Deliverable D1.2.4_b

Fourth six-monthly QM Report

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Delivery date: 30.09.2015

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1 ECHORD++ Report on Performance Indicators (KPIs)

While the umbrella document of the QM deliverable (D1.2.3._a) outlines the methodology used to track / assess the performance of the different instruments of ECHORD++, this second part of the deliverable reports on the results of this assessment and will be updated every six months.

1.1 Strategic Performance Indicators

The Strategic Performance Indicators have to reflect those aspects which are important to make E++ a success. The target values are based on the lessons learned from ECHORD and are geared to the expectations of the different target groups. Important to note: These indicators were fixed from the perspective of the users – irrespective of the fact if the members of the core consortium are able to influence them to full extent. Only if the cooperation of all stakeholders works – core consortium, external users and European Commission – the target values can be met.

Indicator	Assessment	Instrument	**Target value**	**De-facto M22 – M27**	
Time-to-grant	The time span between call deadlines and the accepted Grant Agreement	PDTI RTD consortia (Amendment III)	9 months	Call deadline: 14.03.2015 (sewer) / 23.06.2015 (healthcare re-launch, synchronized with Call II experiments) Grant Agreement accepted: 26.01.2016 **10 months sewer and 7 months healthcare**	
Payment discipline	Time span between the submission of a Periodic Report and actual payments	n.a.	6 months	Not relevant for 4th QM report	n.a.
Planning security	Amendments: time span between Amendment session opened in the NEF and signed Amendment	PDTI RTD consortia (Amendment III)	6 months between opening of the Amendment Session and signed Amendment request	**Amendment III:** NEF session open: 29.09.2015 Grant Agreement accepted: 26.01.2016 **4 months (instead of 6 months)**	
No of SMEs involved	Number of Small and Medium Sized companies involved in the project for all instruments	PDTI RTD consortia (Amendment III)	PDTI: 25% of the applicants RIFs: as outlined in the RIF handbook	14 out of 34 (42%) for healthcare I call, 18 out of 43 (42%) for healthcare II call, 7 out of 31 (33%) for urban robotics, selected: 14 out of 35 (8 out of 19 partners are self-declared SMEs (42%)	

No of newcomers without any former participation in EU-funded projects	Number of newcomers involved in the project for all instruments plus dissemination activities!	PDTI RTD consortia (Amendment III)	PDTI: 25% of the applicants; RIFs: as outlined in the RIF handbook	Out of 19 partners, 4 provisional PICs (21%)	
Strengthening the collaboration between industry and academia	Projects in which industrial partners and academic partners work together (during the runtime of E++ and afterwards)	Experiments PDTI: Willingness to participate with new partners in future academia-industry projects	Experiments: 90% of the mixed consortia	Not relevant yet. Will be evaluated first time at the end of Call I experiments	
			PDTI: 90% of the mixed consortia	Not relevant yet: Will be evaluated first time after Phase II of PDTI ended.	
Networking: Motive new contacts which offer the potential for future collaboration in research projects or business leads	Number of new contacts gained by working on one of the instruments of ECHORD++.	Experiments PDTI RIFs	Experiments: 75% of the experimenting partners gained at least one new contact.	Not relevant yet. Will be evaluated first time at the end of Call I experiments.	
			PDTI: 75% of the PDTI partners gained at least one new contact	Not relevant yet. Will be evaluated first time after Phase II of PDTI ended.	
Contribution to advancing the state-of-the art (technological progress)	The technological / scientific targets are outlined in the proposals	Experiments Call I	Experiments: 80 % of all experiments selected for funding meet the technological targets outlined in their KPI documents target.	Out of 10 experiments with technical KPIs during the period, 7 met those KPIs (70%)	

Impact achieved by the individual technological instruments of E++	The impact targets are outlined in the KPI documents (experiments, PDTI); impact for RIF takes time to materialize, outcome will be quantified at a later stage.	Experiments PDTI RIFs	**Experiments:** 80 % of all experiments selected for funding achieve the impact outlined in their KPI documents	No Impact KPIs due for experiments in the period (impact KPIs are expected to be relevant later in the technology development process); PDTI not started, yet.	n.a.
Performant, strong proposals received: - **For the experiments** - **For PDTI** **For the RIFs**	The potential scientific / technological success of E++ heavily depends on the quality of the proposals submitted. They form the pool from which the independent experts can select.	Experiments Call I	Experiments: Review scores of the proposals.	Scientific / technological quality: 4.2 out of 5; Implementation: 4.2 out of 5; Impact: 4.1 out of 5	🟢
		PDTI RTD consortia	PDTI: Review scores of the proposals.	Sewer: Scientific / technological quality: 3,2 out of 5; Implementation: 3,4 out of 5; Impact: 3,3 out of 5	🟡
				Healthcare II: Scientific / technological quality: 3,3 out of 5; Implementation: 3,2 out of 5; Impact: 3,1 out of 3	🟡
		RIFs	Differences in the evaluation procedure of proposals be-	n.a.	⚫

			tween different RIFs makes it difficult to have a consolidated scoring system. But quality of proposals was strong.		

1.2 Experiments

The experiments have just started. There is just a very limited number which have technical KPIs to track at such an early stage of their runtime. The assessment of KPIs against target values is done in the bi-monthly monitoring session budied by the monitoring platform of ECHORD++. The KPIs will be reported on first time in QM Reprot No 5, taking into account those experiments which had technical and / or impact KPIs during the period covered by the individual reports. The tracking of KPIs wil be included in the stable of Strategic KPIs ("Contributions to advancing state-of-the-art" and "impact"). A fully analysis will be done the end of Call I experiments (sixth QM report). The same applies to the ieconomical mpact on innovation. And the impact on innovation will be tracked via a survey at the end of the runtime of the experiments and beyond.

1.3 RIFs

An analysis of the performance of the RIFs against targets will be done first time in QM Report no. 6 as the RIFs have to be in the operational phase for a certain time in order to be able to collect and provide data. Also given to the fact that they are embedded in very different eco-systems and with very different starting points.

1.4 PDTI

As the selection of the PDTI R&D consortia was just finalized after the end of the reporting period and they are supposed to take up their work on 01.11.2015 only, there is nothing to report on, yet. Monitoring and KPI tracking will start with Phase IIof the technology development.

1.5 Outreach and dissemination

Indicator	**Assessment**	**Target values**	**De-facto M22 – M27**	
Online-communication	Clicks website	1000 per month	🟢	From 1st Nov 2014 (start of tracking) – 30th September 2015: Average of 1,739 visitors per month
	YouTube channel	Average of more than 500 views per video	🟢	5 videos, 656 views per average (30th Sept 2015)
	LinkedIn Group	More than 250 members	🟢	258 members (30th Sept 2015)
Media coverage	references in trade press	50 per year	🔴	29 trade press
	References on consumer press	10 per year	🟢	41 consumer press (both total until 30th September 2015)

Event audience	Estimated number of people from target audience reached at the various events	1000 per year	●	More than 13,400 at various events (total audience since start of project)
Direct contacts	Direct contacts in contact database	More than 4.000 active contacts at the end of E++	●	3,389 contacts in total (30th Sept 2015 - further contacts not yet implemented in data base)
		More than 70 % new contacts (without login from old ECHORD)	●	48 % new contacts
Scientific publications	Number of scientific publications	At least one per experiment	●	Scientific publications to be expected in later phases of the experiments
Customer satisfaction	Specific questions on communication/dissemination in customer satisfaction surveys	Rating of at least good to excellent	**Based on Input from applicants of Call II and applicants PDTI RTD consortia (Call II / PDTI)**	
	Overall content of E++ monitoring platform	●/●	1,9 (good) / 2,2 (good)	
	Overall usability of the E++ monitoring platform	●/●	1,9 (good) / 1,8 (good)	
	Questions answered within two business days	●/●	1,5 (good – excellent) / 1,4 (good - excellent)	
	Did the E++ team give competent answers to your questions?	●/●	1,5 (good - excellent) / 1,3 (good – excellent)	
	Was the E++ team capable of solving your problems?	●/●	1,7 (good - excellent) / 1,5 (good - excellent)	
	How would you rate the general assistance via the E++ team during your application?	●/●	1,5 (good – excellent) (1,4 (good – excellent)	

2 Risk Contingency Plan

We can classify the risks for E++ into three categories: (i) risks arising from the internal organization, (ii) risks related to the acceptance of and interest in the different instruments, and (iii) risks during the execution phase of the instruments. The following table lists the risks associated with the implementation of E++.

Risk (DOW)	Potential Impact	Corrective Action	Comments on current state
Type (i) Unclear work / task responsibilities	Impact high, Risk low Specific tasks and – in case of core tasks – the whole project may be delayed	The DOW of E++ shows clear responsibilities of Work Packages and tasks. Different escalation levels for different delays. Retain payments to beneficiaries, payments are linked to timely Delivery. Regular meetings (Video, Skype, phone and in person) to discuss the workflow openly.	---
Type (ii) E++'s visibility too low, profile unclear	Impact High, Risk low ECHORD has achieved very high visibility and credibility with clearly defined goals and means. In ECHORD, the interaction with the classical community and other projects was very strong. However, the new instruments, RIFs and PCP activities could cause a risk.	A clear communication plan including presentations at broad-spectrum and specific events will likely resolve this problem – just as we did very successfully within ECHORD. Outreach to new potential robotics community members will be achieved by (i) a strong focus on dissemination events of various types, by (ii) bringing experiments into the "real world" by on-site testing the demonstrators in the RIFs, by (iii) directly contacting new user groups, and by (iv) creating sustainable structures with the PCP activities.	---
Type (ii) Lack of acceptance by stakeholders	Impact High, Risk low The classical experiments as in ECHORD are widely accepted, but the new instruments RIF and PCP rely on involvement of all stakeholders, especially robot users	Special information events and targeted campaigns at the beginning of the project and involvement of the industry in all phases, especially in case of the PCP activities, will minimize this risk. In addition, as a result of the structured dialogue, not only can the content of all activities be adapted, but their administration	PDTI struggles to attract public bodies to submit challenges for the Open Call on robotics technologies. This is a common problem – also for PCP where participation is low also on EC level. But E++ has managed to moti-

	and customers.	aspects as well	vate a reasonable number of proposals on challenges.
Type (ii) Lack of acceptance of the new instruments RIF and PDTI	Impact Low, Risk medium Being pilots for new R&D instruments, there is a certain risk that they will not be accepted as anticipated	The interaction with all possible stakeholder groups in instrument- specific ways will lead to a good a priori estimation of the needs and acceptance criteria. This systematic approach will minimize the risk. An adjustment of the concepts in the structured dialogue will also be possible. Finally, it is always possible to adjust the budget so that resources can be shifted into the experiments and their number can be increased if needed.	The RIFs have not fully entered their operational phase, yet. PDTI had problems to attract strong proposals.
Type (iii) Beneficiary bankruptcy	Impact Medium, Risk Low Potential risk of a failure of a specific experiment	Rapid alert system due to additional reporting duties for beneficiaries with weak financial validation. Replace beneficiary Financial risk is safeguarded by guarantee fund	Bankruptcy of GIRAFF Technologies (PDTI consortium – CLARK). A comparative analysis of various options on the market to replace the partner was successfully performend.
Type (iii) Delayed start of experiments and other instruments	Impact High, Risk Medium-High No sound planning of resources and timeline possible for beneficiaries Experiments cannot deliver the intended results on time Project duration likely to be extended (cost-neutral) Bad image of the project and demotivation of SMEs to participate in future EU-funded projects	Realistic timetable with enough time between the Calls to realize the Amendments Timetable which avoids conflict between Cost Claims and Amendments Communication of this timetable to the beneficiaries. Beneficiaries that do not meet start deadlines will be postponed to the next batch or replaced Beneficiaries with complete documentation can start their experiments without prior signature of Amendment.	---
Additional risks identified since DOW was		Corrective Action	

written			
Cooperation between core beneficiaries does not work well (lessons learned ECHORD)	*Impact: High, Risk: Medium*	Preventive measures taken: Regular specific group updates (every two weeks) for PCP, RIFs, Experiments and ExC Committee. Appointment of a facilitator to tackle issues which require in-depth communication between different instruments OR different beneficiaries involved in one instrument to achieve consensus with the best results.	This set-up works really well – should be considered for more projects.
Problems with recruitment of evaluators	*Impact: High, Risk: High*	Intensive contact making with stakeholder groups not originally involved with the project (also by activating clusters and associations)	At the current state the E++ team has problems motivating qualified evaluators for the experiment proposal reviews, mainly industrial evaluators.
Experiment reviews do not provide sufficient input to make an informed funding decision.	*Impact: High, Risk: Medium / Low*	Calibration of the proposal evaluations during the panel meeting	---
Evaluators give high scores to proposals which do not provide a clear trackable target.	*Impact: High, Risk: High*	Analysis of the weaknesses of the proposals selected for funding and addressing these issues during the negotiations.	---
Tracking of take-up of results of all instruments reported by the partners / users	*Impact: High (for follow-up projects or second rounds); Risk: Medium*	Automated alarm system with deadlines for long-term tracking; implementation of the instruments for tracking (for instance questionnaires).	---