TECHNOLOGY DEVELOPMENT FUND (TDF) SCHEME

TITLE: DEVELOPMENT OF FLOATING FLOOR WITH ACOUSTIC AND FIRE INSULATION PROPERTIES FOR NAVAL PLATFORMS

1. **Description:** Floating floor is designed to deal with the structure borne sounds such as impact and machinery sounds. These floating floors have noise absorption capacity and are fire proof and provide safety and crew comfort. The floating floors are used for reducing the noise generated from a machinery compartment of Naval ships. It is proposed to develop them indigenously through TDF.

   Development of floating floors for future Naval platforms for providing requisite acoustic absorption capability, the details are:

   - Fire class: A-60
   - Weight: 38-40 kg/m^2
   - Sounds reduction index: Ln.w 40-42 dB
   - Thermal transmittance: 0.50-0.55 kcal/m^2hC

   It is based on acoustic insulation and vibration damping technology area.

2. **Functional and Operational requirements:** It should be durable and robust with improved fire protection and suitable for heavy loads (>2500 kg/m^2). It should be able to bear the weight of people walking over it and should be resistant to fluid such as oil, grease, water etc. The physical constraints include warping, buckling and cupping due to wet floor. It should not have any volatile organic compound and environment health and safety issues as per the IMO regulation 15. Minimum life span of the floating floor should be 30 to 40 years. Material for insulation should have maximum thickness of 80mm depending upon the requirements like load capacity.

3. **Testing and Certification requirements:** Sound reduction index as per ISO717-2 and ISO140-7, Fire class A60 rating, Comprehensive strength (>30 kPa @ 10% compression), moisture sorption by weight (0.03%). The panels are required to be approved by class approval society like IRS, DNV, NKK, etc. which are acceptable to Navy.

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TECHNOLOGY DEVELOPMENT FUND (TDF) SCHEME

FEASIBILITY CUM RFI RESPONSE FOR THE PROJECT REQUIREMENT UNDER TDF SCHEME

(PROFROMA)

1. **Name of the Institute** (Industry/Academia):
2. **Contact details:**
    a. Email
    b. PoC
    c. Address
3. **Title of the project requirement:**
4. **Project Description** (Define broad understanding of the project requirement and proposed solution under the project).
5. **Briefly detail the proposed technical solution in terms of subsystem/submodule levels.**
6. **Road map for achieving the proposed outcome (Development Plan Phase wise -Max 5 phases).**
7. **Development and production Estimates:**
    i. Estimated time required for development of the proposed technology /product (In Months).
    ii. Estimated cost required for the for development of the proposed technology /product (BQs of submodules/subsystems if any pls attach).
    iii. Estimated production cost of the end product after successful development (per unit or batch cost).
    iv. Whether the industry has already done any Suo moto design and development of the proposed product/technology at Technology Readiness Level – Yes/No
    v. Details of Suo moto design and development done if marked Yes in previous question (within 250 words).
    vi. Essential infrastructure required for development of the proposed product/technology for which funding is required.
8. **Technical strength in terms of manpower.**
9. **Relevant Work Experience.**
10. **Any other relevant information**

Queries if any and the reply in **PDF FORMAT** to be submitted online addressing to;

TO,

THE DIRECTOR TDF, DRDO

DRDO BHAWAN, RAJAJI MARG, NEW DELHI 110011

Email to, arjunk.hqr@gov.in, CC to dir.tdf-drdo@gov.in,