



Science, Technology and Innovation Policy

Course: Research Funding and Priority Setting



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Introduction:

Science, technology and innovation policy for research funding and priority setting is a five-day course for ministry, funding agency, innovation agency and university research office teams, ending with an STI Policy Review and Research Priority Plan for a case national system. Many research systems spread public money across fragmented schemes, set priorities by habit and measure output without linking it to economic or social goals. Nominees already shape or administer research and innovation policy, and are taught through case studies built on indicator sets, funding data and policy documents. CoreConcept Training Center offers this course on science, technology and innovation policy.

Course Objectives:

- Map a national research and innovation system, its actors, linkages and funding flows using Frascati Manual sector definitions
- Justify public intervention in research and innovation with market failure, system failure and transformative rationales and select a matching policy mix
- Set national research priorities through foresight and criteria-based ranking and design mission-oriented programmes and research infrastructure roadmaps
- Compare competitive grant, institutional block and performance-based research funding models and recommend an allocation mix
- Assess research and innovation performance with Oslo Manual innovation indicators and publication, citation and patent data
- Strengthen technology transfer, university-industry links, firm support, researcher mobility and coordination between ministries, councils and agencies

Target Audience:

- Policy teams in science and research ministries responsible for national research strategies and policy instruments
 - Programme management teams in research funding agencies responsible for grant schemes, allocation rules and evaluation
 - Innovation agency teams responsible for firm support schemes, startup instruments and technology transfer policy
 - University research office teams responsible for institutional research strategy, external funding and performance reporting
 - Planning and statistics units responsible for research and innovation indicators and system monitoring
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Course Outline:

Day 1: National Research and Innovation Systems and Policy Rationales

- National Innovation System Actor and Linkage Mapping
- Market Failure, System Failure and Transformative Policy Rationales
- Frascati Manual Sectors for Mapping Research Performers
- GERD Composition by Funding Source and Performing Sector
- Research System Diagnostic Using Input, Output and Linkage Data

Day 2: Policy Mix, Priority Setting and Mission-Oriented Programmes

- Policy Mix Matrix of Supply-Side and Demand-Side Instruments
- Technology Foresight Panels and Horizon Scanning for Research Priorities
- Priority-Setting Criteria Grid Balancing Excellence, Relevance and Capacity
- Mission-Oriented Programme Design with Goals, Portfolios and Milestones
- Research Infrastructure Roadmap and Shared Facility Access Rules

Day 3: Research Funding Models, Allocation and Performance Measurement

- Competitive Project Grant Schemes and Peer Review Panel Design
- Institutional Block Funding Formulas for Universities and Public Laboratories
- Performance-Based Research Funding Systems and Their Incentive Effects
- Oslo Manual Innovation Survey Indicators for Business Sector Measurement
- Publication, Citation and Patent Indicators in Research Assessment

Day 4: Knowledge Transfer, Firm Support, Research Talent and System Governance

- Technology Transfer Office Models and Institutional IP Policies
- University-Industry Collaboration Instruments and Spin-Off Support Rules
- R&D Tax Incentives, Innovation Vouchers and Public Procurement of Innovation
- Researcher Career Pathways, Doctoral Pipelines and International Mobility Schemes
- Research Council and Agency Coordination Using Principal-Agent Governance

Day 5: Case Study Work on the STI Policy Review and Research Priority Plan

- Case National System Profile with Indicator and Funding Data
 - Case Policy Mix Gap Analysis Against Identified System Failures
 - Case Funding Allocation Rebalancing Across Grant and Block Streams
 - Case Research Priority Ranking with Mission Programme Selection
 - STI Policy Review and Research Priority Plan Completion and Defence
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Skills You Will Gain:

- Innovation System Mapping
- Policy Mix Design
- Research Priority Setting
- Mission Programme Design
- Research Funding Allocation
- STI Indicator Analysis
- Knowledge Transfer Policy
- Research System Governance

Why Attend This Course:

- Deliver an STI Policy Review and Research Priority Plan to the ministry leadership or agency board that sets the next research strategy cycle
- Decide which funding stream, grant scheme or priority area should grow, merge or close on indicator evidence rather than precedent
- Avoid duplicated schemes, scattered research budgets and funding formulas that reward publication volume over quality and relevance
- Brief colleagues in ministries, councils and research offices on policy rationales, instruments and indicator definitions using shared templates

Conclusion:

Back at work, the participant gives ministry leadership, the funding agency board or the university research council an STI Policy Review and Research Priority Plan for the next strategy cycle. Leaders use it to approve priority areas, rebalance grant and block funding and decide which schemes to merge or close, while programme teams use its indicator set to monitor delivery. After the first funding round, the unit should review whether allocations followed the agreed priorities, how linkage and transfer indicators moved and which instruments need redesign.

Frequently Asked Questions FAQ:

What should participants know before a science, technology and innovation policy course?

Participants should already work on research strategy, funding schemes, innovation support or research reporting in a ministry, agency or university. Bringing anonymised funding data, indicator reports or a current strategy document helps them apply the case work to their own system.

How does science, technology and innovation policy differ from R&D management or research project management training?

It works at the level of the whole national system: rationales, policy mix, priorities, funding models, indicators and governance. R&D management courses address a single company's laboratories, and research project management courses address individual grants and studies rather than how public research money is allocated.

Why does science, technology and innovation policy use a mix of funding models rather than one?

Each model rewards different behaviour. Competitive grants reward excellence on specific questions, block funding gives institutions stability for long-term capacity, and performance-based funding links money to results. A balanced mix limits the weaknesses of each, such as short-termism or rewarding volume over quality.

What does a participant take back from science, technology and innovation policy training?

Each participant takes back an STI Policy Review and Research Priority Plan for a case national system, together with templates for system mapping, policy mix gap analysis, priority ranking, funding allocation and indicator monitoring that can be adapted to their own organisation.
