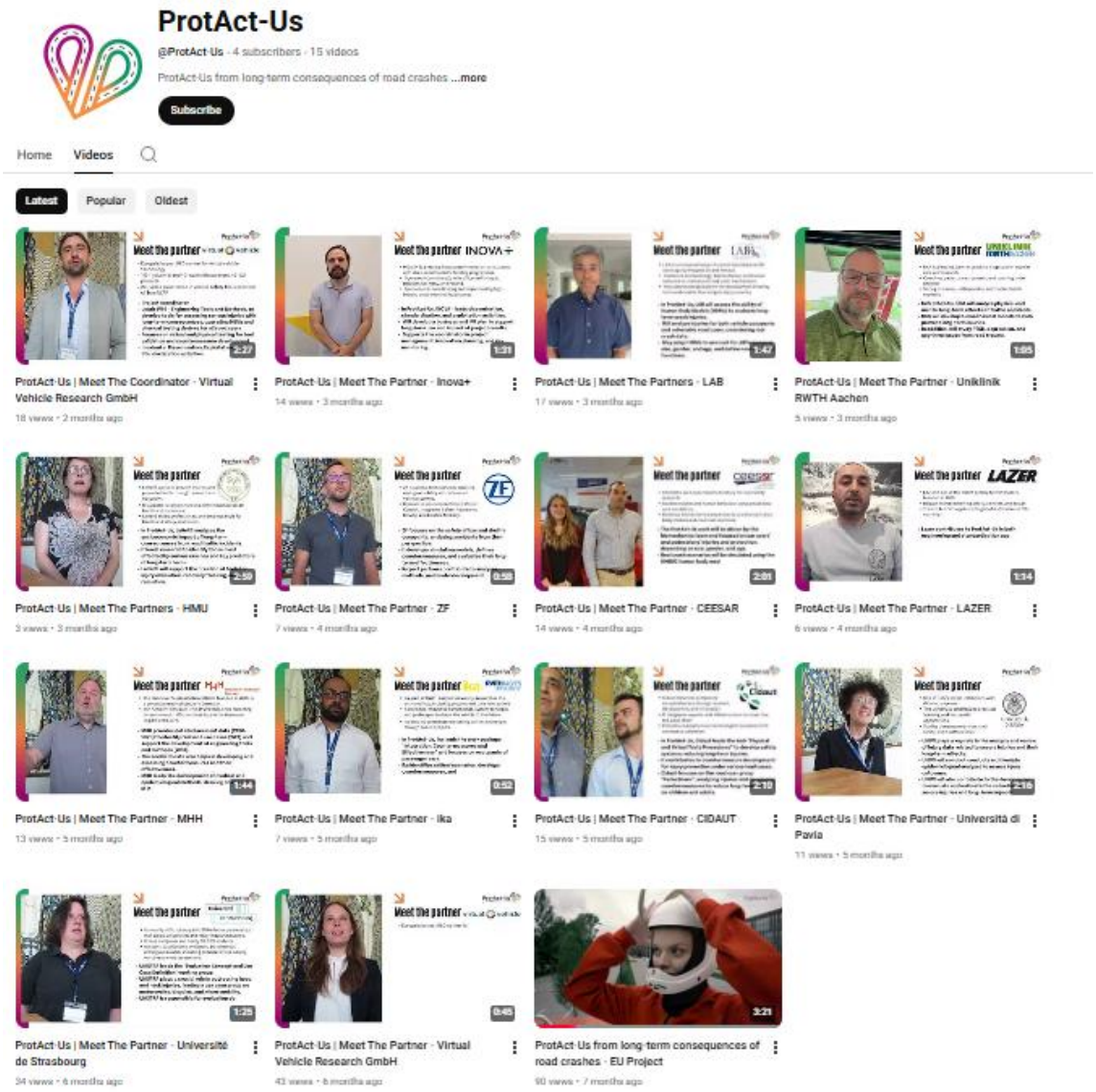


Figure 4-6: ProtAct-Us YouTube page and videos published

4.4 Promotional materials

4.4.1 Factsheet

ProtAct-Us developed a one-page overview of the project. This material presents the project aim, methods used, and expected outcomes for the respective road user groups, together with project and consortium information to be shared online or in physical events where a simplistic but complete overview of the project is intended to be displayed or distributed. Factsheet is publicly available on the project website: https://ProtAct-Us.eu/wp-content/uploads/2025/01/ProtAct-Us_Factsheet.pdf

Figure 4-7: ProtAct-Us FactSheet

4.4.2 Brochure

To support communication and engagement activities, **ProtAct-Us** has developed a 2-page brochure designed as a folded triptych, ideal for physical distribution during events and stakeholder interactions. This brochure provides a concise yet comprehensive overview of the project, including its objectives, methodologies, target road user groups, and expected impacts. With visually accessible content and clear messaging, it serves as a practical tool to raise awareness, foster collaboration, and introduce **ProtAct-Us** to diverse audiences in a compact, easy-to-share format.

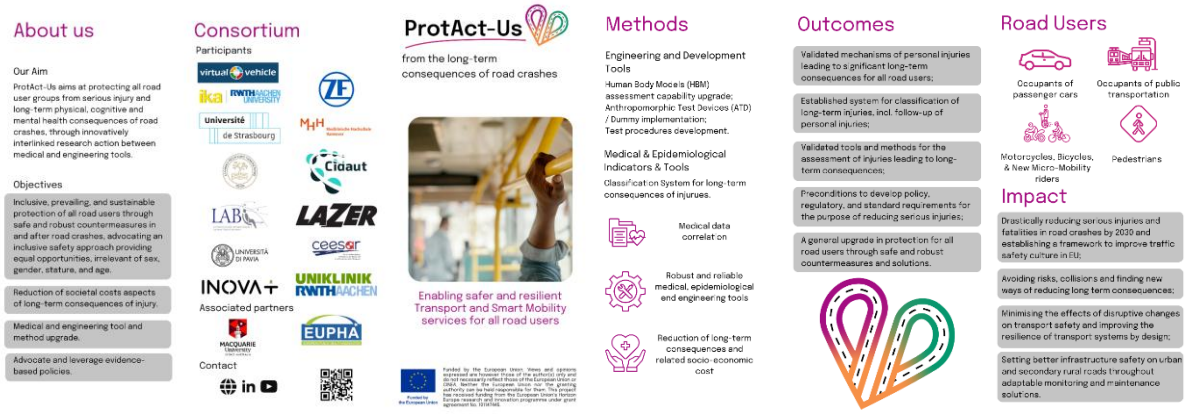


Figure 4-8: ProtAct-Us Brochure

4.4.3 Roll-Up

A visual communication material designed for display at events attended by the **ProtAct-Us** consortium. The roll-up highlights the project's core aim, road users, and main goals and challenges. With a strong visual focus and concise messaging, it effectively introduces **ProtAct-Us** and supports stakeholder engagement by making the project easily recognizable in diverse event settings.

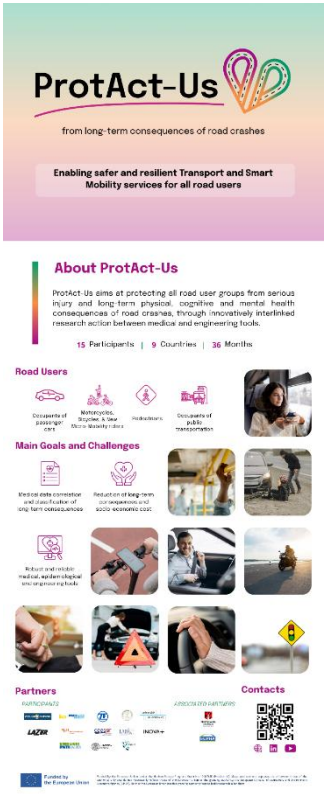


Figure 4-9: ProtAct-Us Roll-Up

4.4.4 Promotional Video

A promotional video has been produced to introduce the **ProtAct-Us** project, presenting its objectives, innovative safety solutions, and the expected impacts to be achieved by the end of the initiative. The video communicates how **ProtAct-Us** contributes to improving road safety for vulnerable road users, while highlighting the collaborative efforts of the consortium and the real-world relevance of the project's outcomes. Two versions of the promotional video are available to support different communication needs:

- **Full version**, published on YouTube, offering a more detailed overview of the project innovations, technologies under development, and the targeted user groups. By M18 (Nov 2025), the YouTube version has reached 97 views.
- **Short version**, shared on LinkedIn, focusing on key messages and general awareness. This shorter version is especially useful for promotional activities where time is limited, such as during events, presentations, or digital campaigns. By M18 (Nov 2025), the LinkedIn version has reached 105 views

Both formats aim to enhance visibility, facilitate stakeholder engagement, and strengthen the project's outreach across online and physical environments.

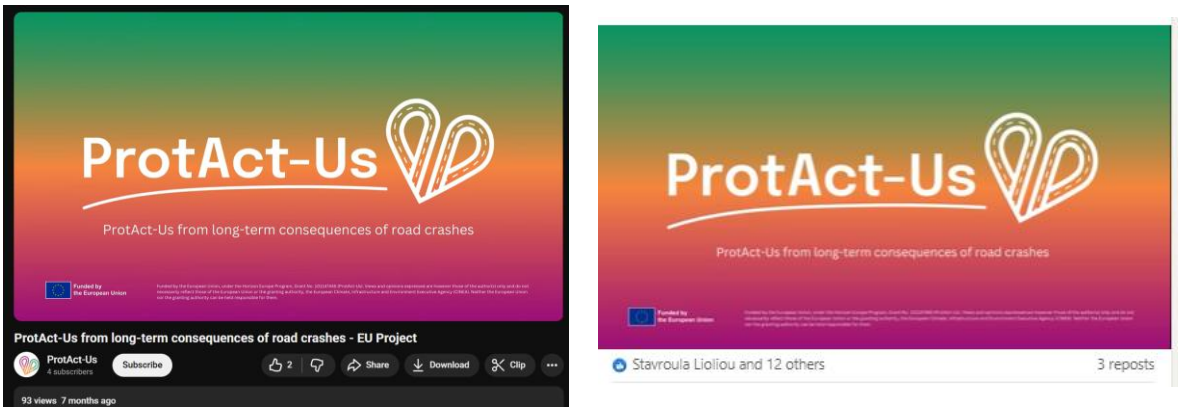


Figure 4-10: ProtAct-Us promotional video on YouTube (on the left). ProtAct-Us promotional video (short version) on LinkedIn (on the right).

4.4.5 Other videos

To strengthen project visibility and highlight the collaborative nature of the consortium, a social media campaign was launched featuring introductory videos from each **ProtAct-Us** partner. In this initiative, one representative per organization presented their institution and its role within the project, showcasing the diverse expertise contributing to **ProtAct-Us**. A total of 13 videos were produced and disseminated across the project's communication channels (YouTube and LinkedIn), fostering audience engagement and reinforcing the identity and contribution of the consortium partners.

Table 4-1: Partner's introductory video

Partner	Video
VIF	Link Link
UNISTRA	Link
UNIPV	Link
CIDAUT	Link
RWTH-IKA	Link
MHH	Link
LAZER	Link
CEESAR	Link
ZF	Link
MHU	Link
UKA	Link
LAB	Link
INOVA	Link

4.5 Overview on Communication Activities implemented (M1-M18) and plan for the next project period (M19-M36)

Overview of activities implemented (M1-M18) and challenges identified:

The table below presents currently available promotional materials developed in the first half of the project (M1-M18), followed by the roadmap for the development of ProtAct-Us materials for its second half (M19-M36).

Table 4-2: Report and Roadmap of ProtAct-Us Promotional Materials

Materials available	Tool	Release Month
Branding	Website, Social Media, Promotional Materials	M3
Online Channels	Website, LinkedIn and YouTube	M6
Partners Presentation	LinkedIn and YouTube	M10-M15
Press Release	LinkedIn and corporate websites	M1-M4
Factsheet	External Events	M6
Brochure #1	Social Media, External Events (as Triptych)	M8
Poster #1	Internal and External Events (as Roll-Up)	M15
Promotional Video	Website, Social Media, Internal and External Events	M10

Plan for the next project period (M19-M36):

As the project progresses, the project communication will be shifted in a direction to promote the project results, without stopping the share of thematic insights and consortium specific activities started in an early stage of the project, with materials available (M1-M18). For material planned (M19-M36), INOVA+ plans to focus particularly on communicating the project achievements, highlighting key research findings, innovative engineering and medical methods, and best practices and guidelines to support a cost-effective, standardised, and safer road mobility approach for all users. This will be done through various communication materials, including visual (posters), promotional (merchandising), informative (booklet), and interactive (video) materials.

Table 4-3: Report and Roadmap of ProtAct-Us Promotional Materials

Materials planned	Tool	Release Month
Poster #2	Roll-Up for Internal and External Events	M24
Booklet #2	Social Media, External Events	M34
Merchandising	External Events	M34
Poster #3	Roll-Up for Final Conference	M34
Final results video	Events, Final Conference and "Online Channels"	M36

5. Dissemination

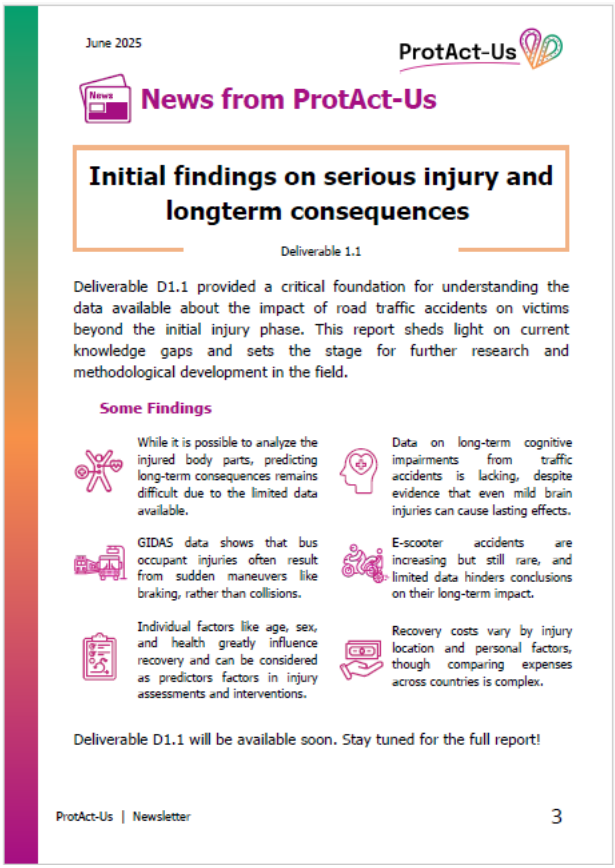
5.1 Newsletters

By making use of the communication tools established within **ProtAct-Us**, INOVA has developed 2 newsletters, the first in June 2025 (M13) and the second in November 2025 (M18). The newsletters were release to the public through the LinkedIn page.

The *first newsletter* highlights the project's key deliverables, which provides insights into the data available on the impact of traffic accidents and sheds light on gaps in current research (D1.1). It also introduces baseline use cases for road user groups (D1.2), identifying specific accident scenarios that may lead to long-term consequences, while also presenting a comprehensive approach to assessing both physical and cognitive injuries and evaluating the socio-economic benefits of safety countermeasures (D1.3). This newsletter also reflects on important project events, including the Kick-Off Meeting held in Graz, Austria, in June 2024, which set the collaborative tone for the project, addressing key cross-cutting topics such as risk management and gender relevance. Six months later, a General Assembly in Matosinhos,

Portugal, allowed partners to further advance injury mitigation strategies, followed by a General Assembly in Aachen, Germany, in May 2025, where the first year of the project was reviewed, and next steps were planned. The **ProtAct-Us** project is also actively involved in networking within the *EU Road Safety Cluster*, collaborating with other European-funded initiatives to enhance road safety across Europe. Previously, in April 2025, the project held its first meeting with its Advisory Board, which included experts from prestigious institutions such as Monash University, the Belgium Road Safety Institute, KU Leuven, and the Italian National Institute of Health.

In terms of outreach, the newsletter highlights that **ProtAct-Us** is using video content on LinkedIn and YouTube to introduce its participants and promote its research objectives. The newsletter also details several future events in which the consortium partners were participating. Overall, the newsletter emphasizes the project's progress, its commitment to improving road safety, and its collaborative approach to achieving long-term impact in road traffic injury prevention. This newsletter received >430 impressions on LinkedIn with an engagement rate of 80% (by M18 - November 2025).


June 2025

ProtAct-Us

News from ProtAct-Us

Initial findings on serious injury and longterm consequences

Deliverable 1.1

Deliverable D1.1 provided a critical foundation for understanding the data available about the impact of road traffic accidents on victims beyond the initial injury phase. This report sheds light on current knowledge gaps and sets the stage for further research and methodological development in the field.

Some Findings

While it is possible to analyze the injured body parts, predicting long-term consequences remains difficult due to the limited data available.

Data on long-term cognitive impairments from traffic accidents is lacking, despite evidence that even mild brain injuries can cause lasting effects.

GIDAS data shows that bus occupant injuries often result from sudden maneuvers like braking, rather than collisions.

E-scooter accidents are increasing but still rare, and limited data hinders conclusions on their long-term impact.

Individual factors like age, sex, and health greatly influence recovery and can be considered as predictors factors in injury assessments and interventions.

Recovery costs vary by injury location and personal factors, though comparing expenses across countries is complex.

Deliverable D1.1 will be available soon. Stay tuned for the full report!

ProtAct-Us | Newsletter 3

Figure 5-1: 1st ProtAct-Us Newsletter

The *second newsletter* presents key highlights from the project between M13-M18, showing achievements, consortium activities, and scientific progress. It featured an in-depth interview with project partners from engineering, medical, and social science fields, showcasing the project's multidisciplinary approach to addressing long-term consequences of road crashes. This newsletter also covered the General Assembly held in Heraklion and **ProtAct-Us** participation at EU-Safety 2025, where results from the project were disseminated through 5 oral presentations. Additionally, it introduced updates from the EU Road Safety Cluster and

upcoming events where **ProtAct-Us** will be represented. The newsletter serves to enhance project visibility, foster stakeholder engagement, and disseminate ongoing research and collaboration outcomes across the European road safety community. This newsletter received >325 impressions on LinkedIn with an engagement rate of 75% (by M18 - November 2025).

Figure 5-2: 2nd ProtAct-Us Newsletter

5.2 Cluster Activities

EU Road Safety Cluster

INOVA has been actively contributing to the development and visibility of the EU Road Safety Cluster, a joint initiative bringing together Horizon Europe projects working towards safer and more resilient mobility systems. This cluster aims to boost awareness on best practices and key innovations to reduce severe consequences of road crashes through the concept of new standards towards a safer mobility for all road users. ProtAct-Us will gain visibility and recognition by participating in this cluster, while learning and sharing experiences and know from projects facing similar challenges. The cluster currently includes the following projects:

- AI4CCAM[4] - Trustworthy AI for CCAM
- EVENTS[5] - ReliablE in-Vehicle pErception and decisioN-making in complex environmenTal conditionS

[4] AI4CCAM cordis page: https://cordis.europa.eu/project/id/101076911
[5] EVENTS cordis page: https://cordis.europa.eu/project/id/101069614

- FRODDO[6] - Federated cybeR-physical infrastructure for ODD cOntinuity
- Phoebe[7] - Predictive ApproacHes fOr SafEr UrBan Environments
- iDriving[8] - Intelligent & Digital Roadway Infrastructure for Vehicles Integrated with Next-Gen Technologies
- SOTERIA[9] - Systematic and orchestrated deployment of safety solutions in complex urban environments for ageing and vulnerable societies
- V4SAFETY[10] - Vehicles and VRU Virtual eValuation of Road Safety

Figure 5-3: EU Road Safety Cluster

INOVA is collaborating closely with cluster partners on the cluster's identity and communication strategy, leading the definition of the EU Road Safety Cluster branding and the creation and management of its key online channel - the EU Road Safety Cluster's LinkedIn page – to communicate and engage with all road safety users community. These actions aim to strengthen the collective outreach of the projects involved, enhance cross-project synergies, and promote a unified European effort towards improving road safety and reducing long-term consequences of road crashes.

Figure 5-4: EU Road Safety Cluster logo

[6] FRODDO cordis page: https://cordis.europa.eu/project/id/101147819
[7] Phoebe cordis page: https://cordis.europa.eu/project/id/101076963
[8] iDriving cordis page: https://cordis.europa.eu/project/id/101147004
[9] SOTERIA cordis page: https://cordis.europa.eu/project/id/101077433
[10] V4SAFETY cordis page: https://cordis.europa.eu/project/id/101075068

5.3 Events

Throughout the reporting period, **ProtAct-Us** actively participated in several high-impact scientific and stakeholder events, reinforcing its visibility within the European research and road safety communities. These activities supported knowledge exchange, fostered collaborations, and disseminated the project's progress and findings to key audiences.

IRCOBI Conference – Stockholm, Sweden (11–13 September 2024)

The IRCOBI Conference gathered a global network of leading researchers in biomechanics and injury prevention, core areas for **ProtAct-Us**. Project coordinator Werner Leitgeb (VIF) joined the event alongside representatives from MHH, Lazer, and UNISTRA. This group participation enabled **ProtAct-Us** to connect with experts in human impact biomechanics and gain valuable insights into emerging research on the body's response to physical forces, directly supporting the project's aims to mitigate the long-term consequences of road crashes.

IMPROVA Knowledge Base Forum – Stockholm, Sweden (13 September 2024)

Held alongside the IRCOBI Conference, the IMPROVA Knowledge Base Forum offered an additional opportunity for **ProtAct-Us** to exchange experiences with European experts in traffic injury prevention. The discussions focused on severe crash injuries and their long-term outcomes, emphasizing evidence-based strategies to improve recovery and resilience. The event also reinforced collaboration between **ProtAct-Us** and IMPROVA, strengthening synergies in advancing road safety and public health.

Safety Update Austria – Graz, Austria (24-25 September 2024)

VIF represented **ProtAct-Us** during the **Safety Update Austria** event, actively engaging in networking activities, stakeholder discussions, and user engagement sessions. The event provided an excellent platform to introduce the **ProtAct-Us project**, which was announced during the **V4SAFETY** presentation delivered by **Christoph Klein (VIF)**. Participation in the Safety Update Austria contributed to raising awareness of the project among relevant industry and research communities, strengthening collaboration opportunities and supporting future synergies within the European road safety ecosystem.

EARPA Autumn Meeting – Brussels, Belgium (30 September – 1 October 2024)

ProtAct-Us was presented at the EARPA Foresight Group on Connectivity, Automation, and Safety, hosted by VIF. The session introduced the project's mission and research approach to Europe's leading automotive R&D community. Presented alongside IMPROVA, the initiative stimulated discussions on future research directions and innovation in vehicle safety and injury mitigation, contributing to the shared European vision of safer and smarter mobility.

17th European Public Health Conference – Lisbon, Portugal (13–15 November 2024)

ProtAct-Us was represented at the 17th European Public Health Conference, broadening its outreach to the public health sector. The event provided a valuable platform to highlight the societal and health impacts of road traffic injuries and to foster dialogue between the engineering, medical, and policy communities.

Maria Papadakaki (HMU), President of the Injury Prevention and Safety Promotion Section of EUPHA, chaired the session *"Road Traffic Injuries, Disability Burden, and Implications for Compensation Schemes in Europe"*, featuring presentations by Werner Leitgeb (VIF), Heiko Johannsen (MHH), and Anna Morandi (UNIPV), who shared recent findings and insights from **ProtAct-Us**.

XIII Congresso Nazionale – "Dati e metodologie innovative: uno sguardo al futuro della Statistica medica" – Pavia, Italy (9–12 September 2025)

UNIPV represented **ProtAct-Us** during the 13th National Congress on Medical Statistics, held in Pavia under the theme *"Data and Innovative Methodologies: A Look into the Future of Medical Statistics."* The event gathered researchers and professionals from across Italy to discuss methodological advances and their applications in medical and public health research.

The UNIPV team presented the following two scientific presentations related to **ProtAct-Us**:

- *"Long-Term Mental Health Consequences of Road Traffic Crashes: A Scoping Review"* by Manuela Anelli
- *"**ProtAct-Us**: A Study on the Long-Term Impact of Road Traffic Crashes in Europe"* by Ottavia Eleonora Ferraro

Participation in this national scientific congress allowed the UNIPV team to share preliminary findings from **ProtAct-Us** with the Italian research community, promoting interdisciplinary discussion on road traffic injuries and their long-term health effects, and strengthening academic collaboration within the field of medical statistics and injury epidemiology.

IRCOBI Conference – Vilnius, Lithuania (10–12 September 2025)

The 2025 edition of the IRCOBI Conference brought together international experts in injury biomechanics and safety system design, offering an important venue for the dissemination of **ProtAct-Us** research results. Representatives from VIF and MHH participated actively, presenting key findings from the project.

Heiko Johannsen (MHH) presented the study *"Identification of accident scenarios with a special relevance for injuries and psychological impairments that result in long-term consequences"*. The presentation showcased interdisciplinary work across engineering, medical, and social domains, reflecting the project's commitment to understanding the complex causes of long-term post-crash outcomes.

EU Safety – Heraklion, Greece (1– 2 October 2025)

ProtAct-Us was proudly represented at EU-Safety 2025, where several partners presented ongoing research (Figure 5-5).

"Long-term Consequences Resulting from Road Traffic Crashes: A Literature Review" by our partner Manuela Anelli from Università di Pavia

"Accident characteristics that result in long-term consequences of road users" by our partner Heiko Johannsen from MHH

"Long-Term Impact of Road Traffic Crashes in Europe: A Study Protocol" by our partner Ottavia Eleonora Ferraro from Università di Pavia

"Assessment and mitigation of injuries with long-term consequences for occupants of buses" by our partner Christoph Klein from VIF

"Long-Term Head Injury Consequences and Protection for Cyclists and e-scooter Riders" by our partner Hadi Ghiabakloo from Lazer

Figure 5-5: ProtAct-Us at EU Safety 2025

Participation in EU-Safety 2025 provided an excellent opportunity to exchange knowledge with fellow researchers, practitioners, and stakeholders, fostering valuable collaborations and discussions. The event reinforced the importance of addressing not only immediate road traffic injuries but also their long-term consequences, ensuring safer mobility for all.

International Cycling Safety Conference (ICSC) – Oslo, Norway (4–6 November 2025)

UNIPV participated in the International Cycling Safety Conference (ICSC) 2025, a leading global forum dedicated to advancing knowledge on cycling safety, infrastructure, and injury prevention. Researchers from UNIPV Ottavia Eleonora Ferraro, Manuela Anelli, Anna Morandi, and Cristina Montomoli presented the study *"Long-Term Physical and Mental Consequences of Bicycle Road Crashes: A Literature Review."* The presentation highlighted key findings on the long-term health outcomes associated with crashes, contributing to a better understanding of both physical and psychological impacts. Participation in ICSC 2025 allowed the **ProtAct-Us** team to engage with international experts in cycling safety, promote interdisciplinary dialogue, and support the project's mission to improve injury prevention and post-crash care for vulnerable road users.

18th European Public Health Conference – Helsinki, Finland (12–14 November 2025)

HMU represented **ProtAct-Us** at the 18th European Public Health (EPH) Conference, held in Helsinki, Finland. The event brought together researchers, policymakers, and public health professionals from across Europe to discuss innovative approaches to health promotion, prevention, and care. The HMU team presented the study protocol "Mental Health Assessment in Emergency Departments after Road Traffic Injuries", highlighting **ProtAct-Us**' focus on understanding and addressing the psychological and social dimensions of post-crash recovery. Participation in this prestigious conference strengthened the project's visibility within the European public health community and fostered valuable exchanges on integrating mental health assessment into trauma care and road safety policy.

5.4 Publications

Dissemination of scientific results is a key activity within the **ProtAct-Us** project. The consortium actively promotes the publication of research findings in peer-reviewed scientific journals and the presentation of project outcomes at relevant conferences, ensuring visibility among both academic and industrial stakeholders. These publications contribute to the scientific community by advancing knowledge in the project's focus areas and fostering collaboration with experts in the field.

The following table summarizes the publications produced by the **ProtAct-Us** consortium to date:

Table 5-1: ProtAct-Us Publications

Authors	Title	Journal (or equivalent)	Identification number	Link
M. Jänsch, H. Johannsen, M. Papadakaki, O. E. Ferraro, J. Prinz, J. Becker, C. Klein, C. Deck, W. Leitgeb	Identification of accident scenarios with a special relevance for injuries and psychological impairments which result in long-term consequences	IRCOBI conference 2025	IRCOBI: IRC 25-64	link
M. Anelli, O. E. Ferraro, M.	Long-Term Mental Health	Epidemiology Biostatistics	DOI:	link

Celebrin, A. Morandi, C. Montomoli	Consequences of Road Traffic Crashes: A Scoping Review	and Public Health	10.54103/ 2282-0930/ 29176	
O. E. Ferraro, A. Morandi, M. Anelli, F. Grassi, V. Ciprian, L. Ansaloni, S. Frassini, S. Perlini, C. Montomoli	**ProtAct-Us**: A Study on the Long-Term Impact of Road Traffic Crashes in Europe	Epidemiology Biostatistics and Public Health	DOI: 10.54103/ 2282-0930/ 29210	link
S. Lioliou, V Backes, U. Habel, A. Morandi, C. Montomoli, M. Papadakaki, H. Johannsen, M. Tselekounis, W. Leitgeb	Mental health assessment in EDs after road traffic injuries: a study protocol	*European Journal of Public Health*	DOI: 10.1093/eurpub/ ckaf161.495	link
W. Leitgeb, M. Papadakaki, H. Johannsen, A. Morandi, The ProtAct-Us consortium	**ProtAct-Us** from serious injuries with long-term consequences	*European Journal of Public Health*	DOI: 10.1093/eurpub/ ckae144.784	link

5.5 Overview on Dissemination Activities implemented (M1-M18) and plan for the next project period (M19-M36)

Overview of activities implemented (M1-M18) and challenges identified:

From M1 to M18, **ProtAct-Us** implemented a wide range of dissemination activities (including newsletters, participation in key European events, scientific publications, and contributions to the EU Road Safety Cluster). These actions have strengthened the project's visibility, supported engagement with stakeholders and the scientific community, and ensured the dissemination of early project findings. Overall, the consortium has successfully established a strong outreach foundation to promote **ProtAct-Us** progress and its contribution to reducing long-term consequences of road traffic injuries across Europe.

Plan for the next project period (M19-M36):

Looking ahead, the **ProtAct-Us** consortium will maintain its strong presence in leading European events on road safety, mobility innovation, and public health. Planned participations include the RTR Conference in Brussels, Belgium (10–12 February 2026), a major platform for Horizon Europe transport projects to present research progress and policy-relevant outcomes; the Road Safety and Simulation (RSS) Conference in Naples, Italy (23–24 June 2026), focusing on simulation and data-driven approaches to safer mobility; and the IRCOBI Conference in Munich, Germany (9–11 September 2026), a key global forum for injury biomechanics and safety system design. These events will offer valuable opportunities to disseminate **ProtAct-Us** findings, exchange knowledge with experts and stakeholders, and strengthen cross-project

collaboration towards improving road safety and reducing the long-term consequences of traffic crashes across Europe.

In addition, **ProtAct-Us** will organise three thematic working groups/webinars and a Final Conference. These events will serve as key platforms to present and discuss the project's main achievements, innovative concepts, and methodologies with stakeholders, researchers, and policymakers. Additionally, **ProtAct-Us** will participate in knowledge sharing and networking activities through the EU Road Safety Cluster. These activities aim to facilitate the adoption and exploitation of **ProtAct-Us** Foreground Knowledge, encourage cross-sector collaboration, and reinforce the European Union's strategic position in road safety. Through these initiatives, **ProtAct-Us** will ensure the long-term impact and sustainability of its results beyond the project's duration, supporting the shape of a stronger mindset and priority on road safety through beneficial new regulations and evidence-based policies.

6. Communication and Dissemination KPIs

This Chapter presents the project's Communication and Dissemination KPIs, including both the target values established and the progress achieved by M18. The results demonstrate significant advancements toward the planned objectives. The comparison between target and actual values provides a clear overview of the project's performance and highlights areas where continued efforts will further strengthen outcomes in the next phases.

Table 6-1: ProtAct-Us KPIs

Specific C&D measures	Metric	C&D KPI	
		Target	M18
Project Website	Yearly visits	1000	538 (6 months)
Social Media channels	Social media followers	500	178
Newsletter	Total number of issues	6	2
Promotional Video	Min. number of videos to present the project and its final results	2	1
	Number of viewers	5000	193
Publications	Min. total number at consortium level	10	5
Conferences/Events	Min. total number of international events attended	10	10
Synergies with parallel projects/initiatives	(Co-)Organisation of thematic working groups/webinars with other running parallel projects and initiatives	3	0

7. Exploitation

According to the European Commission glossary, Exploitation is defined as "*The utilisation of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities*."

The exploitation aims at using Research and Innovation Actions to create a concrete impact for the society, with the expectation that the exploitable results will be used beyond the lifetime of the project.

Task 5.1 is addressed to write the PEDR. Thus, the deliverable related to this task is intended as a report of all the activities performed through the journey of exploitation: starting from the identification and characterization of the project results, going through the formulation of an exploitation strategy and the management of the IPR, to finally end with the identification of the market opportunities and the active stakeholder involvement.

The Horizon Europe programme defines project outcomes as "Any tangible or intangible output of the action, such as data, knowledge and information whatever their form or nature, whether or not they can be protected, which are generated in the action as well as any attached rights, including intellectual property rights."

To be successful in writing the exploitation plan it is essential to start with the identification and characterization of the **exploitable results**. Indeed, not all of what has been achieved throughout the course of the project is likely to have an exploitation route. Exploitable results are only those having a potential scientific, economic, and social significance. During the project these outcomes provide a mechanism to capture and quantify impact, while, by the end of the project, a way to achieve impact beyond project's completion.

The PEDR is an evolving report that will be periodically updated according to the emerging results of the project, the changes in the stakeholders or work context and their potential use during the project lifetime. Exploitable results do not necessarily correspond to a product or a service. There are six categories from which exploitable results may belong to:

- Equipment – the machinery or tools needed to carry out a job; a set of physical tools, devices, kit assembled for a specific purpose.
- Processes – A systematic series of mechanized or chemical operations that are performed to produce something.
- Products – something that is made to be sold, usually something that is produced by an industrial process (as a custom but may be personalized upon request).
- Services – offering the above products, processes, equipment, or knowledge as a help to perform a work.
- Knowledge & IP – understanding of or information about a subject that you get by experience or study, either known by one person or by people generally
- Other forms of knowledge – Platform, publications, patent.

ProtAct-Us exploitation strategy aims to ensure the delivery and uptake of the results with innovation potential in future projects or research, as publications or contributing to long term availability and new business opportunities.

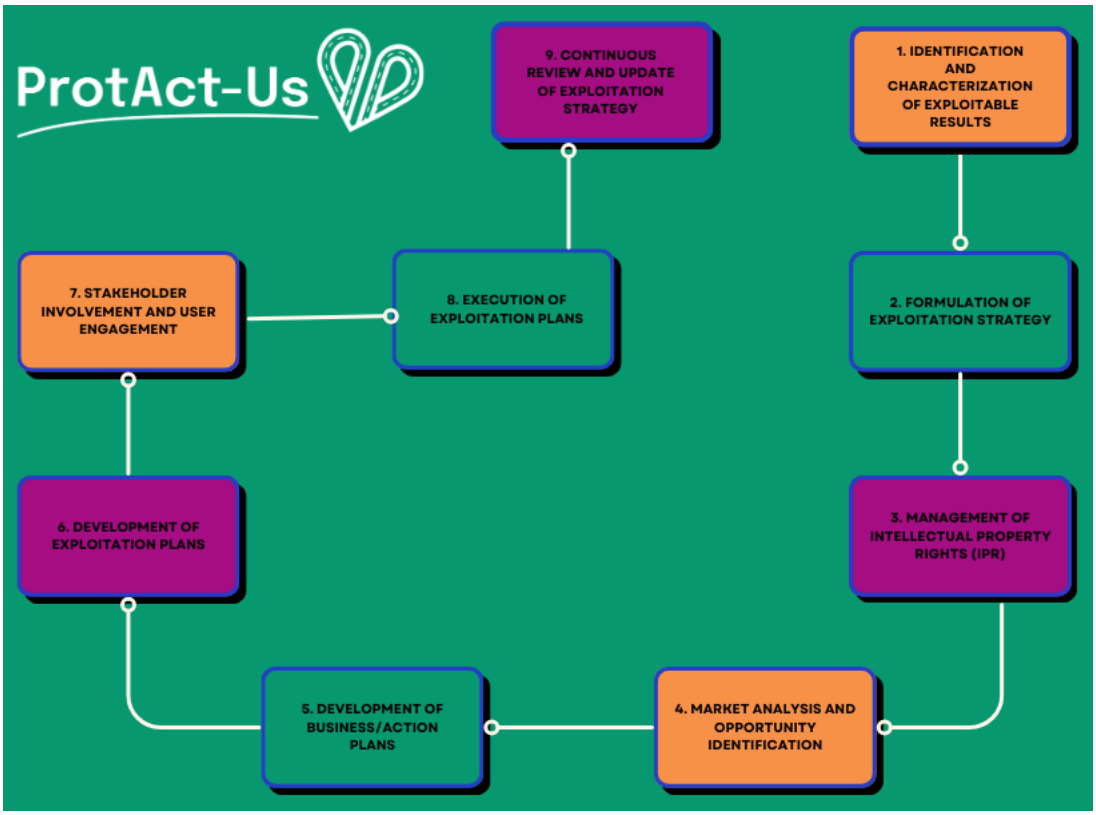


Figure 7-1: Stages of the ProtAct-Us Exploitation strategy

The **ProtAct-Us** exploitation strategy will be based on the phases described above. In Stage 1, all results with potential for will be identified and evaluated, confirming, or discarding their business opportunity. In Stage 2, business/action plans for the selected results will be designed. Stage 3 will develop exploitation plans defining specific actions to execute the plans. After the project's end, these actions will be executed and/or the exploitation plans revised depending on sector evolution, partner's situation, market context, and other factors. The **ProtAct-Us** Key Exploitable Results (KERs) have been identified, and the related Exploitation plans are shown below.

The project results have a high business and innovation potential for the **ProtAct-Us** consortium and will be exploited through the exploitation strategy above-mentioned. Also, these results will serve as inputs for the first step – Identification – of the Exploitation strategy explained. In overall, **ProtAct-Us** aims to achieve:

- a structured data model that enables the interlinking of datasets to support improved analytics. It creates a comprehensive framework for analysing and cross-referencing road safety and health-related data, enhancing decision-making processes and policy formulation (KER#1).
- the development of a novel data assessment method focuses on road accident-related injuries with long-term consequences. This tool improves the ability to predict and mitigate these outcomes, directly influencing better medical responses and long-term policy planning (KER#2).

- indicators addressing the physical, cognitive, and mental health issues stemming from accidents. These indicators are essential for tailoring health interventions and informing evidence-based policies for post-accident care (KER#3).
- a cost-benefit and socio-economic assessment method has been developed to evaluate the impact of safety interventions. This tool provides robust, data-driven justifications for implementing targeted road safety measures to optimize resource allocation and societal benefits (KER#4).
- advanced engineering tools and upgraded test devices to assess injuries in multiple body regions, such as the head, neck, and extremities. These innovations significantly enhance testing accuracy, contributing to safer vehicle designs and improved regulatory standards (KER#5).
- evaluating the safety-critical movements of bus and shuttle passengers during crash scenarios. It addresses the unique challenges of public transportation safety, ensuring better protection for both seated and standing passengers (KER#6).
- targeted countermeasures designed to protect specific road user groups, such as pedestrians and cyclists. These solutions aim to reduce safety disparities among road users and improve overall risk management (KER#7).
- in-depth insights into pedestrian behaviour under diverse crash scenarios, including primary and secondary impacts with infrastructure. These findings are instrumental in shaping infrastructure and vehicle designs that prioritize pedestrian safety (KER#8).
- upgraded safety helmet designs for cyclists, motorcyclists, and new mobility users have been developed. These helmets incorporate enhanced protective features to reduce head injuries and improve user safety in various mobility contexts (KER#9).
- innovative solutions for addressing safety risks associated with reclined or rear-seat occupant positions. The measures enhance protection for occupants, particularly in far-side crash conditions, improving vehicle safety standards (KER#10).
- establishes safety principles for sitting and standing passengers in buses and shuttles. These principles aim to strengthen the resilience of public transport systems and provide better protection during crash events (KER#11).
- physical and virtual test procedures to assess the risk of long-term injuries for both pedestrians and vehicle occupants. These procedures support preventative measures and medical strategies aimed at reducing injury severity (KER#12).
- strategies for immediate and effective medical responses after a crash. By optimizing care pathways, these actions aim to minimize long-term consequences and improve recovery outcomes for accident victims (KER#13).
- a novel safety helmet concept with integrated e-call systems has been introduced. This innovation enables automatic emergency alerts in the event of an accident, speeding up response times and improving survival rates (KER#14).
- socio-economic costs associated with post-accident medical treatments. By proposing scalable solutions, it aims to reduce treatment costs while ensuring high-quality care for accident victims (KER#15).

The Table below presents the exploitation interests from each partner in **ProtAct-Us**, defining their respective category and exploitation route.

Table 7-1: ProtAct-Us Key Exploitable Results

Value Chain	Key Exploitable Results	Category	Exploitation Routes
R&D	KER#1: Structured and interlinked data	Knowledge & IP	Data assessment Method implementation
	KER#2: Data assessment method on road accident-related serious injuries with long term consequences	Process	
	KER#3: Medical and epidemiological indicators for physical, cognitive, and mental health issues	Knowledge & IP	Application and standardisation
	KER#4: Cost benefit and socio-economic assessment method	Process	
	KER#5: Engineering assessment tool and methods upgraded HBMs and ATD based test devices) for head neck, face, upper and lower extremities injury assessment	Knowledge & IP	Implementation and development into TRL9-10 applicability
	KER#6: Safety critical occupant kinematics assessment capability for buses and shuttles	Knowledge & IP	
	KER#7: Countermeasures for specific road user groups	Products	Further development and demonstration, product development
	KER#8: In-depth knowledge of pedestrian performance under a wide range of crash conditions including primary and secondary impacts with infrastructure	Knowledge & IP	
	KER#9: Safety helmet upgrade for bicycle, motorcycle riders and passengers and new mobility users	Equipment	
	KER#10: Countermeasures for vehicle occupants in reclined sitting postures, rear seat protection for smaller occupants especially in near and far side conditions	Knowledge & IP	
	KER#11: protection principles for sitting and standing passengers bus and shuttle occupants	Knowledge & IP	
Regulatory	KER#12: Physical and virtual test procedures for assessment of injuries with long term consequences for pedestrians and occupants	Knowledge & IP	Evaluation, dissemination, and implementation
Society	KER#13: Post crash treatment actions	Service	Evaluation and implementation
	KER#14: Safety helmet concept with e-call system enabling early medical treatment strategy selection	Product	
	KER#15: Concept for Reduction of socioeconomic costs in medical treatment	Service	

Exploitation activities of these results will include a detailed market analysis addressing the socio-economic impact of the developed technologies and an evaluation of market acceptance and penetration potential. These activities will be captured in the roadmap for exploitation, ensuring alignment with the KERs and their anticipated impact. To strengthen end-user involvement, an Exploitation Users Group Meeting will be organized, enabling interaction with

stakeholders to gather requirements, feedback on technological advancements, and insights into unmet market needs. This collaborative approach ensures that the exploitation strategy is robust, user-informed, and market-ready.

As the project progresses, several key areas would benefit from being revisited, refined, or updated based on the current progress, any new developments, and evolving market conditions. For the second half of project implementation, and thinking ahead, progress on Key Exploitable Results (KERs) should be assessed, and exploitation strategies should be updated. It is also relevant to document stakeholder engagement and user involvement, as well as to revisit commercialization plans and business models for each proposed KER. For the upcoming months, the consortium should discuss updated insights on the socio-economic impact of the project outcomes, while ensuring that the exploitation strategy is in line with relevant regulations and policies. From an exploitation standpoint, a key focus for this second half of the project should be to address how the results will continue to have an impact beyond the project's completion.

7.1 Progress on Key Exploitable Results (KERs)

To assess the progress on Key Exploitable Results (KERs) effectively, a combination of project management, research tracking, and performance evaluation tools can be utilized. These tools enable the evaluation of the development stages, Technology Readiness Levels (TRLs), and milestones for each KER, while also capturing the associated intellectual property (IP) status and market readiness. To do this, a TRL Tracker, supported by a Project Management-adjuvant platform, could be particularly useful. A TRL tracker is a tool specifically designed to assess the progress of technology-based outcomes (KERs) against the TRL scale. This would allow the consortium to document and visualize where each KER stands in terms of development, from concept to market-ready solution. The tracker can be used to evaluate the current stage of each KER, identifying what has been completed, what is pending, and what steps are required to move to the next level. It can include milestones, deadlines, and dependencies for each KER. Below is a draft of an Excel-based TRL Tracker that could be streamlined to assist in assessing the progress on KERs.

Table 7-2: Technology Readiness Level (TRL) Tracker tool

KER ID	**KER name**	**TRL status**	**Current TRL description**	**Progress description**	**Next steps**	**Responsible Partner(s)**	**Date of last update**	**Notes**
KER #1	Structured and interlinked data							
KER #2	Data assessment method on road accident-related serious injuries with long term consequences							
KER #3	Medical and epidemiological indicators for physical, cognitive, and mental health issues							
KER #4	Cost benefit and socio-economic assessment method							
KER #5	Engineering assessment tool and methods upgraded HBMs and ATD based test devices) for head neck, face, upper and lower extremities injury assessment							
KER #6	Safety critical occupant kinematics assessment capability for buses and shuttles							
KER #7	Countermeasures for specific road user groups							
KER #8	In-depth knowledge of pedestrian performance under a wide range of crash conditions including primary and secondary impacts with infrastructure							
KER #9	Safety helmet upgrade for bicycle, motorcycle riders and passengers and new mobility users							
KER #10	Countermeasures for vehicle occupants in reclined sitting postures, rear seat protection for smaller occupants especially in near and far side conditions							
KER #11	Protection principles for sitting and standing passengers bus and shuttle occupants							
KER #12	Physical and virtual test procedures for assessment of injuries with long term consequences for pedestrians and occupants							
KER #13	Post crash treatment actions							
KER #14	Safety helmet concept with e-call system enabling early medical treatment strategy selection							
KER #15	Concept for Reduction of socioeconomic costs in medical treatment							

7.2 Partner inquiry on Exploitation Routes and Intellectual Property Rights (IPR) Management

To ensure the successful and sustainable exploitation of the results generated by the **ProtAct-Us** project, it is essential to identify and establish clear exploitation routes for each KER. In parallel, effective IPR management plays a crucial role in protecting the innovation and maximizing its potential value. For this goal, we will gather detailed input from project partners regarding their interests and strategies for exploiting the project's results. This inquiry focuses on two key areas: **Exploitation routes** and **IPR management**.

1. **Exploitation routes**: Each partner will be asked to clarify the specific routes they intend to pursue for each KER. These routes may include, but are not limited to, commercialization, licensing, further research, partnerships, or regulatory standardization. By identifying these routes early on, we can align project efforts, avoid duplication, and foster synergies that increase the impact and market uptake of the project's outcomes;

2. **IPR management**: Effective management of IPR is integral to the protection and successful exploitation of project outcomes. Partners will be invited to share their approach to IPR protection, including any patents, trademarks, or other forms of IP they have developed or intend to pursue. In addition, the query seeks to understand partners' plans for licensing, transfer of rights, and any joint ownership agreements. Clear communication around IPR will ensure transparency and facilitate collaboration as we work towards realizing the project's full potential.

This inquiry will inform the development of a comprehensive exploitation strategy, allowing for a tailored approach that reflects each partner's, as well as the consortium's strengths, interests, and strategic goals. The collected responses will also help to refine the exploitation plan, providing a roadmap for achieving long-term impact and ensuring the continued value of the project's results beyond its lifetime.

Annex I is the draft of a form that could be developed to support gathering this information from consortium partners.

The data gathered through this form will support the development of Deliverables D5.3 and D5.5. In addition, an **IPR Management Plan** outlining the key elements related to the management of intellectual property rights (IPR), exploitation routes, and collaboration between project partners, could also be developed. The **ProtAct-Us** IPR Management Plan could outline the framework for managing, protecting, and exploiting the intellectual property (IP) generated during the course of the project. The goal of this plan is to ensure that the innovations resulting from **ProtAct-Us** are effectively safeguarded, shared appropriately, and leveraged to maximize societal, economic, and scientific impact both during and after the project's completion.

This plan could be structured to address several key areas:

1. **Ownership and protection of IPR**: The plan defines clear ownership of existing and newly developed IP, ensuring that all partners retain ownership of their pre-existing IPR and that new innovations are protected through appropriate legal mechanisms (patents, copyrights, trademarks, etc.). Joint ownership will be handled transparently

and equitably, with clear agreements on how jointly developed IP will be protected and exploited;

2. **Access rights and exploitation**: During the project, partners will grant each other free access to any existing or new IPR necessary for project activities. After the project ends, access rights will be granted to all partners for a period defined by the project, facilitating further development and use of the results. The exploitation strategy will include commercialization, licensing, further R&D, and standardization efforts, depending on the nature of each Key Exploitable Result (KER);
3. **Exploitation routes**: A comprehensive set of exploitation routes will be identified for each KER, including potential commercialization opportunities, licensing strategies, and further research. The exploitation plan will outline the Technology Readiness Levels (TRLs) and Social Readiness Levels (SRLs) for each KER, helping partners prioritize their actions and align them with market and societal needs;
4. **Confidentiality and security**: Strict confidentiality measures, including Non-Disclosure Agreements (NDAs), will be in place to protect sensitive project data and IP. These measures will ensure that any information critical to the project's success is handled securely and that no premature disclosures occur;
5. **Third-party IPR management**: In cases where third-party IPR is involved, appropriate agreements will be established to ensure access and use in line with project objectives, ensuring that no external IPR constraints hinder project progress;
6. **Dispute resolution**: A clear process for dispute resolution will be in place to address any conflicts related to IP ownership, protection, or exploitation. This process will involve negotiation, mediation, or arbitration, as outlined in the Consortium Agreement.

By implementing this structured approach, the **ProtAct-Us** project will ensure that all project results are effectively protected, shared, and exploited in a way that maximizes their long-term impact, ensuring sustainable benefits for all partners and society at large.

7.3 Overview on Exploitation Activities implemented (M1-M18) and plan for the next project period (M19-M36)

Overview of activities implemented (M1-M18) and challenges identified:

In the first project period, as the technical activities in **ProtAct-Us** were progressing, a clearer vision of the results that will be achieved in the second (and final) project period. Regarding the exploitation strategy for **ProtAct-Us**, the assessment tool to evaluate the exploitation roadmap and IPR interests was designed. This tool, provided in the annex, will be an important process to conduct and analyse with partners both (i) individually to determine partners' interests to exploit the results, and (ii) in group to assess potential joint collaboration on future exploitation of results, as well, investigate potential IPR issues.

Plan for the next project period (M19-M36):

For the second half of the **ProtAct-Us** project, the exploitation activities will focus on maximising the impact of the project's results beyond its duration through a comprehensive strategy encompassing IPR management, knowledge sharing, and market engagement. During this final phase, the consortium will define its CDE commitments, ensuring the

sustainability and long-term uptake of results through strategic actions. The exploitation process will be structured as follows: Stage 1 will involve reassessing results with innovation potential; Stage 2 will develop business and action plans for selected results; and Stage 3 will implement specific exploitation actions. Throughout this phase, the exploitation activities will be continuously monitored using KPIs, with corrective measures taken where necessary. The exploitation roadmap will be outlined in Deliverable D5.4, which will include socioeconomic impact assessments, market acceptance evaluations, and the development of exploitation plans. Additionally, the IPR and Innovation Manager (INOVA) will oversee the protection of results, ensuring compliance with confidentiality measures and managing the commercialisation of results through legal support, such as patents and licensing. A dedicated Exploitation Users Group Meeting will be organised to gather feedback from end-users and explore market needs. Collaboration with the Road Safety cluster will be essential for conducting this assessment, working with other projects to enhance the visibility of **ProtAct-Us** results and enhance their impact. This collaboration will focus on developing well-founded guidelines for future implementation into policy, regulatory, and standardisation frameworks, ensuring an inclusive safety improvement approach for both in-road and post-road crashes. This approach, aligned with the Responsible Research and Innovation (RRI) strategy, aims to ensure the long-term availability and successful exploitation of the project's outputs.

8. Conclusion

Work Package 5 (WP5) of the **ProtAct-Us** project is central to achieving its goals of enhancing road safety, reducing injury consequences, and shaping future policies. It involves developing a communication and dissemination strategy to ensure the project's results reach a wide audience, raise awareness, and promote the adoption of innovative safety measures. WP5 also includes a standardized injury assessment framework to improve data consistency across the EU and foster cooperation with stakeholders, contributing to policy and regulatory development.

This PEDR outlines a three-stage approach for communication, dissemination, and exploitation of the project's outcomes. The PEDR ensures that results are shared with key stakeholders, with communication tailored to specific target groups, including scientific, industrial, and policy audiences. This plan is a living document and will later integrate IPR protection and promote knowledge exchange through publications, events, and collaborations with relevant networks. The strategy emphasizes long-term impact, including post-project exploitation activities such as industrial upscaling, market strategies, and continued IPR management. The continuous update of this document will reflect emerging results, market opportunities, and stakeholder engagement, ensuring the project's legacy in road safety and injury prevention.

A key addition to the PEDR is the progress on Key Exploitable Results (KERs), which provides a structured approach for evaluating the development stages of KERs. By utilizing a Technology Readiness Level (TRL) Tracker, supported by project management tools, we can track the progress of each KER from concept to market-ready solution. The tracker allows the consortium to document milestones, assess current TRLs, and set clear next steps for each KER, ensuring that progress is measured effectively. This process enables timely adjustments and strategic alignment with the project's exploitation goals.

Additionally, the Partner Inquiry on Exploitation Routes and IPR Management plays a pivotal role in shaping the future exploitation strategy. This inquiry collects input from all project partners regarding their interests in commercialization, licensing, and further research. It also explores partners' approaches to Intellectual Property Rights (IPR) protection and management, ensuring transparency and collaboration throughout the project. The responses gathered will inform the development of a comprehensive exploitation strategy, allowing us to define clear exploitation routes and IPR management plans, including ownership, access rights, and confidentiality measures. In line with this, the IPR Management Plan will be developed to protect and maximize the value of the project's innovations. This plan will define the ownership and protection of IPR, detail the routes for exploitation, and ensure that proper confidentiality and security measures are in place. It will also address third-party IPR management and dispute resolution mechanisms, ensuring that all partners can effectively collaborate and protect their contributions.

By combining the detailed tracking of KER progress with a comprehensive strategy for exploitation and IPR management, the **ProtAct-Us** project is well-positioned to achieve its long-term impact and leave a lasting legacy in road safety and injury prevention. The continuous updating of this PEDR will reflect the evolving nature of the project, ensuring that emerging opportunities and results are effectively incorporated into the overall exploitation strategy.

9. Abbreviations

Term	Definition
C&D	Communication and Dissemination
KER	Key Exploitable Result
KPI	Key Performance Indicators
ProtAct-Us	**ProtAct-Us** from long-term consequences of road crashes
PU	Public
R	Report
WP	Work Package

Annex I - Exploitation Routes & IPR Management Form

Exploitation Routes & IPR Management Form

Partner Information:

- **Partner name/acronym**:
- **Contact person**:
- **Email**:

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1. Baseline IPR questions:

1. **Are you bringing any existing IPR to this project?**

   ☐ Yes ☐ No

   If **Yes**, please provide details about the IPR (e.g., patents, trademarks, designs, trade secrets, software):

---

2. **Are you able to provide free access rights to all project partners during the project?**

   ☐ Yes ☐ No

   If **No**, please explain any limitations or conditions:

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3. **What about future rights of use after the project is completed?**

   ☐ Yes ☐ No

   If **Yes**, please specify the rights you foresee for the use of IPR after the project:

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4. **Are there any requirements from your side regarding the management of this IPR? If so, what are these requirements?**

   ☐ Yes ☐ No

   If **Yes**, please explain:

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2. Questions related to ProtAct-Us:

5. **Do you foresee developing or being involved in the development of new IP within the scope of ProtAct-Us?**

   ☐ Yes ☐ No

   If **Yes**, please describe the potential new IP:

---

6. **If you develop new IP, how would you be interested in protecting this IPR (e.g., patenting, copyrights, trademarks, etc.)?**

   ☐ Patent ☐ Copyright ☐ Trademark ☐ Trade Secret ☐ Other (please specify):

---

7. **In case of mutual development of IP with other ProtAct-Us partners, what would be your requirements regarding the protection of the developed IP?**

   ☐ Clear ownership allocation ☐ Joint ownership ☐ Licensing agreements ☐ Other (please specify):

---

8. **In case of joint ownership, how do you expect the IPR to be treated? Do you have any specific requirements?**

   ☐ Yes ☐ No

   If **Yes**, please specify:

---

9. **If the IPR developed by you during ProtAct-Us is linked to existing IPR that you have (prior to the project), what are your IPR management plans/requirements?**

   ☐ Yes ☐ No

   If **Yes**, please provide details:

---

10. **Is there any third party (external to the project) involved in any of your IP that is relevant to ProtAct-Us?**

    ☐ Yes ☐ No

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If **Yes**, please provide details and describe how you foresee managing the IPR under these circumstances:

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3. Exploitation of project results and IPR:

11. **Once the project produces results eligible for IP protection, how do you plan to exploit these results?**
(Check all that apply):

☐ Commercialization (product development, sales)

☐ Licensing to third parties

☐ Further research and development

☐ Standardization and regulatory adoption

☐ Others (please specify):

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12. **In case you are the sole owner or joint owner of the IPR developed in the project, will you enable free access rights to the partners once the project is concluded?**

☐ Yes ☐ No

If **Yes**, for how long will free access be provided (e.g., 1 year, 5 years, indefinite)?

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13. **Are there any technology licensing considerations which are relevant to this project (e.g., exclusivity, territorial restrictions, royalty structures)?**

☐ Yes ☐ No

If **Yes**, please explain:

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14. **Which confidentiality measures have been, or will be, put in place to protect IPR within the project (e.g., Non-Disclosure Agreements, confidentiality clauses, etc.)?**

☐ NDAs (Non-Disclosure Agreements) ☐ Confidentiality clauses in contracts ☐ Other measures (please specify):

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4. Updates to the list of Key Exploitable Results (KERs):

15. **Updates to the current list of KERs:**

Are there any **new KERs** that should be added to the list?
☐ Yes ☐ No
If **Yes**, please describe the new KER(s):

Should any **obsolete KERs** be removed from the list?
☐ Yes ☐ No
If **Yes**, please specify which KER(s) and the reason for their removal:

Are there any **reformulated KERs** that need to be updated or modified?
☐ Yes ☐ No
If **Yes**, please describe the changes to the KER(s):

16. **Description of each new or consolidated KER**:
For each new or redefined KER, please provide a brief description, including its technical, social, and economic significance:

17. **Plans for exploitation**:
For each new/consolidated KER, please describe the planned exploitation routes, including:

- **Target Groups** (e.g., industry sectors, end users, research community):

- **Technology Readiness Level (TRL)** (e.g., current TRL, foreseen TRL at project completion):

- **Social Readiness Level (SRL)** (e.g., anticipated societal readiness for adoption):

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5. Additional comments:

Please provide any additional comments, clarifications, or information that you think is relevant to the exploitation and IPR management of the project results:

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