

MEMO²: MEthane goes MObile – MEasurements and MOdelling

MEMO² – Recruitment of ESRs finished

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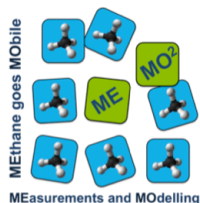
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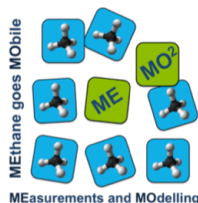


MEMO²: MEthane goes MObile – MEasurements and MOdelling

D5.4 Recruitment of ESRs finished

Table of contents

1. Executive Summary	3
2. Recruitment strategy	3
3. Advertisement	5
4. Selection and interview procedure	6
4.1 Selection criteria	6
4.2 Interview procedure	6
4.3 Timeline of the recruitment procedure	7
5. Applicants and selected candidates	8
5.1 Statistics of applications	8
5.2 Selected candidates	9
6. History of the deliverable	10



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D5.4 Recruitment of ESRs finished

1. Executive Summary

Within MEMO² as a EU MSCA-ITN-ETN project, 13 Early Stage Researcher are employed and trained.

A highly interdisciplinary training program is offered to the ESRs, where they get acquainted with techniques to identify CH₄ emissions in the atmosphere, attribute emissions to various source categories, and quantify such emissions from the local to the European scale. The MEMO² training program follows a holistic approach including disciplinary/interdisciplinary elements, individual/collective training, and theoretical/practical courses, all aiming to prepare the ESRs with key competences to tackle scientifically complex and societally relevant issues. Targeted competences in MEMO² are the ability to: I) effectively and interactively use and develop tools such as innovative technologies, knowledge, and languages in an interdisciplinary way, II) act autonomously within the “big picture” of climate sciences, III) function and interact synergistically within a socially heterogeneous group, and IV) responsibly conduct and manage a challenging research project within 3 years. The main training goal is to educate a generation of “cross-thinking” scientists that will be able to effectively develop and use novel measurement and modelling tools in an interdisciplinary and intersectoral context.

Based on the goals and objectives of MEMO² and the individual ESR projects, the selected ESRs are expected to have several characteristics, talents and skills. Those were described in the advertisements, and formed the basis for the selection strategy. The individual projects were advertised widely, using different communication channels, to ensure a maximum of visibility and awareness. The advertisement started with the launch of the website in February 2017 and closed October 2017.

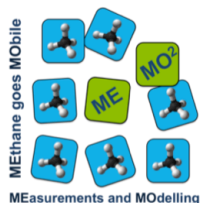
In total the consortium received more than 500 applications of almost 400 individual applicants, from more than 60 countries. Approximately 25% of the applications came from Europe, the majority was from Asia (60 %) and Africa (15 %) (grouping follows the United Nations classifications <http://www.un.org/depts/DGACM/RegionalGroups.shtml>). Regarding gender the number of applications was dominated by male, with a ratio of 2:1. However, among the ESRs that were employed by MEMO², females dominate with a ration of 2:1. Most of the applications were formally eligible, but were – due to the educational background and required skills - not fitting to the project. The employed ESRs come from 10 different countries, most of them from Eastern Europe and Asia.

This deliverable, D5.4, reports on the recruitment strategy and procedure within MEMO², and the selected ESRs.

2. Recruitment strategy

Based on experiences and requirements of the consortium, a decentralized recruitment strategy had been chosen already during the proposal-writing phase. Although MEMO² officially started in March 2017, the recruitment procedure started end of November 2016 to ensure an efficient and timely recruitment. The aim was to recruit all ESRs ideally within the first six months of the project. The following recruitment strategy had been implemented:

- Each beneficiary was responsible for the advertisement of and the recruitment on its own ESR position, supported by general advertisement by the coordinator. All advertisements were redirected to the project website, which was kept up-to-date regarding the positions.
- The coordinator provided a general project email (management@h2020-memo2.eu). This email was used in all vacancies for submission of applications and contact email for applicants. Additionally, the individual PI email addresses were given in the advertisements to request more information about the positions.
- Applicants had to apply either directly via the general project email, or as requested by some partners (Empa, UU, LU) via an electronic submission system of the Human Resource (HR) departments. The application channels were clearly indicated in the advertisements.
- The coordinator collected all applications that came in via the general project email on Dropbox, a file hosting service offering e.g. cloud storage and file synchronization. For each ESR position an



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D5.4 Recruitment of ESRs finished

individual folder was created, with access only given to the responsible PIs for the respective ESRs. Applications which did not specifically address one of the positions were collected for access by all PIs.

For monitoring reasons the coordinator got access to the electronic submission systems of the Human Resources departments of the respective beneficiaries Empa and LU.

Each beneficiary was responsible to ensure the implementation of an open, transparent and comparable procedure following the European Code of Conduct. To ensure that all beneficiaries have the necessary information of these procedures, the “General Principles and Requirements for the Code of Conduct” (<http://ec.europa.eu/euraxess/index.cfm/rights/codeOfConduct>) were provided by email (23 November 2017) and an overview was given during the Kickoff Meeting (23 March 2017, see Figure 1).

+ EU requirements Recruitments

Do's!

- Advertise and publish vacancies international, EURAXESS obligatory
- Follow an open, transparent, impartial equitable and merit-based recruitment procedure
- Ensure that no conflict of interest exists
- Needs to be reported in the 1st Progress Report
- See also GA Article 32
- Recruitment have to be in accordance with the

Contains principles on e.g. career development, value of mobility, requirement principles, selection criteria



MEMO² – Kickoff Meeting, Utrecht, The Netherlands

23 – 24 March 2017

+ EU requirements Recruitments

Don'ts!

- Scientists-in-charge recruiting their family members etc. to work in the project or beneficiaries recruiting fellows from teams of other consortium members

Conflict of interest: Should be strictly avoided! GA Article 35
• Projects must prove this, e.g. by keeping records of the advertisements, interviews, scorings, criteria, announcement of results etc.

- Researchers recruited by one beneficiary but in reality hosted at another institution.
- Beneficiaries with no premises, or turnover, "hosting" fellows
- Recruited researchers seconded to academic or non-academic organisations outside the consortium.
- Researchers working on non-project-related tasks

Make them associated partners!

NO teaching!
GA 32.1 (iii)



MEMO² – Kickoff Meeting, Utrecht, The Netherlands

23 – 24 March 2017

Fig. 1: Recruitment - Do's and Don'ts; discussed during the MEMO² Kickoff Meeting



Fig. 2: Announcement on the MEMO² website



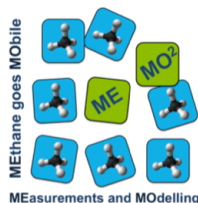
The beneficiaries were solely responsible for the compliance with the EU eligibility rules and the selection of the best candidate, but in case of questions they were supported by the coordinator. Due to the planned intense collaboration between some beneficiaries and the non-academic mentors, some mentors were included in the selection procedure.



All applications that were received until the deadline got full consideration. In the advertisements it had been mentioned, that the given deadlines in the job descriptions marked the start of the evaluation procedure followed by the selection procedure. Although the vacancy portals for individual positions were closed, eligible applications could be taken in consideration until the positions were filled, except LU. Applicants could contact the coordinator in case the deadline passed to get information about the status of individual vacancies.



Beneficiaries who did not find a suitable candidate within the first round had the opportunity to reopen the recruitment procedure.



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3. Advertisement

The vacant positions were advertised widely to ensure a maximum of visibility and awareness, both individually and grouped into a general MEMO² project advertisement. The advertisement started with the launch of the website in February 2017 and closed finally in October 2017.

The positions were advertised using several platforms:

- Individual institutional websites of the respective beneficiaries
- Personal scientific networks of the consortium members
- Project website (<http://h2020-memo2.eu/vacancies/>)
- International scientific internet-based job platforms
 - EURAXESS (e.g. <https://euraxess.ec.europa.eu/jobs/181963>)
 - Naturejobs (<http://www.nature.com/naturejobs/science/jobs/606499-phd-student-in-the-eu-initial-training-network-memo2-ga-722479>)
 - Academicpositions (<https://academicpositions.nl/employer/memo2-methane-goes-mobile-mesurements-and-modelling>)
 - Academictransfer
 - EGUjobs (<https://www.egu.eu/jobs/>)
- Subject-related mailing lists: met-jobs@lists.reading.ac.uk, ISOGEOCHEM@LIST.UVM.EDU
- Individual project mailing lists, e.g. InGOS, ICOS
- LinkedIn and ResearchGate as social media platforms (<https://www.researchgate.net/project/MEMO2-MEthane-goes-MOBIle-MEasurements-and-MOdeling> and <https://www.linkedin.com/pulse/memo2-almost-complete-sylvia-walter/>)
- Recruitment poster - provided by the coordinator -, placed strategically at the host institutions and e.g. at conferences as the EGU2017 (Figure 3, 4)

The advertisements of individual projects were standardized as much as possible to ensure, that all applicants will get the same amount of information. This included a

- Short description of the project
- Description of working conditions and entitlements, including career development prospects
- Short description of the selection process (selection criteria, selection committee, interview conditions, timeline, ...)
- Deadline for application
- Contact for applicants to get more information about the project

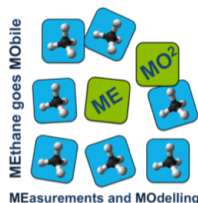
As the positions offered within MEMO² are highly diverse, the responsible PIs formulated individual criteria for selection based on the direction of the ESR projects. The coordinator consolidated all vacancy descriptions and published them on the project website. To ensure that applicants are aware of the EU eligibility criteria those were also added to the text of advertisement.

For each position, a deadline was set for application, and eligible applications until this date received full consideration. The deadlines marked the start of the evaluation procedure followed by the selection procedure. Although the vacancy portals for individual positions were closed than, late eligible applications were taken into consideration until the positions were filled, except for LU. Due to their recruitment policies, LU kept a strict deadline and took no applications into consideration after the deadline. In case no suitable candidates were found during the first round, the recruitment procedure was reopened (see Table 1 for the timeline of recruitment).

Fig. 3: MEMO² recruitment poster



Fig. 4: Announcement at the EGU2017



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4. Selection and interview procedure









4.1 Selection criteria

The concept of MEMO² is to combine different methods, methodologies and approaches, e.g. the measurement of CH₄ by using different instruments, the development of different techniques or modelling of CH₄ emissions and related aspects. Due to the diversity of the ESR projects, the requested collaboration within an international consortium, and the proposed training programme within MEMO² the ESRs are expected to have several characteristics, talents and skills. This includes as well scientific as soft skills, such as:

a) Scientific skills, e.g.

-  An excellent master's degree in physics, meteorology, environmental science, geosciences, analytical chemistry
-  Strong background, experience, and proficiency in environmental physics, including measurement of gas concentration (any technique: CRDS, GC, FTIR), calibration, general experimental techniques and data analysis tools.
-  Computational skills, programming, and statistical data mining, scientific coding skills, e.g. shell, Python, Fortran, Matlab, C/C++ or R equivalent to a minimum of 15 credits each
-  Knowledge and skills in atmospheric physics and chemistry, e.g. greenhouse gas analysis, stable isotopes / mass spectrometry, within the field of atmospheric boundary layer processes, atmospheric transport numerical modelling, data assimilation, biogeochemical cycles
-  Experience of fieldwork
-  Strong interest and skills in numerical modelling and programming

b) Soft skills, e.g.

-  Interested, devoted and highly self-motivated to work with state-of-the-art environmental research
-  Experience in scientific writing, such as publications, essays or equivalent in English
-  Being independent, creative, and able to work collaboratively inside and outside the consortium
-  Take responsibility for parts of the research project
-  Willingness to travel abroad for secondments and measurement campaigns
-  Willingness to present to an international research community
-  Excellent team players
-  A driving license for passenger cars is required

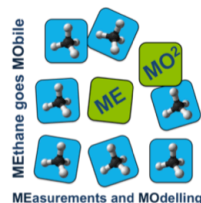
Applicants have to demonstrate ability, experience and potential of excellence by their CV, presentation, interview and references. EU eligibility - being an Early Stage Researcher and fulfilling the mobility rule - and scientific qualification were the main selection criteria, followed by the promise of high training efficacy, and the expected return. The applications of women and researchers from new EU member countries were particularly encouraged.

Candidates that found not suitable for the project were rejected directly by the responsible PI or by the HR departments (Empa, UU, LU).

4.2 Interview procedure

The PIs responsible for the recruitment contacted the selected candidates via email, and shortlisted candidates were invited for an interview. The first interviews were mostly held by Skype, and if possible followed by a personal interview at the host location for the most promising candidates. Costs for the interviews were reimbursed by the host institutions.

The selection committees were composed of normally 2 to 4 researchers, including the main supervisor and e.g. a member of the research groups, and for some beneficiaries also a representative of the HR department. During interviews, the candidates could present themselves, their background and their interest in the position. Following the interviews, the committees discussed the skills and match-



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D5.4 Recruitment of ESRs finished

ing of each candidate regarding the objectives of the positions and ranked them accordingly. The positions were offered to the candidate on the first position, in case the candidate waived the position it was offered to the candidate on the second position. In case that after the interviews none of the candidates was really convincing the committee, the position was reopened.

4.3 Timeline of the recruitment procedure

The consortium strove for finishing the recruitment within the first six months of the project. As this was very ambiguous, the advertisement procedure started already after the Grant Agreement had been signed by announcing the upcoming vacancies locally and in the personal networks. With the launch of the website (9 February 2017) the application procedure started officially as described above.

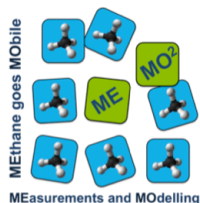
Although the project is of high relevance and positions were advertised widely, several positions attracted fewer applicants than expected and also the quality of applicants was beyond expectations. Therefore, the recruitment required more time than proposed, and for some positions a second selection round was necessary. Finally, the consortium found 13 highly motivated and qualified ESRs, which started/will start between 1 August 2017 and 8 January 2018.

Table 1: Timeline of recruitment procedure

	Deadline 1 st round	Deadline 2 nd round	Candidate selected	Proposed start of employment
ESR1*	31 March 2017	15 October 2017	November 2017	1 January 2018
ESR2	15 March 2017	15 June 2017	July 2017	1 October 2017
ESR3**	1 May 2017		August 2017	16 October 2017
ESR4	15 March 2017		July 2017	1 August 2017
ESR5	30 April 2017		June 2017	1 October 2017
ESR6	31 March 2017		April 2017	1 September 2017
ESR7	31 March 2017	7 August 2017	August 2017	8 January 2018
ESR8	15 March 2017	31 July 2017	October 2017	15 November 2017
ESR9	31 March 2017	7 August 2017	August 2017	8 January 2018
ESR10	15 March 2017	15 April 2017	April 2017	1 September 2017
ESR11	31 March 2017		July 2017	1 September
ESR12	31 March 2017	31 August 2017	September 2017	
ESR13	30 April 2017		June 2017	1 October 2017

* Please note: Promotion conditions include a decision of comparability by an examination board.

** Please note: selected ESRs need to pass an exam taken by the faculty, mandatory to be accepted as a PhD student



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5. Applicants and selected candidates

5.1 Statistics of applications

The consortium received 537 applications by 375 individual applicants in total, from more than 60 countries. 396 applications were eligible, from 259 individual applicants. 115 applicants could not be taken into account, mainly due to late submission either after the official deadline or when a respective candidate had been selected, and due to not fulfilling the EU eligibility criteria (Fig. 5).

The number of positions to apply to was not restricted. However, most applicants applied for just one (80 %) or two positions (11 %), only 5 % applied for more than three positions.

The number of eligible applications differed significantly between the offered positions (Fig. 6). On an absolute level, most applications came in for the positions in Switzerland and the Netherlands (Fig. 6a). Corrected for the number of days the positions were advertised (Fig. 6b), most applications per day were received for the positions in Switzerland and Sweden.

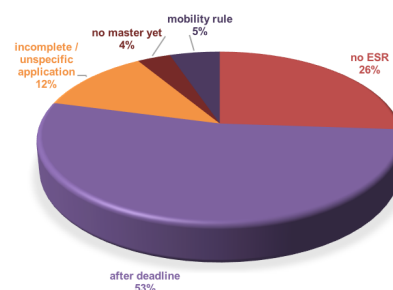


Fig. 5: Reasons why applications were formally not taken into account

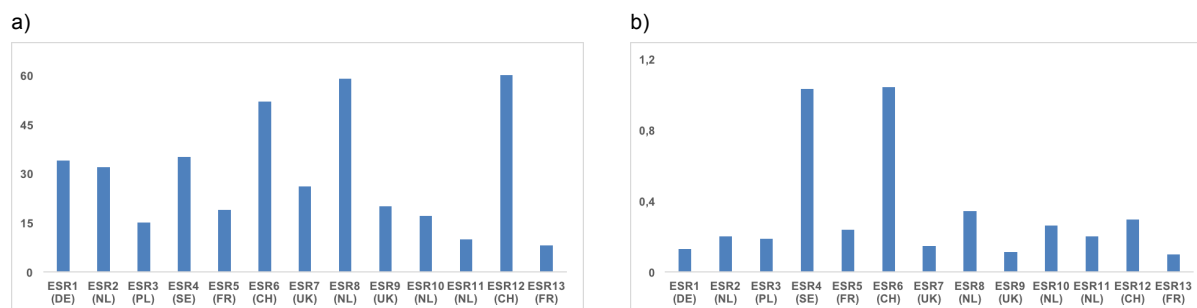


Fig. 6: a) Number of eligible applications per position, b) number of eligible applications per position and days advertised.

Please note: not for all applicants all information was given in the applications, as e.g. the country of origin, sex or age, so the absolute numbers in the figures can differ.

Approximately 25% of the applicants originates from Europe, the majority was from Asia (60 %) and Africa (15 %). Although applications from more than 60 countries were received, only a few countries dominated the picture, especially the number of applicants from India and Iran (Fig. 7).

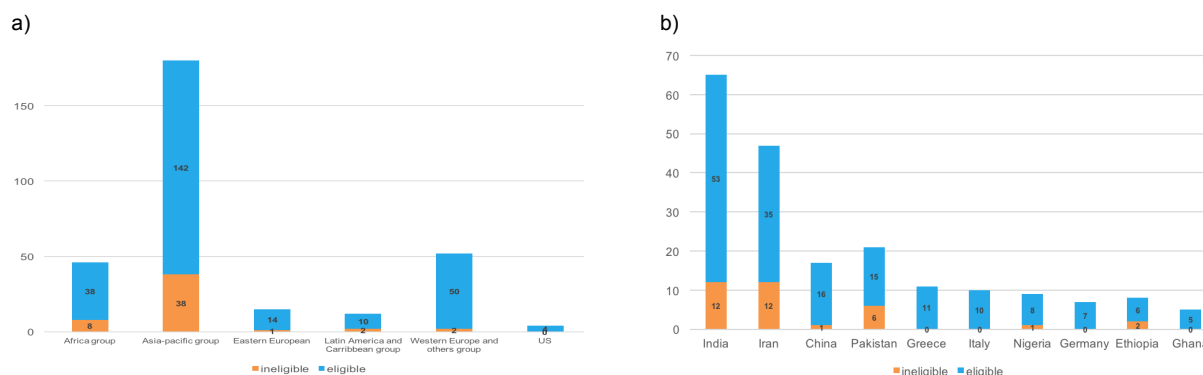
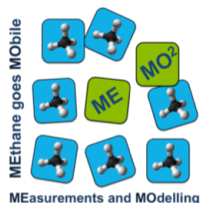


Fig. 7: Country distribution of applicants, a) grouped by the classification of the United Nations: <http://www.un.org/depts/DGACM/RegionalGroups.shtml>, b) countries with highest number of applicants



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D5.4 Recruitment of ESRs finished

Regarding gender the overall number of applications was dominated by male, with a ratio of 2:1. This picture differs within the country groups (Fig. 8), where the ratio changed e.g. to 3:1 for the applicants from the Africa group or to 1:1 in the group of applicants from Eastern Europe. Relatively, the amount of ineligible applications was almost equally distributed between male and female.

As expected due to the EU eligibility rule regarding career stage, most applicants were between 26 to 30 years old (Fig. 9).

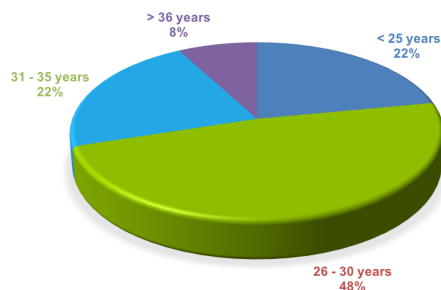


Fig. 9: Age of applicants

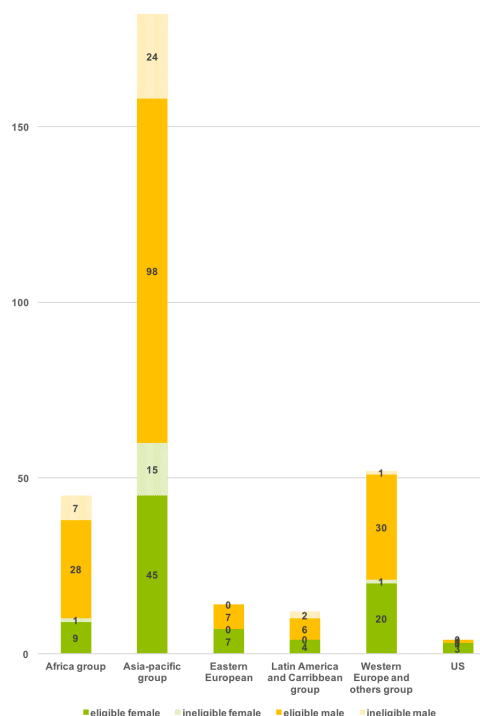


Fig. 8: Gender distribution of applicants within the country groups, including differentiation of eligible and ineligible applicants

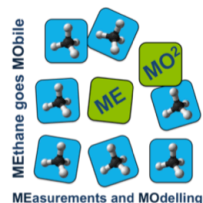
Please note: not for all applicants all information was given in the applications, as e.g. the country of origin, sex or age, so the absolute numbers in the figures can differ.

5.2 Selected candidates

As described above, MEMO² is a highly complex project requiring candidates which are expected to have several characteristics, talents and skills. A high number of applicants did not show the necessary experience and background for the project and those applications could not taken into account. The majority of selected candidates for interview were still originating from Asia and Africa (45 %), but not as clearly dominating as in the overall group of applicants. Regarding gender 57 % of the invited applicants were male.

Although the majority of applications were received from countries belonging to the Asia group, particularly India and Iran, this is not mirrored in the country distribution of the selected ESRs. The MEMO² ESRs represent in total 10 different countries whereas the majority originates from Europe, particularly Eastern Europe. The gender ratio of the selected ESRs does also not reflect the gender ratio of applicants, in total 8 female and 5 male researchers were recruited.

ESR	Hosting beneficiary	Name of candidate	Country of Origin	Gender	Co-supervising beneficiary	Mentor
ESR1	UHEI	Piotr Korben	Poland	Male	UU	SHELL
ESR2	RUG	Katarina Vinkovic	Croatia	Female	ECN	OONKEY
ESR3	AGH	Mila Stanisavljevic	Serbia	Female	UHEI	PGI
ESR4	LU	Patryk Lakomiec	Poland	Male	EMPA	AS
ESR5	UVSQ	Sara Defratyka	Poland	Female	RHUL	NPL
ESR6	Empa	Badrudin Stanicki	Germany	Male	RUG	UBA
ESR7	RHUL	Julianne Fernandez	US	Female	RUG	VIR
ESR8	UU	Malika Menoud	France	Female	RHUL	PIC
ESR9	RHUL	Semra Bakkaloglu	Turkey	Female	UU	ISOP
ESR10	UU	Hossein Maazallahi	Iran	Male	TNO	AD
ESR11	WU	Anja Raznjevic	Croatia	Female	EMPA	WHIF
ESR12	Empa	Randulph Paulo Morales	Philippines	Male	UVSQ	ECN
ESR13	UVSQ	Barbara Szenasi	Hungary	Female	WU	PIC



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D5.4 Recruitment of ESRs finished

6. History of the deliverable

Table 1: Deliverable history

Version	Author(s)	Date	Changes
1	Sylvia Walter	9 February 2017	Launch of the MEMO ² website
	Sylvia Walter	17 February 2017	Start of advertisement of positions on several platforms
	Sylvia Walter		Continuous update of recruitment process and progress by email and personal contact
	Sylvia Walter	October 2017	Advertisement of last position closed
	Sylvia Walter	November 2017	All ESRs officially recruited
	Sylvia Walter	November 2017	Recruitment report submitted to EU