D5.3 EXPLOITATION APPROACH

16/05/2025

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Grant Agreement No.: 101189562
Call: HORIZON-CL4-2024-DIGITAL-EMERGING-01
Topic: HORIZON-CL4-2024-DIGITAL-EMERGING-01-04
Type of action: HORIZON-IA

D5.3 Exploitation Approach

Title	Exploitation approach
Document description	Approach for the exploitation plan and business model development
Keywords	Exploitation, KERs, Impact maximization, Stakeholder analysis, IPR
Deliverable type	R — Document, report
Dissemination level	PU - Public
Work package	5
Task	5.4
Lead partner	TechConcepts
Partners involved	All
Due date	31/05/2025
Submission date	16/05/2025
Version	Final
Authors	Anish Patil (TechConcepts)
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Revision History	Date	Description of change	Author (s)
Version 01	26/03/2025	Draft shared with WP5 partners	Anish Patil
Version 02	15/04/2025	Draft updated with inputs from F6S. EWF & I2M	Anish Patil

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ABBREVIATIONS & ACRONYMS

AI	Artificial Intelligence
CoP	Community Of Practice
D	Deliverable
D&C	Dissemination And Communication
GA	Grant Agreement
KER	Key Exploitable Result
KPI	Key Performance Indicator
MS	Milestone
OC	Open Call
SME	Small And Medium Enterprise
SW	Software
TRL	Technology Readiness Level
FSTP	Financial Support for Third Parties

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Executive Summary

The AID4SME project aims to advance AI and Data-driven solutions tailored for SMEs and startups, fostering innovation and accelerating digital transformation. The project's approach is structured around four key pillars that encompass the full lifecycle of AI and Data technologies: (1) data collection, (2) creation of insights, (3) decision support, and (4) automation. These pillars are supported by carefully selected high-TRL playgrounds (industrial sectors) and low-TRL playgrounds (academic and research setting), chosen based on two guiding principles: alignment with Green Deal objectives and strong market potential. The low and high TRL playgrounds will provide opportunity for SMEs to test and validate approaches and solutions, together with the AID4SME consortium to solve challenges related to the green deal.

AID4SME provides a platform for SMEs and startups to demonstrate, validate, and scale their AI-driven solutions in both low- and high-TRL environments. Beyond technical validation, the project actively fosters knowledge exchange and ecosystem building through AI & Data events, networking opportunities, and educational programs through the formation of a Community of Practice (CoP). The CoP will guide the SMEs and Start-ups during the development, demonstration and marketing of the solutions for various challenges with expert knowledge, first-hand market intelligence and independent testing and validation facilities provided by the academic partners, in which the SMEs and Start-ups can safely exchange data and test and validate their low TRL solutions.

This deliverable outlines the methodology for defining the Exploitation Plans for the project's Key Exploitable Results (KERs), including a timeline and alignment with other relevant project tasks. To ensure a robust approach to exploitation and business model development, the KERs will be refined throughout the project's execution. During General Assembly (GA) meetings, TechConcepts will facilitate dedicated workshops to identify unforeseen KERs and further elaborate on both expected and newly identified results. These sessions will assess the scientific, societal, commercial, and regulatory potential of each KER.

For KERs with scientific, societal, and regulatory exploitation potential, tailored exploitation plans will be developed, culminating in dedicated exploitation canvases, while for the KERs with commercial potential business model canvas will be developed. The development process will be highly collaborative, incorporating input from all project partners through interactive workshops, organized by TechConcepts during GA meetings. This document provides an initial framework for the exploitation strategy, ensuring that the project's outcomes maximize their impact and long-term sustainability.

For the KERs with high scientific (follow-up projects, publications, etc), societal (trainings, education, etc) and regulatory exploitation, the exploitation plan will be elaborated in the form of an Exploitation Canvas, including KER description, IPR aspects (from T6.3); main stakeholders (in collaboration with T5.3), and the route to exploitation.

For the KERs with commercial exploitation potential, an exploitation plan will be elaborated in the form of a Business Model Canvas, including the Value Proposition; the route to exploitation and higher TRL; Key Partners required to achieve successful exploitation (in collaboration with T5.3); Key Resources needed; IPR aspects (from T6.3); Target Groups (in collaboration with T5.3); and a Go to Market Use-Model (in collaboration with T6.3).

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1 INTRODUCTION

Artificial Intelligence (AI) and data technologies are widely recognized as key drivers of future economic development, with the potential to enhance labour productivity, economic growth, and industrial competitiveness. However, Europe's adoption of AI and data-driven solutions remains relatively low compared to other global regions, such as the United States and China. Studies estimating AI diffusion in the private sectors of France, Germany, the U.S., and China indicate that China is significantly ahead in AI adoption, with a faster rate of diffusion (BCG, 2019). Many Chinese firms have already integrated AI-driven functionalities, widening the gap between Western economies and China in terms of AI deployment (Hoffmann & Nurski, 2021).

The synergistic relationship between AI and data is fundamental to unlocking their full potential. AI systems rely on large-scale datasets to refine and enhance decision-making processes, while big data analytics benefits from AI-driven automation to extract deeper insights. This convergence enables advanced analytical capabilities, such as augmented and predictive analytics, making it possible to efficiently identify actionable insights from vast data repositories. Traditional data analytics often provides only surface-level insights, whereas AI has the ability to transform raw data into meaningful and strategic intelligence.

AI and data-driven solutions offer immense potential for the European economy, with benefits spanning across multiple sectors, including manufacturing, healthcare, logistics, and energy. Moreover, AI-powered innovations contribute to resource and energy efficiency, playing a pivotal role in Europe's transition toward sustainable and environmentally friendly solutions.

1.1 The Role of AID4SME in Advancing AI & Data Adoption

AID4SME is designed to accelerate the adoption of AI and data technologies in European SMEs and startups. The project will develop solutions under four key pillars that cover the entire AI & Data lifecycle:

- Data Collection – Enabling SMEs to efficiently gather and structure relevant datasets.
- Creation of Insights – Leveraging AI-driven analytics to generate actionable intelligence.
- Decision Support – Supporting real-time, data-driven decision-making for business and operational optimization.
- Automation – Enhancing productivity through intelligent automation of tasks and processes.

AID4SME will establish both low- and high-TRL playgrounds, providing SMEs and startups with a structured environment to test, validate, and refine AI & data solutions. These playgrounds will allow businesses to address industry-specific challenges and Green Deal objectives, ultimately improving product and process efficiency while reducing costs and environmental impact.

Beyond technical validation, through the formation of a Community of Practice (CoP), AID4SME will foster an AI & Data innovation ecosystem, supporting SMEs by:

- AI & Data events to promote knowledge-sharing and collaboration.
- Networking opportunities to connect startups, SMEs, and industry stakeholders.
- Education programs focused on AI & data skills development.
- Business support and mentoring to guide SMEs in the exploitation of project results.

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- A comprehensive AI & Data repository, including validated technologies, development partners, and industrial playgrounds.

By leveraging its unique selling points, the AID4SME consortium will ensure that AI & Data-driven solutions are widely adopted across European industries, addressing real-world industrial challenges and accelerating the transition toward a more competitive, digital, and sustainable European economy.

1.2 Objectives

This document describes the methodology that will be used for the definition of the Exploitation plans and Business Models for the Key Exploitable Results (KER), including a timeline and the alignment with the other relevant project tasks. The document also contains the initial framework for the Exploitation plans and Business Models.

The objective is to assist the project and its partners to achieve effective exploitation of the AID4SME KERs. At the same time, the document aims to guide the partners in collecting the input that is required to report the Results in the Grant Management Portal (European commission, 2022).

1.2.1 Readers guide for this deliverable

Chapter 2 starts with the definition of the 4-step approach for Exploitation that will be applied in AID4SME. Chapter 3 of this document defines the difference between foreseen and unforeseen KER, and then summarizes the identified KER and the framework in which the final KER will be listed.

Chapter 4 explains the 5 typical types of exploitation routes, followed by the methodology to classify the exploitation potential for the KERs. With this classification, Chapter 4 determines for which KERs a business model, or exploitation plan will be developed.

Chapter 5 defines the components of the exploitation plans that will be developed for the AID4SME KERs with non-commercial high exploitation potential, and the framework for the AID4SME KER exploitation canvas. Chapter 6 defines the components of the business model that will be developed for each AID4SME KER with high commercial exploitation potential. And the framework for the Simplified Business Model Canvas (SBMC) format in which the business models will be reported.

Chapter 7 describes the framework for summarizing the exploitation strategy and actions for each project partner, which will be included in the D5.4 Exploitation plans for OC1 results, SEN, M24 and D5.5 Final exploitation plan report, SEN, M36.

Chapter 8 defines the timeline for the different steps that are to be taken for the development of the exploitation plans and business models.

Finally, Chapter 9 includes the conclusions of this deliverable.

2 The 4-step approach for AID4SME

The exploitation of results of AID4SME project is based on the KERs. To achieve exploitation, AID4SME will develop a set of Exploitation plans and Business Models. For the development of the Exploitation plans and Business Models, a 4-step approach for effective exploitation of AID4SME results, developed by TechConcepts, is followed. Please see Figure 2-1. During this approach, inputs from the consortium partners will be collected in 6 plenary workshops and in bilateral contacts.

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Before the 4-step approach is employed, TechConcepts (TC) and other WP5 partners will carry out preparatory work to compile a list of KERs to be discussed during dedicated workshops in M6 and M18. The list of KERs will be compiled based on the WP2 outcomes, specifically the D2.1 in M5 and D2.3 in M17 that will define the challenges. Once these deliverables are finalized, in M6, we will know which foreseen KERs will be launched in OC1, and which challenges (unforeseen KERs) will be relevant for OC1. Similarly, in M18, we will know which foreseen KERs will be launched in OC2, and which challenges (unforeseen KERs) will be relevant for OC2.

AID4SME project is an FSTP project, with 2 terms of open calls (OC) for SMEs to develop solutions together with the project consortium. Hence, the 4-step approach will be employed twice - starting in M6 and developing an exploitation strategy for relevant KERs for OC1 in M24, culminating in D5.4 Exploitation plans for OC1 results. While repeating the process once again from M18 until M36, culminating into D5.5 Final exploitation plan report.

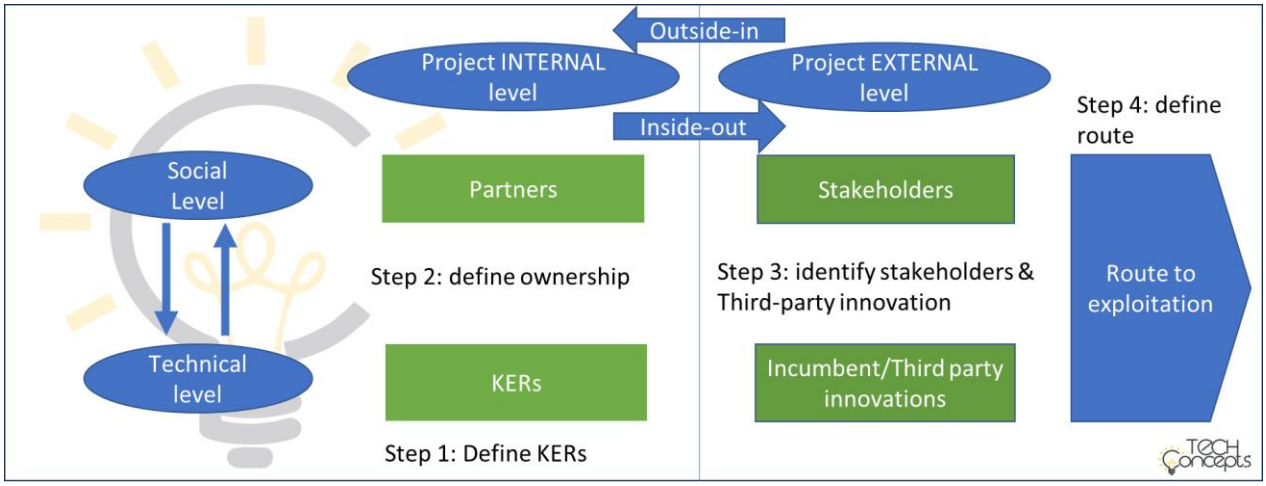

FIGURE 2-1 4-STEP APPROACH FOR EFFECTIVE EXPLOITATION OF THE AID4SME PROJECT RESULTS, DEVELOPED BY TECHCONCEPTS

In step 1, TC will facilitate a workshop to further detail the KERs. Furthermore, the workshop will evaluate the exploitation potential of each KER based on the following criteria:

- Scientific potential – Contribution to academic research and innovation.
- Societal potential – Impact on communities, public well-being, and sustainability.
- Technological, business, or economic potential – Commercial viability and market opportunities.
- Policy or regulatory potential – Alignment with regulatory frameworks and policy impact.

Finally, this step will identify the project partners that are interested in exploiting specific KERs. Step 1 will be facilitated during the workshops 1 and 4.

Step 2 is an inside-out step. This step focuses on the definition of the KER ownership (with input from the IPR management task), single or joint foreground ownership is defined, the owner(s) that will exploit the KER will be identified, and the required background IPR from consortium member(s) or third parties is identified. Also, possible third party innovations that might limit exploitation possibilities of the KER are identified. This step will be undertaken in the 2nd and 4th exploitation workshop. The information that will be collected during this step, is further detailed in Chapter 5 and 6. During this step, TC will facilitate an interactive workshop to identify the ownership (background and foreground) of each KER. TC, together with T6.3 partners (F6S) will carry out the post-workshop validation of the background ownership (also from CA perspective).

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Finally, based on the workshop results, T6.3 will address the IPR management issues, specifically addressing the following questions:

- Does the exploitation of the KER require background of one or more consortium members?
- Does the exploitation of the KER require access to third party IPR?
- How is the KER positioned with respect to relevant state of the art?
- What are appropriate measures for KER protection?

The Intellectual Property Board (IP Board), appointed by the Executive Board, will directly guide the access and ownership evaluation of the identified IP during Step 2, supporting TC and the selected SMEs and ensuring the proper protection, use and exploitation of the results.

During Step 2, the IPR assessment will be carried out linked with workshops implemented on M18 and M36. The results of these workshops will be assisted and facilitated by the IP Board, who will investigate and confirm the ownership of results.

Step 3 contains an outside-in approach, identifying the relevant stakeholders for the KERs, and their interest, needs and stakes.

In the scope of Task 5.3 – Networking, stakeholder engagement & clustering activities, F6S will conduct a stakeholder analysis. With a focus on creating synergies in exploitation, dissemination and communication activities, exchange of knowledge, and overcoming common challenges, the stakeholder engagement task will work in a close collaboration with Task 5.4 to feed its objectives, maximising the AID4SME outcomes impact.

I2M, in close collaboration with KUL, UGent, JSI, and LEITAT, will be conducting a worldwide patent and literature search that serves as a cornerstone for IPR management within the project. The activities include monitoring incumbent third party innovations and performing a supportive IPR scan, which encompasses patent research and analysis of the relevant state of the art. Such efforts provide potential inspiration for the development of KERs and facilitate the establishment of robust protection measures tailored to each KER. Furthermore, by ensuring access to the required background of consortium members, the task aids in the facilitation of Freedom to Operate (FTO).

Then finally in step 4, the route to exploitation is defined. For the KERs with commercial exploitation potential, the route to exploitation is elaborated in the form of a Business Model, resulting in a Simplified Business Model Canvas (SBMC). For each of these KERs with commercial exploitation potential, the Business Model will identify the main building blocks of a business model.

For the KERs with scientific, societal and regulatory exploitation potential, the route to exploitation is elaborated in the form of an exploitation plan, resulting in an exploitation canvas.

The Business Models and exploitation plans will be finetuned in collaboration with all partners and input will be collected during the 3rd and 6th exploitation workshop.

All exploitation workshops (except workshop 6, which will be done virtually) will be organized during the GA meetings by TechConcepts. The planning of the steps and the workshops is detailed in Chapter 8.

3 Identification of Key Exploitable Results (KERs) of AID4SME

In the AID4SME Grant Agreement (#101189562), already a set of KERs has been identified. These pre-defined KERs are the **Foreseen KERs**. The foreseen KERs will be updated, adapted and further specified during the 1st and 4th interactive exploitation workshop and in bilateral contact with the project partners.

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The solutions developed by FSTP SMEs to address the Open Challenges will be considered as **Unforeseen KERs**. AID4SME will also make business model canvas for these SME solutions, as we consider them as commercial KERs. Unforeseen KERs will be identified, as part of the preparatory work for the exploitation 4-step approach and will be based on the WP2 outcomes, specifically the D2.1 in M5 and D2.3 in M17 that will define the Open Challenges. SMEs will receive a business model canvas for their solutions, which they can use as a reference / starting point to push further their work on bringing the solutions to the market. However, this business model canvas will be developed in cooperation, and with inputs from consortium partners, and will be given to SMEs. If a SME requires any more information and is enthusiastic about the added value that TechConcepts (TC) can bring to them, TC can interact with the SMEs directly to update/fine-tune the business model canvas further.

3.1 AID4SME Community of Practice as a Key Exploitable Result

The AID4SME Community of Practice (CoP) serves a central role within the project - not merely as a dissemination or networking tool, but as a strategic exploitation vehicle in its own right. Designed to foster ongoing collaboration beyond the project's lifecycle, the CoP enables continuous knowledge exchange, stakeholder engagement, and collaborative innovation. Through its structure, members gain modular access to key project assets such as AI tools, data-driven validation environments, training materials, and best practices. This open and dynamic framework empowers SMEs, startups, researchers, and industrial stakeholders to build upon the project's outcomes, adapt them to sector-specific needs, and co-create new solutions.

By acting as both a repository and an enabler, the CoP supports the scaling, replication, and adoption of AID4SME results across Europe and beyond. It enhances visibility and uptake of Key Exploitable Results (KERs), provides a platform for joint business development, and facilitates strategic partnerships between technology providers and end-users. In this context, the CoP itself should be considered a distinct Key Exploitable Result, as it underpins both individual exploitation strategies and collective value creation within the ecosystem. Ensuring its continuity and growth is therefore essential for maximizing the long-term impact and sustainability of the AID4SME project.

Henceforth, the project CoP will be added as one of the unforeseen KERs during the development of the exploitation strategy.

4 Classification of the exploitation potential of Key Exploitable Results (KERs)

4.1 Definition of potential exploitation routes for KERs in general

Once the Key Exploitable Results (KERs) of the AID4SME project have been identified and specified, the next step is to define the most suitable exploitation route for each KER. This chapter outlines the various possible exploitation pathways, detailing their implications for the further development of Exploitation Plans and Simplified Business Model Canvasses.

According to the Horizon Results Platform (European commission, n.d.), a project result is defined 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*"

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The platform defines a Key Exploitable Result (KER) as follows:

"*A Key Exploitable Results (**KER**) is an identified main interesting result (as defined above) which has been selected and prioritised due to its high potential to be "exploited" – meaning to make use and derive benefits- downstream the value chain of a product, process or solution, or act as an important input to policy, further research or education*."

The potential to be exploited is segmented into 5 possible exploitation routes:

1. High Scientific potential
2. High Societal (other than climate or environmental) potential
3. High Societal potential
4. High Commercialization (technologic, business or economic) potential
5. High Policy and regulations potential

For the KERs that are to be exploited via the Commercialization route, a Simplified Business Model Canvas is created to define the plan for exploitation. For the KERs that are to be exploited via one of the other exploitation routes, a non-commercial exploitation plan will be developed. The development of these plans will both follow the TechConcepts step-by-step approach as explained in Chapter 2. Such comprehensive approach ensures that there is an exploitation plan not just for commercially significant KERs but also for scientific, societal and policy exploitation. For the purpose of ease, this approach combines exploitation route #2 and #3 and just focuses on Societal exploitation routes.

4.2 Classification of the exploitation routes for the AID4SME KERs

This classification also determines, for which KERs a Simplified Business Model Canvas and/or and Exploitation plan will be elaborated: a Simplified Business Model Canvas will be developed for the KERs with high Commercialization potential for exploitation. And a non-commercial exploitation plan will be developed for the KERs that are to be exploited via one of the other exploitation routes (KERs with high Scientific, Societal, or Policy and regulations potential for exploitation).

5 Exploitation plans for the non-commercial exploitable KERs

The plans for exploitation in AID4SME are created to assist the project and its partners to achieve effective exploitation of the project Key Exploitable Results (KERs). While at the same time guiding the partners in collecting the input that is required to report the Results in the Grant Management Portal for project AID4SME (European commission, 2022).

For the KERs with high Scientific, Societal, or Policy and regulations potential, a non-commercial exploitation plan will be elaborated, resulting in an exploitation canvas. The plans will be developed in collaboration with all partners and input will be collected during interactive workshops, organized during the GA meetings by TechConcepts, as detailed in Chapter 8.

For each KER with high Scientific, Societal, or Policy and regulations potential, the following 4 main building blocks will be included in the exploitation canvas:

1. A brief description of the KER, and the Technical Readiness Level (TRL) achieved during the project lifetime,

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2. Intellectual Property Rights (IPR) like foreground / background IPR ownership of the KER and possible incumbent / third party innovations (defined in task 6.3, led by F6S and I2M),
3. Main relevant stakeholders (defined in collaboration with T5.3, led by F6S)
4. The exploitation potential and route to exploitation. This building block includes:
    - Definition / justification of the KER exploitation potential (Scientific, Societal, or Policy / regulatory)
    - Who will exploit the KER and why.
    - If the partner is able to exploit the KER and what is needed to enable the exploitation
    - Definition of next actions and action owners towards KER exploitation
    - When relevant, this building block may also include the following aspects:
        - IPR aspects
            - IP protection measures
            - The form in which IP is made available to other partners and third parties
            - Which access to third party IPR is required
            - Agreements to be made in case the partner exploiting the KER is not the IPR owner
        - Barriers and Risks for exploitation
        - Expected impact in 3-years time after the project end

Based on the input collected in the interactive workshops, an exploitation canvas (as shown in Figure 5-1) will be developed for each KER with high Scientific, Societal, or Policy and regulations potential.

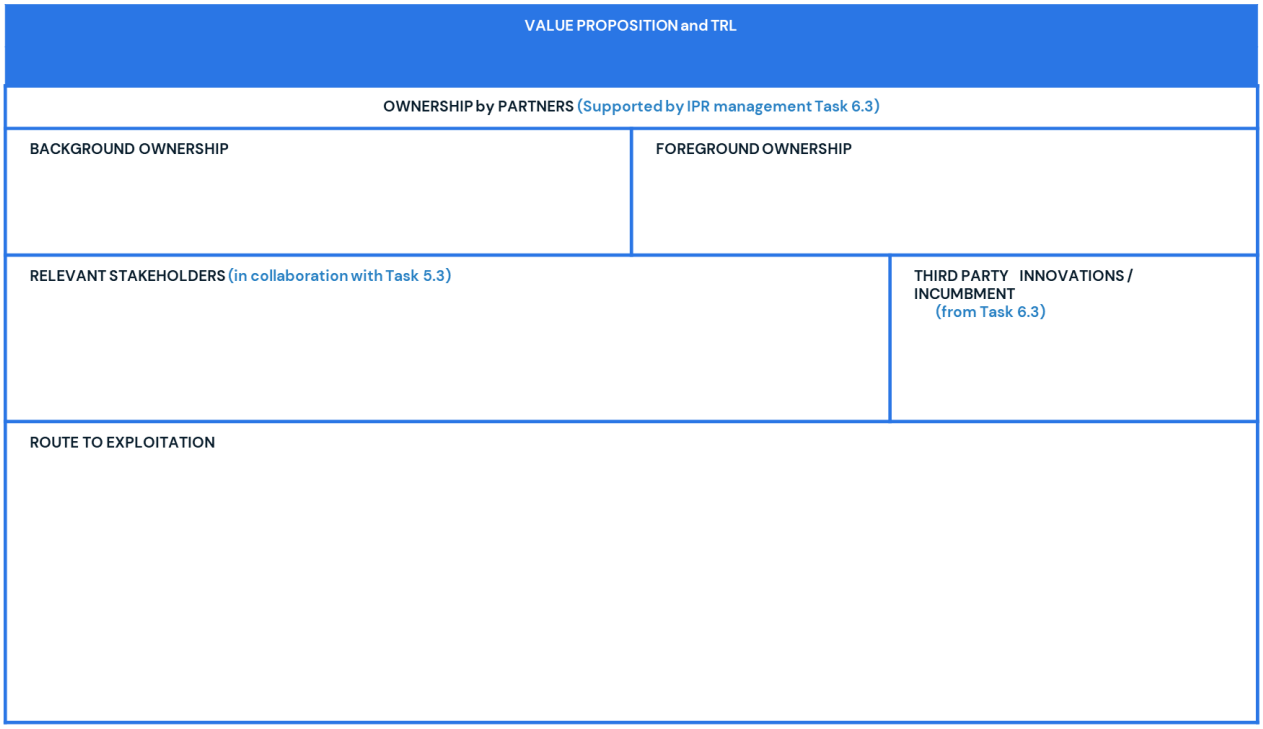

FIGURE 5-1 FORMAT OF THE KER EXPLOITATION CANVAS DEVELOPED BY TECHCONCEPTS FOR HORIZON EUROPE KER EXPLOITATION

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6 Initial Business Models for the commercialization of KERs

A well-defined exploitation plan is critical for maximizing the impact of a Horizon Europe project by ensuring that its Key Exploitable Results (KERs) are effectively commercialized and translated into tangible economic and societal benefits.

6.1 Main building blocks of a business model canvas

The foundation of the exploitation plan lies in understanding how an organization creates and captures economic value. Economic value emerges when a solution addresses a specific problem at a cost lower than the value of the problem itself (Hsieh et al., 2007). This value represents a proposition to the problem owner, the 'value proposition'. The value proposition is the basis for commercialisation of a solution to a problem. Where, in this definition, the Key Exploitable Result (KER) with high commercial exploitation potential is identified as this particular solution. A business model provides a structured approach to defining the critical components necessary for commercialization (Osterwalder & Pigneur, 2010). At a minimum, it must address four key pillars of a successful enterprise:

- Customers: Identification of target market segments and their specific needs.
- Value Proposition: The unique benefits offered by the KER to potential users.
- Infrastructure: The key activities, resources, and partnerships required for value creation and delivery.
- Financial Viability: The cost structure and revenue model that ensure economic sustainability.

A business model can serve as a blueprint for a strategy to achieve successful commercialisation of a KER. To structure the exploitation approach, a widely adopted methodology is the Business Model Canvas (BMC). This framework breaks down a business model into nine essential building blocks (Osterwalder & Pigneur, 2010): value proposition, customer needs and segments, cost structure, revenue model, channels to reach customers, customer relations as well as required key activities, partners and resources, as shown in Figure 6-1.

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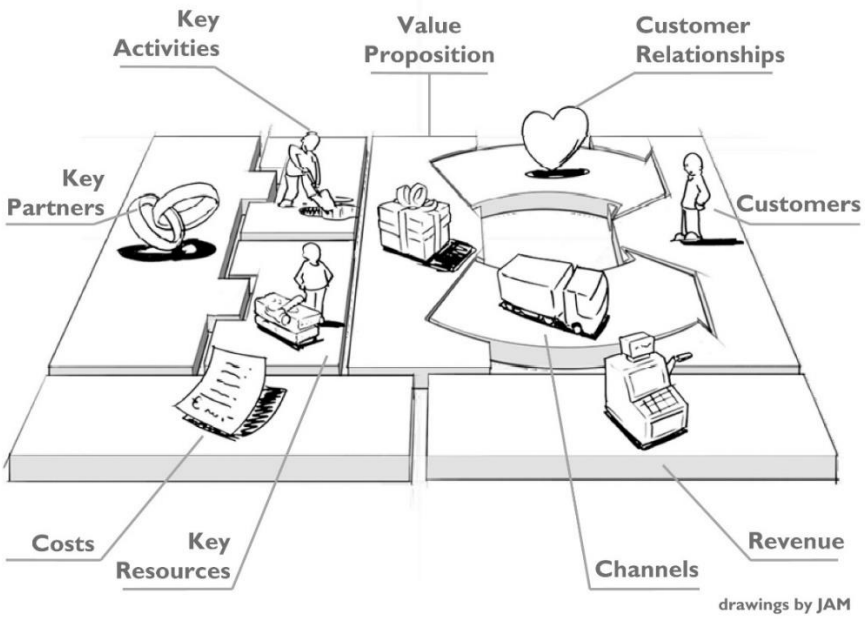

FIGURE 6-1 THE NINE MAIN BUILDING BLOCKS OF A BUSINESS MODEL CANVAS BY OSTENWALDER. FIGURE SOURCE: (OSTERWALDER & PIGNEUR, 2010)

By integrating the Business Model Canvas into the exploitation plan, Horizon Europe projects can systematically assess commercialization pathways, de-risk market entry, and establish a clear roadmap for scaling the impact of their innovations. This structured approach ensures that research outcomes transition effectively from the project phase to sustainable market adoption, maximizing their contribution to European competitiveness and societal advancement. For AID4SME, the business model is applied as exploitation plan for a KER with commercial exploitation potential. Chapter 5 of this report defines that the exploitation plans in project AID4SME are not only created to assist the project and its partners to achieve effective exploitation of the project Key Exploitable Results (KERs) but also to guide the partners in collecting the input that is required to report the Results in the Grant Management Portal for project AID4SME. The main components of an exploitation plan, covering these two purposes, are defined in chapter 5, albeit for KERs with non-commercial exploitation potential.

For the definition of a business model framework that also serves these two purposes, alignment between the business models and exploitation plans is required. Based on the theoretical Business Model Canvas framework and the exploitation plan components defined in chapter 5, TechConcepts has developed simplified (but relevant for a research and innovation project, with end TRL-5) Business Model Canvas, containing 6 main building blocks:

1. The first building block describes the VALUE PROPOSITION and TRL level achieved during the project lifetime. Inspirational questions and aspects to describe the value proposition are:
    a. what is the value added for the target groups?
    b. what is the description of the result / commercialized product?
    c. what is the problem the value proposition is solving?
    d. what is the expected impact in 3-years after the project end?

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2. The ROUTE TO EXPLOITATION and ROADMAP to higher TRL building block will list the activities to achieve exploitation. This includes:
    a. Who will exploit the KER and why. And if the partner is able to exploit the KER (or what is needed to be enabled)
    b. Next actions and action owners towards KER exploitation
    c. Other information can also be listed that are relevant for the route to exploitation. Inspirational aspects that may be listed are:
        a. regulatory / standardization aspects
        b. technological risks, for example:
            i. dependency on other technologies
            ii. a better technology is developed, making the result obsolete
            iii. compliance with regulations / standards
            iv. performance of final product is lower than expected

3. Key PARTNERS building block will list the key consortium partners that are required to achieve exploitation. And the key (consortium) partners regarding IPR ownership (based on information coming from Task 6.3 – IPR management led by F6S). Apart from listing these partners, following other aspects may be listed, when applicable:
    a. extra partners required from outside the consortium, like for example:
        I. a technology developer
        II. a manufacturer for upscaling
        III. a sales partner with market access
        IV. an exploitation / business model specialist
        V. IPR (protection) expertise
        VI. resource suppliers
        VII. marketing experts
        VIII. regulation / standards compliance experts
        IX. software developers
        X. engineering service
    b. partner risks, when of high relevance, for example:
        I. ownership disagreement
        II. lack of manufacturer

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III. disagreement on investments
IV. partners competing in same market
V. partners with divergent interests
VI. no defined agreement between partners
VII. a partner leaves the collaboration
VIII. a partner loses interest
IX. a partner delivers poor quality
X. a partner creates a competitive product

4. Key RESOURCES and OWNERSHIP building block addresses the IPR aspects relevant for exploitation of the KER (coming from task 6.3 – IPR management led by F6S and I2M). Following aspects will be addressed:
    a. background IPR ownership (as defined in the Consortium Agreement and in article 16.1 of the Grant Agreement.
    b. foreground IPR ownership, developed during the project (single or joint)
    c. possible third party innovations or IPR or incumbent (and required access, when relevant).

Other IPR aspects that may be listed, when relevant, are:

- IP protection measures
- The form how IP is made available to partners and third parties
- Agreements to be made in case the partner exploiting the KER is not the IPR owner

Also, other type of resources may be listed, when of key relevance, like:

- Human resources (like scientists / programmers / factory workers) and risks (like lack of people)
- Physical assets and risks, like:
- Production or lab facilities
- Machines
- (raw) materials
- Distribution networks
- Financial resources, like Investors or Funding / subsidies

5. The TARGET GROUPS building block lists the main clients for the KER. These are defined in collaboration with the networking activities in task 5.3, coordinated by F6S. Sample questions that may help to define the target groups are:
    a. What is the target market for the KER?

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b. Who are possible target customers for the KER?

c. What are the needs of the targeted customers?

d. Who could be early adopting markets / customers

When relevant, also market risk factors may be listed, like for example

- low market interest
- not well received by market
- market need is different
- little success in tech transfer
- product is too expensive
- product performance is below market expectation

6. The GO TO MARKET USE-MODEL building block defines which Relationship is wished with the clients / target groups. For example, will the Value Proposition be brought to the target clients in the form of:

a. Provision of a service

b. A product in a store

c. A project sold to industry

d. Software licenses

e. IPR licenses

When relevant, here the Channels used to reach the target groups may be listed (in collaboration with Task 5.2). These routes and channels could be for example:

- webinars
- acquire contacts at congresses
- acquire contacts via associations
- open access publications
- project website / company website
- business development team

And key messages for those target groups may be defined.

The simplified Business Model Canvas, containing these 6 building blocks, will be used to create business models for the AID4SME KERs with commercial exploitation potential. The format of this simplified Business Model Canvas is presented in Figure 6-2.

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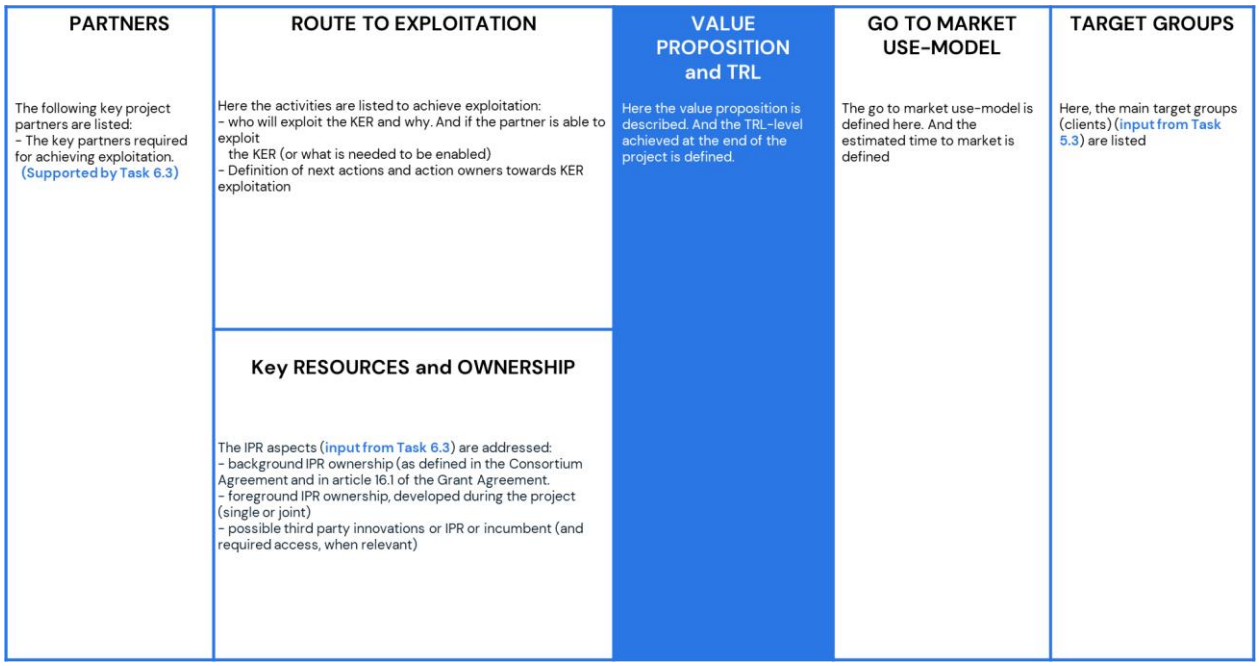

FIGURE 6-2 FORMAT OF THE SIMPLIFIED KER BUSINESS MODEL CANVAS DEVELOPED BY TECHCONCEPTS

7 Exploitation strategy summary

The Simplified Business Model Canvasses (SBMC) and Exploitation Canvasses that will be developed during AID4SME will both contain actions of consortium partners beyond the project, to maximise the impact of the project result, and define the main target groups for each KER. These aspects form the core of the exploitation strategy for the KERs. In the Final exploitation plan report (D5.5), a summary of the exploitation strategy to achieve exploitation of the project KERs will be presented. The format for this summary is provided in Table 7-1.

TABLE 7-1 SUMMARY OF THE AID4SME KER EXPLOITATION STRATEGY

KER	Main Exploitation Partner(s)	Exploitation potential	Main Target groups	Follow-up actions
		Scientific / Societal / Commercialization / Policy and regulations		
		Scientific / Societal / Commercialization / Policy and regulations		

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		Scientific / Societal / Commercialization / Policy and regulations		

8 Timeline to define the final Business Model and Exploitation plans

AID4SME project has a total duration of 36 months. The project is an FSTP initiative featuring two rounds of open calls (OCs), enabling SMEs to co-develop solutions alongside the project consortium. As a result, the four-step approach will be implemented twice. The first cycle begins in M6, leading to the development of an exploitation strategy for the relevant Key Exploitable Results (KERs) of OC1 by M24, concluding with D5.4 – the Exploitation Plans for OC1 Results. The process will then be repeated from M18 to M36, culminating in D5.5 – the Final Exploitation Plan Report. Workshops 1 and 4; 2 and 5 and 3 and 6 will be identical to each other, and will only differ in the KERs relevant to that Open Challenge term.

Workshop 1 and 4 will cover Step 1 of the 4-step exploitation approach, where the KER will be finetuned and their exploitation potential determined. Furthermore, these workshops will identify the partners who are interested in exploiting the KERs.

Workshop 2 and 4 will cover Step 2 of the 4-step exploitation approach and will facilitate the identification of the IPR ownership (background and foreground). Post-workshop validation will be carried out with input from Partners and F6S to assess and validate the background ownership issues. Furthermore, based on the workshop results, T6.3 with the support of the IP Board will define the IPR management issues, especially addressing the following questions:

- Does the exploitation of the KER require background of one or more consortium members?
- Does the exploitation of the KER require access to third party IPR?

After the workshops implementation, these results will be compiled into a report after a month of the delivery of the workshops, and F6S will offer management guidance and promote awareness of existing relevant AI and Data IP and expertise.

Step 3 of the 4-step exploitation approach will be covered by T5.3 and T6.3. In Step 3, the stakeholder engagement inputs will be applied to create impact with the identified national and international projects, initiatives and other that offer potential for market adoption. For OC1, the worldwide patent and literature search (T6.3) will take place shortly after Workshop 2 (M13-M14) and again for OC2 after Workshop 5 (M31-M32). These activities ensure FTO of the SMEs, and the establishment of protection measures of each KER.

Workshop 3 and 6 will cover Step 4 of the 4-step exploitation approach and will focus on finetuning the route to exploitation for OC1 and OC2 respectively.

The draft planning for the workshops is presented in Figure 8-1. The planning can be adjusted during the project execution, based on the needs of the consortium.

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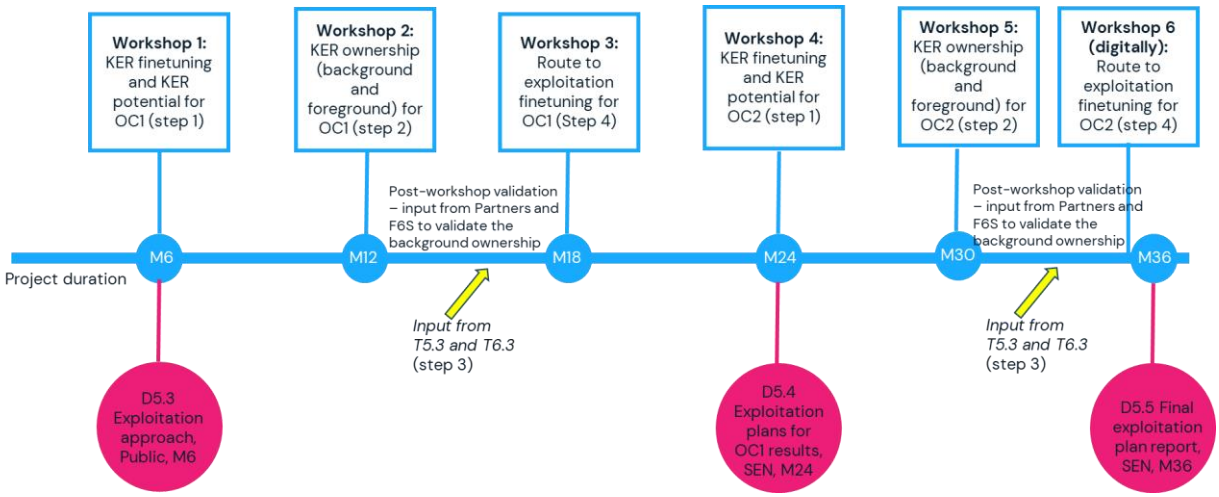

FIGURE 8-1 PLANNING OF THE EXPLOITATION WORKSHOPS DURING THE PROJECT AID4SME GENERAL ASSEMBLY MEETINGS

9 Conclusions

AID4SME will deliver a set of Key Exploitable Results (KERs). A 4-step approach (as described in Figure 2-1) has been set up to create the Exploitation plans and Business Models for the Key Exploitable Results. In addition, a timeline and alignment with other tasks are provided.

Initial formats for the Exploitation plans and Business Models are developed. Based on these formats, the plans will be developed for each KER during the project execution. During the GA meetings, TechConcepts will organize five interactive workshops (and an additional virtual workshop #6) to collect the basic information that is needed to create the Exploitation plans and Business Models.

As a first step, all the KERs (both foreseen and unforeseen) are further detailed, including the identification of the exploitation potential of each KER (scientific, societal, commercial and/or regulatory). Next, the IPR ownership is defined.

Then, for the KERs with scientific, societal and regulatory exploitation potential, an exploitation plan will be elaborated, resulting in an exploitation canvas. The plans will be developed in collaboration with all partners. The exploitation plans will include:

1. A definition of the KER description and the Technical Readiness Level (TRL) achieved during the project lifetime,
2. Intellectual Property Rights (IPR) like foreground / background IPR ownership of the KER and possible incumbent / third party innovations
3. Main relevant stakeholders
4. The exploitation potential and route to exploitation, including the commitments of the consortium beyond the project.

For the KERs with commercial exploitation potential, a Business Model will be elaborated, resulting in a simplified business model canvas (SBMC). For each of these KERs with commercial exploitation potential, the Business Model will identify the main building blocks of a business model. The Business Models will be developed in collaboration with all partners. The main building blocks that will be detailed for each Business Model are:

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1. Value Proposition and TRL level achieved during the project lifetime
2. The route to exploitation and the roadmap to higher TRL
3. Key Partners required to achieve exploitation
4. Key Resources needed for exploitation and IPR ownership (from task 6.3)
5. Target Groups (in collaboration with task 5.3)
6. The Go to Market Use-Model (in collaboration with T6.3)

The final deliverable (D5.5 Final exploitation plan report, M36) will provide a summary of all the KERs.

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REFERENCES

BCG. (2019, May 21). *Aerospace and AI - Bringing together Montreal's distinctive strengths*. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjRpffw9qeMAxXrgf0HHXF9DbEQFnoECB0QAQ&url=https%3A%2F%2Fweb-assets.bcg.com%2Fimg-src%2FAerospace_and_AI_bringing_together_Montreal_s_distinctive_strengths_tcm9-220809.pdf&usg=AOvVaw00eVcrcMvVjJ82Zg6dL_15&opi=89978449

European commission. (n.d.). *Horizon Results Platform*. Retrieved 25 March 2025, from https://ec.europa.eu/newsroom/informatics/items/689551/en

European commission. (2022, October 4). *Horizon Europe HE reporting—Grant Management*. Horizon Europe Coordinators' Day: Grant Management (4 October 2022) (europa.eu)

Hoffmann, M., & Nurski, L. (2021, November). *What is holding back artificial intelligence adoption in Europe?* Bruegel.

Hsieh, C., Nickerson, J., & Zenger, T. (2007). Opportunity Discovery, Problem Solving and a Theory of the Entrepreneurial Firm. *Journal of Management Studies*, *44*, 1255–1277. https://doi.org/10.1111/j.1467-6486.2007.00725.x

Osterwalder, A., & Pigneur, Y. (2010). *Business model generation*. John Wiley & Sons.