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# Deliverable D1.2.6

## Sixth six-monthly QM Report

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### **Version 4**

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Date	Name	Changes/Comments
07.10.2016	Marie-Luise Neitz	Assessment of strategic KPIs
14.12.2016	Marie-Luise Neitz	Inclusion of acceptance of Amendment IV (Call 2 experiments) to assess strategic KPI on "time-to-grant" and "palnning security" in this report; Update of the entire strategic KPI table
05.01.2017	Marie-Luise Neitz	Inclusion of the dissemination of outreach KPIs for July 2016 – December 2016, as evaluation is done every six months, not syn-chronized with submission of QM report. KPIs for RIFs included for the first time.
27.01.2017	Marie-Luise	Overview of KPIs for Call I experiments in-cluded after final reviews of experiments are

		mostly done. Risk contingency plan updated (redress of PDTI and two winning teams at the end)
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## 1 ECHORD++ Report on Performance Indicators (KPIs)

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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 M34 – M39	
<b>Time-to-grant</b>	The time span between call deadlines and the accepted Grant Agreement	Call II experiments	9 months	Call deadline: 23.06.2015 Grant Agreement accepted: 28.11.2016 <b>Result: 17 months (instead of 9)</b>	●
<b>Payment discipline</b>	Time span between the submission of a Periodic Report and actual payments	No Cost Claims processed during this period	6 months	Not relevant for 6 <sup>th</sup> QM report	n.a.
<b>Planning security</b>	Amendments: time span between Amendment session opened in the NEF and signed Amendment	Call II Experiments	6 months between opening of the Amendment Session and signed Amendment request	NEF session open: 27.04.2016 Grant Agreement accepted: 28.11.2016 Result: 7 months instead of 6 months).	●
<b>No of SMEs involved</b>	Number of Small and Medium Sized companies involved in the project for all instruments	Experiments II Call RIFs	Experiments: 25% of the applicants RIFs: as outlined in the RIF handbook	Call II experiment: 109 out of 291 (37%), 12 out of 40 partners are self-declared SMEs (30%)	●
				459 SME engagements over 315 over the reporting period	●
<b>No of newcomers without any former participation in EU-funded projects</b>	Number of newcomers involved in the project for all instruments	Call II Experiments RIFs	Experiments: 25% of the applicants	QM report 6: Call II partners: 6 provisional and one sleeping PIC	●

				(7 out of 40, (18%))	
			RIFs: start-ups engaged	38 / 12	●
<b>Strengthening the collaboration between industry and academia</b>	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-in-industry projects	Experiments: 90% of the mixed consortia	14 out of 16 experiments in Call II have mixed consortia	●
			PDTI: 90% of the mixed consortia	6 out of six consortia of Phase I of PDTI have mixed consortia	●
<b>Networking: Motivate new contacts which offer the potential for future collaboration in research projects or business leads</b>	Number of new contacts gained by working on one of the instruments of ECHORD++.	Experiments PDTI	Experiments: 75% of the experimenting partners gained at least one new contact.	13 out of 15 experiments of Call I declared to either have or expect at least one new collaboration (87%)	●
			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.	n.a.
<b>Contribution to advancing the state-of-the art (technological progress)</b>	The technological / scientific targets are outlined in the proposals	Experiments Call I PDTI Phase I RIFs	Experiments: 80 % of all experiments selected for funding meet the technological targets outlined in their KPI documents.	10 out of 14 experiments reached their targets (71%)	●
			PDTI: Two consortia for each scenario reach	Two strong consortia could be identified	●

			their targets (even with a different approach) and deliver a prototype at the end of their engagement.	tified by independent experts at the end of Phase I of PDTI for healthcare and sewer	
			New patents and similar New products / processes	8 out of 8 new patents; 42 /52	●
<b>Impact achieved by the individual technological instruments of E++</b>	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. PDTI Phase II with first monitoring results will be reported in next QM report.	Experiments PDTI RIFs	<b>Experiments:</b> 80 % of all experiments selected for funding achieve the impact outlined in their KPI documents	7 out of 14 experiments met their target impact.	●
			<b>RIFs:</b> as outlined in the RIF handbook, detailed in the RIFs results	Audience engagement: outperforming Job creation: slightly underperforming new patents and products: on target	●
<b>Performant, strong proposals received:</b> - For the experiments - For PDTI	The potential scientific / technological success of E++ heavily depends on the qual-	Experiments Call II	Experiments 80% of the KPIs target values achieved.	Scientific / technological quality: 4.5 / 5; implementation: 4.2 / 5; impact: 4.4/5	●

<b>For the RIFs</b>	ity of the proposals submitted. They form the pool from which the independent experts can select.	RIFs	Differences in the evaluation procedure of proposals between different RIFs make it difficult to have a consolidated scoring system. But quality of proposals was strong.	n.a.	●
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## 1.2 Experiments

The assessment of KPIs against target values is done in the bi-monthly monitoring session budied by the monitoring platform of ECHORD++. The relvant KPIs are reported on in each QM report (taking account of the KPIs of the experiment which are relevant for the individual periods. The tracking of KPIs will be included in the stable of Strategic KPIs ("Contributions to advancing state-of-the-art" and "impact"). Please fin below an overview of the KPIs (traffic lights) for Call I experiments. Detailed information see Attachment.
















Assesment	3DSSC	CoHRoS	DEBURR	DEX-BUDDY
Tech. KPIs				
Imp. KPIs				
Deliverables				
Milestones				
Dissemination				

Assesment	EX-OTRAINER	2F	GAROT-ICS	LA-ROSES
Tech. KPIs	 	 	 	 
Imp. KPIs				
Deliverables	 	 	 	 
Milestones				
Dissemination				

Assesment	LINARM++	MODUL	MO-TORE++	PICKIT
Tech. KPIs	 	 	 	 
Imp. KPIs	  	  	   	  



<b>Deliverables</b>				
<b>Milestones</b>				
<b>Dissemination</b>				

<b>Assessment</b>	<b>SAPARO</b>	<b>TIREBOT</b>	<b>MARS</b>	
<b>Tech. KPIs</b>				
<b>Imp. KPIs</b>				
<b>Deliverables</b>				
<b>Milestones</b>				
<b>Dissemination</b>				

### 1.3 RIFs

This QM Report also provides an overview of the performance of the RIFs against target.

<b>Indicator</b>	<b>Explanation</b>	<b>Way of Assessment</b>	<b>Target value</b>	<b>Progress (Oct14-Nov16)</b>
<b>Businesses engaged</b> <ul style="list-style-type: none"> <li>• <b>SMEs</b></li> <li>• <b>Non-SMEs</b></li> <li>• <b>Individuals</b></li> </ul>	Total no. of organizations within the RIF network, including businesses, sole traders, non-profit organizations, HEIs and business start-ups.	Proposal and engagement statistics generated by E++ website & PM tools provided by BRL	Annual targets are (total – SME): BRL (150 - 90) CEA (100 - 60) SSSA (100 - 60)	BRL (399-217) CEA (300-151) SSSA (249-133)
<b>Businesses assisted (&gt;12hrs)</b> <ul style="list-style-type: none"> <li>• <b>SMEs</b></li> <li>• <b>Non-SMEs</b></li> </ul>	Consultancy support, information, advice and guidance to individual businesses. The assistance can be face-to-face, via phone, web-based, dialogue at conferences, seminars, walkings, workshops or through networks.	Internal statistics generated by PM tools provided by BRL& sign-off by organization required.	Annual targets are (total – SME): BRL (60 - 36) CEA (40 - 24) SSSA (40 - 24)	BRL (210-158) CEA (44-9) SSSA (123-75)

<b>New businesses/Pre-start-up assistance</b>	New business: The creation of new businesses including start-ups of all sizes, sole traders, partnerships and not for profit organizations. Pre-start Assistance: Inquiries from individuals on how to acquire the technical & entrepreneurial skills to set-up a new business venture.	Internal statistics generated by PM tools provided by BRL& sign-off by organization and/or individuals required.	Annual targets are: BRL (4) CEA (2) SSSA (2)	BRL (40) CEA (2) SSSA (2)
<b>Jobs safeguarded</b>	The number of jobs declared “at risk” by a business prior to enrolling onto the RIF programme and receiving business support, and still active twelve months from start of the engagement. “At risk” – a permanent, paid, full-time equivalent (FTE) job which is forecast to be lost within one year.	Internal statistics based on statements of users - entered into and generated by PM tools provided by BRL - This is not a hard KPI, but still useful as an indicator for long-term impact of RIFs.	Annual targets are: BRL (6) CEA (3) SSSA (3)	BRL (3) CEA (n/a) SSSA (n/a)
<b>Jobs created</b>	A new paid, full-time equivalent (FTE) job. Temporary employment is captured if it has a life expectancy of at least 8 weeks (or Pro Rata equivalent). The post is when an individual starts a new role.	Evidence & sign-off by organization and/or individual required. Generated by questionnaire at the end of the RIF stay and afterwards.	Annual targets are: BRL (9) CEA (6) SSSA (6)	BRL (4) CEA (2) SSSA (n/a)
<b>Number of patents &amp; other IPR products and / or processes launched.</b>	As a result of direct assistance provided through engagement with a RIF.	Evidence of IPR device required. This information is gathered via a survey at the end of the engagement as well as long-Term (see “Impact on Innovation”)	Annual targets are: BRL (2) CEA (1) SSSA (1)	BRL (n/a) CEA (6) SSSA (2)

<b>Number of new or improved products and/or processes launched</b>	The launch of a new or improved product / service as a direct result of assistance provided through engagement with a RIF.	Evidence of new or improved products required and sign-off by organization and / or individual required. This information is gathered via a survey at the end of the engagement as well as long-Term (see "Impact on Innovation")	Annual targets are: BRL (10) CEA (8) SSSA (8)	BRL (25) CEA (n/a) SSSA (17)
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#### 1.4 PDTI

The same approach is chosen as for the experiments. Nevertheless, the bi-monthly monitoring starts with Phase II of PDTI. First results are likely to be available for QM report no. 7.

#### 1.5 Outreach and dissemination

Indicator	Assessment	Target values	De-facto M34 – M39	
Online-communication	Clicks website	1000 per month	●	From 1 <sup>st</sup> Nov 2014 (start of tracking) – 30 <sup>th</sup> September 2016: Average of 1,370 visitors per month
	YouTube channel	Average of more than 500 views per video	●	9 videos, 521 views per average
	LinkedIn Group	More than 250 members	●	329 members (30 <sup>th</sup> Sept 2016)
Media coverage	References in trade press	50 per year	●	55 trade press
	References in consumer press	10 per year	●	60 consumer press (both total until 30 <sup>th</sup> September 2016)
Event audience	Estimated number of people from target audience reached at the various events	1000 per year		Number to be delivered by UPC

Direct contacts	Direct contacts in contact database	More than 4.000 active contacts at the end of E++	●	4,288 contacts in total (30 <sup>th</sup> Sept 2016 - further contacts not yet implemented in data base)
		More than 70 % new contacts (without login from old ECHORD)	●	62 % new contacts
Scientific publications	Number of scientific publications	At least one per experiment	●	11 scientific publications from 15 Call I experiments
Customer satisfaction	Specific questions on communication/dissemination in customer satisfaction surveys	Rating of at least good to excellent	<b>Based on Input from Call I experiments (active)</b>	
	Overall content of E++ monitoring platform	●	1,9 (good)	
	Overall usability of the E++ monitoring platform	●	2,4 (god-average)	
	Questions answered within two business days	●	1,8 (good)	
	Did the E++ team give competent answers to your questions?	●	1,5 (good - excellent)	
	Was the E++ team capable of solving your problems?	●	1,6 (good – excellent)	
	Was the session on public relations at the Kick off helpful for your PR efforts	●	2,2 (good)	
	Were the public relations references and the PR hand-book helpful for your public relations efforts?	●	2,1 ( good)	

	Do you think the new website echord.eu addresses a broader public with its new design (re-launch 01/2016)?		2 (good)
	Does the ECHORD++ website echord.eu address the Experiment Partners' needs?		2 (good)
	How would you rate the ECHORD++ YouTube Channel?		1,9 (good)

## 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
<b>Type (i) Unclear work / task responsibilities</b>	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.	---
<b>Type (ii) E++'s visibility too low, profile unclear</b>	Impact High, Risk low ECHORD has achieved very high visibility and credibility with clearly defined goals and means. In	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	---

	<p>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.</p>	<p>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.</p>	
<b>Type (ii) Lack of acceptance by stakeholders</b>	<p>Impact High, Risk low</p> <p>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 and customers.</p>	<p>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.</p> <p>In addition, as a result of the structured dialogue, not only can the content of all activities be adapted, but their administration aspects as well</p>	----
<b>Type (ii) Lack of acceptance of the new instruments RIF and PCP</b>	<p>Impact Low, Risk medium</p> <p>Being pilots for new R&amp;D instruments, there is a certain risk that they will not be accepted as anticipated</p>	<p>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.</p> <p>An adjustment of the concepts in the structured dialogue will also be possible.</p> <p>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.</p>	----
<b>Type (iii) Beneficiary bankruptcy</b>	<p>Impact Medium, Risk Low</p> <p>Potential risk of a failure of a specific experiment</p>	<p>Rapid alert system due to additional reporting duties for beneficiaries with weak financial validation. Replace beneficiary Financial risk is safeguarded by guarantee fund</p>	Robosoft declared bankruptcy. They were included in one of the PDTI consortia which had to leave anyway.
<b>Type (iii) Delayed start of experiments and other instruments</b>	<p>Impact High, Risk Medium-High</p> <p>No sound planning of resources and timeline possible for beneficiaries</p> <p>Experiments cannot</p>	<p>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.</p>	The Amendment process had been optimized for Amendment III (PDTI RTD consortia). Due to the transition from FP7 to Horizon 2020 in terms of

	<p>deliver the intended results on time</p> <p>Project duration likely to be extended (cost-neutral)</p> <p>Bad image of the project and demotivation of SMEs to participate in future EU-funded projects</p>	<p>Beneficiaries that do not meet start deadlines will be postponed to the next batch or replaced</p> <p>Beneficiaries with complete documentation can start their experiments without prior signature of Amendment.</p>	<p>validation (no Indirect Cost Models) and documentation, the proven approach failed to work. Experiments were informed at a very early stage and continuously. They were offered alternative start dates. Call I experiments were offered a cost neutral extension option at the end.</p>
Additional risks identified since DOW was written		Corrective Action	
Cooperation between core beneficiaries does not work well (lessons learned ECHORD)	Impact: High, Risk: Medium	<p>Preventive measures taken: ---</p> <p>Regular specific group updates (every two weeks) for PCP, RIFs, Experiments and ExC Committee.</p> <p>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.</p>	
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)	----
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	Impact: High, Risk: High	Analysis of the weaknesses of the proposals selected for funding and addressing these issues during the negotiations.	---

provide a clear trackable target.	
<b>Tracking of take-up of results of all instruments reported by the partners / users</b>	<i>Impact: High (for follow-up projects or second rounds); Risk: Medium</i> Automated alarm system with --- deadlines for long-term tracking; implementation of the instruments for tracking (for instance questionnaires).
<b>PDTI process: Redress blocks Phase II of PDTI for healthcare.</b>	<i>Impact: high; Risk: High</i> Written agreement on Conflict of Interest from both the consortia and the reviewers before onsite review takes place. Criteria used will be the same as by the EC.
<b>One of the PDTI consortia is weaker and needs a lot of effort to reach the required level</b>	<i>Impact: high, Risk: medium</i> A discussion if public bodies really needs (and appreciate) having different options to choose from at the end. This means that you have to make sure that at least two technologies are available – and two teams make it until the end. This causes a lot of problems.