DARE

DIGITAL LIFELONG PREVENTION

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Spoke 1 Deliverable

S1.D7.4
Business-oriented services

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S1.D7.4 Business Oriented Services

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Publishable summary

This deliverable reports the activities carried out in Task 7.4 of the DARE initiative, which focuses on the contribution of Spoke 1 to the project's overall exploitation strategy. Unlike Spoke 2 and Spoke 3, which develop domain-specific pilots and user-facing digital prevention solutions, Spoke 1 produces enabling technologies, infrastructural components, and methodological frameworks that support the design logic, requirements definition, and long-term feasibility of downstream innovations, without implying direct operational use within the pilots during the project timeframe.

The work performed in Task 7.4 concentrates on documenting how these cross-cutting components—such as interoperability frameworks, AI and HPC infrastructures, data governance models, regulatory compliance tools, evidence-generation methods, and digital data-collection platforms— provide functional reference architectures and methodological guidance that inform how pilots could ensure data quality, interoperability and regulatory alignment in future deployments, while not being directly integrated into all ongoing pilot activities.

These assets are essential for ensuring data quality, interoperability, regulatory alignment, computational capability, and methodological consistency across the DARE ecosystem.

WP7 applies a unified methodology for awareness, capacity building, and evaluation of exploitation pathways. In this context, Spoke 1 contributes indirectly by supplying the enabling elements that allow Spoke 2 and Spoke 3 teams to progress through entrepreneurial training, feasibility assessment, and acceleration programmes when applicable. The absence of direct startup-oriented outputs in Spoke 1 reflects the infrastructural nature of its work, which is better aligned with exploitation routes such as institutional adoption, licensing, service provision, and standardisation.

The deliverable outlines how Spoke 1 supports the DARE translation framework by creating the technical, regulatory, and methodological conditions necessary for the sustainable exploitation of digital prevention innovations. This contribution strengthens the long-term scalability and sustainability of the project and ensures that the solutions emerging from Spoke 2 and Spoke 3 can be deployed, assessed, and adopted within real-world health and community settings.

1. Executive Summary

This deliverable presents the activities conducted under Task 7.4 within the DARE initiative and describes the contribution of Spoke 1 to the project's exploitation and sustainability framework. Spoke 1 plays a foundational role in DARE by developing enabling technologies, infrastructural components, and methodological frameworks that provide the technical backbone for digital prevention solutions across the consortium. Unlike Spoke 2 and Spoke 3, which produce domain-specific pilots and application-level innovations, Spoke 1 does not generate user-facing outputs or teams suitable for direct startup-oriented exploitation. Instead, its contribution is expressed through system-level assets that allow downstream innovations to reach technical maturity, ensure regulatory compliance, and operate within interoperable and scalable environments.

The unified WP7 methodology adopted by DARE—covering awareness, training, mentoring, and acceleration—serves as the common structure for exploitation across all Spokes. Within this framework, Task 7.4 focuses on how Spoke 1 assets support the exploitation processes of Spoke 2 and Spoke 3 rather than generating entrepreneurial pathways of their own. Activities therefore centre on documenting the enabling role of Spoke 1, clarifying its contribution to the DARE Translation Framework (SF#4), and describing how its cross-cutting outputs underpin the feasibility and sustainability of downstream digital prevention pilots.

Several key frameworks and infrastructures exemplify this enabling role. The Salus Ratio (SF#2) interoperability framework ensures standardised data exchange across heterogeneous clinical, behavioural, and sensor data sources. The INFN cloud and AI/HPC infrastructure provides the computational capacity needed for advanced analytics, predictive models, and imaging workflows. The Mobility Monitor (SF#1) delivers preprocessing and harmonisation pipelines for wearable sensor data. The MLOps lifecycle framework (SF#3) from UNIBA provides structured management of AI models, ensuring traceability, quality, and alignment with regulatory expectations. Complementing these, the Data & AI Regulatory Governance Framework supports GDPR, MDR, and AI Act compliance, while the evidence-generation framework developed by UCSC and GIMBE enables rigorous assessment of digital interventions. The DARE App serves as the operational front-end for capturing user-generated data. Finally, the BI-REX Translation Framework (SF#4) provides methodological, regulatory, and entrepreneurial support, together with access to rapid prototyping facilities and digital infrastructures, accelerating the translation and validation of applied innovations.

These components are developed, tested and refined through the Twin Pilot approach, in which clinical pilots and technical developments are aligned at the level of requirements, data specifications and methodological constraints. This approach does not imply full operational

integration of Spoke 1 frameworks within pilots, but ensures that the enabling components evolve consistently with the needs and constraints observed in real-world settings.

As a result, the exploitation pathway of Spoke 1 assets is primarily institutional, infrastructural, or standardisation-oriented. They cannot be approached through startup logic and instead become an asset and a tool for sustainability for the DARE Foundation itself. Their value lies in enabling downstream innovations, reducing technical and regulatory barriers, and providing the shared infrastructures and governance conditions needed for operational adoption.

During Phases 1 and 2 of the entrepreneurship development programme in task T7.4, the consortium-wide activities—awareness sessions, roadshows, the ReActorPro training programme, and mentoring—helped prepare teams for structured exploitation assessment. While these phases did not generate Spoke 1–specific entrepreneurial teams, they clarified the methodological interfaces between enabling technologies and downstream pilots. Phase 3, planned for early 2026 and centred on the G-Force acceleration programme, will focus on teams from Spoke 2 and Spoke 3 whose innovations are supported by Spoke 1 components. The outcomes of this phase will inform the final exploitation decisions across the consortium.

The deliverable concludes that Spoke 1's contribution to DARE lies in its indirect but essential enabling role, which is critical for the technical feasibility, regulatory soundness, interoperability, and sustainability of digital prevention innovations. Task 7.4 therefore does not identify Spoke-1-specific startups or product candidates, but documents how Spoke 1 frameworks integrate into the unified exploitation model, ensuring that the downstream solutions in Spokes 2 and 3 can evolve toward viable and scalable exploitation pathways.

2. Introduction and Project Context

Spoke 1 occupies a central position within the DARE consortium as the technical, methodological, and governance backbone for the initiative's digital prevention strategy. Its mandate covers enabling technologies, interoperability frameworks, data governance structures, and regulatory alignment mechanisms that support pilots and research activities conducted in Spoke 2 (primary prevention) and Spoke 3 (secondary and tertiary prevention). These elements are organised within the solution framework defined in earlier work, which includes four components: SF#1 Quantification, SF#2 Data Management, SF#3 Risk Prediction, and SF#4 Translation Framework[1].

WP7 focuses on valorisation, intellectual property management, technology transfer, and entrepreneurship. These objectives fall under the operational domain of SF#4 – Translation Framework, which addresses the transition from validated technical outputs to adoption, sustainability, and exploitation models. While SF#1–SF#3 focus on data, measurement processes,

[1] See SP1 Deliverable D7.1 Sustainability Plan for SF definitions.

and modelling, SF#4 is concerned with how outputs are transferred into practice, integrated into workflows, or made available as services. Spoke 1's responsibilities in WP7 therefore constitute part of the translation layer, linking enabling technologies to concrete exploitation paths.

The alignment with SF#4 can be described step by step:

1. Technical and methodological consolidation – Spoke 1 develops shared architectures, interoperability mechanisms, and governance tools, ensuring technical consistency across pilots.
2. Readiness and applicability assessment – WP7 evaluates Spoke 1 assets in terms of TRL, compliance constraints, and operational feasibility, positioning them within the translation domain (SF#4 Translation).
3. Definition of exploitation routes – WP7 maps each asset to one or more exploitation models (service-based, licensing, internal adoption, standardisation, or startup) according to the Translation Framework.
4. Support to adoption and scaling – Incubation and acceleration actions assist selected assets in moving toward real-world integration or structured exploitation.

The adoption of a unified entrepreneurship and exploitation programme project-wide ensures consistency across the translation step. Although the prevention domains differ, each Spoke benefits from a common set of tools, methods, and evaluation processes aligned with SF#4. This design supports uniform criteria for readiness, IPR assessment, and exploitation feasibility, while allowing contextual specialisation in later phases.

The consortium assigned BI-REX a cross-spoke role in WP7. BI-REX contributes to WP7 activities within Spoke 1 and serves as WP7 leader for Spoke 2 and Spoke 3, enabling a harmonised application of the Translation Framework across all prevention domains. BI-REX also acts as advisor on acceleration routes based on experience in industrial technology adoption and early-stage validation. Additionally, BI-REX provides access to its Pilot Plant infrastructure, offering a one-stop technological environment for testing, integration, and validation of digital and manufacturing workflows that may be relevant to early-stage exploitation scenarios.

Through these contributions, Spoke 1 supports the consolidation of sustainable enabling technologies that represent long-term assets for the DARE Foundation, thus Spoke 1 is not expected to produce innovations in digital prevention but to provide enabling tools and technologies. These include interoperable components, governance frameworks, data processing pipelines, and compliance-oriented tools that can be exploited as institutional services, internal capabilities, licensed components, or inputs to standardisation processes. WP7 tasks described in this deliverable operate explicitly within SF#4 – Translation Framework, providing the structured processes that connect technical feasibility to operational exploitation and long-term sustainability.

3. WP7 Objectives and Purpose of the Deliverable

WP7 defines the set of activities required to ensure that the outcomes generated across the DARE consortium are assessed, protected, and prepared for exploitation in a form consistent with the sustainability direction of the initiative. Its general objectives include:

- protection and consolidation of intellectual property;
- identification and evaluation of exploitation models;
- assessment of technology transfer routes and conditions for industrial uptake;
- analysis of feasibility for potential startup or spin-off creation;
- alignment of project outputs with regulatory and operational requirements for real deployment.

Spoke 1 does not generate pilot-level innovations or standalone solutions suitable for direct entrepreneurial exploitation. Therefore, S1.D7.4 focuses on the application of WP7 methodology and on documenting how enabling components produced in Spoke 1 support exploitation routes in Spoke 2 and Spoke 3.

Within this structure, Task 7.4 focuses on how the enabling technologies, infrastructural components, and methodological frameworks developed in Spoke 1 contribute to the exploitation environment of the DARE initiative. Rather than generating standalone pilot outputs or startup-oriented solutions, Spoke 1 provides the foundational digital, computational, and governance capabilities that allow the innovations developed in Spoke 2 and Spoke 3 to reach maturity and follow viable exploitation pathways. The task therefore concentrates on documenting how these cross-cutting assets support translation, compliance, interoperability, and technical feasibility across the consortium, and on clarifying their role within the unified WP7 exploitation methodology, rather than applying a direct exploitation analysis to Spoke-1–specific products. Conversely, Task 7.3, implemented in Spoke 2 and Spoke 3, concerns the exploitation potential of solutions developed in domain-specific pilots of primary prevention (Spoke 2) and secondary/tertiary prevention (Spoke 3). These tasks evaluate how domain-facing outputs—applications, workflows, predictive models, and services—can be translated into sustainable exploitation routes, either through institutional adoption, technology transfer, or new ventures.

Despite these differences, WP7 adopts a unified methodological framework for all three tasks. The rationale is that exploitation activities (IPR assessment, TRL evaluation, regulatory checks, and pathway identification) rely on consistent criteria across Spokes. Moreover, Spoke 2 and Spoke 3 depend directly on the enabling components produced in Spoke 1; these include interoperability architectures, compliance frameworks, and data governance principles. A unified framework ensures that S2 and S3 do not operate in isolation but benefit from a shared set of technical foundations, avoiding fragmentation and ensuring coherence across the translation process (SF#4).

Within this structure, the goal of the present deliverable, S1.D7.4, is to document the implementation of WP7 activities specifically for Spoke 1. The purpose of this deliverable is to describe the WP7 methodology as applied in the context of Spoke 1 and to document the preparatory activities enabling potential exploitation, rather than to report startup candidates emerging directly from Spoke 1 assets.

Given this integrated approach, the deliverable includes common sections -namely the description of the entrepreneurship and exploitation methodology, the unified training and incubation framework, and the criteria used to evaluate assets. These sections appear, with appropriate contextual adaptations, also in Deliverables S2.D7.3 and S3.D7.3, ensuring consistency and comparability across the three Spokes.

The subsequent sections of this document describe:

- the general exploitation and entrepreneurship framework used across WP7 (Section 4);
- the awareness, training, and incubation activities implemented for Spoke 1 (Sections 5–7);
- consolidated results and KPIs (Section 8);
- Spoke 1–specific patterns and exploitation opportunities (Section 9);
- lessons learned and recommendations for future cycles (Section 10);
- and final considerations on the contribution of Spoke 1 to the sustainability mechanisms of the DARE Foundation (Section 11).

4. The DARE Entrepreneurship Pathway: General Structure

This section describes the framework adopted in WP7 to analyse and support the potential exploitation of project outputs across the consortium. The framework is shared across Spoke 1, Spoke 2 and Spoke 3, with adaptations reflecting the nature of the assets developed in each area. It provides a structured way to move from initial awareness, through training, to the identification of feasible exploitation pathways. The subsections below outline the overall structure, the limits of a startup-centric interpretation, alternative exploitation scenarios, and criteria for selecting an appropriate route.

4.1. Overall Framework

The WP7 entrepreneurship framework adopts a funnel-based structure derived from the training and incubation programmes developed with G-Factor. The starting point is the entrepreneurial

mindset training delivered through the ReactorPro programme, which introduces research teams to the fundamentals of value creation, IPR, regulatory constraints, and early exploitation logic.

Following this initial stage, the framework narrows toward more targeted activities that prepare teams for practical exploitation. The subsequent G-Force acceleration programme provides methodological and operational support for teams that intend to pursue a startup-based exploitation route. It introduces tools for refining problem definition, validating assumptions, and preparing for early company formation.

This funnel structure ensures that all teams begin from the same conceptual foundation, but only those whose outputs align with startup requirements progress toward acceleration. Other outputs follow alternative exploitation routes, addressed in Section 4.3. Detailed descriptions of Phase 1, Phase 2, and Phase 3 appear in later sections of the deliverable.

4.2. Limitations of a Startup-Centric Approach

Not all pilot activities or innovations produced within DARE are suitable for startup-oriented exploitation. Several categories of outputs do not map naturally onto company creation. Examples include enabling technologies, infrastructural components, methodological frameworks, data governance tools, and regulatory alignment mechanisms. These components typically require institutional integration rather than market positioning.

In addition, some project outputs address systemic or cross-institutional challenges, such as interoperability or population-level prevention workflows, which depend on regulatory adoption, public infrastructure, or regional coordination rather than commercial dynamics. Other assets may be technically immature (low TRL), embedded in clinical or organisational workflows, or dependent on pre-existing systems that limit standalone viability.

For these reasons, WP7 explicitly recognises that startup creation is only one among several possible exploitation routes. A broader set of scenarios is required to capture the realistic potential of DARE outputs.

4.3. Alternative Exploitation Pathways (Beyond Startup Creation)

Several exploitation pathways are relevant for assets that do not align with a startup-centric model. These include:

a. Institutional service models

Some outputs can be incorporated into long-term services delivered by the DARE Foundation or partner institutions. Examples include interoperability support, governance frameworks, and compliance-related services. These routes focus on operational continuity rather than market creation.

b. Licensing or technology transfer

When a component is technically mature and suited for integration into existing products or infrastructures, licensing or joint development with industrial actors becomes a feasible route. This option avoids the overhead of company formation.

c. Open frameworks with controlled governance

For methodological or infrastructural components, an open but governed framework may support broad adoption. This pathway is relevant when value derives from widespread use rather than commercial differentiation.

d. Internal adoption as an operational capability

Some outputs serve as internal tools that strengthen the technological base of the DARE Foundation or its partners. In these cases, exploitation corresponds to institutional integration rather than external dissemination.

e. Contribution to national or European standardisation

When an innovation addresses systemic issues such as interoperability, AI governance, data lifecycle methodology, its primary exploitation route may be inclusion in guidelines, standards, or policy frameworks rather than market mechanisms.

4.4. Pathway Selection Criteria

Selecting the most appropriate exploitation pathway for a given innovation requires a structured assessment aligned with recognised European Commission methodologies for Key Exploitable Results (KER). The decision process must ensure that each asset is mapped to a route consistent with its maturity, nature, regulatory conditions, and expected beneficiaries. The following criteria synthesise the KER logic with the specific characteristics of enabling technologies developed in Spoke 1.

1. Maturity assessment (TRL / IRL / CRL)

The starting point is the combined evaluation of Technical Readiness Level (TRL) and Integration Readiness Level (IRL), with Commercialisation Readiness Level (CRL) used when relevant.

- TRL < 5: the asset is not yet suited for external exploitation; internal use or open methodological frameworks are typically appropriate.
- TRL 5–7: the asset may support licensing, institutional integration, or standardisation efforts.
- TRL ≥ 8: fully validated outputs may be compatible with service deployment or, in selected cases, startup formation.

This maturity screening mirrors EC practice for identifying which results qualify as preliminary or validated KERs.

2. KER typology (nature and value logic of the result)

- Following the EC's KER categorisation, the nature of the result strongly influences the exploitation route:
- Methodological, governance, interoperability or infrastructural KERs → often align with institutional service models, standardisation pathways, or internal adoption.
- User-facing applications, analytical tools, or standalone software → can support licensing or, in certain cases, startup-based exploitation.
- Policy-oriented or training-related outputs → typically align with standardisation, educational dissemination, or institutional uptake.

Classifying the asset correctly ensures compatibility with established EU exploitation categories.

3. Regulatory and compliance readiness

For outputs interacting with regulated domains—data protection, medical devices, AI governance—the assessment must determine whether:

- regulatory compliance can be sustained by a small organisation or startup, or
- the asset requires the governance, oversight, and operational infrastructure of institutional adoption.

High regulatory complexity (e.g., MDR, GDPR-sensitive workflows, AI Act high-risk systems) generally directs the asset toward licensing, institutional service models, or integration into existing infrastructures.

4. Problem scale and stakeholder scope

The scale of the problem and the level of stakeholders required for adoption are central elements of KER logic.

- Local or niche-scale problems may justify startup-oriented exploitation.
- Regional, national, or cross-sectoral challenges typically require institutional models, public-sector integration, or standardisation.
- Cross-border or systemic issues (e.g. interoperability governance frameworks) are typically incompatible with startup formation and align instead with open frameworks or standard-setting routes.

5. Sustainability and maintenance requirements

KER classification requires assessing the effort needed for long-term maintenance, updates, monitoring and compliance:

- Assets requiring continuous regulatory alignment, security management, or updates are better suited for institutional exploitation or integration into long-standing infrastructures.
- Assets with stable functionality and limited maintenance needs can support licensing or venture-based scaling.

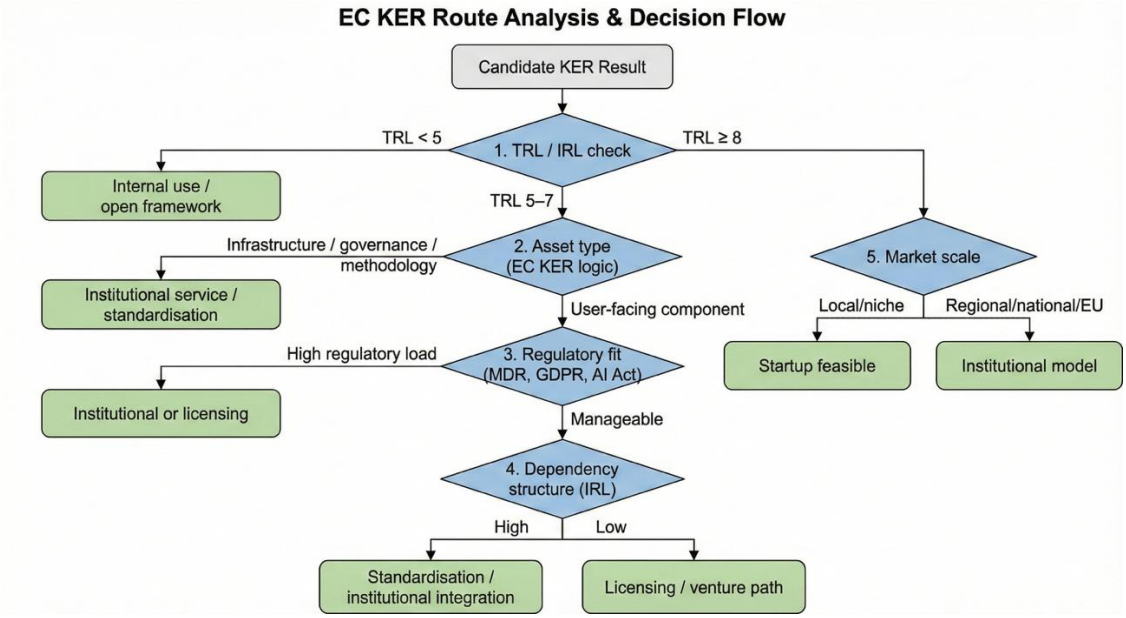
This ensures that the selected exploitation mode is feasible and sustainable beyond the project timeline.

6. Dependency structure and system coupling

Using IRL and dependency analysis, the decision process evaluates how tightly the asset is coupled with enabling technologies, legacy systems, or institutional infrastructures:

- High system dependency → startup routes are typically unsuitable; institutional adoption, integration, or standardisation are more consistent.
- Low dependency → the asset may be suitable for commercial exploitation, including licensing or startup formation.

This aligns with EC practice which requires each KER to identify its dependencies to ensure credible exploitation planning.



Some of the outputs produced in Spoke 1 are enabling or infrastructural in nature and do not naturally map onto a commercial product or a startup-driven business model. For these assets, the structured KER-based pathway selection process could be particularly valuable, as it helps identify the most appropriate exploitation trajectory—often institutional service models, licensing, or standardisation—instead of attempting to force a startup-based route that would not be technically or operationally viable.

5. Phase 1 — Entrepreneurial Mindset Activation and Internal Awareness

Phase 1 of T7.4 focused on establishing a baseline understanding of exploitation, technology transfer, and entrepreneurial pathways across the DARE consortium. This preparatory phase was necessary to ensure that research teams could evaluate realistic exploitation routes and understand the operational requirements associated with each option.

A first component of the phase was the co-design of the WP7 programme with G-Factor, integrating the entrepreneurial mindset programme (ReactorPro) and the subsequent acceleration phase (G-Force) into the DARE workflow. The co-design process aligned the training structure with the needs of digital health, data-intensive research, and enabling technologies. It defined the competence baseline expected from participants and delineated the topics relevant across Spokes, while allowing for differentiation in later stages.

In parallel, a structured internal communication effort was carried out throughout 2024. Information on WP7 objectives, participation requirements, and the structure of the entrepreneurship framework was disseminated via consortium mailing lists, targeted communications from WP and Spoke leadership, and direct interaction with the technical teams. The communication material included short technical notes, concise descriptions of the exploitation pathways, and clarification of the distinction between participation in WP7 and the eventual formation of a startup.

To complement internal communication, the consortium deployed external dissemination activities, including LinkedIn posts, press releases, short video explainers, and multimedia content produced in collaboration with institutional communication offices. These actions increased visibility of the whole DARE initiative and allowed teams across different partner institutions to access a consistent introduction to the exploitation framework.

A core element of Phase 1 was the organisation of DARE roadshow events hosted across several partner (Bologna, Roma, Bari and Palermo) sites in 2024. These sessions followed a structured agenda aimed at ensuring that all participants received a coherent introduction to WP7 while also establishing an interactive setting to evaluate interest and potential alignment with the programme. Each roadshow session included:

1. Presentation of DARE and WP7 — an overview of the project structure, the scope of WP7, and how exploitation is positioned within the Solution Framework (particularly SF#4–Translation).

2. Presentation of BI-REX and G-Factor — explanation of their roles within WP7, with BI-REX contributing technical and methodological support and G-Factor providing entrepreneurship training and acceleration expertise.

3. Presentation of the ReactorPro programme — detailed description of the expected commitment, training structure, technical content, and progression criteria for the mindset programme.

4. Participant pitches — each team presented a short, structured pitch outlining their research focus, the problem addressed, and the potential relevance for exploitation.

5. Inspirational pitches — one or two invited speakers presented short case studies describing their transition from academic research to startup creation. These interventions provided practical reference points and clarified the operational implications of entrepreneurial pathways.

The structure of these sessions had several functional impacts on meeting dynamics and the overall effectiveness of Phase 1. First, the joint presentation of DARE, WP7, BI-REX, and G-Factor established an integrated view of the ecosystem supporting exploitation. This avoided fragmented understanding across partners and ensured that technical teams recognised the complementarity of roles within the programme.

Second, the presentation of ReactorPro with explicit discussion of the required commitment provided an accurate representation of the workload and expectations, allowing participants to self-assess their capacity to engage in later phases. This mitigated the risk of superficial enrolment or misaligned expectations during the training stage.

Third, the inclusion of participant pitches introduced an immediate interactive element. These pitches served as an informal diagnostic tool for WP7, enabling preliminary identification of assets with potential relevance for exploitation or assets requiring alternative routes. The pitches also created peer visibility across research groups, reinforcing the notion that exploitation requires cross-disciplinary interaction rather than siloed work.

Finally, the inspirational pitch segment provided concrete examples of transition paths from research to entrepreneurship. This contributed to demystifying the startup process and clarified the distinction between scientific output and exploitable innovation. From an operational standpoint, these contributions helped reduce perceived barriers and allowed teams to contextualise their own work within realistic exploitation trajectories. In addition to in-person events, asynchronous materials (videos, interviews, and short explanatory modules) were distributed through institutional websites and social media channels. These supported participants who could not attend the roadshows and provided a consistent technical narrative for all partners.

6. Phase 2 — Entrepreneurial Training and Capability Building

Phase 2 (Jan 2025- Dec 2025) of the WP7 framework consisted of structured entrepreneurial training delivered through the ReActorPro programme, developed and delivered by Fondazione Golinelli and G-Factor. ReActorPro is an established training model designed to introduce early-stage researchers and technical teams to the fundamental principles of entrepreneurship, technology transfer, and value creation, with a specific focus on the life sciences and digital health domains. ReActorPro is structured to address a common challenge in research environments: although many innovations arise from scientific activities, most teams have limited exposure to the requirements for translating a research output into an operational product, service, or business proposition. The programme is therefore designed to bridge this gap by introducing participants to the decision-making processes, constraints, and opportunities associated with exploitation and technology transfer. ReActorPro does not assume that participants must become entrepreneurs; rather, it aims to ensure that they understand the full spectrum of translational options and the implications of each path for technical, regulatory, and organisational planning.

The programme is delivered in a blended format, combining in-person sessions with remote webinars and one-to-one mentoring. Its curriculum is organised into four components: initial pitch and feedback, structured training modules, personalised mentoring, and a final Demo Day. In the first component, participants deliver a short pitch describing their research activity, which serves both as a baseline diagnostic and as a means to introduce them to the process of communicating research outputs in a translational context.

The structured training modules cover core topics required for evaluating and shaping an exploitation path: market assessment, competitor analysis, value proposition design, regulatory considerations (including specific modules on MDR and life science regulatory frameworks), intellectual property fundamentals, patent strategy, business model design, and financial planning. Across these modules, participants are introduced to the distinction between scientific claims and value claims, and to the factors determining whether an innovation is suited for licensing, internal adoption, a service-based institutional model, or startup creation. Personalised mentoring complements the training sessions and provides targeted feedback on the relevance and feasibility of each team's initial idea. These one-to-one sessions are used to clarify assumptions, identify gaps in regulatory or operational planning, and refine the definition of the problem addressed by the innovation.

The programme concludes with a Demo Day, held in person at G-Factor, where participating teams present their refined project pitch to a group of evaluators, industry partners, investors, and domain experts. Despite its name, the Demo Day is not intended to trigger immediate investment decisions; instead, it functions as a structured assessment point where teams demonstrate their ability to

articulate a coherent exploitation concept, outline a credible development path, and recognise the technical and regulatory implications associated with translation.

ReActorPro is supported by a faculty with combined experience in entrepreneurship, venture investment, regulatory affairs, patent strategy, industrial development, and digital health. The expertise represented in the faculty provides participants with exposure to realistic decision-making contexts and constraints typically encountered during early-stage translation activities

7. Phase 3 — Incubation and Acceleration

Phase 3 of the T7.4 entrepreneurial path consists of targeted incubation and acceleration activities delivered through the G-Force programme, operated by G-Factor and it is planned to take place from January to April 2026. While Phase 1 established the entrepreneurial mindset and Phase 2 provided structured methodological training, Phase 3 is designed to support those teams whose outputs are suitable for startup-oriented exploitation or for advanced preparation of other exploitation routes. At the time of drafting this deliverable, Phase 3 has not yet begun.

G-Force is a four-month acceleration programme that includes an intensive two-month training and mentoring block, followed by a two-month follow-up period focused on execution and personalised one-to-one support. The programme is designed for early-stage ventures and research-driven teams with high-potential technological or scientific outputs. Its structure is based on a combination of plenary sessions, workshops, tailored mentoring, stakeholder engagement, and pitch sessions. While the programme is general enough to be applied across the three Spokes, its thematic content aligns strongly with the needs of digital health, medtech, and deep-tech innovations.

The G-Force programme follows a week-by-week thematic progression during the initial intensive phase. Each week focuses on a critical dimension of early-stage venture development, including market validation, positioning, product development, user experience, regulatory affairs, intellectual property, business model design, industrial scale-up considerations, financial planning, fundraising, negotiation, communication, and investor-ready storytelling. This thematic structure is supported by a network of domain experts with backgrounds in life sciences, medtech, industrial development, regulatory strategy, and venture investment.

A key element of the programme is the emphasis on personalisation. Each participating team receives dedicated one-to-one mentoring aligned with its specific technical and organisational challenges. The personalisation component enables mentors to align the acceleration pathway with the real constraints of each asset, including regulatory dependencies, system integration requirements, or institutional adoption conditions.

Although startup creation is one exploitation route, G-Force also supports the analytical work required to determine whether a new venture is the appropriate mechanism for a given innovation. The structured evaluation across the 11 thematic weeks enables teams to test their assumptions,

validate their problem-solution fit, assess market relevance, and determine whether the operational and regulatory conditions permit sustainable company formation. This structured testing is essential for preventing premature or misaligned startup attempts and for identifying cases where internal adoption, service-based institutional models, licensing, or standardisation may represent more viable exploitation pathways.

Each cycle of the programme concludes with a Demo Day, where participating teams present their projects to industrial partners, subject-matter experts, and investors. This event is designed to provide feedback and identify potential follow-up actions, but not to mandate a specific exploitation outcome. An Investor Day takes place at the end of the follow-up mentoring period and focuses on direct interaction with investors, where teams can present refined versions of their exploitation strategy and discuss potential collaborations or funding opportunities.

At the end of the G-Force programme, an Investor Day is planned to facilitate structured interaction between participating teams and selected investors. However, considering the expected maturity level of DARE teams by June—many of whom will not yet have established a formal company or validated a full business model—the event will be managed with caution. Venture capital firms and angel investors typically expect to evaluate already constituted and operational startups; presenting teams prematurely may generate misleading expectations within the investor network and expose participants to risks associated with premature visibility. For this reason, the selection of the Investor Day audience will be carried out with deliberate care, limiting participation to stakeholders capable of providing constructive feedback without imposing expectations inconsistent with the maturity level of the teams.

8. Outputs, KPIs and Consolidated Results

This section presents the measurable outputs of WP7 Phases 1 and 2 and the forward-looking indicators associated with Phase 3. The results combine participation metrics, training performance, satisfaction indicators, and early signals of readiness for the upcoming acceleration phase.

8.1 Outputs and Indicators from Phase 1 and Phase 2

Phase 1 (awareness and mindset activation) and Phase 2 (structured entrepreneurial training) generated a consistent set of quantitative and qualitative outputs across the consortium. A total of **37 project teams registered** for the initial call to participate in WP7 activities, representing 148 researchers from 14 universities, institutes, and research organisations across six Italian regions. Of these, **26 teams progressed into the structured training phase**, corresponding to a 70% conversion rate from expression of interest to active participation.

With the coordination and support of Spoke 1 and the Dare Foundation Communication Officer engagement during Phase 1 was reinforced by multiple roadshow sessions and dissemination events, which collectively attracted more than 50 external stakeholders in addition to internal

participants. These activities provided the first mapping of exploitation interest, which indicated a broad spectrum of technological maturity and varying levels of readiness across Spokes.

Phase 2 delivered approximately 70 hours of formal training within a larger programme framework that foresees up to 140 hours across the full cycle. Training activities were supported by 12 expert mentors, providing both plenary instruction and one-to-one guidance.

Participant evaluations indicate strong engagement and perceived value:

- organisational and operational support received an average score of 9.1/10;
- overall training quality and plenary content were rated 8.6/10;
- the mentor network received 8.4/10;
- one-to-one mentoring sessions averaged 8.1/10;
- workload appropriateness was rated 7.8/10;
- the overall training experience received an average score of 8.6/10.

Across the consortium, teams -including those relying on Spoke 1 enabling technologies- developed a significantly clearer understanding, these results indicate that teams working on enabling technologies developed a significantly clearer understanding of exploitation pathways and the constraints associated with interoperability, data governance, AI governance, and regulated digital workflows. Participation patterns show that these teams benefited from the structured introduction to exploitation logic and from the methodological alignment enforced across all training modules.

8.2 Forward-Looking Indicators for Phase 3 (G-Force Acceleration)

Phase 3, consisting of the G-Force acceleration programme, is scheduled to begin in January 2026. Based on participation trends, training performance, and self-assessment exercises completed during Phase 2, it is expected that six (6) teams will be ready to enter the acceleration phase.

The G-Force programme consists of:

- 2 months of intensive acceleration activities, including at least two residential weeks;
- 2 months of follow-up mentoring, focused on execution, planning, and refinement;
- multiple pitch sessions and structured feedback cycles;
- thematic weekly work covering market validation, positioning, product development, regulatory affairs, IPR consolidation, business modelling, industrial development, financial planning, fundraising, negotiation, communication, and investor readiness.

Outcomes from Phase 3 will be reported in subsequent project documentation once execution is completed.

8.3 Contribution to DARE's Long-Term Sustainability

Consolidated outputs from Phases 1 and 2 contribute to the long-term sustainability of DARE by:

- establishing a coherent exploitation framework applied uniformly across all Spokes;
- building a shared methodological foundation grounded in training, mentoring, and structured analysis;
- strengthening internal capacity in IPR assessment, regulatory awareness, and technology transfer;
- creating a pipeline of teams ready for Phase 3, with quantified expectations for acceleration;
- supporting the application of the Translation Framework (SF#4) to enabling technologies within Spoke 1.

9. Spoke 1 Specialisation — Enabling Solution Frameworks and Their Role in Pilot Exploitations

Spoke 1 develops the enabling technological, infrastructural, and governance components that underpin the implementation and exploitation of digital prevention solutions across the DARE consortium. These outputs are not designed as standalone commercial products; instead, they operate as foundational layers that support targeted innovations in Spoke 2 and Spoke 3. Their exploitation potential is therefore primarily indirect, expressed through integration into downstream clinical and community-facing pilots following the Twin Pilot Projects model, where each Spoke 2 or Spoke 3 pilot is paired with a technical "twin" in Spoke 1 responsible for providing the enabling digital components.

Several key frameworks and system-level technologies developed in Spoke 1 illustrate this enabling role:

The Salus Ratio interoperability framework (UNIBO)

This framework provides the semantic, syntactic, and operational interoperability layer required for the integration of heterogeneous clinical and behavioural data. It serves as the backbone for data management and standardisation and is essential for ensuring that digital solutions are deployable within real clinical workflows. Its exploitation aligns with institutional adoption, standardisation, and public-sector integration rather than standalone commercialisation.

INFN cloud & AI/HPC infrastructure

The cloud-native HPC stack developed by INFN provides AI compute, model training, distributed execution, and shared data services for pilots requiring advanced analytics or continuous computation. This infrastructure is available to pilots requiring advanced analytics and may be used by Spoke 2 and Spoke 3 teams where computational support is needed, although actual adoption

varies by pilot and is not uniform across the consortium. Its exploitation path is institutional and infrastructural, supporting service provisioning rather than startup formation.

The Mobility Monitor (UNIBO) for wearable sensor preprocessing

This toolchain offers preprocessing, quality control, feature extraction, and analysis pipelines for data coming from wearable sensors. It addresses functional requirements emerging from pilots involving behavioural monitoring and is designed to support their long-term technical needs, without implying operational integration in their current execution. Within the Twin Pilot model, the development of the Mobility Monitor adresses the requirements of wearable-based pilots in Spoke 2 and Spoke 3.

The MLOps solution (UNIBA) for AI lifecycle management

This framework enables reproducible model training, versioning, evaluation, deployment, and monitoring of AI components. It ensures compliance with emerging AI governance principles and supports end-to-end traceability of predictive models used in clinical pilots. Exploitation will likely occur through institutional services, coupled with Salus Ratio, and integration into regulated environments.

The Data & AI Regulatory Data Governance Framework (UNIBO)

This governance framework provides structure for data protection, provenance, access control, and regulatory compliance (GDPR, AI Act, Italian Law 132/25). is not an exploitable product on its own but offers regulatory and governance principles that can guide the development of many Spoke 2 and Spoke 3 innovations, regardless of whether they adopt the framework directly.

The evidence-generation framework (UCSC, GIMBE)

This methodological component provides structured processes for generating, evaluating, and validating clinical or quasi-experimental evidence from digital prevention interventions. It might be applied directly in the evaluation of Spoke 2 and Spoke 3 pilots, enabling their translation into actionable guidelines or recommended practices. Its exploitation is closely aligned with policy uptake, institutional adoption, and dissemination through evidence-based organisations such as GIMBE.

The DARE App for collecting user-generated data

The DARE App enables questionnaire-based data capture and integration of wearable signals, supporting the operational needs of digital health pilots; it is integrated with Salus Ratio.

Translation Framework (BI-REX)

BI-REX contributes to Spoke 1 with its own Translation Framework, which complements the technical assets with methodological support for defining viable exploitation pathways. The framework integrates guidance on IPR, regulatory requirements, business model options, and sustainability considerations, delivered through the competence centre's innovation support

network. It also includes a structured funnel for assessing the feasibility of startup creation, available to teams exploring entrepreneurial routes as described in section 5-7. In parallel, the framework provides access to BI-REX's Pilot Line infrastructures—covering rapid prototyping capabilities such as multi-material 3D printing, embedded electronics fabrication, AI/cloud platforms, ready-to-use wearable sensor kits with reference datasets, and XR tools for immersive prototyping. These features accelerate technical maturation, support early validation, and facilitate the transition from experimentation to pre-exploitation stages.

These frameworks collectively demonstrate that the value of Spoke 1 lies in defining the technical, regulatory, and infrastructural conditions necessary for exploitation across the consortium. Their exploitation pathway does not take the form of startup creation; instead, they operate as cross-spoke enablers that make downstream innovations viable, sustainable, and compliant with health, data, and AI regulations.

Accordingly, the exploitation strategy for Spoke 1 emphasises:

- institutional adoption,
- integration into public infrastructures,
- service models supporting regulatory and technical compliance,
- contributions to standardisation initiatives,
- and reuse of frameworks across multiple pilots and organisations.

Throughout this deliverable, references to the role of Spoke 1 enabling frameworks should be interpreted as functional or methodological contributions to downstream innovations. Their development is aligned with the needs emerging from pilots, but they are not assumed to be directly implemented or operationally integrated into all pilot workflows during the DARE project timeframe.

10. Lessons Learned and Recommendations

The exploitation activities conducted during Phases 1 and 2, together with the early mapping of Spoke 1 outputs, highlight several technical and organisational insights relevant to the translation of enabling technologies within the DARE framework. These lessons reflect the specific characteristics of Spoke 1 assets and the practical constraints identified during the WP7 process.

A first lesson concerns the distinct nature of Spoke 1 outputs. Enabling technologies—such as interoperability modules, governance frameworks, and data lifecycle components—do not naturally align with exploitation routes typical of user-facing digital applications. Their value depends on

integration within broader infrastructures and compliance with system-level requirements, making startup creation less suitable in many cases. Alternative pathways such as institutional service models, internal adoption, licensing, or standardisation offer more realistic exploitation avenues for these types of assets.

A second lesson relates to regulatory dependence and integration constraints. Many Spoke 1 outputs operate in domains affected by data protection regulations, medical device requirements, and emerging AI governance obligations. These regulatory dimensions shape the feasibility and maintenance burden of any exploitation route. Similarly, integration with existing infrastructures—such as hospital systems, cloud/HPC environments, and research data platforms—introduces dependencies that must be considered early in the assessment of exploitation potential.

A third lesson concerns the importance of early interaction with stakeholders. Roadshow sessions, structured training modules, and pitch activities demonstrated that direct engagement with researchers and technical teams is essential to identify realistic exploitation scenarios. These interactions enabled the detection of assets requiring non-startup exploitation strategies and provided valuable information on technical readiness and operational barriers.

Based on these observations, the following recommendations are proposed:

1. **Adopt exploitation pathways tailored to enabling technologies.** Spoke 1 assets should be systematically evaluated for alignment with institutional service models, licensing, standardisation, or internal adoption. Startup-based exploitation should be considered only where technical independence, regulatory feasibility, and long-term maintenance are realistic.
2. **Integrate regulatory and compliance checks at the outset.** Early application of structured tools for GDPR, MDR, and AI governance assessment is necessary to prevent misalignment, reduce rework, and ensure that exploitation decisions match regulatory constraints.
3. **Formalise internal adoption and service-based exploitation routes.** Several enabling technologies developed within Spoke 1 can be incorporated into the operational workflows of the DARE Foundation. Defining a catalogue of internal services supported by these components would support sustainability beyond the project lifecycle.
4. **Develop governance models for open frameworks and shared components.** When outputs provide value through broad adoption, they should be released under controlled open frameworks with clear governance, versioning, and maintenance processes to ensure sustained usability.
5. **Expand stakeholder involvement during acceleration and exploitation planning**. Phase 3 and subsequent exploitation activities should involve institutional actors, compliance experts, and industrial partners to validate the suitability of proposed exploitation routes, especially for technical components requiring integration into regulated environments.

11. Conclusions

The activities performed under Task 7.4 focus on establishing a unified methodological framework for exploitation across the consortium, including the identification of conditions under which startup-oriented routes are appropriate and when alternative pathways are more suitable. In the case of Spoke 1, the enabling frameworks it produces—interoperability assets, governance models, and data lifecycle tools—require exploitation approaches that differ from those applicable to the domain-facing pilots in Spoke 2 and Spoke 3. Rather than generating startup candidates, Spoke 1 contributes the technical and methodological foundations that support the exploitation readiness of downstream innovations.

The unified WP7 methodology applied across Spokes has proven effective in establishing a coherent process for awareness-building, training, and preliminary exploitation assessment. Phase 1 successfully introduced research teams to exploitation concepts and provided early mapping of interest and readiness. Phase 2 delivered structured entrepreneurial training through the ReActorPro programme, enabling teams to refine their understanding of feasibility, operational constraints, and the positioning of their assets within possible exploitation scenarios.

Phase 3 (the G-Force acceleration programme) is planned to begin in early 2026 and will provide the structured environment required to validate or refine the exploitation paths identified during earlier phases. Spoke 1 will not contribute teams to Phase 3, but will continue to provide enabling components and methodological support to Spoke 2 and Spoke 3 participants.

Across the completed phases, the exploitation work carried out under WP7 has contributed to DARE's long-term sustainability objectives by:

- establishing a structured and repeatable exploitation assessment process;
- improving internal competence in IPR, regulatory alignment, and technology transfer;
- supporting cross-spoke coherence in the evaluation of enabling technologies;
- creating a pipeline of teams prepared for targeted acceleration;
- and aligning exploitation activities with the Translation Framework (SF#4), which governs the transition from validated technical components to operational and scalable outputs.

The next reporting cycle will include the outcomes of Phase 3 and will document the final exploitation decisions associated with the selected teams. These decisions will support the DARE Foundation in defining a sustainable operational model for the years following the project, ensuring that the enabling technologies developed within Spoke 1 contribute meaningfully to institutional, clinical, and community-facing digital prevention services.

Although Spoke 1 technologies are not designed for direct commercialisation, they nonetheless generate economic value. They reduce duplication and integration costs across the consortium, enable downstream KERs by providing the interoperability, governance and computational

foundations required for viable exploitation, and can be offered as institutional services (e.g., MLOps, evidence-generation, compliance support) to external actors. In addition, several frameworks have potential for standardisation or transfer, contributing to regional or national guidelines and strengthening the consortium's ability to attract future funded projects.

12. Appendix – Communication Material from Phase 1


DARE
Il Progetto DARE, finanziato dal Ministero dell'Università e della Ricerca (MUR) nell'ambito del Piano Nazionale per gli Investimenti Complementari al PNRR, mira a migliorare la promozione della salute e la prevenzione per tutta la vita utilizzando dati e tecnologie digitali avanzate. L'obiettivo è supportare il sistema sanitario nazionale con un monitoraggio continuo della salute, con un impatto significativo a livello sociale, culturale, economico ed etico.
DARE intende creare una rete di conoscenza integrata e diffusa, alimentata dalla ricerca, dall'innovazione e dalla partecipazione attiva di vari stakeholder, consolidando così il ruolo dell'Italia nella prevenzione digitale.
Il progetto aspira a diventare il centro di riferimento nazionale per le tecnologie digitali nella prevenzione, promuovendo una comunità orientata alla prevenzione digitale e favorendo la collaborazione tra sanità, accademia, industria e decisori.
Ministero dell'Università e della Ricerca
PNC
Accelerazione e Innovazione: il percorso di DARE per Imprenditori Emergenti
All'interno del progetto DARE, il programma di accelerazione promosso dal Competence Center BI-REX e sviluppato dall'acceleratore G-Factor della Fondazione Golinelli, offre un approccio unico per trasformare idee innovative in imprese di successo e sostenibili.
L'approccio sinergico di G-Factor mira a creare modelli d'affari replicabili e scalabili, assicurando che le imprese emergenti siano ben posizionate per prosperare. In questo modo, il progetto contribuisce al progresso e all'innovazione su scala internazionale, supportando lo sviluppo di soluzioni che possono avere un impatto significativo nel mondo del business.
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Per maggiori informazioni scrivere a:
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