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Royal Scientific Society

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Lessons from MENA



Amman Jordan  
1970

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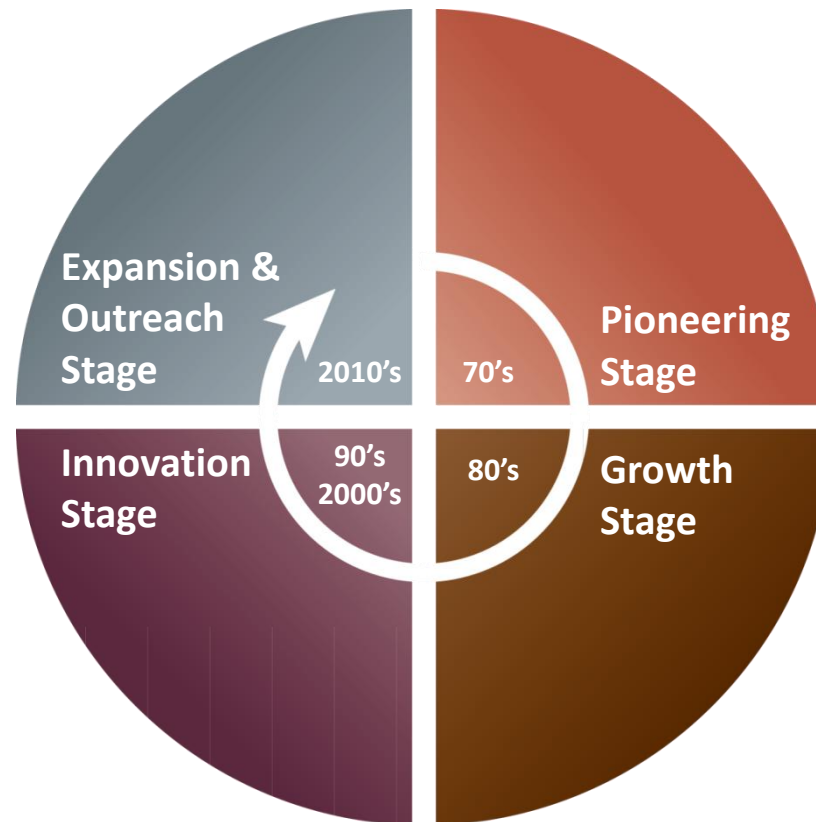


# The Royal Scientific Society:

## *From National Innovator to Regional Leader*



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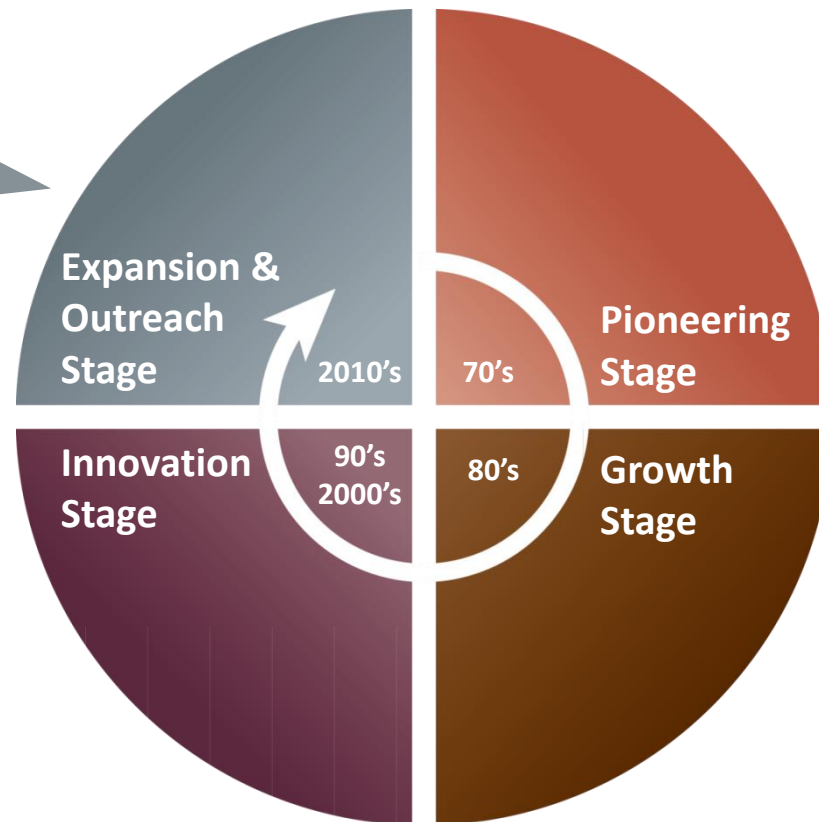


# National Innovator to Regional Leader



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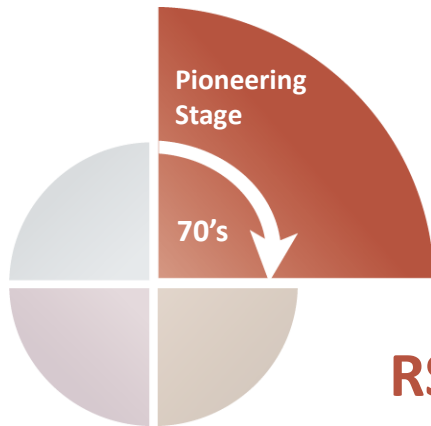
The RSS is using its consolidated experience and HR capacity to drive its research agenda and build its capacity as a regional service provider.



# The Pioneering Stage (1972 -1979)



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**Project Operations Status Information Centre (POSIC)**

**First Urban Development Project for Jordan**

**National Population Data Bank**

**RSS labs were Recognized for Testing of a Variety of Products for Quality Assurance by MoIT**

**Introducing the Solar Heaters Systems**

**Constructed the First Windmills for Energy in Jordan**

**National Environmental Strategy**

**Introducing the FIRST computer to Jordan**

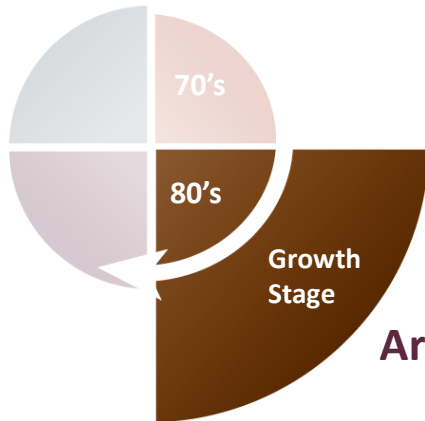
**First Jordanian Environmental Protection Law**



# The Growth Stage (1980 -1989)



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**Radioactive Elements Testing (NDT)**

**Medical Equipment Maintenance**

**Building System 5 for Low Cost Housing**

**Architictural Heritage Documentation**

**Building Capacity as Scientific Reference Point & Policy Advisor**

**Handbook on Climatic Design of Buildings for Reducing Energy Consumption**

**National Information System of Jordan**

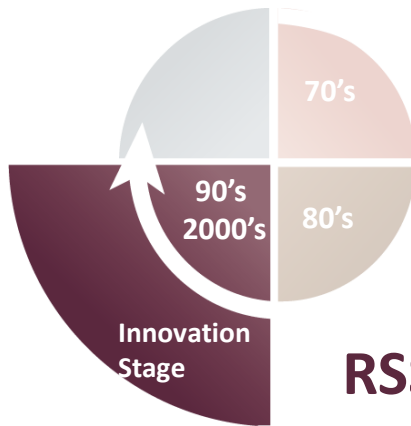
**Jordanian National Building Codes**



# The Innovation Stage (1990-2009)



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**Jordan's Seismic Activity Study**

**Introducing JNMI**

**Environmental Impact Assessment Studies**

**Hazardous Material Management System - ICT Innovative Ideas**

**Training and Knowledge Transfer**

**RSS Evolved into a Key Scientific Advisor through Innovative Initiatives in the Areas of Public Health, Safety & Sustainable Development Domain**

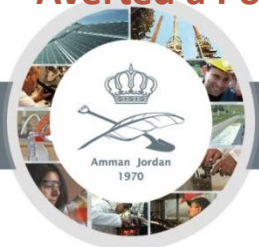
**Early Warning System for Farmers Against Frost and Drought Conditions**

**Acquiring International Accreditation of Labs**

**Conformity Assessment**

**Green Building Codes & Rating System**

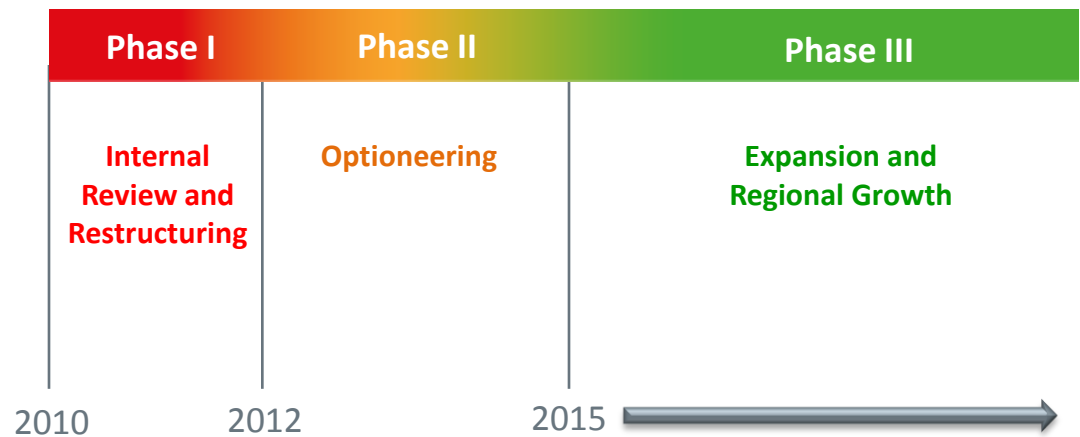
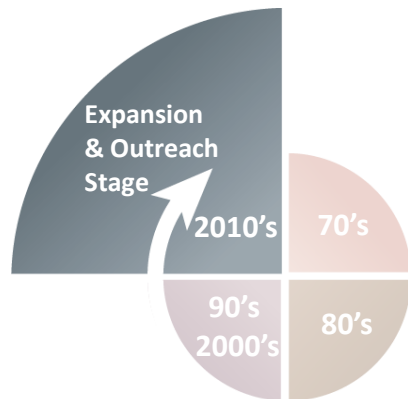
**Averted a Potential Water Crisis in Manshiyet Bani Hassan**



# The Expansion & Outreach Stage (2010's)



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# The Expansion & Outreach Stage (2010's)



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## Phase I

Internal  
Review and  
Restructuring

2010

2012

### RSS Sectors



المعرفة  
Knowledge



المختبرات  
Testing



الجودة  
Quality



تنمية المجتمع  
Outreach

Research, Consulting  
& Projects

Scientific Analysis,  
Public Health & Safety

Calibration, Conformity,  
& Engineering Maintenance

Public Awareness, Training,  
Enterprise Creation,  
& Social Development

Energy, Water and Environment (EWE)

Industrial and Economic Consultations (IEC)

Construction and Urban Planning (CUP)

Information and Communication Technology (ICT) for Development

Scientific Themes  
(Clusters)





# The Expansion & Outreach Stage (2010's)



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# The Expansion & Outreach Stage (2010's)



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المختبرات  
Testing

Chemical  
Labs

Environmental  
Labs

NDT  
Labs

Mechanical  
Labs

Construction  
Labs

Electrical  
Labs

Tobacco

Food

Water Quality

Pesticides and Pesticides Residue

Paints, Lacquers, and Petroleum Derivatives

Paper, Leather, Textile and Fabrics

Gases

Fertilizers and Animals' Feed

Detergents and Cosmetics

Radiation

Metal Testing

Plastic and Rubber

Non-Destructive Testing

Air Quality

Construction Materials

Electrical Consumer Goods

Water Efficiency

Phase I

Internal  
Review and  
Restructuring

2010

2012



# The Expansion & Outreach Stage (2010's)



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الجودة  
Quality

Calibration

Length Measuring

Medical Equipment

Electrical Equipment

Force Measuring

Mass Measuring

Pressure Measuring

Speed

Frequency and Time

Temperature

Conformity

CE Mark

Consumer Goods

NDT Personnel Certification

Liquefied Petroleum  
Gases Containers

Halal Certification

Phase I

Internal  
Review and  
Restructuring

32,000 Medical equipment

200 Bio-Medial Engineers

30 Hospital and 1000  
Medical Centers

18 Workshops

Bio-Medical  
Engineering

2010 2012



# The Expansion & Outreach Stage (2010's)



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المعرفة  
Knowledge

**Establish Research Groups**

**Environmental Management  
M.Sc. Programme**

**Partnership with Private Sector – Petra Solar**

**Promotion and Academic Ranking for Researchers with PSUT**

**Brain Re-Gain**

**New partnerships (JEDCO, UNU, SIWI)**

**Science for Society Programmes**

**MoU with KADDB to Apply Research and Projects**

**Environmental and Socio-economic Impact Study For Al-Manakher Power Project (IPP4 Power Project) – Parsons Brinckerhoff**

**Phase I**

**Internal  
Review and  
Restructuring**

2010

2012



# The Expansion & Outreach Stage (2010's)



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تنمية المجتمع  
Outreach

urbanisationurbanisationurbanisation  
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energyenergyenergyenergyenergyener  
techangeclimatechange climatechange  
ertypoverty poverty poverty poverty



Drivers of Change Institute

إرادة  
مراكز تعزيز الإنتاجية



Phase I

Internal  
Review and  
Restructuring

2010

2012



Science for Society  
(RSS Training & Knowledge Transfer)

# The Expansion & Outreach Stage (2010's)



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## RSS Support Functions



## Restructuring

Re-Branding & Positioning

Unified Payroll

Systems & Procedures

Evaluation System

Establishing Sales Function

Cash Flow Management

Strategy Road Map

Facilities Re-development

Phase I

Internal  
Review and  
Restructuring

2010

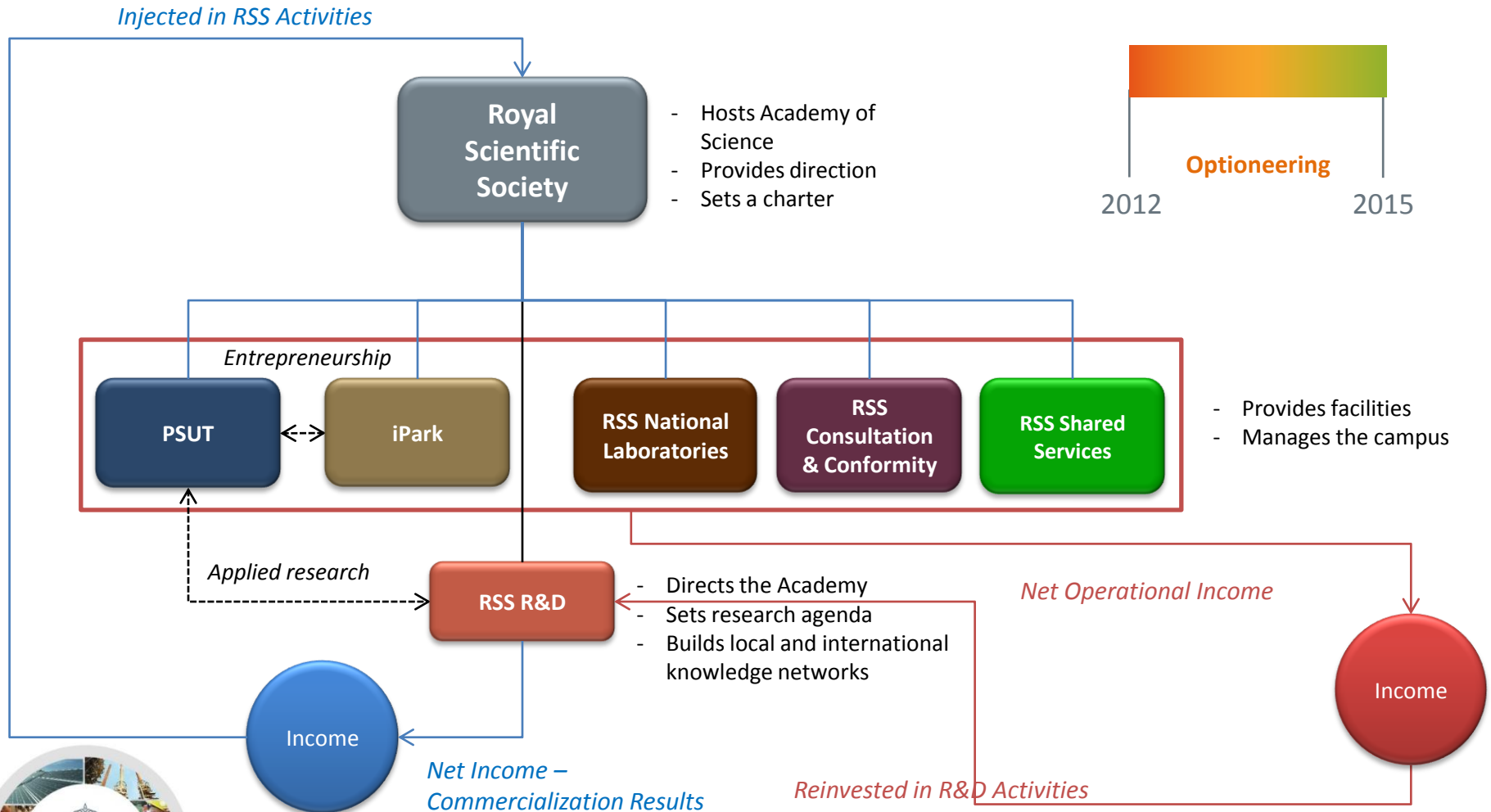
2012



# RSS Eco-System (*Self-Sustained R&D*)



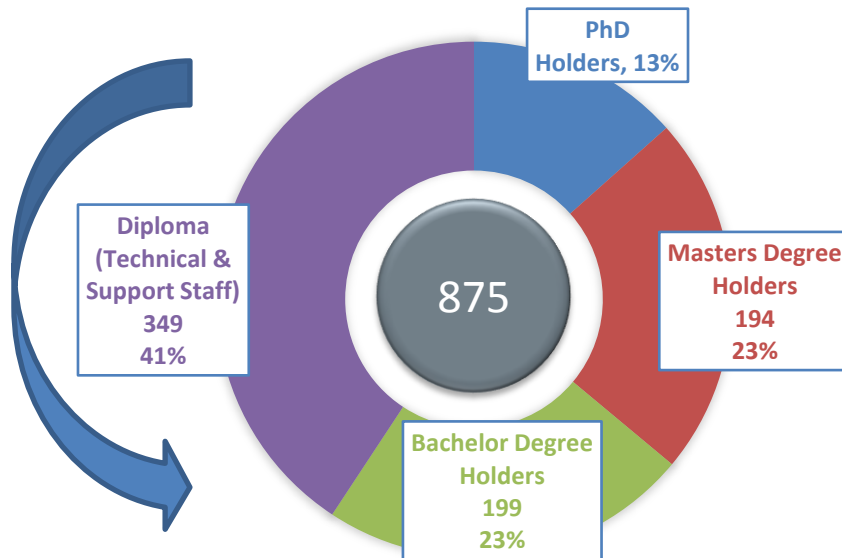
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# RSS Human Capital



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## Last 5 Years National Contribution:

- Registering 23 patents .
- 7.4% of total Patents registered in Jordan
- More than 70% of RSS patents were applied in Nation wide Projects.
- Issuing 67 publications.
- Issuing over 40 national studies.

- Annual Recruiting Budget: US\$ 16.4 M
- Human Resources Development Yearly Budget: US\$ 490 K.





# Research Programmes at RSS



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Total no. of Research Programmes	22
Total Budget	2 M\$

- Increase Youth Public Discourse in Key Water Issues
- Developing Green Building Manual
- Reuse of Bio-solids as a Fertilizer for Increasing Forage Production and Enhancing Soil Fertility
- Energy Efficiency Standards and Labelling in Jordan
- Green Help Desk - Strengthening National Capacities in the ESCWA Region on Developing Green Production Sectors Project
- EQTeL- Enhancing Quality of Technology-Enhanced Learning at Jordanian Universities
- MIMI - Towards internationalization Management Model
- EQuAM- Enhancing Quality Assurance Management in Jordanian Universities
- MUREE-Modernizing Undergraduate Renewable Energy Education
- ASPIRE-Achieving Sustainable Programmes in Regeneration and Entrepreneurship



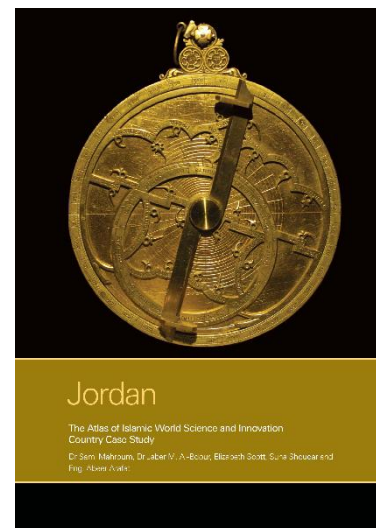
# Research and Development

## The Atlas of Islamic-World Science and Innovation: Country Case - August 2013



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- The report analyses the state of STI in Jordan, and provides an assessment of how effectively the existing national innovation system develops and supports the country's innovative capabilities.
- Jordan's capacity to innovate in a large part reflects its ability to harness its human capital and knowledge resources in order to generate relevant scientific and technological research, and to convert the outputs of this research into commercial reality through higher value-added products and services.
- Jordan's innovative capabilities will in turn enable it to generate wealth, create jobs for its people, and thereby underpin the nation's capacity to achieve sustainable economic development going forward.





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THANK YOU



المعرفة  
Knowledge



المختبرات  
Testing



الجودة  
Quality



تنمية المجتمع  
Outreach