

# Government of India/ भारत सरकार Ministry of Railways/ रेल मंत्रालय Railway Board/ रेलवे बोर्ड

No.2021/E&R/7(13)6

<u>E&R No. 01/2022</u> New Delhi, dated 21/04/2022

The General Managers, All Zonal Railways & Production Units (As per mailing list)

Sub: Innovation Policy for Indian Railways

Please find enclosed the "Innovation Policy" for Indian Railways.

The policy document lays down a broad framework for engagement of Ministry of Railways with Innovators for development of technology, products and need based solutions for Indian Railways.

Wide publicity of the salient features of this policy, amongst all stakeholders, may please be ensured.

DA: As above

(S.K. Singh) Executive Director/E&R

#### No.2021/E&R/7(13)6

New Delhi, dated 21/04/2022

Copy to:

i) General Manager, (Con.) N.F.Railway, Guwahati.

The General Manager, CORE, Allahabad.

iii) The Director General, RDSO, Lucknow.

- iv) PFAs, All Indian Railways including Production units.
- v) FA & CAO(C)s, All Indian Railways.

vi) CAOs (Const).

vii) CAO, MTP/Mumbai.

viii) CAO/DMW and COFMOW, New Delhi.

ix) The Director General, National Academy of Indian Railways, Vadodara

- x) The Director General, Indian Railway Institute of Financial Management, Secunderabad.
- The Director General, Indian Railway Institute of Transport Management, Lucknow.

xii) The Director General, Indian Railway Institute of Civil Engineering, Pune

- The Director General, Indian Railway Institute of Mechanical and Electrical Engineering, Jamalpur
- xiv) The Director General, Indian Railway Institute of Signal Engineering and Telecommunications,

xv) The Director General, Indian Railway Institute of Electrical Engineering, Nasik.

- xvi) The Executive Director, Indian Railways Centre for Advanced Maintenance Technology, Gwalior.
- xvii) The CMDs of Railway PSUs, MDs of NHSRCL, DFCCIL and CRIS, VC of RLDA.

xviii) The Registrar, Railway Claims Tribunal, Delhi

- xix) The Chief Commissioner of Railway Safety, Lucknow
- xx) The Secretary, Railway Rates Tribunal, Chennai.
- The Chairman, Railway Recruitment Board, Ahmedabad, Ajmer, Allahabad, Bangalore, Bhopal, Bhubaneshwar, Chandigarh, Chennai, Gorakhpur, Guwahati, Jammu & Srinagar, Kolkata, Malda, Mumbai, Muzaffarpur, Patna, Ranchi, Secunderabad and Trivandrum.

(S.K. Singh) Executive Director/E&R

#### Copy to:-

- i) The General Secretary, NFIR, Room No. 256-E, Rail Bhawan, New Delhi.
- ii) The General Secretary, AIRF, Room No. 253, Rail Bhawan, New Delhi.
- The Members of the National Council, Departmental Council and Secretary Staff Side, National Council, 13-C, Feroz Shah Road, New Delhi.
- iv) The Secretary General, FROA, Room No. 256-A, Rail Bhawan, New Delhi.
- v) The Secretary General, IRPOF, Room No. 268, Rail Bhawan, New Delhi.
- vi) The Secretary, RBSS, Group 'A' Officers Association, Rail Bhawan.
- vii) The Secretary, RBSS, Group 'B' Officers Association.
- viii) The General Secretary, RBSSSA, Room No. 451-A, Rail Bhawan, New Delhi.
- ix) The Secretary, Railway Board Ministerial Staff Association.
- x) The Secretary, Railway Board Class IV staff Association.
- xi) The General Secretary, All India SC/ST Railway Employees Association, Room No. 7, Ground Floor, Rail Bhawan, New Delhi
- xii) The General Secretary, All India O.B.C. Railway Employees Federation (AIOBCREF), Room No.48, Rail Bhawan.

(S.K. Singh) Executive Director/E&R

#### No.2021/E&R/7(13)6

New Delhi, dated 21/04/2022

Copy to: OSD/MR, OSD/Co-ord/MR, EDPG/MR, Additional PS/MR, Advisor/MR, Addl.Private Secy./MoSR (J), EDPG/MoSR(J), PS/MoSR(D), EDPG/MoSR (D), Sr. PPSs/PPSs/PSs to Board Members, Secretary, DG/RHS, DG/RPF, ADG/DS, Additional Members, OSDs, Advisors and Executive Directors, DIP, Editor/Indian Railways, Editor/Bhartiya Rail and O&M Branch of Board's office.

(S.K. Singh) Executive Director/E&R



# **Innovation Policy**

E&R No. 01/2022

Issued: April, 2022

Ministry of Railways, Government of India

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#### 1. Preface:

Country is witnessing an exponential growth in technology sector. Products and industry solutions, developed by industry and entrepreneurs using emerging and evolving next-gen technology tools like IoT, big data analytics, cloud computing, drones, MEMS, composites, Shape memory alloys etc. are now being widely used by various sectors in the country.

Various Government of India initiatives like Startup India, Atal Innovation Mission, Make in India – Aatmanirbhar Bharat Abhiyaan, Innovations for Defence Excellence etc. provide an enabling framework for motivating and encouraging Indian entrepreneurs and innovators to come forward for development of innovative technologies, products and technological solutions to address technological needs of various sectors in the country.

With the objective of harnessing technological, economical and operational benefits offered by next-gen innovative and emerging technologies and also promote Startup culture in the country, Indian Railway intends to engage with the entrepreneurs, technology developers and innovators, through Startups, to get low cost user friendly reliable products and solutions for use on Indian Railways network.

Considering the major constraint of capital inadequacy in Startup ecosystem, primarily in the seed and "Proof of Concept" developmental stage, this policy aims at providing necessary seed fund support, of up to Rs. 1.5 Cr (on matching contribution basis), to the Startups showing capability, intent and promise to produce functional prototypes, based on new innovative concepts, for potential use on Indian Railways.

This policy document lays down a broad framework for engagement of Ministry of Railways with Innovators for development of technology, products and need based solutions for Indian Railways.

## 2. Objective:

- a) To develop cost-effective, implementable, scalable solutions, functional prototypes and innovative products for addressing Quality, Reliability and Maintainability related issues of IR and improving the same through specified usage of the developed products and innovative solutions by IR.
- b) Leveraging new innovative technologies, developed by entrepreneurs and Startups, for improving Operational efficiency & Safety on Indian Railways.
- c) Promoting 'Innovation Culture' in the country for co-creation and co-innovation in the Railway sector

# 3. Eligible Organizations / Beneficiaries:

a) Startups, as defined and recognized by Department for Promotion of Industry & Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India.

- b) Any Indian company incorporated under the Companies Act1956/2013, primarily a Micro, Small and Medium Enterprises (MSME) as defined in the MSME Act, 2006.
- c) Individual innovators and R&D institutions are also encouraged to apply.
- d) Any partnership firm, company or LLP incorporated under relevant laws.
  - a. Support in form of Grant will not be given in this case.
  - b. Cost of scaling-up will be borne by the firm.

#### 4. Policy Framework – Process Workflow:

- a) Complete process, from initiation to completion, will be dealt online through a dedicated **Indian Railway Innovation Portal**.
- b) Efficiency & Research Directorate of Railway Board shall be the nodal directorate for policy implementation and process execution. The directorate will be responsible for steering the complete process, starting from identification of technological needs to defining problem statement and finally piloting the project for adoption of the developed product / technology on IR.
- c) Technological needs of IR, for improving operational efficiency and safety and for addressing reliability, maintainability and cost related issues shall be identified by E&R Directorate in consultation with all stakeholders (all Directorates of Railway Board, Production Units, Zonal Railways, RDSO etc.). The Problem Statements, seeking technology proposals from Innovators, will be uploaded on the IR Innovation Portal (in public domain). Technology proposals shall be accepted through IR Innovation Portal only. Meity/iDEX/Startup India portals will be used by IR for uploading Problem Statements and inviting Proposals, till IR Innovation Portal becomes functional.
- d) Problem Statements shall include technical and functional requirements specific to IR application environment, categorization of intended use as vital or non-vital or safety-critical and non safety-critical, expected service life, access for maintenance requirements, assured quantity of developed product to be supplied in scaling-up stage (if achieved), regulatory compliances involved (if any) and other details including specifics pertaining to third party interfacing of the product/technology, being developed, with the existing IR infrastructure or assets. This is essential for proper technical understanding and appreciation, of the intended use of the product, by the Innovators.
- e) **Stage-1**: Duly filled in format (IP Form-1) shall be submitted by the Innovators along with the detailed proposals. The proposals submitted by the Startups/Entrepreneurs, through IR Innovation Portal, in response to the Problem Statements uploaded on the Portal, shall be compiled by E&R Directorate after 30 days of the date of uploading of the Problem Statement. E&R Directorate shall process the proposal(s) for preliminary

evaluation and assessment by PEC (Proposal Evaluation Committee) which shall comprise of ED(E&R), ED/(FX) and ED of Technical Directorate dealing with the specific area (theme) against which the proposal has been submitted. PEC can co-opt SAG/JAG officer(s) having experience/domain expertise/knowledge of the subject from RDSO, zonal railway, PUs, CTI etc. The proposals shall broadly be evaluated on parameters like Functionality, Economic viability, IR's experience with similar technologies/products already in use on IR and other railway systems in country, educational background and R&D capability of Innovator(s), cost, scalability options, criticality in terms of interfaces with existing 3<sup>rd</sup> party systems on IR and existing supply chain capacities that can support the technology during mass production and wider proliferation on IR. In case the PEC feels that requisite domain knowledge for proper evaluation of the Innovator's proposal is not available with Indian Railways, ED(E&R) shall arrange for necessary technical inputs/advise/recommendations from domain experts from academia/Industry/Other R&D organizations/Center of Railway Research (CRR), as required on case-to-case basis, to assist in proper evaluation of the offered technology/product. Engagement with external domain experts, if any, shall, however, not impact the specified proposal evaluation timelines. Process of preliminary scrutiny and shortlisting of proposals shall be completed by PEC within 15 days from the date of initiation of the process.

f) Stage-2: PEC shall advise shortlisted Innovators to submit complete details, as may be necessary for detailed comprehensive technical and financial evaluation of the proposed product/solution within 15 days of intimation by PEC. Detailed presentations before PEC by the shortlisted innovators shall also form a part of this activity. Duly filled in format (IP Form-2) shall be submitted by the Innovators along with the detailed proposals. Detailed techno-commercial evaluation of the proposal shall, amongst others, include factors like Operational and technical compatibility of the offered product/technology with the existing IR track-side infrastructure and rolling stock assets in service, interoperability and scalability aspects, maintainability and manufacturability aspects, manufacturing capacity and capabilities available in the country for taking up batch-production for uninterrupted supply in case the product is adopted by IR for regular use.

PEC shall include following aspects, amongst others, while evaluating the proposal: (a) Educational background of Innovators/Core team, (b)Past experience, (c) Innovation content (d) Technical & Operational Feasibility (e) Maintainability (Access, Ease, periodicity) (f) Economic Viability including Life Cycle Cost. Weightages shall be assigned for each of these key aspects as decided by PEC on case to case basis. Evaluation template (IP Form-3) is enclosed as Annexure for guidance.

g) Innovators shall submit the details of the **Cost of development** to PEC. Break-up of the Developmental Cost shall include (i) Expenditure on proving out the concept, (ii) Cost of building Prototype(s), (iii) Cost of Prototype testing & validation on test beds (or in virtual environment / simulation / analysis etc.), (iv) Certification Costs, if any and (v) any other cost arising out of regulatory and statutory compliances as per the extant rules applicable for the category of product / technology in the country. All this information should be captured in IP Form-2.

- h) Project milestones (proposed stages during project execution) shall be clearly indicated in the proposal submitted by Innovator for evaluation by PEC. Proposal submitted by Innovator shall provide clear linkage between Project deliverables, timelines (Milestones) and proportionate expenditure estimated in the project. All this information should be captured in IP Form-2.
- i) PEC may select more than one proposal for any problem statement for acceptance. In such case, committee should ensure that methodologies and solutions offered by Innovators differ.
- j) PEC shall have freedom to take necessary inputs, as and when required, from other stakeholders (including ZRs/PUs/RDSO/Industry/Academia/Govt. R&D Lab etc.) provided that this exercise will not impact the proposal evaluation timelines.
- k) Divisions, Workshops, Production Units, Centralized Training Institutes, Zonal Training Centers etc. will perform as outreach agencies of Ministry of Railways. These shall provide first-hand feel of the problem area to the Innovators and provide necessary hand-holding to the Innovators for understanding the complexities of the intended application of the product.
- 1) Process of detailed evaluation of the techno-commercial proposal, submitted by the shortlisted Innovators, shall be completed by PEC within 15 days from the date of techno-commercial presentation before PEC.

## 5. Selection of Innovators for collaborative working with Indian Railways:

- a) As elaborated in above paragraphs, Innovators shall be selected through an open, transparent and fair process.
- b) Based on comprehensive techno-commercial evaluation of the Innovator's offer and joint deliberations with Innovator's team on case specific technical and commercial issues, as elaborated in above paragraphs, the PEC (Proposal Evaluation Committee) shall accept / reject the proposal. In case the proposal is rejected, the detailed reasoning for the same shall be recorded and communicated to the proposer (Innovator) in writing by ED(E&R).
- c) Once proposal is accepted by the PEC, an appreciation note containing details and recommendations in favor of shortlisted proposals/innovators shall be put up by ED(E&R) to Board (Chairman & CEO) for information & approval. The Letter of Acceptance (LoA) shall be issued by E&R Directorate (Railway Board) and communicated to the Innovator. This activity shall be completed within 15 days of acceptance of proposal by PEC.
- d) Innovator shall thereafter be required to sign contract agreement for the project.
- e) Funding Scheme will be on Cost Sharing Basis in equal proportion i.e. 50:50 by IR and Innovator. Maximum amount of grant of up to Rs. 1.5 Cr can be given per

Innovator. Even for cases where the total cost of project exceeds Rs 3.0 Cr, the funding from IR shall be limited to a maximum of Rs. 1.5 Cr only. The exact quantum of grant and installments for each Innovator shall be decided by the PEC, based on its evaluation.

f) Rejection of a proposal for one Problem Statement does not disqualify the Innovator from submitting proposals for other Problem Statements.

#### 6. Project Execution Guidelines:

- a) Considering the location of Innovator and also the relevance of the product /technology being developed to the railway operations, a Railway Division shall be nominated by the PEC for carrying out Proof of Concept trials and subsequent extended trials, as and where necessary, for establishing the product performance in field environment.
- b) The sanctioned Project shall be transferred to the nominated Railway Division under a communication from Railway Board (issued by ED(E&R)) for further execution, monitoring and field evaluation.
- c) DRM of the nominated division shall nominate a team of two JA Grade officers, comprising of concerned Branch Officer dealing with the subject viz. Sr.DEE, Sr.DEN, Sr.DME, Sr.DSTE, as the case may be, and a Divisional Accounts officer for facilitating and providing necessary handholding and field support to the Innovator for smooth execution of the project. Necessary support in terms of infrastructure, data, manpower etc., as decided during Project Evaluation stage, will be given on 'Best Effort Basis'. ED(E&R) will arrange for any other type of support, if not available in nominated division.
- d) DRM of the nominated Division shall have full authority to release funds to the Innovator (executing the project) based on achievement of pre-decided milestones.
- e) The disbursement of fund shall be linked to the Pre-decided milestones. For this purpose, the project execution stages should be divided in a minimum of 4 (Four) milestones and maximum amount of disbursement at any milestone shall not exceed Rs. 25 lacs. Milestone-based installments (disbursement amount) should strictly be as per the PEC pre-approved grant-release schedule linked with each of the milestones as per IP Form-2. Milestone shall be related with project deliverables like development of prototype, testing and validation of prototype and completing other activity milestones as per agreement between the Innovator and ED(E&R) (Ministry of Railways).
- f) The divisional team, through DRM, shall maintain close liaison with Railway Board (E&R Directorate) for any policy guidance or policy intervention / assistance and keep Railway Board updated of the milestone based progress in the project. Details of the Milestone-based Installments released to the Innovator shall also be advised to

Railway Board (E&R Directorate) after completion of each milestone. All communication related with the project shall be made by the DRM of the nominated division directly with E&R Directorate/Railway Board.

- g) JA Grade committee of division shall release milestone-based installments except the final installment which shall be released by DRM. For releasing of final tranche of grant (installment), detailed joint presentation (& report) by innovator & divisional team shall be made to DRM. Once DRM is fully satisfied with the project delivery/development of desired product/technology, disbursement of final tranche of grant shall be released.
- h) DRM shall issue a Field Performance Report (in an annexed proforma IP Form-4) jointly signed by JAG committee, Innovator & himself and the same shall be forwarded to Railway Board (E&R Directorate).
- i) Based on DRM's report, confirming successful deployment & performance of prototypes in field, the approval/sanction for scaling-up the deployment in the same nominated division(or any other division, if required) shall be communicated to the nominated Division by ED(E&R)/Railway Board. Scaling up shall enable IR in gaining further confidence and establishing product reliability for wider proliferation or large-scale pan-India deployment on IR network. Quantum of scale-up in each case shall be decided by PEC, duly considering the inputs and feedback from the nominated Division, cost & type of product, scalability etc. Cost of scaling-up work will not be more than the two times of the grant of that particular project.
- j) Based on PEC's decision on quantum of Scale up, an appreciation note shall be put up by ED(E&R) to Railway Board (Chairman & CEO) containing details about successful execution of 1<sup>st</sup> stage of the Project and the decision of the PEC for scaling—up in the Project for approval. The sanction of work will be communicated by ED(E&R), Railway Board to all stakeholders within 30 days of PEC's decision.
- k) The sanctioned work shall be transferred to the nominated Railway Division for further execution, monitoring and field evaluation. Nominated division will place orders for supply and commissioning of the products by the concerned Innovator.
- I) If PEC perceives that scale-up trials should be conducted in other division/s, ED(E&R) will intimate quantity & location of other division/s with sanctioning of scaled-up work. In such cases, these divisions will send performance reports to nominated division, which will then arrange for payment of whole supply and compile the complete report.
- m) Final report of extended trials shall be submitted by the nominated DRM to E&R Directorate (Railway Board). **Total duration of field trial (extended trials) shall in no case exceed 12 months**. DRM of the nominated division shall ensure that the timelines are adhered to.

n) PEC shall hand over the trial report, extended trial reports, technical & user specifications of product, learnings from the project etc. to the concerned **Board Member** for taking decision regarding adoption or otherwise of the developed product/technology for regular use on IR network.

## 7. Funding mechanism

- a) As indicated above, a grant would be provided to a selected Innovator in milestone-based installments. The exact quantum of grant and installments for each Startup shall be decided by the PEC, based on its evaluation.
- b) Full authority to release funds to the Innovator (executing the project) shall be with the DRM of the Division nominated by the PEC for execution of the project. The disbursement of fund shall be linked with the pre-decided milestones and can be related to project stages like development of prototype, product testing and achieving deliverables as per agreement between the Innovator and ED(E&R) (Ministry of Railways).
- c) Innovator shall execute a legal agreement with Railway Board (E&R Directorate) before release of first installment. Startups shall ensure that the necessary terms and conditions, including milestones related to funding requirements are clearly detailed in the agreement.
- d) At each milestone, Innovator will submit interim progress report and complete details of expenditures incurred exclusively for the project with audited Utilization Certificates to initiate the release of installments of grant, subjected to verification/audit by DRM/PEC (Railway Board).
- e) Innovator will receive the funds in their company bank accounts (personal bank account in case of individual innovator).
- f) Funds shall strictly be used for the purpose it has been granted for. It shall not be used by the Innovators for creation of any facility.
- g) Innovator shall submit final report and audited utilization certificate at the end of the project duration. For failed ventures, Innovator will share their learnings and reasons for failure in the report and submit the same along with the utilization certificate for the fund amount.
- h) If at any stage, the Divisional team of the nominated division finds that the Innovator is not able to make progress in the project, as per the milestones mentioned in the joint agreement signed between the Innovator& Ministry of Railways, or that the project is not progressing, as planned, it can, through DRM, recommend for short closure of Project and the recommendations, forwarded by the DRM of the nominated Division, shall be considered by Railway Board (PEC) for acceptance or otherwise.

- i) In case of short closure of project, there will be no claw back of the grant amount already given to the applicant. However, the Innovator shall be required to submit an audited report giving details of expenditure incurred during the project.
- j) No earnest money will be charged from the Innovators for participation in this scheme.
- k) The selected Innovator will not be eligible for grant/assistance under other Central/State Govt. run schemes for startups like Startup India Seed Fund Scheme etc. for the same project/idea.
- 1) Following activities cannot be funded through Grant:
  - (i) Cost overruns
  - (ii) Cost of land and buildings
  - (iii) Writing of books or reports or collection of statics or service
  - (iv) Establishment of new R&D centers
  - (v) Investment which are not related to Project execution
  - (vi) Interest,
  - (vii) Bad debts
  - (viii) Contributions or donations
  - (ix) Fines and penalties
  - (x) Advocacy & business development
  - (xi) Loss from other businesses or commercial operations
  - (xii) Expenditure incurred by applicant before approval of project
  - (xiii) Re-financing
  - (xiv) Anything other than the purpose for which the grant has been approved.

### 8. Intellectual Property:

#### IPR management:

- 1) The ownership of IPR (Intellectual Property Rights) generated under the project shall be owned exclusively by the Innovator. However, it can be extended to include any associates as joint owners only after obtaining prior approval from Railway Board (E&R Directorate).
- 2) Indian Railways shall retain Government Purpose Rights (GPRs) which shall be exclusive, transferable, irrevocable license to use the IP (Intellectual Property) for internal consumption or manufacture.
- 3) The Indian Railways may use the GPRs mentioned hereinabove, to manufacture either directly or through sub-contractor for use of Indian Railway. In case of exercise of this right, the Government shall be liable to pay royalty fee for use of GPRs in intellectual property/technology/product. Clause on royalty of up to 2% of the supply cost per manufactured unit with a cap on total maximum royalty payable of up to 10 times the cost incurred by the Innovator, in developing the product/technology, will be included in the

- contract with Innovator, if Government or its sub-contractor uses the intellectual property for Indian Railways.
- 4) Indian Railways, through any of its duly authorized officers, shall have "March-In" Rights for all items covered under its GPRs for reasons of national security and other strategic reasons. "March-In" Rights shall include the right to work the patent, either by itself or by another entity on behalf of the Government, in cases where (i) the Innovator fails to work the patent on its own within a specified and reasonable period of time (ii) the effective management and control of the Innovator is taken over by a foreign company without the prior approval of the Government. The march-in rights of the Government shall be subject to the payment of/royalty fee by the Government or the concerned production agency as per the terms stated in clause (3) above.
- 5) Conformance to IPR regulations, as legislated from time to time and applicable in the case, shall be ensured.

Reference Clause - 4(e) Annexure to Innovation Policy No. E&R/01/2022

#### PROFORMA FOR SUBMISSION OF PRELIMINARY OFFER (STAGE-1)

S.No.	Item	Description	Remark
1	Name of Project		
2	Name of applicant		
3	Entity type		
4	Company Name		
5	Office Address		
6	Solution offered in brief		
7	Total cost of Project (A)		
7(i)	Grant required from Railway (B		
	= 0.5A with cap of Rs. 1.5 Cr)		
7(ii)	Cost to be borne by applicant (C = A-B)		
8	Tentative cost of		
	Product/Technology		
9	Project time from date of		
	issuance of LoA to proving of		
	prototype		
9(i)	Break-up of total Project time		
9(ii)	Work Breakdown Structure		
	(WBS)		
10	Technical and Operational		
	Feasibility		
11	Manufacturing capabilities in		
	country		
12	Compatibility of proposed		
	Product/Technology with		
	existing assets & system of		
	working		
13	Ease of adoptability		
14	Past experience		

Date:	Signature of Applicant
	Name:

Note: List above is not exhaustive. The innovator shall submit all relevant information that would be relevant to the evaluation of the Project/offered technology/product.

Reference Clause - 4(f) Annexure to Innovation Policy No. E&R/01/2022

#### PROFORMA FOR SUBMISSION OF DETAILED PROPOSAL (STAGE-2)

#### Table-1

S.No.	Item	Description	Remark
1	Name of Project		
2	Name of applicant(s)		
3	Total cost of Project (A)		
3(i)	Grant required from Railway (B =		
	0.5A with cap of Rs. 1.5 Cr)		
3(ii)	Cost to be borne by applicant		
	(C=A-B)		
3(iii)	Break-up of total cost		
3(iv)	Detailed Work Breakdown		
	Structure (WBS) for the Project		
3(v)	Most critical activity in the		
	Project		
4	Number of project milestones		
5(i)	Tentative cost of		
	Product/Technology		
5(i)(a)	For scaling up		
	production/assured quantity		
	production		
5(i)(b)	For regular/batch production		
5(ii)	Comparative advantages in		
	terms of life cycle, costs,		
	maintainability requirements,		
	design features, functionalities		
	etc. of offered		
	product/technology vis-a-vis		
	existing		
	product/technology/system		
	being used by IR		
5(iii)	Support required from railway in		
	form of:		1
5(iii)(a)	Infrastructure		
5(iii)(b)			
5(iii)(c)	Manpower		
5(iii)(d)	Any other		
6	Project time from date of		
	issuance of LoA to proving of		
	prototype		
6(i)	Timelines- Milestone-wise &		
	Activity-wise		
7	Time for scaled-up production		
	from developmental ordering to		
	supply		

8	Preferred places for project	
	execution	
9	Educational background of core	
	team	
10	Past experience/projects	
	executed & ongoing projects for	
	other organizations, industries,	
	academia etc.	
	(Experience of individual	
	members of core team should	
	also be submitted.)	
11	Associations with R&D labs,	
	incubators, Center of	
	Excellences, academic	
	institutions etc.	
12	IPR, patents owned	
13	Source(s) of funding for	
	contribution of innovator's	
	portion of total cost	
	(Supporting documents to be	
	submitted)	
14	Funding availed from other	
	central/state government	
	startup/innovation schemes	

# Table-2

Milestone	Deliverable/ Achievement	Role of IR in achieving milestone	Timelines (from date of issuance of LoA)	Milesto wis proporti cos A (in Rs.)	e onate	Milestone- wise Grant requested B (in Rs.)	Cost to be borne by applicant C = A-B (in Rs.)
1							
2							
3							
4							

Date:	Signature of
Applicant	
	Name:

Note: List above is not exhaustive. The innovator shall submit all relevant information that would be relevant to the evaluation of the Project/offered technology/product.

Reference Clause - 4(f) Annexure to Innovation Policy No. E&R/01/2022

## PROFORMA FOR EVALUATION OF PROPOSALS (STAGE-2)

Name of Project: Name of Evaluator: Designation: Reference Letter:

			Evaluation Criteria								
S.No.	Applicant Name	Entity Type	Company Name	Educational Background A	Past experience B	Innovation content	Technical & Operational Feasibility D	Maintainability (Access, Ease, periodicity) E	Economic Viability including Life Cycle Cost F	Total (A+B+C+D+ E+F)	Remarks
1											
2											
3											
4											

Signature of Evaluator

Notes: 1. PEC shall decide Weightage factors for evaluation parameters (listed under Columns A to F above)

2. Break-up of Weightage factors must be published at the initial stage at the time of calling of solution.

Reference Clause - 4(h) Annexure to Innovation Policy No. E&R/01/2022

# $\frac{\text{PROFORMA FOR DRM'S REPORT (FIELD PERFORMANCE REPORT) ON COMPLETION OF}{\text{DEVELOPMENTAL TRIAL}}$

S.No.	Item	Description
1	Name of Project	
2	Name of applicant	
3	Entity type	
4	Company Name	
5	Office Address	
6	Problem Statement	
7	Date of issuance of LoA	
8	Nominated division & railway	
9	Completion date as per LoA	
10	Actual completion date	
11	Reasons for delay, if any	
12	Total cost of Project as per LoA	
13	Grant given/paid by Railway	
14	Cost borne by innovator	
15	Cost of Product/Technology for scaling up/assured quantity production as estimated by innovator at Proposal/Selection stage	
16	Estimated cost of Product/Technology for scaling up/assured quantity production as of now	
17	Cost of Product/Technology for regular/batch production as estimated by innovator at Proposal/Selection stage	
18	Estimated cost of Product/Technology for regular/batch production as of now	
19	Chronology of development of product/technology with associated activity-wise timelines	
20	Details of the product/technology developed	
21	Details of trial(s) of prototype in laboratory, if any (Related data must be given here)	
22	Details of trial(s) of prototype in actual working environment (Related data must be given here. Details must include problems faced, design iterations done, conformity to specified parameters, implication son associated system etc.)	
23	Manufacturing capabilities in country	
24	Technical and Operational Feasibility	
25	Compatibility of proposed Product/Technology with existing assets & system of working	
26	Ease of adoptability	
27	Comparative advantages in terms of life cycle, costs,	

	maintainability requirements, design features,	
	functionalities etc. of offered product/technology vis-a-vis	
	existing product/technology/system being used by IR	
28	Time required for scaled-up production from placing of	
20	developmental order to supply	
29	Any modification suggested, if any, during scaled-up	
23	production	
30	Appraisal of developed product/technology	
24	Learnings from the Project	
31	Learnings from the Project	
32	Any other remarks	

Innovator	<b>Executive Member</b>	<b>Finance Member</b>
Name of firm/individual:	Name:	Name:
Recommendations and comments by DRM with his signature:		