

Strategy for Building Human Capital for Innovation for Thailand 4.0

“Thailand’s National Research and Innovation Strategic Plan”

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National Research Council of Thailand (NRCT)



**(Draft) 20-Year Research and Innovation Strategic Plan
(2017 – 2036)**

(Draft) 20-Year Research and Innovation Strategic Plan (2017-2036)

- 1** Introduction
- 2** Global trend and impact to Thailand's national development on R&I
- 3** Thailand's R&I status
 - 3.1 Principle, policy and related plan
 - 3.2 Thailand's R&I status
 - 3.3 R&I strength
 - 3.4 R&I challenge
- 4** Thailand's R&I Direction
 - 4.1 Direction and policy driving force to move the country forward
 - 4.2 R&I system reform
 - 4.3 R&I driving force guideline

- 5** R&I strategy
 - 5.1 Vision
 - 5.2 Objective
 - 5.3 20-Year Research and Innovation Strategic Plan (2017-2036)

Strategy 1	R&I strategy for sustainable economic growth
Strategy 2	R&I strategy for social and environmental development
Strategy 3	R&I strategy for knowledge - based of the country
Strategy 4	Infrastructure, personnel, and R&I network development
- 6** Mechanism, monitoring and evaluation
 - 6.1 Driving force mechanism
 - 6.2 R&I monitoring and evaluation
- 7** Outcome
- 8** Appendix



**To be able to handle and cross over global change,
Thailand requires modification in R&I which can be categorized in five dimensions**



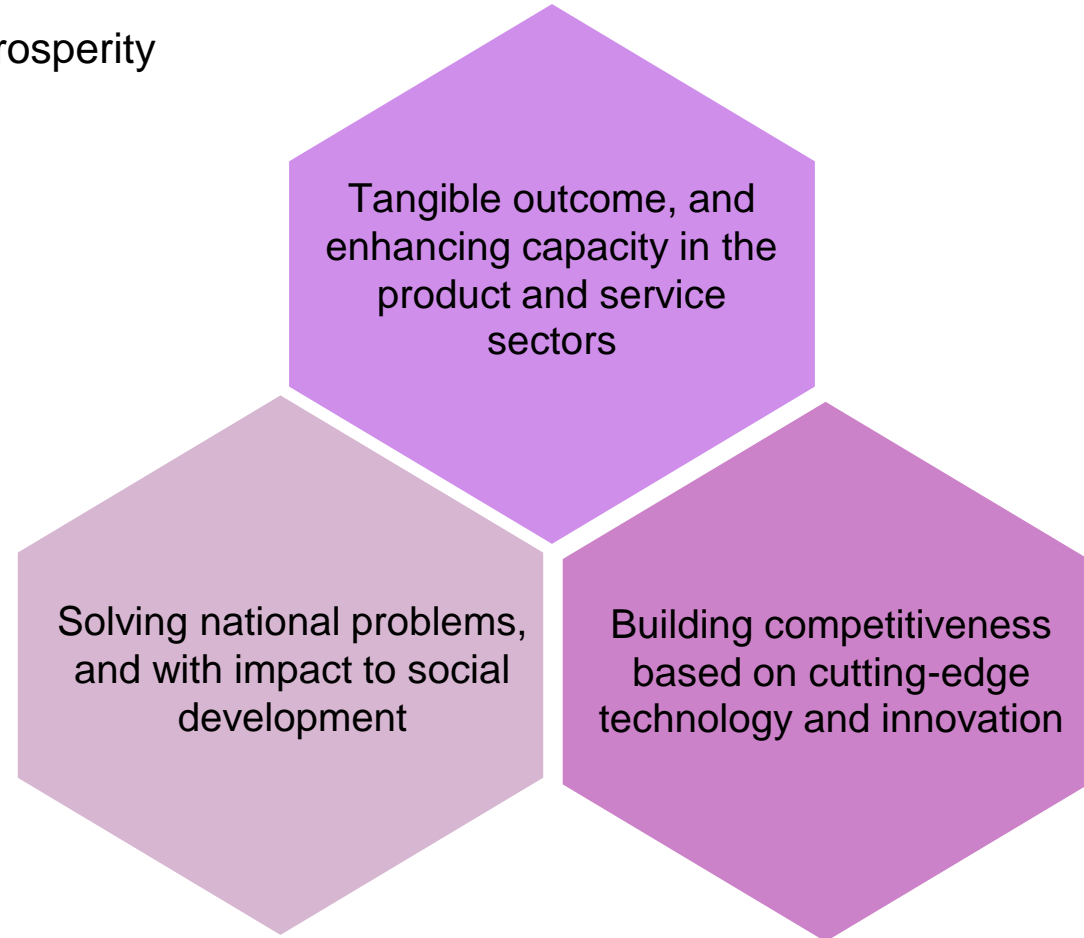
National Research and Innovation Strategy

VISION

R&I as National Strengths towards stability, prosperity and sustainability within 20 years

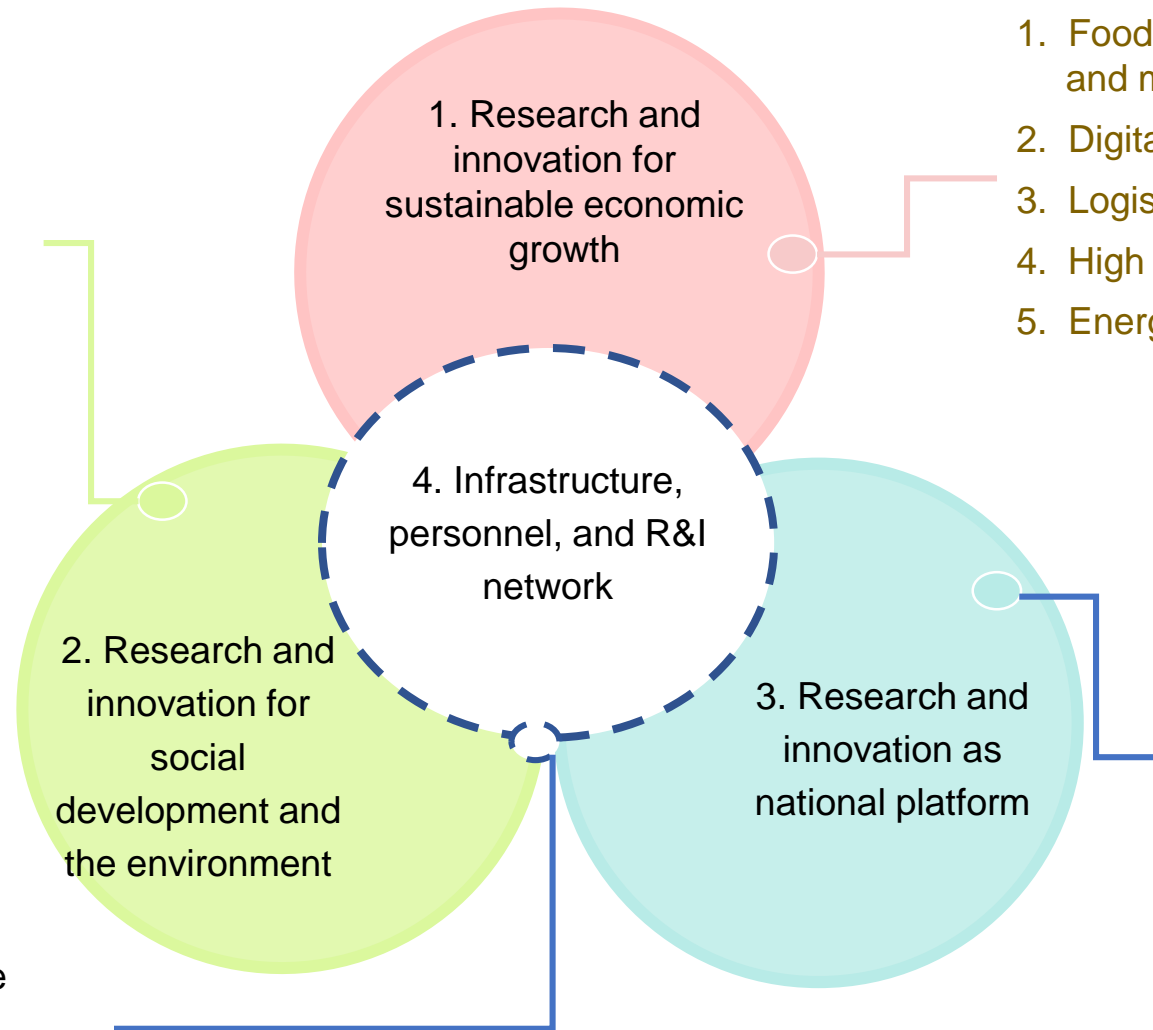
GOAL

R&I are key drivers of sustainable economic growth and social development.



National Research and Innovation Strategy

1. Aging society and Thai society in the 21st century
2. Thai people in the 21st century
3. Health, quality of life
4. Water management, climate change and the environment
5. Diffusion of prosperity and the urban development



1. Research and innovation for sustainable economic growth

1. Food, agriculture, biotechnology and medical technology
2. Digital economy and information
3. Logistics system
4. High value services
5. Energy

4. Infrastructure, personnel, and R&I network

2. Research and innovation for social development and the environment

3. Research and innovation as national platform

1. Personnel and research and innovation network
2. Motivation system
3. Innovation economic zone
4. National quality infrastructure
5. Research and innovation management system

1. Platform technology
 - Biotechnology
 - Nanotechnology
 - Advanced materials
 - Digital technology
2. Basic research in social science and humanities

Spearhead Research and Innovation Program

Spearhead (Lot 1)

- Biomaterials
- Modern Agriculture
- High Value Products (HVP) and Active Ingredient (AI)
- Linkage Big Data and Connection
- Intelligent Logistics System

Middle (Lot 2)

- Robotics and Automation
- Digital Content
- Biofuel
- Energy Storage
- Medical Devices
-

End (Lot 3)

- Bioenergy
- Energy Optimization (EO)
- Modern Vehicles
-



- Potential and Opportunity of Seniors and Coexistence of Multiple Aged Group
- Thailand 4.0 and Youth 4.0
- Health Service Systems
- Water Resources Management
- Regional and Provincial Development 4.0
- City Plan and Land Use

- Building Global Community
- Government 4.0
- Climate Change
-

- National Security
- Natural Resource and Environmental Management
- Preventive and Strengthen Health
- Health Care Systems
- Smart City
-

R&I Budget Plan

20-year National R&I Strategy

Strategy 1

R&I for Economic Growth

Strategy 2

R&I for Social and Environmental Development

Strategy 3

R&I for National Knowledge

Strategy 4

R&I for National Infrastructure, Research Personnel and R&I System

1) Integrated Strategic Plan

At least two agencies jointly plan, set goal/KPI/implementation plan and budget.

2) Important R&I Program

Research and innovation for social and public utilization so as to reduce inequality, instigate national stability and substantially impact the economy

Spearhead research and innovation program for FY 2019 or “Spearhead program”

THANK YOU