



Questions & Answers

Call for proposals 2021

H2020-S2RJU-2021

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Acronyms	Abbreviation
Shift2Rail Joint Undertaking	S2R JU
H2020 Annotated Model Grant Agreement http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020amga_en.pdf	AGA

<p>S2R JU Model Grant Agreement http://ec.europa.eu/research/participants/data/ref/h2020/other/mga/jtis/h2020-mga-multi-shift2rail-ju_en.pdf</p>	<p>MGA</p>
<p>Linked Third Party</p>	<p>LTP</p>
<p>Call for S2R JU Members</p>	<p>CFM</p>
<p>Open Call</p>	<p>OC</p>
<p>Grant Agreement Preparation</p>	<p>GAP</p>
<p>Grant Agreement</p>	<p>GA</p>
<p>Consortium Agreement</p>	<p>CA</p>

<p>S2R JU Annual Work Plan and Budget for 2021</p> <p>https://shift2rail.org/about-shift2rail/reference-documents/annual-work-plan-andbudget/</p>	<p>S2R AWP 2021</p>
<p>Regulation (EU) No 1290/2013 of the European Parliament and of the Council of 11 December 2013 laying down the rules for participation and dissemination in "Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020)" and repealing Regulation (EC) No 1906/2006 (OJ L 347, 20.12.2013, p.81)</p> <p>http://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L .2013.347.01.0104.01.ENG</p>	<p>H2020 Rules of participation</p>
<p>Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December establishing Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC (OJ L 347, 20.12.2013, p.104)</p> <p>http://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L .2013.347.01.0104.01.ENG</p>	<p>H2020 framework Regulation</p>
<p>Council Regulation (EU) No 642/2014 of 16 June 2014 establishing the Shift2Rail Joint Undertaking (OJ L 177, 17.6.2014, p. 9)</p> <p>http://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L .2014.177.01.0009.01.ENG</p>	<p>S2R Regulation</p>

Questions & Answers		
Q	Topic	S2R Answer
1	<p>At OC in AWP21 also Founding/Associated Members can join a potential consortia, but they would have to provide the additional ikop (as per membership agreement) on top right?</p>	<p>We can confirm that according to the S2R Annual Work Plan 2021, for the call for proposals topic ID S2R-OC-IP5-01-2021 and S2R-OC-CCA-01-2021, eligibility conditions allow S2R Members (both Associated and Founding - including the constituent entities of members in the form of consortia or groupings, or affiliated entities either to the Shift2Rail JU members or to the constituent entities of members in the form of consortia or groupings) to participate. This allows for the constitution of consortia participated by S2R Members and non-Members.</p> <p>If a S2R Member becomes a direct beneficiary of the grant funded by the S2R JU, the current provisions of the respective Membership Agreement shall be complied with. i.e. the Member is expected to provide the complementary In Kind Contributions for Operational Activities and this shall be indicated in the description of the proposal.</p>
2	<p>Dear S2R team,</p> <p>We are currently studying the CSA call for projects S2R-IP5-01-2021 for one of our clients, a company in the railway sector which is very interested in this call for projects and could be a great candidate to answer to the targeted points.</p> <p>As such, we have a question: does the project have to be collaborative? If so, does the three-country rule from three different countries have to be respected? We find different information, and we want to be sure before starting to build the application.</p> <p>Thank you very much,</p> <p>Kind regards,</p>	<p>Standard minimum conditions for participation are detailed in Article 9, of Regulation n. 1290/2013, laying down the rules for participation in Horizon 2020.</p> <p>Paragraph 1 of art. 9 states that at least three legal entities shall participate in actions, these entities shall each be established in different EU Member States or Horizon 2020 associated countries and they shall be independent of each other.</p> <p>However, in the case of CSA actions, which is the case of the topic call S2R-IP5-01-2021, there is a specific derogation in paragraph 4 according to which the minimum condition shall be the participation of at least one legal entity only, established in an EU Member State or Horizon 2020 associated country.</p> <p>For the full text of the regulation please follow this link https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013R1290</p>

3 For more than 10 years our company has designed and manufactured damping systems for freight cars such as draft gears and polymer springs according to various international standards.

1) In our opinion, the most effective solution for freight cars in Europe is an automatic coupling system consisting of:

- coupler head
- yoke
- draft gear having a housing

This type of coupling is used in the United States, Russia, China, India and other countries. It will simplify and unify the manufacturing of cars, speed up the maintenance process and reduce the demurrage of wagons.

In the case of unification, the replacement of the draft gear because of its damage will not require the replacement of the whole automatic coupling. The draft gear of one manufacturer can be replaced easily and quickly with draft gear of other manufacturers. The number of manufacturers will also increase and that increases competition and leads to cost-cutting of products.

As a result, for different types of cars it will be needed to replace only the draft gear (the draft gears with the capacity of 70-90 kJ for standard wagons and for tank-wagon - 100-130 kJ) without changing other parts of the coupling system.

Alternatively, the draft gear can be combined with the yoke, but it will worsen the unification and complicate the maintenance.

2) Using only a polymer spring as a damping device in the coupling systems is not enough. For example, the

Please note that the S2R AWP defines the Research and Innovation activities that will be implemented through call(s) for proposals and/or call(s) for tenders. You can find information on the S2R AWP 2021 at the S2R website: <https://shift2rail.org/participate/call-for-proposals/>

In addition, please note that the S2R 2021 call for proposals is currently published in the S2R website. You can find all information related to this call through the link below (please note that the deadline for submission of proposals is set for 18 May 2021) and you can check if one of the topics proposed would fit your competences and ideas for R&I: <https://shift2rail.org/participate/call-for-proposals/ongoing-call-for-proposals/>

Please consider that it is up to the consortium to build up a proposal that can properly address the specific challenge, the scope and expected impact of the topic, so that external independent experts (not S2R JU staff) will be able to assess the proposal.

Damping of the polymer spring is 50-60% and the Damping of the friction draft gear is 70-80%. The higher the damping is, the less self-oscillation of the cars is on the way. It is important and affects not only traffic safety, but also the safety of cargo and equipment, energy savings for transportation.

3) The draft gear has a stroke, limited by its housing. If the standard loads are exceeded during the operation, some part of the energy can be absorbed by the housing. Thus, the housing is an additional protection at higher loads, up to 400-450t. We consider it is wrong to install spring's stroke limiters in the yoke or even their absence.

4) In countries that apply the AAR specifications or similar standards (USA, China, Australia, India, etc.), the stroke of the draft gears is 82mm. In this case, the amplitude of self-oscillations is also reduced and safety is increased. The stroke 82mm in comparison with 105mm reduces the amplitude of self-oscillations during motion by 2 meters of the train (consisting of 45 cars).

5) The capacity of draft gears with 82mm stroke is 60-70kJ. For example, the standard with the requirements for energy capacity of 45000ft/lb (equal to 62 kJ) at a stroke of 82mm has been applied on the Indian railway since 2018. And in Russia the stroke of the draft gears is 120 mm with the energy capacity of 70-130 kJ. Thus, unifying the yoke to increase energy capacity, it will be necessary to replace only the draft gear, for example, for use on wagons carrying hazardous goods.

Friction draft gears are the standard in all countries that use automatic coupling.

Your earliest reply is appreciated.

<p>4 Dear Shift2Rail's team, We are developing an innovative light rail transportation system. Recently we have built a consortium of different universities around Europe and UK to cover most of the research fields of our technology, from the technical side to the social and financial side. Is there any specific funding program/grant for this project?</p>	<p>Please consult the Shift 2 Rail Joint Undertaking webpage for information about participation in the programme (https://shift2rail.org/participate/) and for current and future opportunities to apply for a call that is suitable to your consortium's research field. Currently there is a fully open call for S2R Members and non-JU Members divided in two topics: Digital Automated Coupler innovation for the European Delivery Programme (S2R-IP5-01-2021) and R&I impact and benefits to make rail attractive for stakeholders (S2R-CCA-01-2021). For more information please follow this link: https://shift2rail.org/participate/call-for-proposals/</p>
<p>5 Can a Founding/Associated Member be a Project Partner as Beneficiary?</p>	<p>Yes, please refer to the Answer to Question 1</p>
<p>6 Can a Founding/Associated Member work as a Subcontractor to non-member Beneficiary?</p>	<p>Subject to the conditions of Article 13 of the Grant Agreement, there are no elements which would question the selection of a S2R Member and its affiliated entities as a subcontractor by a non-member beneficiary of a S2R grant agreement. Please note that specific rules apply to the award of subcontracts (e.g. Subcontracting may cover only a limited part of the action, best value for money principle, no Conflict of Interest).</p> <p>Nevertheless, a beneficiary cannot be subcontractor and direct beneficiary in the same grant.</p> <p>For further information please refer to Article 13 of the of the Annotated Model Grant Agreement: https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf</p>