

**Minutes of Meeting – 13<sup>th</sup> meeting of the Scientific Committee of Shift2Rail**
**Shift2Rail Scientific Committee**

<b>Project:</b>	SC	<b>Date/Time:</b>	29 April 2020 02:30-04:15 PM
<b>Meeting Type:</b>	Scientific Committee	<b>Location:</b>	Via webex
<b>Meeting Coordinator:</b>	Valerie Lorgé	<b>Issue Date:</b>	

<b>Summary of the Meeting</b>	
<b>Topic</b>	
Item 1	<p><b>Introduction and welcome of the SC members</b></p> <p>The SC Chairperson and the S2R JU Head of R&amp;I welcomed the participants to the 13th meeting of the Scientific Committee (SC). A brief tour de table was organized. The ERA observer also attended the meeting.</p>
Item 2	<p><b>Approval of the meeting Agenda and previous MoM</b></p> <p>The agenda of the meeting was approved. The minutes of the previous meeting were approved.</p>
Item 3	<p><b>Conflict of Interest: declarations</b></p> <p>The declarations for Conflict of Interest (CoI) of the S2R JU Governing Board Decision n°07/2018 as well as the annual declarations on absence of conflict of interest were sent electronically to the SC members. The members of the SC sent the signed declarations to the Secretariat.</p>
Item 4	<p><b>State of play – information from the SHIFT2RAIL JU</b></p> <p><b>Latest developments and ongoing activities</b></p> <p><i>Please refer to the PowerPoint presentation</i></p> <p>The S2R JU Head of R&amp;I provided an update on programme activities since the last SC meeting in October 2019. The GAP phase for projects of the AWP2019 was finalized in December 2019. 19 Projects were finished - 7 CFM (2015-16) and 12 OC (5 2015-16 &amp; 7 2017).</p> <p>During the GB meeting on 14 November 2019, the MAAP Part B and the AWP 2020 were published.</p> <p>He presented the main changes introduced in the AWP 2020. Concerning content, emphasis was placed on projects with the highest TRL and projects focusing on demonstration activities, with IPX complementing LinX4Rail. The AWP 2020: focuses on 3 criteria; 1) pushing R&amp;I to TRL 7; 2) finalizing activities under the current programme; and 3) starting activities to be finalized under the new programme, e.g. batteries and hydrogen at TRL 2.</p> <p>He then provided the SC representatives with an overview per IP. In IP1, most activities related to TCMS and traction. In IP2, there are essential R&amp;I in term of game-changers for CCS TSI 2022, and some activities are complemented by open calls on moving block and alternative communication</p>

bearers. In IP3, the area is in evolution, and some OCs were introduced on railway systems asset management and track machines shift to collaborative robots. IP4 is pushing forward on AI and mobility as a service concept, with the integration of transport services in ticketing opportunities. IP5 focuses on condition-based maintenance, core market wagon, extended market wagon, etc. Digital Automatic coupler harbours a high level of expectation. To move from the prototype to the market, he emphasized that a European demonstrator and convergence on a single open model are needed. In CCA, he indicated that emphasis is placed on auralisation and visualisation, mostly via OCs. IPX will support advanced function towards autonomous trains, system architecture.

A prize for a maximum amount of 0,5M Euros was also included in the AWP2020 following a request from the Commission, relating to the implementation of a unique representation of the train and path objects throughout the EU, with the use of efficient algorithms generating a single Train ID. A CSA under IPx of 0,25M Euros was included on innovation in guided transport. Moreover, the three prizes were added, including Mobility start-up prizes for a total value of 10,000 Euros (Shift2Rail will sponsor the 2020 European start-up prize for mobility, co-founded by the Chair of the Transport Committee of the European Parliament).

The 23rd GB meeting took place on 26 March 2020, with the discussions on the AAR 2019 and the annual accounts. These documents are to be adopted by the GB by 1st July at the latest. **The SC members agreed that their comments on the AAR 2019 would be provided within two weeks.**

The Head of R&I then presented the activities for 2020, inter alia the publication of the call 2020 on 7 January 2020. He indicated that the S2R JU **call for proposals H2020-S2RJU-2020** initial deadline was on 21 April 2020. The recent escalation of restrictions related to the COVID-19 outbreak may hamper applicants' ability to prepare and finalise high-quality proposals. It was therefore decided, at the GB Meeting of March 2020 - after an initial exchange with the ED PB, feedback from the Scientific Committee, and the approach followed by RTD and other agencies/bodies, to extend the deadline for the S2R JU call for proposals 2020 until **27 May 2020 17:00** (Brussels Local Time).

The consensus week will be held remotely during the week of 25<sup>th</sup> of June, the extraordinary GB for the award of the call will be held by webex on 17 July.

Furthermore, the main impact of the COVID-19 restrictions would be on demonstration activities. The S2R JU is currently investigating the possibility of launching fast-track lump sum amendments.

The Head of R&I highlighted the current programme implementation is expected to be finalised by the end 2022-beginning 2023. With the aim of maximizing the use of resources, a mini-call might be proposed early 2021.

He indicated that 20 reviews/checks are currently on-going (2 CFM 2015-2016 + 7 CFM 2017 + 1 OC 2017 + 7 CFM 2018 + 3 OC 2018 Projects), also highlighting that due to the measures related to the COVID-19 outbreak and non-standard remote operation, the presented milestones may be shifted.

He highlighted the importance of the upcoming 24<sup>th</sup> GB meeting on 22 June 2020, with the adoption of the final annual accounts 2019, the AAR 2019 and the enhanced clarity that may be gained on a possible S2R successor. In September, the GAP will be launched and the reviews will continue, including the first reviews of the lump sum projects, which should provide valuable input to lessons learned on lump sum grant pilot implementation

Furthermore, the Head of R&I provided participants with an update on S2R participation in events. He informed the GB members of the official Commission proposal on 4 March to make 2021 the European Year of Rail, to support the delivery of its European Green Deal objectives in the transport field. A series of events, campaigns and initiatives across Europe in 2021 will promote rail as a sustainable, innovative and safe mode of transport. It will highlight its benefits for people, the economy and the climate and focus on the remaining challenges to create a true Single European Rail Area without borders.

He indicated that following the COVID-19 outbreak, most events have either been cancelled or rescheduled. He highlighted the two key dates where S2R will be showcasing activities: the S2R Projects Forum in October 2020 and Innotrans on 27-30 April 2021.

**TRA2020, Helsinki:**

Awaiting confirmation from organisers whether cancelled or postponed

**TEN-T Days, Sibenik:**

Awaiting confirmation from organisers whether cancelled or postponed

**Rail Live Madrid:**

Previous date: 31 March - 2 April

Rescheduled date: 30 Nov. - 2 Dec. 2020

**International Rail Forum and Conference, Prague:**

Previous date: 1-3 April 2020

Rescheduled date: 30 Nov. - 2 Dec. 2020

**Joint JUs Dinner at the European Parliament**

Previous date: 27 May

Rescheduled date: TBC

**Shift2Rail Projects Forum, Brussels:**

Previous date: 30 June – 1 July

Rescheduled date: October 2020

**InnoTrans, Berlin:**

Previous date: 22 September – 25 September

Rescheduled date: 27-30 April 2021

The representative from DG RTD provided participants with an update on the process towards S2R2. He highlighted that the document “transforming Europe’s rail system”, with strong input from associations, builds up an idea of the collaborative programme that is anticipated. He indicated that the overall timing for the future Partnerships will depend on the on-going negotiations on the Multi-Annual Financial Framework (MFF) proposal, and that so far there has been no agreement on the MFF. Moreover, the MFF will have to take into consideration the recent experience on COVID-19.

The Impact Assessment will be submitted to the Regulatory Scrutiny Board in May, in time for the hearing on 10 June 2020. The Commission proposal is expected in the autumn of 2020. There is consensus for the continuation of the current Partnership to take place under the next Multi-Annual Financial Framework and discussions are on-going as regards governance, selection of the members, content, budget and structure.

The indicative calendar for Rail R&I Beyond 2020 is as follows:

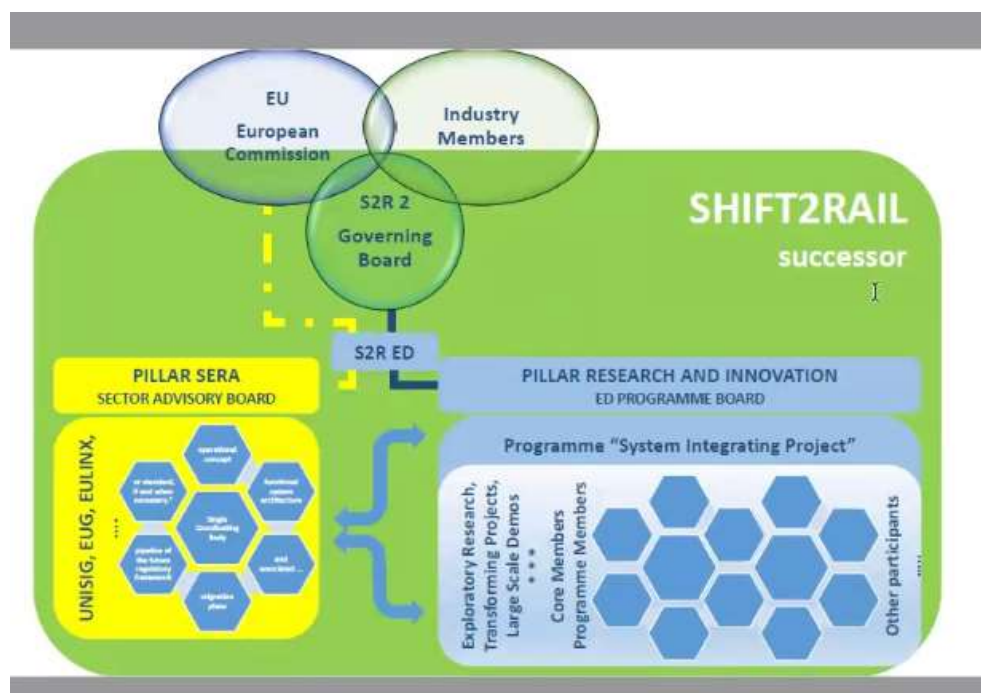
- 1<sup>st</sup> quarter 2020: IA preparation
- 2<sup>nd</sup> quarter 2020:
  - IA report discussed with RSB on 10 June
- 3<sup>rd</sup> quarter 2020:
  - Finalisation of MOVE plug-in study
  - proposal for new rail iPPP Regulation

- MS and EP
- 2nd quarter 2021:
  - Council Regulation
  - 1<sup>st</sup> July launch event

The study commissioned by DG MOVE and entitled “*Supporting analysis for defining the future rail R&I Partnership under the next MFF*” (ref. DG MOVE/C4/2018-368) has a two-fold objective: feed into the impact assessment and feed into the future technical programme (Master Plan) of the Partnership. It will also provide insight on best practices regarding organisational design, how the decision-making processes could be better organized, the membership structure, etc. The study was launched in December 2019, with an interim report provided in March 2020, a draft final report for mid-May 2020 and finalization in August 2020 in order to feed into the Impact Assessment Study and the Masterplan.

The expectation is also to reach high levels of readiness closer to deployment and market uptake. The link between research and deployment is cardinal.

Professor Salander shared a presentation on the CCS framework (below). The Head of R&I provided explanations on the suggested model, indicating that ETCS as harmonised at European level today only covers a small part of CCS system, which creates sectoral tensions. The aim is to ensure a safe, efficient and optimized CCS that fits under an overall rail system. He underlined that today such possible extension of S2R is being discussed with the sector and the European Commission, as well as ERA, to fit an overall European CCS vision - with its own wider dedicated governance, under the control of the European Commission, which would go hand in hand with a coherent R&I strategy.



Item 5

### SC contribution to the KPIs for S2R2

The Chairperson then provided participants with an overview of the SC Workshop on KPIs held on 5 March.

The SC considered that a lot of good work had been done on Key Performance Indicators, but that it was a weakness that the work compared the situation with the S2R innovations implemented with

	<p>the current situation, rather than the situation forecast for the year when the innovations would be implemented. Moreover, the work on mode split relied on a very small set of case studies, none of which related to Central or Eastern Europe, so generalisation is extremely difficult. On the other hand, radical changes in rail services were not tested, which may understate the long term benefits of the research.</p> <p><i>Post-meeting note:</i> the IMPACT KPI experts received the recommendations of the SC and they were invited to provide their assessment.</p> <p>In view of S2R2, the SC members had recommended the following for the KPI model:</p> <ul style="list-style-type: none"> <li>• simplify the method: define a specific set of high level targets that S2R2 as a programme should achieve;</li> <li>• ensure a well-defined dictionary of key data to be used and agree on a sound and manageable collection method;</li> <li>• test the usability and reliability of performance indicators under different present and future scenarios;</li> <li>• use advanced mode choice methods (stated choice) and agent based modelling to assess mode and load shifts;</li> <li>• changing mode split should be included in the KPIs from the beginning;</li> <li>• significant resources need to be devoted to forecasting mode split;</li> <li>• to monitor the progress of future projects, KPIs should be included in the technical objectives of each TD in the MAAP.</li> </ul> <p>KPIs are essential in the process of preparing the future rail Partnership; The KPIs will be included in the Impact Assessment and should also be included in the basic act. The KPIs should be more operational than what we have today.</p> <p><b>Further SC input in this respect is welcome by May 2020, in order to feed into the Impact Assessment.</b></p> <p>Professor Nash underlined that further focus on the changes to mode split is necessary, as it brings in the attractiveness of rail as well.</p> <p>The Chairperson stated that internal meetings and workshops could be organized to structure the SC contribution.</p> <p>The ERA observer underlined his interest in this work.</p>
<p>Item 6</p>	<p><b>Discussion and initial comments on the AAR 2019</b></p> <p>The AAR 2019 was sent out on 2<sup>nd</sup> March 2020 to the GB, SRG and SC. The AAR 2019 and the provisional annual accounts should be adopted by 1<sup>st</sup> July, e.g. most likely at the GB meeting of 22 June. SC comments are welcome until 13 May.</p> <p>The Head of R&amp;I indicated that the document provides a detailed overview on the progress on all activities, all detailed TDs, as well as an Executive Summary summarizing the overall situation of the programme. He underlined that some TDs are running behind due to a combination of factors. However, there is no criticality questioning the delivery path. All projects are targeting finalization by end 2022, to allow the phasing-out of the current programme and the phasing in of the new programme.</p> <p>He also indicated that this document will be subject to key updates in the next months and before</p>

	<p>the submission to the GB for approval at its meeting of 22 June 2020, but that the technical part is mainly stable, pending SC input.</p> <p><b>The SC members agreed to submit their comments within the next 2 weeks. The Chairperson will provide the S2R JU with a consolidated version.</b></p>
Item 7	<p><b>Future Events</b></p> <p>The Head of R&amp;I highlighted the two key dates where S2R will be showcasing activities: the S2R Projects Forum in October 2020 and Innotrans on 27-30 April 2021. As regards the postponement of Innotrans, S2R is currently discussing the upgrading of the demonstration activities. He indicated that the SC members are invited to the S2R Projects Forum in October 2020.</p>
	<p><b>AOB and conclusions</b></p> <p><b>Next meeting:</b></p> <ul style="list-style-type: none"> <li>• The 14<sup>th</sup> S2R SC meeting will be held on 23 September 02:00-04:00 PM via webex</li> <li>• The 15<sup>th</sup> SC meeting will be held during Innotrans (27-30 April 2021) in Berlin</li> </ul> <p>Professor Vervest asked how the SC members' input will be mobilized for the success of 2021 as the European Years of Railways. He indicated that the SC could proactively organize an event in this respect, and e.g. mobilize the broader community in the digital sector. Professor Salander agreed the SC members should seize the opportunity and present proposals in this direction by September 2021.</p>

**Annex**

Agenda 13th meeting SC (adopted)

<b>Action nr.</b>	<b>Action</b>	<b>Related Topic</b>	<b>Due date</b>	<b>Action Owner</b>
<b>1</b>	Provide S2R JU presentation	Item 4	Done	JU
<b>3</b>	SC contribution on KPIs for S2R2	Item 5	May 2020	SC members
<b>2</b>	SC comments on AAR 2019	Item 6	13 May 2020	SC members
<b>4</b>	Sharing input on foreseen S2R activities for 2021 as the European Year of Railways	AoB	Done	JU
<b>5</b>	SC proposals on activities for 2021 as the European Year of Railways	AoB	September 2020	SC members