

S2R Coordinators' Info Day Call 2020 OC & CFM

2 March 2021

1 - Introduction

Projects 2020 Overview - CFM

TOPIC	GA number	ACRONYM	COORDINATOR	COORDINATORS' CONTACTS	PROJECT OFFICER	COMPLEMENTARITY
S2R-CFM-IP1-01-2020	101014935	PINTA-3	Laurent Nicod	laurent.nicod@alstomgroup.com	Javier Ibáñez de Yrigoyen	RECET4RAIL
						PIVOT2
						FINE-2
						LinX4Rail
						FR8RAIL-2
						FR8HUB
S2R-CFM-IP1-02-2020	101014811	CONNECTA-3	Dr Igor Lopez	igor.lopez@caf.net	Javier Ibáñez de Yrigoyen	Safe4Rail-3
						X2RAIL-4
						FR8RAIL IV
						CONNECTA-2
						LinX4Rail
						LINX4RAIL-2
S2R-CFM-IP2-01-2020	101014520	X2RAIL-5	Dr Michael Meyer zu Hörste	Michael.MeyerzuHoerste@dlr.de	Léa Paties	CONNECTA-3
						PERFORMINGRAIL
						AB4RAIL
						FR8RAIL IV
						LINX4RAIL
						LINX4RAIL-2
						X2RAIL-4
						X2RAIL-3
S2R-CFM-IP3-01-2020	101012456	IN2TRACK-3	Pernilla Edlund	pernilla.edlund@trafikverket.se	Sébastien DENIS	CONNECTA-2
						LINX4RAIL
						LINX4RAIL-2
						IN2ZONE
S2R-CFM-IP4-01-2020	101015462	EXTENSIVE	Dr Souheir Mili	souheir.mili@csgroup.eu	Esther Bravo	IN2SMART2
						IN2TRACK-2
						IP4MAAS
						LINX4RAIL
						LINX4RAIL-2
						MAASIVE
						CONNECTIVE
COHESIVE						

Projects 2020 Overview - CFM

TOPIC	GA number	ACRONYM	COORDINATOR	COORDINATORS' CONTACTS	PROJECT OFFICER	COMPLEMENTARITY
S2R-CFM-IP5-01-2020	101004051	FR8RAIL IV	Dr Arne Henning	Arne.Henning@dlr.de	Manuel Alarcon Espinosa	CONNECTA-3
						X2RAIL-5
						X2RAIL-4
						FR8RAIL III
						LINX4RAIL
						LINX4RAIL-2
						X2RAIL-3
S2R-CFM-IPX-01-2020	101014984	TAURO	Javier Goikoetxea	jgoikoetxea@caf.net	Gorazd Marinic	FR8RAIL II
						CONNECTA-3
						X2RAIL-5
						FR8RAIL IV
						X2RAIL-4
						LINX4RAIL
S2R-CFM-IPX and CCA-02-2020	101014540	LINX4RAIL-2	Pierre-Etienne Gautier	pierre-etienne.gautier@reseau.sncf.fr	Gorazd Marinic	LINX4RAIL-2
						CONNECTA-3
						X2RAIL-5
						EXTENSIVE
						FR8RAIL IV
						TAURO
						LINX4RAIL
						X2RAIL-4
						X2RAIL-3
						FR8RAIL II
CONNECTA-2						

Projects 2020 Overview - OC

TOPIC	GA number	ACRONYM	COORDINATOR	COORDINATORS' CONTACTS	PROJECT OFFICER	COMPLEMENTARITY
S2R-OC -IP1-01-2020	101015423	RECET4Rail	Marta Garcia	marta.garcia@unife.org	Javier Ibáñez de Yrigoyen	PINTA-3
						IMPACT-2
S2R-OC-IP1-02-2020	101015405	Safe4Rail-3	Jose Bertolin	jose.bertolin@unife.org	Gorazd Marinic	CONNECTA-3
S2R-OC-IP1-03-2020	101013296	Gearbodies	Celestino Sánchez	cesama@urnex.eu	Javier Ibáñez de Yrigoyen	PIVOT2
S2R-OC-IP2-01-2020	101015416	PERFORMINGRAIL	Dr Lei Chen	L.Chen.3@bham.ac.uk	Léa Paties	X2RAIL-5
						X2RAIL-3
S2R-OC-IP2-02-2020	101014517	AB4RAIL	Prof Alessandro Neri	presidenza@radiolabs.it	Gorazd Marinic	X2RAIL-5
S2R-OC-IP3-01-2020	101014571	IN2ZONE	Dr David Connolly	D.Connolly@leeds.ac.uk	Sébastien DENIS	IN2TRACK-2
						IN2TRACK-3
S2R-OC-IP3-02-2020	101008913	DAYDREAMS	Stefanos Gogos	stefanos.gogos@unife.org	Sébastien DENIS	IN2SMART2
S2R-OC-IP3-03-2020	101015418	STREAM	Dr Christian Di Natali	Christian.DiNatali@iit.it	Manuel Alarcon Espinosa	IN2SMART2
S2R-OC-IP4-01-2020	101015492	IP4MAAS	Giuseppe Rizzi	giuseppe.rizzi@uitp.org	Esther Bravo	EXTENSIVE
						CONNECTIVE
						COHESIVE
S2R-OC-CCA -01-2020	101015442	SILVARSTAR	Pascal Bouvet	pascal.bouvet@vibratec.fr	Judit Sandor	FINE-2
S2R-OC-IPX-01-2020	101015145	HYPERNEX	Prof Maria Luisa Martinez Muneta	luisa.mtzmuneta@upm.es	Monique van Wortel	N/a

What is S2R

A public-private partnership, a platform for the rail sector as a whole to work together to drive innovation in the years to come until 2024

The S2R Joint Undertaking has been created in June 2014 to play a major role in rail-related research and innovation, ensuring coordination among projects and providing all stakeholders with relevant and available information on projects funded across Europe. It shall also manage all rail- focused research and innovation actions co-funded by the Union

Council Regulation (EU) No 642/2014 of 16 June 2014 (S2R Regulation)

- It has been tasked by the Union “to establish and develop a strategic Master Plan”, which encompassed rail R&I until 2030, it reached autonomy in May 2016 and it is now fully operational

S2R OBJECTIVES



INCREASE RELIABILITY & PUNCTUALITY BY 50%



DOUBLE RAILWAY CAPACITY



HALVE LIFE-CYCLE COSTS OF RAILWAY TRANSPORTS



CONTRIBUTE TO REDUCTION OF NEGATIVE EXTERNALITIES, SUCH AS NOISE, VIBRATIONS, EMISSIONS & OTHER ENVIRONMENTAL IMPACTS



CONTRIBUTE TO THE ACHIEVEMENT OF THE SINGLE EUROPEAN RAILWAY AREA

S2R PROGRAMME:

About € 1BLN and a new approach to R&I in railway.

WORKING TOGETHER AND DRIVING INNOVATION



28
MEMBERS



493
PARTICIPANTS



29
COUNTRIES



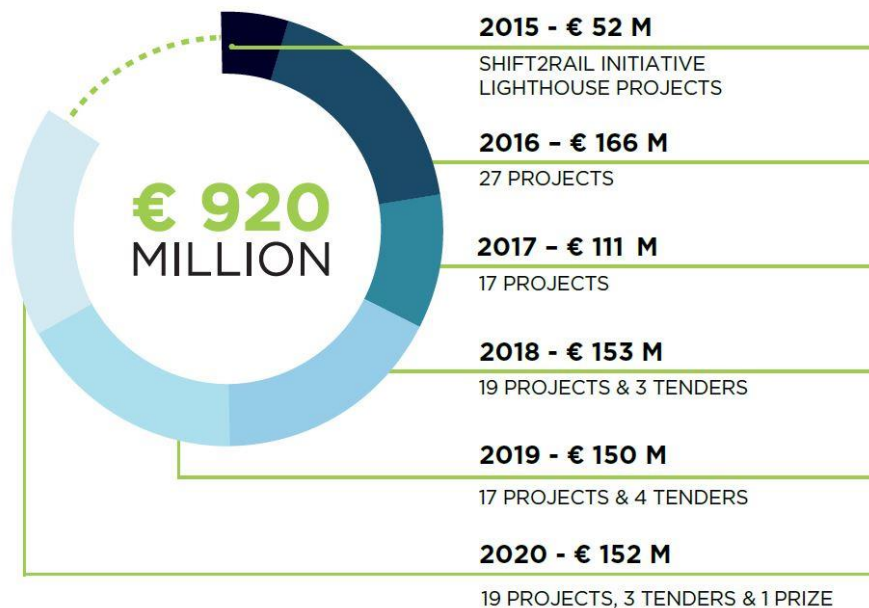
127
SMEs



128
RESEARCH CENTRES
AND UNIVERSITIES

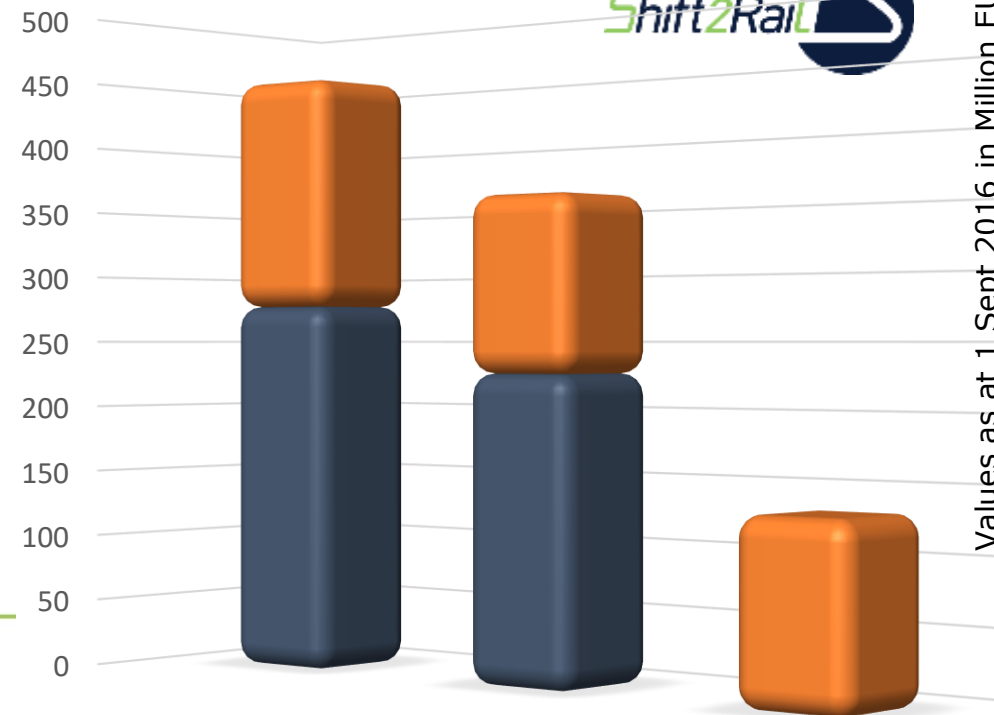
*Data extracted from CORDA database in August 2020

AN OPEN and ACTIVE ORGANISATION



**As per AWP/award

*incl. at least 120M€ of additional activities

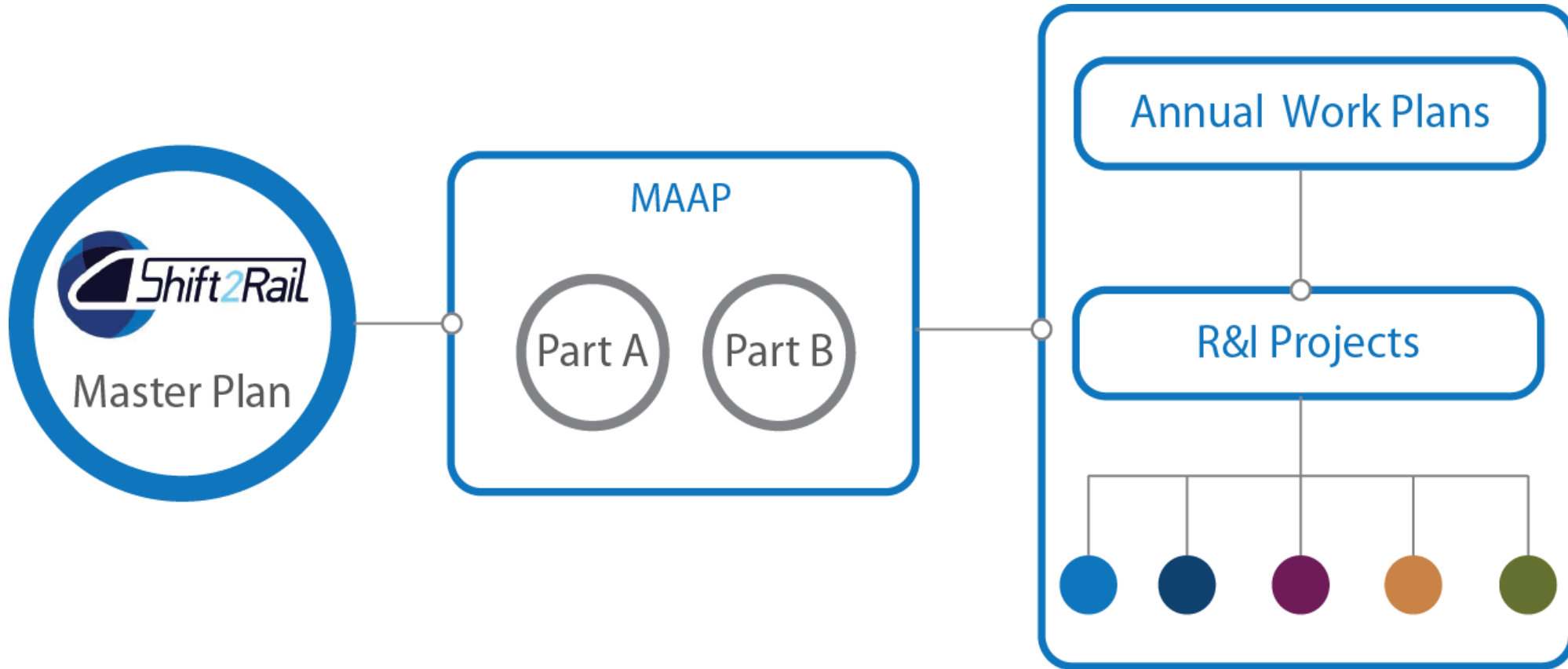


8 Founding Members

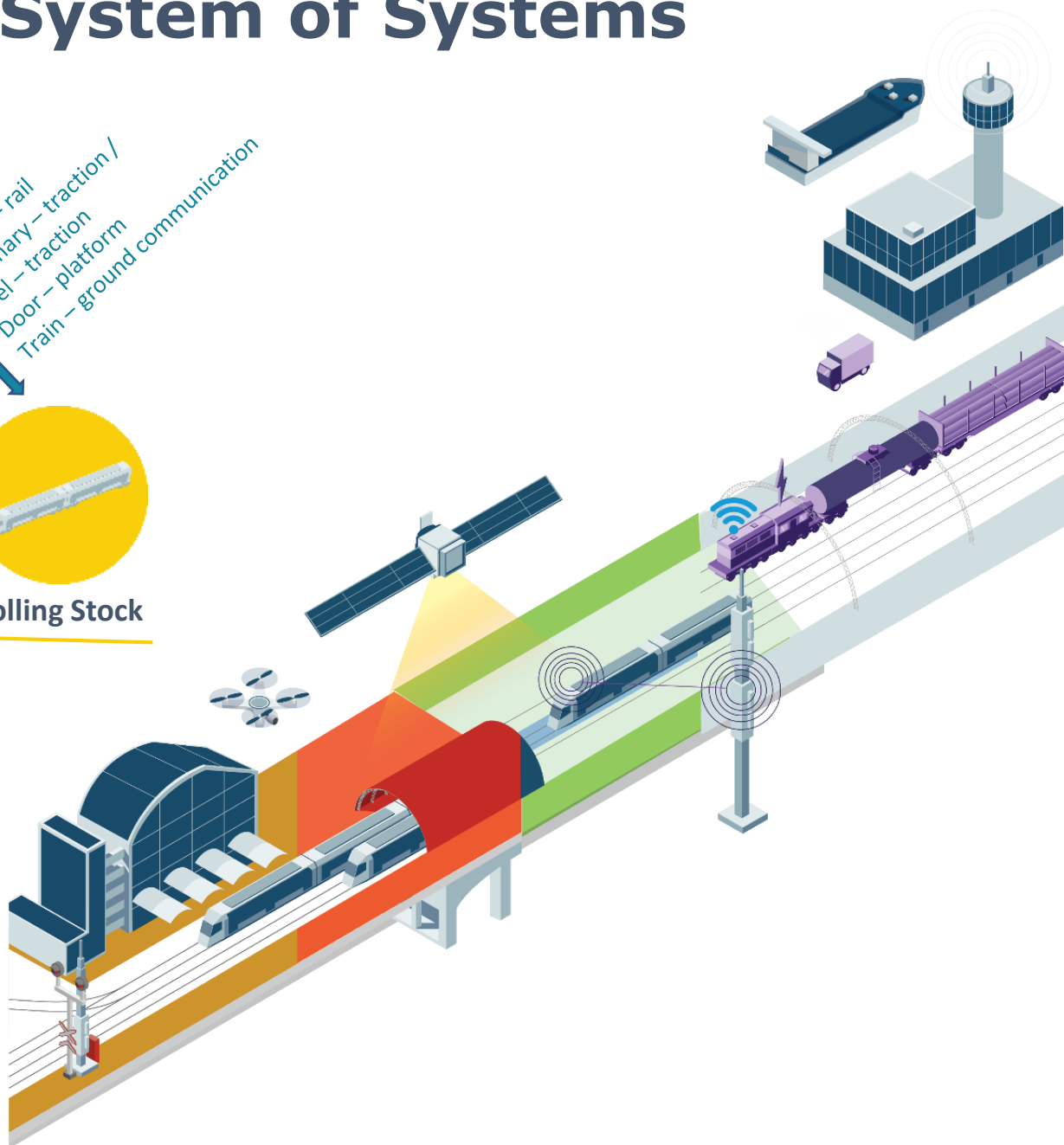
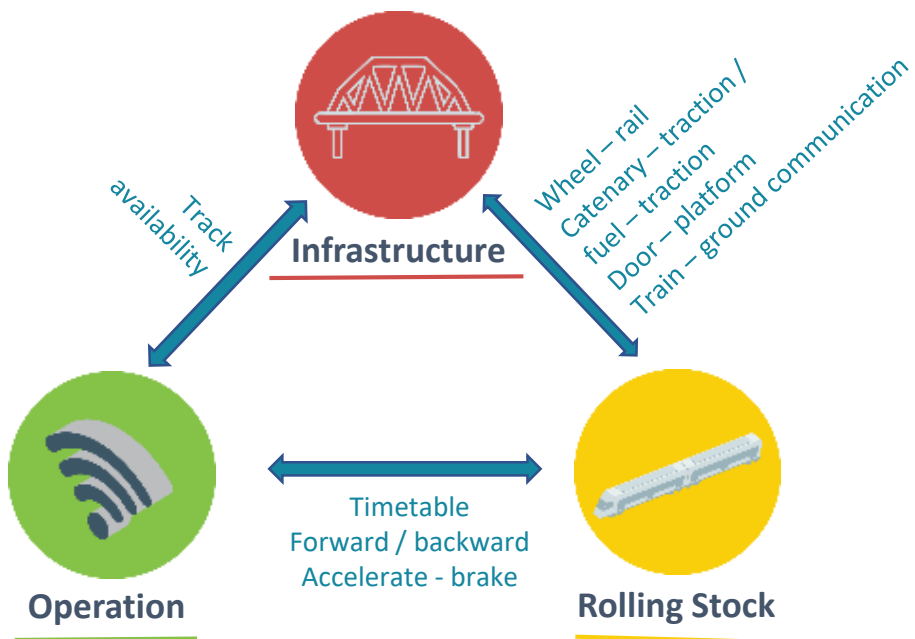
19 Associated Members

Open Calls

Values as at 1 Sept 2016 in Million EUR



Railway - System of Systems



IP1 Cost-efficient and Reliable Trains, including high-capacity trains and high speed trains

IP2 Advanced Traffic Management and Control System

IP3 Cost-efficient, Sustainable and Reliable High Capacity Infrastructure

IP4 IT Solutions for Attractive Railways Services

IP5 Technology for Sustainable and Attractive European Rail Freight

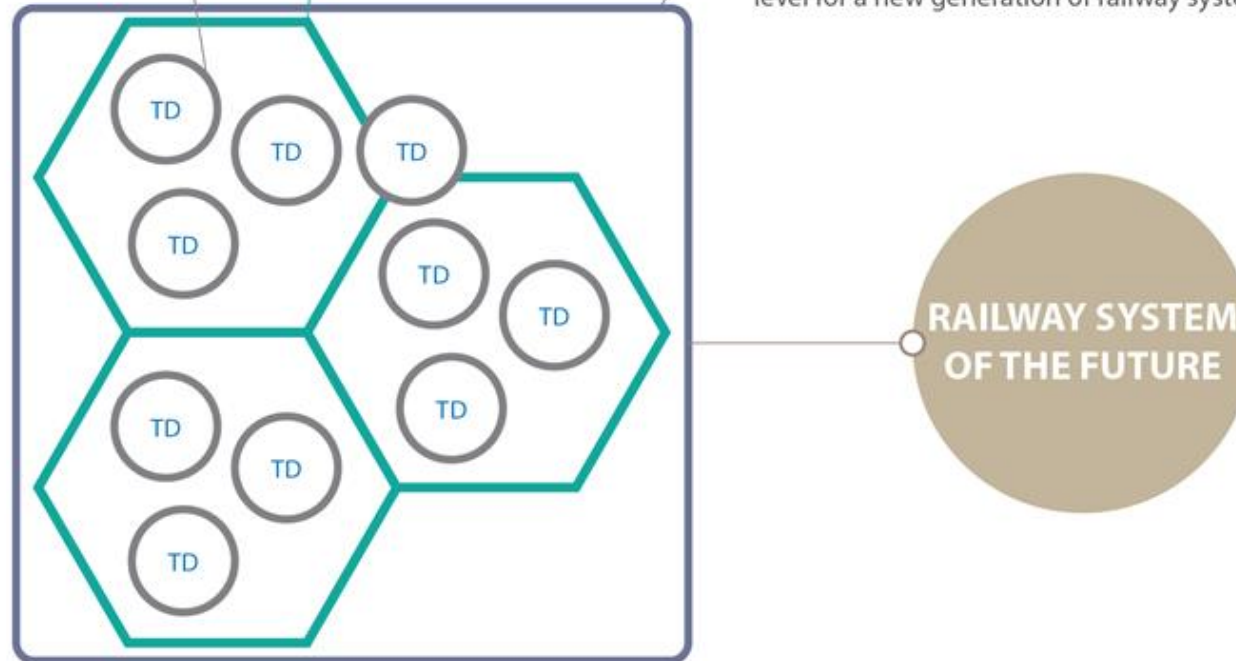
CCA Cross Cutting Activities

From TRL0 to TRL6/7

Technology Demonstrator (TDs)
Projects specifying, developing and demonstrating a specific technology resulting in a lab tested and/or simulated prototype

Integrated Technology Demonstrators (ITDs)
Projects integrating/combining TD prototypes at system level (lab and on-site) and testing performance

System Platform Demonstrators (SPDs)
Assessment of the whole systems performance based on the results of TDs and ITDs. SPDs bring S2R innovative solutions to a technology maturity level for a new generation of railway system

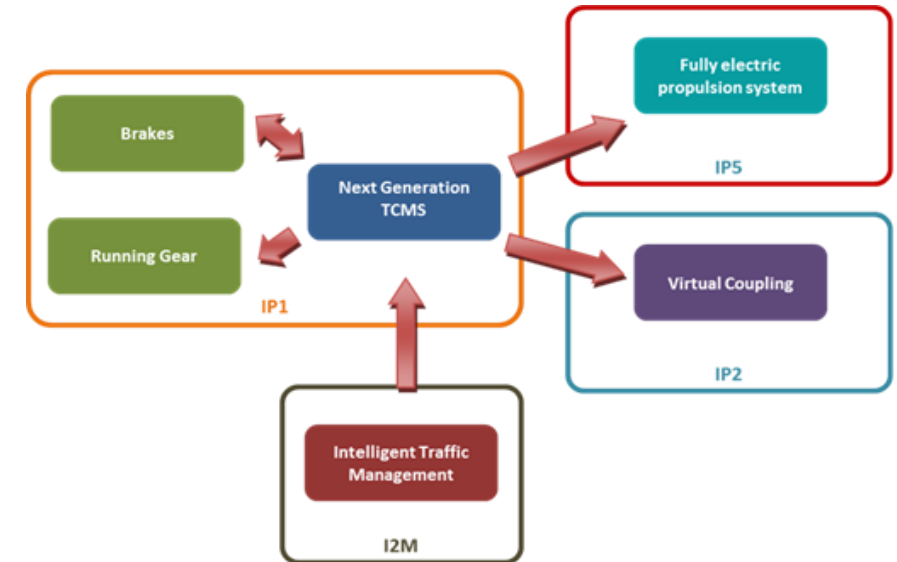


Example of a Technology Demonstrator

Final Demos of TD 1.2 TCMS :

Research Area	Specific Techn. objective	Specification Activities	Demonstrator		Focus of activity
			Market	TRL	
Train Control & Monit. System	Wireless TCMS	Radio techn., architecture and protocols	Metro Regional	6/7 6/7	Incorporate wireless technologies to the train communication network solutions (i.e. train backbone, consist network and train to ground communication).
	Drive-by-data	Architecture, protocols	Metro Regional	6/7 5	Provide a train-wide communication network for full TCMS support including the replacement of train lines, connecting safety functions up to SIL4 (incl. signalling).
	Functional distribution architecture	Specification, architecture and interface definition	Metro	6/7	New architectural concept based on standard framework & application profiles, distributed computing to allow execution of compliant functions on end devices distributed along the vehicle meeting different safety & integrity requirements
			Regional	5 6/7	
Virtual Placing on the Market	Technology definition, protocols and procedures	Generic	6/7	Standardised simulation framework in which all subsystems of the train will be simulated, allowing remote and distributed testing including hardware in-the-loop through heterogeneous communication networks.	

Interaction with other TDs and IPs:



Planning (budget estimated at 48,8M€):

TASKS	TRL	2015	2016	2017	2018	2019	2020	2021
TD1.2 TCMS								
1.2.0 General specification	-							
1.2.1 Wireless TCMS	6/7							
1.2.2 Drive-by-data	6/7							
1.2.3 Functional distribution architect.	6/7							
1.2.4 Virtual placing on the market	5							
1.2.5 Integration, demo & assessment	6/7							
1.2.6 Technical coordination	-							

2 – Programme progress and relation with current call activities

TD1.1 Traction Systems demonstrator								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Roll2Rail, PINTA				Ongoing: PINTA2, PINTA3, RECET4Rail				

TD1.2 Train Control and Monitoring System Demonstrator								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Roll2Rail, CONNECTA, SAFE4RAIL				Ongoing: CONNECTA-2, SAFE4RAIL-2, CONNECTA-3, SAFE4RAIL-3				

TD1.3 Carbody Shell Demonstrator								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Roll2Rail, Mat4Rail, PIVOT					Ongoing: CARBODIN, PIVOT2, Gearbodies			

TD1.4 Running Gear Demonstrator								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Roll2Rail, Run2Rail, PIVOT					Ongoing: PIVOT2, NEXTGEAR, Gearbodies			

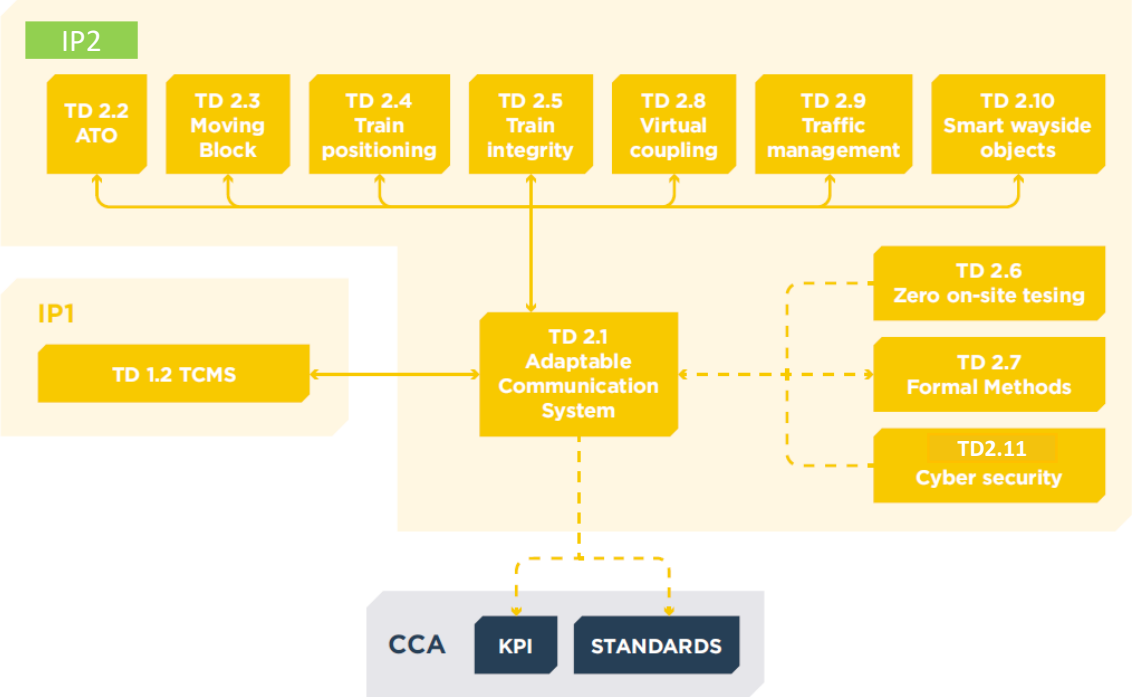
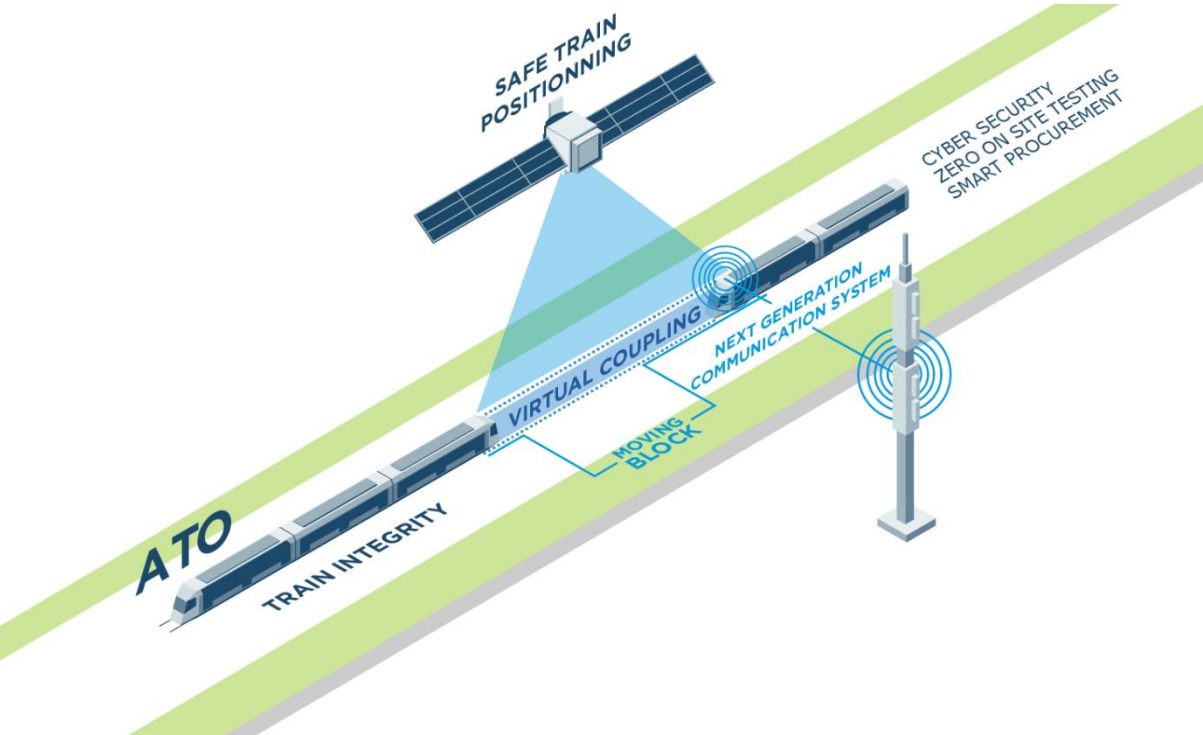
TD1.5 Brake Systems Demonstrator								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Roll2Rail, CONNECTA, PINTA, SAFE4RAIL, PIVOT				Ongoing: PINTA2, PIVOT2				

TD1.6: Doors and Access Systems Demonstrator								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Mat4Rail, PIVOT				Ongoing: PIVOT2, CARBODIN				

TD1.7: Train Modularity In Use (TMIU)								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Roll2Rail, Mat4Rail, PIVOT				Ongoing: PIVOT2, CARBODIN				

TD1.8: HVAC								
2015	2016	2017	2018	2019	2020	2021	2022	2023
					Ongoing: PIVOT2, PINTA3			

IP2: Advanced Traffic Management and Control System



TD2.1: Adaptable communications for all railways (quality of service, interfaces to signalling)								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: MISTRAL, EMULRADIO4RAIL						
		Ongoing: X2Rail-1, X2Rail-3, AB4Rail, X2Rail-5						

TD2.2: Railway network capacity increase (ATO up to GoA4 – UTO)								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: ASTRail						
		Ongoing: X2Rail-1, X2Rail-4						

TD2.3 Moving Block								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: ASTRail, MOVINGRAIL						
		Ongoing: X2Rail-1, X2Rail-3, PERFORMINGRAIL						

TD2.4: Fail-Safe Train Positioning (including satellite technology)								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: ASTRail						
		Ongoing: X2Rail-2, GATE4Rail, PERFORMINGRAIL						

TD2.5: On-board Train Integrity								
2015	2016	2017	2018	2019	2020	2021	2022	2023
			Finished: ETALON					
			Ongoing: X2Rail-2, X2Rail-4					

TD2.6: Zero on-site testing (control command in lab demonstrators)								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: VITE						
		Ongoing: X2Rail-1, X2Rail-3, GATE4Rail						

TD2.7: Formal methods and standardisation for smart signalling systems								
2015	2016	2017	2018	2019	2020	2021	2022	2023
			Finished: ASTRail					
			Ongoing: X2Rail-2, 4SECURAIL					

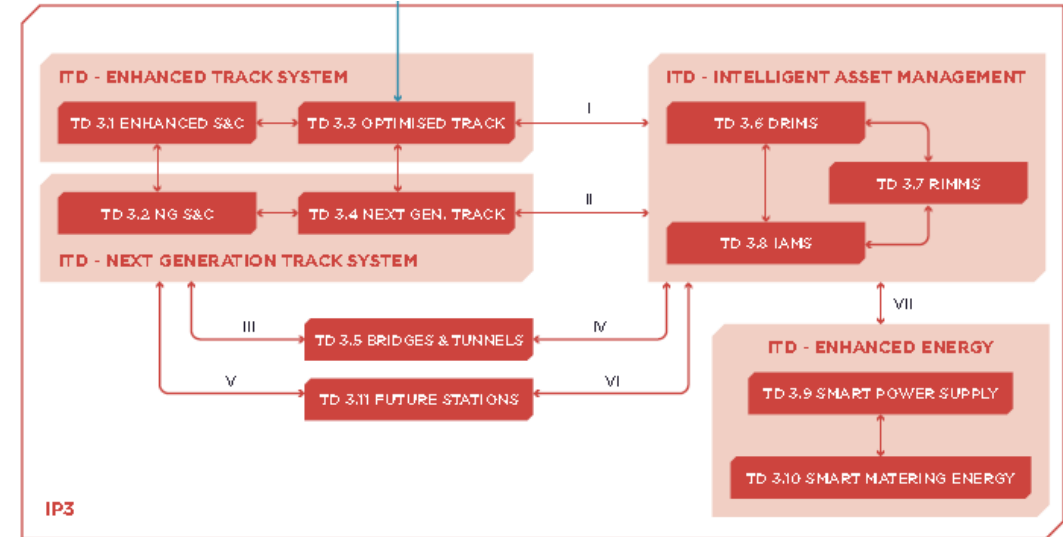
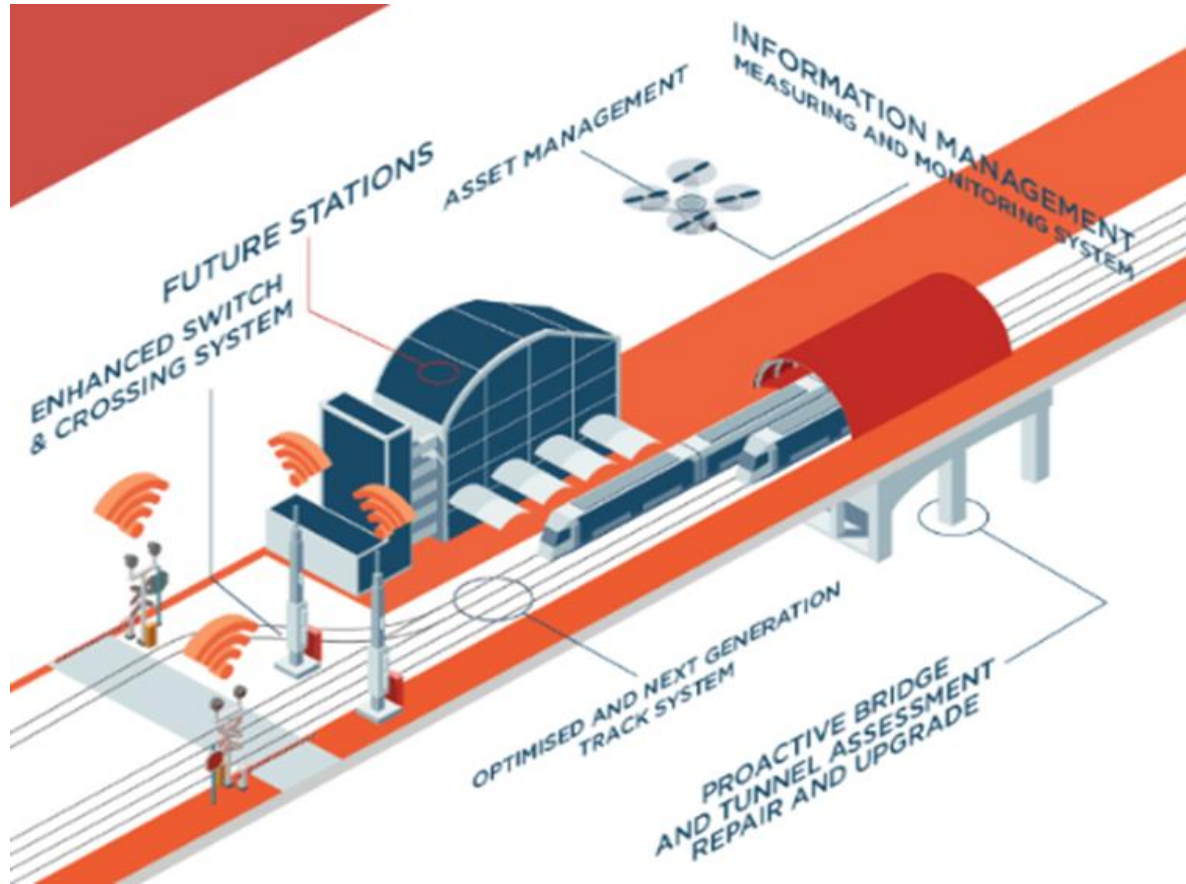
TD2.8: Virtually – Coupled Train Sets (VCTS)								
2015	2016	2017	2018	2019	2020	2021	2022	2023
				Finished: MOVINGRAIL				
				Ongoing: X2Rail-3				

TD2.9: Traffic management evolution									
2015	2016	2017	2018	2019	2020	2021	2022	2023	
			Ongoing: X2Rail-2, X2Rail-4, OPTIMA						

TD2.10: Smart radio-connected all-in-all wayside objects								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: ETALON						
		Ongoing: X2Rail-1, OPTIMA, X2Rail-4						

TD2.11: Cyber Security								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: CYRAIL						
		Ongoing: X2Rail-1, X2Rail-3, 4SECURAIL						

IP3: Cost-Efficient and Reliable High-Capacity Infrastructure



TD3.1 Enhanced Switch & Crossing System								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: In2Rail, IN2TRACK				Ongoing: IN2TRACK2				

TD3.2 Next Generation Switch & Crossing System								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: In2Rail, S-CODE				Ongoing: IN2TRACK2				

TD3.3 Optimised Track System								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: In2Rail, IN2TRACK				Ongoing: IN2TRACK2				

TD3.4 Next Generation Track System								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: In2Rail			Ongoing: IN2TRACK2, IN2ZONE					

TD3.5 Proactive Bridge and Tunnel Assessment, Repair and Upgrade								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: In2Rail, IN2TRACK				Ongoing: IN2TRACK2, Assets4Rail				

TD3.6 Dynamic Railway Information Management System (DRIMS)								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: IN2SMART, IN2DREAMS				Ongoing: IN2SMART2, DAYDREAMS				

TD3.7 Railway Integrated Measuring and Monitoring System (RIMMS)								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: In2Rail, IN2SMART, MOMIT				Ongoing: IN2SMART2, Assets4Rail				

TD3.8 Intelligent Asset Management Strategies (IAMS)								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: In2Rail, IN2SMART				Ongoing: IN2SMART2, STREAM				

TD3.9 Smart Power Supply								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: In2Rail				Ongoing: IN2STEMPO, FUNDRES				

TD3.10 Smart Metering for Railway Distributed Energy Resource Management System								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: In2Rail, In2Dreams				Ongoing: IN2STEMPO				

TD3.11 Future Stations								
2015	2016	2017	2018	2019	2020	2021	2022	2023
			Finished: FAIR Stations		Ongoing: In2Stempo			



IP4: IT Solutions for Attractive Railway Services

TD 4.1 Interoperability Framework								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: IT2RAIL, GOF4R, ST4RT				Ongoing: CONNECTIVE, SPRINT, RIDE2RAIL				

TD4.2 Travel Shopping								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: IT2RAIL, Co-Active				Ongoing: MaaSive, ExtenSive				

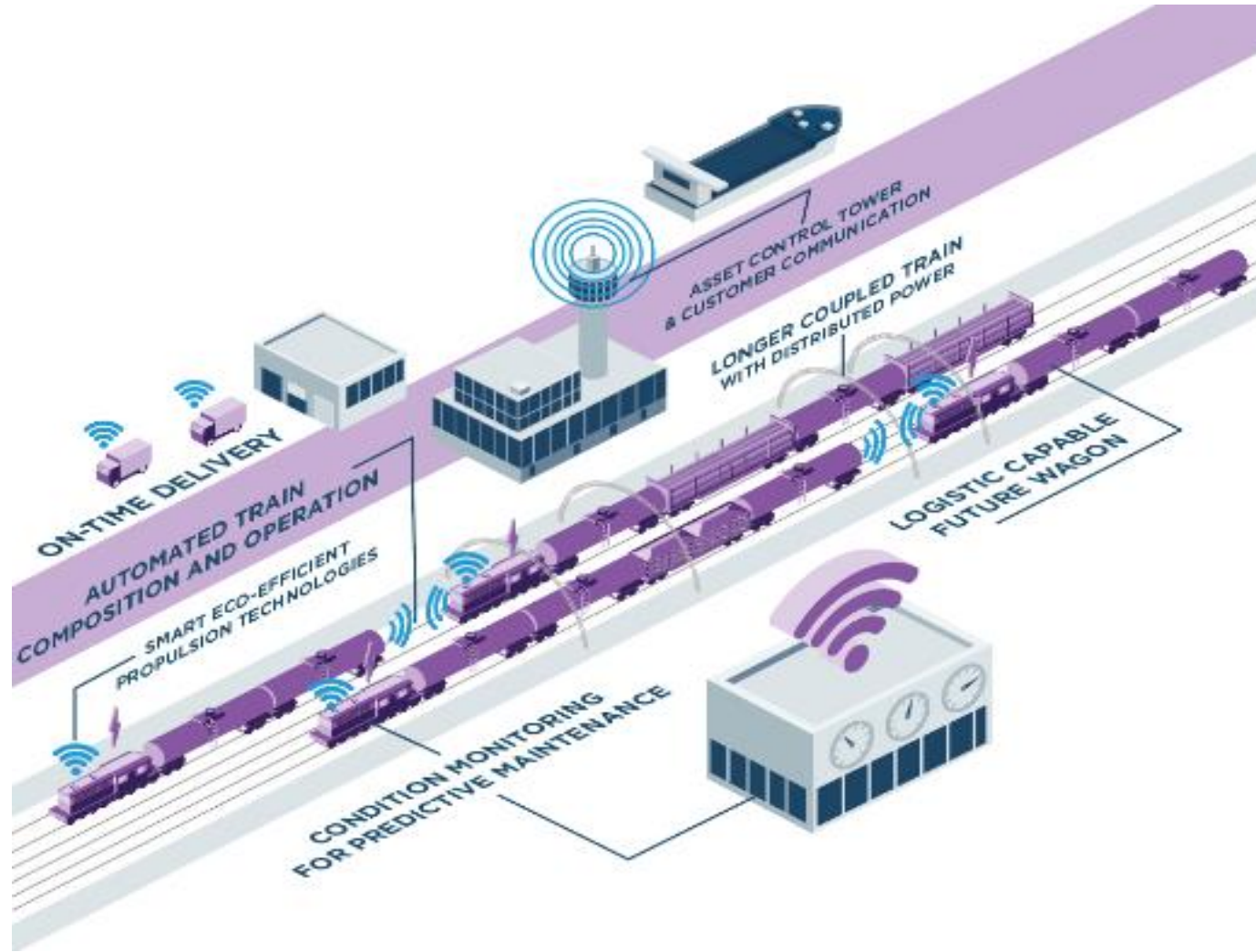
TD4.3 Booking and Ticketing								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: IT2RAIL, Co-Active				Ongoing: MaaSive, ExtenSive				

TD4.4 Trip Tracker								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: IT2RAIL, ATTRACTIVE, My-TRAC					Ongoing: MaaSive			

TD4.5 Travel Companion								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: IT2RAIL, ATTRACKTIVE, My-TRAC					Ongoing: MaaSive, RIDE2RAIL, ExtenSive			

TD4.6 Business Analytics								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: IT2RAIL			Ongoing: CONNECTIVE, ExtenSive					

iT4.7 Integrated Technical Demonstrator								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: IT2RAIL, Co-ACTIVE				Ongoing: Shift2MaaS, COHESIVE, RIDE2RAIL, MaaSive, ExtenSive, IP4MaaS				



IP5: Technologies for Sustainable & Attractive European Rail Freight

TD5.1 Fleet Digitalisation and Automation								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: SMART, FR8RAIL, INNOWAG, ARCC						
			Ongoing: FR8RAIL II, LOCATE, SMART2, FR8RAIL IV					

TD5.2 Digital Transport management								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: SMART, OPTIYARD						
			Ongoing: FR8HUB, ARCC, FR8RAIL II, FR8RAIL III					

TD5.3 Smart Freight Wagon Concepts								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: FR8RAIL, INNOWAG						
			Ongoing: FR8HUB, FR8RAIL II, FR8RAIL III, FR8RAIL IV					

TD 5.4 New Freight Propulsion Concepts								
2015	2016	2017	2018	2019	2020	2021	2022	2023
				Finished: DYNAFREIGHT, FFL4E, M2O				
			Ongoing: FR8HUB, FR8RAIL II, FR8RAIL III, FR8RAIL IV					

TD 5.5 – Business analytics and implementation strategies								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: SMART-RAIL, FR8RAIL, INNOWAG						
			Ongoing: FR8HUB					



Cross Cutting Activities (CCA)

WA1 Long-term needs and socio-economic research & SPD's								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: IMPACT-1, NEAR2050, OPEUS, TER4RAIL				Ongoing: IMPACT-2, FLEX-RAIL				

WA2 KPI method and integrated assessment								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Roll2Rail, IMPACT-1, SMaRTE, GOSAFERAIL				Ongoing: IMPACT-2				

WA3 Safety, Standardisation, Maintenance, Materials, Virtual Certification								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: PLASA, GoSAFE RAIL, SMaRTE, PLASA-2					Ongoing: IMPACT-2			

WA4 Smart Planning, I2M								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Roll2Rail, PLASA, GoSAFE RAIL, PLASA-2								
			Ongoing: IMPACT-2, FINE-2					

WA5 Energy and sustainability								
2015	2016	2017	2018	2019	2020	2021	2022	2023
Finished: Roll2Rail, DESTINATE, FINE 1, OPEUS								
					Ongoing: FINE-2, TRANSIT, SILVARSTAR			

WA6 Human Capital								
2015	2016	2017	2018	2019	2020	2021	2022	2023
		Finished: SMaRTE						
			Ongoing: IMPACT-2					

IPX - Blockchain and Artificial Intelligence								
2015	2016	2017	2018	2019	2020	2021	2022	2023
				Ongoing: B4CM, MVDC-ERS, RAILS, Translate4Rail				

IPX - System Architecture								
2015	2016	2017	2018	2019	2020	2021	2022	2023
				Ongoing: LinX4Rail, LinX4Rail-2				

IPX - Exploratory research and Disruptive Innovation								
2015	2016	2017	2018	2019	2020	2021	2022	2023
				Finished: TER4RAIL				
				Ongoing: FLEX-RAIL, HYPERNEX				

3 - Programme approach: complementarity concept + internal JU processes

Programme approach, future/current projects

- EACH PROJECT contributes to the **achievement of the Master Plan and the MAAP objectives**
- EACH PROJECT is part of a programme and **cooperation with other projects** must be ensured
 - Through the **collaboration and input to the JU Members**, EACH PROJECT will support the realization of **long-term S2R technological demonstrations or innovative break-through**
- Particular attention is given to ensure that there is **no duplication of work** between EACH PROJECT and current/future R&I activities
- EACH PROJECT results are taken into consideration for the next annual work plans to ensure sufficient **complementarity** and **coherence**

Complementarity & Collaboration Agreement

1. Complementary is **defined at topic level**
2. Complementarity between topics is **compulsory established in the Grant Agreement** (need for a Collaboration Agreement)
3. IP/CCA SteCos, high level synchronization points: Project Coordinators may attend the SteeCo meetings as observer and IP Coordinators cooperate with project coordinator to **foster/promote synergies**
4. S2R Programme Managers: Central Contact Point for both projects

Complementarity & Collaboration Agreement

Issues to be tackled in the Collaboration Agreement (COLA) (examples/non-exhaustive list)

- Rules for collaboration, “who does what?”; Point of Contacts etc.
- Handling review of documents
- Agreement on action to be performed by both sides + linked timing (e.g. project A provides “user requirements” by M6 to project B; project B provides input by M18 to project A → project A uses input for deliver their deliverable 2.3).
- Participation to restricted meetings (for specific purpose) or to public meetings (including Advisory Groups, etc...).

Collaboration Agreement

Tips/lessons learnt:

–COLA establish the relation between OC Projects with CFM Projects, to ensure **and results** and adequate dealing with **know-how** (if any) → **alignment**, agreement on **tasks, background** annexes should have meaningful content and ensure OC Projects duly provide to the CFM Projects input when so defined!

–**Start discussions with complementary project(s) as soon as possible**

- Anticipate as much as possible issues (timing discrepancy, possible duplication, etc...)
- Inform the S2R PM should any major difficulties encountered
- However... COLA's signature cannot be a barrier to collaborate!

–**Changes in your own project may be needed as a result:**

- assess the need for an amendment within the consortium
- Inform the S2R PM as soon as possible → JU assessment

IPRs Collaboration Agreement

1. Access rights to *background* to beneficiaries of complementary grants

According to article 25.5: The rules on access to background (including conditions and scope of access) are generally the same as for results. *However*, for background there is NO (or a more limited) obligation to give access, if there are restrictions or limits (legal or otherwise) and the beneficiary has informed the others — before acceding to the GA (or immediately when additional background is agreed on) – e.g. a pre-existing agreement (e.g. an exclusive licence) which precludes the granting of access rights.

2. Access rights to results to beneficiaries of complementary grants

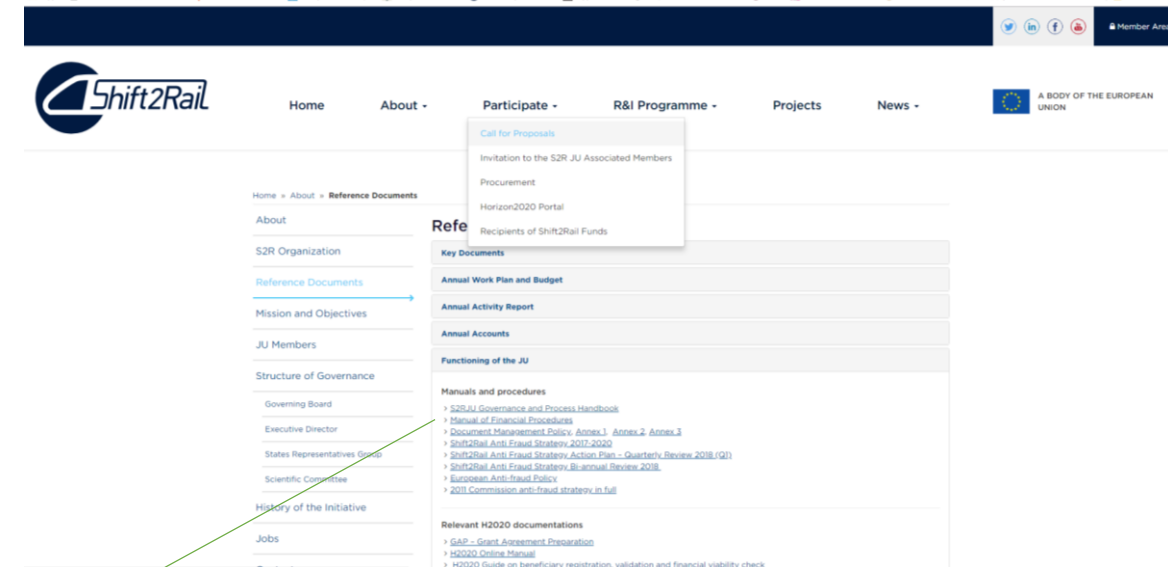
According to article 31.6: access rights to results must be granted to the beneficiaries of complementary.

Internal JU processes

Governance and process handbook
 (“PM Handbook”, available on the S2R website)

- The handbook defines and documents the Programme governance and relevant business processes, including relevant templates and guidelines.

→ Provides the Coordinator with useful reporting templates and guidelines (**deliverable template**, collaboration agreement, **technical report**, reporting to the SteCo, etc...)



https://shift2rail.org/wp-content/uploads/2020/06/S2RJU-Governance-and-Process-Handbook_20200127_v2.0.pdf

Internal JU processes

S2R
Projects
official
reporting

Technical reporting

Deliverables and Technical reports must be submitted in the appropriate template given in the PM handbook

Financial reporting

All project reporting must use the appropriate template

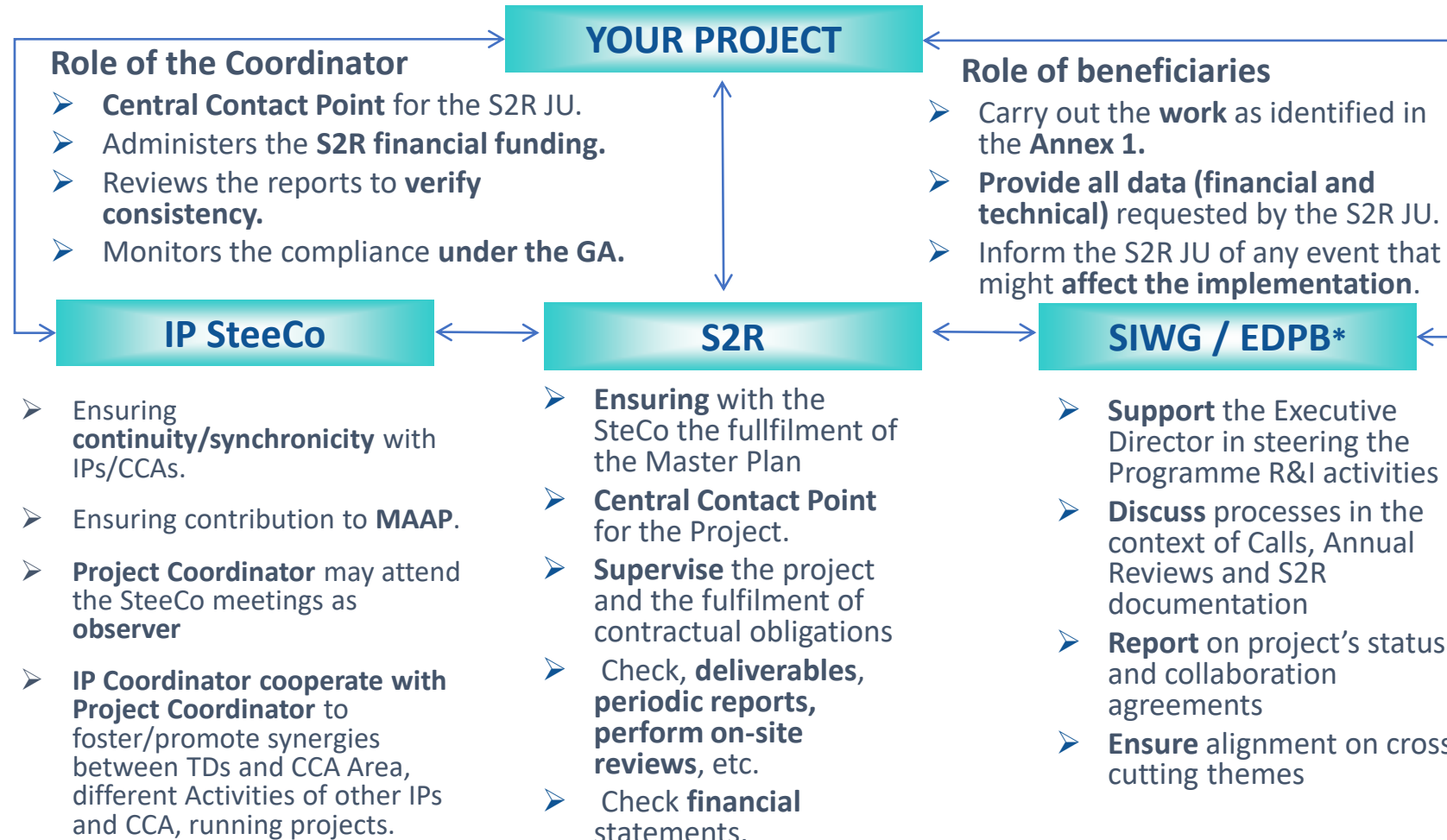
Project reporting to the Steering Committee

Each Committee meets every three months to handle disputes, propose possible budget re-allocations and check the implementation of detailed plans.

The project coordinators carry out the day-to-day project management, technical oversight and administration of the funded activities related to TDs and ITDs.

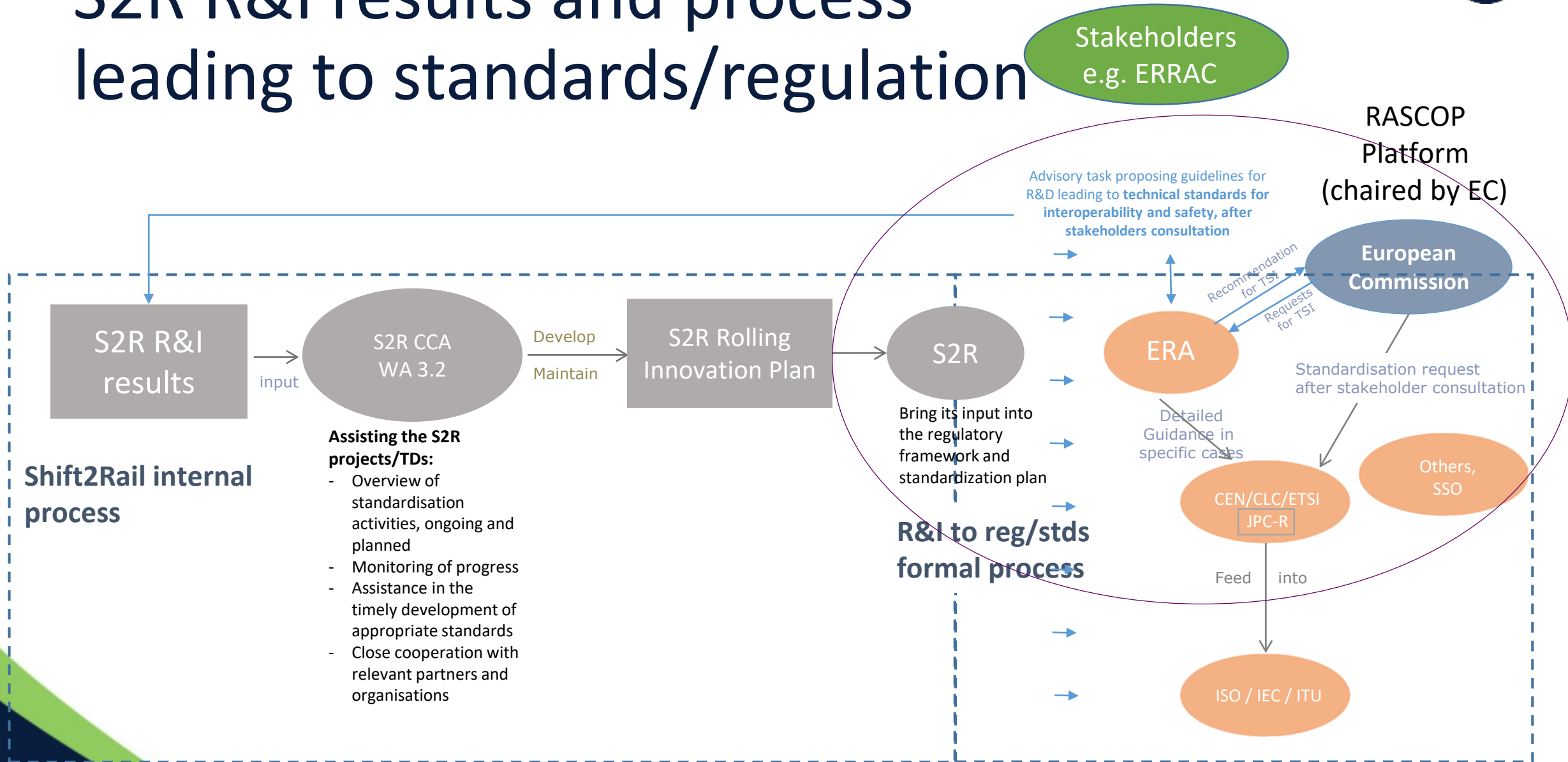
→ The project coordinators are expected to report to the SteCo the status of their project (using the appropriate template: *“Project reporting to the IP SteCo”*)

Interactions & roles



* Programme management setup / Change Management

S2R R&I results and process leading to standards/regulation



Projects results and process to standards / regulation

Relation with European Agency for Railways (ERA) relevant to the Projects:

To ensure that successful results do not encounter a regulatory blocking point because of their novelty, the S2R JU has defined with ERA and DG Move a process for collaboration at project level:

1. ERA could attend the evaluation of the call proposals as observer;
2. ERA will provide to the S2R JU the *“the level of desired involvement”* in those projects within the scope of its activities;
3. The S2R JU will discuss the involvement of ERA in the indicated projects with the relevant Project Coordinator to ensure their participation as appropriate. This should be defined during the Grant Agreement Preparation (GAP) phase, as far as possible;
4. ERA will communicate to the S2R JU the name of the ERA representative who will be following up the indicated projects;
5. S2R will provide the possibility to the ERA representative(s) to attend the respective Project Kick-off meeting and may involve him/her as observer during the Review meetings or Projects checks and may request ERA to provide written advice on specific Project deliverables or reports.

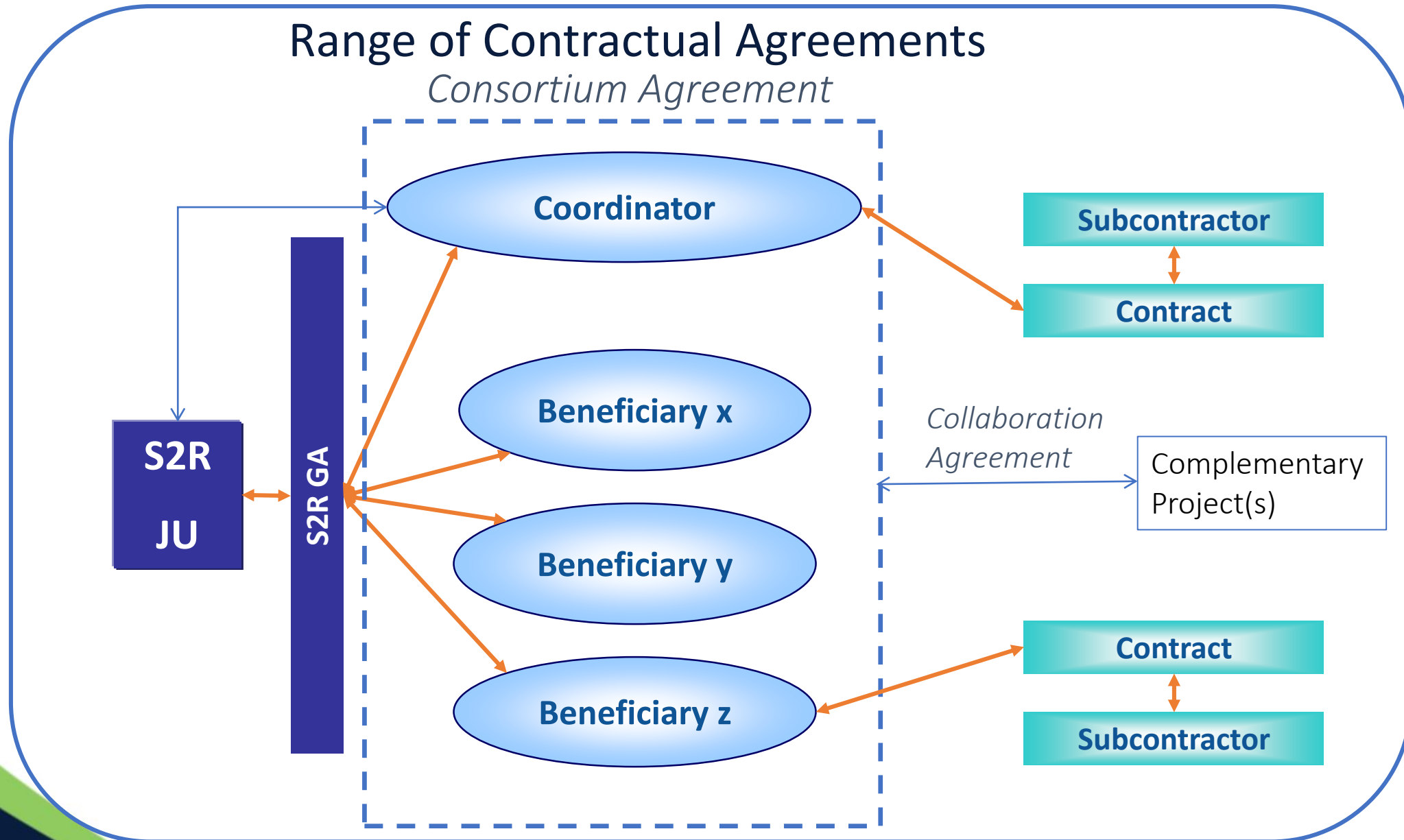
How to ensure that **YOUR PROJECT** will be successful?

- **Delivering on time** the expected results in accordance to the plan
- **Regular dialogue with the S2R Programme Manager** to ensure a good flow of information about the project and its progress.
- **Collaboration with the bodies of the Joint Undertaking** (in particular the IP Steering Committee or other working groups set up by the Governing Board) will be important.
- **Coordination and cooperation** with the **complementary grants** (and other ongoing research projects) will be essential.
- **Coordination and communication** among the different **WPs**.
- **Collaboration to S2R KPIs and Standardization activity (CCA)**

4 - Manage your project: Legal Aspects

**Attention: The Following Sections Apply to
Open Call Grant Agreement**

Grant Agreement Structure



Grant Agreement Structure

H2020 Grant Agreement

Annex 1: Description of the action part A & B

Annex 2: Estimated budget

Annex 3: Accession forms of beneficiaries

Annex 3a: Declaration joint liability of third parties

Annex 4: Model financial statements

Annex 5: Model certificate on financial statements

Annex 6: Model certificate on the methodology

AMGA V.5.2 JUNE 2019

This table gives an **overview** of the different kinds of **third parties**:

TYPE	CHARACTERISTICS						
	Works on action tasks?	Provides resources or services for action?	What is eligible?	Must be indicated in Annex 1?	Indirect costs?	Selecting the third party	GA articles
Linked third party	YES	NO	Costs	YES	YES	Must be affiliated or have a legal link and be eligible for funding	Article 14
International partners	YES	NO	N/A	YES	N/A	Must not be eligible for funding	Article 14a
Subcontractor	YES	NO	Price	YES	NO	Must be best value for money, avoid conflict of interest	Article 13
Third party providing in-kind contribution	NO	YES	Costs	YES	YES	May not be used to circumvent the rules	Articles 11 and 12
Contractor (selling, equipment, good or service)	NO	YES	Price	NO	YES	Must be best value for money, avoid conflict of interest	Article 10
Third parties receiving financial support ³³	The third parties participate in the action as recipients.		Amount of support given	YES	NO	According to the conditions in Annex 1	Article 15

Linked third parties (Art. 14) (1)

Affiliated entities (capital link) are:

- under the direct or indirect control of the beneficiary or
- under the same direct or indirect control as the beneficiary or
- directly or indirectly controlling the beneficiary.

Entities with a legal link:

- Broad and legal relationship not specifically created for the work in the GA (no ad hoc collaboration agreements).

Linked third parties (Art. 14) (2)

- The beneficiary remains responsible towards the JU for the work carried out by the linked third party.
- Do NOT sign the GA
- Must fulfil the same conditions for participation and funding under H2020 as beneficiaries
- Does not charge a price, but declares its own costs for implementing the action tasks

Purchases (Art.10)

Purchases of goods, works or services (Art.10)

- If necessary to implement the action and limited in cost and scope.
- Based either on the best value for money or the lowest price.
- “Contracting authorities” (Directive 2014/24/EU) or “Contracting entities” (Directive 2014/25/EU) must comply with the applicable national law on public procurement.

Subcontracting (Art. 13)(1)



- If necessary to implement the action.
- Only limited to certain tasks and parts of the action.
- Based on business conditions, entailing profit.
- Work without the direct supervision of the beneficiary and it is not hierarchically subordinate to it.
- Responsibility towards the JU lies fully on the beneficiary.
- Based either on the best value for money or on the lowest price
- “Contracting authorities” (Directive 2014/24/EU) or “Contracting entities” (Directive 2014/25/EU) must comply with the applicable national law on public procurement.

Subcontracting (Art. 13)(2)

Subcontracting (Art.13) versus Purchases (Art.10) (Page 127 AMGA):

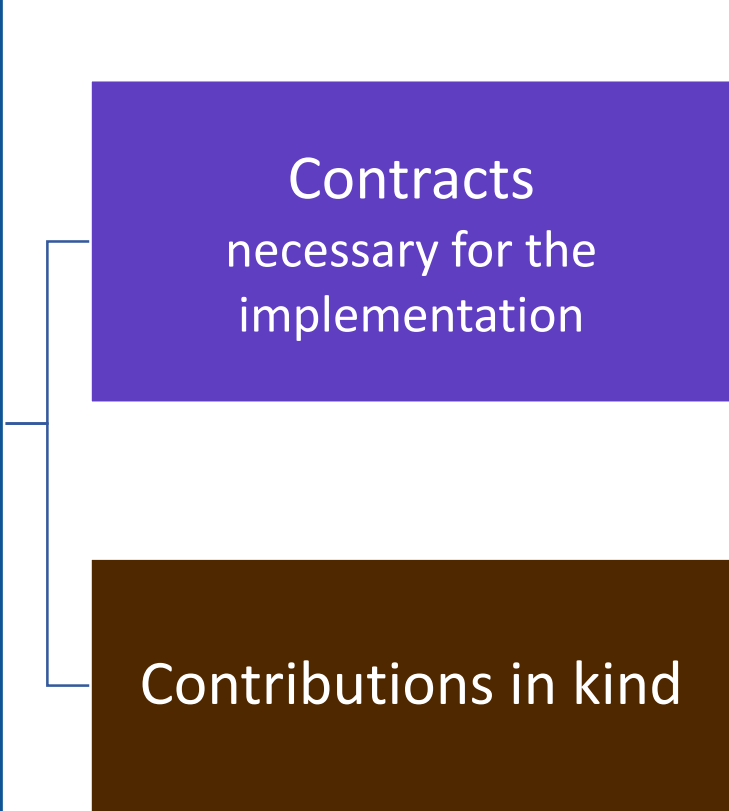
- Implementation of action tasks vs necessary to the implementation of action tasks (auxiliary tasks).
- Need to be indicated in Annex 1 vs No need to be indicated.
- Best value for money/national law on public procurement in both cases.

Subcontracting (Art. 13)(3)

- New subcontracts: If not foreseen at the moment of the signature of the GA, the coordinator must request an amendment. They can be exceptionally approved during reporting time without an amendment (*the beneficiary bears the risk of rejection*).
- Specific cases:
 - Framework contracts (E.g. services, furniture). If this is the usual practice of the beneficiary. Best value for money and no conflict of interest.
 - Coordination tasks of the Coordinator cannot be subcontracted or outsourced to a third party (including linked third parties)

Summary: Third parties (1)

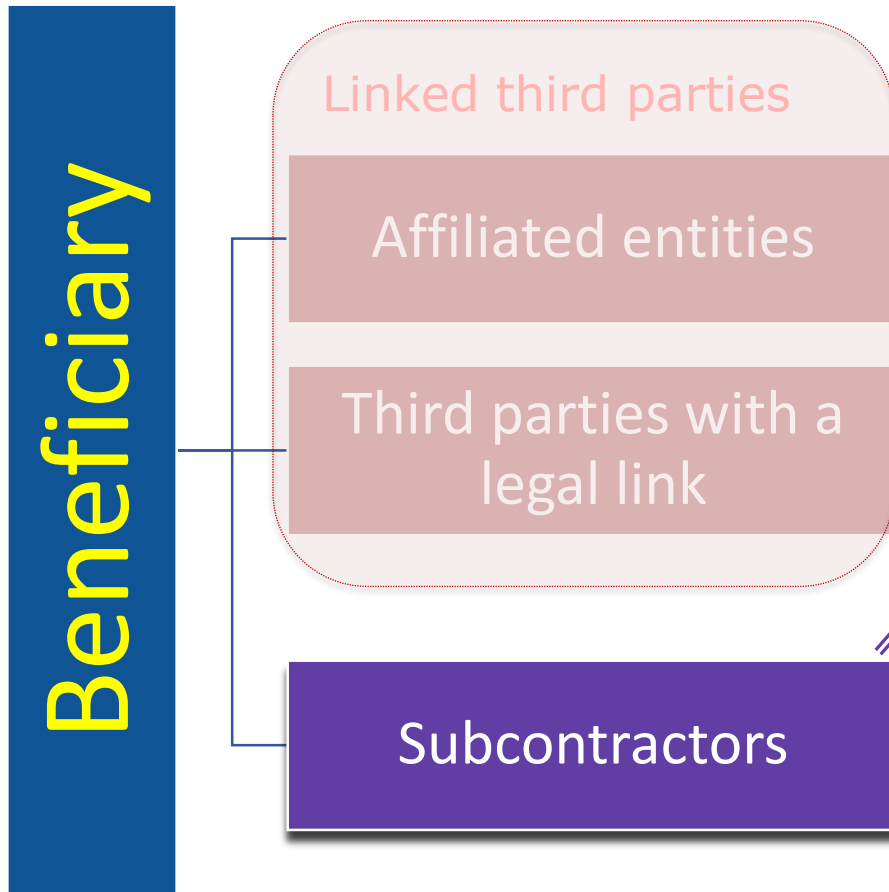
Beneficiary



- For the purchase of goods, works or services
- Ensure best value for money and avoid any conflict of interests
- Article 10 GA

- Free of charge or against payment are eligible costs if they meet the eligibility conditions (**Art. 11 & 12 GA**)
- Must be set out in Annex 1
- New in-kind contributions : if not identified in Annex 1, an amendment is needed. Exceptionally the JU may approve them during reporting without an amendment (beneficiary bears the risk of rejection)

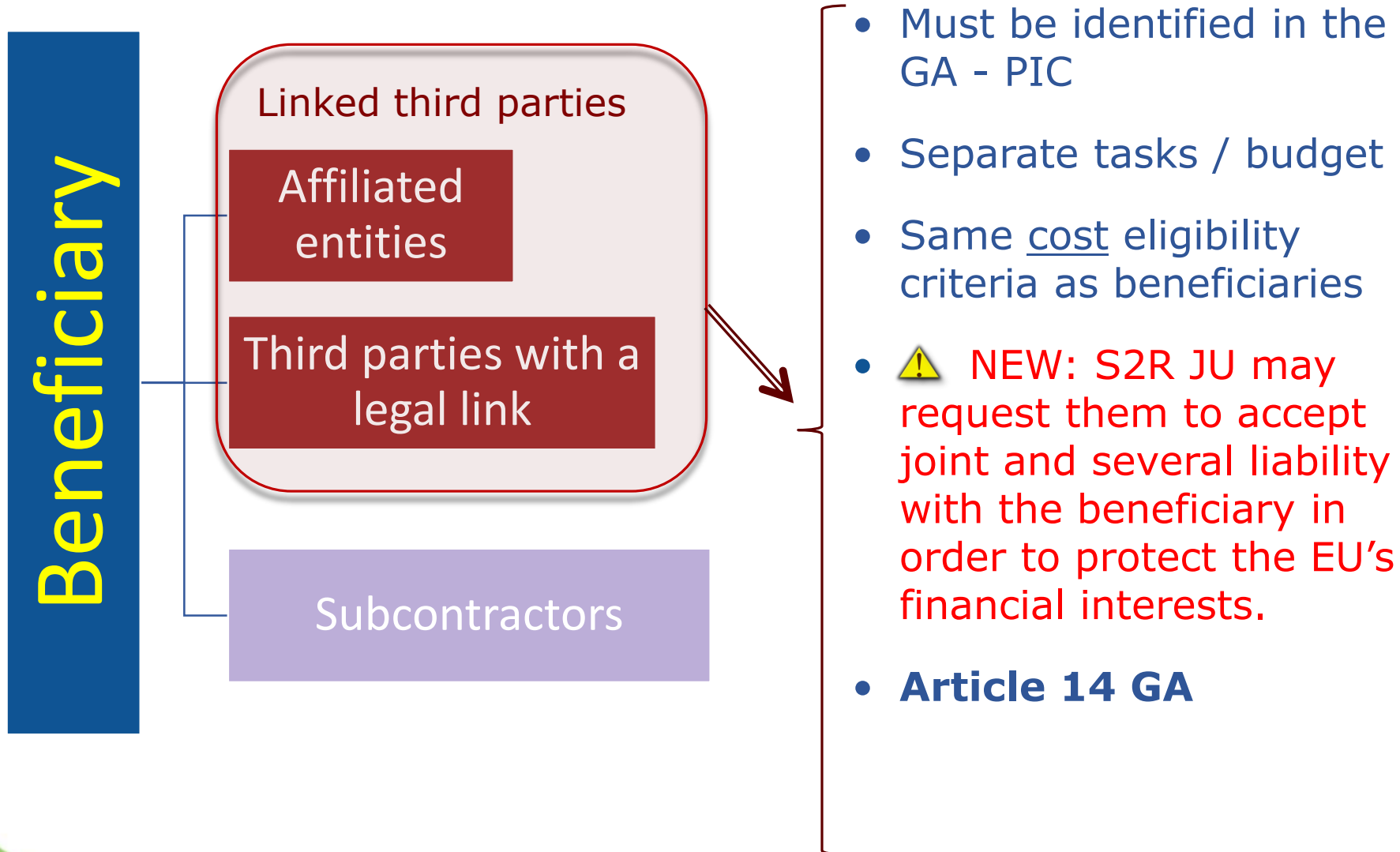
Summary: Third parties (2)



- Ensure best value for money and avoid any conflict of interests
- Estimated costs and tasks must be identified in the budget and Annex 1
- If not identified in Annex 1, the Coordinator must request an amendment. The JU may still exceptionally approve them without amendment if specifically justified in the periodic technical report and not entailing changes to the Agreement (beneficiary bears the risk of rejection).

• **Article 13 GA**

Summary: Third parties (2)



Consortium Agreement (1)

- The S2R JU is NOT part of it.

Key issues addressed in the Consortium Agreement (Indicative list):

- Internal organisation of the consortium.
- Management of access to the electronic exchange system.
- Distribution of EU funding.
- Settlement of internal disputes.
- Additional rules on rights and obligations related to background and results
- Risk management / collective responsibility
- Liability, indemnification and confidentiality arrangements between the beneficiaries.

Consortium Agreement (2)

- Mandatory unless exceptionally provided otherwise in the work programme/call.
- Must not contradict the GA.
- Should be negotiated and concluded before the signature of the GA (or serious risk that prolonged disagreement jeopardises the action).
- Costs related to the preparation of the Consortium Agreement are not eligible.

Ethics and Security

- Ethics review is conducted in order not to fund proposals that contravene ethical principles. Proposals that are security sensitive must undergo a security screening
- 1. Self-assessment at the stage of proposals submission
- 2. Ethics review during the selection procedure
 - Clearance
 - Conditional clearance (Ethic issues to be addressed in Annex 1)
 - definition of ethics requirements
 - Ethics deliverables
 - Recommendation for ethics checks. In parallel with GAP
- 3. Ethics checks, review and audits
- **Common ethics issues – (1) participation of humans in research, (2) protection of personal data, (3) participation of third countries, (3) dual use**

IPR (1)

Access Rights to Background

- The beneficiaries must identify and agree on what **constitutes background** for their action.
- The agreement may take any form (e.g. positive list, negative list). It may be a separate agreement or may be part of the consortium agreement (article 41).
- If access to background is subject to **legal restrictions or limits**, the beneficiary must inform the other beneficiaries — before signing the GA
- Access must be given:
 - For the implementation of action tasks: the default rule is royalty-free.
 - For the exploitation of results: under fair and reasonable conditions.

IPR (2)

Ownership of Results

- Results normally belong to the beneficiary that produced them.
- **Automatic joint ownership** — If beneficiaries have jointly generated results and it is not possible to establish their respective contribution (or to separate them for protection), the beneficiaries automatically become joint owners. The beneficiaries concerned must conclude a joint ownership agreement.
- The beneficiaries must ensure that they can fulfil their obligations under the GA regarding results, by making arrangements with any third parties that could claim rights to them

IPR (3)

Access to Results

- The beneficiaries must provide access to results, if it is needed:
 - by another beneficiary, for implementing action tasks or exploiting results
 - by an affiliated entity of another beneficiary, to exploit the results produced by the beneficiary to which it is affiliated — unless otherwise provided for in the consortium agreement.
- Access rights are not automatic; they must be requested (in writing).
- The agreement by the beneficiary owning the results (on the request for access) may be in any form (tacit, explicit, in writing or oral).

Suspension of the GA

Costs incurred during the suspension period are NOT eligible.

By the beneficiaries(Art. 49.1):

- Exceptional circumstances (e.g "force majeure") makes implementation impossible.

By the JU (Art.49.2 GA):

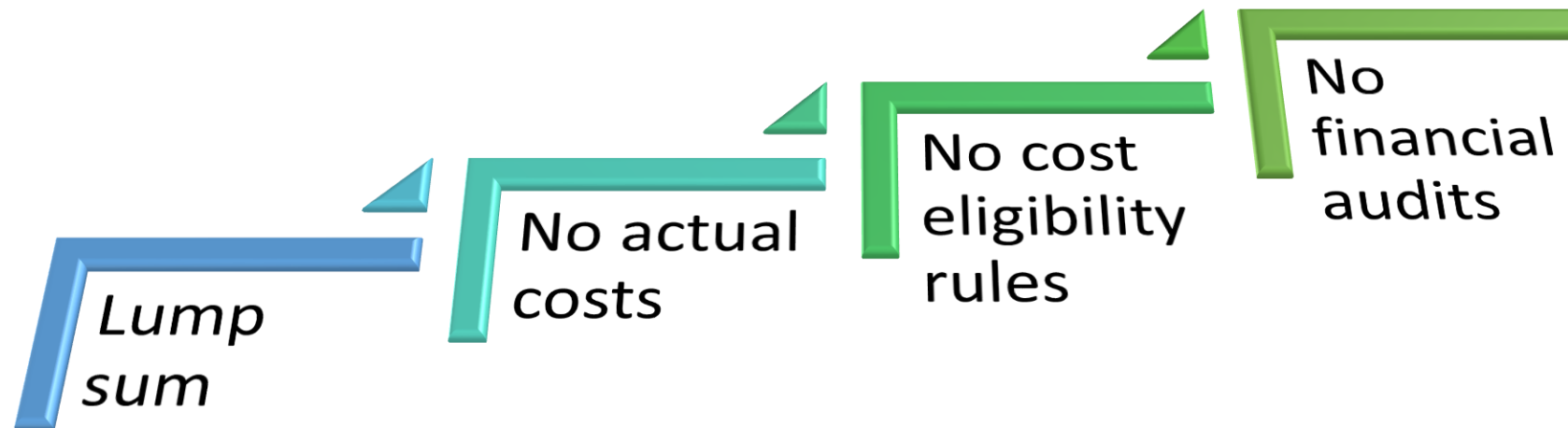
- For the reasons listed in Article 49.2 GA (including cases where a beneficiary has committed or is suspected of having committed substantial errors, irregularities, or fraud, or serious breach of obligations under the GA).

Manage your project: Legal Aspects

Attention: The Following Sections Apply to
CFM Grant Agreements
Lump Sum Specificities

The grant agreement will set out the lump sum (EU funding) corresponding to the **full accomplishment of the work committed in Annex 1**.

The lump sum for the grant is set out at its signature, the costs actually incurred are not relevant.



Obligation to Keep Records

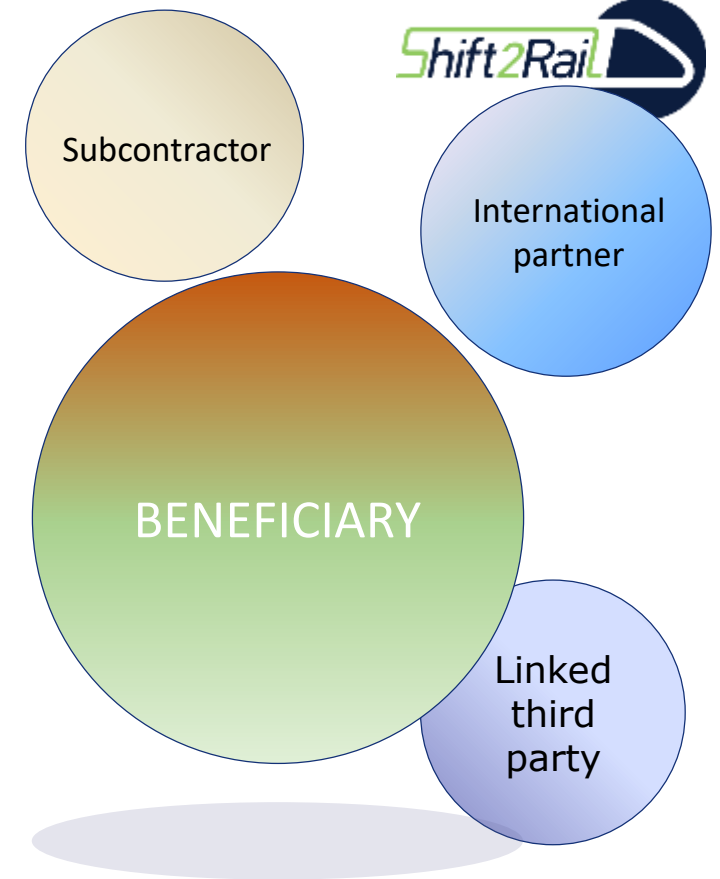
- Article 18 Lump Sum Pilot MGA provides that:

Beneficiaries do not need to keep record about the costs actually incurred for implementing the action

- **HOWEVER:**
 - Beneficiaries must keep original (incl. digital) documents on record for a period of 3-5 years.
 - This includes all documents supporting the proof that an action was properly implemented.
- If a beneficiary breaches its obligations under Article 18, the grant may be reduced.

Linked Third Parties

- Linked Third Parties (LTPs) must be named in the Grant Agreement
- Annex 1 must detail the tasks attributed to each LTP
- LTPs may receive Lump Sum Shares
- Records must be kept!
- A beneficiary remains liable for its LTP



Subcontracting

- The rules on subcontracting are similar to the General MGA (see Article 10 & 13 - H2020 General MGA):
- Subcontracting may cover only a limited part of the action
- Tasks to be implemented by subcontracting must be set out in Annex I
- The JU may however approve subcontracts not set out in Annex I without amendment (cf Art.55), if:
 - ✓ Specifically justified in periodic technical report
 - ✓ Does not entail changes to the GA questioning decision awarding the grant
 - ✓ Does not breach principle of equal treatment of applicants
- Still applicable: ensuring best value for money, no Col

Subcontracting



- The principles of subcontracting (ensuring best value for money, no Col, subcontracting of only a limited part of the action, etc.) are still compulsory BUT are not considered to be additional cost eligibility conditions
- Consequence: in case of breach, S2R JU may reduce the grant in proportion to the seriousness of the breach instead of rejecting costs.
- The estimated costs for each subcontract DO NOT have to be included in Annex 1 and the total estimated costs of subcontracting per beneficiary are not displayed in Annex 2.
- Nevertheless, costs of subcontracting MUST BE indicated in the “Financial Excel table” and are part of the lump sum.

Liability for Third Parties

- **Collective Implementation Liability** in accordance with Article 41.1
 - the beneficiaries are jointly and severally liable for the technical implementation of the entire action.
 - If a beneficiary or its LTP or an international Partner fails to implement its part of the action, the other beneficiaries become responsible for implementing this part (without being entitled to any additional JU funding for doing so), unless the JU expressly relieves them from this obligation.
- **Individual Financial Liability** in accordance with Article 44.1
 - in case of recovery of undue amounts, each beneficiary is only liable limited to its own Lump Sum share AND the shares attributed to its Linked Third Party.
 - That is, other beneficiaries will not have to repay amounts owed by another beneficiary's LTP from their own Lump Sum share.

5 – Amendments, legal basis



5.1 – Legal Basis

Amendments General (1)

Article 55 AGA

WHAT ?

An amendment to the grant agreement is necessary to change GA specific data, GA options, **Annexes 1 and 2**

Consequences

The amended provisions **become an integral part of the GA**

other provisions remain unchanged and have full effect

Amendments General (2)



- An amendment is necessary whenever there is a need to change the GA
- Amendments may NOT result in changes that would impact the award decision.
- The general terms and conditions of the GA can NOT be changed via amendment.
- The amendment will take effect either on the day of its entry into force or on the specific date(s) indicated in the amendment.

Amendments: When?

Requests will be introduced **before the end of the action** (i.e. date set out in Article 3)

Exception: After the end of the action in exceptional cases (e.g. change of coordinator/bank account to make the payment of the balance)

Requests will be submitted **sufficiently in advance** (to allow preparation and proper analysis before the changes are due to take effect)

Amendments: Who?



Coordinator submits & signs amendments on behalf of the consortium

Exception: if change of coordinator without his/her agreement, request must be done by another beneficiary (acting on behalf of the other beneficiaries)

Coordinators must ensure internally the agreement of the consortium based on their internal decision-making processes

(e.g. unanimity, simple or qualified majority etc. set out in the consortium agreement)

Amendments: How?



Prepared electronically

Requesting party will encode the amendment request

- * Indicate the reasons
- * Upload the supporting documents
- * Get validations done before submitting the request

(e.g. new legal entity, new bank account validations)

Submitted & signed electronically (by PLSIGN)

Counter signed electronically by receiving party (by PLSIGN)



5.2 - Cases where an amendment is necessary (some examples)

Beneficiaries - changes



1. Removal of a beneficiary whose participation is terminated (Article 50.2 and 50.3)

- If it never became a beneficiary:
 - non-accession to GA, or
 - non-provision of requested declaration on joint and several liabilityBeneficiary is removed from the beginning

- For other reasons (Article 50.2 and 50.3)

Annexes 1 and 2 will be changed.

If the coordinator is removed, the amendment has to propose a new coordinator.

LTPs participating with the beneficiary will be automatically removed.

Beneficiaries - changes



2. Adding a new beneficiary

- New beneficiary must be validated and have a PIC before the submission.
- New beneficiary and accession date are added to the Preamble of GA. It is possible to choose between the date of the signature of the accession form, the date of entry into force of the amendment or a fixed date (future or retroactive).
- Annexes 1 and 2 will be changed.
- Depending on type of beneficiary (e.g. JRC, IO), and if it was/was not receiving EU funding, options will be added/modified/become applicable

Coordinator - changes



3. Change of coordinator

- 'Handover date' will be added in the Preamble of the GA
- There is NO need for an amendment to change the *person* in charge of the coordination of the project.
- Amendment request can be submitted after the end date of the action (e.g. coordinator in bankruptcy)

4. Change of bank account for payments

- Banking information must be validated before submitting the request

5. Change of the option for 'authorisation to administer'

- Option in Article 41.2 is added/removed/modified (e.g. change of name of the entity with an 'authorisation to administer')

Action or action implementation - changes



6. Change to Annex 1 (description of the action)

- Significant change of the action tasks (e.g. if tasks are added/removed) or their division among the beneficiaries
- Changes concerning in-kind contributions provided by third parties (against payment or free-of-charge) or subcontracts
- Changes concerning the tasks to be carried out by linked third parties and related costs
- Changes to the options in the GA (e.g. options are removed or added)

Financial Aspects -Changes



7. Change to Annex 2 (estimated budget)

- Budget transfer between beneficiaries or budget categories (or both) due to a significant change of Annex 1
- Budget transfer to a form of costs that is not provided for in Annex 2

Examples: *from actual costs to the unit costs for SMEs owners*
 from actual costs to average personnel costs

8. Change of Annex 2a: 'Additional information on the estimated budget'

If the calculation of the unit costs needs to be provided or updated

No Amendment

Certain budget transfers

Budget transfers and re-allocation	Amendment needed?
From one beneficiary to another	NO
From one budget category to another	NO
Re-allocation of Annex 1 tasks	YES
Transfers between forms of costs (actual costs, unit costs, etc.)	YES if the 'form' receiving the transfer was not included in the budget (example a new unit cost)
<input type="checkbox"/> Transfers within <i>personnel costs</i>	NO
New subcontracts	YES (strongly advised)

NEW !

No Amendment



Some examples:

1. Change of name, address, or other legal entity data of the beneficiary, linked third party
2. Change of beneficiary due to universal takeover
(In FP7: 'universal transfer of rights and obligations')
3. Changes to name of the bank, address of branch and name of account holder
(validation of this data on the PP by the S2R JU is sufficient)

No Amendment

- Beneficiaries must keep **information stored in the 'Beneficiary Register' up to date** via the Participant Portal (Article 17.2)
- The LEAR of the beneficiary updates this information
- Beneficiaries also have to inform the coordinator (offline)
- Validation Services validate the information in the IT system(s)
- The validated changes will be notified via the Participant Portal (to ensure an appropriate record of the modifications and to avoid uncertainties)

Note: If S2R JU considers change affects the implementation of the action, it will inform the coordinator *Example: beneficiary changes its legal address to a third country*

Transfer of Lump Sum Shares

- Unlike in the General MGA, **transfers of Lump Sum Pilot shares are only possible via a formal amendment AND if not against the awarding decision**
- **HOWEVER:**
 - Transfers to or from COMPLETED & PAID Work packages are not possible
 - Transfers between work packages can only be accepted in exceptional circumstances
- Lump sum shares of a terminated beneficiary cannot be changed without amendment.
- Partial lump sum shares in the last reporting period are an exception i.e. for technical reasons

Partial Lump Sum Shares

- **Partial work packages are NOT allowed after the end of each reporting period**
 - General rule: Any WP which is not completed in the reporting period in which it is due, cannot be claimed in that reporting period. Hence it will be postponed to the following reporting period provided that the WP is finally completed (all deliverables and milestones associated to it are accomplished).
 - *Example: The consortium argues that they did not have enough time to complete the WP. The duration of the action could have been extended via an amendment for the consortium to have enough time.*
 - Exception: at the end of the action, beneficiaries may exceptionally declare partial shares for work packages that were not completed due to technical reasons.



5.3 – Amendment procedure

Amendment Procedure (1)

After submission of request the receiving party has **45 days** for **'evaluation and validation'** (may exceptionally be extended)

Agreement

Rejection

Request for additional information

Extension of the deadline for assessment

If no reaction within deadline, tacit rejection

Withdrawal

Amendment Procedure (1)



A request containing several changes to the GA will be considered as a **package and:**

- it cannot be divided into several requests;
- request will be agreed or rejected as a whole;
- cannot be modified.

If there is **no reaction** within this deadline the request is considered to have been rejected

There is **no tacit approval of amendments** (contrary to FP7)

Entry into force and taking effect



- An amendment **enters into force** and is binding from the moment the receiving party signs it (in the electronic exchange system)
- An amendment **takes effect** (the changes will start to apply):
 - when the amendment enters into force, or
 - on the date agreed by the parties

This date should normally be **after** the entry into force

If an amendment request involves several changes, they could take effect on **different dates** (*e.g. addition of beneficiary and change of bank account*)

Depending on the type of change, the date of taking effect may have an **impact on the eligibility of costs**

6 – Manage your project:

Financial aspects -

Reporting, payments, budget and cost categories

6.1 - Reporting & payments

Technical Deliverables, continous assessment

- The S2R JU will undertake regular review for each of the funded project to **ensure the Deliverables are on-track and of the necessary quality**

Reporting Periods OC

S2R Governance Handbook: Project awarded through Open Calls, the cycle is in line with the usual practice applied within H2020 projects. Consequently, the reporting period for interim payment ends is not combined with the annual cycle but has been set **every 12 months after the start of the project, for projects between 18 to 24 months, and every 18 months for longer life projects.**

ARTICLE 20 — REPORTING — PAYMENT REQUESTS

ARTICLE 20 — REPORTING — PAYMENT REQUESTS

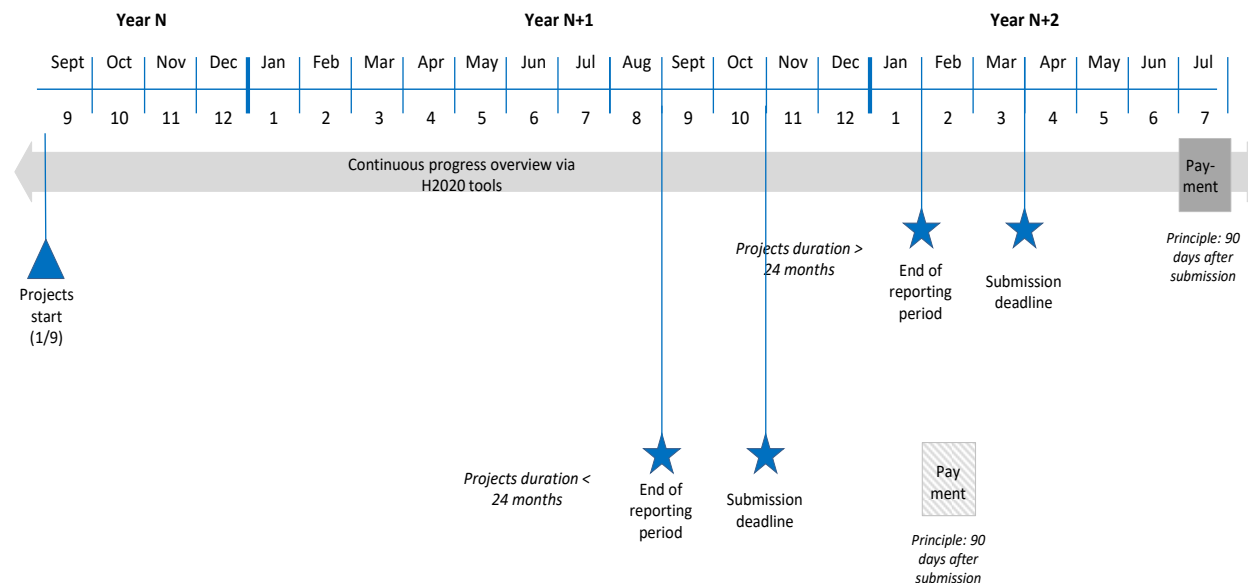
20.1 Obligation to submit reports

The coordinator must submit to the [Commission][Agency] (see Article 52) the technical and financial reports set out in this Article. These reports include the requests for payment and must be drawn up using the forms and templates provided in the electronic exchange system (see Article 52).

20.2 Reporting periods

The action is divided into the following 'reporting periods':

- RP1: from month 1 to month [X]
- RP2: from month [X+1] to month [Y]
- RP3: from month [Y+1] to month [Z]
- [same for other RPs]
- RPN: from month [N+1] to [the last month of the project].]



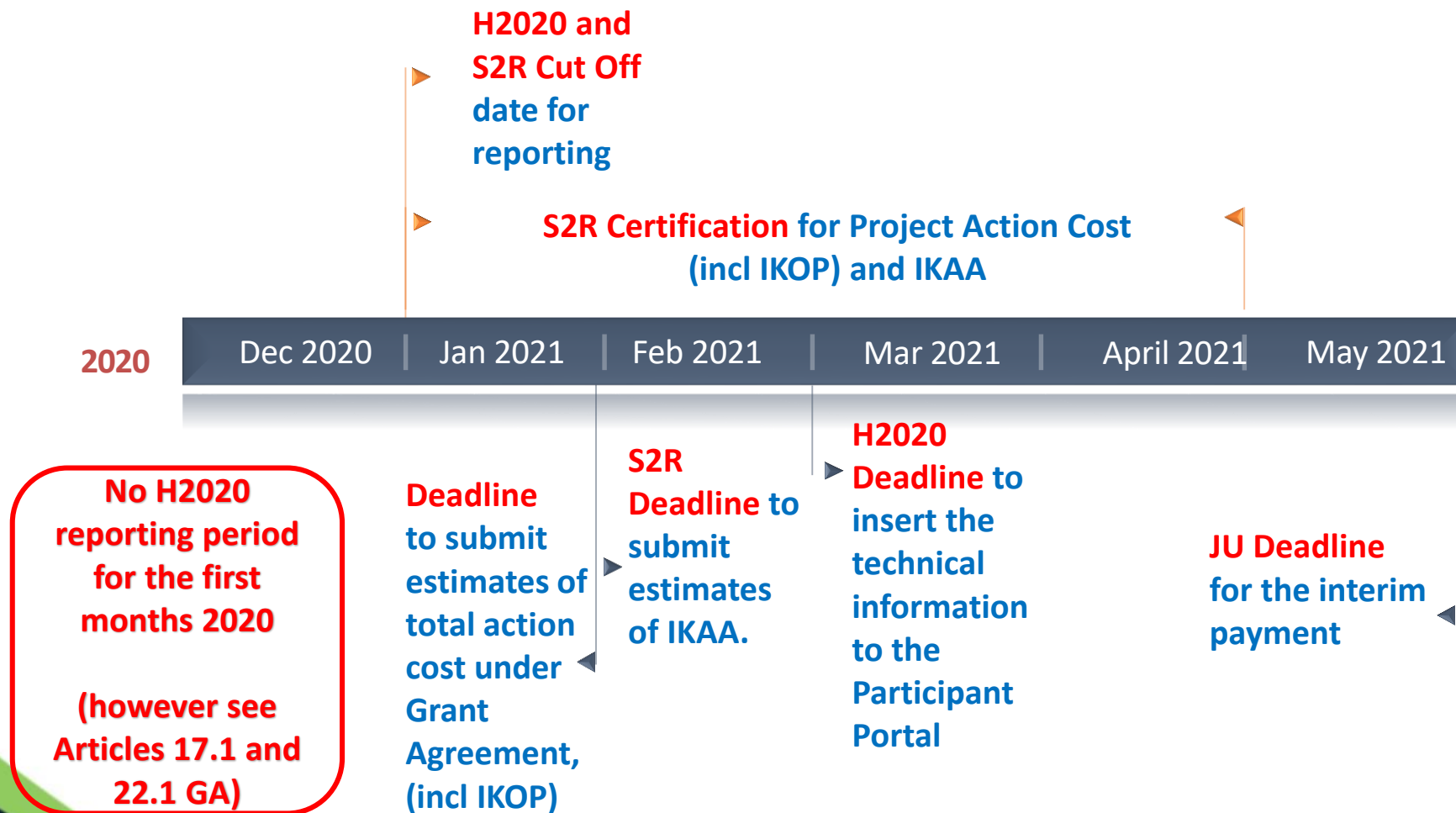
Costs and Assessment OC

- **Cost recognition** will be assessed during the reporting periods set in the GA
- **Overall technical assessment** considering as well the Technical Report, will be performed during the reporting periods

Reporting Periods CFM

Official Reporting Periods are stated in Article 20.2 of the GA

Tentative Schedule of project review are stated in section 1.3.7. of Annex I



WP and Assessment CFM

- **WP completion (including of all deliverables and milestone and of objectives, etc. set in the DoA)** will be assessed during the yearly “investment gate controls” which for CFM are set in the GA as Annual review meetings → indicatively month of April, before payments
- **Overall technical assessment** considering as well the Technical Report, will be performed during the yearly “investment gate controls” which for CFM are set in the GA as Annual review meetings → indicatively month of April, before payments

Types of payments (Article 21)



One *pre-financing*



One or several *interim payments*



One *payment of the balance*

Payments



- Payments will be made to the **coordinator** to the **bank account** established in the grant agreement
- Coordinator must distribute the payments to the beneficiaries without **unjustified delay**
- The coordinator will inform about the **distribution of the payments**: if the S2R JU requires it, in the event of a recovery at payment of the balance, if the participation of a beneficiary is terminated
- If the S2R JU does not pay within the deadline, the beneficiaries are entitled to a **late-payment interest**

One *pre-financing payment**

When

- Within 30 days from the signature of the grant or 10 days before the starting date, whichever is latest

How much

- Usually = maximum grant amount / number of periods
- Retention 5 % of maximum grant for Guarantee Fund

Characteristics

- It remains the property of the EU until the payment of the balance

*The JU may pay up to 50% of the GA value depending on budget availabilities

Guarantee Fund

- Participant's Guarantee Fund is established amounting to **5% of total funding contribution**
- The Guarantee Fund **belongs to all beneficiaries** of grant agreements under H2020
- Financial interests generated by the Guarantee Fund will serve to **cover against financial risks**
- The amount contributed to the Fund will be **reimbursed at the end of the final payment** after the end of the project

After the end of each interim period

Periodic report ⇒ submitted by coordinator 60 days after end of reporting period

Periodic Technical Report

- ✓ explanation of the work carried out
- ✓ overview of progress (milestones and deliverables)
- ✓ summary for publication
- ✓ plan for the exploitation and dissemination of results (if required)
- ✓ answers to the questionnaire

Periodic Financial Report

- ✓ Financial Statement (individual & summary) / For CFM: no cost categories; only LS shares
- ✓ Explanation of the use of the resources / For CFM: only to report subcontracts not in A1

After the end of each interim period

An interim payment

When

- 90 days from reception of periodic reports

How much

- EU contribution corresponding to the eligible costs incurred in the reporting period
- Limit = 90 % of the maximum grant amount

Characteristics

- Ineligible costs will be rejected and not taken into account for the payment

After the end of the last period

Final report ⇒ submitted by coordinator 60 days after end of last reporting period

In addition to the periodic report

Final Technical Report

- ✓ summary for publication
- ✓ overview of results and their exploitation & dissemination
- ✓ conclusions of the action and socioeconomic impact

Final Financial Report

- ✓ Summary Financial Statement / CFM: no cost categories; only LS shares
- ✓ Certificate on Financial Statement (if needed) / CFM: no CFS in LS projects

After the end of the last period

A payment of the balance

When

- 90 days from reception of final reports

How much

- Reimburses the remaining part of the eligible cost incurred
- Includes the release of the Guarantee Fund (GF)

Characteristics

- **If Σ payments made < final grant amount :**
payment
- **If Σ payments made > final grant amount :**
recovery → first by offsetting with GF released, if not enough, by a recovery order
- If applicable: receipts & reduction of the grant will be taken into account to determine the final grant amount

Financial Aspects: CFM and Lump Sum



- Periodic financial report simplified (lump sum share per WP only) and final payment with possible partial release of the lump sum share.
- Financial audits:
 - No Certificate of Financial Statements (CFS), covering the co-funded H2020 part, to be produced at final payment anymore
 - No reporting on actual costs BUT keep records in your systems in accordance with your accounting practice on documents relevant to prove the proper implementation of the action to be stored like you would do for any project you run
 - Checks, reviews, audits and investigation conducted by JU or ECA, OLAF under exceptional circumstances (fraud?)

Reporting: what if...?

(Article 20.8)



The consortium is late: no reports on time

- ☞ The S2R JU will send a reminder
- ☞ The payment deadline is suspended
- ☞ If still not submitted after 30 days, the S2R JU may terminate the grant agreement !



One beneficiary is late: its report is not ready

- ☞ The Coordinator may decide to submit the reports without that beneficiary
- ☞ Beneficiary's costs will be considered 'zero' for this reporting period, but it can declare its costs with the next reporting period

Reporting

The S2R JU analyses the reports and:



The reports are complete and satisfactory, so it pays



The reports are incomplete / further information is needed:



JU requests information to coordinator



Payment deadline is suspended



In exceptional cases the S2R JU may:



Reject the reports giving justification



Suspend the payments for one or more beneficiaries



Terminate the grant

6.2 - Budget and cost categories

Budget Transfers



Estimated eligible* costs (per budget category)											
Form of costs****	A. Direct personnel costs				B. Direct costs of subcontracting	[C. Direct costs of fin. support]	D. Other direct costs	E. Indirect costs	[F. Costs of...]		
	A.1 Personnel		A.4 SME owners without salary		Actual	Actual	Actual	Flat-rate	[F.1 Cost of ...]		[F.2 Cost of ...]
	A.2 Natural persons under direct contract	A.3 Seconded persons	A.5 Beneficiaries that are natural persons without salary	D.1 Travel					D.2 Equipment	D.3 Other goods and services	D.4 Costs of large research infrastructure
[A.6 Personnel for providing access to research infrastructure]	Actual	Unit	Unit	Actual	Actual	Actual	Flat-rate	No units	Total	Total	
	(a)	Total (b)	No hours	Total (c)	(d)	(e)	(f)	(g)			
Beneficiary 1	500.000	0	100	3.213	150.000	0	325.000	207.053	0	0	0
Beneficiary 2	0	300.000	0	0	0	0	125.000	106.250	0	0	0



Budget Transfers

Budget transfers and re-allocation	Amendment needed?
From one beneficiary to another	NO
From one budget category to another	NO
Re-allocation of Annex 1 tasks	YES
Transfers between forms of costs (actual costs, unit costs, etc.)	YES if the 'form' receiving the transfer was not included in the budget (example a new unit cost)
<input type="checkbox"/> Transfers within <i>personnel costs</i>	NO
New subcontracts	YES (strongly advised)

NEW !

Eligibility

- Subject to **approval of technical reports**
- Stated costs must be **reasonable compared to work**
- **Actual** (or follow the rules e.g. **unit costs**)
- Incurred **during duration of project**
- In accordance with **beneficiary's usual accounting** and management principles
- **Recorded** in the accounts of beneficiary
- Used for the sole purpose of **achieving the objectives of the project**

Eligibility

- Staff working on the project must keep time records (hours they spend on the project; regularly (daily, weekly); countersigned by a supervisor)
- You must declare costs based on the actual amounts spent (AGA Article 5, Article 6(1)): Personnel Costs based on actual staff costs; Other direct costs based on actual costs for the project (AGA Article 6,2 D); Depreciation costs for assets; Real costs of consumables
- You cannot, under any circumstances, sub-contract to a project partner (AGA Article 13)

Eligibility

Forms of costs

Actual costs

- Costs actually incurred, identifiable and verifiable, recorded in the accounts, etc. see **Article 6 GA**



NEW: non-deductible VAT is now eligible

Unit costs

- A fixed amount per unit determined by the Funding Authority Example: for SME owners not receiving a salary
- For average personnel cost (based on the usual accounting practices with possible certificate on the methodology)

Flat rate

- A percentage to be calculated on the eligible costs
Example: 25% flat rate for indirect costs

Personnel Costs

- ✓ **Less requirements for time records**

Example: No time records for researchers working exclusively on the project.

- ✓ **Wider acceptance of average personnel costs**

Broadening the acceptance of usual cost accounting practices (including cost-centre approaches) as unit costs.

- ✓ **Acceptance of additional remuneration**

→ Limited to non-profit legal entities

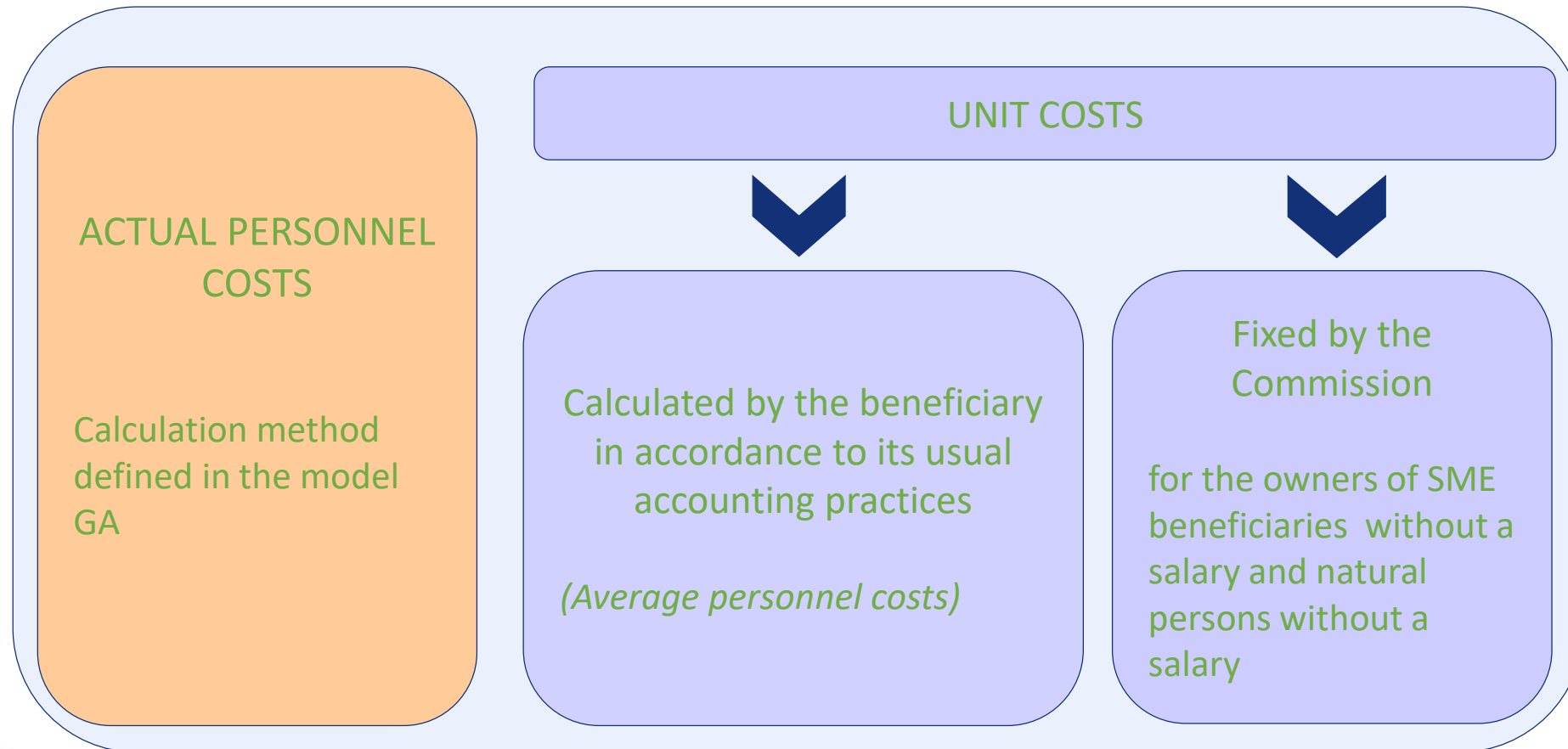
→ Up to 8000 Euro/year/person working full-time exclusively in the action

→ Subject to specific conditions



Personnel Costs

CALCULATING PERSONNEL COSTS



Personnel Costs



Other Direct Costs

- Cost must be actual, identifiable and verifiable (Art. 6 AGA)
 - *No estimation of costs*
 - *No budgeted costs*
- May include energy and power supply if can be measured and if it is the general practice to include actual cost to a project and not include it to the overheads
- Spare part may be included but only from the portion of actual consumption
- **Contracts when they do not cover the implementation of action task but they are necessary** (audit certificate, translation, consultant, setting up a website if not identified in Annex 1 as a task to the project) – Art. 10 AGA
- Depreciation of equipment only in case directly used in projects, otherwise subject to timesheets (No % approach)

Subcontracting – Art.13

- Subcontracts cover the implementation of action task as described in Annex 1 (Website, testing, building a prototype or any other defined in Action tasks)
- Not covered by the flat rate of indirect cost
- Subcontracting between beneficiaries in the same project is not allowed (p. 133 AGA)

Best Value for Money

Decision tree...
a possible
approach
but refer always
to the AGA
principles



Controls and audits: ex-ante

- Financial viability
 - Most beneficiaries exempt from detailed analysis; only systematic check **for coordinators when requested EU funding for the action is \geq EUR 500 000**
- Certificates
 - Certificate on the financial statements: Only for final payments when total EU contribution claimed by the beneficiary on the basis of actual costs + unit costs for average personnel \geq EUR 325.000 (excluding e.g. flat rates !)
 - Certificate on the methodology: Optional for average personnel costs (now under unit costs)

Controls and audits: ex-post

- **“Ex-post” controls**
 - Audits of the S2R – performed by EC services on behalf of S2R JU – limited to two years after the payment of the balance
 - Audits performed by the European Court of Auditors
 - OLAF Investigations....
- **Extension of audit findings**
 - Former "extrapolation" now included in the AGA
 - In the case of systemic or recurrent errors, irregularities, fraud or breach of obligations

CFM & LS: obligation to keep records

- Article 18 Lump Sum Pilot MGA provides that:

„Beneficiaries do not need to keep record about the costs actually incurred for implementing the action”

- **HOWEVER:**

- Beneficiaries must keep original (incl. digital) documents on record for a period of 3-5 years.
- This includes all documents supporting the proof that an action was properly implemented.
- If a beneficiary breaches any of its obligations under Article 18, the grant may be reduced.

7 - Manage your project: Financial Aspects Do's and Dont's

Please help us to help you to avoid errors!

Consequences of errors

Controls and audits are undertaken by the S2R JU (AGA Article 22) and the European Court of Auditors ... OLAF

Identified errors could lead to:

- Recovery of the undue amount (some time after you have received the money!)
- Penalties
- Reputational damage
- Financial losses
- etc

Time records

Staff working on the project must keep time records (AGA Article 18)

- staff must record the hours they spend on the project
- regularly (daily, weekly)
- countersigned by a supervisor

Actual Costs

You must declare costs based on the actual amounts spent (AGA Article 5, Article 6(1))

- Personnel Costs based on actual staff costs
- Other direct costs based on actual costs for the project (AGA Article 6,2 D):
 - Depreciation costs for assets
 - Real costs of consumables
- Please declare all your costs (guidance to AGA Article 20) to mitigate potential disallowance

Best Value

You must demonstrate "best value" in purchasing (AGA Article 10) and sub-contracting (AGA Article 13)

- some level of tendering to demonstrate "best value" – e.g. tender, three offers, market survey
- We will normally accept your standard practices, when properly used
- We will normally accept commercial agreements already in place
- Naming the supplier in the contact does not mean that you do not have to demonstrate best value
- Keep documentation

5 most common errors



1. Direct costs apportioned, not measured

2. Time sheets

3. Best value for money (subcontracting and purchase of goods)

4. Basic vs additional remuneration

5. In-house, near off-site, semi-permanent, teleworking consultants

5+. Same old friends: no papers, depreciation "in one shot"

Timesheets examples

**I work 100% on the project
so I don't have to fill in TS, correct?**

Correct, but pay attention:

- Did I spend a significant part of my time building up a network with other entities or other laboratories of my company, for future projects?
- Did I spend time in writing proposals for the next calls?
- Did I give lectures for the University?
- Did I travel for other unforeseen activities?
- What do I have to indicate in the box of the self-declaration requesting an indication of the activities carried out, per work package?

Timesheets examples

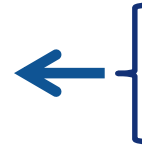
Electronic timesheet:

1. Electronic signature linking the electronic identity data with the electronic validation data require a password and user name
2. There is a documented secure process for managing user rights
3. An auditable log of all electronic transactions

Declaration for persons working exclusively on the action:

Model available in the AGA
(version 19/12/2014)

- the whole reporting period
- from/...../.....³ until/...../.....⁴
(This period must cover at least one full natural month)⁵



Only one declaration can be made per reporting period for each person



Declaration on a person working exclusively on a H2020 action

Action			
Title of the action (acronym)		Grant Agreement number	
Beneficiary's/linked third party's name			
Reporting period covered by this declaration ¹			
Reporting period number	from (date)	to (date)	

This document certifies that² has worked for the beneficiary/linked third party exclusively on the above-mentioned H2020 action during (chose one below):

- the whole reporting period
- from³ until⁴
(This period must cover at least one full natural month)⁵

Short description of the activities carried out during the period covered by this declaration	
Reference (e.g. work package)	Activities

SIGNATURES

For the beneficiary/linked third party (supervisor)

Name:

Date:/...../.....

Signature:

For the person working exclusively on the action

Date:/...../.....

Signature:

¹ Only one declaration can be made per reporting period for each person working in the action.

² Insert name of the person.

³ Insert date.

⁴ Insert date.

⁵ The person must keep timesheets for any hours worked for the action outside the period indicated herein.

Basic vs Additional Remuneration

A bonus scheme can be discretionary, yet based on objective conditions (merit, performance, potential – no matter how these are assessed by the boss - but as part of the usual remuneration policies, and documented). The scheme cannot be arbitrary or discriminatory, i.e. a bonus paid only if and when a researcher works on a H2020 project.

8. Communication and Dissemination Guidelines for Shift2Rail Projects

Coordinators Info Day

2 March 2021

Communication and dissemination

Important for S2R! (and an obligation in the GA)

- Design a thorough communication plan (part of your proposal and the grant agreement)
- Promote your project and its results beyond the project's own community
- Communicate your research in a way that is understood by non-specialists, e.g. to the media and the public
- Inform us in advance of communication activities, especially those expected to have a major media impact



Communication Planning GoogleSheet

- **S2R Projects Communication Planning GoogleSheet** is a tool to effectively disseminate the work Shift2Rail projects are doing
 - [Link to S2R Projects Communication Planning](#)
- Please fill in the GoogleSheet at least once a month:
 - **S2R Newsletter sheet** – material for inclusion in the monthly Shift2Rail newsletter
 - **S2R Social Media sheet** – content that S2R can directly post about through its own accounts or re-share from your accounts
 - **S2R Project Mid-Term/Final Events sheet** – information that S2R can use to promote projects' mid-term/final events
- **Let's help each other:** Increased project visibility for you and greater overall impact for Shift2Rail!

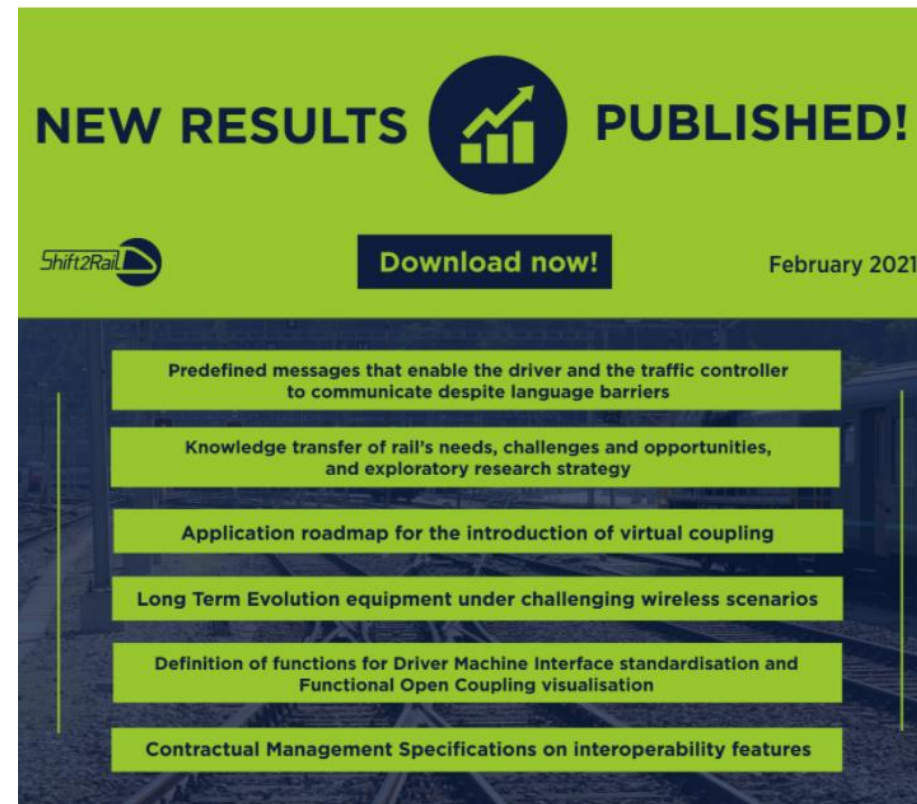
Shift2Rail communication channels

- Shift2Rail uses a variety of channels to communicate project updates/results:
 - **Newsletter** – published at the end of each calendar month. Includes information about EU level news, project news, upcoming and past events, dedicated section on project results, and press mentions
 - **Social Media Channels** – Shift2Rail uses [Twitter](#), [LinkedIn](#) and [Facebook](#) to communicate about corporate and project news and results. We post organic content and re-share news coming from project accounts. It is important to always tag our account: **@Shift2Rail_JU**
 - **Website Banner** – possibility to advertise important project news on the main Shift2Rail [website slider](#). Previously, we have included banners for final/mid-term events and important press mentions;
 - **Events Calendar** – possibility to include project events in the Shift2Rail calendar.

Promotion of project deliverables

- A dedicated web page on the S2R website called [Latest Results](#) featuring our most interesting project deliverables each month;
- This web page is promoted through:
 - Shift2Rail monthly newsletter
 - Each deliverable featured benefits from a dedicated post on Shift2Rail social media accounts

Better visibility for our projects and concrete results for our audience!



NEW RESULTS PUBLISHED!

Shift2Rail **Download now!** February 2021

- Predefined messages that enable the driver and the traffic controller to communicate despite language barriers
- Knowledge transfer of rail's needs, challenges and opportunities, and exploratory research strategy
- Application roadmap for the introduction of virtual coupling
- Long Term Evolution equipment under challenging wireless scenarios
- Definition of functions for Driver Machine Interface standardisation and Functional Open Coupling visualisation
- Contractual Management Specifications on interoperability features

Communication and Dissemination

- **See article 29 and 38 of the GA**

European Union / S2R support shall be highlighted

- JU logo and the EU emblem to be displayed
- Disclaimer:

“This project has received funding from the Shift2Rail Joint Undertaking under the European Union’s Horizon 2020 research and innovation programme under grant agreement No [number]”

to be added on any communication (publicity reflects the author’s view and the JU is not liable for any use)

- Right for the S2R JU to publish information on the project

- The consortium shall ensure that all necessary authorisations for such publications have been obtained

Visual identity

- **All communication outputs:** In order to harmonise the visual ID of S2R projects, the Shift2Rail logo and EU emblem should be added to all communication outputs, in addition to the disclaimer (as per the GA);
- **Video material:** Shift2Rail video intro/outro should be added to all video material produced by the projects;
- ***All project coordinators will receive the Communication Guidelines for projects + assets (logos + video intro/outro) by email***

Communication and Dissemination

- **Communication ≠ dissemination:**
 - Dissemination is a separate obligation (e.g. through scientific articles and conferences)
- **Conferences:**
 - The planning of mid-term conference and final conferences need to be agreed with the S2R JU, so that we can achieve a Programme approach
 - Try already to check with your complementary project for synergies in this respect
 - Possibility to present project results at Shift2Rail Innovation Days (**9-10 December 2021**)

Please note that if the dissemination/communication actions foreseen by the Grant Agreement or requested by the S2R JU in the points above are not implemented, the S2R JU will reduce the S2R JU contribution to the project accordingly to art.29.6 of the GA (reduction can reach 100% of GA contribution)

Staying in touch with us

Please give regular input to our **Communication Planning**
Googlesheet

Write to us at **communication@s2r.europa.eu**

Thank you for your attention

Founding Members



Associated Members



Virtual Vehicle Austria Consortium (VVAC+)



European Rail Operating community Consortium (EUROC)



Swi'Tracken Consortium



Smart DeMain(SDM) Consortium



AERFITEC



Competitive Freight Wagon Consortium(CFW)



Smart Rail Control (SmartRaCon) consortium

