



DECISION OF THE GOVERNING BOARD

approving the list of actions selected for funding under the Shift2Rail JU calls for proposals H2020-S2RJU-2015-01 and H2020-S2RJU-2016-01

N° 14/2016

THE GOVERNING BOARD OF THE SHIFT2RAIL JOINT UNDERTAKING,

Having regard to:

- 1) Council Regulation (EU) No 642/2014 of 16 June 2014 establishing the Shift2Rail Joint Undertaking¹ (S2R JU) and in particular Article 8(p) of the S2R JU Statutes;
- 2) Decision N° 21/2015 of 11 December 2015 of the S2R JU Governing Board establishing the Financial Rules of the S2R JU and, in particular, Article 35 thereof;

Whereas:

- 1) On 11 December 2015, the Governing Board of the S2R JU adopted the S2R JU Annual Work Plans for 2015 and for 2016 (Decisions N°16/2015 and 17/2015 respectively, subsequently amended by Governing Board Decisions N° 2/2016 and 3/2016 of 29 February 2016). These Annual Work Plans were the bases for the launch of the calls for proposals H2020-S2RJU-2015-01 and H2020-S2RJU-2016-01, both of which were launched on 17 December 2015 with deadline of 17 March 2016;
- 2) The call for proposals H2020-S2RJU-2015-01 comprised a total of 19 topics, and the call for proposals H2020-S2RJU-2016-01 comprised a total of 9 topics;
- 3) In both of the above-mentioned calls for proposals, each of the topics had its own dedicated budget line and therefore topics were not competing against each other for the same budget;
- 4) The proposals submitted within both calls for proposals were evaluated by independent experts, as foreseen by Article 17.2 of the S2R JU Statutes and in accordance with the criteria defined in the S2R JU Annual Work Plans for 2015 and for 2016. On the basis of this evaluation, the experts established a ranking list per topic, providing a recommended priority order of proposals having equalled or passed all the thresholds, as well as a list of proposals not marked for possible funding as they did not meet the overall thresholds and/or one or more of the individual thresholds;
- 5) The report of the independent observer finds that evaluation was conducted in a fair, transparent and open way and that each proposal received adequate and equal treatment, according to the defined rules and procedures;

¹ OJ L 177, 17.06.2014, p.9.

- 6) In accordance with Article 8(p) of the S2R JU Statutes, the S2R JU Governing Board should approve the list of actions selected for funding, on the basis of a proposal from the S2R JU Executive Director, in accordance with Article 10(4)(g) of the S2R JU Statutes.

HAS DECIDED AS FOLLOWS:

Article 1

The call ranked lists pertaining to the calls for proposals H2020-S2RJU-2015-01 and H2020-S2RJU-2016-01, including the lists of actions selected for funding (Annex 1 to this decision) are hereby approved.

Article 2

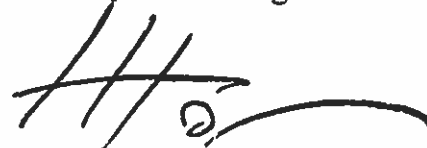
This decision shall enter into force on the date of its adoption. The Executive Director shall inform the applicants of the results of the evaluation. The date of the individual notification letter by the Executive Director constitutes the official invitation to start the preparation of the grant.

Enclosures:

- Annex 1 – Call ranked lists pertaining to the calls for proposals H2020-S2RJU-2015-01 and H2020-S2RJU-2016-01, including the lists of actions selected for funding
- Annex 2 – List of below threshold proposals pertaining to the calls for proposals H2020-S2RJU-2015-01 and H2020-S2RJU-2016-01
- Annex 3 – List of inadmissible proposals pertaining to the calls for proposals H2020-S2RJU-2015-01 and H2020-S2RJU-2016-01
- Annex 4 – List of ineligible proposals pertaining to the calls for proposals H2020-S2RJU-2015-01 and H2020-S2RJU-2016-01
- Annex 5 – Independent Observers Report

Done at Brussels, on 9 June 2016.

For the Governing Board



Henrik HOLELEI

The Chairperson

Annex 1 - Call ranked lists pertaining to the calls for proposals H2020-S2R-JU-2016-01 and H2020-S2R-JU-2016-01, including the lists of actions selected for funding

Topic	EU RANK	Type of Action	Number	Proposal		Title	Duration	Coordinator		Number of Participants	Financial Details		Selected for Funding	Financial Details	
				Acronym	Title			Organisation	Country		Requested EIT Contribution	Requested EU Contribution			
S2R-CFIM-CCA-01-2015	1	ShiftRail-RA	730010	IMPACT-1		Indicator Monitoring for a new railway Platform in seamlessly integrated Cross-modal Transport chains - Phase 1	18	DEUTSCHES ZENTRUM FÜR LUFT- UND RAUMFAHRT E.V.	DE	7	299,852.50 €	selected	299,852.50 €		
S2R-CFIM-CCA-02-2015	1	ShiftRail-RA	730018	FINE 1		Future Improvement for Energy and Noise	36	BOMBARDIER TRANSPORTATION GMBH	DE	9	1,340,860.00 €	selected	1,340,860.00 €		
S2R-CFIM-CCA-03-2015	1	ShiftRail-RA	730014	FLASA		Smart Planning and Safety for a safer and more robust European railway sector	24	DEUTSCHE BAHN AG	DE	0	349,453.75 €	selected	349,453.75 €		
S2R-CFIM-IP2-01-2015	1	ShiftRail-RA	730040	X2Rail-1		Start-up activities for Advanced Signalling and Automation Systems	36	SIEMENS INFRASTRUKTURENSELTSCHAFT	DE	19	19,999,720.00 €	selected	19,999,720.00 €		
S2R-CFIM-IP4-01-2015	1	ShiftRail-RA	730048	Co-Active		CO-modal journey re-ACcommodation on unscheduled Travel services	28	THALES COMMUNICATIONS & SECURITY SAS	FR	5	3,474,481.52 €	selected	3,474,481.52 €		
S2R-CFIM-IP4-02-2015	1	ShiftRail-RA	730022	ATTRACTIVE		Advanced Travel Companion and Tracking Services	28	HACON INGENIEURGESSELLSCHAFT UMBH	DE	0	2,248,477.01 €	selected	2,248,477.01 €		
S2R-CFIM-IP5-01-2015	1	ShiftRail-RA	730017	FIRRAIL		Development of Functional Requirements for Sustainable and Attractive European Rail Freight	36	TRACFERVNET - TRV	BE	18	3,500,000.00 €	selected	3,500,000.00 €		
S2R-CFIM-IP5-02-2015	1	ShiftRail-RA	730013	ARCC		Automated Rail Cargo Control - Rail Freight Automation (ARCC) activities to boost levels of quality, efficiency and cost effectiveness in all stages of rail freight operations	30	DEUTSCHE BAHN AG	DE	5	1,600,000.00 €	selected	1,600,000.00 €		
S2R-CFIM-IP5-03-2015	1	ShiftRail-RA	730023	FLAE		Future Freight Loop for Europe	33	BOMBARDIER TRANSPORTATION GMBH	DE	7	1,499,837.50 €	selected	1,499,837.50 €		
S2R-OC-CCA-01-2015	1	ShiftRail-RA	730038	NEAR2050		NEAR2050 - future challenges for the rail sector	18	IIF Institut für Innovations- und Trendforschung	AT	3	399,891.25 €	selected	399,891.25 €		
S2R-OC-CCA-01-2015	2	ShiftRail-RA	730025	NEEDSRAIL		Long-term Needs of Railway Customers, Services and Products in Relation to Door-to-Door Mobility	15	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT	7	389,877.50 €				
S2R-OC-CCA-01-2015	3	ShiftRail-RA	730033	THRYE		Technical Horizons for Rail Informed by different User Values and Experience	18	UNIVERSITY OF NEWCASTLE UPON TYNE	UK	5	400,000.00 €				
S2R-OC-CCA-02-2015	1	ShiftRail-RA	730027	OPENUS		Modelling and strategies for the assessment and Optimisation of Energy Usage aspects of rail innovation	30	UNIVERSITY OF NEWCASTLE UPON TYNE	UK	8	787,130.00 €	selected	787,130.00 €		
S2R-OC-CCA-03-2015	1	ShiftRail-RA	730029	DESTIMATE		Decision supporting tools for implementation of cost-efficient railway noise abatement measures	24	TECHNISCHE UNIVERSITÄT BERLIN	DE	8	999,312.50 €	selected	999,312.50 €		
S2R-OC-CCA-03-2015	2	ShiftRail-RA	730024	NOUSYS		NOie reduction methodologies - a SYSTEM approach	24	UNIVERSITA DEGLI STUDI DI ROMA LA SAPIENZA	IT	12	1,069,005.00 €				
S2R-OC-CCA-03-2015	3	ShiftRail-RA	730047	DESTINO		Design, evaluation and testing methodologies for optimised noise and vibration performance of future trains	30	KUNGLIGA TEKNISKA HOEGSKOLAN	SE	8	999,538.75 €				
S2R-OC-CCA-04-2015	1	ShiftRail-RA	730017	GOSAFE RAIL		GOSAFE RAIL - Global Safety Management Framework for RAIL Operations	36	GAVIN AND DOHERTY GEOSOLUTIONS LTD	IE	10	1,298,750.00 €	selected	1,298,750.00 €		
S2R-OC-CCA-04-2015	2	ShiftRail-RA	730012	DORSAL		Data linkage for safer and more reliable rail ways	24	THE UNIVERSITY OF HUDDERSFIELD	UK	0	1,077,307.50 €				
S2R-OC-CCA-04-2015	3	ShiftRail-RA	730032	OPTIMISER		Optimal Platform for Train Integrated Mobility and Interoperable Safety Environment in Railways	22	STRAER Svalent et	IT	11	1,478,850.00 €				
S2R-OC-IP2-01-2015	1	ShiftRail-RA	730043	CYRail		Cybersecurity in the Railway sector	24	EVOLVO TECHNOLOGIES LDA	PT	0	1,499,150.00 €	selected	1,499,150.00 €		
S2R-OC-IP2-01-2015	2	ShiftRail-RA	730058	SYRACUSE		Safety assessment and security by design framework for future railway systems to ensure secure and safe continuity of the railway network	24	CENTRE D'EXCELLENCE EN TECHNOLOGIE DE L'INFORMATION ET DE LA COMMUNICATION ASBL	BE	5	1,761,388.75 €				
S2R-OC-IP2-02-2015	1	ShiftRail-RA	730015	VITE		Virtualisation of the testing environment	24	INGENIERIA Y ECONOMIA DEL TRANSPORTE S.A.	ES	11	1,008,828.25 €	selected	1,008,828.25 €		
S2R-OC-IP2-03-2015	1	ShiftRail-RA	730040	MISTRAL		Communication Systems for Next-generation Railways	24	ISTITUTO SUPERIORE MARIO PERUGIA S.p.A. TELECOM ITALIA	IT	4	499,282.50 €	selected	499,282.50 €		
S2R-OC-IP5-01-2015	1	ShiftRail-RA	730036	SMART		Smart Automation of Rail Transport	36	UNIVERSITÄT BREMEN	DE	5	999,598.75 €	selected	999,598.75 €		
S2R-OC-IP5-02-2015	1	ShiftRail-RA	730011	DTM-FREIGHT		Innovative technical solutions for improved train dynamics and operation of longer FREIGHT Trains	20	UNION DES INDUSTRIES FERROVIAIRES EUROPEENNES - UNIFE	BE	10	999,822.50 €	selected	999,822.50 €		
S2R-OC-IP5-03-2015	2	ShiftRail-RA	730022	IAZE		INRA-THORCEVOLUTION - Make RAIL the MOve for protecting future 2 lanes EVOLUTION	24	UNIVERSITA DEGLI STUDI DI ROMA TORVERGATA	IT	11	999,973.75 €				
S2R-OC-IP5-03-2015	1	ShiftRail-RA	730063	UNNOWAD		UNNOvative monitoring and predictive maintenance solutions on lightweight WAGOn	30	UNIVERSITY OF NEWCASTLE UPON TYNE	UK	11	1,500,562.50 €	selected	1,500,562.50 €		
S2R-OC-IP5-03-2015	2	ShiftRail-RA	730053	IntaFreight		Intelligent freight wagon with predictive maintenance	36	THE UNIVERSITY OF BIRMINGHAM	UK	0	1,499,011.25 €				
S2R-OC-IP5-03-2015	3	ShiftRail-RA	730045	TREBLE		SENSORIZED CARGO IN A LIGHTWEIGHT INTELLIGENT WAGON	36	VIAS Y CONSTRUCCIONES	ES	0	1,499,812.50 €				
S2R-OC-IP5-03-2015	4	ShiftRail-RA	730050	SmartFreight		SmartFreight - Smart sensing technology to allow cargo condition monitoring, cargo loading and predictive maintenance for autonomous and sustainable rail freight operations	36	TVM LIMITED	UK	5	1,499,947.50 €				
S2R-OC-IP5-03-2015	5	ShiftRail-RA	730019	I-GENER		Design of the next intelligent GENERATION of freight Railway Wagon	36	ETHNIKO KENTRO ERESNASIAI TECHNOLOGIKOS ADAPTIVOS	EL	10	1,498,612.25 €				
S2R-OC-IP5-03-2015	0	ShiftRail-RA	730057	Wagon2020		Smart lightweight wagon for steel	36	SINCB Logistics	BE	7	1,499,958.75 €				

SDR-CF-M-IP1-01-2010	1	Shzr/Rail-RA	730068	PHITA	IP1 Traction TD1 and Brakes TD5 - Phase 1	27	FR	0	12,977,306.25 €	selected	12,977,306.25 €
SDR-CF-M-IP1-02-2010	1	Shzr/Rail-RA	730039	CONNECTA	Contributing to ShzrRail's Next generation of high Capable and safe TCMS and brakes. Phase 1	24	ES	0	5,008,957.50 €	selected	5,008,957.50 €
SDR-CF-M-IP3-01-2010	1	Shzr/Rail-RA	730041	UNTRACK	Research into enhanced tracks, switches and structures	30	BE	19	2,799,993.00 €	selected	2,799,993.00 €
SDR-CF-M-IP3-02-2010	1	Shzr/Rail-RA	730590	INGSMART	Intelligent Innovative Smart Maintenance of Assets by Integrated Technologies	39	IT	18	7,290,832.50 €	selected	7,290,832.50 €
SDR-OC-IP1-02-2010	1	Shzr/Rail-RA	730030	SAFE4RAIL	SAFE architecture for Robust distributed Application Integration in rolling stock	24	AT	11	6,081,211.25 €	selected	6,081,211.25 €
SDR-OC-IP1-02-2010	2	Shzr/Rail-RA	730054	smart-toms	TECHNOLOGY DEMONSTRATION FOR next generation TCMS based on distributed functional architecture integrating safety control for tracks	49	DE	6	6,993,875.00 €		
SDR-OC-IP3-01-2010	1	Shzr/Rail-RA	730049	S-CODE	Switch and Crossing Optimal Design and Evaluation	38	UK	0	4,999,771.25 €	selected	4,999,771.25 €
SDR-OC-IP4-01-2010	1	Shzr/Rail-CSA	730044	Go4R	Governance of the Interoperability Framework for Rail and Intermodal Mobility	24	BE	16	2,000,000.00 €	selected	2,000,000.00 €
SDR-OC-IP4-02-2010	1	Shzr/Rail-RA	730042	START	Semantic Transformations for Rail Transportation	24	BE	8	1,000,000.00 €	selected	1,000,000.00 €
									50,849,898.75 €		43,858,931.75 €
									110,833,318.78 €		67,970,000.28 €

Annex 2 - List of below threshold proposals pertaining to the calls for proposals H2020-S2RJU-2015-01 and H2020-S2RJU-2016-01

Topic	Type of Action	Proposal			Financial Details	
		Number	Acronym	Title		Duration
H2020-S2RJU-2015-01						
S2R-OC-IP2-02-2015	Shift2Rail-RIA	730859	VIRTUAL-RAILWAY	VIRTUAL-RAILWAY: Development of a Laboratory as a Service cloud-based platform for advanced VIRTUAL-RAILWAY signaling systems testing	24	1,169,875.00 €
S2R-OC-CCA-02-2015	Shift2Rail-RIA	730820	SMART-E-RAIL	Simulation Methodology sAndaRdised Tool for Energy estimation in RAILways	36	795,483.75 €
S2R-OC-IP5-01-2015	Shift2Rail-RIA	730861	Auto-shunt 2020	Optimized marshalling through automated guidance	35	1,138,801.25 €
S2R-OC-IP5-01-2015	Shift2Rail-RIA	730832	rAGV	Fully Automatic Transportation of Containers on Rail by rAGV's	24	1,000,000.00 €
S2R-OC-IP5-02-2015	Shift2Rail-RIA	730855	OPERAH 15	OPERAH 15 is the acronym of OPERATION of European Railways Hectometre 15. The acronym shows the intention of the proposal; it is the theoretical design of a canonical infrastructure: sidings layout, c	24	494,872.50 €
S2R-OC-IP2-01-2015	Shift2Rail-RIA	730839	ANVIL	Protecting and Securing Rail Systems against Cyber-Attack	24	1,499,248.75 €
S2R-OC-CCA-02-2015	Shift2Rail-RIA	730856	GREAT	Global Railway modeling and Energy Analysis Tool	36	800,000.00 €
S2R-OC-CCA-04-2015	Shift2Rail-RIA	730821	SPIRE	Smart Planning InfrAstructure safety	24	1,271,101.25 €
S2R-OC-CCA-03-2015	Shift2Rail-RIA	730816	TyreAntiNoise	Development of sustainable noise reduction technologies for railroads by novel noise barriers based on waste tyres, greened structures and combined systems	36	2,154,822.50 €
10,324,205.00 €						
H2020-S2RJU-2016-01						
S2R-OC-IP3-01-2016	Shift2Rail-RIA	730825	FUSION	Future Switch - Zero InterventION	36	5,068,203.75 €
S2R-OC-IP4-01-2016	Shift2Rail-CSA	730831	E-RAIL	E-Rail Electronic Rail Transportation System Innovations	24	1,622,120.00 €
S2R-OC-IP3-01-2016	Shift2Rail-RIA	730864	Switch2Future	Switches and Crossings for Next Generation Railways	36	4,315,585.00 €
S2R-OC-IP1-02-2016	Shift2Rail-RIA	730865	ASCENT	TCMS/SCB	30	6,912,370.75 €
S2R-OC-IP3-01-2016	Shift2Rail-RIA	730852	IN2SWITCH	INtelligent and INnovative track SWITCHing concept	36	2,537,250.00 €
20,455,529.50 €						

ANNEX 3: List of inadmissible proposals

Topic Code	Type of Action	Number	Proposal		Financial Details	
			Acronym	Title	Duration	Grant Requested
S2R-CFM-IP2-01-2015	RIA	724057	AMDINVENTOR	Asociación Mundial Derechos Inventor-AMDINVENTOR		25 ME

ANNEX 4: List of Ineligible proposals

Topic Code	Type of Action	Number	Acronym	Title	Duration	Financial Details	
						Total Cost	Grant Requested
S2R-OC-IP5-03-2015	Research and Innovation Actions	730862	IP RAIL	Development of an integrated lightweight freight wagon design with cargo monitoring and predictive maintenance capabilities	24	1,488,125.00 €	1,488,125.00 €



OBSERVER REPORT

Programme: Horizon 2020 Framework Programme
Call for proposals: H2020-S2RJU-2015-01 & H2020-S2RJU-2016-01
Call deadline: 17 March 2016

Date of evaluation: between 01 April 2016 and 27 May 2016

Observer

Name		
Joseph Prieur		

Number of pages in this report (title page included): 14 pages

1. Background

This report describes the observer's assessment of the evaluation of the following call:

Calls for proposals: H2020-S2RJU-2015-01 & H2020-S2RJU-2016-01

Published: 17 December 2015

Deadline: 17 March 2016

Budget: EUR 90 millions (EC contribution)

Both calls were published on the same day and had the same deadline. They will be referred as one single call in the rest of this report. This call covers the following topic(s)/type(s) of action:

Topic code	PANEL	Type(s) of action	Number of eligible proposals received	Budget (estimated EU contribution)
S2R-CFM-IP2-01-2015	AUTO	RIA	1	€ 20 000 000
S2R-CFM-IP4-01-2015	INTEL-IA	IA	1	€ 3 750 000
S2R-CFM-IP4-02-2015	INTEL-IA	IA	1	€ 2 250 000
S2R-CFM-IP5-01-2015	AUTO	RIA	1	€ 3 500 000
S2R-CFM-IP5-02-2015	AUTO	RIA	1	€ 1 600 000
S2R-CFM-IP5-03-2015	RSTOCK	RIA	1	€ 1 500 000
S2R-CFM-CCA-01-2015	SMART	RIA	1	€ 300 000
S2R-CFM-CCA-02-2015	INFRA	RIA	1	€ 1 350 000
S2R-CFM-CCA-03-2015	SMART	RIA	1	€ 350 000
S2R-OC-IP2-01-2015	AUTO	RIA	3	€ 1 500 000
S2R-OC-IP2-02-2015	INTEL-RIA	RIA	2	€ 1 000 000
S2R-OC-IP2-03-2015	AUTO	RIA	1	€ 500 000
S2R-OC-IP5-01-2015	AUTO	RIA	3	€ 1 000 000
S2R-OC-IP5-02-2015	RSTOCK	RIA	3	€ 1 000 000
S2R-OC-IP5-03-2015	RSTOCK	RIA	7	€ 1 500 000
S2R-OC-CCA-01-2015	SMART	RIA	3	€ 400 000
S2R-OC-CCA-02-2015	INFRA	RIA	3	€ 800 000
S2R-OC-CCA-03-2015	INFRA	RIA	4	€ 1 000 000
S2R-OC-CCA-04-2015	SMART	RIA	4	€ 1 300 000
S2R-CFM-IP1-01-2016	RSTOCK	RIA	1	€ 13 000 000
S2R-CFM-IP1-02-2016	SMART	RIA	1	€ 6 000 000
S2R-CFM-IP3-01-2016	INFRA	RIA	1	€ 2 800 000
S2R-CFM-IP3-02-2016	SMART	RIA	1	€ 7 300 000
S2R-OC-IP1-01-2016		RIA	0	€ 1 100 000
S2R-OC-IP1-02-2016	SMART	RIA	3	€ 7 000 000
S2R-OC-IP3-01-2016	INFRA	RIA	4	€ 5 000 000
S2R-OC-IP4-01-2016	INTEL-CSA	CSA	2	€ 2 000 000
S2R-OC-IP4-02-2016	INTEL - RIA	RIA	1	€ 1 000 000

The topic code in the above table refers also to the IP (Innovation Programme) to which it belongs:

IP 1: Cost-efficient and reliable trains
IP 2: Advanced traffic management and control systems
IP 3: Cost efficient and Reliable High Capacity Infrastructure
IP 4: IT Solutions for Attractive Railway Services
IP5: Technologies for sustainable and attractive European rail freight
CCA: Cross Cutting Activities

The topic code also refers to the topic category. There are 2 categories of topics:

- Those identified as CFM (call for members) are restricted to S2R JU members only and the work programme clearly specifies that only one proposal per topic will be funded within this category
- Those identified as OC (Open Call) are open to non S2R JU members only and depending on budget availability more than one project may be funded

It is noted that each of the 28 topics has its own dedicated EU budget line and therefore topics are not competing against each other for the same budget. However, proposals submitted in response to open calls (OC) for any specific topic may compete against each other within that topic budget line.

It is noted also that no proposal was submitted in response to the topic S2R-OC-IP1-01-2016

The total estimated EU budget for the call is about 90 million euros. In addition, the S2R JU members (other than the Commission) have committed themselves to provide in kind contributions up to about 80 million euros (for proposals in response to CFM) thus resulting in an overall estimated budget 2015-2016 for the call of about 170 million euros

A total of 57 proposals were received of which one was considered inadmissible as it was a case of abuse and one was declared ineligible. The 55 remaining eligible proposals were distributed over 5 evaluation panels:

- AUTO (10 eligible proposals, all RIAs, of which 3 were in response to CFM and 7 in response to OC),
- INFRA (13 eligible proposals, all RIAs, of which 2 were in response to CFM and 11 in response to OC),
- INTEL (7 eligible proposals of which 2 CSAs in response to OC, 2 IAs in response to CFM, and 3 RIAs in response to OC),
- RSTOCK (11 eligible proposals, all RIAs, of which 2 are in response do CFM and 9 in response to OC),
- SMART (14 eligible proposals, all RIAs, of which 4 are in response to CFM and 10 in response to OC)

The report analyses the efficiency of the procedures, usability of the instruments (including IT tools), conduct and fairness of the evaluation sessions, and compliance with the applicable rules. The objective is to give independent advice for improving the evaluation processes for the S2R JU

The independent observer Joseph Prieur has been retired from ONERA, the French national aerospace lab, since June 2011. He has had no involvement at all with the calls under evaluation. He has a wide experience of European Commission research proposal evaluations, first as END in DG RTD and DG ENTR and, from 2006, as an independent expert (evaluator,

rapporteur and observer) on various occasions and on several themes (Aeronautics, Surface Transport, Security, Space, JTI Clean Sky, NMP) for both FP7 and Horizon 2020 programmes

2. Methodology

The approach followed by the observer was in line with the requirements of the Shift 2 Rail (S2R) evaluation team when the observer was first approached, and with the subsequent observer contract. All relevant information was made available to the observer in a timely manner: access to the SEP system, briefings, some exchange of mails between the S2R team and the experts, and the observer report template.

The observer was involved in the evaluation process immediately after the signature of his contract CT-EX2002B070194-130 on March 17, 2016. The observer work consisted basically in the following activities:

- Review general and specific Horizon 2020 documents and relevant evaluation rules (http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016-2017/annexes/h2020-wp1617-annex-ga_en.pdf) and H2020 Grants Manual - Section on: Proposal submission and evaluation http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/pse/h2020-guide-pse_en.pdf
- Review and become familiar with strategic S2R documents, namely:
 - The S2R Master Plan: providing a high-level strategic vision to achieve the S2R objectives and identifies key priority research areas (<http://ec.europa.eu/transport/modes/rail/doc/2015-03-31-decisionn4-2015-adoption-s2r-masterplan.pdf>)
 - The S2R Multiannual Action Plan (MAAP) providing a long-term investment plan, identifying projects, milestones and deliverables to achieve the Master Plan objectives. It is a useful document to understand the programmatic/global view on the Innovation Programme (http://www.shift2rail.org/wp-content/uploads/2013/07/S2R-JU-GB_Decision-N-15-2015-MAAP.pdf)
 - The annual work plans 2015 and 2016 containing the specific topic scope and links across projects (complementary grants between members and respectively non-members topics)
- Review briefings and other relevant information provided by mail by the call coordinator to the experts
- During the remote evaluation phase follow the progress of the evaluation on the SEP tool
- During the local evaluation phase in Brussels, attend consensus meetings in such a way as to cover as many different moderators and as many topics as possible
- Throughout the local evaluation week (23 to 27 May 2016) have informal discussions with various S2R staff (call coordinator, staff and S2R director), and some experts and recorders (dedicated rapporteurs)

- Prepare the present report

3. Assessment

Scale of complexity of the evaluation task:

In terms of number of proposals to be evaluated the task was not extremely complex, as only 55 eligible proposals were received. In general, each proposal was evaluated by 3 to 5 experts and an additional expert was selected during the individual evaluation phase to act as a recorder (rapporteur) to prepare the consensus report. He (she) was a dedicated rapporteur not involved in the evaluation itself. This is believed to be a good practice contributing to the efficiency and quality of the evaluation process. The dedicated rapporteurs had prepared a draft of the consensus reports before the local evaluation phase in Brussels. All initial drafts were not prepared to the same degree of elaboration: some were a compilation of individual evaluation comments, whereas some others were already well edited. But in any case, the observer found that it is more efficient to start the consensus discussion on the basis of an existing draft rather than starting from a blank sheet.

In terms of procedure, the evaluation exercise was quite conventional and similar to most of the other evaluation sessions that the observer had attended over the last 2 years.

The observer found that the S2R team involved in the evaluation was well prepared to meet the scale and complexity of the tasks. The main phases of the evaluation process (individual evaluation, consensus meetings, panel meetings and proposal ranking) and the roles of each of the participants (moderators, evaluators, rapporteurs and observer) were clearly defined. Planning of the evaluation i.e. team composition, room allocation and schedule of meetings was also sound and clearly communicated to all participants.

Transparency of the procedures:

The procedures for the evaluation and selection of proposals were transparent to proposers and to all evaluators and to the observer, including the structure of the evaluation process into individual and consensus phases. The modalities of the evaluation of the call were clearly explained in comprehensive briefings specifically developed for this call and provided to the experts at the start of the individual evaluations and at the start of the local evaluation phase in Brussels.

The procedures are in line with the rules described in Annex H of the Work Programme and they comply with the principles established by the Commission and reminded to experts during briefings (independence, impartiality, absence of conflicts of interest, objectivity, consistency, accuracy). Each aspect of the evaluation process is described in detail in the “Grants Manual: Section on proposal submission and evaluation” referred to in the S2R Annual Work Plans.

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/pse/h2020-guide-pse_en.pdf available to all experts and the observer

The evaluation criteria, scoring system and thresholds applied were well understood by all experts. Score interpretation tables were clearly displayed in every consensus meeting room

and very often the moderators invited experts to refer to this table to ensure that scores were in line with agreed comments

Further the experts are reminded about the transparency requirements during briefings (remote briefing at the start of the remote evaluation phase, as well as briefing during the local evaluation phase) and also, as needed, during consensus meetings.

The observer is fully convinced that the evaluation was conducted with high standards of transparency, fairness and diligence at all stages.

Throughput time of the evaluation and the efficiency of the procedures:

The number of proposals for each panel of evaluators ranged from 7 (INTEL panel) to 14 (SMART panel) covering 5-6 topics on average. This is considered as a reasonable number of proposals for each of the evaluators in the panels, considering that experts could spread their work over a period of about one month for their individual evaluations (April 1 to May 2, 2016). Contrary to other calls when experts consider as too high a workload when they have to evaluate about 10 proposals within 2 weeks, for this S2R call no specific complaint was heard by the observer from experts in relation to the individual evaluation workload. Indeed, most of the proposals were evaluated by 5 experts, others by 4 experts and only a few by 3 experts. The total number of individual readings was 240, performed by 43 experts, thus resulting in an average of about 6 individual evaluations per expert, which is a relatively small workload over the 1-month period allocated for individual evaluations

The observer believes that the practice of having a dedicated rapporteur (or recorder) as opposed to one of the evaluators acting as a rapporteur, may be a good practice in terms of efficiency of the evaluation process. Indeed, the dedicated rapporteur can start drafting the initial version of the consensus report before coming to Brussels whereas the evaluators can concentrate on their individual evaluation tasks.

During the central consensus phase of the evaluation, the dedicated rapporteur approach allows all experts to take fully part into the consensus debate without having one of them having to concentrate on collating the opinions of his(her) co-evaluators with the risk of not being in a good position to express/defend his (her) own views.

The involvement of the recorder contributes significantly to keeping as closely as possible to the planned schedule and avoiding large delays

The dedicated recorder approach is however not an easy route. Dedicated rapporteurs clearly need to have good writing skills and to enjoy writing, but also to have some general knowledge about the topics/subjects they are dealing with, with then the inherent risk of being frustrated from refraining from participating in technical discussions. The observer believes that rapporteurs should be allowed to read at least the executive summary/abstract of the proposals being discussed. Also the dedicated rapporteur approach requires that the respective roles of the moderator and the rapporteur should not overlap and be well balanced and clear for all participants.

Efficiency, reliability and usability of the procedures, including the IT-tools:

The IT evaluation tool SEP was employed in the evaluation process. The tool is fully operational and all experts have become familiar with the system. Experienced evaluators

consider it, rather unanimously, as superior to the previous RIVET system of FP7. Some improvements, compared to the initial version, have now been incorporated into the SEP system (such as the automatic calculation of the EC budget going to SMEs which is a useful feature when it comes to rank ex-aequo proposals).

The observer believes the system could be further improved by being associated with video conferencing capabilities allowing experts to have real face to face discussions with the rapporteur towards the end of the remote individual evaluation phase in order to better prepare the initial draft of the consensus report. This may save time and improve the efficiency of the local consensus phase in Brussels. This may be an appropriate feature when there is a large number of proposals to be evaluated and may pave the way towards generalized remote consensus phases (as is already the case for some calls)

The observer believes the procedures used are reliable and robust. The implementation of the evaluation procedures was on the whole very good. Although there were small variations in the way different moderators and recorders operate in their meetings, the observer believes that this has no impact on the outcome of the evaluation.

Impartiality, fairness and confidentiality of the evaluation:

From his participation to the evaluation process, the observer is of the opinion that the evaluation was impartial, fair and conducted in full compliance with the participation rules set by the Commission, in line with the steps indicated in the “Grants Manual: Section on proposal submission and evaluation”. These rules and procedures were reminded to the experts as part of their general and specific briefings, and as needed during all the steps of the evaluation.

The overall evaluation process is compliant with the principles established by the Commission: independence, impartiality, objectivity, accuracy and consistency.

The confidentiality requirements, which are annexed to the contracts of the experts and the observer, were reminded to the experts at all stages by the S2R staff involved in the evaluation

The following factors are believed to contribute significantly to achieve impartial and fair evaluations

- the relative large number (4 or 5, in a few cases 3) of independent experts involved in the evaluation of each proposal, plus the moderator and the dedicated rapporteur acting as quality controllers during consensus phases
- The variety of the expert backgrounds, ensuring that all aspects of each proposal are considered and that each proposal is looked at under different angles, which is an important aspect for the multidisciplinary aspects of the proposals
- the early detection and treatment of potential conflicts of interests. All experts, and the observer, sign a declaration of absence of conflict of interest as part of their contract. The importance of avoiding conflict of interest is also reminded to experts in each briefing. Experts with a conflict of interest with one proposal are excluded from participating to the discussion of the proposal in question

Conformity of the evaluation with the applicable rules (including guidance documents)

The “H2020 Vademecum section on proposal submission and evaluation” (<http://www.h2020.cz/files/pracna/H2020-Vademecum-Section-on-Proposal-Submission-and-Evaluation>) is a document meant to assist all staff in implementing proposal evaluation (from the Commission, the Executive Agencies or JUs). It provides a common basis for all personnel involved in the evaluation to have a similar approach in conducting the evaluation. The document is consistent with the rules and procedures given in the Grants Manual - Section on: Proposal submission and evaluation (http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/pse/h2020-guide-pse_en.pdf), and with general and specific briefings provided to the experts.

In addition, the S2Revaluation team had provided the experts with a SEP User guide https://ec.europa.eu/research/participants/data/support/expert/expert_evaluation_user_manual.pdf and a separate document SEP for Experts, as well as very comprehensive briefings (one at the start of the remote evaluation phase, the other one on the first day of the consensus phase in Brussels)

All these documents were in full conformity with existing applicable rules and the general annexes to the Work Programme (http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016-2017/annexes/h2020-wp1617-annex-ga_en.pdf), especially Annex H which describes the evaluation rules

The observer is convinced that all phases of the S2R proposal evaluation were conducted in full compliance with the rules and guides contained in the above mentioned documents.

Quality of the evaluation process in comparison with similar national/international evaluation procedures:

The observer has not been involved in evaluation processes other than EU research ones. It is believed that the EU evaluation process is robust and of high quality and, from discussions with some experienced evaluators over different calls, can be considered better than or as good as other national and/or other international research funding schemes. And it is known that several countries are looking to the EU process, or even transposing it, to improve their national process.

At international level, the main evaluation principles are: objectivity and impartiality, independence of evaluators, participation of all parties concerned in the entire process, transparency and focus, reliability, completeness and clarity of reports, fairness and protection of the interests of the parties involved. The observer is convinced that all the above mentioned international principles are well embedded and efficiently implemented in the EU evaluation process.

Overall quality of the evaluation:

The observer is of the opinion that the evaluation was conducted in a fair, transparent and open way and that each proposal received adequate and equal treatment, according to the

defined rules and procedures. The overall quality of the evaluation process was excellent, thanks to the contribution of all involved parties (experts and S2R staff)

The evaluators were selected primarily on the basis of their expertise and have now become familiar with the Horizon 2020 programme and were extensively and repeatedly briefed about the specificities of the S2R JU call.

The observer participated in the central phase of the evaluation process, was welcomed to attend any consensus meetings he wished to attend, and free to discuss with any evaluator and S2R staff at any time during local evaluations.

The S2R staff involved in the evaluation, showed full compliance with the established rules and procedures, and demonstrated their commitment for continuous improvement of the evaluation process. Their permanent support, guidance, professionalism, transparency, and availability contributed greatly to the successful, smooth and efficient running of the evaluation process.

The observer believes that the use of dedicated recorders is also a contributing factor to the quality of the evaluation process. They provide valuable support to the consensus panel moderators and to the experts in terms of efficiency and report quality checks.

In conclusion, the whole evaluation process was conducted by expert evaluators, and S2R staff with the highest professional and quality standards and in accordance with the applicable rules and guidelines. The observer is of the opinion that the evaluation was conducted in a fair, transparent and open way and that each proposal received adequate and equal treatment.

Other remarks

- quality of the documentation provided to experts beforehand

The experts were provided with high quality documentation covering all aspects of the evaluation process. The observer had access to the web-briefings, power point briefing presentations, guides, and additional information which was provided by mail to the experts and is satisfied that the documentation provided was of high quality, explaining in detail all the aspects and critical points of the evaluation process.

Although the briefing material contains some guiding information on how to write (or what to write and what not to write) in IERs the observer would like to suggest that it would be beneficial, especially for the benefit of first-time evaluators, to have a more comprehensive guide "useful tips for drafting reports" in order to have a better uniformity in the format, content and length of both IERs and CRs.

- quality of the on-site briefing session

A comprehensive briefing was delivered to the experts on the morning of the first day of the local evaluation session in Brussels, explaining in detail the purpose, sequence, rules and content of the consensus and panel meetings, with the actors involved and the roles of each participant. This is an important and very useful moment, especially for first-time evaluators.

The briefing explained in detail the purpose and conduct of the remaining phases of the process (consensus and panel phases). During this general briefing all important and practical issues of the evaluation procedure were addressed, as well as logistical aspects such as access to the building, security measures (the alert level was yellow at the time of the local evaluation and specific security measures were in force for accessing the building). This briefing session was well organized and the information provided was clear and comprehensive.

The general briefing provides also an opportunity for experts to raise questions and seek clarifications.

- the understanding by experts of the call (context, topics), of the evaluation process and their role and of the award criteria and scoring scheme

The observer believes all experts are perfectly aware of and understanding the award criteria. They extensively refer to the score interpretation tables displayed in every meeting room. They all seem to know very well the call and the topics they are discussing. All experts were clearly briefed about the evaluation methodology beforehand and they all had a good understanding of what was expected from them.

The need to avoid recommending any substantial change to the proposal in the context of the "no negotiation" principle, which is a real novelty compared to the previous programme FP7, was well understood by evaluators. This was clearly addressed in the briefings and also by the moderators during consensus meetings, if needed, and the word "Improvement" has now been banned from the score interpretation table displayed in every consensus room.

Other important aspects well understood by evaluators were the need to avoid penalizing twice (or rewarding twice) a proposal for the same reason under two different criteria, to pay attention to the wording of the consensus report in order to avoid encouraging claims for redress, and the required consistency of the comments with the scores.

- the allocation of experts to proposals: balance (gender, geographic, sector), relevance and balance of expertise, ...

Clearly experts were selected primarily on the basis of their expertise.

It was noted that there were 28 experts of which just over 21 % were women. Around 33% had not been involved in earlier evaluations pertaining to the Horizon 2020 Programme. Experts were of 14 different nationalities, the largest number (about 1/3) coming from UK and Italy.

Experts were from a wide range of organisations, half of them coming from consultancy firms or high education organisations and 16% coming from the non-research commercial sector (including SMEs)

- the process of the individual evaluations and the actors involved

From following at 2 to 3 days' intervals the progress of the individual evaluations, the observer noted (as it was already the case in earlier evaluations in which the observer was

involved) a relatively slow start and an acceleration of the IER production towards the end of the allocated period, which is probably an indication that experts do not submit their IERs until they have had the chance to check their own assessment over several proposals, a good practice in principle but which gives the (false) impression of a slow start and a rush towards the end of the period.

- **the process of the consensus meetings and the actors involved**

Consensus meetings were performed locally in Brussels. There is a large commonality in conducting consensus meetings with however some differences in behaviour depending on the human aspects of the moderator and/or the experts and/or the recorder. Some moderators are really managing actively the consensus meetings where as other are less pro-active and have a tendency to either let the discussion between experts continue for too long. The observer believes it is the responsibility of the moderator to act as a time keeper. The observer believes that these small differences in conducting the consensus meetings are within the flexibility margins allowed by the rules and do not have any impact on the outcome of the evaluation.

The observer would like to suggest that it is also the responsibility of the moderator to avoid situations where 2 experts are having aparté bilateral discussions on side issues while the consensus debate is progressing between all other experts. These apartés create sometimes a background noise which can be very disturbing (irritating!) for the recorder and the other experts and may generate delays in the planning

- **criteria and scoring scheme: appropriateness, completeness, relevance, clarity, consistency in application, ...**

The 3 main criteria are basically the same as they were in FP7, with however new set of sub criteria (specific to the action type: IA, RIA or CSA) to reflect policy priorities of Horizon 2020. The current criteria are believed to be a simple and robust set which all stakeholders familiar with FP7 are used to work with. The 3 criteria are rather independent from each other, they do not overlap and therefore the number of situations where comments could apply to 2 different criteria is thus minimized, and hence it makes it easier for evaluators not to penalize (or reward) twice a proposal for the same negative (or positive) comment.

There were no specific difficulties expressed by evaluators in understanding the scoring system, the significance of thresholds, the need of “commenting before scoring”, or the need to have scores matching the comments. The score interpretation table was displayed in every panel meeting room and extensively looked at by evaluators when it comes to grading a proposal against a set of comments.

It might be worth however to clarify the interpretation of the words “shortcomings” and “weaknesses” in order to have a uniform understanding of these words. Also experts should be more strongly encouraged to utilize the full range of scores: this may reduce the occurrence of equal score situations

- **final panel meeting and the actors involved**

Each topic had its own budget and all proposals pertaining to any given topic (1 proposal for each CFM topic and from 1 to 7 proposals for OC topics) were evaluated within the same panel. As a result of this particular situation there was no need for formal final panel meetings to rank proposals and separate equal score proposals. All these activities could be covered within each consensus panel, and there was no need for cross reading and calibrating

proposals between panels. There was no situation of minority views to be resolved which was brought to the attention of the observer.

- **hearings (if any) and the actors involved**

Not applicable

- **occurrence and handling of specific issues (if any) such as conflicts of interest**

Conflicts of interest situations observed by the observer were very rare. Most of them were detected at an early stage in the evaluation process. The remaining ones were properly handled by excluding the concerned expert from discussing the proposal in question.

- **quality of evaluation summary reports**

All participants are made aware from the start of the process of the importance of producing high quality ESR in order to ensure a fair and useful return to the applicants and avoid opening the door for filing complaints.

The evaluation summary report quality is generally very high. At the consensus stage the use of dedicated rapporteur with good writing skills ensures a good quality level of the reports. The moderators act also as quality checkers to improve, if needed, the quality of the final version of the report which will become the ESR.

The ESR is finally quality checked again within the S2R team before being sent to the applicants.

Reports, are therefore of high quality.

- **overall conduct of staff: responsiveness, hospitality, competence, ...**

Throughout the whole evaluation period the professionalism and friendly support of all S2R staff, and all personnel directly involved in the evaluation was outstanding. The support from the secretariat facilitated substantially the smooth implementation of all evaluation phases. All personnel involved in the evaluation were very helpful for the experts and the observer. They responded to all requests in an efficient and cordial manner. The observer was free to attend any meeting, to talk to any expert. Whenever there were questions from the observer, there was no reluctance from the personnel nor from experts to respond.

- **infrastructure and working conditions for evaluators**

The infrastructure and working conditions for the experts (and the observer) were excellent from the arrival of experts at the reception desk of Covent Garden until their departure at the end of the local evaluation week. All reception and registration procedures of experts were organised in the usual very professional and friendly way and in line with the EC security measures prevailing on that week (Yellow alert level)

The observer was given an office and a schedule of all meetings. Panel secretaries were placed near the experts. The secretaries were always ready to help the experts and the observer

- workload and time given to evaluators for their work, (remotely and/or on-site, as applicable)

The observer is of the opinion that the allocated 1-month period was sufficient to perform individual remote evaluation for all experts and all proposals (about 6 proposals per expert, on average).

The same applies for the onsite consensus phase: the number of proposals per panel ranged from 7 (for INTEL panel) to 14 (for SMART panel). One week was sufficient although it is recognised that 14 CRs within a week may possibly be an upper limit. No complaint was heard by the observer about the workload.

- remuneration of evaluators (in relation to workload)

There was no specific comment made by experts related to the remuneration in relation to the workload for this particular call, although it is a relatively frequent remark from experts that the daily remuneration has not been updated for years and that they would like to be allocated more time per proposal at the individual evaluation stage.

4. Recommendations

On the basis of the observations made primarily during the local evaluation in Brussels, the observer would like to submit the following ideas

- the concept of a dedicated rapporteur (or recorder) is to be continued as it contributes to the quality and the efficiency of the evaluation. The selection of these rapporteurs should be carefully made on the basis of their writing skills, their general knowledge of the subjects covered by the topics, and their ability to capture the agreed opinion of the experts without becoming unduly involved in the debate (as an additional evaluator)
- some effort should be put into harmonizing the language between all parts of Horizon 2020: for example, it should be decided once and for all to use the word “rapporteur” or “recorder” but not both. The same goes with “subtopics” and “work streams”
- Moderators should be briefed about being good time keepers during consensus meetings and avoiding also that separate bilateral *aparté* on side issues are taking place during these meetings
- Consideration should be given to preparing guidelines on “writing tips for report drafting” in order to further harmonize the reports in terms of content, length and style.
- Consideration should be given also to involve dedicated “quality checkers” for ensuring quality, homogeneity and coherence in the reports. This practice has been introduced by other bodies involved in Horizon 2020 (such as INEA as an example) and as long as quality checkers do not become a bottleneck in the evaluation process and are clearly briefed about their specific role (compared to the role of moderators, rapporteurs and evaluators) this concept may contribute significantly to the quality of the CRs and ESRs

In closing the observer would like to express his view that the evaluation process was conducted thoroughly and very professionally by all participants throughout the complete sequence and all phases of the process. Judging only from the procedural aspects (which is the remit of his mandate) the observer is convinced that all proposals received adequate, fair and equal treatment. The outcome of the exercise is a set of ranked lists of projects where the very best ones have been identified and will be funded within the budget limits.

The observer would also like to express his thanks and gratitude to all staff of the S2R team involved in the evaluation agency, especially the call coordinator Alexandra Gurau, and all her colleagues involved in the evaluation for making his observer work possible without any restriction and for their permanent support throughout all stages of the work. This support and the secretarial assistance were outstanding and contributed greatly to making the evaluation not only a smooth but also a very enjoyable exercise.

Jo Prieur

Observer