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H2020-JTI-EuroHPC-2019-2

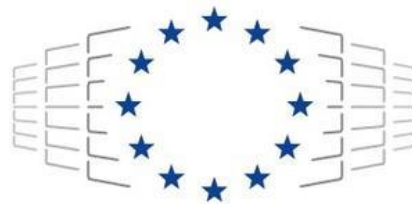


HPC INNOVATION FOR EUROPEAN SMES

Innovating and Widening the HPC use and skills base

Project Number: 951745

D5.3
Final Dissemination, Communication and Collaboration
Report



This project has received funding from the European High-Performance Computing Joint Undertaking (JU) under grant agreement No 951745. The JU receives support from the European Union's Horizon 2020 research and innovation programme and Germany, Italy, Slovenia, France, Spain.

Work package:	WP5	Final Dissemination, Communication and Collaboration Report
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Dissemination Level	Public	

Date	Author	Comments	Version	Status
2023-10-02	Tina Črnigoj Marc, Martina Golob	Document submitted to project internal review	V0.1	Draft
2023-10-05	Tina Črnigoj Marc, Martina Golob	Content improved according to reviewers' feedback	V0.2	Draft
2023-10-09	Andrej Košiček, Arctur, Tina Črnigoj Marc, Martina Golob, Bettina Keller	Proofreading, final check	V0.3	Draft
2023-10-10	Tina Črnigoj Marc	Final version for submission	V1.0	Final

List of abbreviations

AI	Artificial Intelligence
CoE	Center of Excellence
CPC	Cost per Click
DIH	Digital Innovation Hub
DoA	Description of Actions
EU	Europe / European
GA	Grant Agreement
GDPR	General Data Protection Regulations
FAQ	Frequently Asked Questions
HPC	High-Performance Computing
HPDA	High-Performance Data Analytics
IPR	Intellectual property rights
ISO/IEC	International Standards Organisation / International Electrotechnical Commission
ISVs	Independent Software Vendors
KPIs	Key Performance Indicators
M	Month (project month)
ML	Machine Learning
MS	Milestone
NCC	National Competence Centre
OC1	Open Call 1
OC2	Open Call 2
p.a.	per annum
p.m.	per month
PMT	Project Management Team
PPT	PowerPoint Presentation Template
PR	Press Release
ROI	Return on Investment
SMEs	Small and Medium Enterprises
URL	Universal Resource Locator
WP	Work Package

Executive Summary

This document presents an overview of the Work Package WP5 “Success Stories, Dissemination to and interaction with the HPC Ecosystem” activities and results that were achieved over the duration of the project (1st September 2020 – 31st October 2023; M1-M38). However, as the submission of this deliverable is in early October 2023 (M38), only the KPIs for the including period M1-M37 are included in this report.

This is the last in the series of deliverables, having submitted D5.1 Dissemination, Communication and Collaboration Plan (D5.1 Plan) in M3, and D5.2 First Dissemination, Communication and Collaboration Report submitted in M18. Two additional deliverables were submitted within WP5: D5.4 Success Story Booklet 1st edition in M27, and D5.5 Success Story Booklet 2nd edition submitted in early October (M38).

The main objective of the FF4EuroHPC project is to facilitate access to all High-Performance Computing (HPC)-related technologies for Small and Medium-Sized Enterprises (SMEs) and thus increase the innovation potential of European industry.

WP5 supported all work packages with dissemination materials and communication activities with the objective of creating awareness of the business benefits of advanced HPC and communicating project achievements. All consortium partners supported WP5 by providing materials, helping to disseminate promo materials and information, actively participating in the events, and supporting Success Stories production. WP5 was responsible for coordinating the production of 42 Success Stories through various media: website presentation, digital flyers, 2 booklet editions and 8 Success Stories videos.

All Key Performance Indicators (KPIs) were reached according to the D5.1 Plan. As all partners put extra effort into the WP5 activities, many of the KPIs were even exceeded, thus can conclude the WP5 activities were very successful.

This deliverable contains information on KPIs as presented in the D5.1 Plan and reports the results achieved by the consortium core partners; it does not include the dissemination results and KPIs achieved by Experiment partners (those are included in the final reports, provided by each respective Experiment consortium). All the data collected and progress achieved within this reporting period are presented and detailed in the following chapters. Information on deviations, milestones reached, and conclusions are provided in the closing chapters.

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1 Introduction

The dissemination and communication of the project activities and their results aims to raise awareness of the benefits of using advanced technologies such as HPC, AI, HPDA and ML for business, as well as to motivate potential HPC users to approach such methods. The communication and promotion activities revolved around the Open Call 1 (OC1) and OC2 experiments, and most notably, FF4EuroHPC success stories.

The overall objective of FF4EuroHPC is to support and execute the experiments and, by promoting success stories, to encourage European industry to be more competitive globally by using advanced HPC services. FF4EuroHPC achieved this objective by realising the following goals:

- Raising awareness of access to advanced HPC services for industrial users, particularly SMEs, through competences available in the project and the Experiments.
- Create, publish, and distribute Success Stories to show the full potential of these advanced HPC services, focusing on benefits for business.
- Promote and scale the business impact through the entire SME ecosystem.
- Produce high quality, tailored dissemination content, and share the content through various communication channels such as websites, social media, newsletters, articles, and events.

In collaboration with the other work packages, WP5 contributes to creating awareness of the business benefits of advanced HPC services across the whole value chain.

Target groups addressed include industrial and commercial HPC user communities, SMEs, service providers, HPC/HPDA/AI experts and providers of HPC-infrastructure, EuroHPC's NCCs, relevant SME associations and networks, DIHs and domain specific associations from diverse industrial sectors and different European countries.

WP5 consists of three main tasks:

- Task 5.1 – Outreach, Communication, and Dissemination
- Task 5.2 – Success Stories
- Task 5.3 – Collaboration with EuroHPC and other entities

Arctur is leading Task 5.1 and Task 5.2 and HLRS is leading Task 5.3. All project partners are involved in WP5 and actively contribute to project achievements.

Within WP5, five deliverables were submitted:

- The first deliverable *D5.1 Dissemination, Communication and Collaboration Plan* (hereinafter D5.1) was submitted in November 2020 (M3) and contains the dissemination plan including milestones, performance indicators, and the due time frame.
- The second deliverable *D5.2 First Dissemination, Communication and Collaboration Report* provided the results achieved in the first half of the project duration and was submitted in February 2021 (M18).
- Deliverable *D5.4 Success Story Booklet 1st edition* contains OC 1 Success Stories and was submitted in November 2022 (M27).

- Deliverable *D5.5 Success Stories Booklet 2nd edition* contains OC1 and OC2 Success Stories and was submitted in October 2023 (M38). The KPIs for the project duration (36 months and 2 months of extension) were achieved and all planned activities were carried out according to the dissemination and communication plan. In this document, KPIs reported include the reporting period M1-M37 (M37 being September 2023), as the KPIs for M38 cannot be included due to the submission date for this deliverable, which is 31th October 2023 (M38).

2 Major Achievements

Over the course of the project, FF4EuroHPC WP5 endeavoured to accomplish the following goals:

- Developing a new, appealing visual identity, website and promotional materials to make the FF4EuroHPC project visible;
- Promoting the two Open Calls of the FF4EuroHPC project through different communication channels: Websites, social media, newsletters, press release, emailing, and events/conferences;
- Raising awareness about the business benefits of using HPC and advanced technologies through the Fortissimo and FF4EuroHPC Success Stories and best practices from European HPC ecosystem.

Hence, the following major achievements were completed in WP5 within the reporting period to accomplish the goals above:

- The new project visual identity was developed to differentiate FF4EuroHPC from previous Fortissimo projects and to attract the attention of users;
- The new FF4EuroHPC website [1]; was produced and launched and the Fortissimo project website was re-designed and published [2];
- The website was visited by 40,625 visitors who created 106,496 pageviews (on average: 1.128 visitors per month; 2,958 pageviews per month);
- The project social media profiles on LinkedIn [3], X (formerly Twitter) [4] and YouTube [5] were created for project communication. Accordingly, the social media scheduling calendar was developed and used for efficient social media management;
- Social media posts were regularly published (minimum 2 posts per week per social media account). The KPIs achieved highly exceeded planned KPIs due to high social media engagement and quality content contribution;
X (formerly Twitter): 545 followers, 769 posts, 315,514 impressions in total
LinkedIn: 963 followers, 583 posts, 154,451 impressions in total
YouTube: 44 subscribers, 23 videos published, 2,357 video views in total;
- The two Open Calls for experiments were widely promoted and successful, as 138 high-quality eligible proposals have been submitted;
- FF4EuroHPC partners with the support of experiment partners actively participated in 88 conferences, events, webinars, group meetings and other meetings, where they presented the project activities, the Open Calls, Success Stories and advocated use of HPC technologies in business;
- Eight issues of the FF4EuroHPC newsletter (3 more issues than originally planned) were created and published to spread the information about the project, Open Calls and Success Stories;

- Three press releases (PR) were written, published and disseminated among channels for project publicity. The final PR has also been written and will be published and disseminated in the second half of October 2023;
- To raise the awareness via SMEs and relevant stakeholders, various promotion materials (brochures, Open Call-1 and Open Call-2 landing pages, SME landing page) were designed and disseminated by all partners to our target groups;
- 3 types of brochures were designed for specific target groups (SMEs, ISVs and general public) and were updated three times with relevant information;
- Project poster, business cards, roll-up, project wall and appealing gadgets were designed & delivered at the events;
- Templates for the presentation of FF4EuroHPC experiments on the website, flyers, booklets, and templates for Experiment partners' presentation on the website were prepared and shared with experiment partners;
- Materials from experiments were collected and presented on the project website and through other communication channels;
- 107 external links (clippings) with the articles about the project, project events, Open Calls and Success Stories were collected and at least six additional Success Stories articles will be published after this deliverable is submitted;
- 58 news items were written and published on the project website;
- 42 Success Stories were created and presented through the website, flyers, and booklet format;
- 2 Success Stories booklets were designed in online and print format;
- 8 Success Stories videos were produced and published on the YouTube Channel;
- 15 articles were published by M36 in sector related magazines such as: Futurities Magazine: The Simulation Based Engineering & Sciences Magazine [6], Technology and Healthcare Magazine [7], Electrical Engineering magazine [8], NAFEMS Benchmark [9]. 6 more articles will be published after this deliverable is submitted. 8 additional articles about the project were published in other digital magazines (e.g. 2020 Handbook of European HPC projects [10], Leading the way in European Supercomputing [11], a project info pack by CORDIS, ETP4HPC Annual Report 2020 [12]), and as blog posts (e.g. EXCELLERAT project website [13] and [14], EUROHPC JU website – submitted, will be published);
- Successful collaborations were established with the EUROHPC JU, ETP4HPC, NCCs, NAFEMS Community and EXCELLERAT CoE;
- All five Deliverables were written and submitted according to the GA and D5.1 Plan [15];
- 102 potential collaborators were defined and different approaches have been tested to establish collaboration or promote exchange with other projects and entities within the European HPC landscape, NCCs and DIHs, with a focus on NCCs and EUROHPC JU;
- 35 regular WP5 Telcos were held with project partners to plan, report, discuss and advance WP5 activities.

All project partners were involved in WP5 and contributed to the achievements during the reporting period.

3 Work Done

This section will provide an overview of the tasks in WP5 and detail the work performed in each task.

WP5 consists of three tasks:

- T5.1 – Outreach, Communication, and Dissemination
- T5.2 – Success Stories
- T5.3 – Collaboration with EuroHPC and other entities

T5.1 and T5.3 have been active since M1, while T5.2 started in M15.

All project related dissemination and communication activities presented within this deliverable were carried out according to the D5.1 Communication, dissemination and collaboration plan [15].

3.1 Task 5.1: Outreach, Communication, and Dissemination

For a project to reach its communication objectives, addressing the appropriate target group is essential. To communicate and disseminate the appropriate materials to the respective target groups and reach the project’s objectives, target groups were defined well in advance. A list of these target groups can be found in the Appendix.

To track the success of project activities performed and to reach the FF4EuroHPC project goals, KPIs were set and presented in D5.1 Plan [15]. For the successful tracking of these KPIs, the Metrics file was created, which is shared with partners and regularly updated.

All planned KPIs were reached, and some of them even exceeded, due to the exceptional effort made by all partners in WP5 to make the project and its results visible.

Table 1 gives an overview of the KPIs and their status in M37:

Communication Actions	Target Group	KPI & Target Values	KPI Status M37	KPIs Deadlines
Website ¹	SMEs, General public, Press, Potential Open Call proposers	#Visitors 7,000 p.a. #Page views 1,500 p.m.	#Visitors 40,760 (13,586 p.a.) #Pageviews 106,496 (2.958 p.m.)	By M38
Brochure	General public, Innovation centres, Industry associations, SMEs	#Updates 3 #Tailored versions 3	#Updates: 3 #Tailored versions: 3	By M24
Poster (on request)	General public, Innovation centres,		#2	By M24

	Ind. associations, SMEs			
Social Media - X (formerly Twitter)	General public, Innovation centres, Ind. associations, SMEs	#Followers total 300 #Tweets total 500 #Impressions 200 p.m.	#Followers total 545 #Tweets total 769 #Impressions in total 315,514 (8,527 p.m.)	By M38 (50% by M12, 25% more by M24, total by M38)
Social Media - LinkedIn	General public, Innovation centres, Ind. associations, SMEs	#Followers total 500 #Posts total 100 #Impressions 200 p.m.	#Followers total 963 #Posts total 583 #Impressions in total 154,451 (4,174 p.m.)	By M38 (50% by M12, 25% more by M24, total by M38)
Social Media - YouTube	General public, Innovation centres, Ind. associations, SMEs	#video views 2,000	#Video views 3,461	By M38
Newsletters	SMEs, ISVs, Ind. associations, HPC ecosystem	#Issues 5 #Subscribers 150	#Issues 8 #Subscribers 200	Issues every 7 months 70% of subscribers by M12
Articles in sector magazines / papers	SMEs	#Articles 10	#Articles 15 (published) 6 (ready for publishing)	5 by M30, 5 by M37
Press releases	Press	#Press releases 3	#Press releases 4	1 per year
Press clippings ²	General public	#Articles (links) 10	#Articles (links) 107	By M38
Visits to trade fairs, user groups, conferences, workshops	SMEs, ISVs	#Events 5	#Events 88	Participation to events by M38 70% visits during Y1 and Y2, Success Stories presentation in Y3
Task 5.3 – Identification of relevant actors	Ind. associations, HPC ecosystem, NCCs, DIHs	#Relevant actors 15	#Relevant actors 15	Until M8
Task 5.3 – Successful contact uptake	Ind. associations, HPC ecosystem, NCCs, DIHs	#Relevant actors 10	#Relevant actors 10	Until M18

Task 5.3 – Successful collaborations	Ind. associations, HPC ecosystem, NCCs, DIHs	#Collaborations 5	#Collaborations 5	Until M24
Success stories	SMEs, NCCs, DIHs, HPC ecosystem	#Success Stories 42	#Success Stories 42	Until M38
Success Stories videos	SMEs, NCCs, DIHs, HPC ecosystem	#Videos 6	#Videos 8	Until M38
Success Stories flyers	SMEs, NCCs, DIHs, HPC ecosystem	#Flyers 42	#Flyers 42	Until M38
Success Story booklet	SMEs, NCCs, DIHs, HPC ecosystem	#Booklet 2	#Booklet 2	Until M38

1 The FF4EuroHPC website was published on October 22nd 2020, thus statistics are tracked from then on (M2).

2 Press Clipping is the cutting-out of articles from a publications or media to monitor the media exposure of a project. Press Clippings are a measure of how many times a brand name has been mentioned in press such as newspapers, magazines, or in television and online media. According to the project, clippings are all publications on partners’ websites, different portals or online journals. For this purpose, the #Articles is equal to #Clippings / links.

Table 1: KPIs overview.

3.1.1 Project Visual Identity

A unique, appealing visual identity is essential for a project, since it creates a common brand across different media and communication channels. FF4EuroHPC is a Fortissimo and Fortissimo2 successor, but it still differs in some aspects, thus the decision to develop a new visual identity was made. The colour scheme stays in blue scale, but a new logo was developed which was then used to design project templates (deliverables, letters, PR, social media photos, banner). A project visual identity remains the same for the whole project duration. All partners, experiments and core partners, are bound to use the FF4EuroHPC’s project templates and graphic elements for internal and external communication throughout the project duration.

The latest versions of the project logo, banner, presentation template and website and are shown in Figure 1 to Figure 4.



Figure 1: Project Logo.



Figure 2: Project Presentation Template.

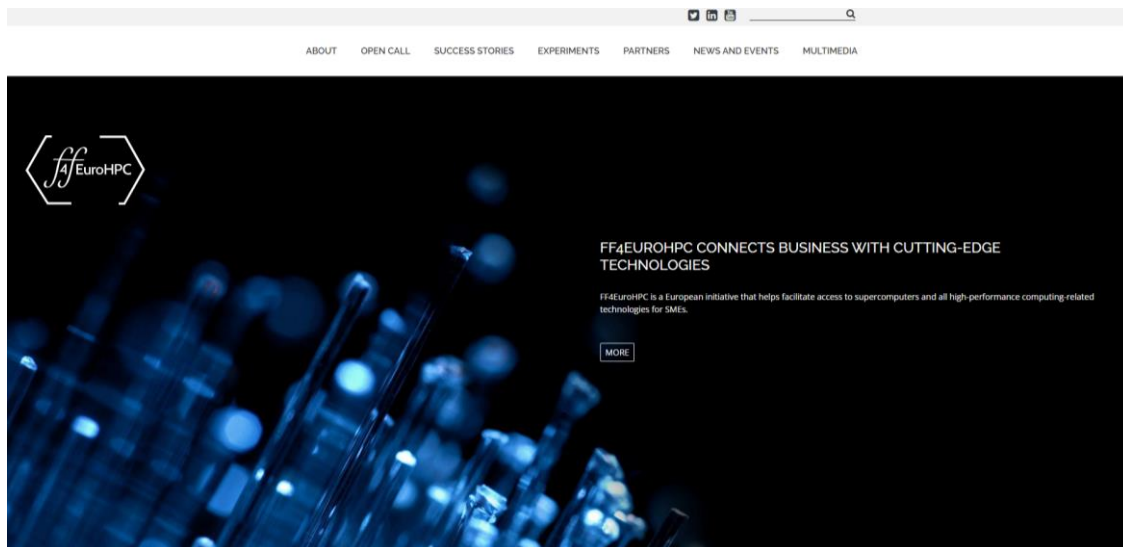


Figure 3: Project Website (as of October 6th, 2023).



Figure 4: Project Banner.

3.1.2 Website

A project website is one of the first contact points between the project and its community (target groups). It is an essential tool to establish project brand and credibility, build connections with target groups and communicate project activities and results.

FF4EuroHPC's website was published at the URL <https://www.ff4eurohpc.eu/>. It was developed, designed and published by Arctur in October 2020. The website has been maintained by Arctur and will be available 5 years after the conclusion of the project. It is a “live” communication channel, showing the progress of FF4EuroHPC and thus its content is adapted regularly according to the project's activities and results. It was re-designed during the project duration according to the project activities and project needs.

The project website contains the following sections:

- **About** (general information about the project, project partners' presentations, collaboration with other entities and projects, introduction to HPC, presentation about Fortissimo projects history, and the FF4EuroHPC public deliverables);
- **HPC4SME** (subpage which gives general information about the HPC and access for SMEs);
- **Success Stories** (presentation of FF4EuroHPC Success Stories);
- **Experiments** (presentation of the FF4EuroHPC Experiments);
- **Partners** (Experiment partners' presentation);
- **News and events** (news items about the project activities and results, and list of events related to the HPC);
- **Multimedia** (FF4EuroHPC and Fortissimo Success Stories booklets, FF4EuroHPC project brochures, publications where FF4EuroHPC articles were published, FF4EuroHPC newsletters).

In the first eighteen months of the project, the Open call section including Open Call section, that was adapted according to Open Call-1 and Open Call-2's submission requests and deadlines (Open Calls public tender text, FAQ, check-list, submission site).

The FF4EuroHPC's website complies with GDPR [16] and ISO/IEC 27001:2013 [17]. The website server is located in Nova Gorica, Slovenia, and it is properly secured.

The KPIs: Defined, tracked and achieved

Throughout the project, the number of webpage visits (page views) and number of visitors was measured with the aim of monitoring website viewership, popularity, and attractiveness. Key priorities related to the website are increasing the number of visitors on the project website, and raising the awareness about the use of HPC and the benefits it brings to different sectors among our target groups.

In the following paragraph, some statistics about the visits on the FF4EuroHPC website (October 24th 2020³ – September 30th 2023) are presented. Statistics show that the number of visitors was higher than anticipated. Content presented on the website was evidently of interest to visitors, as 2.7 actions were done by visitor per visit. The average duration time of a visit was 2.11 minutes, which shows that the content was interesting and appealing for visitors (as

³ Website was published on 24th October 2020.

according to statistics, average time spent on a website globally for 2023 is 45 – 55 seconds [18]).

- Total visitors: 40,760
- Pageviews: 106,494; Unique pageviews⁴: 73,214
- Actions (page views, downloads, outlinks⁵ and internal site searches) per visit: 2.7
- Average visit duration: 2 min 11 sec
- Visits bounced (left the website after one page): 44%
- Downloads: 1,498 (1,327 unique downloads)
- Outlinks: 3,733
- Nr. of visitors from social media: LinkedIn 2,074; Facebook 530, X (formerly Twitter) 464
- Visitors by countries: USA 14.5%, Italy 12.5%, Germany 11.2%, Spain 10.2%, France 7.2%, Slovenia 4.7%

3.1.3 Social Media

Social media channels are used within the FF4EuroHPC project for:

- Increasing awareness about FF4EuroHPC project activities;
- Increasing awareness about the use of HPC and advanced technologies in business;
- Promoting the benefits HPC brings to industrial end-users through Success Stories;
- Informing followers about HPC-related events and information about the HPC ecosystem;
- Increasing number of visitors on the FF4EuroHPC website.

The social media channels used within the project are: LinkedIn [3], X (formerly Twitter) [4] and YouTube [5]. LinkedIn is one of the largest business social networks. The LinkedIn page is used to reach the target audiences and build awareness of the FF4EuroHPC project through promotion in relevant HPC-themed LinkedIn groups.

⁴ Pageviews include all views of a particular page, even if they are from the same user. For example, if a user visits a page three times, the page will be counted as three pageviews. On the other hand, unique pageviews only count the number of unique users who have viewed a page.

⁵ A hyperlink from a webpage to an external website.

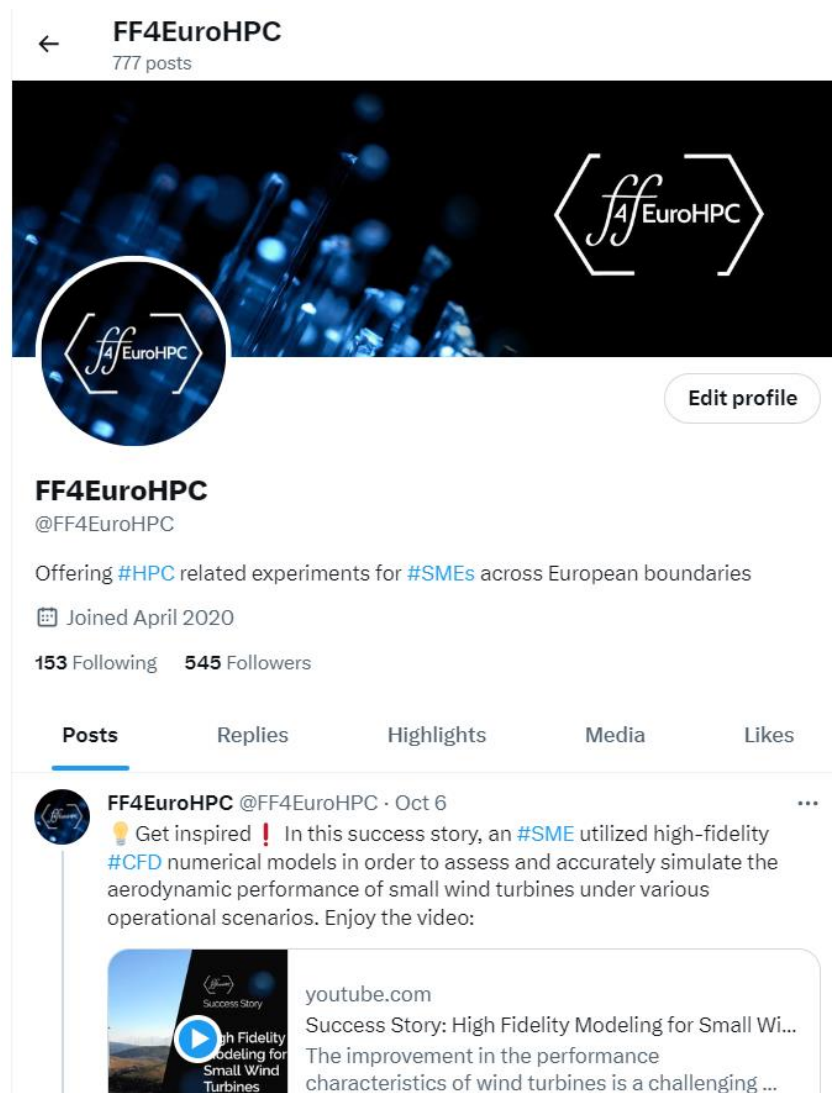


Figure 5: FF4EuroHPC X (formerly Twitter) Profile (as of October 6th, 2023).

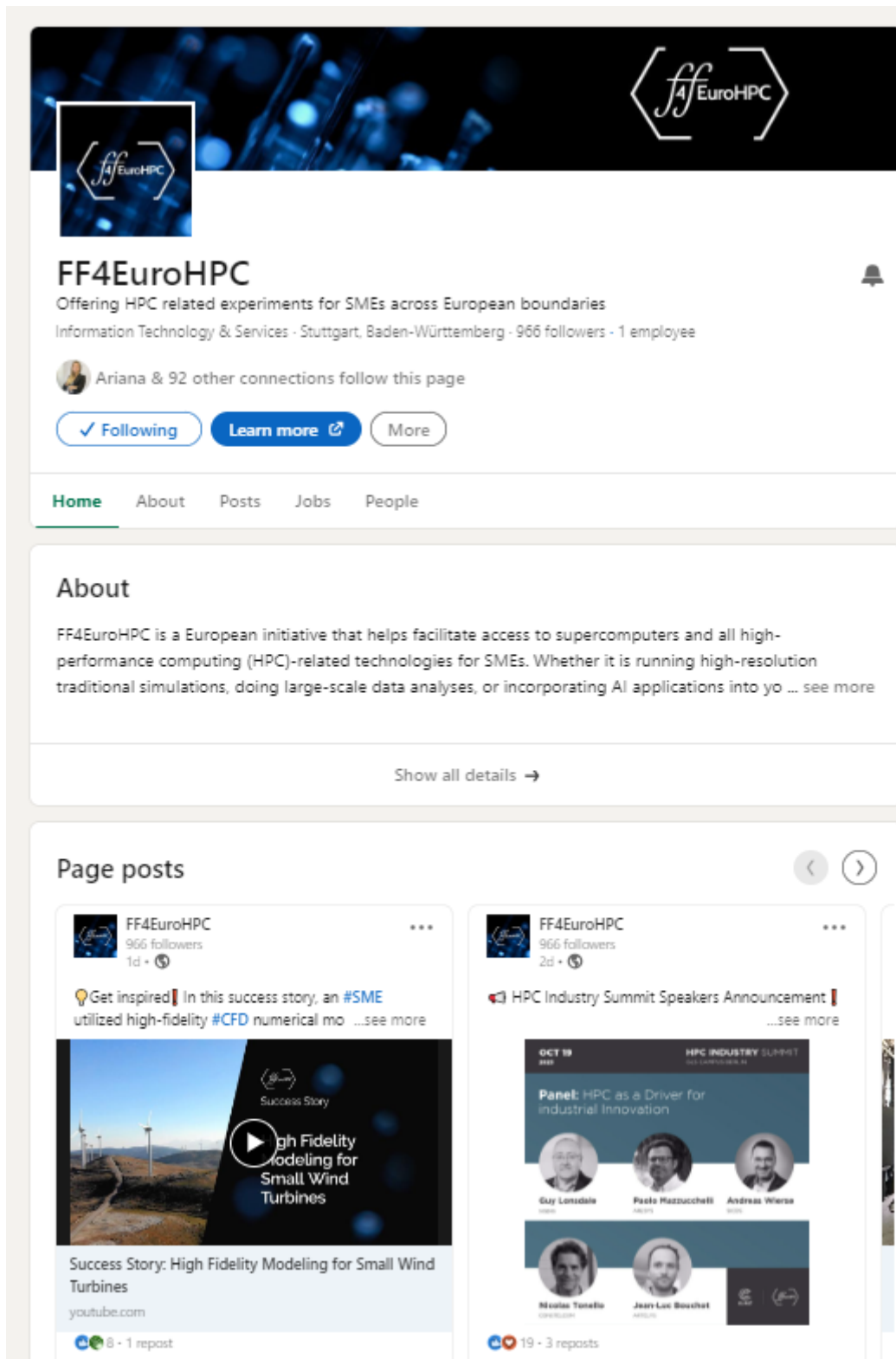


Figure 6: FF4EuroHPC LinkedIn Profile (as of October 6th, 2023).

All project beneficiaries contributed content for social media. For this purpose, a social media calendar for scheduling posts was prepared in WP5.

The topics that FF4EuroHPC partners have been covering on X (formerly Twitter) and LinkedIn include:

- Success Story Mondays: Each Monday one Success Story is presented.
- Experiments Wednesdays: Each Wednesday one FF4EuroHPC Experiment is presented;
- Open Call promotion; information was given about how to participate before a Call opens and during the submission period, and Call results are disseminated afterwards;
- Special / National days: Success Story covering the special / national day topic presented on the date corresponding to the special/national days;
- Informing about different HPC related events;
- Sharing knowledge about: HPC related topics, blogs, articles, videos, use cases from other projects, institutes, SMEs;
- Celebration: congratulations for Holidays (also partner's National days);
- Content sharing (from other HPC related projects, EU organisations e.g. European Commission, EUROHPC JU, ETP4HPC, NCCs, industry associations, etc.).

Special templates (Figure 7) were created to present the Success Stories and FF4EuroHPC Experiments, to make them visually attractive and to catch the followers' attention.

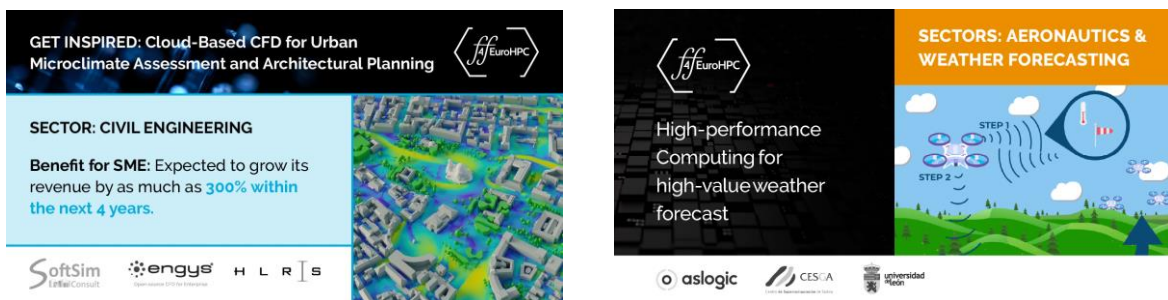


Figure 7: Success Story Template (left) and Experiment Template (right).

Social media content was prepared and scheduled up until January 2024, to promote all the OC2 Success Stories and to keep the social media profiles active also after the project's completion.

To raise awareness of the FF4EuroHPC Open Calls, two paid LinkedIn promotion campaigns took place:

- 1st from November 23rd, 2020 to December 23rd, 2020
- 2nd from July 9th, 2021 to September 17th, 2021

25 ads (e.g. posts) were promoted. WP5 created different campaigns and defined specific target groups for reaching potential candidates who would apply to the Open Calls. According to each ad, we chose:

- Specific countries that were eligible for Horizon 2020 funding contribution, but with emphasis on the European countries;
- Industrial sectors with emphasis on manufacturing;
- Job functions with the emphasis on engineering and entrepreneurship;
- Job seniorities;
- Company size (focus on SMEs, with less than 249 employees).

The results achieved through the paid promotion were:

- 100,252 impressions⁶ achieved (organic post⁷ gains 100-600 impressions per post);
- 267 clicks on the link leading to the FF4EuroHPC website;
- 2.87 EUR average Cost per Click (CPC)⁸;
- Top 5 sectors reached: IT services and consulting (23,5%), Software development (9%), Business consulting and marketing (5,5%), Construction (3%), Motor vehicle manufacturing (2.5%);
- Company size: 11-50 employees (28%), 51-200 employees (26%), 2-10 employees (19%);
- Top 10 countries: Ukraine (9.9%), Slovenia (9.8%), Spain (8.2%), Serbia (7.7%), France (7.2%), Netherlands (6.5%), Belarus (4%), Portugal (4%), Albania (3.2%), Cyprus (3.1%).

Even there is difficult to assert the paid advertisements increased the number of submitted proposals to the OCs, we can still conclude that the LinkedIn paid promotions were successful since we gained more than 100,000 impressions (this is on average 4,010 impressions per post), raising awareness about the FF4EuroHPC project and related Open Calls. Organic posts (i.e. non-paid posts, gaining on average 300-400 impressions per post), received additional traffic to the project website and had a low average CPC (as the average costs per click for ads on LinkedIn in 2021, when the campaigns took place, was EUR 4.90 [19]).

Furthermore, a YouTube channel (Figure 8) was established to share video content that was produced throughout the project duration.

On the project YouTube channel, 23 videos are available. 7 more videos will be published by end October 2023 (3 FF4EuroHPC Success Stories videos and 4 OC2 webinars videos).

In total, the YouTube channel has (by M37):

- 44 subscribers;
- 3,461 views
- 121.4 hours of video content.

⁶ Impressions represent the total number of times posts were seen.

⁷ Organic social media content is any free content shared on social media profiles that is not paid.

⁸ This is the price you pay for each click on your Facebook ad. Average CPC in 2021 costed EUR 5.27.

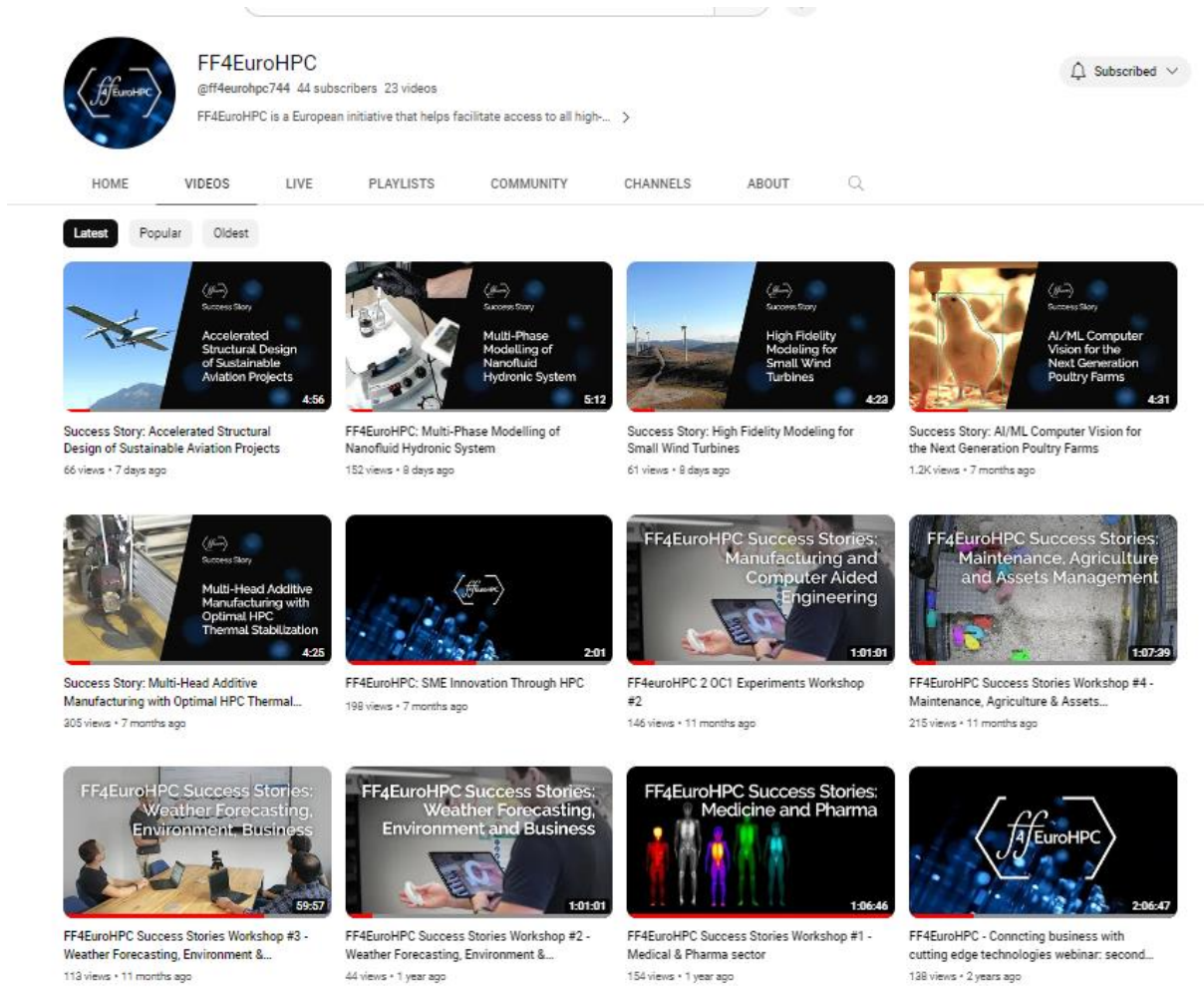


Figure 8: FF4EuroHPC YouTube Channel (as of October 6th, 2023).

The KPIs: Defined, tracked and achieved

A KPIs table was created to monitor the social media activities and to measure the goals related to increasing awareness and boosting brand engagement. Table 2 shows the KPIs as defined and achieved in the reporting period. As the focus was put on building social media engagement, and preparing quality content most KPIs were already achieved in the first project year.

Social Media	KPIs Defined	KPIs Achieved by M37	KPIs Deadlines
X (formerly Twitter)	#Followers total 300 #Tweets total 500 #Impressions 200 p.m.	#Followers total 545 #Tweets total 769 #Impressions in total 315,514 (8,527 p.m.)	By M37 (50% by M12, 25% more by M24, total by M36)
LinkedIn	#Followers total 500	#Followers total 963 #Posts total 583	By M37

	#Posts total 100 #Impressions 200 p.m.	#Impressions in total 154,451 (4,174 p.m.)	(50% by M12, 25% more by M24, total by M37)
YouTube	#Video views 2,000	#Video views 3,461	By M38

Table 2: X (formerly Twitter), LinkedIn and YouTube KPIs – Target and Achieved.

3.1.4 Newsletter

The FF4EuroHPC newsletter is an additional tool to help promote the project activities and results. The FF4EuroHPC newsletter was set up using the MailChimp tool [20]. Originally, five newsletter issues were planned during the project duration, but to keep engagement rates high, eight issues were ultimately released:

1. #1 in March 2021
2. #2 in July 2021
3. #3 in December 2021
4. #4 in July 2022
5. #5 in December 2022
6. #6 in March 2023
7. #7 in May 2023
8. #8 in October 2023 (will be released by end of October 2023)

The subscription to the newsletter was widely promoted by all partners.

The layout of the newsletter is aligned with the FF4EuroHPC visual identity (Figure 9 and Figure 10) and consists of at least three different sections (Foreword, Open Calls, Experiments/Success Stories presentation, HPC and FF4EuroHPC events calendar).

The newsletter issues were also embedded on the project website in the multimedia section [21]. The subscription to the newsletter and newsletter issues have been regularly promoted through X (formerly Twitter) and LinkedIn.

The KPIs: Defined, tracked and achieved

Five newsletter issues were planned to be issued every seven months. In D5.1 Plan, the KPI goal set was to reach 150 subscribers in total by the project end.

In the reporting period, seven newsletter issues were published (and one more is prepared for release in October 2023). 200 subscribers were registered to receive our newsletters, so the planned KPIs were reached.



Dear Reader,

As a football fan I like to reference famous sayings of football stars from time to time and so today I would like to quote Cristiano Ronaldo with these words: "I don't have to show anything to anyone. There is nothing to prove." Well, this is definitely true for Ronaldo, but he also contradicts himself, because so far he clearly showed what he can do when he plays in the field. And in the same way, in FF4EuroHPC we show "in the field" (i.e. in real use cases within real business cases) what can be enabled with our knowledge and the technologies we use.

Every business experiment in FF4EuroHPC is not only a valuable activity for the end-users, but a kind of business card of success for us as well. This is happening in a real-life "game", where success is at stake and showing how HPC and associated technologies can maximally support the European industrial ecosystem (with focus on SMEs) is of exceptional importance. That's why we are proud to have published not only the first booklet with FF4EuroHPC Open Call 1 Success Stories, but also the first Success Stories video. With this we prove that the Fortissimo Mission is not only a goal, but it is ongoing and crucial activity for the industrial uptake of HPC and associated technologies.

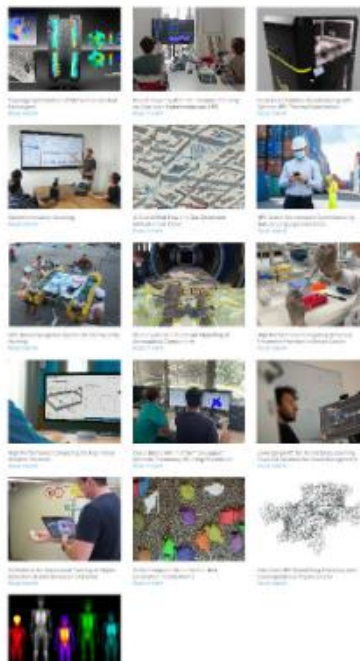
Gastien Keller, FF4EuroHPC project coordinator

FF4EuroHPC Success Stories Tranche #1

It is our great pleasure to announce that the first tranche of 16 FF4EuroHPC Experiments was successfully completed. The Experiments started at the beginning of June 2021 and were concluded at the end of August 2022. As a result, 16 innovative Success Stories were created in collaboration with 23 partners from 9 European Countries. Success Stories are highlighting the business benefits and impact that HPC, AI, ML, and other related technologies bring to the business.

FF4EuroHPC Success Stories Online Presentation

16 Success Stories are presented on the FF4EuroHPC website, each of them presenting a business challenge and the solution, experiment partners developed through the experiment with the help of Cloud-based HPC. Furthermore, the business impact and benefits SMEs gained through the experiment are highlighted.



FF4EuroHPC Success Stories Booklet

There is no better companion than a good book. Books can inform you, teach you and help to discover new directions. FF4EuroHPC Success Stories Booklet: *AI& Innovation Through HPC* is one of the quality reading materials that readers at various levels can enjoy. The Booklet is available in digital format, meanwhile hardcopies will be delivered at events. The first Booklets were delivered to members of National Competence Centers at the EUROCC Kick-off meeting in Stuttgart, Germany in the beginning of February.



[Leaf through the FF4EuroHPC Success Stories Booklet](#)

FF4EuroHPC Success Stories Videos

Two inspiring Success Story videos were produced about non-SMEs with the support of SME, HPC Providers and Domain experts implemented HPC into their business, striving towards innovation and gaining awesome results. One more, the solution SMEs developed and successfully implemented into their business left many powerful environmental, economic and social impacts. Furthermore, introductory video about the FF4EuroHPC project and Success Stories is now available too!



Figure 9: FF4EuroHPC Newsletter Issue Nr. 7, Pages 1 and 2

Meet FF4EuroHPC Partners at Events

FF4EuroHPC partners will give speeches and present Success Stories at different events. Would you like to meet us in person? All the information will be provided on the Project website and through social media. Stay tuned!

[See events](#)

Success Stories Video Presentations

In four webinars, experiment partners presented 12 Innovative Success Stories. The aim of these Success Stories is to inspire the wider community, from industry end-users, HPC and technology providers, ISVs and AI experts by presenting real use cases and first-hand experiences. Adopting and further implementing of HPC-related technologies is crucial for further innovation and business growth. You are kindly invited to watch the videos and learn more about specific cases.

Workshop #1: Experiments covering Medical & Pharmaceutical Sectors

Workshop #2: Experiments covering Manufacturing and Computer-Aided Engineering Sectors

Workshop #3: Experiments covering Weather Forecasting, Pollution & Counterfeit Detection in Business Sectors

Workshop #4: Experiments covering Maintenance, Agriculture & Assets Management Sectors



[Watch the FF4EuroHPC Success Stories Videos](#)

Let's Stay Connected!

You can find all information about the project activities on the [project's website](#), as well as on our [Twitter](#) and [LinkedIn](#) accounts under @FF4EuroHPC. You are kindly invited to be part of our community - use the hashtag #FF4EuroHPC. If you would like to get some inspiration from success stories and learn more about using HPC in various industries, then you are invited to watch videos on the project's [YouTube](#) channel. Do not miss any information, subscribe to our newsletter [here](#) and stay tuned!



Figure 10: FF4EuroHPC Newsletter Issue Nr. 7, Page 3

3.1.5 Promotional Materials (Brochure, Poster, Business cards, PPT)

To make the project visible, supporting materials like brochures, poster, business cards and presentations have been created. The brochures are available on the project website under the Multimedia section [22]. They were created as a first contact point for interested stakeholders (such as SMEs, ISVs and general public – see Figure 11) to reach respective interest groups from diverse industries and geographic regions. In the reporting period, brochures were updated three times to reflect the project's progress.

A project poster was prepared on request for presenting the project at different events. Three project posters were designed during the reporting period. A sample of poster is shown in Figure 12.

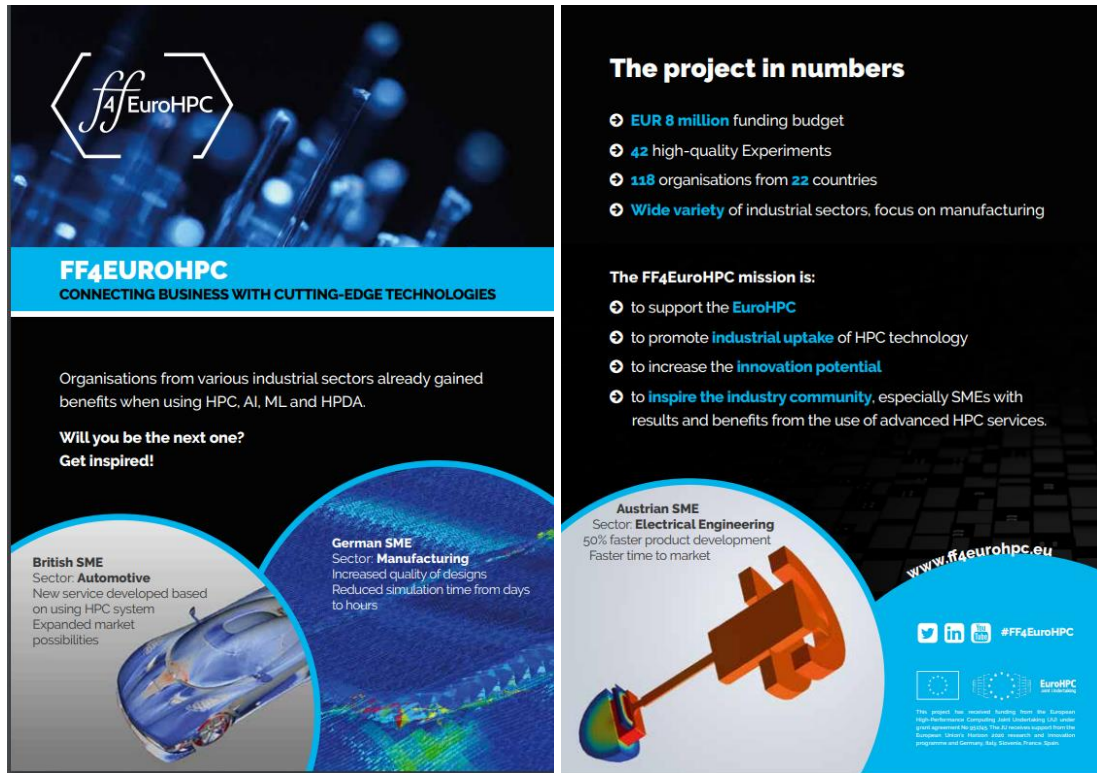


Figure 11: Brochure for General Public, Third Version.

FF4EuroHPC
 SME Innovation Through HPC

Project runtime: 01.09.2020 - 31.08.2023

Funding: EU-H2020, EuroHPC JU

Budget: 9.998.475,00 EUR

FF4EuroHPC helps facilitate access to High-Performance Computing-related technologies for European Small & Medium Enterprises (SMEs) and thus increases the innovation potential of European industry. Whether the SME is running high-resolution simulations, doing large-scale data analyses, or incorporating AI applications into its business or service workflows, FF4EuroHPC assists SMEs to connect their business with cutting-edge technologies.

FF4EUROHPC experiments	Open Call Tranche 1	Open Call Tranche 2	Sectors
16 experiments 53 organisations 9 countries	26 experiments 79 organisations 22 countries		Manufacturing Environment Healthcare Transportation Energy E-Commerce Farming Aeronautics

Success Stories: Inspiration for Industry

42 experiments met the Open Call requirements, successfully passed the evaluation process, and were selected for funding. During the 15-month duration of an experiment, the experiment partners jointly worked on the relevant use case and strove to overcome the challenges with the help of HPC, AI, ML and HPDA. In the first Open Call, 16 experiments were run involving 53 partners from 9 European countries. All 16 experiments from the first Open Call were successfully concluded and have led to success stories which highlight the expected business benefits for the participating SMEs.

AI-Aided Wind Flow and Gas Dispersion Simulations in Cities
 Sector: Environment, Urban Planning
 Technology used: CFD Simulations

The participating SME has created a higher accuracy tool and computationally efficient, low-cost AI solution to model air quality in cities. The SME is now able to combine sensor measurements with AI simulations and provide the stakeholders with precise information about the local emissions and pollutant concentrations for urban environmental management.

Leveraging HPC for AI and Deep Learning Powered Solutions for Asset Management
 Sector: E-Commerce, FinTech
 Technology used: HPC, AI, ML, DL

With the help of automated AI/DL-based models and HPC, the high-tech SME can provide its customers the possibility to optimise financial portfolios with increased complexity risk assessments. These tools in turn contribute to the entire system's stability and reduce investors' risks, especially in the most challenging market situations and scenarios.

Topology Optimization of Micro-Channel Heat Exchangers
 Sector: Manufacturing
 Technology used: HPC, CFD Simulations

The SME can in this case now produce Micro Channel Heat Exchangers which can meet the complex, competing design constraints due to the newly developed TOLMHE platform combined with additive manufacturing. This innovative HPC-based SaaS solution is based on coupling a standard CFD solver, an ML model and a parametrized topology.

Leader: HLRIS

Partners: ARCTUR, CINECA, CESGA, scapos, Teratec

#FF4EUROHPC #FF4EUROHPC

The project has received funding from the European High-Performance Computing Joint Undertaking (JU) under grant agreement No 101019718. The JU receives support from the European Union's Horizon 2020 research and innovation programme and Germany, Italy, Slovenia, France, Spain.

Figure 12: Project poster.

For the purpose of presenting the FF4EuroHPC project and its activities, two PowerPoint Presentations were prepared for Open Call 1 and Open Call 2, including specific information dedicated to each Open Call. Additionally, a PPT for project presentation was created and updated regularly with the project's progress.

The KPIs: Defined, tracked and achieved

In accordance with D5.1 Plan, three tailored versions of brochures with three updates were planned to be prepared by M24. These KPIs were achieved on time.

3.1.6 Press Releases, News Items and Press Clippings

Press releases are the main channel for addressing the general public and media, and to share information about the project progress, present Success Stories and promote Open Calls.

The KPIs: Defined, tracked and achieved

In D5.1 Plan, the planned KPIs included three press releases by M36 (one PR per project year). The KPI was already reached in January 2022. To properly address the public about specific project activities and achievements (Open Call promotion and results), three additional press releases were prepared and published in the reporting period [23], [24], [25]. With the help of partners, PRs were sent to media, collaborating organisations (ETP4HPC [26], EUROHPC JU [27]), other EU projects, NCCs and DIHs. The last PR has already been written and contains info on the FF4EuroHPC project, the Success Stories and the closing event in Berlin. It will be published and disseminated in the second half of October 2023.

To report on the project activities, 58 news items were prepared and published on the project website under the News section [28].

We planned to collect 10 clippings (links) in the project duration to track publicity (how many times project name appears / is mentioned in press such as newspapers, magazines, television or online media and other digital or printed media). Partners were highly engaged in project promotion and dissemination, thus during this period, 107 clippings were collected (see Table 1: KPIs overview.

1), thus KPIs were achieved successfully. Additionally, the term “FF4EUROHPC” appears in more than 5,500 pages when searching through the Google Chrome browser.

3.1.7 Publications in Magazines

In the reporting period M1-M37, the FF4EuroHPC project was presented in the online publications *Handbook of European HPC projects* (2020 and 2021 editions), published by ETP4HPC [29] [30]. The interview with the project coordinator, Dr Bastian Koller, and Open Calls lead, Dr Guy Lonsdale, was published in the online publication *ETP4HPC Annual Report 2020* [12]. Furthermore, the article *FF4EUROHPC - Access to cutting-edge technology boosts business* was published in the publication *Leading the way in European Supercomputing: A project info pack by CORDIS* [11]. One more article presenting the project and Success Stories will be published in the *InSiDE magazine, the magazine of the Gauss Centre for*

Supercomputing [31] in November 2023. The KPIs for this type of activity were not set, so this represents an additional effort alongside the other WP5 achievements.

In accordance with D5.1 Plan, 15 articles about FF4EuroHPC Success Stories have been prepared by partners and published in sectors magazines with the aim of promoting Success Stories and raising awareness on HPC use within different sectors (see Figure 13).

Ten articles were written in collaboration with Experiment partners and published:

1. Futurities Magazine (19.7.2022): FF4EuroHPC continues its mission to inspire SMEs to unleash their innovation potential with the help of innovative technologies - FF4EuroHPC presents an HPC-based navigation system for an autonomous marine litter hunting project [32]
2. Futurities Magazine (19.7.2022): FF4EuroHPC continues its mission to inspire SMEs to unleash their innovation potential with the help of innovative technologies - FF4EuroHPC presents cloudbased CFD optimization of magnetic drive pumps [33]
3. Futurities Magazine (4.4.2023): FF4EuroHPC continues its mission to inspire SMEs to unleash their innovation potential with the help of innovative technologies [34]
4. Futurities Magazine (4.4.2023): Multiphysics and multiscale modelling of aeronautical components [35]
5. Elektrotehniška revija (1.3.2023): Zgodba o uspehu: Vzdrževanje elektroenergetskega sistema s pomočjo stohastične optimizacije in superračunalnika [36]
6. NAFEMS Benchmark Magazine (April 2023): Making HPC Technologies Accessible for SMEs [37]
7. NAFEMS Benchmark Magazine (April 2023): Multiphysics and Multiscale Modelling of Aeronautical Components (MULCOM) [38]
8. NAFEMS Benchmark Magazine (April 2023): AI-Aided Wind Flow and Gas Dispersion Simulations in Cities [39]
9. NAFEMS Benchmark Magazine (April 2023): Multi-head Additive Manufacturing with Optimal HPC Thermal Stabilization [40]
10. NAFEMS Benchmark Magazine (April 2023): Topology Optimization of Micro-Channel Heat Exchangers (TOLOMHE) [41]
11. Futurities Magazine (16.6.2023): Copernicus: A cloud-based HPC platform to support systemic-pulmonary shunting procedures [42]
12. Futurities Magazine (16.6.2023): Topology optimization of micro-channel heat exchangers [43]
13. Futurities Magazine (31.7.2023): Using HPC tools to optimize 3D-printing of orthopaedic devices [44]
14. Technology and Health Care (30.6.2023): NCC Greece and FF4EuroHPC: PediDose: An innovative tool for personalised pediatric dosimetry in Nuclear Medicine using advanced computational techniques [45]
15. Technology and Health Care (30.6.2023): NCC Italy and FF4EuroHPC: Cloud-based HPC platform to support systemic pulmonary shunting procedures [46]

6 more articles were prepared and already submitted, but will be published in the next months:

16. IRT3000: (mid-October 2023): Zgodba o uspehu: Vzdrževanje elektroenergetskega sistema s pomočjo stohastične optimizacije in superračunalnika
17. Futurities Magazine (October 2023): High Fidelity Modeling for Small Wind Turbine

- 18. Futurities Magazine (October 2023): A Digital Twin for Airflow and Inhaled Drug Delivery in Human Airways
- 19. Futurities Magazine (December 2023): Boosting CFD Simulation of Thermal Equipment for Food Processing
- 20. Futurities Magazine (December 2023): Cloud-Based CFD Optimization of Magnetic Drive Pumps
- 21. Ventil (January 2024): Zgodba o uspehu: Vzdrževanje elektroenergetskega sistema s pomočjo stohastične optimizacije in superračunalnika



Using HPC tools to optimize 3D-printing of orthopaedic devices

by Janis Ollins¹, Karis Muiznieks², Janis Virbulis², and Aleksandrs Gutcaits³
1. CasiPrint - 2. University of Latvia - 3. Riga Technical University

The success story presented in this article was developed during the second tranche of the FF4EuroHPC project. The partners – CasiPrint, the University of Latvia's Institute of Numerical Modelling, and Riga Technical University – teamed up to address a specific business challenge for an SME in the manufacturing sector and overcome it with the help of high-performance computing (HPC).

Plaster of Paris casts have been used to treat fractures for more than 150 years and are still considered standard practice in most cases. In recent years patient-centred healthcare and patient well-being

have become more important than just the basic healing, so the demand for improved solutions is constantly growing. While thermoplastic and fiberglass casts have been used for a considerable period, their effectiveness and value-added benefits are limited due to the time-consuming and material-intensive nature of their application.

The challenge: accelerating production times for 3D-printed orthopaedic devices

The creation of 3D-printed medical devices, while many times faster than traditional casts, is nevertheless time consuming, and production capacity is limited by the number of manual operations required to be performed by designers. In addition, the 3D scanning used to create the casts consists

of millions of surface elements, which are time- and computer resource-intensive to render on PCs. In many cases this leads to software crashes and inevitable data loss, which in turn increases the time needed to get the medical devices to the patients.

The solution: optimizing the design process

As patients demand better solutions, CasiPrint has been providing bespoke 3D-printed medical devices to its institutional healthcare customers since 2016.

To address the challenges identified, the experiment partners chose to integrate parametric model optimization into the medical device design process. This involves using simulations to determine

the most efficient shape for the cast, which in turn reduces the amount of material required and shortens printing times.

HPC provides greater computing power and resources compared to desktop workstations. This enables faster and more effective simulations, the automation of certain aspects of the design process, which ultimately reduces the time spent on it.

CasiPrint brings valuable medical expertise to the project, while the University of Latvia provides software development skills and Riga Technical University provides HPC expertise and resources.

Business benefits and impact

The time to end-user was reduced by 25%. This was achieved through shorter design and printing times for custom 3D-printed medical devices, which lowers production costs by up to 15% and increases production capacity by 25%. Decreasing the time between scanning and printing opens opportunities in new markets. In addition, the shorter printing times and use of less material reduced costs, making CasiPrint's casts more affordable for patients.

CasiPrint casts are made of polylactic acid plastic, which is made from sugar cane and is therefore biodegradable. This cuts plastic usage by 25% which means less plastic waste is generated. Similarly, a 25% decrease in printing times means

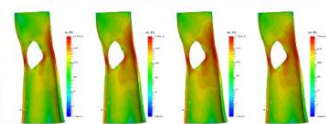


Fig. 1. Digital model of stress tests.

less electricity is used to print the device itself. By achieving the objectives of this experiment, the partners will contribute to reducing plastic waste and electricity consumption while improving the durability and wearability of the device.

Benefits

- The introduction of an automated process using HPC shortens the number of hours spent on cast design by 20% while also minimising the risk of human error.
- Topological optimization decreases material usage in production by around 25%.
- Material optimization and shorter printing times reduce production time by 25%.
- CasiPrint's production costs have been trimmed by up to 15% through reductions in printing hours, power consumption, and material usage.
- CasiPrint's production capacity was increased by up to 25%.

- Initial calculations indicate an expected ROI of between 15% and 20%.

The success story presented in this article was developed during the first tranche of FF4EuroHPC Project. FF4EuroHPC supports the competitiveness of European SMEs by funding business-oriented experiments and promoting the uptake of advanced HPC technologies and services. The experiment is an end-user-relevant case study demonstrating the use of cloud-based HPC (high-performance computing) and its benefits to the value chain (from end-user to HPC-infrastructure provider) for addressing SME business challenges that require the use of HPC and complementary technologies such as HPDA (high performance data analytics) and AI (artificial intelligence). The successful conclusion of the experiment created a success story that can inspire the industrial community.

The FF4EuroHPC project has received funding from the European High Performance Computing Joint Undertaking (JU) under grant agreement No. 951745. The JU receives support from the European Union's Horizon 2020 research and innovation programme and from Germany, Italy, Slovenia, France, and Spain.

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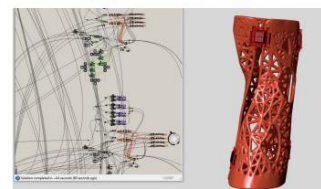


Fig. 2. Semi-automatic cast creation algorithm.

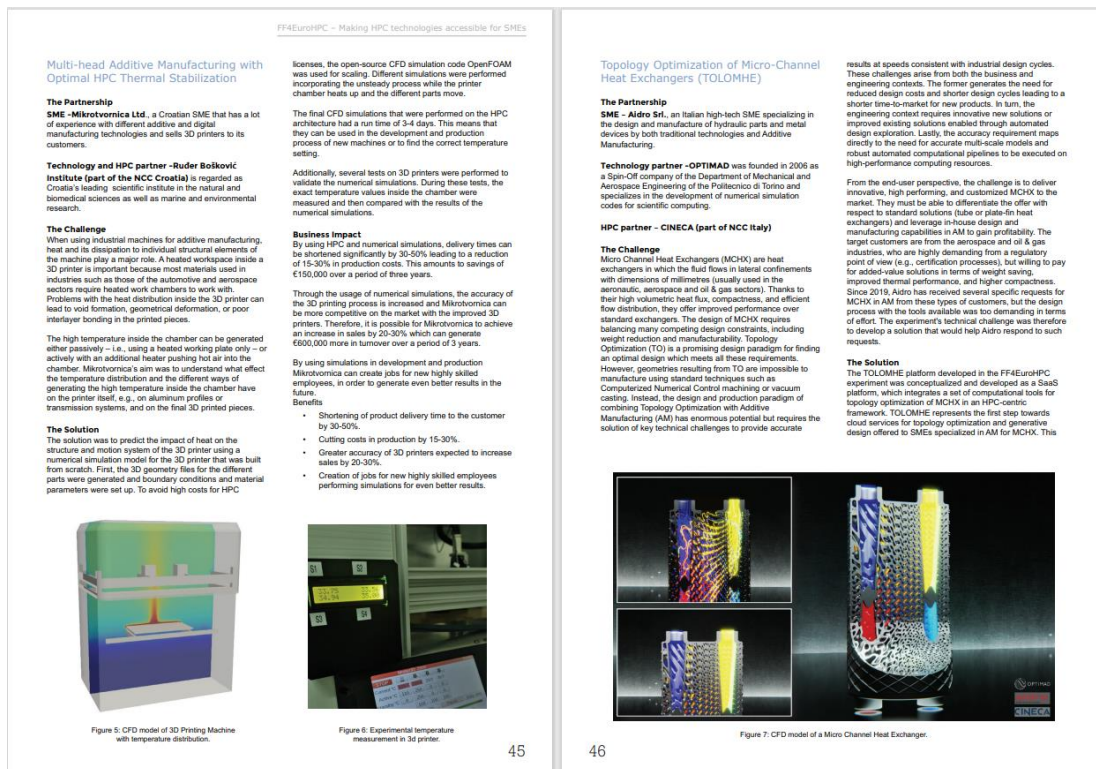


Figure 13: Success Stories Articles published in Futurities Magazine [44] (up) and NAFEMS Magazine: Pages 45-46 [40], [41] (below).

The KPIs: Defined, tracked and achieved

According to the D5.1 Plan, publishing 10 articles in sector magazines was planned, thus KPI was successfully achieved.

3.1.8 Conferences, Trade Fairs and Other Events

One of the important dissemination activities was attending events where partners could directly address and engage with the target groups and which are relevant for promoting the project, more important, Success Stories. The FF4EuroHPC project kick-off was done on September 1st 2020, just some months after the Covid-19 pandemic started. The pandemic brought several Covid-19 related restrictions, including strict limitations on physical meetings – events were cancelled, postponed or changed to online formats. During that period, online events proved to be less effective due to poorer direct interactions with visitors (public) than face-to-face meetings, but, on the other hand, partners did more presentations than planned at the beginning of the project which allowed to promote project widely. Project activities also had to be adapted to the Covid-19 restrictions, thus during that period, all presentations, events and workshops were held online. Partners were very active in presenting the project and Success Stories at events and fairs in online, hybrid or on-site format, and sourcing appropriate experiment partner to present their stories.

The FF4EuroHPC events calendar is available on the project website and is regularly updated [47]. The purpose of this calendar is to collect HPC-related events and share this information

with our community, to promote HPC and novel technologies and motivate SMEs to widen their knowledge about the use of those technologies for innovation.

The KPIs: Defined, tracked and achieved

In D5.1 Plan, the KPIs set were: Participation at 5 major events by M35, 70% visits during Year 1 and Year 2, Success Stories presentation in Year 3 (refer to Table 1: KPIs overview.

1).

Project partners presented the Open Calls and project activities widely during the reporting period, through active participation in 88 events (conferences, seminars, workshops, other events). Partners presented project activities and Open Calls at several prominent events such as:

- ISC20 [48], ISC21 [49]; ISC23 [50]
- SC20 [51], which was not eligible for funding, but partners decided to participate at own expenses due to potential interest of public outside the Europe;
- EuroHPC Summit Week [52];
- Hyperion HPC User Forum [53];
- NAFEMS 20 France Conference [54];
- Supercomputing Frontiers Conference [55];
- EUROCC Conference in Montenegro [56];
- ASHPC23 Conference [57].

Additionally, several webinars were organised by partners to communicate and promote the Open Calls and Success Stories throughout European countries. Two webinars entitled '*FF4EuroHPC - connecting business with cutting-edge technologies*' were organised by the WP5 leader in collaboration with scapos and HLRS on December 7th 2020 and on July 27th 2021 [5] respectively, to promote the Open Calls, and present the use of HPC for business application. In collaboration with partner Teratec, 8 webinars presenting OC1 and OC2 Success Stories were held: OC1 webinars were held on September 23rd, September 30th, October 13th and October 19th 2022; OC2 webinars on May 24th, June 2nd, June 9th and June 23rd 2023 [5].

Hence, the set KPIs were met and indeed far surpassed. A list of all events organised or attended by the FF4EuroHPC partners is available in the Appendix.



Figure 14: FF4EuroHPC partners presenting the project at the events.

Photos of partners participated at the events (from left to right): ISC 2022 conference (Hamburg, Germany), HIPEAC 2022 Conference (Budapest, Hungary), EUROCC Conference 2022 (Budva, Montenegro), ISC 2023 conference (Hamburg, Germany), Teratec Forum 2023 (Paris, France), ASHPC23 Conference (Maribor, Slovenia).

Additionally, promotional materials (gadgets) were purchased and designed according to the project visual identity and were delivered to visitors who visited project booths at fairs. Some examples of promo materials such as pencils with grow seeds, bottles, yo-yos, bags and chocolates can be seen in Figure 15.



Figure 15: Examples of FF4EuroHPC promo materials (gadgets).

3.2 Task 5.2: Success Stories

Task T5.2 started in M15 and covered all activities related to production of the Success Stories.

Success Stories are the main outputs of the FF4EuroHPC project and have been successfully delivered by all experiments. A clear presentation of the business benefits for the Experiment partners in these stories was the main focus. Success Stories have been created in collaboration with all FF4EuroHPC project partners and Experiment partners.

EXPERIMENTS

With the help of the WP3 leader, the experiments descriptions, photo materials, and partners' logos were collected and published on the project website [58] (Figure 16). Experiments were presented also during events, in the project newsletters and on social media.

SUCCESS STORIES

As soon as an experiment is successfully concluded, it creates a Success Story, which presents the challenges experiment partners faced, the solution they developed, and the business benefits and impacts of the experiment. During the OC1 tranche, 16 Success Stories were created and delivered. The OC1 Success Stories were published in November 2022. The OC2 tranche

generated an additional 26 Success Stories, which were published in September 2023. Each Success Story was written following pre-defined templates and scenarios – each was published on the project website in the Success Stories section [59], presented on a digital flyer and in the booklet (digital [60] and printed). Templates were prepared in WP5 and approved by the PMT and WP3 leader (see Appendix). Success Stories focus on the lessons learned and business benefits achieved through the use of advanced technologies and services by end users and other members of the value chain; they thereby quantify ROI, time to pay back investment, and value of new markets created.

The process for creating all related materials was very complex and took much effort. High number of FF4EuroHPC and experiment partners were involved in the production process which consisted of:

- Collecting graphic and video materials according to the specifications and templates;
- Reviewing of collected materials, and further post-production;
- Success Story content development with several iterations (meetings) and improvements;
- 3 content reviews were done per each story, and further improvements followed;
- Proofreading;
- Each Success Story was adapted to the flyer and booklet format;
- Additional review and further improvements (if needed) followed;
- Second proofreading was done;
- Materials were provided to designers to provide the final graphic concepts for booklet and flyers;
- Final check of all materials was done by FF4EuroHPC and Experiment partners;
- Materials were finalised and published.

In total:

- 42 Success Stories were published on the project website (Figure 16);
- 42 Success Stories e-flyers were designed and are attached to each Success Story on the website (Figure 17);
- 2 Success Stories booklets were published in digital format, and 2 booklets were printed. Success Story Booklet 1st Edition contains Success Stories from the first tranche, meanwhile Success Story Booklet 2nd contains Success Stories from the first and second tranche (Figure 18).
- Furthermore, 6 Success Stories videos were planned according to D5.1 Plan. and DoA. As there was funding left over in the dissemination budget at this point, it was decided by the consortium to produce 2 additional videos, as video format materials are an appealing and engaging format to the project's target groups, especially SMEs.

Success Stories were widely presented through all communication channels and means by FF4EuroHPC and Experiment partners. Booklets hardcopies were delivered at events and meetings, and helped to navigate readers to the project website and social media. Success Stories flyers could be downloaded and printed, and thus used as a promo or educational material. Success Stories have been widely promoted through social media (X and LinkedIn). We encouraged experiment partners, who contributed to the respective Success Story, to tag them in their posts, and thus invited them to share the Success Story among their audience. Furthermore, we encouraged also NCCs to share the Success Stories by tagging them in the

stories where the respective NCC contributed, by sharing the information on Success Stories through the FF4EuroHPC and EUROCC newsletter and through the EUROCC mailing lists. Success Stories videos proved to be one of the most consumable contents – high number of video views was reached in reasonably short time, contributing to further visits to the project website and other social media. Because of all these activities and partners’ extra efforts, WP5 KPIs were surpassed and project dissemination activities were successfully achieved.

HPC-BASED NAVIGATION SYSTEM FOR MARINE LITTER HUNTING

PRESENTATION OF THE PROBLEM AND OBJECTIVE OF THE EXPERIMENT



Protecting seas and oceans against the litter is becoming a global concern and there is a growing need worldwide for more efficient, clean and autonomous technologies to identify and collect marine detritus, especially plastics, in a systematic and repetitive way. GTS is an agile and innovative start-up that operates in the field of environmental protection and blue growth economy. The use of HPC makes it possible to tackle a computational problem that GTS met during its service for recovery plastic litter in sea: optimizing the plastic litter recovery strategy forecasting the position of hundreds of detritus floating in the sea with suitable accuracy in space and time.

SHORT DESCRIPTION OF THE EXPERIMENT

The proposed HPC experiment is fundamental to drive into the next phase the collaboration of the unmanned systems as it requires >250.000 hours of deep learning which is impossible under conventional computational systems but possible thanks to CINECA. The limited forecasting capability of the future position of detritus thus is limiting the efficiency of recovery of the whole system. The HPC experiment aims to overcome this limitation and targets to improve the current Deep Learning approach to 1. Identify and classify marine litters in terms of dimensions and materials (PET, PPT, Biological); 2. Predict the possible trajectories of classified waste over a longer time; 3. Search the “best” trajectory to collect as much waste as possible under constraints.

UPDATE:

Partners have completed the data acquisition part with aerial drone shots both for the images of the waste to be classified (bottles, caps, bags, glasses, etc ...) and with respect to the real trajectories of typical waste such as bottles (full, empty and a half). At the same time, acquisitions of marine litter movement with sensorised buoys were also carried out and the first oceanographic simulations were started to generate other dragging data useful for training.

Partners are in the test phase for the neural networks identified for the recognition of marine litter and the prediction of trajectories. They expect to be able to find those that generate the best accuracies by the end of the year . The synergy with the entire consortium is proceeding at its best and the production of the progress reports is proceeding as planned.



Organisations involved:

End User: [Green Tech Solution SRL](#)

Domain Experts: [Università degli Studi di Napoli Parthenope](#) and [BI-REX - Big Data Innovation & Research Excellence](#)

HPC Provider: [CINECA](#)

ACCELERATING CFD SIMULATION OF IMMERSIVE BATTERY COOLING



Automotive battery packs are nowadays mostly cooled by cooling plates. Cutting edge applications, however (especially for rapid charging), require using immersive cooling. In rapid charging of battery packs, up to 50 kW of thermal energy must be dissipated. Cold plate cooling is insufficient to fulfill this requirement. That's why it's important to provide SME manufacturers with tools that allow designing immersed cooled battery packs quickly with the use of cloud-based simulations. Thus shortening the design process and lowering its costs.

SECTOR: Manufacturing, Energy, Automotive
TECHNOLOGY USED: HPC, CFD Simulations
COUNTRY: Poland

The challenge

Battery pack manufacturers, such as Wartschek - the end-user of the solution developed in the experiment - typically rely on prototyping and experimental testing to develop new designs. However, this approach is both time and resource-consuming. At the same time, such companies seldom use general purpose CFD applications for simulating immersive cooling of battery packs since it is a computationally demanding and time-consuming task, especially when considering transient phenomena and temperature-dependent material properties. In addition, the geometrical complexity of such battery packs makes meshing and other preprocessing tasks a tremendous challenge.

The goal of the experiment is to develop a dedicated solution for simulating immersive cooling of battery packs that is faster than conventional CFD simulations, both in terms of simulation time as well as preprocessing, whilst retaining sufficient accuracy for industrial use. In addition, the developed solution has to enable the use of HPC to further shorten the computation time. Lastly, the software should be accessible to non-CFD professionals, such as battery pack designers, who are not familiar with CFD simulations and HPC.

The solution

The workflow is based on Q-Bat, a MATLAB application for thermal analysis of battery packs, developed by QuickerSim. The solution reduces the computational complexity of conjugate heat transfer cases by solving fluid flow and heat transfer in the battery pack separately.

QuickerSim developed a tool for importing and processing externally computed flow fields, as well as an automated tool for generating fluid flow cases for the open-source CFD library OpenFOAM. The latter tool was used to generate a large dataset of CFD cases, which were used to train a data-driven forced convection model. This was made possible thanks to the use of HPC for running the simulations. A workflow was introduced for using the imported flow field to model heat transfer within the coolant, as well as between the coolant and the battery pack components.

Business impact, Social impact, Environmental impact

For Wartschek, the developed simulation workflow can save considerable time and resources. Typically, due to manufacturing and testing of several prototypes in every design cycle, the total development cost amounts to approximately €60k/kWh. The developed simulation workflow enables Wartschek to test various designs concurrently, subsequently reducing the number of manufactured prototypes to only 1-3 for every design cycle. This allows them to reduce the development costs to approximately 48 k€/kWh, and shorten the development time by as much as 30%. Additionally, fewer prototypes mean a smaller environmental footprint.

For QuickerSim Automotive, the development of the immersive cooling workflow for Q-Bat opens new revenue streams, both in software license fees and consultancy services. In the past, sales were limited to companies developing battery packs with cooling plates or passive cooling. The new features will aid the adoption of Q-Bat by OEMs, and the e-mobility market in general, where the development of immersive cooling solutions for applications such as fast charging is growing rapidly.

Benefits

3-6 bullet points

- Using the developed simulation workflow and HPC resources reduces the development cost of battery packs from €60k/kWh to €48k/kWh.
- Testing a design modification by means of simulation can be achieved within a couple of days, as opposed to 1-2 weeks if all components are manufactured in-house or 3-4 weeks if they are manufactured externally.
- Adopting the developed simulation workflow can shorten a 2 year design cycle by as much as 7 months with an additional reduction in the number of battery prototypes needed.
- Physical prototypes cost approx. €2,000-2,500 per kWh, whereas the total HPC cost of simulating a battery pack does not exceed €250.

Organisations involved:

Simulations expert and ISV: QuickerSim Automotive
End User: Wartschek

Figure 16: Example of Experiment Presentation (up) and Success Story (below) on the Project Website.

Cloud-Based HPC Platform to Support Systemic-Pulmonary Shunting Procedures

Organizations

InSilicoTrials Technologies SpA is an SME that promotes innovation and commercializes in silico tools for healthcare through a cloud-based platform.

RBF Morph is an ISV that develops the RBF Morph software and is an expert in CFD and FEA.

Fondazione Toscana Gabriele Monasterio is a healthcare public entity, a leader in the field of cardiology, cardio-surgery including congenital heart defects.

RINA Consulting provides a wide range of services covering the whole project life cycle from feasibility and specialized technical studies to conceptual and detailed design, prototyping and testing, project management, site engineering as well as operation and maintenance management.

CINECA is the largest Italian supercomputing centre with an HPC environment equipped with cutting-edge technology and highly qualified personnel which cooperates with academia and industrial partners.

End User **ISV** **Application Expert** **Technology Expert** **HPC Centre & Provider**

Partner CINECA is part of the NCC Italy

The Challenge

InSilicoTrials Technologies and RBF Morph offer a portfolio of software and services to clinics & medical research. To expand its business, the experiment consortium decided to work in the challenging field of Congenital heart disease (CHD). CHDs account for nearly one-third of all congenital birth defects and represented the 7th cause of death in children younger than 1 year in 2017. Without the ability to alter the prevalence of CHD, interventions and resources must be focused on improving survival and quality of life. In this context, the Modified Blalock Taussig Shunt (mBTS) is the most common palliative operation performed. Despite being simple in concept, it is associated with significant morbidity and mortality, the most threatening and lethal complications being over-shunting and shunt thrombosis. A computational simulation of effects could support the medical decision, yet this requires substantial know-how and computing power, in order to provide high-quality results and the subsequent surgery in a short timeframe.

Pressure (mmHg)

WSS (Pa)

Velocity (m/s)

mBTS

mBTS_oxy

mBTS_ozy

The Solution

The partners generated an affordable decision support web application named Copernicus that, thanks to a "medical digital twin" (MDT), allows surgeons to optimally approach the mBTS medical intervention. Generally, simulating the effect of such a surgery on blood flow requires complex computational fluid dynamics computations using HPC. Typically, effective use of such computations in the field of pre-operative planning is still far from clinical practice, not least because of the specialist know-how needed to run them. Copernicus circumvents these problems by generating the MDT through a Reduced Order Model of a patient-specific vascular district, condensing complex and costly pre-loaded computations such that a geometrically parameterised shunt implantation can be used interactively to vary its dimension and positioning. With a dedicated user interface, the medical staff is thus able to inspect the MDT of the patient and observe how the shunting layout influences the fluid dynamics of the involved impacted area, helping to finalise the decisions on surgical intervention. The use of HPC significantly reduces the time to carry out computing the demanding pre-loaded analysis: backing the MDT, a speed-up which is crucial, because important decisions for mBTS preparations must be made in a short time, typically 2 days at worst in the case of complicated morphologies.

The Impact

The impact of the solution proposed by Copernicus at the clinical level is highly relevant. The combination of speed and interactivity permits surgeons to find the best treatment option for CDT, thus lowering the incidence of post-surgery complications and recurrence, leading to a decrease in the days of hospitalisation of treated patients and related costs. For Fondazione Toscana Gabriele Monasterio, this could mean savings in the order of over €200,000 per year. InSilicoTrials Technologies will add the tool to its portfolio, pursue certification for clinical use, and commercialise it on the market through a SaaS approach, with shares held by RBF Morph and RINA Consulting, and using CINECA's HPC system as a backend. In addition, both RBF Morph and RINA Consulting will use the results to increase their presence in the healthcare market, RBF Morph by offering new functionalities in their software library, and RINA Consulting by offering consulting services backed by hardware and software leasing to medical device manufacturers and medical research clinics.

Benefits

- InSilicoTrials Technologies: Reach new clients by selling a single service per clinical use after the achievement of software certification (mid-2024) generating an increase in annual turnover of about €450,000 after 4 years.
- Clinicians: Improve surgery outcome, reducing hospitalization per patient by 5-6 days on average, in the case of FTGM, savings of more than €200,000 per year are expected.
- RBF Morph: Expected increased annual turnover 4 years after the experiment is €250,000 with the increase of 2 qualified jobs/year.
- RINA Consulting: The overall expected increased annual turnover 4 years after the experiment: €200,000.
- CINECA: Additional business as HPC supplier (€30,000 by 2025).

Figure 17: Success Story Flyer.



Figure 18: Cover of the Success Story Booklet 1st Edition (left) and 2nd Edition (right).

3.3 Task 5.3: Collaboration with the EuroHPC JU and Other Entities

This task developed a strategy to achieve the maximal synergies with other projects and entities in the European HPC landscape, with the specific objective to establish good collaboration with the EuroCC NCCs, to exchange information about informative events, and to facilitate engagements with relevant SMEs and industrial communities.

This task utilised a number of existing materials like the European HPC Handbook [61], as well as the partners networks and non-confidential results from other projects, in order to identify actors in the industrial European HPC Ecosystem. Selection criteria to define potential collaborators were close connections to SMEs, broad reach in the target groups, and the coverage of as many industry sectors as possible. The outcome of this process was a list of candidate entities for cooperation with 102 identified entities, which included 33 industry bodies in 10 sectors and 69 chambers of commerce in 6 countries. Multiple contact attempts were made by mail and phone calls with suggestions to exchange communication material or develop workshop formats together, to start win-win collaborations.

The feedback to these contact attempts was not satisfactory, so the partners decided a change in strategy both concerning the targeted stakeholders (consortia of actors from industry and academia covering relevant technical topics, like NAFEMS or DAIRO/BDVA), and the forms of possible collaborations. Once the first Experiment Success Stories were finalised, they were provided to organisations to promote HPC uptake with up-to-date, innovative usage examples. Additionally, a collaboration with EuroCC 1 and 2 was planned and executed to represent the European industrial HPC landscape as a whole. FF4EuroHPC supplied relevant Success Stories to the NCCs to encourage their stakeholders (potential SMEs) to use HPC, and to support direct exploitation of Experiment results. On the other hand, if the collaborations with the stakeholders

result in requests for assistance in the areas of HPC, HPDA and AI, they have been redirected to the respective NCC.

Connections to the EUROHPC JU [27] and the governing board have been established. EuroHPC JU management team representatives have been invited to events. Furthermore, FF4EuroHPC partners were invited by EUROHPC JU to collaborate in the co-shared booths (e.g. at ISC 21 and ISC23). Success Stories have been shared with the EUROHPC JU (through the news item, mailing, booklet hardcopies were delivered).

Furthermore, this task supported Task 5.1 to connect with other projects, for example the presentation to the HPC National Competence Centres (NCCs) via the EuroCC project [62], to Digital Innovation Hubs (DIHs) and Centres of Excellences in HPC (CoEs [63]), as well as other European initiatives.

Approximately 80 emails were sent out to potential contributors by M18. Only a few responses were received, however. Reasons for this lack of responses were analysed, with a key factor assumed to be the lack of tangible results that early in FF4EuroHPC's term (a first tranche of the new FF4EuroHPC Success Stories has been planned later). The collaboration task was modified according to the future dissemination needs, and instead took a more individual approach to ensure that KPIs are being met. The timeline to reach the KPIs for this task was modified accordingly: Successful contact uptake was done until M24, Successful collaborations with 5 stakeholders until M28.

The collaboration activities included: dissemination materials exchange and promotion (e.g. news, event invitations, social media posts, blogs, information in newsletters), participation at events or co-organisation of the events, publishing in magazines. The following collaborations were established:

1. EUROHPC JU [27]
2. ETP4HPC [26]
3. EUROCC – NCCs [62]
4. NAFEMS [64]
5. EXCELLERAT CoE [65]

The KPIs: Defined, tracked and achieved

According to the D5.1 Plan, 5 collaborations were planned, thus KPI was successfully achieved.

4 Exceptions and Deviations

During the course of the reporting period, the following problems and deviations occurred and have been mitigated:

- As presented in section 3.1.2, the decision to close the Fortissimo Marketplace and not use it further for the FF4EuroHPC project was taken before the project started by the board of Fortissimo Marketplace Ltd. It was then agreed between the FF4EuroHPC Coordinator and Fortissimo Marketplace Ltd. to transfer relevant content dedicated to

the former Fortissimo projects, redesign the Fortissimo website, and to design a new FF4EuroHPC website. The action was successfully concluded.

- Newsletter issues were not published exactly every seven months; the schedule was instead aligned with the project activities. By the end of the project, 7 issues were published. One additional issue was prepared and will be published by end of October 2023. Extra issues were not anticipated in the DoA and in D5.1 Plan, but will bring an additional value to the project and to our target groups.
- As little response from possible collaboration partners in T5.3 were received, and hence the KPI Successful Contact Uptake was not achieved until M18 (end February 2022), new strategies (scope of possible collaboration partners will be widened) and milestones were set to reach the goals and KPIs of this task. As a result, the timeline to reach the KPIs for this task was modified.
- OC2 Success Stories publishing was postponed due its complex procedure, which was time consuming. With an amendment request to extend the project for additional 2 months, the consortium gained enough time to finalise and promote OC2 Success Stories.

All the exceptions and deviations were successfully mitigated.

5 Milestones and Deliverables

Table 3 lists WP5 milestones and deliverables. All public project deliverables are available on the project website, in the section Reports [66].

Number	Title	Lead	Type	Dissemination Level	Due Date	Status
D5.1	Dissemination, Communication and Collaboration Plan	Arctur	Report	Public	M3	Submitted
D5.2	First Dissemination, Communication and Collaboration Report	Arctur	Report	Public	M18	Submitted
D5.3	Final Dissemination, Communication and Collaboration Report	Arctur	Report	Public	M38	Ready, to be submitted on time
D5.4	Success Story Booklet 1st edition	Arctur	Report	Public	M27	Submitted

D5.5	Success Story Booklet 2nd edition	Arctur	Report	Public	M38	Submitted
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Table 3: List of WP5 Deliverables.

According to the GA, all milestones were reached:

- MS1 Project kick-off (M1)
- MS6 Success Story Booklet v1 published (M27)
- MS7 Success Story Booklet v2 published (M38)

6 Conclusion

This deliverable *D5.3 Final Dissemination, Communication and Collaboration Report* outlined the WP5 work during the reporting period M1-M38, including statistics and KPIs for the period M1-M37. It summarises all activities and achievements that were carried out according to the D5.1 Dissemination, Communication, and Collaboration Plan, and DoA, and explains any deviations from plan.

All three milestones were achieved with the help of all partners who supported WP5: *project kick-off* (MS1), MS6 *Success Story Booklet 1* published in M27, and MS7 *Success Story Booklet 2* published in M38.

The communication and dissemination activities were carried out according to *D5.1 Dissemination, Communication, and Collaboration plan*, and the dissemination materials and channels (project website) were updated accordingly.

All of the KPIs were achieved and some also exceeded due to the exceptional efforts of all consortium, and also experiment partners. KPIs were presented in detail in the separate chapters.

All five deliverables were prepared and successfully submitted: *D5.3 Final Dissemination, Communication and Collaboration Report*, *D5.4 Success Story Booklet 1st edition* and *D5.5 Success Story Booklet 2nd edition*.

The FF4EuroHPC WP5 thus completed its mission successfully. After the project end, project partners will do their best to promote Success Stories, as these could be used not only as a valuable promotional but also as educational materials. Further Success Stories promotion activities will contribute to the project sustainability and will fulfil the project's mission: promoting the business benefits SMEs gained during implementing HPC and related technologies in business and thus increasing the innovation potential of European industry.

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8 Appendix

8.1 Targeted Interest Groups

Communication Target	Communication Channels							
	Direct	Indirect						
		Via Hubs and Industry associations	Website	Videos	Press Articles and Materials (including art. in sec. mag.)	News-letter	Events, Conf., Trade fairs, Exhibitions, HPC conf.	Social Media
NCCs	x					x		
DIHs	x					x		
SMEs		x	x	x	x	x	x	
ISVs	x	x	x	x	x	x	x	
Industry associations	x					x		x
EU HPC Ecosystem players	x					x		x
HPC centres	x					x	x	
Commercial HPC providers						x	x	
Press				x	x			
General			x	x	x			

Table 4: Targeted Interest Groups and Communication Channels.

8.2 List of Events

All events with FF4EuroHPC participation occurring during the reporting period are listed in Table 5.

Event title	Date	FF4EuroHPC Partner Involved
IDEO - Digital Infrastructure and IoT on Industry 4.0	6.10. – 7.10. 2020	Teratec
Teratec annual forum	13.10. -14 10. 2020	Teratec
Final Conference of the project SME / HPC (Erasmus+) organized by National Agency for Research and Development from Moldova	7.10.2020	Arctur
Asociación de Ingenieros de Telecomunicación de Galicia	6.10.2020	CESGA

MILOCER Development Forum	23.10.2020	Arctur
CASTIEL/EuroCC Conference	29.10.2020	scapos
Digital Innovation Hub DIHGIGAL: "Taller de Proyectos de I+D+i	30.10.2020	CESGA
Webinars for CoEs	12.11.- 13.11.2020	scapos
SC20 HLRS Virtual Stand Presentation	17.11.2020	scapos
Sparse Days Cerfacs	23.11- 24.11.2020	Teratec
NAFEMS 20 France conference	25.11.- 26.11.2020	Teratec
ORAP Forum	24.11. 26.11.2020	Teratec
Confindustria industry association - restricted presentation	25.11.2020	CINECA
BI-Rex - presentation	25.11.2020	CINECA
Presentation of the Open Call to the Spanish NCC members inside EuroCC General Assembly	25.11.2020	CESGA
FocusCoE workshop - presentation	27.11.2020	CINECA
Digital Innovation Hub DATAlife: "Supercomputación, empresas y oportunidades de financiación	1.12.2020	CESGA
International CAE conf - presentation	2.12.2020	CINECA
International CAE Conference	2.12.2020	Arctur
Webinar on Open Call for Sesame.net network	4.12.2020	Arctur
Webinar for NCC and SMEs, Macedonia	4.12.2020	Arctur
Webinar for NCC Montenegro	3.12.2020	Arctur
Webinar on Open Call, open to public	7.12.2020	Arctur

Webinar from NCC Germany about FF4EuroHPC Open Call	8.12.2020	HLRS
LEGACOOP industry association - restricted presentation	9.12.2020	CINECA
Open Call in Spanish	15.12.2020	CESGA
Webinar on Open Call, open to public	16.12.2020	Teratec
Webinar for French SMEs	8.01.2021	Teratec
EuroCC: NCC Session 2021 #2: Interaction	23.02.2021	scapos (& HLRS)
EuroHPC Summit Week	22.03.2021	HLRS
Workshop CASTIEL for NCCs	18.03.2021	Teratec
Workshop CASTIEL for DIHs	15.04.2021	Teratec
DIGI-SI Community Days 2021	15.04.2021	Arctur
Hyperion HPC User Forum	12.05.-14.05.2021	HLRS
ASHPC21 Conference	31.05.-2.06.2021	Arctur
ISC High-Performance Conference 2021	29.06.2021	scapos
ISC High-Performance Conference 2021	1.07.2021	CINECA
Teratec annual forum	23.6.2021	Teratec
2nd CASTIEL/EuroCC Conference	23.06.2021	scapos
BI-Rex - restricted presentation	9.07.2021	CINECA
EuroCC: North Macedonia	1.07.2021	Arctur
HPC info day for companies	2.07.2021	Arctur
CoLogistics Business Accelerator (CBA)	9.07.2021	CESGA
NCC Serbia	15.07.2021	Arctur
NCC Greece	15.07.2021	Arctur
FF4EuroHPC: Open Open Call-2 presentation for NCCs	16.07.2021	scapos/HLRS
Supercomputing Frontiers 2021	19.07.2021	Arctur

Infinite Area DIH restricted presentation	22.07.2021	CINECA
FF4EuroHPC webinar	27.07.2021	HLRS, scapos, Teratec, Arctur
DIH presentation	14.09.2021	CESGA
SLING Slovenija	13.10.2021	Arctur
Exascale Day	18.10.2021	Arctur
SC21	18.11.2021	scapos
ITG Instituto Tecnológico de Galicia	23.11.2021	CESGA
Digitalisation & innovation: A key to Industry 4.0”	8.12.2021	Arctur
26th international IEEE IT2022 conference and EUROCC Montenegro workshop on HPCHPDA/AI	18.2.2022	Arctur
EuroHPC Summit Week 2022	24.3.2022	scapos, HLRS
Industry Advisory Committee (IAC)	25.3.2022	Teratec
Get inspired: HPC in health and medicine application	12.4.2022	Arctur
Webinar: supercomputación en la empresa, rompiendo barreras	20.4.2022	CESGA
ISC 2022	May 29 - June 2 2022	scapos
HiPEAC 2022	20-22.6. 2022	Arctur, HLRS
ETP4HPC Webinar - Two FF4EuroHPC Success Stories focused on environmental impact	8.7.2022	Arctur
EUROCC Conference Montenegro	9.9.2022	Arctur, CINECA
4th Foam@Iberia	21-22.9.2022	CESGA
FF4EuroHPC Success Stories premiere - workshop #1	23.9.2022	Teratec
FF4EuroHPC Success Stories premiere - workshop #2	30.9.2022	Teratec
HPC User Forum	3.-4.10, 6.-7.10.2022	Teratec, HLRS
FF4EuroHPC Success Stories premiere - workshop #3	13.10.2022	Teratec, Arctur
FF4EuroHPC Success Stories premiere - workshop #4	19.10.2022	Teratec, Arctur

WEB3 workshop: Podjetniške priložnosti, ki jih prinaša računalništvo v oblaku in »edge computing	10.11.2022	Arctur
SC 2022	13.-18.11.2022	HLRS, scapos, CINECA
WEB3 workshop: Inoviranje z uporabo umetne inteligence in strojnega učenja	24.11.2022	Arctur
WEB3 workshop: Priložnosti avtomatizacije, hiperavtomatizacije ter RPA v poslovnem svetu	29.11.2022	Arctur
Superračunalništvo za podjetja: na poti k inovacijam	30.11.2022	Arctur
EUROCC2 KoM Stuttgart	7.2.-9.2.2023	Arctur, scapos, CINECA, HLRS, Teratec
EUROHPC Summit 2023	20-23.3.2023	HLRS
Event organised by Teratec and Infopro	20.4.2023	Teratec
ISC HPC 2023	21-25.5.2023	Arctur, HLRS
ISC HPC 2023, EuroHPC JU Workshop	25.5.2023	scapos
Teratec Forum 2023 - Booth	14-15.6.2023	Teratec
Teratec Forum 2023 - Conference	14-15.6.2023	Teratec
FF4EUROHPC OC2 Success Story Workshop #1	24.5.2023	Teratec
FF4EUROHPC OC2 Success Story Workshop #2	2.6.2023	Teratec
FF4EUROHPC OC2 Success Story Workshop #3	9.6.2023	Teratec
ASHPC23 – Austrian-Slovenian HPC Meeting 2023	13-15.6.2023	Arctur
FF4EUROHPC OC2 Success Story Workshop #4	23.6.2023	Teratec
HPC Industry Summit Berlin	18.-19.10.2023	HLRS, Arctur, scapos

Table 5: List of Events.

8.3 Success Story Template (Booklet)

PAGE 1

Title of the Success Story

Max 60 characters (with spaces)

Organisations

500 – 600 characters (with spaces)

+ Logos (2-3: End User, HPC Expert, HPC Provider, ISV, ...) and organization URL

+ EU Map with location

The challenge

400 – 450 characters (with spaces)

+ 2 photos (Min 1500 pixels width/height, 300 dpi resolution)

Simulation/ end-product / software/ data analytics

PAGE 2

Experiment highlights

- Industry sector
- Country
- Software used

The solution

450- 500 characters (with spaces)

+ 1 photo production/ team at work

Business and social impact

1.200 – 1.300 characters (with spaces)

Benefits

3-4 bullets, max 100 characters (with spaces) each

8.4 Success Stories Template (Flyer)

PAGE 1

Title of the Success Story

Max 60 characters (with spaces)

FF4EuroHPC Experiment facts

- Industry sector
- Country
- Software used

Organisations involved

500 – 600 characters (with spaces)

The challenge

600 -800 characters (with spaces)

The solution

600 - 700 characters (with spaces)

Business and social impact

600 – 700 characters (with spaces)

Benefits

600 – 700 characters (with spaces)

The FF4EuroHPC project

650 - 700 characters (with spaces)

FF4EuroHPC Experiment Partners:

Names + logos

More Information:

- Website
- Info email

4-5 photos

Min 1500 pixels width/height, 300 dpi resolution

- Simulation/data analytics
- End-product
- Production / Software
- Team at work

8.5 Success Story Template (Website)

INSTRUCTIONS (please respect strictly these requirements): The text will be used to populate the project's website. Send information as a .docx (or eventually .odt) file. The images must be in high resolution and in a format suitable for a website.

First description of all Experiments (before they become Success Stories)

Title of the Experiment Max 60 characters (with spaces)

Presentation of the problem and objective of the Experiment

Max 550 characters (with spaces) + at least 1 photo (Min 1500pixel width/height, 300 dpi resolution)

Short description of the Experiment

650-750 characters (with spaces)

Experiment organisations (all partners)

- Name of the organisation
- Logo (see instructions)
- Full address
- Email address
- Website
- X (formerly Twitter)
- LinkedIn
- Industry sector
- Short description of the organisation - 600-700 characters (with spaces)