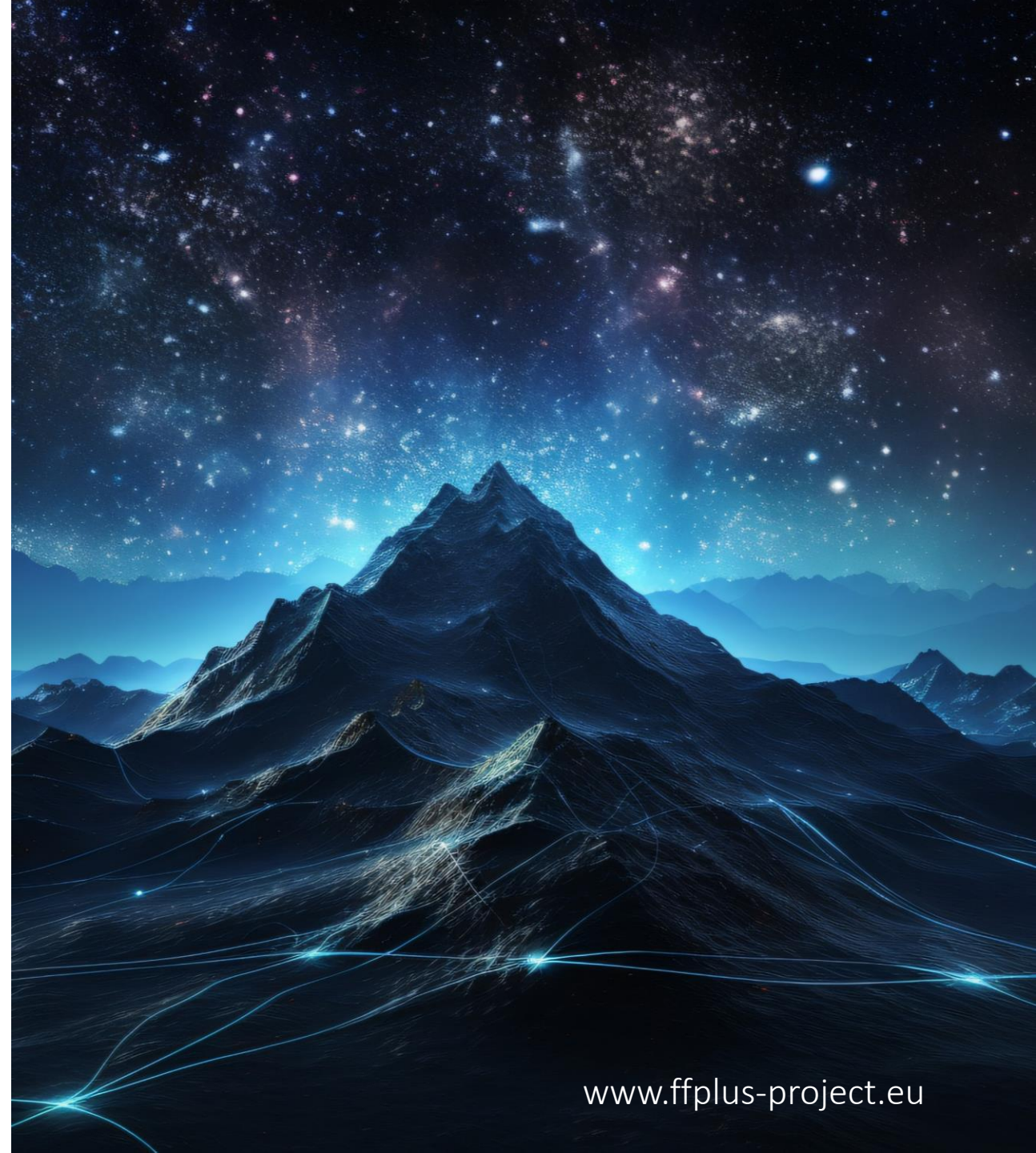# Former Fortissimo and FF4EuroHPC SMEs Survey Feedback

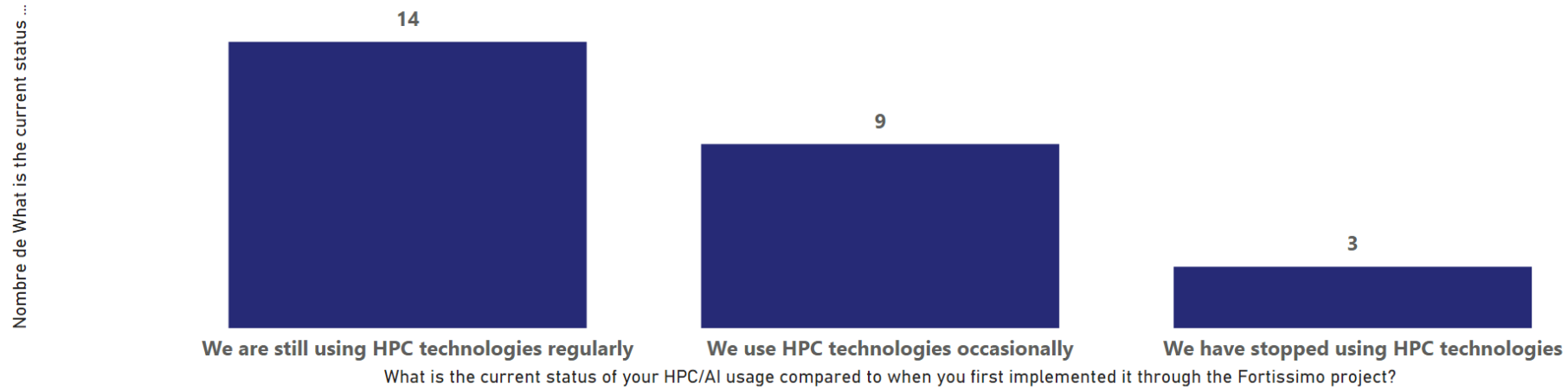Samir Ben Chaabane, Teratec

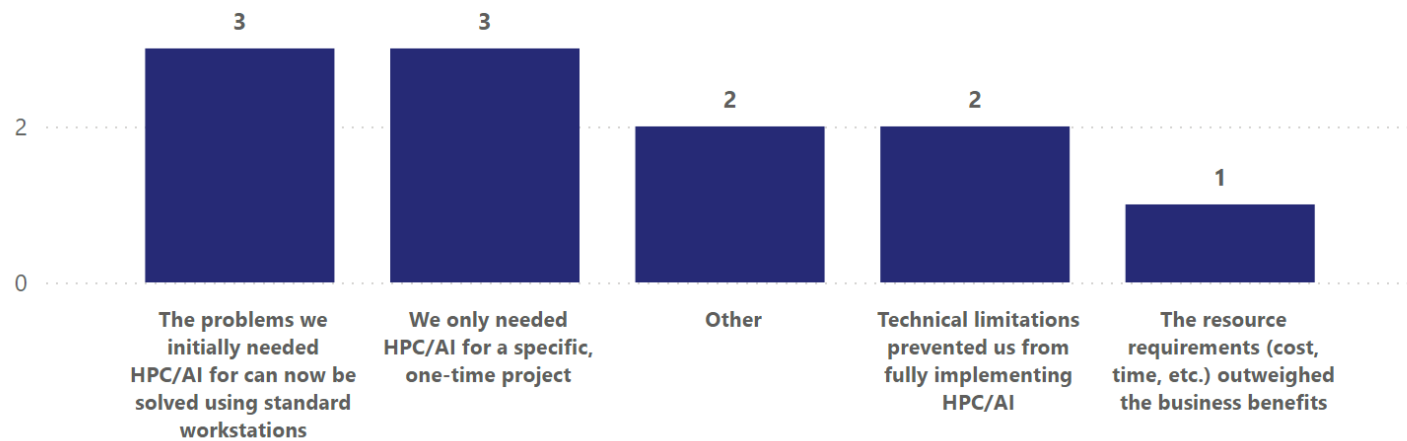25 August 2025

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Generalities

- Survey conducted between November 2024 and March 2025
- More than 300 partners invited to answer the questionnaire
- 46 answers obtained after several reminders
- 30 SMEs among the 46 respondents
- Feedback from the 30 SME answers

What is the current status of your HPC/AI usage compared to when you first implemented it through the Fortissimo project?

14 — We are still using HPC technologies regularly

9 — We use HPC technologies occasionally

3 — We have stopped using HPC technologies

Nombre de What is the current status ...

What is the current status of your HPC/AI usage compared to when you first implemented it through the Fortissimo project?

If you have stopped or reduced your use of HPC/AI technologies, what is the primary reason?

3 — The problems we initially needed HPC/AI for can now be solved using standard workstations

3 — We only needed HPC/AI for a specific, one-time project

2 — Other

2 — Technical limitations prevented us from fully implementing HPC/AI

1 — The resource requirements (cost, time, etc.) outweighed the business benefits
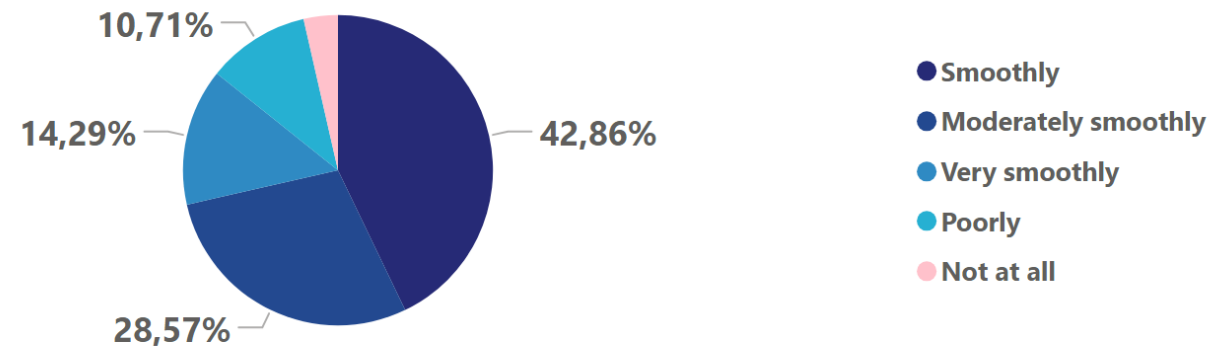
Please specify :

Much easier to provision cloud resources than gaining access to existing HPC

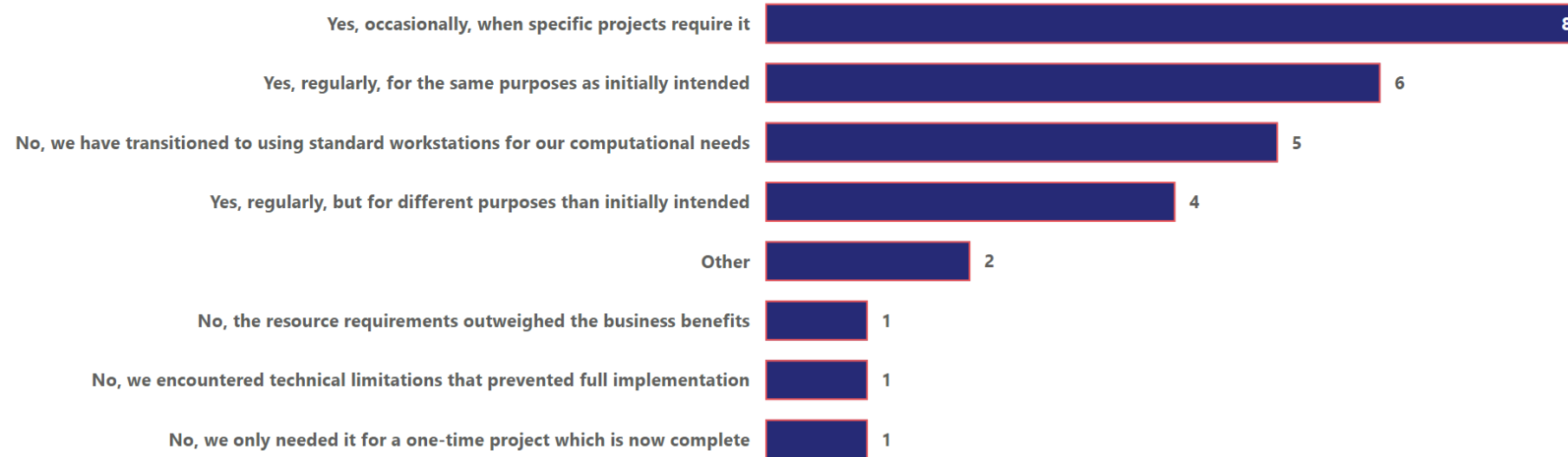We have pivoted and sold the related business 30 months ago

How successful was the initial implementation of HPC/AI technologies in your experiment?

3,57%

17,86%

53,57%

25%

- ● Successful
- ● Very Successful
- ● Moderately Successful
- ● Not Successful
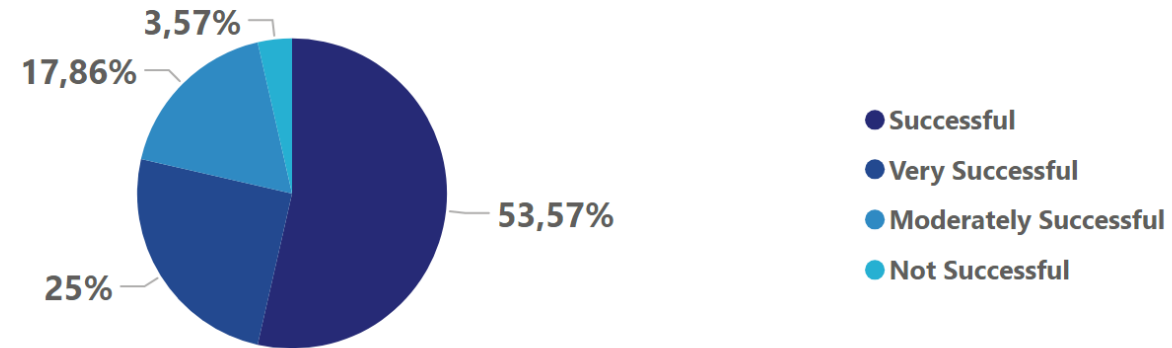
How smoothly have HPC/AI technologies integrated with your existing products, operational processes and design systems?

10,71%

14,29%

42,86%

28,57%

- ● Smoothly
- ● Moderately smoothly
- ● Very smoothly
- ● Poorly
- ● Not at all

Are you currently using the HPC/AI technologies implemented during the Fortissimo project?

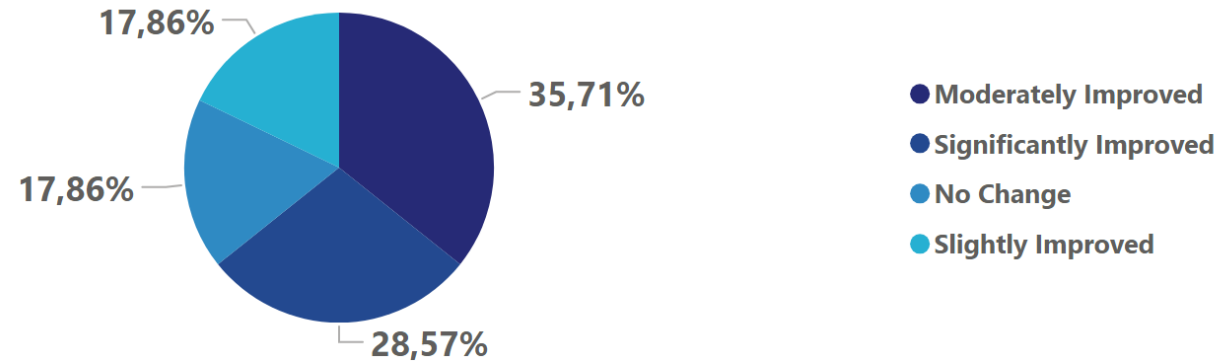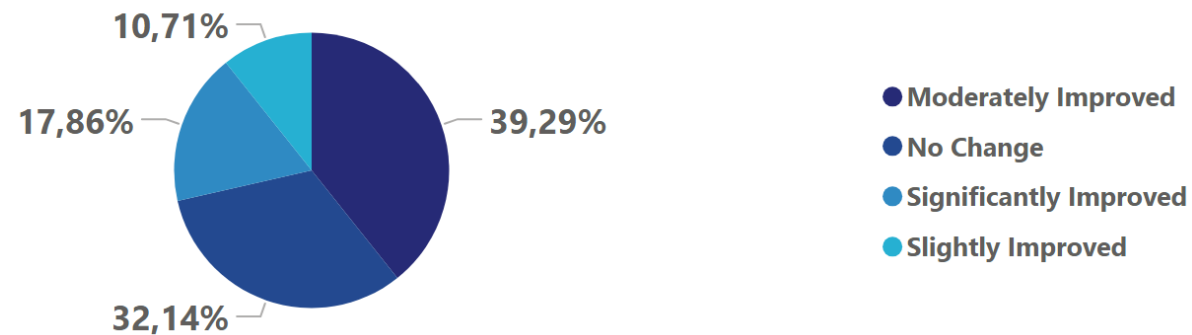| Response	Count
Yes, occasionally, when specific projects require it	8
Yes, regularly, for the same purposes as initially intended	6
No, we have transitioned to using standard workstations for our computational needs	5
Yes, regularly, but for different purposes than initially intended	4
Other	2
No, the resource requirements outweighed the business benefits	1
No, we encountered technical limitations that prevented full implementation	1
No, we only needed it for a one-time project which is now complete	1

Please specify :2

We sold the related business

No more access to the HPC used in FF4EuroHPC, we have transitioned to cloud. Our code has been reimplemented to be compatible with cloud and HPC.

How have HPC/AI technologies affected your internal business processes, such as product design or operational efficiency?

17,86%

35,71%

17,86%

28,57%

- Moderately Improved
- Significantly Improved
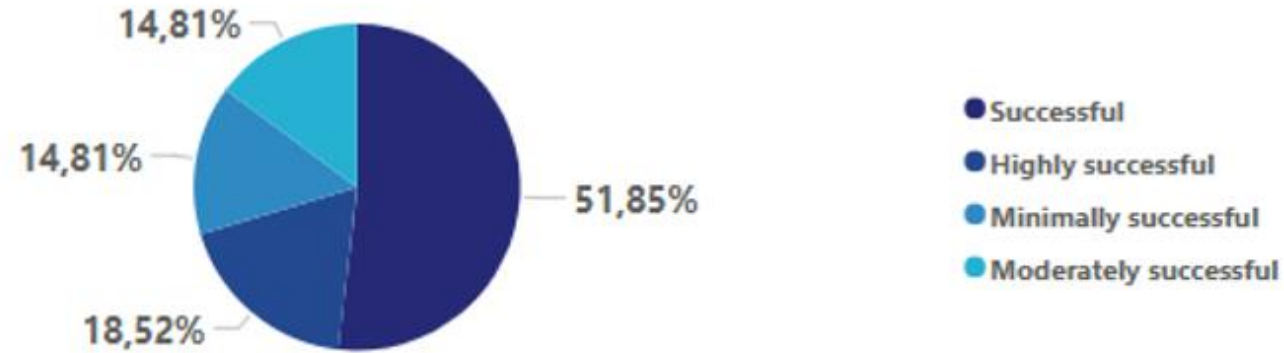- No Change
- Slightly Improved

How have HPC/AI technologies influenced your external business operations, such as the sale of software products on HPC systems or changes in how you deliver your offerings?
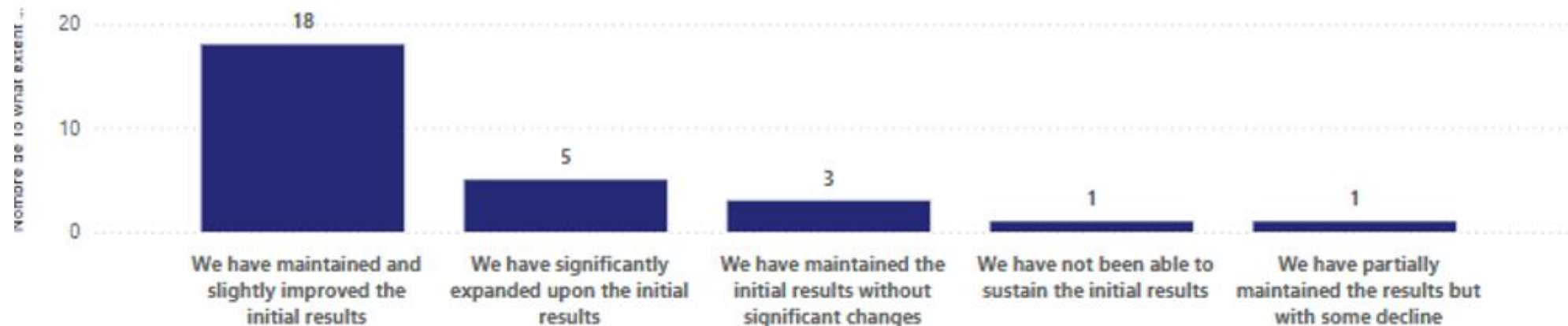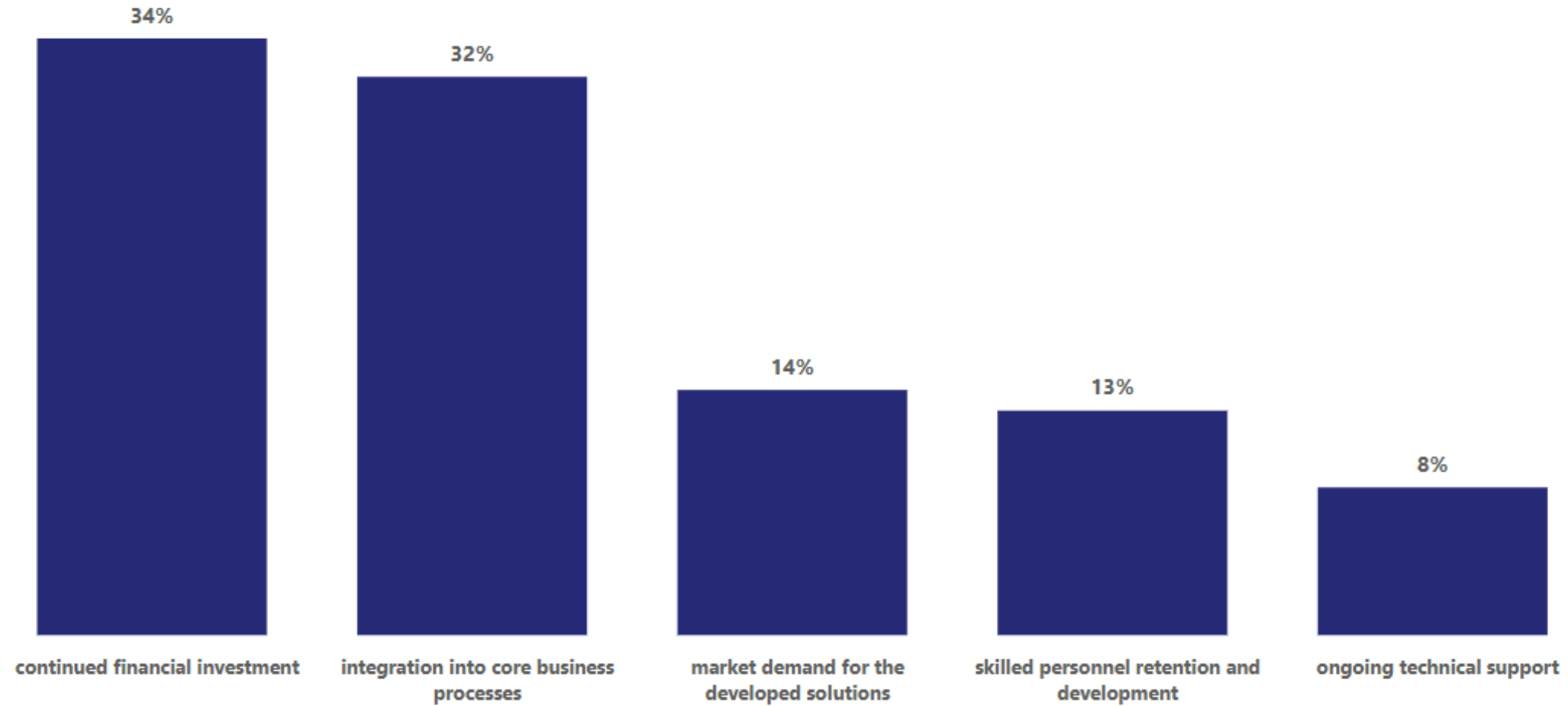

10,71%

39,29%

17,86%

32,14%

- Moderately Improved
- No Change
- Significantly Improved
- Slightly Improved

How would you rate the success of the HPC/AI results achieved during your Fortissimo funded project?

- 14,81%
- 14,81%
- 18,52%
- 51,85%

Legend:
- ● Successful
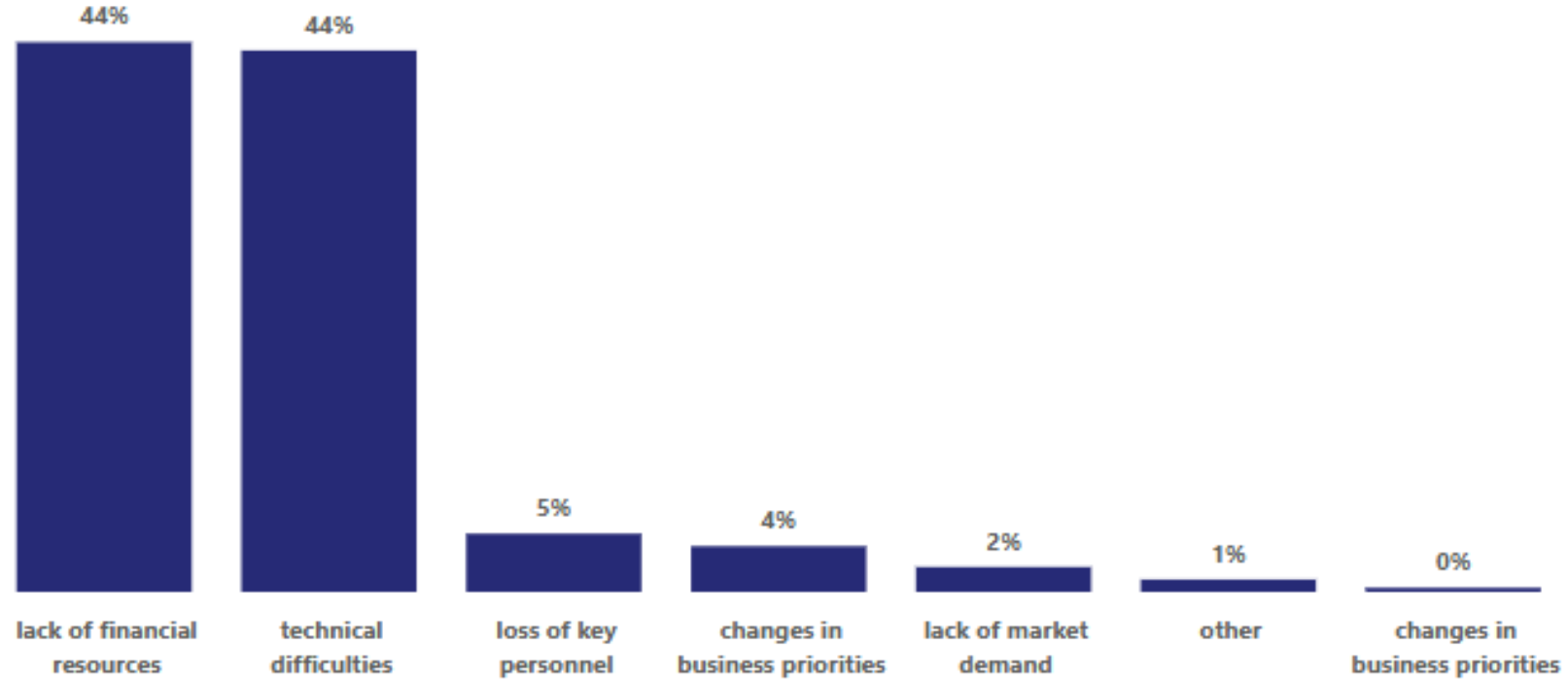- ● Highly successful
- ● Minimally successful
- ● Moderately successful

To what extent have you been able to sustain or build upon the results achieved during the Fortissimo project?

We have maintained and slightly improved the initial results	We have significantly expanded upon the initial results	We have maintained the initial results without significant changes	We have not been able to sustain the initial results	We have partially maintained the results but with some decline
18	5	3	1	1

If you have not been able to sustain the results, what were the main challenges?

lack of financial resources	technical difficulties	loss of key personnel	changes in business priorities	lack of market demand	other	changes in business priorities
44%	44%	5%	4%	2%	1%	0%

Please specify:3

Strategic Pivot and sale of the related business

What types of workloads are your HPC/AI systems primarily addressing?

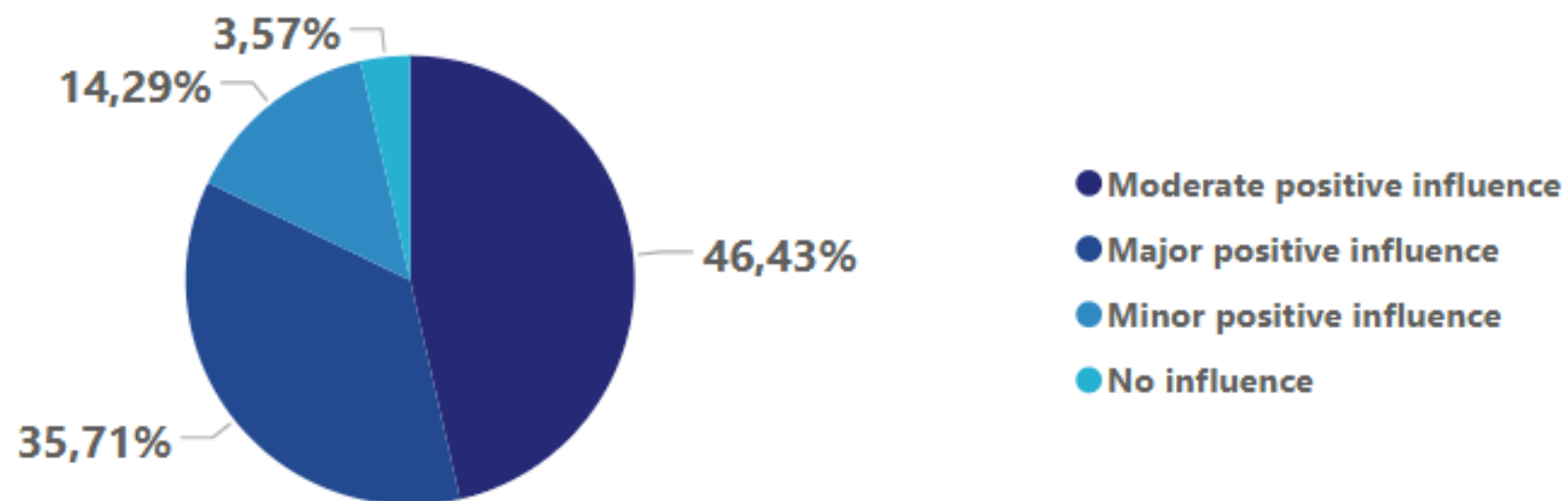| Workload	Percentage
product design and testing	25%
product development	22%
data analysis	20%
machine learning	14%
operations	13%
scientific simulations	3%
customer service	2%
other	1%
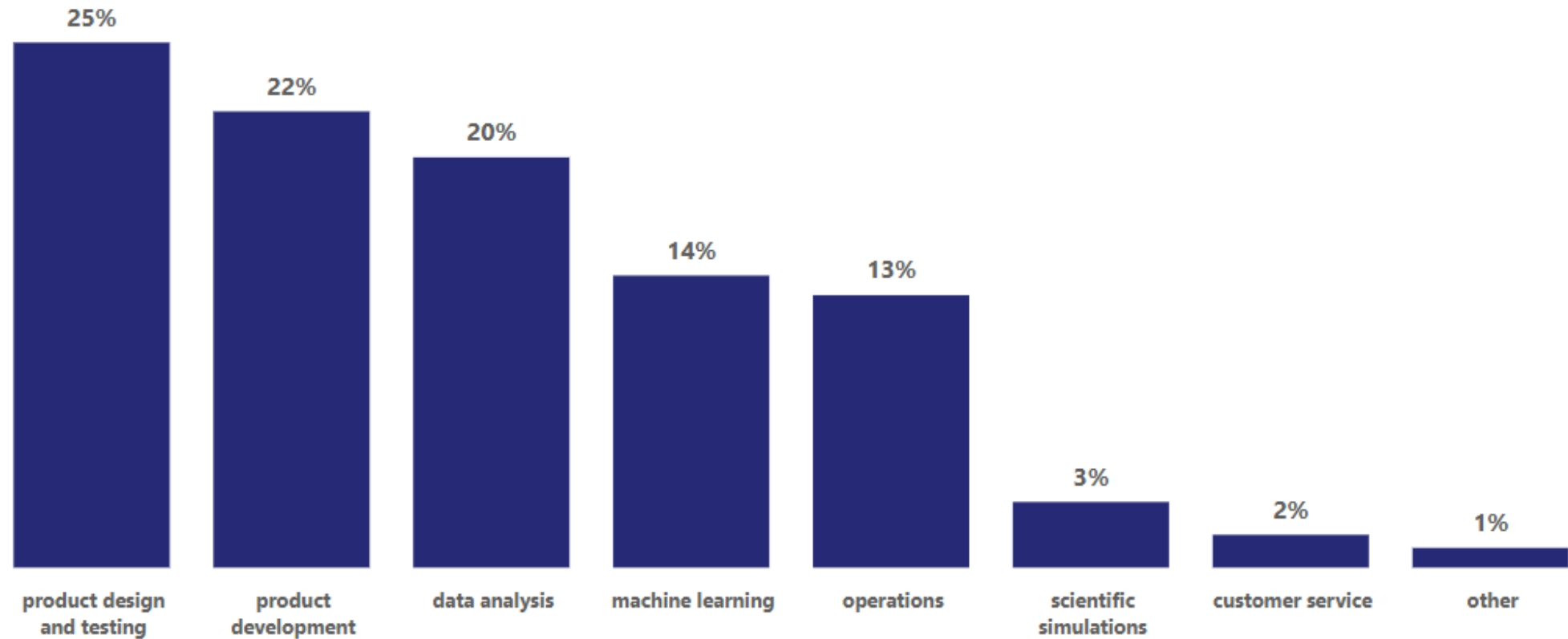
Please specify:4

CFD
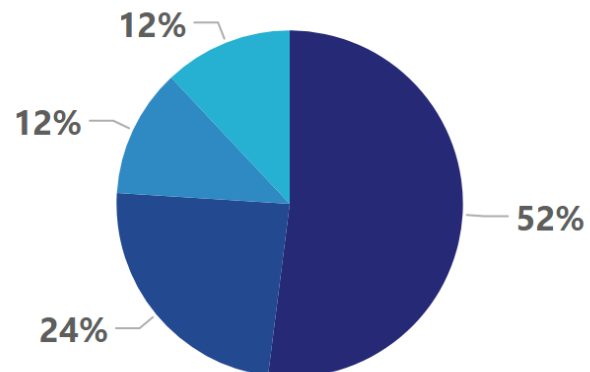
Power Systems Optimisation (long term and short term)

validation

# How have HPC/AI technologies influenced your innovation and R&D activities?

- Moderate positive influence — 46,43%
- Major positive influence — 35,71%
- Minor positive influence — 14,29%
- No influence — 3,57%

Have your team members received adequate training to effectively use HPC technologies?

- 12%
- 12%
- 52%
- 24%

- ● Yes, but more is needed
- ● Yes, extensively
- ● No, but we'd like to get trained to do this
- ● No, we haven't had any training

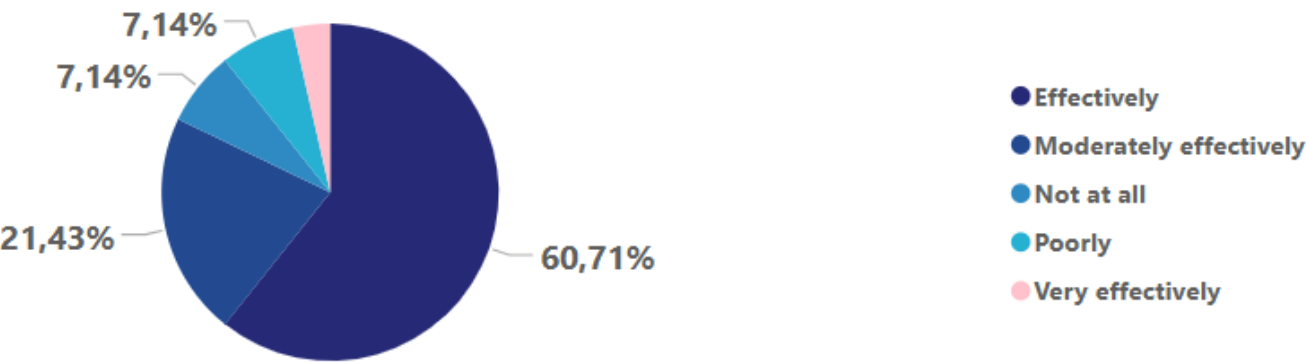# Have you received technical support to maintain and further develop your HPC/AI capabilities?

- 42,86%
- 57,14%

- ● No
- ● Yes
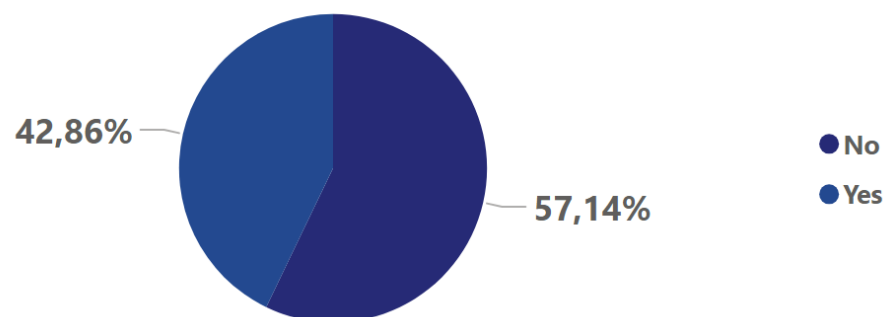
From which organizations or sources did it come?	Nombre de From which organization
CINECA	
CESGA, FRAUNHOFER	
Cineca and University of Modena and Reggio Emilia	
GRNET - EuroCC@Greece	
HLRS	
IST - Lisbon University	
Partners from the project (ie. Pumacy)	
University of Maribor - a partner in our experiment	
Total	

What types of HPC resources are utilized in your organization?

11,11%
44,44%
44,44%

- Both internal and external resources
- External resources
- Internal resources

How effectively are the HPC/AI resources applied within your organization?

7,14%
7,14%
21,43%
60,71%

- Effectively
- Moderately effectively
- Not at all
- Poorly
- Very effectively

How have your computational needs changed since your initial implementation of HPC/AI technologies?

- 7,41%
- 18,52%
- 40,74%
- 29,63%

- ● They have slightly increased
- ● They have significantly increased
- ● They have remained the same
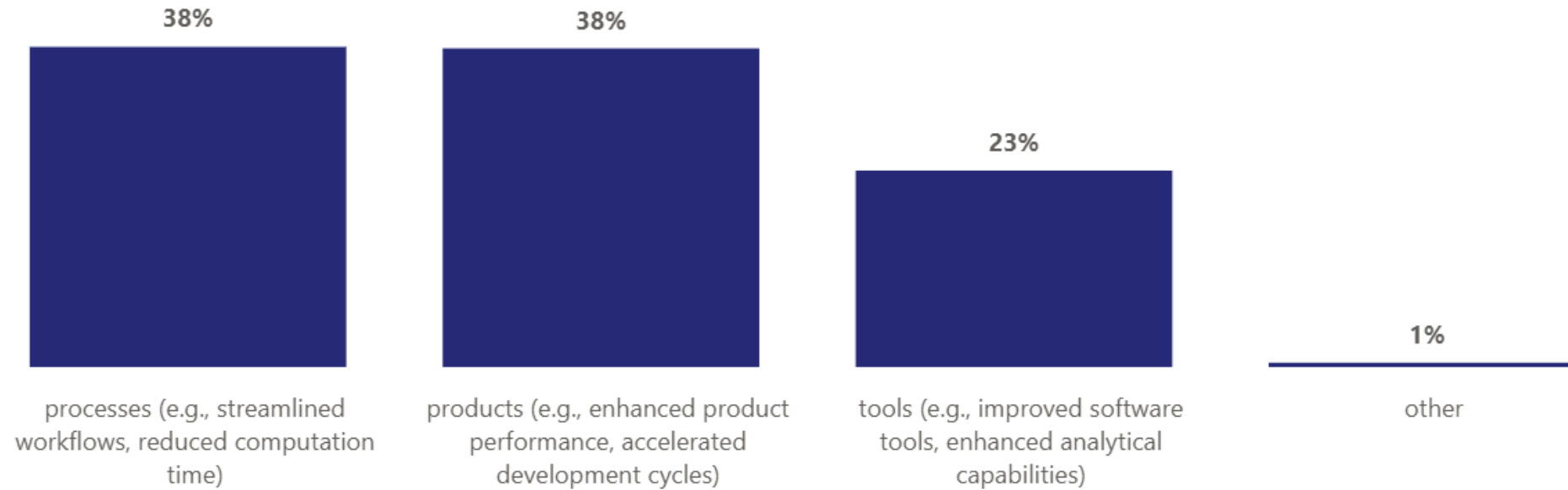- ● They have slightly decreased
- ● They have significantly decreased
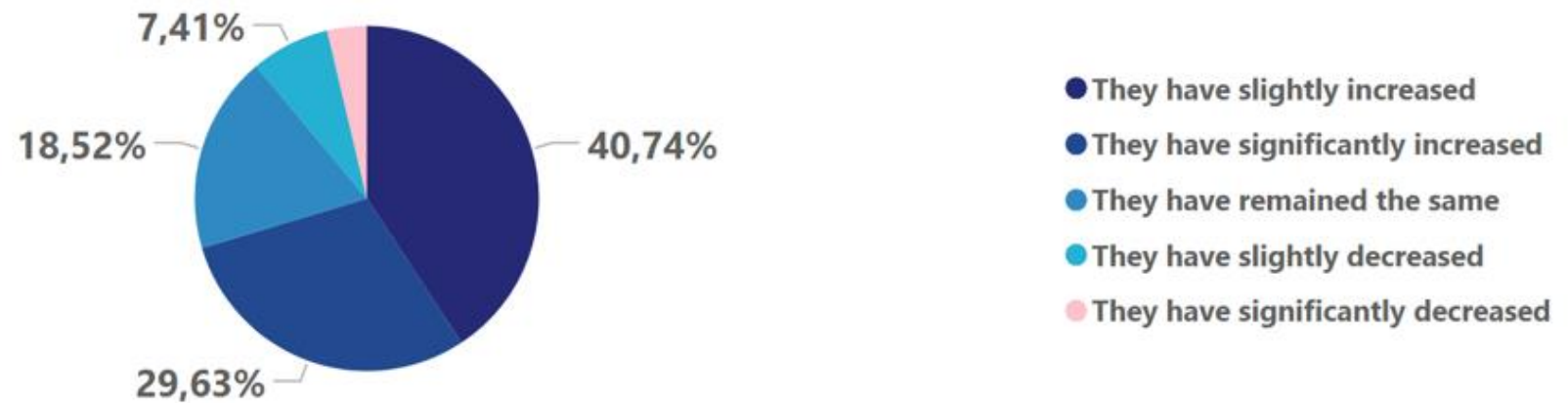
If you are no longer using HPC technologies, what alternative solutions are you using to meet your computational needs?
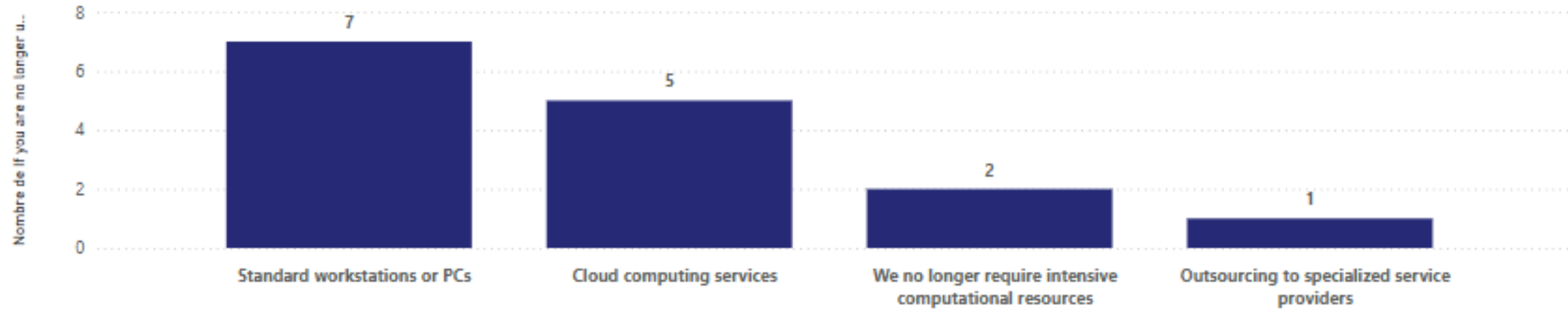
In which domains have you experienced computational efficiency gains through the use of HPC technologies or efficiency improvements due to AI technologies?
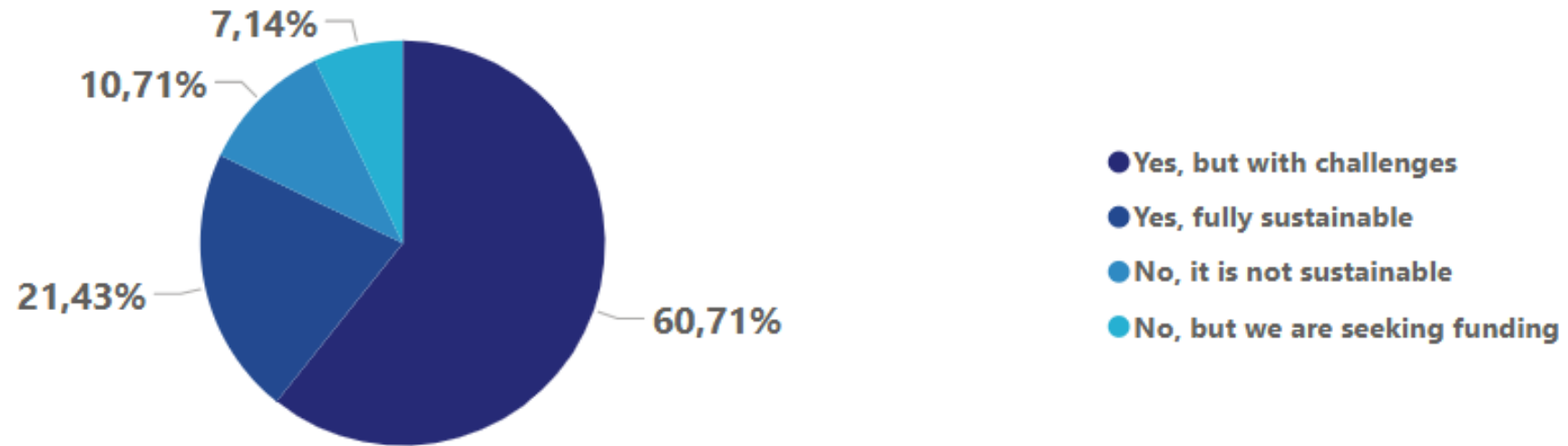

38% — processes (e.g., streamlined workflows, reduced computation time)

38% — products (e.g., enhanced product performance, accelerated development cycles)

23% — tools (e.g., improved software tools, enhanced analytical capabilities)

1% — other

How would you evaluate the extent of these efficiency gains or improvements in the selected domains?

7,14%

32,14%

53,57%

- High
- Moderate
- Very high
- Low
- Very low
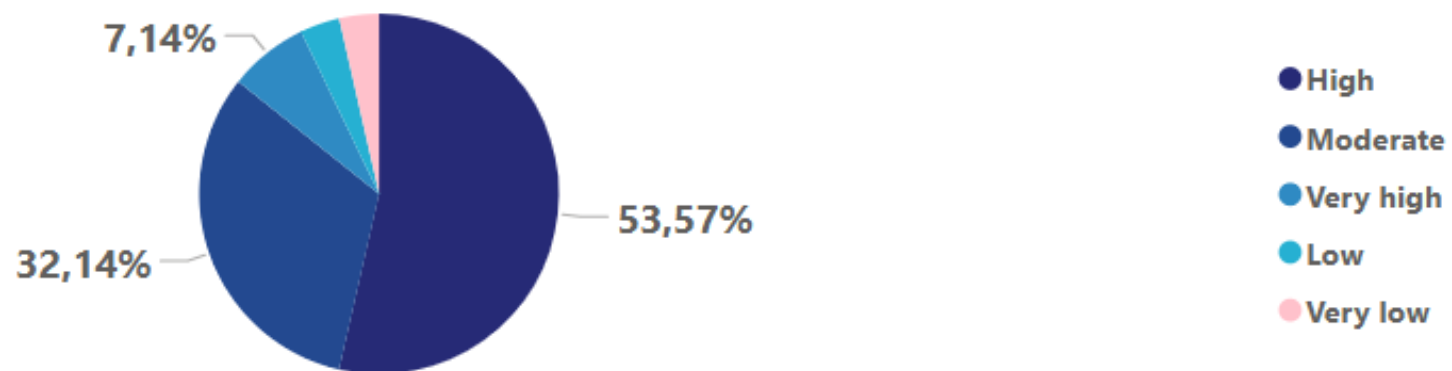
Is the continued use of HPC/AI technologies financially sustainable for your organization?

- Yes, but with challenges
- Yes, fully sustainable
- No, it is not sustainable
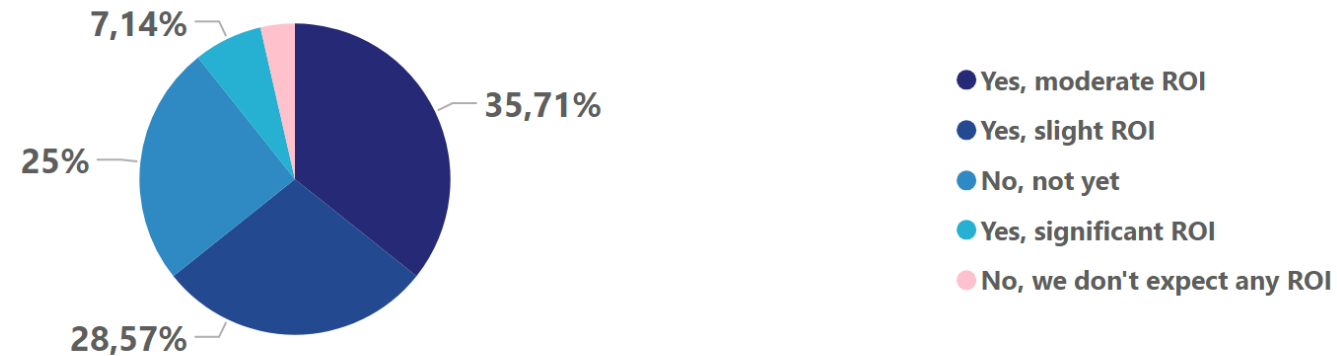- No, but we are seeking funding

60,71%
21,43%
10,71%
7,14%

Are you still actively collaborating with the partners involved in your past Fortissimo business experiment?

%TG Nombre de Are you st...

36%	29%	29%	7%
Yes, but less frequently	No, but we are open to future collaboration	Yes, we collaborate frequently	No, we have discontinued collaboration
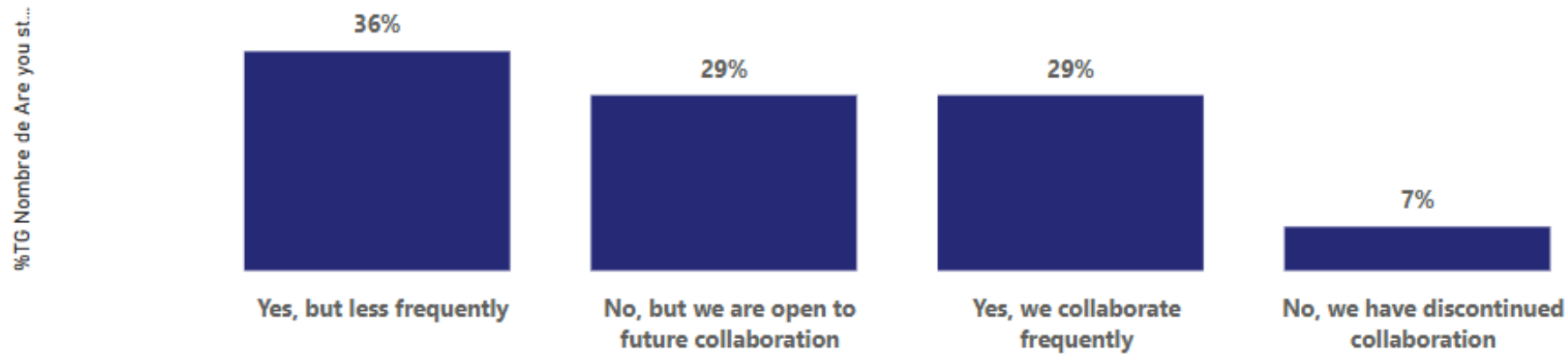
Do you have plans to expand or enhance your use of HPC/AI technologies in the future?

- 39,29% — Yes, within the next 2-3 years
- 25% — Yes, within the next year
- 21,43% — Yes, but no specific timeline
- 14,29% — No, we do not have plans
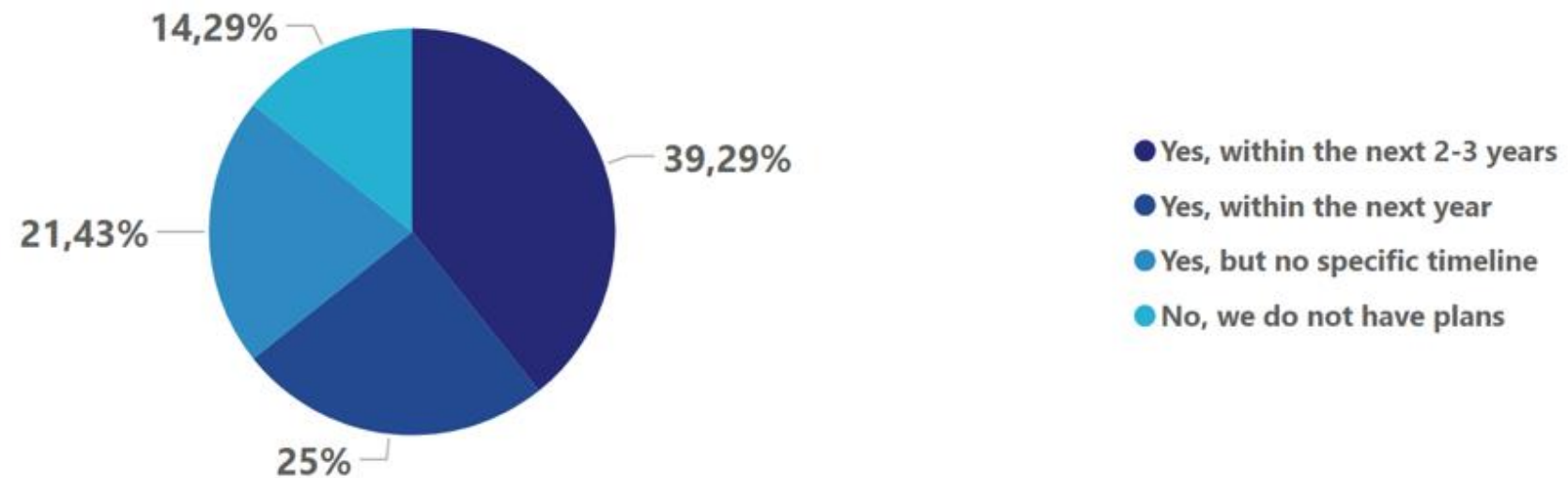
Have you observed a return on investment (ROI) from the implementation of HPC/AI technologies?

7,14%
35,71%
25%
28,57%

- Yes, moderate ROI
- Yes, slight ROI
- No, not yet
- Yes, significant ROI
- No, we don't expect any ROI

Do you have a long-term strategy for integrating HPC/AI technologies into your business model?

14,29%
25%
60,71%

- Yes, but it's still developing
- No, we do not have a strategy
- Yes, we have a well-defined strategy
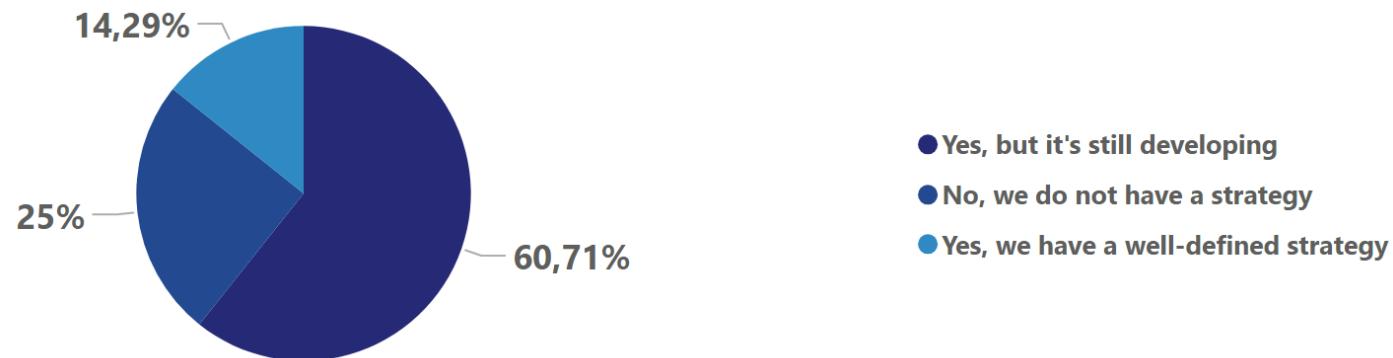
What are the main challenges you face in continuing to use HPC/AI technologies?

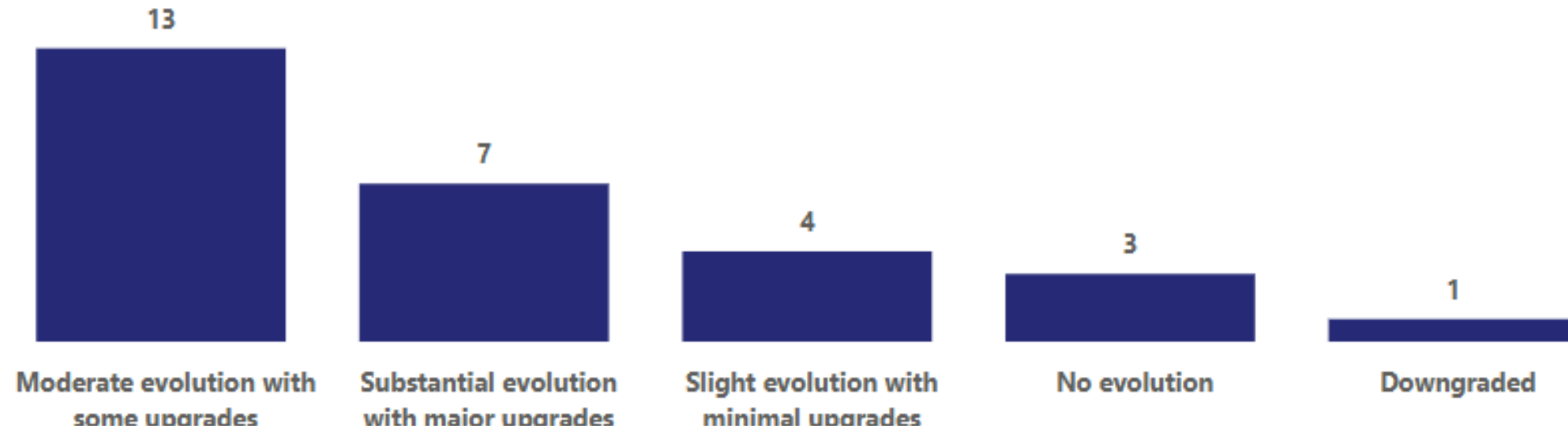| Challenge	Percentage
financial constraints	29%
technical difficulties	22%
limited technical support	20%
lack of skilled personnel	19%
other	10%
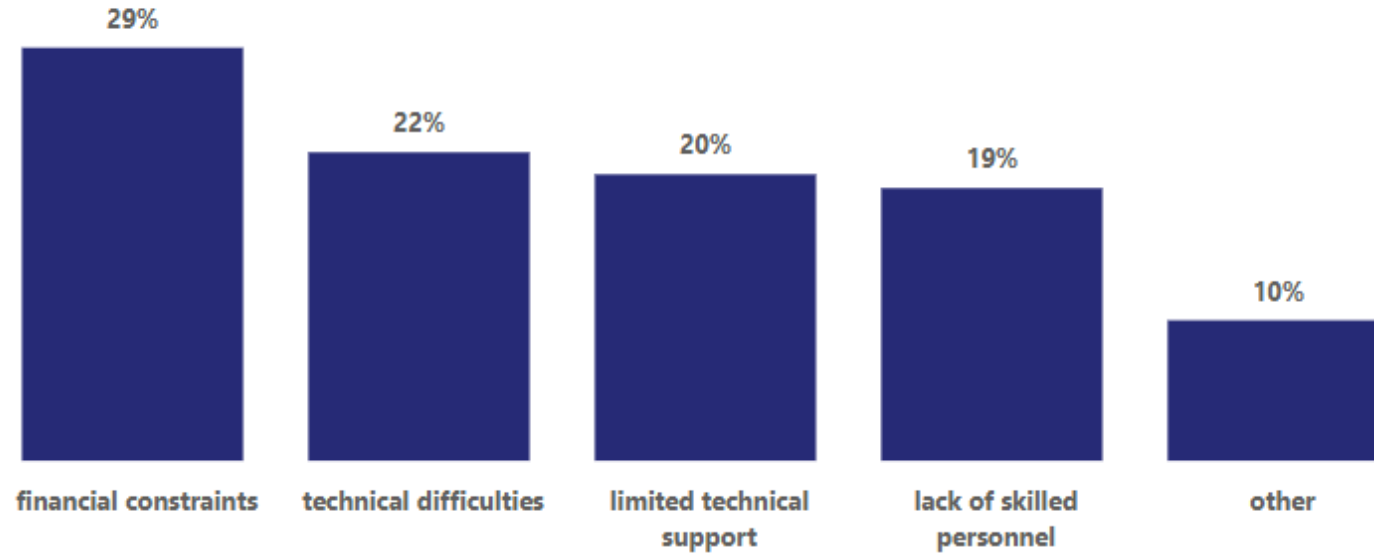
Please specify:
- Cost to access HPC infrastructure is still quite high for a small startup
- FF4 experiment was very extensive and challenging. It still needs polishing for robust industrial use.
- Fluid business access to EuroHPC centres
- hard to find available resources and at reasonable cost
- Limited demand in the market
- specific projects requiring HPC
- We need to continuously seek for funding for HPC resources.

How have your HPC/AI applications evolved since their initial implementation?

Bar chart showing responses:
- Moderate evolution with some upgrades: 13
- Substantial evolution with major upgrades: 7
- Slight evolution with minimal upgrades: 4
- No evolution: 3
- Downgraded: 1

General suggestions to improve fortissimo support

- Improve access to HPC resources for SME after PoC. We had to transition to cloud on our end because we could not find a sustainable long term alternative with (European) HPC.

- information on follow-up and in-depth projects

- pay-per-use access to EuroHPC centers for SMEs

- Public HPC provides must be more efficient and "industry supportive".

- Fortissimo funding's focus on high technical challenge often leaves experiments stuck at a TRL level, needing further funding and mentoring (like FF4) to reach market-ready industrial grade.

- Think HPC as an everyday tool

- To maximase Fortissimo's long-term impact requires follow-up initiatives with original partners to refine experiments, and promoting scalability through guidelines, training, and continuous collaboration.

Conclusion

- **Consistent HPC Adoption:** Most surveyed SMEs actively use HPC technologies, confirming their ongoing relevance.

- **Positive Business Impact:** HPC integration significantly benefits internal processes and external operations, with no negative impacts.

- **A major catalyst for innovation and R&D:** HPC technologies have a positive influence on development of most SMEs.

- **Achieved & Sustained Success:** Initial HPC projects were largely successful, with many SMEs sustaining or expanding these achievements.

- **Barriers to HPC Adoption:** High costs, limited affordable access, and industrialising complex experiments challenge SMEs.

- **Need for Sustainable Access:** SMEs require ongoing funding and better EuroHPC access for project-specific and evolving market demands.

Additional text, if needed.

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