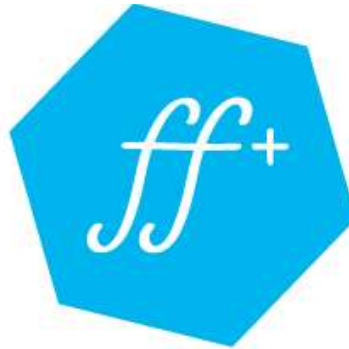


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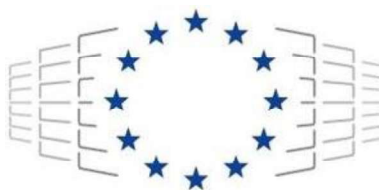


FORTISSIMO
PLUS

Project Number: 101163317

D4.1

Methodology and Tools to Support Business
Experiments/Innovation Studies



EuroHPC
Joint Undertaking

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List of abbreviations

AI	Artificial Intelligence
BD	Business Development
BOSAT	Business Opportunity Support Assessment Tool
BPT	Business Plan Table
DIHs	Digital Innovation Hubs
DoA	Description of Action
EC	European Commission
EuroHPC JU	EuroHPC Joint Undertaking
GA	Grant Agreement
GDPR	General Data Protection Regulation
HPC	High-Performance Computing
HPDA	High-Performance Data Analytics
HRB	Horizon Results Booster
IPR	Intellectual Property Rights
KER	Key Exploitable Results
KPIs	Key Performance Indicators
LC	Lean Canvas
NCCs	National Competence Centres
PMT	Project Management Team
SME	Small and Medium Enterprises
VPC	Value Proposition Canvas
WP	Work Package

Executive Summary

The objective of WP4 is to facilitate the capitalisation of the successes of business experiments and innovation studies conducted by SMEs. This involves a comprehensive assessment of their business development activities, and the identification of strengths, weaknesses, opportunities and challenges. By focusing on these areas, the involved SMEs can prioritise their efforts towards long-term, sustainable use of HPC/AI technologies and services.

In addition, our support will help identify success stories and contribute to better exploitation of FFplus results [1]. The data collected can also be valuable to the EuroHPC Joint Undertaking (EuroHPC JU) in prioritising future initiatives.

In addition, WP4 will monitor the continued use of HPC, HPDA and AI technologies by partners involved in FFplus business experiments and innovation studies. This will include monitoring the use of these technologies in the medium and long term, as well as evaluating the impact of the Fortissimo and FF4EuroHPC [2] experiments beyond their completion.

Deliverable D4.1 outlines the methodology and introduces the tools implemented to facilitate business development support aimed at supporting the exploitation of the results from FFplus business experiments and innovation studies. It provides a comprehensive overview of the strategies, processes and resources used to ensure the most significant impact of these initiatives.

All pertinent questionnaires, templates and documents substantiating the activities outlined in WP4 are incorporated as appendices to this deliverable.

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1. Introduction

As set out in the DoA, the WP4 "Monitoring and supporting HPC/HPDA and AI uptake" has the primary objective of supporting SMEs in capitalising on the successes of their business experiments and innovation studies, while monitoring the long-term sustainability of their use of HPC technologies, thereby ensuring the maximum output for the overall FF4EuroHPC activities.

Two main leading actions are planned to reach the goal (i.e, support SMEs in capitalising on the successes of their experiments and innovation studies) :

- Supporting the business development of FFplus activities.
- Sustaining the experiments and innovation studies participants, particularly the SMEs, to maximise their business development and innovation potential arising from the experiment outcomes and help them to communicate about it.

In section 2, we will introduce the methodology and the tools we prepared to carry out the first action and present the tools we used to implement our business development support methodology.

Firstly, a survey to be completed by all the funded SMEs involved in the experiments and innovation studies is set up. The main goal of the survey is to gather comprehensive information about the participating SMEs. This data will be valuable to WP4 in effectively supporting the business development (BD) of FFplus activities and helping SMEs maximize the exploitation of their results.

This survey will also provide important information to the FFplus project and to the EuroHPC Joint Undertaken (EuroHPC JU) on the profile of SMEs taking part in this type of project and their different needs.

We were inspired by the methodology used by Horizon Results Booster (HRB) [3], adopted some of their tools and adapted them to the context of FFplus project. The tools we considered are : the Business Plan Table (BPT), the Lean Canvas (LC), the Value Proposition Canvas (VPC), and the Business Opportunity Support Assessment Tool (BOSAT).

In addition, in Task 4.2, we plan to evaluate the ongoing use of HPC, HPDA and AI technologies by partners involved in business experiments and track the long-term impact of these technologies to assess the results of the FF4EuroHPC business experiments beyond their initial completion. The same process will be applied to early FFplus sub-projects 6 months after their completion. This will involve a questionnaire to be sent to all end-user SMEs involved in previous Fortissimo projects and plan a follow-up action, in collaboration with the NCCs, by organising online webinars involving these SMEs in order to share the benefits they have gained from using HPC and AI technologies.

The processes, objectives and different actions to accomplish this task will be presented in section 3.

In section 4, we will present our concluding remarks.

Section 5 will gather the References and Applicable Documents.

A set of Annexes listed in section 6 completes this document.

2. Business Development Support Methodology, Plan and Objectives

To achieve the objectives of WP4, we have developed a comprehensive methodology that will be applied to participating SMEs and start-ups throughout the duration of the FFplus sub-projects. This approach focuses on fostering close collaboration with these partners to ensure effective support delivery.

To facilitate the implementation of our methodology, we have prepared two questionnaires to be completed by the SMEs and start-ups participating in the FFplus sub-projects.

Then, we have prepared a set of templates to support our business development assistance to the entities involved in the FFplus sub-projects.

The objectives of the questionnaires and templates are presented in the following subsections.

2.1. Comprehensive SME Profile Assessment - Questionnaires

We have already started to implement our methodology by preparing two questionnaires, one for each type of call, to identify the profiles and the specific needs of participating SMEs. The feedback from the SMEs and start-ups will enable us to tailor our support efforts and help these companies better exploit the results of their participation in FFplus sub-projects. Our aim is to enable SMEs and start-ups turn their innovations developed during FFplus Sub-projects into success stories and business expansion.

Analysing the questionnaire results will provide a profiling overview of SMEs and start-ups participating in FFplus, which will help define the actions to be launched. This information will also be very useful to the EuroHPC JU [4], as it will give them a better understanding of the types of companies that can benefit from HPC support and enable them to tailor future calls for proposals in the HPC field more effectively.

Our actions will include helping SMEs communicate the results of their developments, exploit the outcomes of their sub-projects efficiently, improve their business strategy, develop success stories highlighting their achievements, and work closely with NCCs, offering them new channels to identify stakeholders and customers who may be interested in their solutions.

To design the questionnaire, the WP4 team focused on gathering information about the participating companies that enable assessing their technical, financial, collaboration, dissemination and marketing capabilities, while identifying their specific needs in these areas.

The questionnaire for SMEs participating in the business experiments call (call type 1) is organised into three sections:

- **General Company Information:** This details the company's background, market positioning, strategic objectives and future growth plans.

- **Consortium Overview:** This provides a detailed description of the consortium involved, including its members, their roles and responsibilities, the consortium's objectives, and the synergies between the participating organisations.
- **SME Requirements and Needs:** These outline detail the SME's specific requirements and needs in terms of technology, finance, expertise, market access and other resources required for the successful implementation of the developed solution.

In addition to the three sections mentioned above, the questionnaire for companies participating in the innovation studies (call type 2) will also include a fourth section focusing on the AI computing resources, which outlines the organisation's current AI infrastructure, computing needs and any challenges faced when accessing or using AI computing resources.

This survey is implemented into the EUSurvey platform, a secure online tool provided by the European Commission [\[1\]\[4\]\[5\]](#).

The platform provided by the European Commission sends an email with a unique link to each SME inviting them to participate in the survey. Each SME can only complete the survey once. EUSurvey ensures that the information collected is processed anonymously.

The two questionnaires are appended to this document ([Annexe 1] and [Annexe2]) [6].

For every call, the survey will be launched five weeks after the commencement of each innovation study and experiment.

An anonymised version of the analysis of the results of the questionnaire will be publicly available on FFplus website.

Methodology for Business Development Support - Templates

2.1.1. Objective

As part of our objectives, we aim to support the SMEs involved in the sub-projects with defining and refining their business priorities related to the integration and use of HPC and/or AI technologies. We will also help them to set up tools that can contribute to developing effective exploitation strategies and identifying business development opportunities.

Our actions include:

- **Guiding SMEs** in the sub-projects to **establish** their business priorities for integrating and using HPC and/or AI technologies.
- **Assisting them in creating** tools to **develop** effective exploitation strategies and identify business development opportunities.

Within the WP4 methodology, we have developed four templates: a Business Plan Table (BPT), a Lean Canvas (LC), a Value Proposition Canvas (VPC), and a Business Opportunity Assessment Tool (BOSAT). All SMEs participating in the sub-projects will be asked to complete the templates.

Although they present some overlaps, the four tools (BPT, LC, VPC and BOSAT) offer complementary perspectives, providing a robust foundation for understanding and developing the business.

Combining these tools will allow the SMEs to:

- Identify of core competencies and strengths and weaknesses of the SME.
- Create of a compelling value proposition that resonates with the target market.
- Use the Lean Canvas to outline the core elements of the business model in relation with the subproject, including customer segments, value proposition, channels, customer relationships, revenue streams, cost structure, and key activities
- Formalise the business model. This includes financial projections, marketing and sales strategies and operational plans.

Our role will be to analyse these documents, to further advise these SMEs and encourage them to take action to gain commercial benefit from the sub-projects, enabling them to identify strengths to build on and areas to improve.

In the next sections, we will describe the content of these templates and their objectives.

All information provided by SMEs is confidential and will be used internally by the FFplus project to tailor the appropriate support to these SMEs.

2.1.2. The Business Plan Table

Based on a template used by the Horizon results Booster [3], we prepared a Business Plan Table (BPT) [Annex 4] [6] that provides various information about:

- The Key Exploitable Result (KER) developed by the sub-project: This includes the description of the addressed problem, alternative solutions, Unique Value Proposition (UVP) and the developed solution.
- Market aspects: Covers the target market, early adopters, market size and trends, impact of the solution (social, environmental and economic), legal aspects, use model, competitors and go to market timing, channels and pricing.
- The Intellectual Property Rights (IPR) aspects: This covers background and foreground rights.
- The team: This describes the team responsible for ensuring the successful implementation of the solution, outlining their role and expertise, eventually external providers needed to be involved to further develop the solution, as well as any external providers who may be required to further develop the solution.
- Exploitation roadmap: This outlines key actions to be undertaken 3 to 6 months after the conclusion of the sub-project, the roles and responsibilities of involved partners, the key milestones and key performance indicators (KPIs) to track the progress and success of the actions. It also includes an estimated cost for carrying out the planned activities over a 1-year and 3-year period, a projection of the revenues and profits expected to be generated once the solution is fully implemented, necessary financial resources that would be required to bridge the investment gap for successful implementation and exploitation of the results and the potential impact of the solution or service on the company's growth and benefits.

Completing the BPT will help break down the company's business plan into key sections, ensuring that all essential aspects of the venture are considered. The BPT can also help identify areas where more information is needed or potential risks can be addressed. A well-structured business plan is a powerful tool for communicating the business idea to investors, partners and other stakeholders.

2.1.3. The Lean Canvas

The Lean Canvas (LC) (Annexe 4) [6] is a one-page diagram designed to capture the business model. It is an effective tool for brainstorming potential models, setting priorities, and establishing the optimal approach. Once the KER has been identified using the BPT, the objective of this stage is to provide a concise overview of the business models developed by the partners, prepare their marketing strategies and establish the basis for a business plan. The LC methodology encourages a flexible and adaptable approach to business planning, enabling businesses to adjust their strategies in response to changing market conditions.

Once completed, the LC can be used for several purposes :

- **Test assumptions** about the target market, value proposition and customer segments.
- **Share** the LC with potential customers, mentors, or investors to gather **feedback** and **insights**.
- **Prioritise efforts** by determining which elements of the business model require the most attention and focus on them accordingly.

A **visually appealing** and **well-structured** LC can help generate enthusiasm for the developed solution and facilitate the sales process. As more information and customer feedback become available, the LC can be used to make the necessary adjustments to the business model.

We will ask the involved SMEs to regularly update the LC throughout the sub-project period.

2.1.4. The Value Proposition Canvas

The third template [Annexe 5] [6], which we will ask SMEs to complete, is the Value Proposition Canvas (VPC). This strategic tool helps map out and gain insight into the relationship between a company's offerings and its customers' needs.

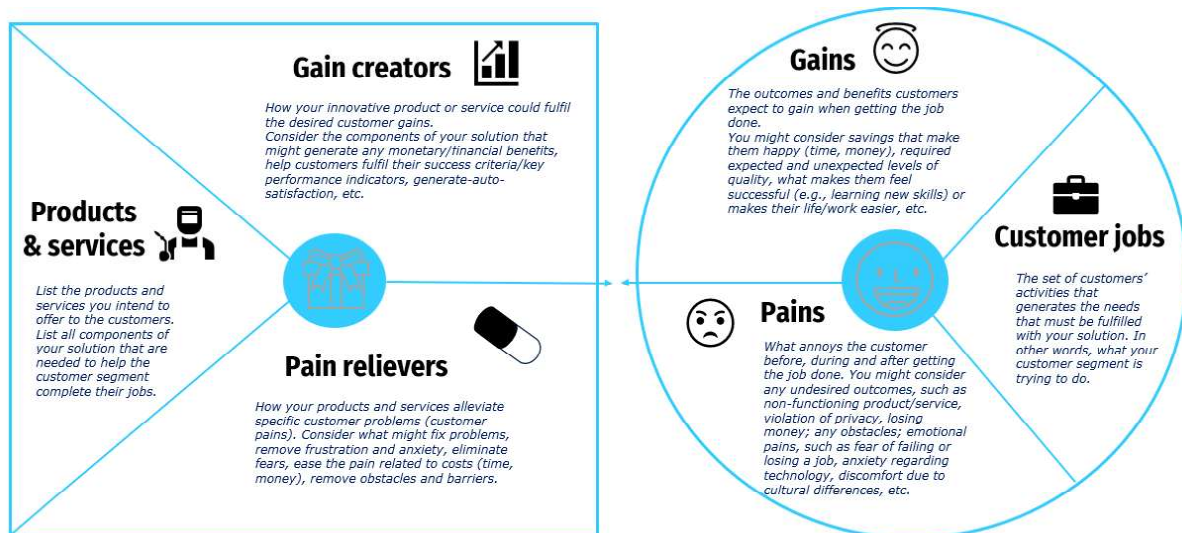


Figure 1: Value Proposition Canvas

The model has two sides. The left side represents the company's perspective, focusing on the potential of the solution to address customer pain points, value creators, and products or services. The right side is customer-centric, focusing on the customer's pain points, desired value, and tasks to be completed.

The purpose of the VPC is to identify and create a robust alignment between a company's offerings and a customer's needs ensuring that the value proposition is both compelling and relevant.

In the context of FFplus, the VPC can be used to:

- Understand customer needs and adapt the offering accordingly.
- Identify areas where the company can enhance its offering to better meet customer needs and expectations.
- Articulate clearly the value proposition to customers, investors and partners.

2.1.5. The Business Opportunity Support Assessment Tool

The Business Opportunity Support Assessment Tool (BOSAT, Annexe 7 (6)) is a free tool used by HRB ([3]). It is designed to assist researchers and innovators in identifying and exploring potential commercialisation opportunities for their results. The tool provides a structured framework for assessing the commercial potential of a technology, identifying target markets and developing a business plan.

The tool is a kind of short questionnaire, the results of which are illustrated on a graph. Its main objectives are as follows :

- Identifying commercial potential: This involves evaluating the market demand, technical feasibility, and the economic viability of a research result.
- Identifying target markets: This focuses on defining the specific customer segments or industries that could benefit from the technology.
- Developing a business plan: This entails creating a roadmap for commercialising the technology, including market entry strategies, financial projections, and risk assessment.
- Connecting with potential partners: This helps to establish connections with investors, industry experts, and other stakeholders who can support the commercialisation process.

By utilising this tool, FFplus SMEs can optimise their chances of successfully transforming their developments into marketable products or services.

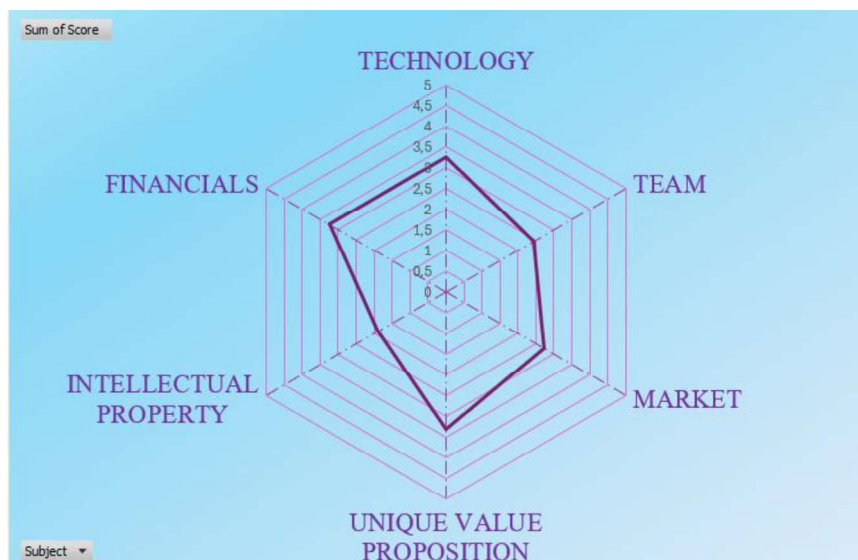


Figure 2: Example of output graph of the BOSAT

The graph provides an overview of the strengths and areas for improvement of the solution developed by the SMEs, helping to ensure its successful commercialisation.

2.1.6. Workshops Organisation

After the completion of the sub-projects, we will organise a series of workshops in collaboration with WP5 and with the EuroCC 2 [6] and CASTIEL 2 [7] projects to reach a broad audience across Europe. The primary objectives of these workshops are as follows:

- Raise awareness about the impact and importance of HPC and AI use among SMEs and attract other SMEs to benefit from these technologies.
- Ensure that the project's results are sustained and have a positive, long-lasting impact.
- Promote the project's outcomes and potential applications to relevant stakeholders.

- Facilitate networking opportunities for participants to exchange ideas and experiences.
- Showcase the successful outcomes and beneficial results derived from the sub-projects.
- Illustrate the value of the project's contributions to the field.
- Promote the success stories from the sub-projects to attract customers to the SMEs or help them identify key stakeholders.

By achieving these objectives, the workshops will help maximise the impact and value of the sub-project results ensuring that they are effectively communicated and integrated into the company's overall strategy of the involved companies.

Collaborating with the Castiel 2 project [7] to organise these workshops will motivate NCCs to support our initiatives, encourage them to support partners in business experiments and innovation studies (both technically and commercially), help partners to identify stakeholders and customers, and facilitate market development for the partners.

2.2. Planned Process and Timing

To implement our methodology for each tranche of sub-projects, we will:

- Collate and analyse the responses to the questionnaires.
- Publish a summary of the findings in an anonymised format.
- Request participating SMEs to complete the “BPT and LC templates.
- Collect and analyse the completed templates.
- Arrange follow-up calls with SMEs that have submitted templates to address any remaining inquiries, gather supplementary data, update relevant templates if needed, and provide guidance on enhancing the success of their business plan.
- Request that SMEs complete the VPC and BOSAT templates.
- Analyse the VPCs and BOSATs.
- Request any necessary updates from the SMEs.
- At the end of the sub-projects, arrange workshops to present the findings.

3. Sustainability Monitoring of Past Business Experiments

The objective of Task 4.2 is to evaluate the sustainability of past sub-projects within the Fortissimo and FFplus programmes, to maintain ongoing communication with partners to verify their continued commitment to the utilisation of HPC and AI technologies, and to gain a comprehensive understanding of the overall impact of the Fortissimo approach.

Our action will help to:

- Learn more about the effectiveness and efficiency of market preparation through Fortissimo actions.
- Provide the best possible support for new business experiments and innovation studies in the FFplus programme. By analysing the business outcomes of previous HPC

initiatives, organisations can identify successful strategies, avoid mistakes and make better decisions about project prioritisation for FFplus sub-projects.

- Provide useful feedback to the EuroHPC JU
- Use the information gathered to effectively communicate the potential long-term benefits of FFplus funding and inspire business experiments and innovation studies to apply for funding.

3.1. Questionnaire for Former Fortissimo end users SMEs

As part of our efforts, we have designed a questionnaire (Questionnaire for Former Fortissimo SMEs Annexe 3 (6)) to assess the long-term sustainability of past Fortissimo projects. This survey will collect data from all end user SMEs on their ongoing use of HPC, the benefits they have derived, and how these technologies have influenced their business and industry relationships.

The questionnaire is organised into five sections:

1. **Implementation and Integration:** Measures the success of the initial deployment and integration of HPC/AI technologies with existing systems.
2. **Current Usage and Impact:** Assesses current usage, the impact on operations, primary applications, scalability, and influence on innovation.
3. **Support, Training, and Resources:** Evaluates the adequacy of available/received training, technical support quality, resource utilisation, and efficiency improvements.
4. **Financial and Strategic Considerations:** Reviews financial sustainability, partner collaboration, future expansion plans, return on investment, and long-term strategy.
5. **Challenges and Feedback:** Identifies key challenges, reviews technology evolution, and gathers suggestions for project improvement.

The questionnaire results will be analysed and an anonymised version of the analysis will be published.

The WP4 team will strive to collect as many responses as possible, since this questionnaire comes several years after the end of the Fortissimo projects.

In the fourth year of FFplus, the same questionnaire will be sent to the SMEs that participated in the first two FFplus calls to demonstrate their continued commitment to the use of HPC and AI technologies.

3.2. Webinars for Former Fortissimo SMEs

Following the analysis of the questionnaire, we will host online webinars where SMEs can share how HPC and AI technologies have increased their company's productivity and improved their products and solutions. These webinars will be public and closely organised with the NCCs to guarantee a maximum number of attendees all around Europe and to ensure that as many companies as possible benefit from these experiences.

By working closely with NCCs, we can foster a collaborative environment that encourages the exchange of ideas and enables partners to leverage the sustainable benefits of HPC and AI to achieve their goals.

4. Conclusion

In deliverable D4.1, we detailed the methodology we will adopt to reach the objectives of the two WP4 tasks.

We have prepared questionnaires to be sent to the SMEs involved in the two types of FFplus sub-projects. The aim is to gather as much information as possible about these SMEs and to identify their needs. Feedback from the SMEs will be analysed and an anonymised version of the results will be published. These results will enable us to fine-tune our support strategies for these companies, to maximise the commercial impact of their participation in FFplus and to facilitate the emergence of create success stories that can serve as examples to other companies, stimulating them to adopt these technologies.

To streamline our business support to SMEs, we have developed the following business planning templates :

- A complete Business plan Table (BPT)
- A Lean Canvas (LC)
- A Values Proposition Canvas (VPC)
- A Business Opportunity Assessment Tool (BOSAT)

Companies will be asked to use these tools.

Through our methodology, partners can evaluate their business strategies, identify weaknesses and take proactive steps to drive business growth.

Meetings will be organised with the SMEs to discuss and suggest improvements and updates to the templates initially provided.

Following the completion of the sub-projects, we will work with EuroCC 2 [6] and Castiel 2 [7] to organise workshops, in collaboration with WP5, to help maximise the impact and value of the sub-project results. These workshops will facilitate effective communication and integration of the results into the company's strategic plans.

To assess the long-term sustainability of past Fortissimo projects, we have created a questionnaire for all end-user SMEs. This survey will collect data on their ongoing HPC usage, benefits and business impact.

We will also host webinars where SMEs can share their experiences with HPC and AI. We will work with EuroCC 2 [6] and Castiel 2 [7] projects to ensure maximum participation and value.

5. References and Applicable Documents

- [1] FFplus project, www.ffplus-project.eu
- [2] FF4EuroHPC, <https://www.ff4eurohpc.eu/en/>
- [3] Horizon Results Booster (HRB), <https://projects.research-and-innovation.ec.europa.eu/sites/default/files/kvp/files/kvp-horizon-results-booster.pdf>
- [4] EUROHPC JU, https://eurohpc-ju.europa.eu/index_en
- [5] EUSurvey, <https://ec.europa.eu/eusurvey/home/welcome>
- [6] EuroCC 2 project, <https://www.eurocc-access.eu/>
- [7] Castiel 2 project, <https://www.castiel-project.eu/>

6. Annexes

Annex 1	<i>Questionnaire to collect the SMEs needs and priorities HPC business Experiments</i>
Annex 2	<i>Questionnaire to collect the SMEs needs and priorities AI innovation Studies</i>
Annex 3	<i>Questionnaire to former fortissimo end-users</i>
Annex 4	<i>Business Plan Table</i>
Annex 5	<i>Lean Canvas (LC)</i>
Annex 6	<i>Value Proposition Canvas (VPC)</i>
Annex 7	<i>Business Opportunity Support Assessment Tool (BOSAT)</i>