Deliverable D3.6.1

Final report on the outcome of the experiments

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Executive summary

The aim of the document is to present the collection of information about the final outcomes from Experiments of Call1. The process of the final evaluation will be described as well as the information obtained. An analisys of the final outcome in terms of TRL achieved, number of patents, jobs created, turn over, etc. will be reported.

1. Final Review On site

The Consortium agree on developing a Final Review Onsite for each experiment of Call 1.
For each Review two experts evaluated the project: 1 External Expert, 1 expert from the Consortium of E++.
For the external experts, contracts have been developed as the ones used for the experts that evaluated the proposals in Call 1 and Call 2.
Prior the onsite review, every experiment had to develop a Final Report providing the following information:

Section 1: Executive summary
Section 1.1: Milestone overview
Section 1.2: Deliverable overview
Section 1.3: Technical KPIs
Section 1.4: Impact KPIs
Section 1.5: Dissemination KPIs
Section 1.6: Additional achievements
Section 2: Detailed description
Section 2.1: Scientific and technological progress:
Section 2.2: Scientific and technological achievements
Section 2.3: Socio-economic achievements
Section 2.4: Dissemination activities
Section 3: Resource usage summary
Section 4: Deviations and mitigation
Section 5: Future work
Section 6: Lessons learned (optional)

In addition they had to provide a questionnaire with the following information: TRL, number of patents, number of jobs created, turn over from the experiment, applications in number of other areas.
The evaluators, prior the onsite review, must have studied the project and all the material produced by the experimenters. During the review they have to actively participate to the review and provide two evaluation documents: one specific on the quality of deliverables, milestone, KPIs; one general recommendation of the project.
The typical agenda of an onsite review is the following:
10:00 Welcome
10:05 Overview of the project
10:15 Live demonstration of HW
11:00 Live demonstration of SW
12:00 Lunch
13:00 Results of the project
13:30 Q&A
14:30 Internal meeting reviewers

15:00 Conclusions
15:30 End of meeting

In Fig. 1 the list of experiment with the assigned External evaluator, the chosen Visiting Site, the internal evaluator and the date of the review.

Experiment	External Evaluator	Visiting site	Internal evaluator	Date
LINarm++	Eugenio Guglielmelli	Milan, Italy	Simona Crea (SSSA)	16 dec
Debur	Jordi Palacin	Eibar, Spain	Antoni Grau (UPC)	19 jan
Cohros	Dr Makris	Bielefeld, Germany	Yannick Morel (TUM)	20 jan
2F	Jordi Palacin	Poggibonsi, Italy	Antoni Grau (UPC)	26 jan
Tirebot	Stefania Pellegrinelli	Correggio, Emilia, Italy	Raffaele Limosani (SSSA)	6 dec
Garotics	Prof. Francisco Rovira-Más	Buxtehude, Germany	Francesco Maurelli (TUM)	5 dec
3DSSC	Patrick van der Smagt	Belsele, Belgium	Yannick Morel (TUM)	beginning of february
Mars	Slawomir Sander	Marktoberdorf, Germany	Francesco Maurelli (TUM)	17-nov
EXOTrainer	To be defined	Spain	Hardik Shah (TUM)	Jan 2017
Pickit	Rui Loureiro	Madgeburg, Germany	Fabio Bonsignorio (SSSA)	18-nov
Saparo	Rui Loureiro	Madgeburg, Germany	Fabio Bonsignorio (SSSA)	18-nov
MODUL	Stefania Pellegrinelli	Zurich, Switzerland	Fabio Bonsignorio (SSSA)	16 september
LA ROSES	Andreas Muller	Pisa, Italy	Hardik Shah (TUM)	4 jan
MOTORE++	Andreas Muller	Pisa Italy	Hardik Shah	14, 15 september
DEXBUDDY	Patrick van der Smagt	Karlsruhe, Germany	Fabio Bonsignorio	29 july

Figure 1 List of Experiment and relative information on the review onsite.

2. Outcome of the Experiments of Call 1

In Fig.2 it is possible to have a clear picture on the final evaluation provided for each experiments by the evaluators. To be notified that 2F, Exotrainer and 3DSSC still have to be formally evaluated and the outcome reported is based on the final report.

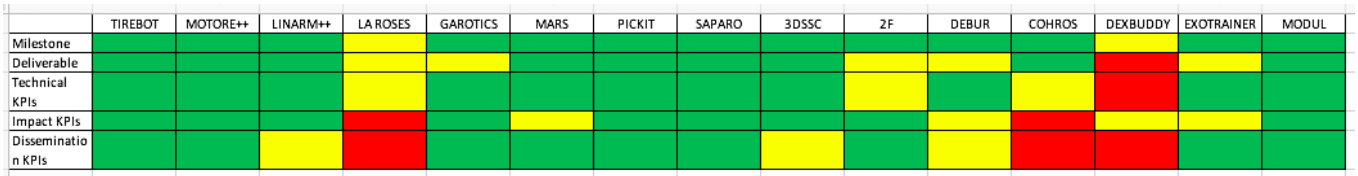

Figure 2 Global picture on the final outcome from the experiments. Green light means a successful evaluation, a yellow traffic light refers to an outcome slightly under the expectations and a red light is for results significantly under the expectations. The evaluation of each parameter is based on the average of each voice, so that a green is obtained when the majority of the evaluation of each parameter is green, thus a yellow and a red light (i.e.: if 6 deliverables out of 10 have been evaluated green, the final evaluation of the voice "Deliverables" is green). Exceptions are the following: even though the majority of the lights were green, a final yellow light has been assigned in these two conditions: for all the voices, if there is at least one red light; for dissemination KPIs, if no website has been developed (since it was mandatory).

In 27% produced a Scalable product but the 80% of all experimenters will increase the scalability in 2 Years.

The majority of the experiments (38%) ended with a TRL7 (see Fig. 3) but the 87% of the experiments will increase the TRL in two Years. Among them, 31% will arrive at TRL 9, see Fig. 4.

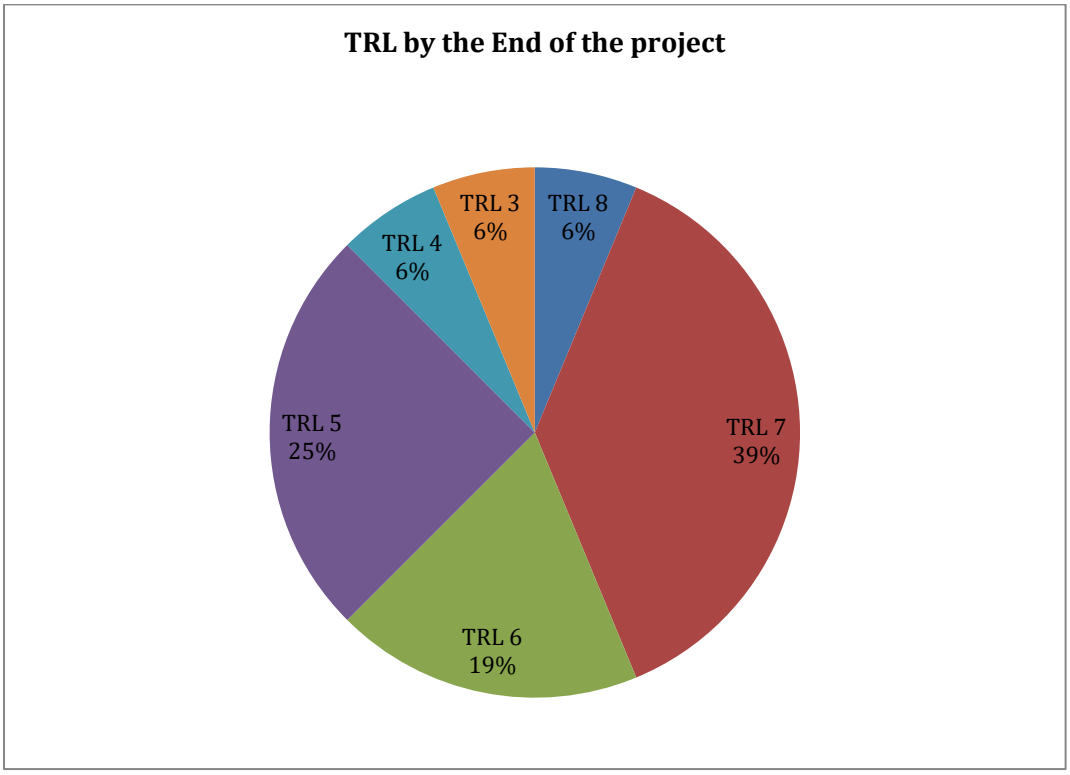

Figure 3 Distribution of TRL at the end of the project among the experiments.

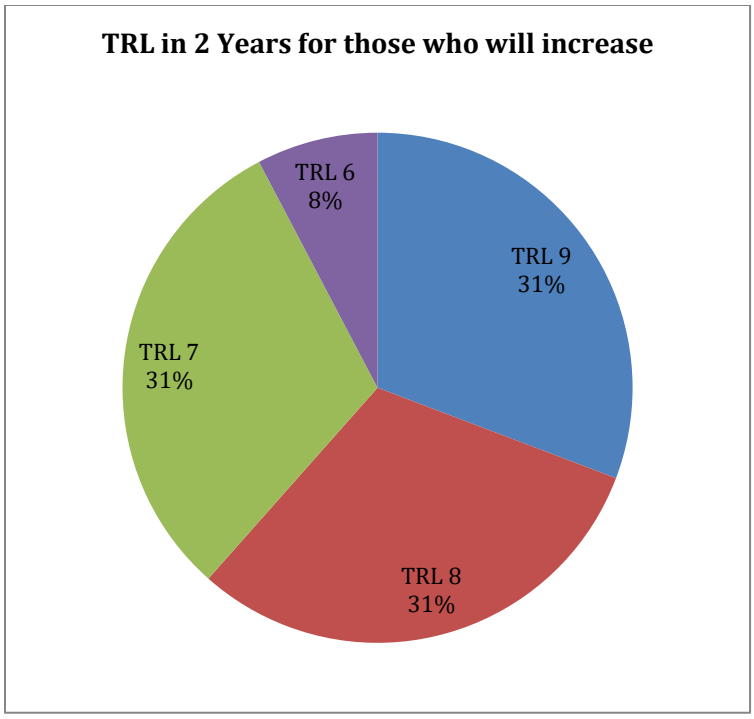

Figure 4 Distribution of TRL of the project among the experiments in 2 years.

An overview of the TRL status (at the beginning of each project, at the end and in the next 2 years) is provided in Fig. 5.

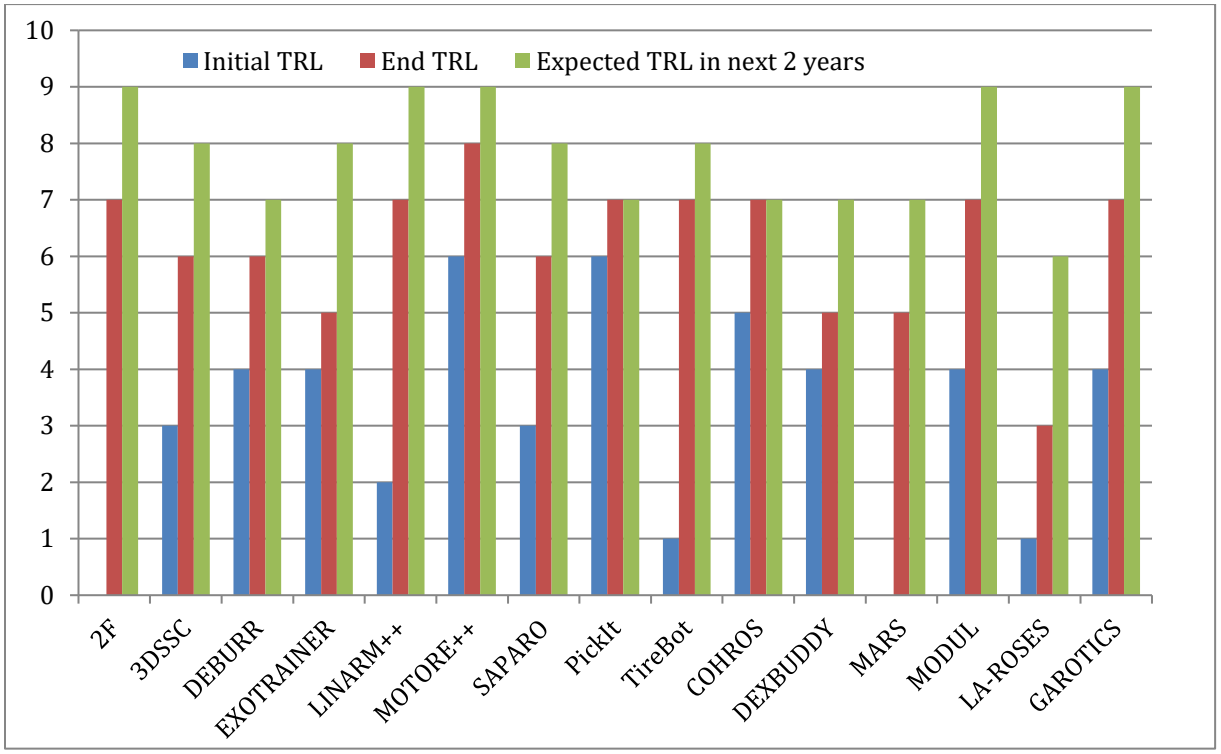

Figure 5 Overview of TRL status of each experiment..

Nine experiments out of fifteen actually created at least one new job position during the development of the experiments. Ten experiments will create new Jobs in two years, as shown in Fig. 6.

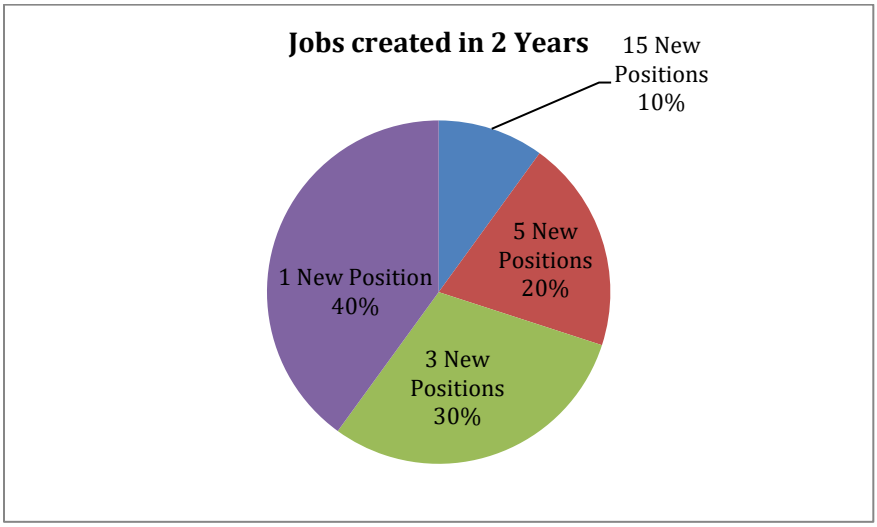

Figure 6 Distribution number of positions that will be created in two years.

Two experiments created a Spin Off from the E++'s progress and the five produced at least one patent.
Three experiments provided information of the turn over during the development of the project, but 6 more will have a significant turn over in the next 2 years :

- MOTORE++ will have 200k euros turnover
- GAROTICS and DEXBUDDY will have 450k euros turnover
- MODUL and EXOTRAINER will have >1.5mio euros turnover
- 3DSSC will have a turnover among 400k and 1.2 mio euros

In Table 1 a general overview of the outcome of each experiment in terms of patents, jobs created and turnover both at the end of the experiments and in two years.

	At the end of the experiment			**Expected in the next 2 years**		
Experiment	**# Patents**	**# Jobs**	**Turnover €**	**# Patents**	**# Jobs**	**Turnover €**
2F	0	0	0	1	0	NA
3DSSC	1	2	0	2	6	400K - 1.2M
DEBURR	0	0	0	0	2	150K
EXOTRAINER	0	1	0	0	5	1.5M
LINARM++	0	0	0	1	1	NA
MOTORE++	0	2	120K	0	1	200K
SAPARO	0	0	NA	1	2	NA
PickIt	0	0	0	1	1	NA
TireBot	0	1	NA	1	1	NA

COHROS	0	1	0	0	0	NA
DEXBUDDY	0	1	0	1	5	450K
MARS	0	1	NA	5	1	NA
MODUL	1	4	0	1	15	2M
LA-ROSES	0	1	NA	1	2	NA
GAROTICS	0	0	0	1	3	500K

Table 1: general overview on the outcome of experiments in terms of patents, jobs created and turnover.