Concept Paper: Support Scheme for Industry-Driven Research & Development (SSIDR&D)

1. Background and Rationale

Rapid technological advancement and evolving market demands require closer collaboration between industry and academia. Traditional academic research often lacks direct industry relevance, while industries face challenges in accessing research expertise and innovation capabilities. This Industry-Driven Research Program aims to bridge this gap by aligning academic research with real-world industrial problems. The program promotes collaborative research, accelerates technology transfer, enhances workforce readiness, and supports sustainable economic growth. Further, this Programme will promote and encourage non-state contribution to R&D sector in the country.

No	Country	R&D as % of GDP	State contribution (%)	Non-state contribution (%)	Number of researchers per million inhabitants
1	Sri Lanka	0.1	59.1	40.9	98
2	India	0.7	62.8	37.2	156
3	Pakistan	0.3	100	0.0	158
4	Thailand	0.5	45.7	54.3	963
5	Malaysia	1.3	54.3	45.7	2054
6	Vietnam	0.4	48.3	51.7	679
7	USA	2.7	28.5	71.5	4 205
8	Canada	1.7	46.8	53.2	4,541
9	South Africa	0.8	54.7	45.3	432
10	Australia	2.2	43.7	56.3	4,532

This grant scheme will give more priorities to Export-oriented manufacturing, Manufacturing and Value addition to local raw materials/ mineral resources, Import substitutions, Green Industry and Sustainability.

Industries face:

- Limited access to applied research and innovation support
- Skill gaps between graduates and industry requirements
- High costs and risks associated with in-house R&D

Academic institutions face:

- Limited industry engagement
- Low commercialization of research findings
- Reduced real-world impact of research findings

A structured, industry-driven research platform is needed to address these challenges.

2. Program Objectives

1. To identify and address real-world industry challenges through applied research
2. To motivate and foster long-term collaboration between industry and academic institutions
3. To enhance research & innovation capacity of industries, thereby productivity and competitiveness of industries
4. To improve graduate employability through industry-relevant research exposure
5. To promote commercialization and technology transfer of research findings

3. Scope of the Program

Priorities for this scheme will be set after having a stakeholder consultation for industries, considering National Development Policy Framework, Public Investment Programme, NASTEC priorities and other national priorities (National export plan, Ministry of industries priorities etc).

Applications will be entertained from all industries which will address a priority issue, and export oriented small and medium enterprises will have an added advantage in application processing. Applications will be entertained from

- Directly industries
- Industry University collaborations
- University industry collaborations

Initially, Expressions of Interests will be called and then for full proposals, i.e. two step application calling process will be adopted for this scheme and will be advertised through the NSF website, social media and STMIS database.

4. Program Structure and Approach

- **Industry-Led Problem Identification:** Industries propose real challenges or research needs
- **Collaborative Research Teams:** Joint teams of faculty, researchers, students, and industry experts
- **Funding and Resource Sharing:** Co-funding model between industry, institution, and external grants as per NSF Policies. The industries will have to meet 30 to 50 percent of the funding request for the project budget and NSF to meet the balance allocation.
- **Milestone-Based Execution:** Clear timelines, deliverables, and performance indicators
- **IP and Commercialization Framework:** Defined ownership, licensing, and revenue-sharing mechanisms

5. Expected Outputs

- Industry-relevant research outputs and prototypes
- Improved products, processes, or services for partner industries
- Publications, patents, and technology licenses
- Skilled graduates with hands-on industry research experience
- Strengthened academia-industry ecosystem

6. Outcomes

- The industry-Driven Research Program will provide a strategic framework to align academic research with industrial needs, fostering innovation, skills development, and sustainable growth. Through collaborative engagement, the program will create measurable impact for industry, academia, and society.

7. Stakeholders

- Industry partners (SMEs, corporates, startups)
- Universities and Research Institutions
- Government and Regulatory bodies
- Funding agencies and innovation hubs
- Students and early-career researchers