



Enabling Science through European Electron Microscopy

Annual Report on TA Access

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Revision

History log

Version number	Date of release	Author	Summary of changes
V1.0	15/11/2019	Lucie Guilloteau	First draft of the deliverable
V1.1	11/12/2019	Peter A. van Aken	Amendments to the first draft and approval of the deliverable
V2.0	19.01.2021	Antoine Kieffer	Second draft of the deliverable
V2.1	27.01.2021	Peter A. van Aken	Revisions of draft
V2.2	03.02.2021	Antoine Kieffer	Final version
V3.0	27.07.2022	Aude Garsès	Third draft of the deliverable
V3.1	24.08.2022	Peter A. van Aken	Amendments to the third draft and approval of the deliverable
V3.2	24.08.2022	Aude Garsès	Finalisation of the third draft
V4.1	21.06.2023	Daniel Balika	Fourth draft of the deliverable
V4.2	26.06.2023	Aude Garsès	Finalisation of the draft
V4.3	27.06.2023	Peter A. van Aken	Amendments to the fourth draft and approval of the deliverable

Introduction

To guarantee Transnational Access (TA) excellence of the ESTEEM3 project, it is necessary to assess the project with respect to the specific objectives set out in the Grant Agreement signed between the European Commission, the coordinator, and the other beneficiaries.

Therefore, this deliverable D12.1 provides evidence on the main statistics on the requested and provided TA units since the beginning of the project. The collected data refer to the period of 1st January 2019 to 31st May 2023.

This will include:

- A **general overview** of the projects that have been submitted.
- Statistics of approved projects according to their **country of origin**
- Statistics of approved projects according to their **type of institution**
- Statistics of approved projects regarding the **hosting laboratories**, including the access units of the different components
- Statistics of approved projects regarding **gender balance**
- A **conclusion** on the latest progress in Transnational Access

General overview

The general overview provides evidence on the project figures about the number of projects, which have been submitted and assessed from during the project's start to May 2023 (M53).

During this period, 464 projects applied to the ESTEEM3 project. Twenty-three of these projects were not accepted due to eligibility issues and/or insufficient consolidation of the proposal. 441 projects have been accepted and no project is in the review process, as the TA closed. Therefore, the success rate is reaching 95%.

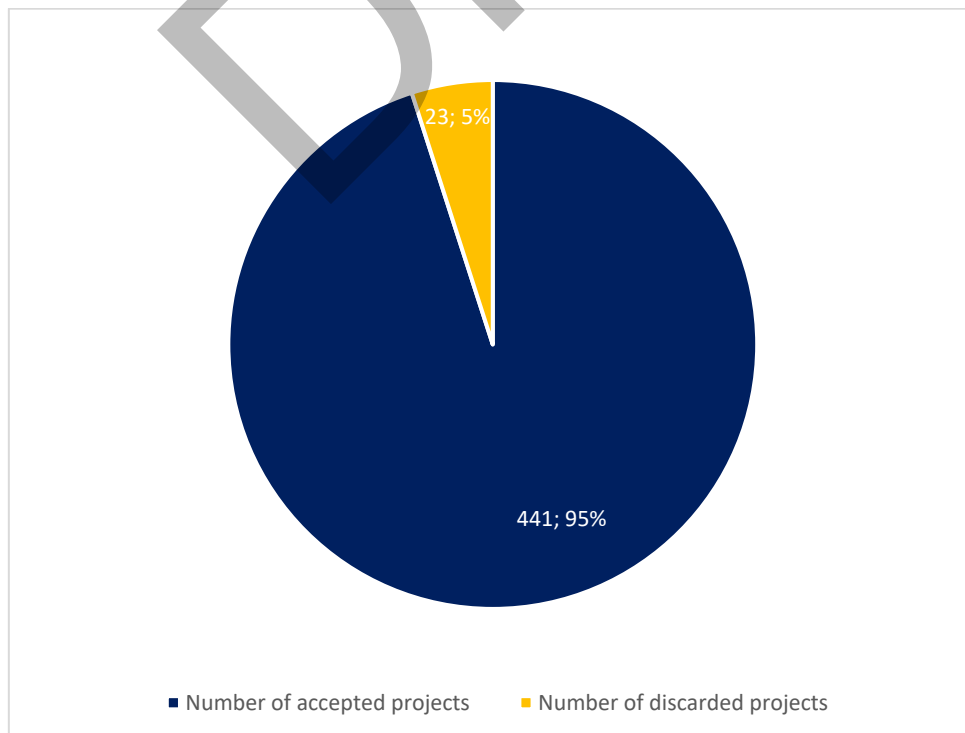


Figure 1: Success rate

A large majority of these approved projects (378 projects) were submitted by European organizations, which represents 86% of the total. The ESTEEM3 project is internationally visible and attracts talented projects as 63 projects (approx. 14%) benefited from ESTEEM3 expertise. The KPI *Number of international projects* aiming to reach 50 projects was achieved a year ago in May 2022 (M41).

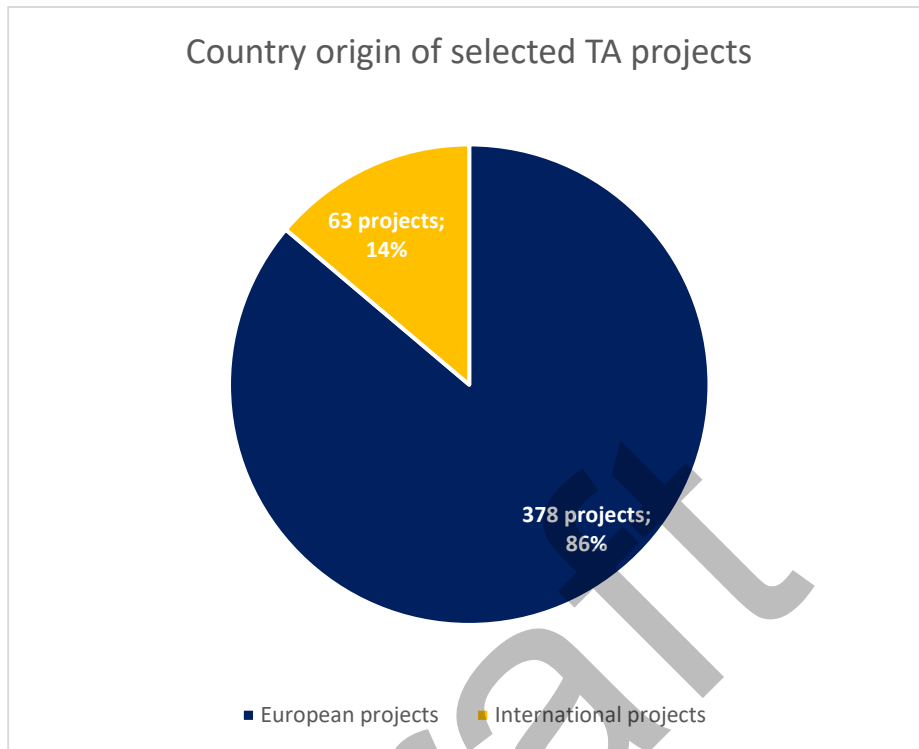


Figure 2: Country origin

In total, 18 projects came from the private sector including 7 projects led by SMEs. 96% of the projects came from the academic sector and 4% of the projects came for the non-academic sector.

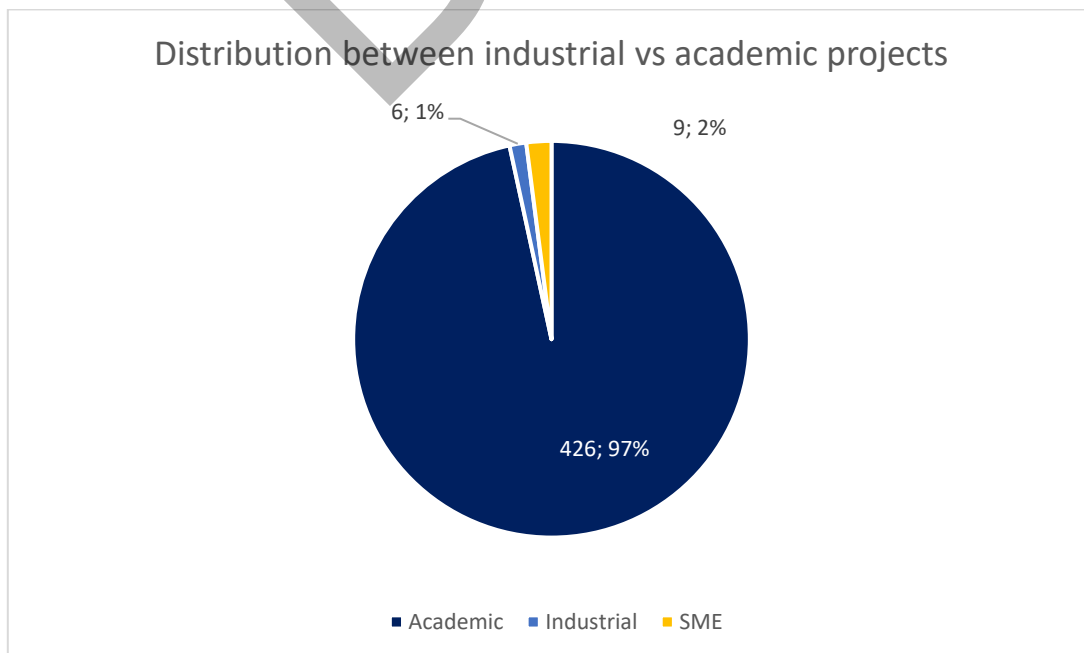


Figure 3: Industrial vs Academic projects

Distribution of approved projects

The consortium is monitoring the approved projects and follows up accurately on the following themes: “country of origin”, “type of institution”, “frequentation of access of hosting laboratories” and “gender balance”.

Country of origin

For the EU projects, 378 projects were accepted. The *Table 1* shows the origin of the projects from the 29 countries (Member States and Norway) that were selected. It also indicates the number of projects selected for each country. Germany, Spain, France, Netherlands, United Kingdom, and Italy are the main countries selected.

The *Table 2* shows the same information for the submitted projects for 18 international countries. 63 projects were accepted. United States, China, Israel, South Korea, Singapore and Japan are the main countries applying.

In total, projects from **47** different countries were accepted.

Table 1: Origin of European countries

EU and associated countries	378
Austria	13
Belgium	7
Denmark	15
France	34
Germany	51
Italy	28
Poland	12
Romania	6
Serbia	5
Slovenia	10
Spain	44
Sweden	14
Switzerland	16
Turkey	4
Ukraine	7
United Kingdom	28
Croatia	2
Ireland	8
Portugal	10
Netherlands	31
Czech Republic	11
Lithuania	2
Norway	8
Slovakia	3
Hungary	2
Iceland	1

Greece	3
Estonia	2
Bosnia and Herzegovina	1

Table 2: Origin of international countries

International	63
Australia	2
China	11
Israël	5
South Korea	3
USA	6
Canada	4
Colombia	3
Korea	1
Brazil	1
United States	7
Argentina	3
Japan	4
Singapore	5
South Africa	1
Egypt	1
Russia	1
India	4
Panama	1
Total	441

Type of institution

The accepted projects were conducted by project leaders from different types of institutions, which are represented in the following figure:

- 320 were led by Universities or Higher Education organizations, which represents 73%.
- 103 projects were led by Research Institutes, which represents 23%.
- 11 other industrial and/or profit organizations and 7 SMEs led a project, representing 4 % of all approved projects.

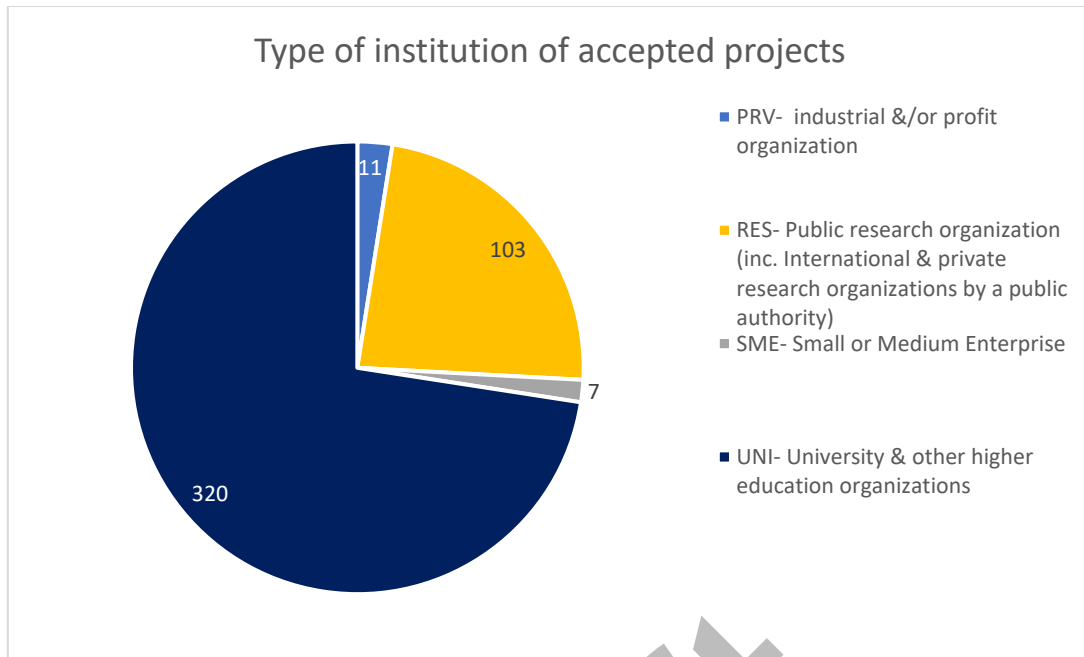


Figure 4: Type of institution of accepted projects

Gender equality

The figure below shows the gender balance of the group leaders of all approved projects. Based on the 441 approved projects, 300 projects were led by male group leaders and 141 were led by female group leaders.

This means that:

- 68,03 % of the group leaders of all approved projects are **male**.
- 31,97 % of the group leaders of all approved projects are **female**.

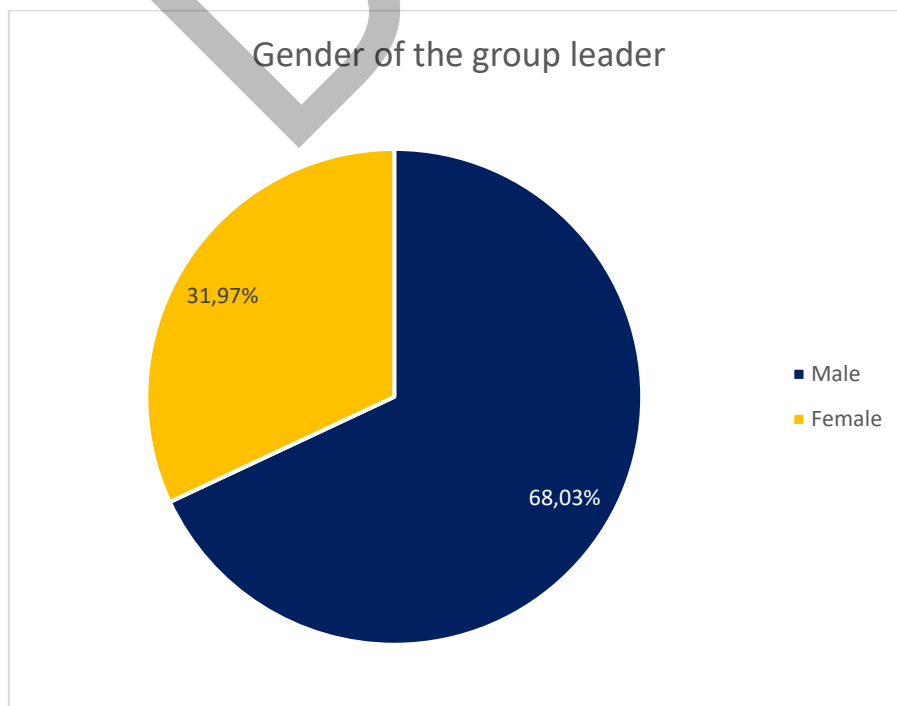


Figure 5: Gender of group leaders - Approved projects

Frequentionation of access of hosting laboratories

This section analyses the frequentionation of access of hosting laboratories, including the units of access of the different items. First, the laboratories are compared among each other concerning the number of conducted projects. Secondly, the requested items of units of access are illustrated. Thirdly, the requested units of access per laboratory are compared to the minimum number of TA access as indicated in the Grant Agreement.

The table below shows the number of approved projects in the different laboratories. Out of all **15 laboratories**, most of the projects are run by **ER-C Juelich**, then **EMAT Antwerp**, and **LPS Orsay** (respectively **59, 51 and 50 projects**). **LMA Zaragoza**, **CEMES Toulouse**, **FELMI-ZFE Graz** and **StEM Stuttgart** are also ranked among the most visited laboratories, counting **35, 34, 30 and 27 projects**.

Table 3: Frequentionation of access of hosting laboratories

Laboratory	Number of approved projects
A-DME Cadiz	22
Beyondnano Catania	20
CEMES Toulouse	34
CMAL Gothenburg	19
EMAT Antwerp	51
ER-C Juelich	59
FELMI-ZFE Graz	30
IC-EM Krakow	24
JSI Ljubljana	13
LMA Zaragoza	35
LPS Orsay	50
OXTEM Oxford	15
StEM Stuttgart	27
WEMS Cambridge	22
Trondheim-NTNU	20

Units of access in total

In total, **6283 units of access have been requested**. This means that the average number of units requested per project is approximately 14, which is a higher rate than expected (maximum = 20).

The figure below represents the distribution of the units requested.

- **1150 units for sample preparation**
- **2907,5 units for TEM**
- **2225,5 units for data analysis**

Unsurprisingly, the unit in highest demand is TEM representing approximately 46,28% of all requested TA units. Sample preparation represents 18,30% and data analysis is reaching 35,42%.

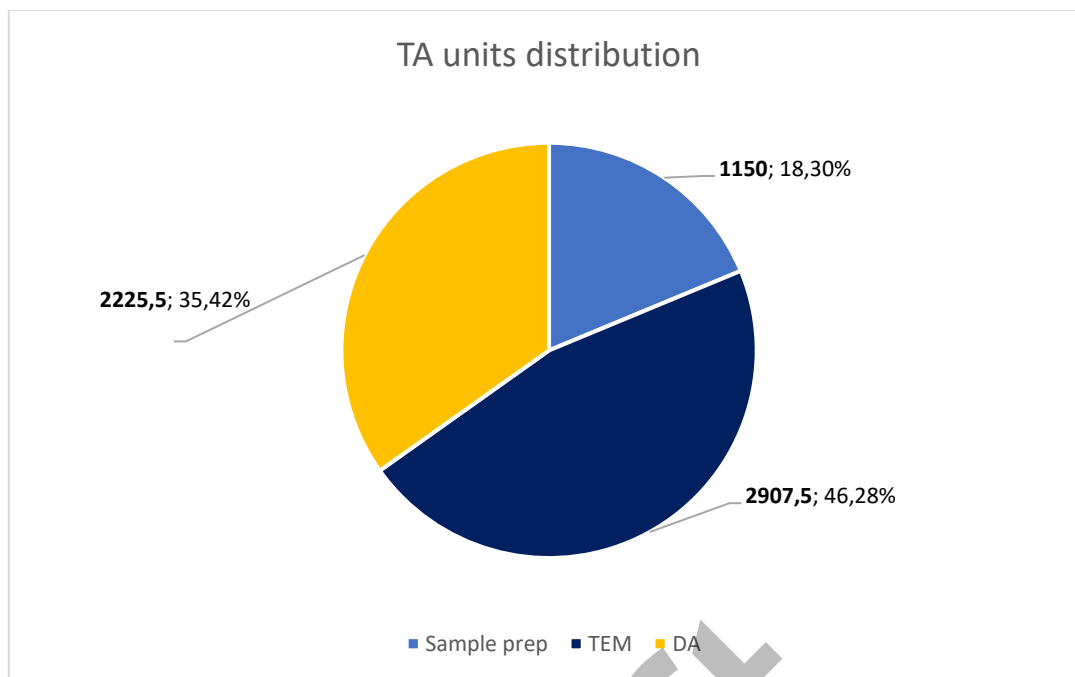


Figure 6: TA units distribution

Units of TA access allocated and provided per infrastructure

To assess the progress of TA units allocated and provided for each infrastructure, the coordination team is monitoring the different unit categories. The allocated units are directly compared to the minimum of TA access that needs to be provided according to the Grant Agreement.

Table 4 is summarizing the allocated/requested units per category and per laboratory since the beginning of the project.

We can observe that some infrastructures appear to be very attractive such as StEM Stuttgart and EMAT Antwerp.

In addition, StEM Stuttgart, EMAT Antwerp, Chalmers, Gemini Trondheim, IC-EM Krakow, Beyondnano Catania have exceeded their initial targets in terms of number of TA units provided.

If all laboratories and categories are considered, the progress of TA allocation achieves 85%. ESTEEM3 has largely exceeded its initial targets for TEM and Sample prep.

	Min. quantity of access to be provided				Requested units - incl. Amendments UPDATED on may 2023				Completion rate				
	Sample prep	TEM	DA	TOTAL to be provided	Sample prep	TEM	DA	TOTAL requested units	Sample prep	TEM	DA	Total % TA requested	Total %-TA provided-included
MPG	80,00	180,00	0,00	260,00	169,00	245,00	3,00	417,00	206,25%	113,89%		160,38%	142,31%
JUELICH	60,00	270,00	270,00	600,00	107,00	558,00	204,00	869,00	95,83%	118,85%	25,58%	144,83%	74,58%
CNRS-CEMES	0,00	200,00	300,00	500,00	53,00	223,50	265,50	542,00		96,25%	74,83%	108,40%	83,40%
CNRS-LPS	0,00	180,00	510,00	690,00	0,00	284,00	469,00	753,00		128,33%	65,29%	109,13%	81,74%
UANTWERP	110,00	320,00	0,00	430,00	188,00	344,00	37,00	569,00	172,73%	106,88%		132,33%	123,72%
OXFD	0,00	200	480,00	680,00	0,00	54,00	77,00	131,00		25,50%	12,92%	19,26%	17,79%
UCAM	90,00	90,00	130,00	310,00	63,00	97,00	131,00	291,00	43,19%	87,79%	71,18%	93,87%	67,88%
JSI	50,00	70,00	135,00	255,00	67,00	85,00	54,00	206,00	104,00%	115,71%	34,81%	80,78%	70,59%
TUGraz	125,00	160,00	240,00	525,00	124,00	190,00	163,00	477,00	99,20%	119,38%	69,17%	90,86%	91,62%
UNIZAR	60,00	150,00	180,00	390,00	91,00	162,00	165,00	418,00	106,67%	92,67%	75,00%	107,18%	86,67%
UCA	0,00	96,00	196,00	292,00	7,00	109,00	181,00	297,00		116,67%	89,29%	101,71%	98,29%
AGH-UST	80,00	120,00	120,00	320,00	103,00	179,00	125,00	407,00	115,00%	118,33%	80,00%	127,19%	103,13%
CHALMERS	50,00	90,00	130,00	270,00	68,00	147,00	124,00	339,00	132,00%	154,44%	100,00%	125,56%	124,07%
NTNU	20,00	55,00	90,00	165,00	39,00	99,00	99,00	237,00	185,00%	158,55%	61,11%	143,64%	108,61%
CAT	40,00	65,00	120,00	225,00	71,00	131,00	128,00	330,00	100,00%	170,77%	67,50%	146,67%	103,11%
TOTAL	765,00	2246,00	2901,00	5912,00	1150,00	2907,50	2225,50	6283,00	122,14%	107,91%	57,43%	106,28%	84,98%

Table 4 : Percentage of allocation progress per TA units and per infrastructure

Furthermore, the next four figures illustrate the progress of each infrastructure, by comparing the target, the allocated units and the units delivered until May 2023. The figure 10 also shows the average progress per laboratory in total.

The provided TA units' figures are based on the figures officially reported during RP3.

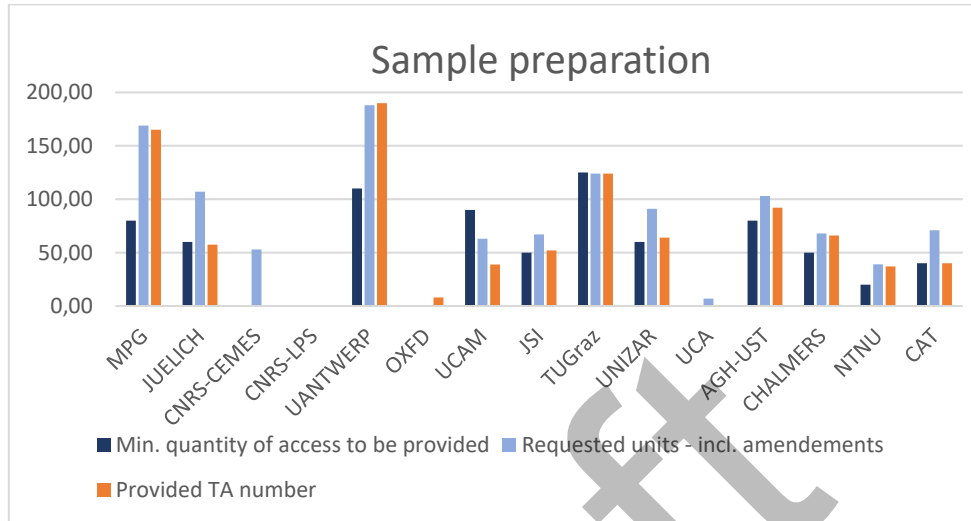


Figure 7: Progress on Sample preparation units

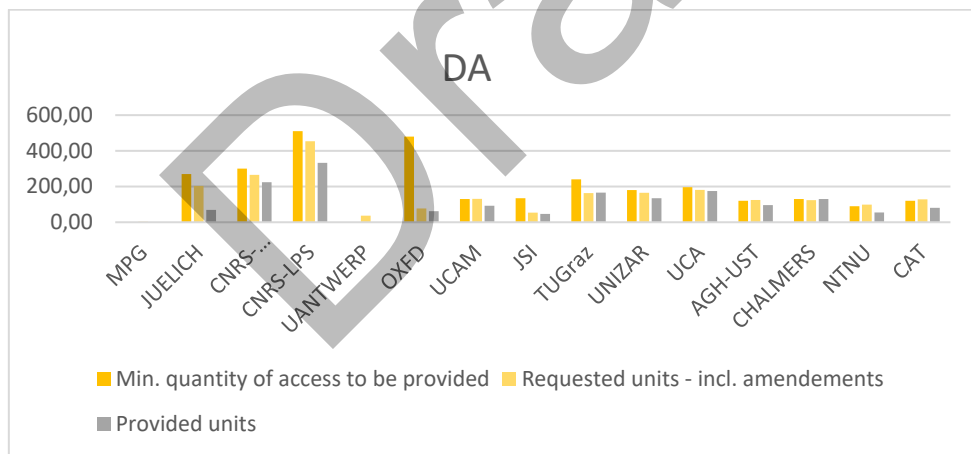


Figure 8: Progress on Data Analysis units

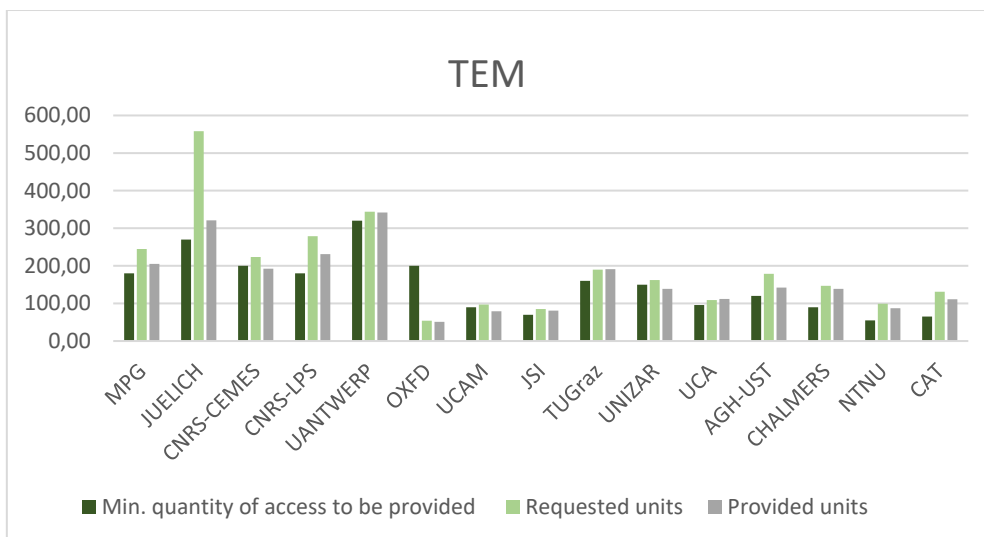


Figure 9: Progress on TEM units

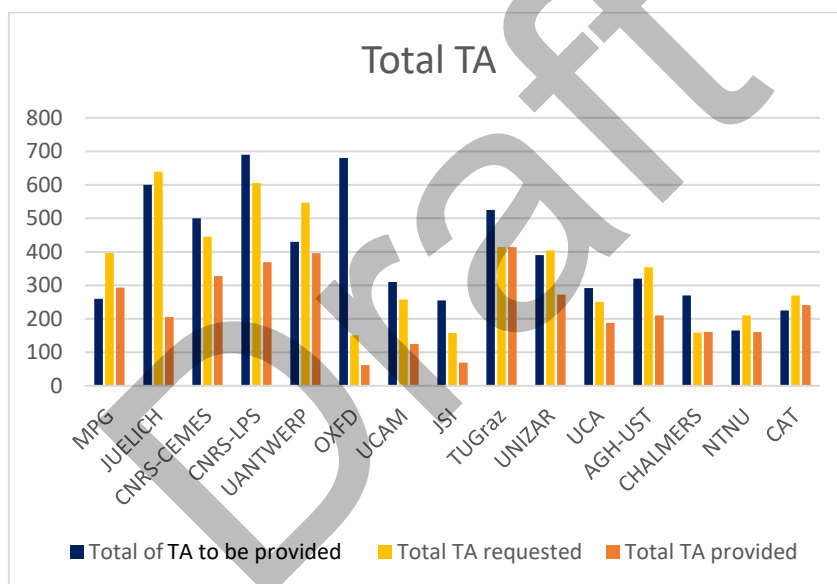


Figure 10: Progress overview for each infrastructure (including all units)

Finally, the table below summarize the key figures and progress at consortium level

Number & Type of Units of access	KPI	M52 requested	M52 provided	Completion rate (requested)	Completion rate (provided)
Samples	765	1 150	934	150%	122%
TEM	2 246	2 908	2424	129%	108%
Data analysis	2 901	2 225	1666	77%	57%

Table 5 : Key figures and progress at consortium level

Conclusion

To conclude, after 53 months of the ESTEEM3 project, the **achievement progress of allocated units is reaching 85 %**. At M53, **the completion rate is 122% for samples and 108% for TEM**. It means that the consortium exceeded its allocated targets **for sample preparation and TEM**.

As the TEM and sample preparation unit costs are higher than the DA unit costs, the EU contribution allocated to TA unit costs within ESTEEM3 will be exceeded.

An amendment is currently ongoing to redistribute the TA units distribution among types of units and partners. Therefore, the DA target should be reached, reflecting the current progress of TA units.

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