



# Science, Technology and Innovation Policy Review

**Oman**



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## **An exemplary process**

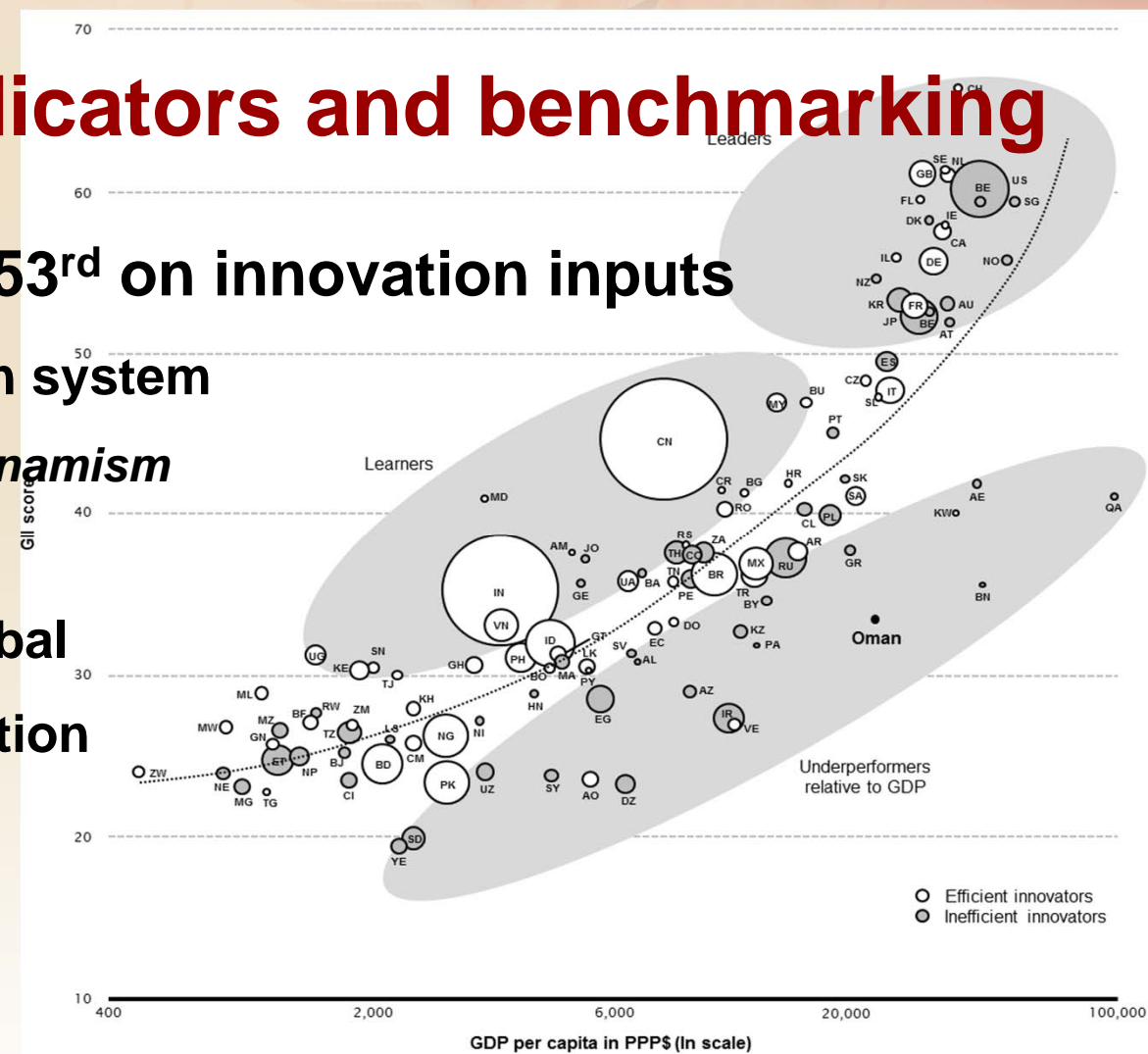
- **Strong Partnership with The Research Council**
- **Fact finding and feedback collection**
- **Key roles: Grand Committee, National STIP Group**

## STIP structure

- **Innovation indicators and benchmarking**
- **Framework conditions - National Innovation System**
- **Key actors and interactions, Government policies**
- **Pillars of the National Innovation Strategy**
  - Human resources, Intellectual Property, Diversification
- **Policy recommendations**
- **Summary of Recommended Actions**
  - 50 specific actions distilled from STIP Review analysis

# Innovation indicators and benchmarking

- Oman ranks 80<sup>th</sup>, 53<sup>rd</sup> on innovation inputs
- Inefficient innovation system  
*... but with creative dynamism*
- Goal: To join the global competition in innovation



# Framework conditions

## ▪ Governance

- Effectiveness of political, institutional environments

## ▪ Macroeconomic context and business environment

- Labor market and oil wealth as disincentives
- An economy dominated by large firms, unfavorable for SMEs
- A risk-averse society

## ▪ Physical and human capital

- Good physical infrastructure but inadequate digital infrastructure
- Basic education requires reform, tertiary education advancing
- Weak research capabilities



# Key actors and interactions 1

## ▪ Business and industry

- Large companies: cautiously engaged in innovation
- Limited technology transfer

## ▪ Academic environment

- Higher education, research and innovation: mixed experiences
- Education, labor and technology: persisting issues

## ▪ Fragmented innovation system

- Weak clustering, the problem of scaling up
- Research lacking critical mass
- Low level of cooperation



## Key actors and interactions 2

### ▪ Government policies and programs

- Coordination can be improved, significant potential impact
- TRC and R&D Programs are well diversified
- Limited support for innovation initiatives, low inter-agency cooperation
- New initiatives on the rise
- Venture capital
- Agriculture and public R&D
  - Over-regulated environment with policies in need of synchronization



# Innovation system: A work in progress

## ▪ National Innovation Strategy

- Knowledge economy, digital society
- Supporting SMEs: funding, coaching, identifying STI
- Primary and secondary education: Entrepreneurship
- Innovation and science park projects
- STI, NIS: strategic vision and strong political support





## Strategic pillar: Human Resources

- **Half of students study liberal arts, 73% of labour is foreign**  
*... fast growth, large oil revenues = large demand for imported labour*
- Goal: Increase vocational studies, match industry demand
- Primary and secondary education reform
- Manage public sector employment, wage difference in firms
- Omanisation and labour market destratification  
*... Investment in innovative and high-tech business*
- Fiscal sustainability
- Strategic priority: NIS, Diversification



## Strategic pillar: Intellectual Property

- **2010: 27 patents applied or in force; 1964 trademarks and 176 industrial design filings**
- IP laws compliant with international practice
- Improving human and institutional capacity
- IP closely linked to entrepreneurship and risk-taking
- Awareness building on role of IP in firms, academia
- Complex goals of preservation, enabling access and enhancing commercial exploitability
- Consideration of use of open and public licenses



## Strategic pillar: Diversification

- **Oman is diversifying, 59% of GDP is non-oil**
- Development, structural transformation, diversification
- Markets tend to underinvest in innovation
  - ... *national economies remain undiversified*
- Oil-based economy is unsustainable in the long-run
- Export diversification is more important, but too slow
- Strategic considerations: SMEs, FDI, technology transfer
- Sectors with diversification potential
  - ... *low-tech perception can mislead on innovation potential.*



# Policy recommendations

## ▪ Strategic prerequisites

- National mobilization on common mission: Innovation compact
- Top level coordination, policy education at the highest levels
- A pragmatic approach, policy stages and a holistic methodology

## ▪ Innovation agenda: Action for longer-term impact

- Stimulate youth creativity and entrepreneurship
- Strengthen R&D and innovation support
- Launch a large scale program on environmental stewardship
- Foster international cooperation and regional integration
- Develop evidence-based policies



# Three Principles for Oman's Innovation Compact

- **The Omani Identity**
- **The Omani Sense of Excellence**
- **The Imperative of Sustainability**



## Three Missions for the Governance of Oman's Innovation System

- **Communicate** vision, success stories, social media
- **Inspire** all stakeholders, creativity, entrepreneurship
- **Lead** change at all levels, everyone has a role to play



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