PROJECT PERIODIC REPORT

Grant Agreement number: 601116 Project acronym: ECHORD PLUS PLUS Project title: European Clearing House for Open Robotics Development Plus Plus Funding Scheme: ICT-2011.2.1 Date of latest version of Annex I against which the assessment will be made: 5th X 4th 1st 2nd □ 3rd □ Periodic report: Period covered: from 01/12/2017 - 31/01/2019 Name, title and organisation of the scientific Representative of the project's coordinator¹: Prof. Alois Knoll, Technische Universitaet Muenchen (TUM) Tel: +49.89.289-18104 Fax: +49.89.289-18107 E-mail: knoll@in.tum.de

Project website² address: www.echord.eu

¹ Usually the contact person of the coordinator as specified in Art. 8.1. of the Grant Agreement.

² The home page of the website should contain the generic European flag and the FP7 logo which are available in electronic format at the Europa website (logo of the European flag: http://europa.eu/abc/symbols/emblem/index en.htm logo of the 7th FP: http://ec.europa.eu/research/fp7/index en.cfm?pg=logos). The area of activity of the project should also be mentioned.

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4. Explanation of the use of resources and financial statements

4.1 Cost follow-up tables – Core consortium

TUM

WP	Activity	Item description	Amount	Explanations
	Type			
WP1	MGT	Personnel Costs	45,497.96 €	In total 8,98 PM during the reporting period: Yannick Morel (1,18), Federica Pepponi (3,85 PM), Victoria Neumann (3,95
				PM).
WP2	RTD	Personnel Costs		In total 20,49 PM during the reporting period: Amy Buecherl (4,18 PM), Anna Principato (4,89 PM), Christine Kortenbruck (5,01 PM), Federica Pepponi (0,40 PM), Sebastian Weisenburger (3,68 PM), Victoria Neumann (0,33 PM), Refia Durmaz (2 PM).
WP3	RTD	Personnel Costs		In total 12,52 PM during the reporting period: Yannick Morel (3,92 PM), Lef Karagiannis (3,62 PM), Adam Schmidt (4,98 PM).
WP4	RTD	Personnel Costs	13,004.48 €	In total 1,62 PM during the reporting period: Yannick Morel (0,41 PM), Adam Schmidt (0,89 PM), Lef Karagiannis (0,12 PM), Federica Pepponi (0,20 PM).
WP5	RTD	Personnel Costs	20,300.10€	In total 4,41 PM during the reporting period: Yannick Morel (0,80 PM), Dinesh Paudel (2,43 PM), Federica Pepponi (1,18 PM).
WP6	OTHER	Personnel Costs	10,277.67€	In total 1,28 PM during the reporting period: Adam Schmidt (0,10), Sebastian Weisenburger (0,30 PM), Christine Kortenbruck (0,88 PM).
Subtotal Per	sonnel Costs	•	310,777€	
WP1	MGT	Subcontracting	2,100€	Audit and CFS for fourth reporting period
WP3	RTD	Subcontracting	625.00€	Andreas Müller, Indipendent expert fee, TRL Workshop, 30/01/18, Munich
WP3	RTD	Subcontracting	625.00€	Thilo Zimmermann, Indipendent expert fee, TRL Workshop, 30/01/18, Munich
WP3	RTD	Subcontracting	675.00€	Paolo Fiorini, Indipendent expert fee,Motore++ on-site review, 09/2016, Pisa
WP5	RTD	Subcontracting	900.00€	Tjibbe Bouma, Indipendent expert fee, PDTI Urban robotics on-site review, 13-18/10/17, Barcelona
WP5	RTD	Subcontracting	900.00€	Andreas Müller, Indipendent expert fee, PDTI Healthcare on-site review, 28/02-01/03/18, Barcelona
WP5	RTD	Subcontracting	900.00€	Thierry Keller, Indipendent expert fee, PDTI Healthcare on-site review, 28/02-01/03/18, Barcelona
WP5	RTD	Subcontracting	900.00€	Malcolm Fisk, Indipendent expert fee, PDTI Healthcare on-site review, 28/02-01/03/18, Barcelona
WP5	RTD	Subcontracting	900€	Ivan Olivella, Indipendent expert fee, PDTI Urban robotics on-site review, 16-17/10/17, Barcelona
WP6	OTHER	Subcontracting	50.00€	Press specialist, automatica18, 19-22/06/18, Munich
WP6	OTHER	Subcontracting	1,361.59€	Technical services, Medica Messe, 12-15/11/18, Düsseldorf
WP6	OTHER	Subcontracting		Booth construction, Medica Messe, 12-15/11/18, Düsseldorf
WP6	OTHER	Subcontracting	360.00€	Flyer design
WP6	OTHER	Subcontracting	4,036.00€	RIF Booster Programme, Invoice 2 of 4
WP6	OTHER	Subcontracting	625.50€	Dissemination material, Medica Messe, 12-15/11/18, Düsseldorf
WP6	OTHER	Subcontracting	2,061.15€	Printing costs
WP6	OTHER	Subcontracting	357.50€	Flyer design
WP6	OTHER	Subcontracting	4,036.00€	RIF Booster Programme, Invoice 3 of 4
WP6	OTHER	Subcontracting		Editorial services and brochure design
WP6	OTHER	Subcontracting	4,036.00€	RIF Booster Programme, Invoice 4 of 4
WP6	OTHER	Subcontracting		RIF Booster Programme, Invoice 1 of 4
WP6	OTHER	Subcontracting	2,500.00€	Video production, automatica18, Munich
Subtotal Sub	ocontracting		57,612€	

WD4	MOT	Toward and Outraintenant	050 00 CM
WP1	MGT	Travel and Subsistence	359.62 € Morel, AB & CC meetings, 9-11/07/07, Barcelona
WP1	MGT	Travel and Subsistence	4,365.39 € Knoll, Morel, Neitz, Pepponi, Weisenburger, Rehearsal and review meeting RP4, 19-22/02/18, Luxembourg
WP3	MGT	Travel and Subsistence	1,360.74 € Hanspeter Fässler, invited speaker reimbursement, Review meeting RP 4, MODUL, 21/02/18, Luxembourg
WP3	RTD	Travel and Subsistence	593.22 € Schmidt, CoCoMaps on-site review, 2-4/05/18, Reykjavík, Iceland
WP3	RTD	Travel and Subsistence	63.65 € Andreas Müller, Indipendent expert reimbursement, TRL Workshop, 30/01/18, Munich, Germany
WP3	RTD	Travel and Subsistence	397.41 € Schmidt, HOMEREHAB on-site review, 21-23/06/18, Elche, Spain
WP3	RTD	Travel and Subsistence	523.57 € Morel, SAFERUN on-site review, 15-16/05/18, Reggio Emilia, Italy
WP3	RTD	Travel and Subsistence	117.32 € Thilo Zimmermann, Indipendent expert reimbursement, TRL Workshop, 30/01/18, Munich, Germany
WP3	RTD	Travel and Subsistence	831.63 € Morel, HyQReal and SAGA on-site reviews, 25-27/07/18, Genoa (Italy) and Eindhoven (the Netherlands)
WP3	RTD	Travel and Subsistence	367.89 € Morel, KERAAL on-site review, 18-19/07/18, Brest, France
WP3	RTD	Travel and Subsistence	345.60 € Morel, RadioRoSo on-site review, 19-20/04/18, Prague, Czech Republic
WP3	RTD	Travel and Subsistence	405.54 € Morel, Fastkit on-site review, 27/03-7/04/18, Nantes, France
WP3	RTD	Travel and Subsistence	545.96 € Karagiannis, SAGA on-site review, 27-28/07/18, Eindhoven, the Netherlands
WP3	RTD	Travel and Subsistence	301.84 € Schmidt, WIRES on-site review, 26/10/18, Bologna, Italy
WP4	RTD	Travel and Subsistence	262.60 € Principato, RIF Press Tour, 11-13/09/17, Pisa, Italy
WP4	RTD	Travel and Subsistence	637.25 € Neitz, RIF Press Tour, 11-13/09/17, Pisa, Italy
WP4	RTD	Travel and Subsistence	898.97 € Morel, RIF meeting, 07/08/17, Peccioli, Italy
WP4	RTD	Travel and Subsistence	678.47 € Morel, RIF meeting, 1-02/10/18, Bristol, UK
WP4	RTD	Travel and Subsistence	534.20 € Neitz, RIF meeting, 12/01/18, Paris, France
WP4	RTD	Travel and Subsistence	630.78 € Morel, RIF meeting, 10-12/01/18, Paris, France
WP4	RTD	Travel and Subsistence	407.05 € Neitz, RIF Booster, 24-27/07/18, Peccioli, Italy
WP4	RTD	Travel and Subsistence	666.61 € Schmidt, RIF Booster, 17-20/07/18, Paris, France
WP4	RTD	Travel and Subsistence	687.98 € Schmidt, RIF Booster, 25-27/07/18, Peccioli, Italy
WP4	RTD	Travel and Subsistence	1,070.99 € Pepponi, RIF Booster, 19-23/08/18, Bristol, UK
WP5	RTD	Travel and Subsistence	757.53 € Neitz, RIF Booster, 17-20/07/18, Paris
WP6	RTD	Travel and Subsistence	513.49 € Neitz, RIF Booster, 11-12/09/18, Paris
WP5	RTD	Travel and Subsistence	395.05 € Morel, PDTI Urban Robotics Phase II on-site evaluation, 16-18/10/18, Barcelona, Spain
WP5	RTD	Travel and Subsistence	635.44 € Neitz, PDTI Healthcare Phase II on-site review, 27/02-1/03/18, Barcelona, Spain
WP5	RTD	Travel and Subsistence	511.08 € Morel, PDTI Healthcare Phase II on-site review, 27/02-1/03/18, Barcelona, Spain
WP5	RTD	Travel and Subsistence	578.75 € Andreas Müller, Indipendent expert reimbursement, PDTI Healthcare Phase II on-site review, 27/02-01/03/18, Barcelona,
			Spain
WP5	RTD	Travel and Subsistence	534.21 € Thierry Keller, Indipendent expert reimbursement, PDTI Healthcare Phase II on-site review, 27/02-01/03/18, Barcelona,
			Spain
WP5	RTD	Travel and Subsistence	442.07 € Malcolm Fisk, Indipendent expert reimbursement, PDTI Healthcare Phase II on-site review, 27/02-02/03/18, Barcelona,
			Spain
WP5	RTD	Travel and Subsistence	865.20 € Tjibbe Bouma, Indipendent expert reimbursement, PDTI Urban Robotics Phase II on-site evaluation, 16-17/10/17,
			Barcelona, Spain
WP6	OTHER	Travel and Subsistence	550.20 € Neitz, KET Workshop, 10/11/17, Bruxelles
WP6	OTHER	Travel and Subsistence	665.89 € Neitz, EuRobotics/EUnited GA, 22-23/11/17, Bruxelles
WP6	OTHER	Travel and Subsistence	574.86 € Weisenburger, ERF2018, 14-15/03/18, Tampere, Finland
WP6	OTHER	Travel and Subsistence	1,103.97 € Neitz, ERF2018, 12-16/03/18, Tampere, Finland
WP6	OTHER	Travel and Subsistence	25.82 € Schmidt, E++ booth at automatica 2018, 19-20/06/18, Munich, Germany
WP6	OTHER	Travel and Subsistence	32.71 € Neitz, Public Forum on "Co-creation and the future of innovation in Europe" as part of the kick-off event of the SCALINGS
******	OHILIN	Travol and Cabbiotonice	project (in which E++ participates as a case study), 24.05.18, Munich
WP6	OTHER	Travel and Subsistence	105.67 € Neitz, E++ booth at automatica 2018, 19-22/06/18, Munich
WP6	OTHER	Travel and Subsistence	3,927.59 € Knoll, Bücherl, E++ final event at IROS 2018, 29/09-4/10/18, Madrid
WP6	OTHER	Travel and Subsistence	1,081.36 € Principato, E++ booth and final event at IROS 2018, 1-5/10/18, Madrid
WP6	OTHER	Travel and Subsistence	640.67 € Neitz, E++ presentation at DIH Annual Event 2018, 27-28/11/18, Warsaw (Poland)
WP6	OTHER	Travel and Subsistence	558.85 € Neitz, E++ booth and final event at IROS 2018, 1-5/10/18, Madrid
WP6	OTHER	Travel and Subsistence	1,379.87 € Kortenbruck, E++ booth at Medica Messe 2018, 11-15/11/18, Düsseldorf
WP6	OTHER	Travel and Subsistence	490.87 € Principato, E++ booth at GOVTECH Summit 2018, 11-13/11/18, Paris
	vel & Subsiste		33.425.43 33.425.43 490.87 € Principato, E++ booth at GOV FECH Summit 2018, 11-13/11/18, Pans
Subtotal Ira	vei & Subsiste	iiice	ა ე # ∠ ე.#ა]

WP1	MGT	Other direct costs	145.96 € Shi	Inning costs
WP1	MGT	Other direct costs Other direct costs		tering for guests, Coordination Committee and Advisory Board meetings, 09-10/07/17, Barcelona
WP1	MGT	Other direct costs		eting room and catering, E++ review meeting rehearsal, 20-22/02/18, Luxembourg
WP2	RTD	Other direct costs		N Verein Deutsches Forschungsnetz, annual fee 4 domains
WP4	RTD	Other direct costs		tering for guests, RIF Booster Meeting, 11/07/18, Munich
WP4	RTD	Other direct costs		tering for guests, RIF Booster Meeting, 17707718, Notificial tering for guests, RIF Booster Meeting, 25-26/07/18, Pontedera
WP4	RTD	Other direct costs		tering for guests, RIF Booster Meeting, 29-20/07/10, Fortiedera
WP4	RTD	Other direct costs		tering for guests, RIF Dissemination Meeting, 10/07/10, 1 and
WP5	RTD	Other direct costs		tering for guests, Ni Disserting and the energy, 2700/10, Galching
WP5	RTD	Other direct costs		tering for guests, PDTI Urban robotics on-site review, 13/12/18, Barcelona
WP6	OTHER	Other direct costs		nt technical equipment, Best Picture award, automatica18, Munich
WP6	OTHER	Other direct costs		ze. Best Picture award, automatica18. Munich
WP6	OTHER	Other direct costs		sisenburger, Registration Fee, ERF2018, Tampere
WP6	OTHER	Other direct costs		itz, Registration Fee, ERF2018, Tampere
	ner direct cost	-	3.328 €	na, registration ce, and zoro, rampere
WP6	OTHER	Consumables	-,	nsumables, automatica18, Munich
WP6	OTHER	Consumables		tteries for telepresence robot
Subtotal Co		Consumables	116€	terries for telepresence food
WP2	RTD	Durable Equipment		preciation for a laptop
WP2	RTD	Durable Equipment		obe Creative Suite 6 software license
WP3	RTD	Durable Equipment		preciation for a laptop
WP3	RTD	Durable Equipment		preciation for a laptop
WP4	RTD	Durable Equipment		preciation of smart phone for VR glasses
	rable Equipme		856 €	production of ornary priority for the gladood
	TOTAL DIRECT COSTS		406,115 €	
	MGT	Indirect Costs	30,606 €	
	RTD	Indirect Costs	164.953 €	
	OTHER	Indirect Costs	13,543 €	
TOTAL INDI	RECT COSTS	12.2.20.000	209,102 €	
TOTAL COS			615,216 €	
	DING REQUE	ST (FORM C)	503,642 €	

SSSA

WP	Activity Type	Item description	Amount	Explanations
WP1	MGT	Personnel Costs	6,400 €	Cost of personnel devoted to WP1 activities for a total of 0.68 PM (no. 1 Professor)
WP3	RTD	Personnel Costs	33,400 €	Cost of personnel devoted to WP 3 activities for a total of 16.87 PM (no. 2 Research Assistants)
WP4	RTD	Personnel Costs	24,400 €	Cost of personnel devoted to WP 4 activities for a total of 6.99 PM (no. 1 Research Assistant and no. 3 research collaborators)
Subtotal Per	rsonnel Costs		64,200 €	
WP1	MGT	Sub-Contracting	3,500 €	Auditing and certification of the financial statement (CFS)
Subtotal Su	b-Contracting		3,500 €	
WP3	RTD	Other Direct Costs	8,000€	Travel reimbursements and experts fees of indipendent experts for Call 2 Experiments on-site reviews
WP4	RTD	Equipment	53,256 €	Depreciation share of the RIF equipment (depreciation period M51-M64, total 14 months): NAO next gen humanoid robotic platform; KUKA youBot system; COMAU RLM DualArm; Ultrabook DELL XPS; Force/torque sensors - axis load cells; Parallel gripper included in the dual arm; COMAU smart robot equipped with C5G open controller; HUSKY robotic platform
WP1	MGT	Travel and Subsistence	900€	E++ Review meeting, Luxembourg, 21-22/02/18, Prof. P. Dario
WP3	RTD	Travel and Subsistence	4,600€	Participation of SSSA team in project technical meetings
Subtotal Oth	er Direct Cost	is	66,756€	
TOTAL DIRE	ECT COSTS		134,456 €	
	MGT	Indirect Costs	4,380 €	
	RTD	Indirect Costs	74,194 €	
	OTHER	Indirect Costs	- €	
TOTAL INDI	RECT COSTS	·	78,574€	
TOTAL COS	TS		213,030 €	
TOTAL FUN	DING REQUES	ST (FORM C)	163,567 €	

UWE

WP	Activity Type	Item description	Amount	Explanations
WP1	MGT	Personnel Costs	2,028€	Cost of personnel costs devoted to WP1 activities for total of 0.21 PM [Prof. C. Melhuish]
WP4	RTD	Personnel Costs	53,801€	Cost of personnel costs devoted to WP4 activities for total of 13.39 PM [0.03 PM F. Dailami, 6.9 PM M. Haley, 6.45 PM E.Bernardi]
WP6	OTHER	Personnel Costs	4,069€	Cost of personnel costs devoted to WP6 activities for total of 0.37 PM [0.36 PM Prof. C. Melhuish, 0.01 PM F. Dailami]
Subtotal Per	rsonnel Costs	•	59,899€	
WP4	RTD	Travel and Subsistence	143€	Dissemination event (Factories of the future EXPO, Manchester)
WP4	RTD	Travel and Subsistence	6€	RIF Client site inspection
WP6	OTHER	Travel and Subsistence	3,452€	European Robotics Forum 2018, Tampere, Finland [F.Dailami & C.Melhuish]
WP1	MGT	Travel and Subsistence	703€	RIF meeting in Paris [F.Dailami]
WP1	MGT	Travel and Subsistence	981€	E++ review meeting in Luxembourg 2018 [F.Dailami]
WP1	MGT	Travel and Subsistence	226€	E++ review meeting in Luxembourg 2018 [C.Melhuish]
Subtotal Tra	vel & Subsiste	nce	5,511€	
WP4	RTD	Consumables	153€	Purchase of specific consumables for RIF client projects
Subtotal Co	nsumables		153€	
WP4	RTD	Durable Equipment	1,454 €	Purchase of durable equipment for RIF activity: Shunk arm
WP2	RTD	Other Direct Costs	117€	Social media support, website subscription, business plus and windows business quartely review for outreach activities
Subtotal Oth	ner Costs		1,571 €	
TOTAL DIRE	CT COSTS		67,134€	
	MGT	Indirect Costs	2,363 €	
	RTD	Indirect Costs	33,387 €	
	OTHER	Indirect Costs	6,313€	
TOTAL INDI	RECT COSTS		42,063 €	
TOTAL COS	TS		109,197€	
TOTAL FUN	DING REQUES	ST (FORM C)	86,932 €	

UPC

WP	Activity Type	Item description	Amount	Explanations
WP1	MGT	Personnel Costs	870 €	Cost of personnel devoted to WP1 activities for a total of 0,1 PM (Professor)
WP2	RTD	Personnel Costs		Cost of personnel devoted to WP2 activities for a total of 0,5 PM (Technician)
WP3	RTD	Personnel Costs		Cost of personnel devoted to WP3 activities for a total of 0,8 PM (Reseracher)
WP5	RTD	Personnel Costs		Cost of personnel devoted to WP5 activities for a total of 1,6 PM (Reseracher, Technician, Professor)
WP6	OTHER	Personnel Costs		Cost of personnel devoted to WP6 activities for a total of 13,6 PM (Reseracher, Technician, Professor)
	Personnel Cost		102.925 €	Cost of person free devoted to varioration a total of 13,0 FW (Neseracher, Technician, Professor)
WP1	MGT	Subcontracting	. ,	Audit CFS RP 4
WP6	OTHER	Subcontracting		Smart City Expo (booth + exhibitor pass)
WP6	OTHER	Subcontracting		AUTOMATICA Munchen (booth)
WP6	OTHER	Subcontracting		IROS 2018 (miscelaneous stand)
			64,298 €	IROS 2016 (misceianeous siand)
	ubtotal Subcontracting			School of David Marking Pariod 4. Laurenbarry 40.00% School of O.00% School of O.00%
WP1	MGT	Travel and Subsistence		Echord++ Review Meeting Period 4 - Luxembourg, 19-22th February 2018 (Alberto Sanfeliu Cortés)
WP1	MGT	Travel and Subsistence		Echord++ Review Meeting Period 4 - Luxembourg, 19-22th February 2018 (Ana Puig-Pey Claveria)
WP3	RTD	Travel and Subsistence		Echord++ Monitoring Session Phase Test on site - Almeria, 12-13th February 2018 (Antoni Grau Saldes)
WP3	RTD	Travel and Subsistence		Echord++ Monitoring Session Phase Test on site (GRAPE) - Garriguella, 21th March 2018 (Antoni Grau Saldes)
WP3	RTD	Travel and Subsistence		Echord++ Monitoring Session Phase Test on site (RADIOROSO) - Praga, 19-20th April 2018 (Antoni Grau Saldes)
WP3	RTD	Travel and Subsistence		Echord++ Monitoring Session Phase Test on site (CATCH) - Berlin, 3-4th March 2018 (Herminio Martínez García)
WP6	OTHER	Travel and Subsistence	1,279 €	5th IFIP Conference on Sustainable Internet and ICT for Sustainability (SustainIT17) - Madeira, 5-9th December 2019 (Antoni Grau Saldes)
WP6	OTHER	Travel and Subsistence	1,023€	6th RSEP International Multidisciplinary Conference (6th RSEP) - Lisbon, 1-4th February 2018 (Antoni Grau Saldes)
WP6	OTHER	Travel and Subsistence		European Robotics Forum 2018 (ERF 2018) - Tampere, 11-16th March 2018 (Ana Puig-Pey Claveria)
WP6	OTHER	Travel and Subsistence	1,012€	European Robotics Forum 2018 (ERF 2018) - Tampere, 11-16th March 2018 (Alberto Sanfeliu Cortés)
WP6	OTHER	Travel and Subsistence	756€	The Leading Exhibiton for Smart Automation and Robotics (Automatica) - Munchen, 18-22nd June 2018 (Ana Puig-Pey Claveria)
WP6	OTHER	Travel and Subsistence	580€	The Leading Exhibiton for Smart Automation and Robotics (Automatica) - Munchen, 18-22nd June 2018 (Alberto Sanfeliu Cortés)
WP6	OTHER	Travel and Subsistence	1,032€	7th RSEP International Multidisciplinary Conference (7th RSEP) - Amsterdam, 30th April -2nd May 2018 (Antoni Grau Saldes)
WP6	OTHER	Travel and Subsistence	1,370 €	13th International Hydroinformatics Conference (HIC 2018) - Palermo, 3-6th July 2018 (Antoni Grau Saldes)
WP6	OTHER	Travel and Subsistence		International Conference on Intelligent Robots and Systems (IROS 2018) - Madrid, 1-5th October 2018 (Ana Puig-Pey Claveria)
WP6	OTHER	Travel and Subsistence	1,270€	International Conference on Intelligent Robots and Systems (IROS 2018) - Madrid, 1-5th October 2018 (Alberto Sanfeliu Cortés)
WP6	OTHER	Travel and Subsistence	161€	International Conference on Intelligent Robots and Systems (IROS 2018) - Madrid, 1-5th October 2018 (Giacomo Cimini)
WP6	OTHER	Travel and Subsistence		International Conference on Intelligent Robots and Systems (IROS 2018) - Madrid, 1-5th October 2018 (Antoni Grau Saldes)
Subtotal 7	Fravel & Subsis	tence	13,738 €	

WP5	RTD	Other Costs	132€	PDTI SEWER phase III - Barcelona, 14-16th November 2017 (transportation)
WP5	RTD	Other Costs		Miscelaneous - Tests meeting
WP6	OTHER	Other Costs	1,175€	Dissemination materials IROS 2018
WP6	OTHER	Other Costs	1,075€	WELCOME DRINK FORUM IROS 03.10.2018
WP6	OTHER	Other Costs	1,500 €	Meeting room IROS 2018
WP6	OTHER	Other Costs	1,543 €	Miscelaneous - Smart city expo world congress
WP6	OTHER	Other Costs	1,200 €	Dissemination materials ECHORD++
WP6	OTHER	Other Costs	677€	Miscelaneous - The Leading Exhibiton for Smart Automation and Robotics (Automatica) - Munchen
WP6	OTHER	Other Costs	265€	Miscelaneous - IROS 2018 (transportation)
WP6	OTHER	Other Costs	800€	Book Echord++ - LaTex edition
Subtotal C	Other Direct Co	sts	8,488 €	
WP6	OTHER	Consumables	423 €	USB Memory device
WP6	OTHER	Consumables	6€	Miscelaneous of different stand materials IROS2018
WP6	OTHER	Consumables	4,846 €	Miscelaneous of different stand materials IROS2018
Subtotal C	Consumables		5,275€	
TOTAL DI	RECT COSTS		194,724 €	
	MGT	Indirect Costs	846 €	
	RTD	Indirect Costs	17,523 €	
	OTHER	Indirect Costs	80,667 €	
TOTAL IN	TOTAL INDIRECT COSTS 99,036 €		99,036 €	
TOTAL CO	OSTS		293,761 €	
TOTAL FU	JNDING REQU	EST (FORM C)	284,423 €	

CEA

WP	Activity	Item description	Amount	Explanations
	Туре			
WP1, WP2,	MGT, RTD,	Personnel Costs	86,220 €	Cost of personnel for a total of 10,01 PM: 0,29 PM for WP1 activities (Research engineer), 0.40 PM for WP2 activities
WP4, WP5,	OTHER			(Research engineer), 0,29 PM for WP4 activities (Research engineer), 0,29 PM for WP5 activities (Research engineer),
WP6				0,29 PM for WP6 activities (Research engineer).
Subtotal Per	rsonnel Costs		86,220 €	
WP1, WP2,	MGT, RTD,	Travel and Subsistence	3,211 €	20/02/2018 - 22/02/2018 Luxembourg (PARTICIPATION 4TH REVIEW MEETING), 12/03/2018 - 15/03/2018 Tampere
WP4, WP5,	OTHER			(project meeting), 12/06/2018 - 14/06/2018 Grenoble (results presentation echord ++),
WP6				20/06/2018 - 22/06/2018 Munich (project meeting)
Subtotal Tra	vel & Subsiste	ence	3,211 €	
WP4	RTD	Consumables	15,160 €	
Subtotal Co	nsumables		15,160 €	
WP4	RTD	Durable Equipment	135,927 €	
Subtotal Du	rable Equipme	ent	135,927 €	
TOTAL DIRECT COSTS		240,518 €		
TOTAL INDIRECT COSTS 47		47,317 €		
TOTAL COS	TOTAL COSTS 2		287,835 €	
TOTAL FUN	DING REQUES	ST (FORM C)		

BOR (partial data only, 01/2018 - 01/2019)

WP	Activity	Item description	Amount	Explanations
	Type			
WP5	RTD	Personnel Costs	61,456€	Cost of personnel devoted to WP 5 activities in period 01-12/18 for a total of 13,2 PM: Claus Risager (CEO, Blue Ocean Robotics), Franziska Kirstein (HRI Expert, Project Management), Tine Vigsoe (Product development process coordinator), Ana-Maria Macovetchi (Project Coordinator), Morten Kofod-Jensen; Jesper Rasmussen (VP Finance), Christina Thullin (administration), Thomas Rubæk (VP Product Development), Umair Qureshi (Robotics Developer), Mamoun Gharbi (Technical lead), Merima Cikotic (market intelligence & investment manager); Daniel Borst Pedersen (business development assistant), John Erland Oestergaard (CTO Blue Ocean Robotics), Thomas Joergensen (Marketing), Nikol Christensen (design assistant), Gustavo Kemmerich (designer), Igor Caser (mechanical designer), Jorge Rodriguez (mobile robotics developer), Alexander Schwarz (product development assistant).
Subtotal F	ersonnel Costs	1	61,456 €	
WP5	RTD	Travel and Subsistence	14,730 €	E++ review meeting, Luxembourg; PDTI Phase II evaluation, Barcelona; ERF Tampere, Finland, 03/2018; Automatica, Munich, Germany, 07/18, IROS 2018, Madrid; PDTI Mid-term testing, Barcelona, Spain, 10/18; Medica Fair 2018; PDTI onsite discussion 11/18; PDTI Phase III evaluation and working meeting, Brussels, 01/2018.
WP5	RTD	Consumables	138€	Adobe video editing software, printing toner and paper
Subtotal (ther Direct Cos	ts	14,868 €	
TOTAL DI	RECT COSTS		76,324 €	
	MGT	Indirect Costs	- €	
	RTD	Indirect Costs	45,794 €	
	OTHER	Indirect Costs	- €	
TOTAL IN	DIRECT COSTS		45,794 €	
TOTAL FU	INDING REQUE	ST (FORM C)	91,589€	

RUR

WP	Activity Type	Item description	Amount	Explanations
WP2,4,5	RTD	Personnel Costs	30.340 €	Cost for personnel for a total of 1,7 PM (Geoff Pegman)
WP6	OTHER	Personnel Costs	13.384 €	Cost for personnel for a total of 1,4 PM (Geoff Pegman)
Subtotal Pers	onnel Costs		43.724 €	
WP2,4,5	RTD	Travel and Subsistence	860 €	20-22 Feb 18 E++ Review Luxembourg; 19 Apr 18 Sewer PDTI Marketing Workshop Barcelona; 25-28 Mar 19 E++ Final Review
				Barcelona
WP6	OTHER	Travel and Subsistence	2.318 €	
Subtotal Trav	el & Subsistence	•	3.178 €	
TOTAL DIREC	T COSTS		46.902 €	
	MGT	Indirect Costs	- €	
	RTD	Indirect Costs	18.720 €	
	OTHER	Indirect Costs	9.421 €	
TOTAL INDIR	ECT COSTS		28.141 €	
TOTAL FUND	ING REQUEST (F	ORM C)	62.563 €	

TeD

WP	Activity	Item description	Amount	Explanations
	Туре			
WP4	RTD	Personnel Costs	11,600€	Cost of personnel devoted to WP 4 to organize the panel tests in Peccioli for a total of 3 PM (1 PM for the Project Manager and 2 for an Engineer)
Subtotal F	Personnel Costs	•	11,600 €	
WP4	RTD	Subcontracting	4,500 €	Supporting activities during the visits of customers and partners at Peccioli RIF
Subtotal S	Subtotal Subcontracting		4,500 €	
WP4	RTD	Travel and Subsistence	638 €	E++ review meeting, Luxembourg, 20/02/2018; RIF Meeting, Paris, 10/09/2018
WP4	RTD	Consumables	4,490 €	Consumables used for partners and custumers at RIF Peccioli
Subtotal (Other Direct Cos	ts	5,128 €	
TOTAL DI	RECT COSTS		21,228 €	
	MGT	Indirect Costs	- €	
	RTD	Indirect Costs	10,037 €	
	OTHER	Indirect Costs	- €	
TOTAL IN	TOTAL INDIRECT COSTS 10,037 €		10,037 €	
TOTAL FU	JNDING REQUE	ST (FORM C)	23,449 €	

All the data presented above refers to the period from 1/12/17 to 31/01/19 (unless otherwise stated) and should be considered provisional, as the reporting activities of all partners are still ongoing and will be finalised only after all residual costs are reported (e.g. travel expenses related to the review meeting). The pending decision concerning the extension of the ECHORD⁺⁺ until April 2019 (amendment request VIII) also had an impact on the schedule of the reporting, since the organisations are waiting for a decision to close their internal accounts and proceed with the audit of the financial figures.

Partner	Cost Categories	Budget (Amendment VII)	Period 1	Period 2	Period 3	Period 4	Period 5	Total Actual Costs	Budget used	Remaining Budget
	Personnel costs	1,081,835€	58,336€	289,332€	312,355€	261,504 €	310,777€	1,232,304 €	114%	-150,470 €
	Subcontracting	268,000 €	76,532€	49,086€	54,512€	17,846 €	57,612€	255,588 €	95%	12,412€
	Other direct costs	293,256 €	5,259€	70,114€	70,960€	48,445€	37,725€			60,753€
TUM	Adjustments		3,925€	29,052€	-206€			32,771 €		
TOW	Total direct	1,643,091 €	140,127€	408,532€	437,827 €	327,795€	406,115€	1,720,395€	105%	-77,304 €
	Indirect Costs	825,055 €	38,156 €	215,664 €	229,988 €	185,968 €	209,102€	878,878€	107%	-53,823 €
	Grand Total	2,468,146 €	178,283€	624,196€	667,815€	513,763€	615,216€	2,599,273€	105%	-131,128€
	EU-Funding Request	2,128,690 €	166,016€		533,990 €		503,642€	, , , , , , , , , , , , , , , , , , ,		-22,529€
	Personnel costs	606,800 €	48,202€	108,427 €	430,156 €	180,820 €	64,200€	831,805€	137%	-225,005€
	Subcontracting	40,000€	2,991€	16,321€	4,469€		3,500 €	33,493€		6,507 €
	Other direct costs	622,577 €	10,892€		132,839€	65,507€	66,756€			238,153 €
SSSA	Adjustments		-1,215€	-15,208€	456 €	0€	0€	-15,967 €		
333A	Total direct	1,269,377 €	62,085€	233,178€	567,464 €	252,539€	134,456 €	1,249,722€		19,655 €
	Indirect Costs	737,626 €	35,455€		337,795€	147,795€	78,574 €			7,894 €
	Grand Total	2,007,003€	97,540 €	378,499€	904,803€	400,334 €	213,030€			12,797 €
	EU-Funding Request	1,529,512 €	78,618€	278,224 €	712,683€	308,695€	163,567 €	1,541,787 €	101%	-12,275€
	Personnel costs	696,996 €	68,294 €	222,026€		174,191 €	59,899€	524,411€		172,585 €
	Subcontracting	10,000€	0€	0€		0€	0€	0€	0%	10,000€
	Other direct costs	506,776 €	36,079€	103,624 €		72,464€	7,235€	219,402€	43%	287,374 €
UWE	Adjustments		-5,186€	-29,544€	575,380€	,		543,621 €		
OVVL	Total direct	1,213,772€	104,373€	325,650 €		246,656 €	67,134 €	743,813€	61%	469,959 €
	Indirect Costs	722,263 €	62,623€			147,992 €	42,063 €			274,195€
	Grand Total	1,936,035 €	166,996 €			394,648 €	109,197€			744,155 €
	EU-Funding Request	1,481,226 €	123,669€		575,380 €		86,932€			11,620 €
	Personnel costs	329,855€	48,683€		79,355€		102,925€			-78,363 €
	Subcontracting	202,392 €	2,710€		57,781€		64,298 €			25,768 €
	Other direct costs	142,566 €	5,782€	22,214€	20,893€	22,743€	27,501€			43,432 €
UPC	Adjustments		-1,107€	-441€	36,620€			35,072€		
01 0	Total direct	674,813 €	57,175€		158,029€	170,981 €	194,724€			-9,162€
	Indirect Costs	319,529 €	44,779€	71,435€	69,493€		99,036€			-64,383 €
	Grand Total	994,342 €	101,954 €	174,942 €	190,902€	270,150€	293,761€	1,031,709€	104%	-37,367 €
	EU-Funding Request	926,668 €	88,668€		248,852€		284,423€	, , ,		-94,730 €
	Personnel costs	442,507 €	13,656 €	101,063€	162,627 €	82,471€	86,220€	446,037 €	101%	-3,530 €
	Subcontracting	7,500 €	0€	0€	0€		0€			7,500 €
	Other direct costs	506,776 €	1,741 €		163,209€	,	154,298€		2 .	-58,165 €
CEA	Adjustments		0€	5,592€		0€		5,592€		-5,592 €
OLA	Total direct	956,783 €	15,397 €	236,819€	325,836 €	192,407 €	240,518€	1,010,977€		-54,194 €
	Indirect Costs	246,830 €	8,018€		96,847€		47,317€	261,465€		-14,635 €
	Grand Total	1,203,613 €	23,415€		422,683 €		287,835€	1,272,442€		-68,829 €
	Funding Request	927,208€	20,669€	240,099€	322,007€	191,934 €	N.A.	774,709€	84%	152,499 €

Partner	Cost Categories	Budget (Amendment VII)	Period 1	Period 2	Period 3	Period 4	Period 5	Total Actual Costs	Budget used	Remaining Budget
	Personnel costs	189,678 €	18,000€	48,000€	32,308€	26,516€	61,456€	186,280€	98%	3,398 €
	Subcontracting	0€	0€	0€	0€	0€	0€	0€		0€
	Other direct costs	32,850€	2,299€	6,383€	8,219€	4,725€	14,868€	36,494€	111%	-3,644 €
BOR data cover only part of	Adjustments		-4,174€	-10,741€				-14,915€		
the RP	Total direct	222,528 €	20,299€	54,383€	40,527€	31,241 €	76,324 €	222,774 €	100%	-246 €
	Indirect Costs	133,516 €	12,179€	32,629€	24,316€	18,744 €	45,794 €	133,662€	100%	-146 €
	Grand Total	356,044 €	32,478€	87,012€	64,843€	49,985€	122,118€	356,437 €	100%	-393 €
	Funding Request	269,433 €	20,184 €	54,518€	48,632€	37,488€	91,589€	252,411€	94%	17,022€
	Personnel costs	108,502€	2,108€	28,400€	27,250€	26,750€	43,724 €	128,232€	118%	-19,730 €
	Subcontracting	0€	0€	0€	0€	0€	0€			0€
	Other direct costs	30,250€	0€	5,238€	2,088€	1,196€	3,178€	11,700€	39%	18,550 €
RU Robots	Adjustments		0€	0€	0€	0€		0€		
NO NODOIS	Total direct	138,752 €	2,108€	33,638€	29,338€	27,947 €	46,902€	139,933 €	101%	-1,181 €
	Indirect Costs	83,251 €	1,264 €	20,182€	17,602€	16,766€	28,141€	83,955€	101%	-703€
	Grand Total	222,003 €	3,372€	53,820€	46,940 €	44,712€	75,043€	223,887 €	101%	-1,884 €
	Fuding Request	178,337 €	2,529€	40,365€	35,205€	38,767€	62,563€	179,429€	101%	-1,092€
	Personnel costs	71,000€			42,660€	18,572€	11,600€	1		-1,832 €
	Subcontracting	8,400€			1,300€	2,210€	4,500 €	8,010€	95%	390 €
	Other direct costs	5,000€			0€	465€	5,128€	5,593€	112%	-593 €
TECHNODEAL	Adjustments				0€	0€		0€		
TECHNODEAL	Total direct	84,400€			43,960€	21,247 €	21,228€	86,435€	102%	-2,035€
	Indirect Costs	45,600 €			25,596€	11,422€	10,037€	47,055€	103%	-1,455€
	Grand Total	130,000 €			69,556€	32,669€	31,265€	133,490 €	103%	-3,490 €
	Fuding Request	97,500€			52,167€	24,501€	23,449€	100,117€	103%	-2,617 €
	Personnel costs	3,527,173 €	257,279€	873,269€	1,086,711€	872,058 €	740,801€	3,830,119€	109%	-302,946 €
TOTAL	Subcontracting	536,292 €	82,233€	70,238€	118,062€	73,272€	129,911€	473,715€	88%	62,577 €
	Other direct costs	2,140,051 €	62,052€	451,759€	398,208€	325,482€	316,690€	1,554,191 €	73%	585,861€
	Adjustments	0€	-7,757€	-21,290€	612,250€	2,971€	0€	586,174 €		
	Total direct	6,203,516 €	401,564 €	1,395,266 €	1,602,981 €	1,270,812€	1,187,402€	5,858,025€	94%	345,491 €
	Indirect Costs	3,113,670 €	202,474 €	724,555€	801,637 €	677,996 €	560,064 €	2,966,725€	95%	146,944 €
	Grand Total	9,317,186 €	604,038€	2,135,470 €	2,367,542 €	1,948,808€	1,747,466 €	8,803,324 €	94%	513,862€
	EU-Funding Request	7,538,574€	500,353€	1,673,504 €	2,528,916 €	1,571,740 €	1,216,164€	7,490,677 €	99%	47,897 €

The overall amount of direct costs claimed by the core consortium during the period is in line with the corresponding runtime of the project (64 months out of 64). The larger share of resources invested was dedicated to the activities reported in the RTD work packages, which were all operating during the period. A large share of resources was dedicated, in fact, to strengthening the ongoing processes (e.g. PDTI) and maximizing their impact (e.g. Experiment and RIF Booster Programmes.

4.2 Personnel effort – Core Consortium

* 1-12/2018 only	TUM	SSSA	UWE	UPC	CEA	BOR*	RUR	TED	TOTAL
WP1	8.98	0.68	0.21	0.10	0.29	0.00	0.00	0.00	10.3
WP2	20.49	0.00	0.00	0.50	0.40	0.00	1.50	0.00	22.9
WP3	12.52	16.87	0.00	0.80	0.00	0.00	0.00	0.00	30.2
WP4	1.62	6.99	13.39	0.00	6.45	0.00	1.50	3.00	33.0
WP5	4.41	0.00	0.00	1.60	1.20	13.20	0.80	0.00	21.2
WP6	1.28	0.00	0.37	13.60	1.67	0.00	1.10	0.00	18.0
TOTAL	49.30	24.54	13.97	16.60	10.01	13.20	4.90	3.00	135.52

The personnel effort devoted to this period's activities is slightly higher than the one proposed in the budget, in particular with reference to RTD activities. With regard to WP3, this is mainly due to the fact that some experiments were extended, in addition to the unforeseen effort invested in implementing and monitoring the Experiment Booster Programme. Therefore, monitoring and result extraction activities lasted longer than initially foreseen. In WP4, higher effort was invested as a result of the participation to the RIF Booster Programme and its follow-up activities. Finally, in WP5 a large share of the effort was invested in monitoring activities and follow-up activities on results exploitation, such as the unplanned meeting on commercialization for the consortia that participated to the Urban Robotics challenge, which took place after the final tests and evaluation of Phase III. During the fifth reporting period, a relevant share of the staff effort was devoted to strengthening the ECHORD** brand and disseminating its success stories, especially in the context of major events such as Medica Messe 2018 and automatica 2018.

	\A/o.ulu	Decidence						Total	
Partner	Work	Budget	Period 1	Period 2	Period 3	Period 4	Period 5	Actual	PM used
	Packages	(Amendment VII)						PM	
TUM	WP1	51.00	2.70	4.47	4.14	6.43	8.98	26.72	52%
	WP2	80.50	6.60	24.25	28.64	17.09	20.49	97.07	121%
	WP3	27.00	1.00	9.91	8.08	10.98	12.52	42.49	157%
	WP4	4.00	0.70	0.68	2.67	1.65	1.62	7.32	183%
	WP5	28.00	0.20	9.61	3.93	1.33	4.41	19.48	70%
	WP6	12.50	0.50	2.56	1.87	0.84	1.28	7.05	56%
	WP1	1.00	2.51	0.77	3.16	3.16	0.68	10.28	1028%
	WP2	2.50	1.64	0.36	1.01	0.00	0.00	3.01	120%
SSSA	WP3	45.00	9.17	9.99	53.80	29.03	16.87	118.86	264%
555A	WP4	109.00	2.35	26.24	95.92	26.56	6.99	158.06	145%
	WP5	1.00	0.00	0.00	5.22	0.00	0.00	5.22	522%
	WP6	5.50	1.31	7.79	18.10	8.20	0.00	35.40	644%
	WP1	1.00	0.14	0.37	0.44	0.30	0.21	1.46	146%
	WP2	2.50	0.23	0.83	1.04	0.34	0.00	2.44	98%
UWE	WP3	0.50	0.06	0.17	0.27	0.14	0.00	0.64	128%
OVVE	WP4	121.50	11.96	34.65	38.89	34.56	13.39	133.45	110%
	WP5	1.00	0.12	0.35	0.41	0.20	0.00	1.08	108%
	WP6	5.50	0.41	1.87	2.04	1.01	0.37	5.70	104%
	WP1	1.00	0.09	0.21	0.30	0.30	0.10	1.00	100%
	WP2	2.50	0.25	0.70	0.50	0.80	0.50	2.75	110%
UPC	WP3	10.50	0.09	4.10	3.50	2.20	0.80	10.69	102%
UPC	WP4	0.00							
	WP5	11.00	2.92	3.15	2.00	4.60	1.60	14.27	130%
	WP6	38.50	2.87	6.20	8.70	10.70	13.60	42.07	109%
	WP1	1.00	0.11	0.58	0.48	0.35	0.29	1.81	181%
	WP2	2.50	0.12	0.56	0.51	1.27	0.40	2.86	114%
CE 4	WP3	0.00				0.35		0.35	
CEA	WP4	64.50	0.57	11.98	23.65	9.96	6.45	52.61	82%
	WP5	1.00	0.12	1.45	1.38	0.00	1.20	4.15	415%
	WP6	5.50	0.87	3.32	2.77	1.89	1.67	10.52	191%

Partner	Work Packages	Budget (Amendment VII)	Period 1	Period 2	Period 3	Period 4	Period 5	Total Actual PM	PM used
	WP1	0.00							
	WP2	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0%
BOR 1-12/2018	WP3	0.00							
00 only	WP4	0.00							
orny	WP5	29.60	3.00	8.00	7.00	5.40	13.20	36.60	124%
	WP6	0.00							
	WP1	0.00							
	WP2	1.50	0.00	0.97	0.00	0.00	1.50	2.47	165%
RUR	WP3	0.00							
RUK	WP4	3.50	0.23	0.97	2.70	1.70	1.50	7.10	203%
	WP5	4.00	0.00	0.97	0.00	0.00	0.80	1.77	44%
	WP6	2.50	0.00	0.00	0.00	1.40	1.10	2.50	100%
	WP1	0.00							
	WP2	0.00							
T- D	WP3	0.00							
TeD	WP4	20.00	0.00	0.00	12.00	5.00	3.00	20.00	100%
	WP5	0.00							
	WP6	0.00							
TOTAL	All WP	699.6	52.8	178.0	335.1	187.7	135.5	889.3	127%

4.3 Certificates of financial statements

Only TUM, the project's coordinator, has exceeded the funding request limit of 375.000 € for the fifth reporting period and, therefore, will have to certify its financial statement (CFS).

4.4 Financial statements and cost follow-up tables – Other beneficiaries

The financial statements of the other beneficiaries will be reported on the EC Participant Portal once the planned amendment sessions (amendment VIII and IX) will be submitted and approved.

The cost follow-up tables for the beneficiaries involved in the different RTD instruments, as well as the analysis of the costs will be provided in an updated version of this report that will be submitted, together with the financial statements, as part of the online reporting session.