



EUROPE'S RAIL INFO DAY

ONLINE

9 February 2024







AGENDA Europe's Rail

Europe's Rail JU Info Day 2024

10.00 - 10.15	Opening remarks
	Rosalinde van der Vlies Director for Clean Planet, DG RTD, European Commission
	Kristian Schmidt Director for Land Transport, DG MOVE, European Commission
	Erzsébet Fitori Executive Director, Smart Networks and Services Joint Undertaking
10.15 - 10.30	Presentation of the Call for Proposals 2024
	Giorgio Travaini Executive Director a.i., Europe's Rail Joint Undertaking



AGENDA Europe's Rail

Europe's Rail JU Info Day 2024

40.00 44.00	
10.30 – 11.00	Europe's Rail Programme open call Topics
10.30 - 10.50	DESTINATION 2 – Digital & Automated up to Autonomous Train Operations
	Léa Paties, Senior Programme Manager, Europe's Rail Joint Undertaking
	DESTINATION 5 – Sustainable Competitive Digital Green Rail Freight Services
	 Javier Ibáñez de Yrigoyen, Senior Programme Manager, Europe's Rail Joint Undertaking
	 DESTINATION 7 – Innovation on new approaches for guided transport modes Judit Sandor, Programme Manager, Europe's Rail Joint Undertaking
10.50 - 11.00	Q&A on call Topics
11.00 – 11.15	Coffee break
11.15 – 12.00	Horizon Europe legal and financial guidelines
11.15 – 11.45	Anna Torres, Grant & Legal Officer, Europe's Rail Joint Undertaking
	 Sandro Benidio, Financial Officer, Europe's Rail Joint Undertaking
11.45 – 12.00	Q&A on legal and financial guidelines





Europe's Rail JU Info Day 2024

12.00 - 13.00	Match-making session
12.00 – 13.00	Match-making session
	 HORIZON-ER-JU-2024-FA2-SNS: EU-RAIL – SNS SYNERGY: DIGITAL & AUTOMATED TESTING AND OPERATIONAL VALIDATION OF THE NEXT EU RAIL COMMUNICATION SYSTEM
	 HORIZON-ER-JU-2024-FA5: DIGITAL AUTOMATIC COUPLER – TESTING TO SUPPORT DAC AUTHORISATION, MIX AND MATCH FOR DAC COUPLER HEAD AND DRAFT GEAR INTERCHANGEABILITY AND DAC HYBRID COUPLER FITTING SOLUTIONS
	 HORIZON-ER-JU-2024-FA7: HYPERLOOP – ROADMAP TOWARDS INDUSTRIALISATION AND HARMONIZED IMPLEMENTABLE CONCEPT
13.00	End of Info Day 2024



OPENING REMARKS



OPENING REMARKS

Rosalinde van der Vlies

Director for Clean Planet, Directorate-General for Research and Innovation, European Commission



OPENING REMARKS

Kristian Schmidt

Director for Land Transport, Directorate-General for Mobility and Transport, European Commission



OPENING REMARKS

Erzsébet Fitori

Executive Director, Smart Networks and Services Joint Undertaking

EGSNS

SNS JU: Priorities and Synergies with Rail



Public Private Partnership

Unlocking Value from **Research & Innovation** (Technological Sovereignty)



Implementing the telecom research and innovation (R&I) SNS programme leading to B5G and 6G conception and standardisation

Deploying Critical 5G/6G Infrastructures (Scale/Timing/Security)



Strategic guidance for relevant programmes under Connecting Europe Facility, in particular 5G Corridors

Synergies

Dialogue and cooperation between Telecom and Rail sectors is essential



- **Technology Transition**
- Deployment scenarios
- Telco-Rail collaboration



- **Standardisation**
- QoS
- Spectrum



- **Digital Use Cases**
- Gigabit Train
- Transport and Logistics



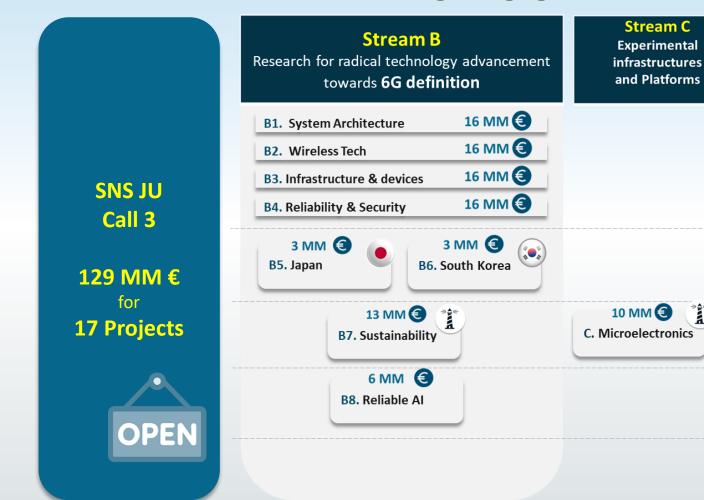




Unlocking value from Research and Innovation

Stream C

2024 SNS JU Work Program Highlights



Stream D **Large Scale Trials and Pilots with Verticals**

25 MM €

D. Large Scale Trials

4 MM (**CSA.** Operations

Other

Synergies and CSA

SNS JU Contribution

1 MM (1) Synergy EU-Rail **FRMCS**







Creating close synergies with other Horizon Europe initiatives

Joint topic call for the Testing and Operational Validation of the Next EU Rail Communication System

HORIZON-ER-JU-2024-FA2-SNS: EU-RAIL – SNS SYNERGY: DIGITAL & AUTOMATED TESTING AND OPERATIONAL **VALIDATION OF THE NEXT EU RAIL COMMUNICATION SYSTEM**

Specific conditions				
Expected EU contribution	EUR 13.4 million			
Indicative projet duration	30 months			
TRL	TRL 6/7. The output should be included as part of the EU-Rail Standardisation and TSI Input plan, and follow the associated processes linked to the ERA Change Control Management process.			
Type of action	Innovation Action – Lump Sum			
Linked actions and expected interactions	The action that is expected to be funded under this topic will be complementary to the following actions: • FP2-R2DATO (GA 101102001) • FP6 — FutuRe (GA 101101962) Please note that the list is non-exhaustive as additional Linked Projects may follow at a later stage of the programme implementation to complement the activity			
Call details	Opening: 25 January 2024 Closing: 07 May 2024			



CALL FOR PROPOSALS 2024

Giorgio Travaini

Executive Director a.i., Europe's Rail Joint Undertaking



Mission & Vision

To deliver a fully integrated European railway network for citizens and businesses.

Rail Research and Innovation to make Rail the everyday mobility.





Results

Meeting customer requirements



Improved performance and capacity



Improved efficiency and reduced lifecycle costs



Sustainable and resilient transport: enabling an increased use

Interoperable rail system and greater adaptability to new technologies

Better services: Smart and costefficient rail connectivity Improved EU rail supply industry competitiveness





One integrated R&I Programme based on a system view

DEPLOYMENT GROUP

SYSTEM PILLAR

Single governance and coordination body

Unified operational concept

Functional system architecture

Support Single European Railways Area

Common EU railway system view

CONTINUOUS EXCHANGE

INNOVATION PILLAR

User-focused Research & Innovation

Flagship Projects

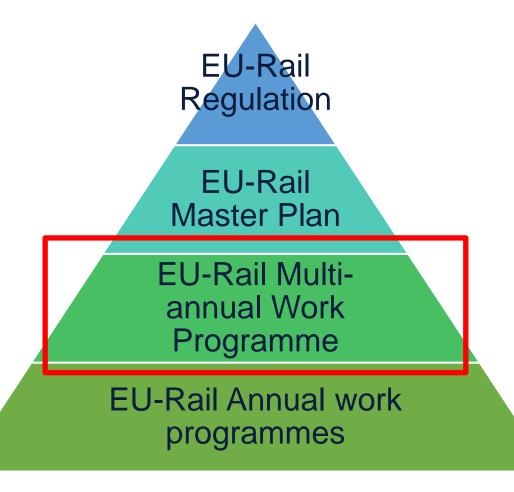
Large-scale demonstrations.

Exploratory, fundamental R&I

Technological and operational solutions



Navigating the EU-Rail key documents of a Programme approach



Focus on the

- **MAWP:** It defines how the EU-Rail JU has designed its R&I activities to achieve the general and specific objectives set out in the SBA through an Integrated Programme:
 - System Pillar (tasks)
 - Innovation Pillar
 - 7 Flagship Areas + TT
 - Exploratory and other activities
 - Deployment group



THE EU-RAIL CALL 2024 IS OPEN TO ALL ELIGIBLE ENTITIES IN ACCORDANCE WITH HORIZON EUROPE

NO ADDITIONAL CONDITIONS



EU-Rail Call 2024: Opening: 25 January 2024;

Deadline: 7 May 2024 <u>17h</u>

Total EU funding: 21,7M€

Call structure (see also annex VIII of the EU-Rail Work Programme 2024)

- **Expected outcome:** describes the expected developments within the destination topic and the links with other Destinations.
- ❖ Scope: identifies the expected capabilities/enablers that should be developed through R&I activities

DESTINATION 2 – Digital & Automated up to Autonomous Train Operations :

Торіс	Type of Action	Expected TRL	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
HORIZON-ER-JU-2024-FA2-SNS: EU-RAIL – SNS SYNERGY	IA – lower funding rate at 60%	6 to 7	13.5 (+ expected leverage effect up to 5x out of a total maximum EU contribution)	1

EU-Rail Call 2024: Opening: 25 January 2024;

Deadline: 7 May 2024 <u>17h</u>

DESTINATION 5 - Sustainable Competitive Digital Green Rail Freight Services:

Topic	Type of Action	Expected TRL	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
HORIZON-ER-JU-2024-FA5: DIGITAL AUTOMATIC COUPLER	IA – lower funding rate at 60%	6 to 7	5.9	1

DESTINATION 7 Innovation on new approaches for guided transport modes:

Торіс	Type of Action	Expected TRL	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
HORIZON-ER-JU-2024-FA7: Hyperloop	RIA	4	2.3	1



Research Enquiry Service

For questions about research and Horizon Europe, you can contact the Research Enquiry Service via the webform:

Research Enquiry Service (europa.eu)

Research Enquiry Service (link)





EUROPE'S RAIL PROGRAMME OPEN CALL TOPICS



DESTINATION 2

HORIZON-ER-JU-2024-FA2-SNS: EU-RAIL – SNS SYNERGY: DIGITAL & AUTOMATED TESTING AND OPERATIONAL VALIDATION OF THE NEXT EURAIL COMMUNICATION SYSTEM

Léa Paties

Senior Programme Manager, Europe's Rail Joint Undertaking



Specific conditions (highlights)

Expected EU contribution	EUR 13.5 million
Indicative project duration	30 months
TRL	TRL6/7. The output should be included as part of the EU-Rail Standardisation and TSI Input plan, and follow the associated processes linked to the ERA Change Control Management process.
Type of action	Innovation Action
Linked actions and expected interactions	 The action that is expected to be funded under this topic will be complementary to the following actions: FP2-R2DATO (GA 101102001) FP6 – FutuRe (GA 101101962)
	Please note that the list is non-exhaustive as additional Linked Projects may follow at a later stage of the programme implementation to complement the activity.



Expected outcome & scope

- Workstream 1: Development of a future proof telecom architecture including all necessary network elements, based on 5G SA, IMS/SIP Core, MCX and more generally on 3GPP standards, and conform to all FRMCS Specifications from UIC, 3GPP and ETSI. This must include pre-commercial versions of onboard equipment (TOBA, Telecom On-Board Architecture) and of the corresponding Trackside Gateway ensuring the relevant management of telecom streams, independently of carried services, and then facilitating the bearer flexibility of the solution.
- Workstream 2: Testing of key functions necessary for daily operations of trains, including safety related functions, with the adequate quality of service and all necessary telecom interfaces and protocols: voice operational functions (necessary for the daily operations of trains, in the continuity of GSM-R operational functions, including safety related functions such as the voice emergency call), ETCS level 2 support, ATO over ETCS (GoA1/2), additional FRMCS features such as Messaging, Train Control & Management System (TCMS), CCTV and Passenger Information System (PIS) using video over Mission Critical (MC) Data if video is needed.



- Workstream 3: Validation and return on experience:
- Validate the capacity of the systems to meet KPIs and Fault Configuration Accounting Performance Security (FCAPS) in order to estimate and predict service behaviour.
 - Deliver technical inputs for Migration strategy to move from GSM-R to FRMCS;
 - o **Include the necessary return of experience** (from the results of the action to be funded under this topic, and also possible national FRMCS testing campaigns) to provide feedback to specifications (refinement of possible gaps and input to future specifications) and ultimately, start pilots (or initial deployments in safe operational and economic conditions).

EU-Rail Governance and Process Handbook: https://rail-research.europa.eu/wp-content/uploads/2023/01/EU-Rail-Governance-and-Process-Handbook.pdf



DESTINATION 5

HORIZON-ER-JU-2024-FA5: DIGITAL AUTOMATIC COUPLER – TESTING TO SUPPORT DAC AUTHORISATION, MIX AND MATCH FOR DAC COUPLER HEAD AND DRAFT GEAR INTERCHANGEABILITY AND DAC HYBRID COUPLER FITTING SOLUTIONS

Javier Ibáñez de Yrigoyen

Senior Programme Manager, Europe's Rail Joint Undertaking



DESTINATION 5 – Sustainable Competitive Digital Green Rail Freight Services

HORIZON-ER-JU-2024-FA5: DIGITAL AUTOMATIC COUPLER – TESTING TO SUPPORT DAC AUTHORISATION, DAC COUPLER MIX AND MATCH AND DAC HYBRID COUPLER FITTING SOLUTIONS

Expected EU contribution	EUR 5.9 million
Indicative project duration	24 months
TRL	6 / 7
Type of action	Innovation Action

Type of action Innovation Action

Linked actions and expected interactions

The action that is expected to be funded under this topic will be complementary to the following actions:

- FP5-TRANS4M-R (GA 101102009)
- DACcord (GA 101121855)
- Interact with EU-Rail System Pillar for the aspects related to the TSI compliance aspects and planning and with the European DAC Delivery Programme groups



Expected outcome

The Project stemming from this topic is expected to contribute to Europe's Rail Programme addressing the activities on Full Digital Freight Train Operations (FDFTO) considered within FP5-TRANS4M-R.

- Ensure that the pre-deployment trains are using the basic package considering the activities to support DAC authorisation.
- Initiate mix and match tests as a first step towards the interchangeability of DAC interface A couplers.
- Enlarge the number of Wagon Onboard Units (WoBu) compliant with the FDFTO system architecture developed by FP5-TRANS4M-R.
- o Increase the number of the most common loco types with integrated hybrid couplers.



Workstream 1: DAC Interface A derailment and propelling safety tests, crash tests, climate chamber tests and initial tests to prove interchangeability of DAC coupler head/shank and draft gear across DAC solutions

- The execution of derailment tests, crash tests and climate chamber tests with DAC interface A.
- Test results for the DAC authorisation and standardisation activities within TSI and Regulations concerning the International Carriage of Dangerous Goods by Rail (RID).

Workstream 2: Mix and match tests - initial tests to prove interchangeability of DAC interface A coupler head/shank and draft gear across DAC suppliers

- The R&I work should provide the first results for interchangeable DAC interface A couplers for the handling, the transmission of forces and the behaviour for defined operational test cases.
- o Based on the test results, a comprehensive test specification should be defined for a fully developed mix and match test aiming for the interchangeability of interface A in DAC couplers.



Workstream 3: Hybrid coupler for mainline and shunting locomotives, technical analysis and development of fitting solutions

- By first identifying the most suitable locomotive types (mainline and shunter locomotives) for the technical integration of power supply and communication systems, the Project is expected to deliver:
 - The evaluation and assessment of existing technical documentation of the locomotive types considered, the analysis of technical boundaries, the evaluation and assessment of potential technical solution for the integration of power supply and communication systems within the locomotive types considered, and a roadmap for technical integration within the planned timeframe to allow the preparation of test runs (TRL 7).

Workstream 4: Wagon Onboard unit (WoBu)

 Different suppliers involved to deliver the needed number of WoBu. These units should be conceived according to the applicable FDFT requirements of FP5-TRANS4M-R. The project should perform demonstrations in operational environments (TRL 7).



DESTINATION 7

HORIZON-ER-JU-2024-FA7: HYPERLOOP – ROADMAP TOWARDS INDUSTRIALISATION AND HARMONIZED IMPLEMENTABLE CONCEPT

Judit Sandor

Programme Manager, Europe's Rail Joint Undertaking



Specific conditions

DESTINATION 7 – Innovation on new approaches for guided transport modes

HORIZON-ER-JU-2024-FA7: HYPERLOOP - ROADMAP TOWARDS INDUSTRIALISATION AND HARMONIZED IMPLEMENTABLE CONCEPT

Expected EU
contribution

EUR 2.3 million

Indicative project duration

24 months

TRL

4

Type of action

Research and Innovation Action (RIA)

Linked actions and expected interactions



Workstream 1: Technical harmonisation, roadmaps on industrialisation and applicability

- Enable towards harmonisation/interoperability of the hyperloop technologies using commonly identified definitions for operational, safety and reliability requirements. Hazard analysis should be performed while aiming to define a commonly agreed architecture design.
- The basis for a future market uptake of the hyperloop technologies, thanks to the development of an industrial roadmap, reflecting relevant parties covering all steps and milestones needed for the technology's industrialisation and deployment.
- The areas of possible application considering operational scenario, business case will be defined together with specific feasible routes in the European mobility network.

Workstream 2: Design concept and validation of key sub-systems

- A blueprint concept for 1:1 scale demonstrators based on commonly defined and agreed architecture and requirements.
- Validate a proof or concept to carry out compatibility tests of the different subsystems for vehicle and or infrastructure from different solution providers.



Workstream 1: Technical harmonisation, roadmaps on industrialisation and applicability

- o Identification of use cases by assessing possible business cases and defining possible operating models taking into account the following: network effects, interoperability (cross-border in the EU) and integration with the EU multimodal mobility network.
- o Initial common system architecture and to identify functional, operational, and safety related requirements for the infrastructure and the vehicle and the interfaces between different subsystems.
- Preliminary Hazard Analysis based on identified operational requirements, considering operational processes and applicable safety standards from other modes while striving towards interoperability.
- An industrial roadmap for the technical elements including system/subsystems qualifications and validations steps, to reach the commercial implementation. This could be expanded looking at the economic feasibility of possible lines being operated with hyperloop technology in Europe.

Workstream 2: Design concept and validation of key sub-systems

- Development of a design concept (TRL2) of a demonstrator for the complete hyperloop system (at 1:1 scale in relevant environment) to assess the feasibility of the requirements set in WS1 and to set a standard for the future in the perspective of harmonisation and interoperability.
- Validation of existing technologies for key sub-systems considering the developed design concept, at least TRL4 considering compatibility checks between different existing or adapted solutions for infrastructure and/or vehicle.



Q&A



Coffee Break



EUROPE'S RAIL INFO DAY CALL 2024

LEGAL AND FINANCIAL GUIDELINES

Starting at 11:15



EUROPE'S RAIL INFO DAY CALL 2024

Anna Maria Torres

Grant & Legal Officer, Europe's Rail Joint Undertaking



Where to find EU-Rail's 2024 Call for proposals?

Funding and Tenders Portal

EU-Rail website > 'Participant' tab



Before submitting your proposal

- Participant Register
- Checks:
 - √ 1. Exclusion
 - ✓ 2. Admissibility
 - ✓ 3. Eligibility
- Follow rules described in Call for proposals



Exclusion

- EDES-DB check: before evaluation, before award and before GA signature
- Applicants who are subject to <u>EU administrative sanctions</u> or in certain <u>exclusion</u> <u>situations</u> cannot participate, e.g.:
 - ✓ bankruptcy
 - ✓ in breach of social security or tax obligations
 - ✓ grave professional misconduct
 - ✓ fraud/corruption
 - ✓ significant deficiencies in complying with main obligations under another EU GA/contract
- Applicants will also be refused if :
 - ✓ they misrepresented information required for participating or failed to supply that info
 - ✓ were previously involved in the call preparation > conflict of interest (CoI)



Admissibility

- Applicants must submit their proposals before the deadline and electronically via the Funding & Tenders Portal
- Applications must be complete and contain a dissemination and exploitation plan

Applications must correspond to the page limit



Eligibility – to participate & to receive funding



EU COUNTRIES

- Member States (MS)
- Overseas Countries and Territories (OCT) linked to MS



NON-EU COUNTRIES

- Countries associated to Horizon Europe (AC)
- Low & middle-income countries
- Other countries when announced in the call or exceptionally if their participation is essential



SPECIFIC CASES

E.g.,

- EU bodies
- (IO):
 - International European research organisations are eligible for funding
 - Other IO can be eligible for funding only exceptionally



Associated Countries



- 18 Associated Countries (AC): Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Kosovo, Moldova, Montenegro, New Zealand, North Macedonia, Norway, Serbia, Tunisia, Turkey, Ukraine and United Kingdom.
- Transitional arrangements: An applicant/legal entity based in a third country officially candidate for association to Horizon Europe is eligible (Morocco, Canada).
 - Those applicants will be treated as entities established in an Associated Country, if the Association Agreement with the third country concerned applies at the time of signature of the Grant Agreement.



Eligibility – to participate

Non-Associated Third Countries

- Any legal entity, regardless of its place of establishment including legal entities or international organisations from non-associated third countries - is eligible to participate (whether it is eligible for funding or not).
- Non-associated third country applicants must submit their proposals as <u>Associated Partners</u>.
- EXCEPTION: entities from <u>countries subject to EU restrictive</u> <u>measures.</u>



Gender Equality Plan

 Having a gender equality plan is an <u>eligibility criterion</u> for <u>Public bodies</u>, Higher <u>Education establishments</u> and <u>Research organisations from Member States and Associated Countries</u>.

It must cover:

- ✓ publication: formal document published on the institution's website and signed by the top management
- ✓ dedicated resources: commitment of resources and expertise in gender equality to implement the plan
- ✓ data collection and monitoring
- √ sex/gender disaggregated data on personnel and annual reporting based on indicators
- ✓ training: awareness raising/training on gender equality and unconscious gender biases for staff
- A self-declaration will be requested at proposal stage.
- If the proposal is selected, having a GEP will be necessary <u>before</u> GA signature.



Consortium

Forming a consortium of applicants is an eligibility criterion:

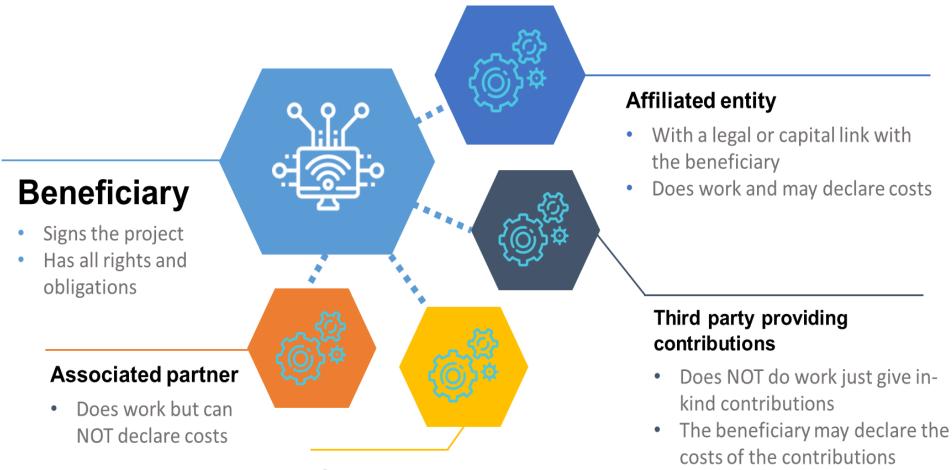
✓ At least one independent legal entity established in an EU Member State

+

✓ At least two other independent legal entities established either in a different EU Member State or in an Associated Country



How can you participate in a Consortium?



Subcontractor

- Does work and invoices the beneficiary
- The beneficiary may declare the invoice



Structure of proposals in HE







NEW IN PART A

- Researchers table needed to follow up researchers careers (HE indicator)
- Role of participating organisations
- Self-declaration on gender equality plan

FIELDS MOVED FROM PART B TO PART A

- Ethics self-assessment
- Security questionnaire

NEW IN PART B

- Glossary of terms
- Consistency on the use of terminology is ensured in all project phases
- Explanations on what exactly should be included in each section

- EU funded activities must comply with fundamental ethical principles and legislation, including adherence to the highest standards of research integrity as described in the European Code of Conduct for Research Integrity.
- An ethics review process is carried out systematically in ALL HE proposals, based on a self-assessment included in the proposal.

For more information > <u>How to complete your ethics self-assessment.</u>

Projects involving ethics issues will have to undergo an ethics review to authorise funding and may be made subject to specific ethics requirements, which become part of the grant agreement as ethics deliverables (e.g., ethics committee opinions or authorisations required under national or EU law).



- Security issues will be checked systematically in ALL HE proposals.
- The checks are based on a self-assessment included in the proposal.
- The focus is on:
 - Whether the proposal uses or generates EU classified information
 - Potential of misuse of results (that could be channeled into crime or terrorism)
 - Whether activities involve information or materials subject to national security restrictions

Checks based on self-assessment may trigger an in-depth security.



Evaluation of proposals

3 award criteria: 'Excellence', 'Impact' and 'Quality and efficiency of implementation'

> But specific EU-Rail sub-criteria - Annex VIII of the EU-RAIL AWP

Part D of 'Horizon Europe Work Programme 2023-2024 General Annexes' applies regarding the award criteria, scores and weighting, with the following additions:

- Excellence: 'quality of the proposed joint activities to achieve the deliverables'
- Impact: 'quality and credibility of the action to contribute achieving the EU-Rail Master Plan objectives and the expected impact of the EU-Rail Multi-Annual Work Programme'
- Quality and efficiency of the implementation: 'appropriateness of the project management structure and quality of the proposed coordination'



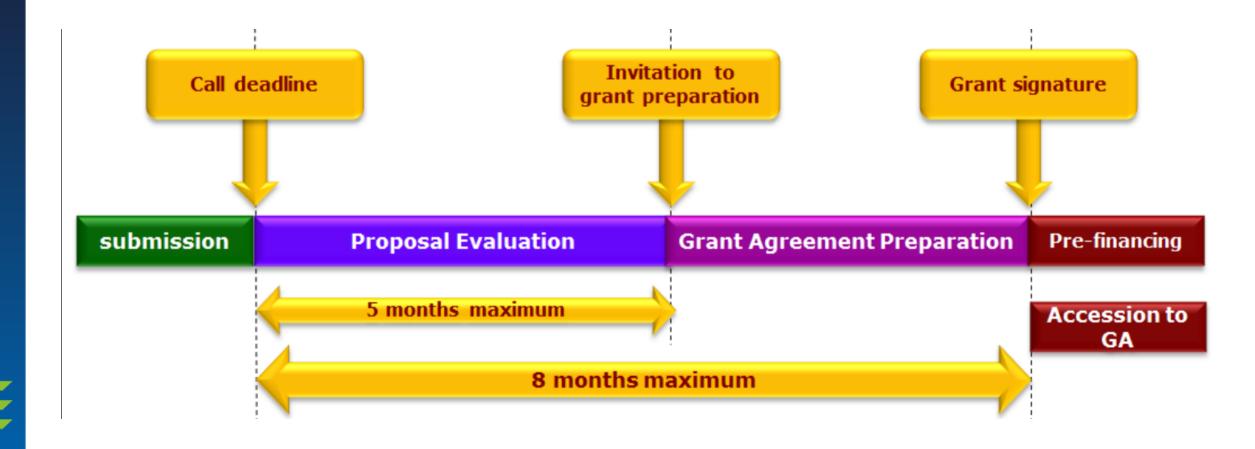
Scores and weighting

- Evaluation scores will be awarded for the criteria
- For full applications, each criterion will be scored out of 5
- The threshold for individual criteria will be 3
- The overall threshold, applying to the sum of the three individual scores, will be 10
- To determine the ranking for IAs, the score for 'Impact' will be given a weight of 1.5
- Weighting is only used for the ranking (not to determine if the proposal passed the thresholds)
- Proposals that pass the individual threshold AND the overall threshold will be considered for funding, within the limits of the available call budget



Time to Grant

- Information on the outcome of the evaluation: <u>around 5 months</u> from the deadline for submission
- Indicative date for the signing of grant agreements: <u>around 8 months</u> from the deadline for submission





What does the HE Grant Agreement looks like?



e-GRANT

The HE grant agreement and its management are fully electronic: from the signature of the grant until its end. All actions and communications will flow via the F&T Portal.



CORPORATE STRUCTURE

The HE grant agreement is based on a Commission-wide model (so-called 'Corporate Model Grant Agreement').



SPECIFIC ANNEX 5

Some important rights and obligations are part of Annex 5:

- Security
- Ethics
- Values (i.e. gender mainstreaming)
- IPR
- Communication, Dissemination,
 Open Science and Visibility
- Specific rules for carrying out the action



Info-call@rail-research.europa.eu

2024 Call Q&As published on EU-Rail's website and on F&T Portal

Useful documents: <u>HE WP 2024 General Annexes</u>, <u>HE Programme Guide</u>, <u>F&T Portal Online Manual</u>, <u>Anotated Model Grant Agreement</u>, <u>List of participating countries to HE</u>



EUROPE'S RAIL INFO DAY CALL 2024

FINANCIAL GUIDELINES

Sandro Benidio

Financial Officer, Europe's Rail Joint Undertaking



FINANCIAL GUIDELINES

Horizon Europe - The next EU Research and Innovation investment Programme (2021-2027) and EU-Rail JU

- 1. Model Grant Agreement (MGA) and eligibility criteria
- 2. Lump sum detailed Financial Excel table
- 3. Estimated Members' contributions



Lump sum – main differences with standard MGA

The grant agreement will set out the lump sum (Max contribution: co-funding) corresponding to the full accomplishment of the work committed in Annex 1.

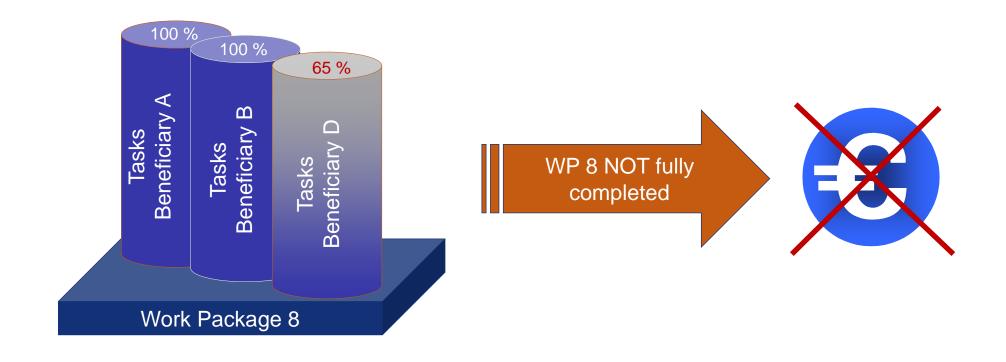
The lump sum for the grant is set out at its signature.





Lump sum – main differences with standard MGA

Work Package and its work (deliverable, milestones, etc.) importance





Submission – Lump Sum Grants

- For lump sum grants, when the amount of the lump sum is not fixed in advance, the estimated budget must be described in a **detailed budget table**.
- This will be used as a basis for fixing the lump sum amount.
- **EC decision** authorizing the use of lump sum contributions under the HE/EU-Rail Programme:

"The detailed cost estimation per work package and per beneficiary and affiliated entity (if any) shall include only costs that would be considered eligible in an actual costs grant. [...] Where relevant, applicants shall declare that they have followed their **own accounting practices for the preparation of the estimated budget**".



- As the lump sum is an approximation of the costs actually incurred, the costs included in this detailed budget table must **comply with the basic eligibility conditions** for EU actual cost grants (see AGA Annotated Grant Agreement, article 6).
- This is particularly important for purchases and subcontracting, which must ensure **best** value for money (or, if appropriate, the lowest price) and be free from any conflicts of interest.

• If the budget table contains ineligible costs, the grants may be reduced (even later on during implementation of the project, or after they end).

Lump Sum - 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 condition.
- Consequence: in case of breach, 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.



Lump Sum Grants: why?

- Lump sum project funding removes all obligations on actual cost reporting and financial audits (Certificate of Financial Statement and ex-post audits) at project implementation phase i.e. a major reduction of administrative burden.
- Focus on performance: shift from focus on financial management and checking costs to focus on scientific-technical content of the projects.
- One lump sum share is fixed in the grant agreement for each work package: this amount is
 paid when the activities in the work package are completed (the payment does not
 depend on a successful outcome, but on the completion of activities, as confirmed by the
 JU).



Lump Sum Grants: keeping records



Art 20 lump sum MGA



HE specific provisions to be considered in submitting the Lump Sum Proposals

Personnel costs





 Discontinuation of the different formulas (annual and monthly) and options for productive hours (entailing difficult and errorprone calculations).

No more 'last closed financial year' rule.

 Instead, use of a single corporate daily rate and calendar year approach.



Daily rate calculation

When?

per calendar year (from January to December)

- except for the months running from the end of the last calendar year until the end of the reporting period. For those months, you must calculate a separate partial daily rate as follows:
 - {actual personnel costs of the person incurred over those months divided by
 - {215 / 12 (months) x number of months from the January until the end of the reporting period}}



HE specific provisions

Indirect costs



Indirect costs



What?

Costs that are only indirectly linked to the action implementation (Art. 6(1) General eligibility conditions of the Horizon Europe MGA)



Flat-rate of 25% of the eligible direct costs, except subcontracting costs, financial support to third parties and exempted specific cost categories, if any. (Art. 6(2)(E) Indirect costs of the Horizon Europe MGA)



Possibility to accept actual indirect costs allocated via beneficiary's usual key drivers in the unit cost calculation for internally invoiced goods and services



Equipment costs

Continuity

Depreciation costs are by default eligible.

By exception, full costs may be eligible.

Further clarity

Optional provisions addressing the specific case of assets under construction (e.g. prototype) and their related capitalised costs:

- The full construction costs (typically the costs of the personnel involved in the construction of the prototype)
- The full purchase costs (typically any component, pieces of equipment bought for the prototype)



Lump Sum Grant Agreements

Evaluation



- In complement to the explanation provided in the legal part about the evaluation criteria (previous chapter "excellence / impact / quality and efficiency of the implementation", for each WP), experts shall in addition:
- ✓ Check the <u>budget estimate on the basis of relevant statistical data</u> or historical data on previously funded and comparable actions (or based on relevant benchmarks on costs and resources such as market prices)
- ✓ Assess whether the <u>resources proposed</u> and the <u>split of lump sum shares</u> allows <u>achieving the activities</u> and expected outputs
- ✓ Verify that proposals include the <u>declaration</u> by beneficiaries of having used their <u>own accounting practices</u>.



Lump Sum Grant Agreements

Ex-post controls



Lump Sum – ex-post controls

Checks, reviews and audits for:



Proper implementation of the action (e.g. technical review)



Compliance with the other obligations of the grant:

Obligations related to third parties (e.g. financial support)
Other obligations (e.g. ethics, visibility of EU funding, etc.)

No financial audits anymore

Art 25 lump sum MGA



2. Lump Sum detailed Financial Excel table



Instructions:

In this tab, all the necessary instructions on how to fill in the table are shown





Europe's Rail Joint Undertaking

	Instructions
	Go to Beneficiaries and Affiliated Entities list Go to Work packages list
GENERAL INSTRUCTIONS	This workbook enables you to present the detailed estimation of costs of your lump sum project and to calculate the lump sum breakdown per work package and per categoy. It must be uploaded as an additional document at "Fill in proposal" step of proposal submission. This is mandatory. Please note that if you do not upload the Excel workbook, the proposal submission will be blocked. According to the lump sum scheme, the lump sum share for a Work Package (WP) will be paid only when the entire Work Package has been completed. Please take it into consideration while structuring your proposal. Work Packages should be designed in a way that enables to clearly identify whether the action has been completed. We recommend using Excel 2010 or more recent. The only currency used in this workbook is EURO. Enter only round numbers in this workbook. You have to fill in only the following sheets: "BE list" - "WP list" - "BEx" (one sheet for each Beneficiary) - "Depreciation costs" (if any) and the column D "requested grant amount" of the "Budget for proposal sheet". The appropriate number of individual Beneficiary sheets ("BEx") will be automatically generated with data from the "BE list" and "WP list" sheets You will have to fill in the "Budget for the proposal" table in the Part A form of the proposal submission tool, entering the requested EU contribution for each participant. We advise you to fill this Part A budget table column using the totals in the beneficiaries columns of the "Lump sum breakdown" table in this Excel workbook. The format of this Excel workbook is .xIsm because it uses macros to generate automatically some data. Always save it as .xIsm. However, this format cannot be uploaded to the submission system for security reasons. So please also save a copy as an .xIsx or .xIs document (and not as .xIsm) and upload it to the proposal submission tool, at Step 5 of the submission process. Always keep a copy of the original .xIsm file. To save the workbook as .xIsx document, in Excel click on "File" and t
BE LIST	In the 'BE list', you can add as many Beneficiaries and as many Affiliated Entities as you need. To add Beneficiaries, click on the "Add BE" button; to add an Affiliated Entities, click on the "Add AE" button next to the Beneficiary the Affiliated Entity is linked with. For each Beneficiary and each Affiliated Entity, you must choose the appropriate country in the drop-down menu and enter the correct fundin rate. The funding rate of the action is 60% of the eligible costs to achieve the leverage effect established in the SBA. Each consortium may decide internally different funding rates in line with the provisions of Article 34 of Horizon Europe, nevertheless complying with the overall funding rate of 60%. Once you have completed the 'BE list' sheet, you must click the "Apply changes" button to generate the related sheets in the Excel workbook. You can delete a Beneficiary or Affiliated Entity by simply removing the content of the line and leaving it blank. Once your changes are done, you have to click the "Apply changes" button. Be aware that you cannot delete the first Beneficiary of the list. If you delete a Beneficiary form the 'BE list', the BE sheet of this Beneficiary will be saved as a backup only. This sheet will be excluded from the calculation. Please do not forget to also delete the Affiliated Entities linked to this Beneficiary. If you delete an Affiliated Entity, the data of this Affiliated Entity will not be saved as a backup.



BE List:

In this tab, you should add all the beneficiaries and affiliated entities and chose the respective funding rate (open field). Once completed click on the button "apply changes" and the table will now include a tab for each beneficiary.



	List of beneficiaries and a	Add BE	Apply changes			
BE/AE nr	BE/AE name	Acronym	Country	Funding rate		
BE1	Beneficiary 1	BE1	BE	60%	Add AE	
BE1-AE1	AE 1 (ben1)	AE1	BE	100%		
BE2	Beneficiary 2	BE2	DE	100%	Add AE	
BE2-AE1	AE 1 (ben2)	AE1 (B2)	AT	70%		
BE3	Beneficiary 2	BE3	PT	40%	Add AE	

Q&A published on EU-Rail website here: https://rail-research.europa.eu/participate/call-for-proposals/

Q&A nr 9, 10 and 18 about the funding rate → in principle 70% or 100%



WP List:

In this tab, you should add all the work packages defined for the project and their description. Once completed click on the button "apply changes" and the table will now be ready to complete with the financial information from the beneficiaries and their affiliated entities.



	List of V	Add	WP	Apply change			
WP-number	WP-name	WP-description			716613	citatibes	
WP1	Work Package 1	Description of Work Package 1					
WP2	Work Package 2	Description of Work Package 2					
WP3	Work Package 3	Description of Work Package 3					
WP4	Work Package 4	Description of Work Package 4					



BE1, 2, 3 and so on – with or without AE:

- The financial information for each beneficiary and their AE (when applicable) should be added in each respective tab and for each respective work package.
- Only the yellow cells can be filled and all the calculations are based on pre-defined formulas
- At the end of the sheet, you
 can find a summary with
 the information concerning
 all work packages and the
 total costs foreseen for
 each beneficiary or
 affiliated entity

BENEFICIARY CALCULATION SHEET							
summary		EFICIARY 1: Be			ffiliated Entity: A		
COST CATEGORY	UNITS	COST PER UNIT	BE TOTAL COSTS	UNITS	COST PER UNIT	AE TOTAL COSTS	BE+AE TOTAL
COSTS WORK PACKAGE 1: WP1							
A. DIRECT PERSONNEL COSTS							
A.1 Employees (or equivalent)							
SENIOR SCIENTISTS (or equivalent in the private sector)	10.00	8000.00	80,000.00			0.00	80,0
JUNIOR SCIENTISTS (or equivalent in the private sector)			0.00			0.00	
TECHNICAL PERSONNEL (or equivalent in the private sector)			0.00			0.00	
ADMINISTRATIVE PERSONNEL (or equivalent in the private sector)			0.00			0.00	
OTHERS			0.00			0.00	
A.2 Natural Persons under direct contract			0.00			0.00	
A.3 Seconded Persons			0.00			0.00	
A.4 SME owners and natural person beneficiaries		5.080.00	0.00		5.080.00	0.00	
B. DIRECT SUBCONTRACTING COSTS		2,000.00	3,00		2,223.00	3,00	
			0.00			0.00	
C. DIRECT PURCHASE COSTS			5.00			5,00	
C.1 Travel and subsistence			0.00			0.00	
C.2 Equipment (complete 'Depreciation costs' sheet)			5.00			5.00	
Equipment			0.00			0.00	
Infrastructure			0.00			0.00	
Other assets			0.00			0.00	
C.3 Other goods, works and services			0.00			0.00	
Consumables			0.00			0.00	
Services for meetings, seminars			0.00			0.00	
Services for dissemination activities (including website)			0.00			0.00	
			0.00			0.00	
Publication fees							
Other (shipment, insurance, translation, etc.)			0.00			0.00	
D. OTHER COST CATEGORIES			0.00			0.00	
0.1 Financial support to third parties (if applicable in the topic specific conditions)			0.00			0.00	
D.2 Internally invoiced goods and services			0.00			0.00	
0.3 Transnational access to research infrastructure unit costs (if mentioned as eligible in the topic specific conditions)			0.00			0.00	
O.4 Virtual access to research infrastructure unit costs (if mentioned as eligible in the topic specific conditions)			0.00			0.00	
D.5 PCP/PPI procurement costs (if mentioned as eligible in the topic specific conditions)			0.00			0.00	
TOTAL DIRECT PERSONNEL COSTS AND PURCHASE COSTS (A+C)			80,000.00			0.00	80.
TOTAL DIRECT COSTS (A+B+C+D)			80,000.00			0.00	80,0
E. INDIRECT COSTS (25% * (A+C))			20,000.00			0.00	20,
F. TOTAL COSTS (A+B+C+D+E)			100,000.00			0.00	100,0



Depreciation cost:

In this tab, you have a tool where you can calculate the depreciation costs of any equipment to be used in the action. This will help you define the amounts to be added in the individual beneficiary sheets concerning depreciation.



	TOOL: DEPRECIATION COSTS LIST										
BE nr	Beneficiary name	WP nr	Work Package name	Resource type	Short name of the investments	Date of purchase (real or planned date of purchase)	Purchase cost	% used for the project	% use for lifetime of the investment	Charged depreciation costs per investment	Justification: Needed info for depreciation
1	Ben 1	1	work package 1	Equipment	equipment 1	10/03/2022	€ 100,000.00	45%	55%	€ 24,750.00	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	
										€ -	



Summary per WP:



In this tab, after completing the individual beneficiary sheets, you will find a summary of the participation of all beneficiaries (including affiliated entities) for all the work packages

SUM OF ALL BENEFICIARIES (including AFFILIATED ENTITIES) FOR ALL	THE WOF	K PACKAGE	S				
		ENEFICIARIES offiliated entities)	ALL AFFILIATED ENTITIES		ALL BENEFICIARIES (with affiliated entities)		
COST CATEGORY	UNITS	BE TOTAL COSTS	UNITS	AE TOTAL COSTS	UNITS (TOTAL)	AVERAGE COST PER UNIT	BE+AE TOTAL COSTS
COSTS WOR	К РАСКАО	E: 1 WP1					
	T			T T			
A. DIRECT PERSONNEL COSTS							
A.1 Employees (or equivalent)							
SENIOR SCIENTISTS (or equivalent in the private sector)	30.00	240,000.00	0.00	0.00	30.00	8,000.00	240,000.00
JUNIOR SCIENTISTS (or equivalent in the private sector)	0.00	0.00	0.00	0.00	0.00		0.00
TECHNICAL PERSONNEL (or equivalent in the private sector)	0.00	0.00	0.00	0.00	0.00		0.00
ADMINISTRATIVE PERSONNEL (or equivalent in the private sector)	0.00	0.00	0.00	0.00	0.00		0.00
OTHERS	0.00	0.00	0.00	0.00	0.00		0.00
A.2 Natural Persons under direct contract	0.00	0.00	0.00	0.00	0.00		0.00
A.3 Seconded Persons	0.00	0.00	0.00	0.00	0.00		0.00
A.4 SME owners and natural person beneficiaries	0.00	0.00	0.00	0.00	0.00		0.00
B. DIRECT SUBCONTRACTING COSTS							
	0.00	0.00	0.00	0.00	0.00		0.00
C. DIRECT PURCHASE COSTS							
C.1 Travel and subsistence	0.00	0.00	0.00	0.00	0.00		0.00
C.2 Equipment (complete 'Depreciation cost' sheet)							
Equipment	0.00	0.00	0.00	0.00	0.00		0.00
Infrastructure	0.00	0.00	0.00	0.00	0.00		0.00
Other assets	0.00	0.00	0.00	0.00	0.00		0.00
C.3 Other goods, works and services							
Consumables	0.00	0.00	0.00	0.00	0.00		0.00
Services for meetings, seminars	0.00	0.00	0.00	0.00	0.00		0.00
Services for dissemination activities (including website)	0.00	0.00	0.00	0.00	0.00		0.00
Publication fees	0.00	0.00	0.00	0.00	0.00		0.00
Other (shipment,insurance, translation, etc.)	0.00	0.00	0.00	0.00	0.00		0.00
D. OTHER COST CATEGORIES							
D.1 Financial support to third parties (if applicable in the topic specific conditions)	0.00	0.00	0.00	0.00	0.00		0.00
D.2 Internally invoiced goods and services	0.00	0.00	0.00		0.00		0.00
D.3 Transnational access to research infrastructure unit costs (if required in the topic specific conditions)	0.00	0.00	0.00		0.00		0.00
D.4 Virtual access to research infrastructure unit costs (if required in the topic specific conditions)	0.00	0.00	0.00	0.00	0.00		0.00
D.5 PCP/PPI procurement costs (if mentioned as eligible in the topic specific conditions)	0.00	0.00	0.00	0.00	0.00		0.00
TOTAL DIRECT PERSONNEL COSTS AND PURCHASE COSTS (A+C)		240,000.00		0.00	0.00		240,000.00
TOTAL DIRECT COSTS (A+B+C+D)		240,000.00		0.00	0.00		240,000.00
E. INDIRECT COSTS (25% * (A+C))		60,000.00		0.00	0.00		60,000.00
F. TOTAL COSTS (A+B+C+D+E)		300,000.00		0.00	0.00		300,000.00



BE-WP person months:

In this tab, after completing the individual beneficiary sheets, you will find a summary of the effort allocated for all beneficiaries (including affiliated entities) for all the work packages



TOTAL PERSON/MONTHS FOR ALL BENEFICIARIES (INCLUDING AFFILIATED ENTITIES) PER WP										
					Percenta					
WORK PACKAGES	Beneficiary 1	Beneficiary 2	Beneficiary 2	Total	ge					
WP1	10.0	10.0	10.0	30.0	40.0%					
WP2	10.0	10.0	0.0	20.0	26.7%					
WP3	5.0	5.0	5.0	15.0	20.0%					
WP4	5.0	5.0	0.0	10.0	13.3%					
Total	30.0	30.0	15.0	75.0	100.0%					
Percentage	40.0%	40.0%	20.0%	100.0%						



Lump Sum Breakdown:

In this tab, after completing the individual beneficiary sheets, you will have the necessary information to fill in your annex 2 with a clear description of how much funding will be allocated per beneficiary and affiliated entities based on their declared funding rate

ESTIMATED BREAKDOWN OF THE LUMP SUM PER WORK PACKAGE AND PER BENEFICIARY											
BENEFICARIES WP1 WP2 WP3 WP4 Totals Pct											
Beneficiary 1	60,000.00	0.00	30,000.00	0.00	90,000.00	16.2%					
AE 1 (ben1)	0.00	100,000.00	0.00	50,000.00	150,000.00	27.0%					
Beneficiary 2	100,000.00	0.00	50,000.00	0.00	150,000.00	27.0%					
AE 1 (ben2)	0.00	70,000.00	0.00	35,000.00	105,000.00	18.9%					
Beneficiary 2	40,000.00	0.00	20,000.00	0.00	60,000.00	10.8%					
Totals:	200,000.00	170,000.00	100,000.00	85,000.00	555,000.00	100.0%					
Pct:	36.0%	30.6%	18.0%	15.3%	100.0%						

Lump sum share per beneficiary for the GA

Lump Sum Breakdown into the Budget proposal table:

The lump sum breakdown is used in the budget proposal table for the calculation of the Requested grant amount



- Financial contributions: **only for Private Members** (SBA Art.2(5)), the IKOP shall be introduced in the budget proposal table.
- **Own resources**: exclusively by applicants that are not members: non funded-part of their activities
- Total estimated income: total eligible costs of the action



3. EU-Rail Programme:

Specific provisions to be considered by the EU-Rail Private Members' intending to join a consortia for the submission of a proposal



GA – table for Annex I Part B "Estimated <u>Members</u>' Contributions"

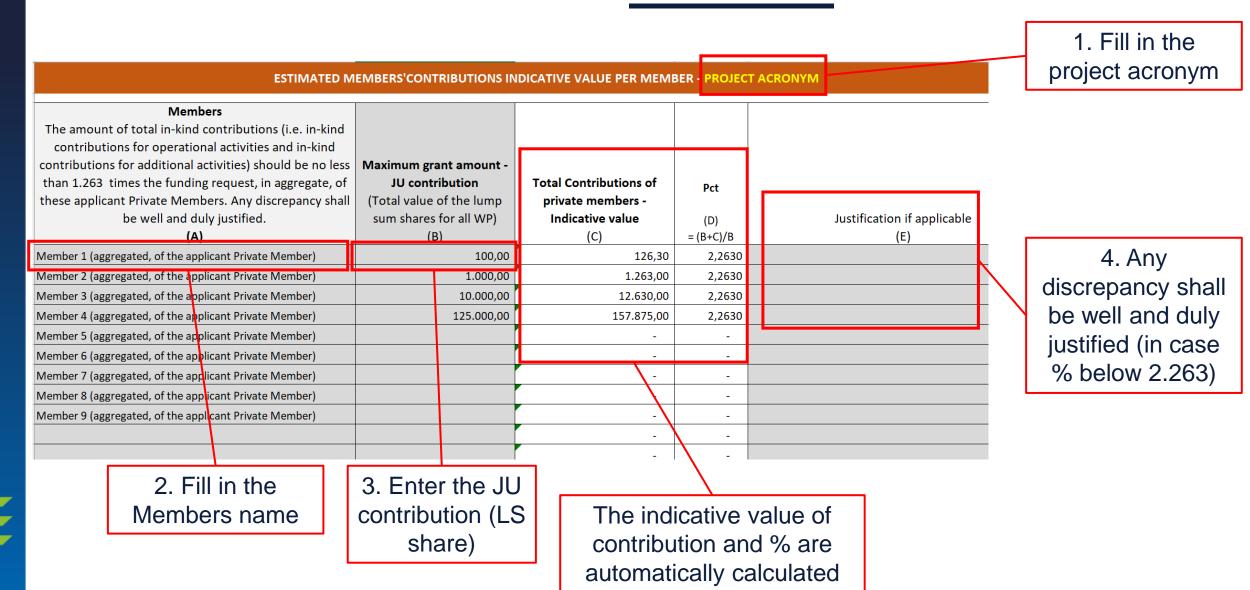
In accordance with the call conditions:

"The amount of total in-kind contributions (i.e. in-kind contributions for operational activities and in-kind contributions for additional activities) should be no less than **1.263 times the funding request**, in aggregate, of these applicant Private Members."

- Any discrepancy shall be well and duly justified.
- For 1€ of JU contribution, the Private Member shall contribute in addition of
 1.263€. Consequently, with a Total Project Costs for the action and additional activities of
 2.263€

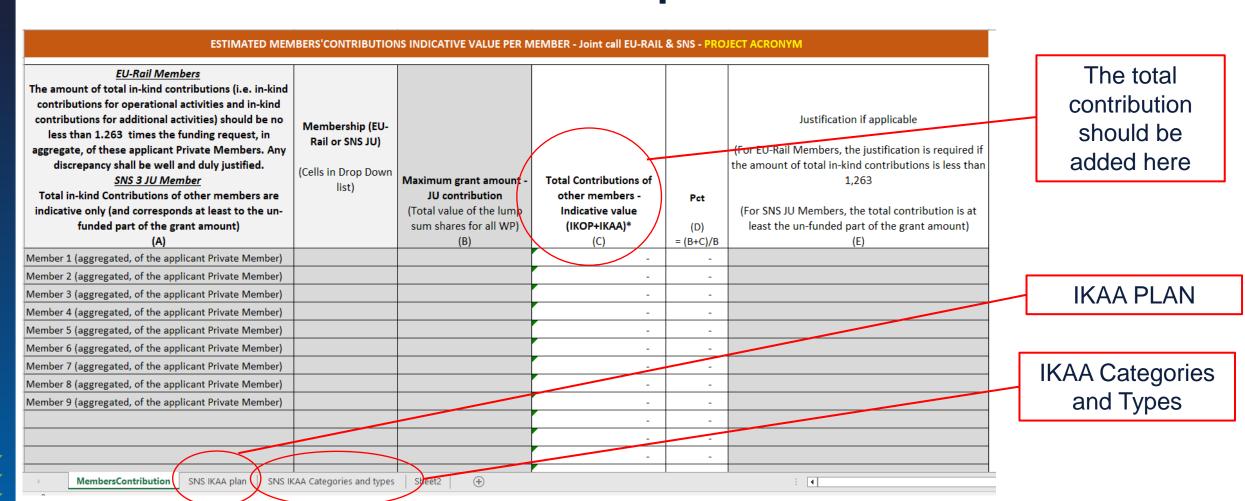


GA – table for Annex I Part B"Estimated Members' Contributions"





GA – table for Annex I Part B "Estimated <u>Members</u>' Contributions" EU-RAIL & SNS Joint Topic





GA – table for Annex I Part B "Estimated Non-Members' Contributions"

EU-RAIL & SNS Joint Topic

ESTIMATED NON-MEMBERS'CONTRIBUTIONS INDICATIVE - Total Project Costs & expected leverage effect - PROJECT ACRONYM									
For Non- Members The total indicative budget in term of Total Project Costs for the project stemming from this topic is indicatively up EUR 68.0 million, which is built from the expected leverage effect up to 5x out of a total maximum EU contribution estimated at EUR 13.5 million. The additional leverage effect, in the case of non-Members to EU-Rail or SNS JUs, is expected to be reached through either reduced co-funding rate, and/or including with actual external investments (e.g. national/private funding), and/or possible non-eligible costs (A)	Maximum grant amount - JU contribution (Total value of the lump sum shares for all WPs) (B)	Unfunded eligible costs (Total value of the action minus the lump sum shares for all WPs) (C)	Additional leverage effect - Indicative value (D)	Total (E) = (B+C+D)	Complementary information indicating for example the external investment, or other if applicable (F)				
Beneficiary 1	20,00	9.00	71,00	100,0000					
Beneficiary 2	20,00	80,00		100,0000					
Beneficiary 3			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	-					
Beneficiary 4)		-					
Beneficiary 5			-	-					
Beneficiary 6			-	-					
Beneficiary 7			-	-					
Beneficiary 8			-	-					
Beneficiary 9			-	-					
			-	-					
			-	\ -					
			-	-					
			-	-					
			•	' '					

No need to use leverage because the unfunded part already covers the ratio

Leverage to be applied in order to reach the 5x ratio of funding



EUROPE'S RAIL INFO DAY CALL 2024

LEGAL AND FINANCIAL GUIDELINES

Q&A



MATCH-MAKING SESSION

12.00-13.00





EUROPE'S RAIL INFO DAY

ONLINE

9 February 2024







Founding Members































