



## WP6

# Urban entrepreneurial policy for sustainable development in JORDAN

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# Innovation Country Profile: JORDAN

## 1. Background

Jordan ranks 71<sup>th</sup> out of 132 economies in the Global Innovation Index 2023. The innovation ecosystem needs further advancement based on its global position by putting more emphasis on overcoming constraints that could hinder innovation and its impact on economic development.

Jordan, a small, open economy with approximately 11 million people, is classified as a lower-middle-income country. While its diversified economy, led by the services sector, has experienced steady growth, it grapples with challenges including high unemployment, poverty, and substantial public debt. Key sectors include services (over 70% of GDP), industry (around 25%), and agriculture (approximately 5%). The high unemployment rate, particularly among youth and women, along with elevated poverty levels and public debt exceeding 100% of GDP, poses vulnerabilities. External shocks, such as global oil price fluctuations and the neighboring countries' conflict, further impact the economy.

Despite a mixed outlook, global economic growth recovery and increased tourism revenues benefit Jordan. The World Bank projects a 2.5% economic growth in 2023 but warns of vulnerability to external shocks. The Jordanian government's economic priorities encompass job creation, especially for youth and women, poverty reduction through social safety nets, public debt reduction via fiscal reforms, and an enhanced investment climate through streamlined regulations. Efforts also include attracting foreign investment, promoting exports, and developing sectors like renewable energy and information technology.

Jordan displays inequality measures that are rather low in comparison to that of other countries with similar per capita GDP. Inequality in Jordan, as measured by per capita expenditure from the Households Expenditures and Income Survey (HEIS), stands at a Gini coefficient of 33.7 percent in 2010.

This is similar in level to that of the developed European Organization for Economic Cooperation and Development (OECD) members. It is significantly lower than income inequality in the United States and the UK (which are around 40), and is likewise lower than inequality in most countries that are close to Jordan in terms of gross domestic product (GDP) per capita.

For Jordan, future real economic growth and job creation will depend on its ability to create an environment that stimulates and supports innovation throughout the value system to improve competitiveness, create increased local economy added-value, thus generating wealth and job creation.



Jordan 2025 National Vision and Strategy, and Jordan Economic Growth Plan call for enhancing competitiveness, encouraging innovation and creating an enabling business environment.

Jordan seeks to initiate the innovation economy through recruiting effective manpower, using the available institutional potentials built up and developed over long years through Public Private Partnership (PPP) and efforts exerted by innovative and pioneering individuals. Due to the difficult international and regional economic conditions, harnessing innovation to serve the economy has become a dire need more than ever before. Arguably, getting out of the bottleneck depends on making national innovation as the basis of economic and social development.

The innovation ecosystem in Jordan faces significant challenges related to various issues, such as:

1. Multiplicity of strategies and policies.
2. Lack of effective stakeholder coordination.
3. Inadequate collection and analysis of information.
4. Poorly defined Innovation.
5. The need for a separate R&D law.
6. Limited and scattered funding for R&D.
7. Mismatched supply and demand in R&I.

## 2. Funding

### 2.1. Research and Development (R&D) Expenditure

- Research and development expenditure (% of GDP) in Jordan was reported at 0.76 % in 2016, according to the Report prepared by HCST about R&D expenditure (2012-2016).
- The total expenditure on R&D in Jordan was around 939 million (900 million from local sources and 39 million from international sources) during the period (2012-2016), with an annual average of 188 million.
- Public universities spent around 58% of total local spending on R&D during the period (2012-2016).

#### 1.1. Highlights of Key Innovation Programmes

Innovation programmes are initiatives in which stakeholders from different sectors of society determine and define areas where they see the need for strong leadership and collaborative efforts. Together, the stakeholders in the innovation programmes are responsible for formulating challenges,



setting common long-term goals, and prioritizing investment in research, development, and innovation.

### 1.1.1. Key Innovation Funding Programmes in Jordan

#### a) Scientific Research and Innovation Support Fund (SRISF)

SRISF was established in 2010 under the umbrella of the Ministry of Higher Education (MOHE) as the main public fund to support research and innovation through seeking to build and strengthen research and development in fields that have great strategic value to empower Jordan to become competitive, especially in the fields of energy, water, environment, technological applications, support and protection of intellectual property rights, as well as human resources development. During 2011 – 2022 SRISF funded 300 projects in different scientific fields with around 20 Million.

Recently, “Innovation” was added to its mission to focus more on the applied and innovative ideas as well as the commercialization process.

#### b) Industrial Research and Development Fund (IRDF)

IRDF was established in 1994 as another public fund affiliated with the Higher Council for Science and Technology with the objective of increasing the competitiveness of Jordanian industries through the utilization of science and technology. IRDF invests around 4.5€ Million from its budget and managed around 1.13 Million from foreign funds.

The main functions of IRDF is to support Jordanian industries to invest in science and technology to achieve a remarkable development in terms of production processes and industrial management, product quality and development, as well as to improve the competitiveness and innovation of Jordanian industries.

#### c) National Fund for Enterprise Support (NAFES)

NAFES was established in 2001 as an affiliated fund to the Higher Council for Science and Technology. It assists Jordanian Small and Medium Enterprises (SMEs) to become more efficient and competitive both locally and internationally, through developing SMEs administration and financial systems and human resources. NAFES support SMEs with around 4.5 Million since its establishment in 2001.

#### d) Innovative Start-ups and SMEs Fund (ISSF)

ISSF was established in 2017 in response to the first recommendation of the Jordanian Economic Policy Council, as a private sector managed fund making investments in innovative start-ups and early-stage SMEs. The World Bank has invested (around 40.2 million) in the Fund which was



complemented by the Central Bank of Jordan with an additional (around 38.6€ million) bringing the total working capital of ISSF to around 78.8 million.

The objective of ISSF is to promote entrepreneurship and contribute to job creation in Jordan by increasing private sector participation in creating businesses. It covers early-stage equity finance for innovative small and medium enterprises (SMEs). In addition, the ISSF encourages entrepreneurship across Jordan with outreach programs to entrepreneurs from underprivileged regions, underserved sectors, and underserved groups such as youth and women entrepreneurs. The ISSF aims at investing in Jordanian companies, providing investment support to partner investors, as well as improving the quality and variety of services provided by intermediaries and networks dedicated to the creation of deal-flow in Jordan's ecosystem.

There is also other key relevant funds (private) contributing to the innovation status in Jordan:

- Shoman Foundation Scientific Research Fund (they have the Innovation Award).
- Applied Scientific Research Fund.

### 1.1.2. University Innovation Programmes and Centres

#### a) German Jordanian University Program Innovation & Entrepreneurship (GJU PIE)

In 2013, the Office for Industrial Links (OIL) started to implement activities that will lead to the establishment of a Technology Transfer Office TTO and Innovation and Entrepreneurship support office. The main role of these offices is to establish an innovation and start-up culture at GJU and to promote technology transfer.

The programme is linked to the career services of the university to help the students/graduates to gain an understanding of the different career paths and provide them with the tools to select and proceed with their best fit.

PIE offers the following:

- ☐ Training and general awareness on innovation and entrepreneurship.
  - Entrepreneurship and innovation to students and young entrepreneurs;
  - Professors and researchers on entrepreneurship and research commercialization;
  - Specialized courses on entrepreneurship and product design for target focus fields (CleanTech & Life Sciences).
- ☐ Coaching of entrepreneurs and innovators.
  - Support students in their graduation projects and commercialization;
  - Business modeling;
  - Marketing and business development;
  - Strategic partnerships;
  - Intellectual Property rights services and licensing;
  - Business establishment and growth.
- ☐ Technical development (Proof of Concept)/ Product Design.



- Access to university facilities and resources;
  - Test platform for new products.
- ☑ Promotion of entrepreneurs and innovators.

### **b) Centre of Excellence for Innovative Projects/ Jordan University for Science and Technology**

The centre has a range of facilities and services to support and sponsor innovative people; develop their skills and innovativeness starting from creating the initial product; passing on to the service model; and finally the establishment and the commercial launch of small businesses.

The Technical Incubator provides the necessary technical support to design and build prototypes of products and services.

The Training Department develops the personal, technical, and entrepreneurial skills of the innovators. The marketing department, on the other hand, promotes products and services, and attracts customers and investors. The technology transfer office, however, is largely concerned with the protection of intellectual property rights by documenting innovative ideas, registering patents, and managing them.

The Centre also sponsors and supports pioneering and creative initiatives that benefit the university and the local community; or contribute to solving social, economic, academic, and health problems.

### **c) The University of Jordan Innovation and Entrepreneurship Centre (UJIEC)**

UJIEC was established by decision from the University of Jordan Board of Trustees in 2015 with a vision to be a one-stop support hub for innovators and entrepreneurs at the University of Jordan as well as the local community in collaboration and partnership with all stakeholders in both the public and private sectors. It has a mission to promote and foster innovation and entrepreneurship culture, education, training, and practice to create a generation capable of making a real contribution to the economic development in Jordan. The UJIEC team consists of 6 full-time staff along with 15 part-time volunteers.

### **d) The Queen Rania Centre for Entrepreneurship (QRCE)**

QRCE is a Non-Profit organization established in 2004 to help develop technology entrepreneurship in Jordan. The centre is part of Princess Sumaya University for Technology (PSUT), and plays the role of a national centre of excellence for entrepreneurship. With the expansion of the role of the centre and the development in the strategic plan, QRCE is to complete an ecosystem for entrepreneurship development and support in the country starting with the business plan competition involving universities, entrepreneurs, and professionals from



different sectors. Working closely with local and international organizations, QRCE focuses on areas such as networking, recognition & awareness, capacity building & support, and funding.

There are private universities having innovation centres, such as:

- 1- Philadelphia University: Jordan Innovation Centre;
- 2- Hussein Technical University: Centre for Innovation and Entrepreneurial Excellence;
- 3- University of Petra: The Technology Innovation Centre;
- 4- Middle East University: Innovation and Entrepreneurship Centre;
- 5- Applied Science University: Centre for Entrepreneurship and Creativity

## 3. National Strategies and Policies

Jordan has a number of national strategies and policies in place to promote innovation, entrepreneurship, urban development, and science, technology, and innovation (STI).

### 3.1. Innovation

The Jordanian government has adopted a National Innovation Strategy (2021-2025), which aims to make Jordan a regional leader in innovation. The strategy focuses on five key areas:

- Research and development: The strategy aims to increase investment in research and development, and to promote collaboration between academia, industry, and government.
- Technology transfer: The strategy aims to promote the transfer of technology from developed countries to Jordan, and to support the development and commercialization of indigenous technologies.
- Entrepreneurship: The strategy aims to promote entrepreneurship and to create a more supportive environment for startups.
- Intellectual property: The strategy aims to strengthen Jordan's intellectual property regime and to encourage the development and commercialization of new technologies.
- Innovation infrastructure: The strategy aims to develop the infrastructure needed to support innovation, such as science parks and technology incubators.

### 3.2. Entrepreneurship

The Jordanian government has also adopted a National Entrepreneurship Strategy “Strategic Direction” (2021-2025), which aims to make Jordan a global hub for entrepreneurship. The strategy focuses on five key areas:

- Entrepreneurial education and training: The strategy aims to promote entrepreneurial education and training at all levels of the education system.



- Access to finance: The strategy aims to improve access to finance for startups and small businesses.
- Business support services: The strategy aims to develop and provide a range of business support services to startups and small businesses.
- Regulatory environment: The strategy aims to create a more supportive regulatory environment for entrepreneurship.
- Entrepreneurial culture: The strategy aims to promote an entrepreneurial culture in Jordan.

### **3.3. Urban development**

The Jordanian government has also adopted a Jordanian national urban policy (2022-2030), which aims to make Jordan's cities more sustainable, inclusive, and resilient. The strategy focuses on five key areas:

- Sustainable urban planning: The strategy aims to promote sustainable urban planning practices, such as mixed-use development and public transportation.
- Affordable housing: The strategy aims to increase the supply of affordable housing, especially in urban areas.
- Urban services and infrastructure: The strategy aims to improve the quality and coverage of urban services and infrastructure, such as water, sanitation, and waste management.
- Economic development: The strategy aims to promote economic development in urban areas, especially through the development of small and medium-sized enterprises.
- Social inclusion and resilience: The strategy aims to promote social inclusion and resilience in urban areas, through measures such as poverty reduction and access to education and healthcare.

### **3.4. Science, technology, and innovation (STI)**

The Jordanian government has also adopted a National Strategy for Science, Technology, and Innovation (2021-2025), which aims to make STI a key driver of economic growth and social development. The strategy focuses on five key areas:

- Research and development: The strategy aims to increase investment in research and development, and to promote collaboration between academia, industry, and government.
- Technology transfer: The strategy aims to promote the transfer of technology from developed countries to Jordan, and to support the development and commercialization of indigenous technologies.
- Human capacity development: The strategy aims to develop the human capacity needed to support STI, through measures such as education and training.
- STI infrastructure: The strategy aims to develop the infrastructure needed to support STI, such as science parks and technology incubators.
- Innovation ecosystem: The strategy aims to develop a supportive innovation ecosystem, through measures such as regulatory reform and public-private partnerships.



## 4. In-depth Analysis:

The SWOT analysis provides an in-depth evaluation of Jordan's Urban Entrepreneurial Policy for Sustainable Development within the U-SOLVE consortium. This strategic assessment encompasses internal Strengths and Weaknesses, as well as external Opportunities and Threats that may influence the policy's effectiveness.

### Strengths:

Jordan demonstrates a robust foundation in fostering entrepreneurial growth through:

- **Innovative Ecosystem Development:** Established innovation hubs and startup ecosystems facilitate collaboration among entrepreneurs, researchers, and businesses.
- **Educational Initiatives:** Integration of entrepreneurship education at various levels promotes an entrepreneurial mindset and creativity among the populace.
- **Stakeholder Engagement:** Diverse engagement of stakeholders from public, private, academia, and NGOs ensures active collaboration and partnerships, enhancing the policy's impact.
- **Sustainable Resource Management:** The policy focuses on efficient resource use for sustainability, considering environmental and social impacts.

### Weaknesses:

However, the policy faces challenges and limitations:

- **Financial Resource Constraints:** Startups encounter difficulties due to insufficient financial resources.
- **Regulatory Gaps:** Gaps in the regulatory framework pose obstacles to effective policy implementation.
- **Inclusivity Issues:** Limited inclusivity in entrepreneurship raises concerns about the policy's outreach and impact.
- **Awareness and Understanding:** Lack of awareness and understanding of the policy's objectives among the target audience hampers its effectiveness.
- **Enforcement Challenges:** Enforcing sustainable practices proves challenging and requires attention for policy success.

### Opportunities:

Several opportunities exist for enhancing the policy's impact:



- Increased Funding Mechanisms: There is potential for securing increased funding mechanisms to support entrepreneurial endeavors.
- Policy Alignment: Aligning the policy with broader sustainable goals can enhance its impact.
- Technological Innovation: Emerging technologies offer opportunities for innovative solutions within the entrepreneurial landscape.
- Interest in Sustainable Entrepreneurship: Growing interest in sustainable and socially responsible entrepreneurship creates a conducive environment for policy success.
- International Collaboration: Opportunities for international collaboration and knowledge exchange can enrich the policy's implementation.

#### Threats:

Despite its strengths, the policy faces external threats:

- Economic Downturn: Economic challenges may affect funding opportunities for startups and entrepreneurial activities.
- Regulatory Barriers: Regulatory challenges and barriers to entry can impede the smooth execution of the policy.
- Diversity and Inclusion: Lack of support for diversity and inclusion poses a threat to the policy's ability to address a wide range of entrepreneurial needs.
- Environmental and Social Challenges: External challenges, such as environmental and social issues, may impact entrepreneurial activities negatively.
- Competing Priorities: The presence of competing policies or programs with different priorities may divert attention and resources away from the Urban Entrepreneurial Policy.
- Political Instability and Regional Conflicts: Political instability and regional conflicts present additional threats that may hinder the policy's success.



## JORDAN - Local Strategic Urban Action Plan

### 1. **Regeneration of Built Environment:**

- Prioritize urban regeneration in areas with high population density, incorporating green spaces and sustainable architecture.
- Introduce zoning policies that encourage mixed-use developments to enhance community livability.

### 2. **Resilient and Renewable Energy Systems:**

- Focus on solar energy projects to harness Jordan's abundant sunlight.
- Incentivize businesses and households to adopt solar panels, contributing to a resilient and decentralized energy system.

### 3. **Urban Bio-economy:**

- Implement policies supporting circular economy practices, particularly in waste management and recycling.
- Promote sustainable urban agriculture to enhance the bio-economy.

### 4. **Improved Access to Education:**

- Upgrade educational infrastructure, particularly in densely populated urban areas.
- Leverage technology to provide remote learning opportunities, ensuring widespread access to quality education.

### 5. **Improved Resilience to Climate Crisis:**

- Develop climate-resilient infrastructure, especially in vulnerable urban zones.



- Implement water conservation and management strategies to address Jordan's water scarcity.

#### 6. Entrepreneurial Ventures:

- Encourage startups in water conservation, renewable energy, and sustainable construction.
- Establish innovation hubs to foster collaboration between entrepreneurs, researchers, and policymakers.



# Urban entrepreneurial policy for sustainable development in JORDAN

## Introduction

This Urban Entrepreneurial Policy for Sustainable Development aims to foster a thriving entrepreneurial ecosystem that promotes economic growth, job creation, and sustainable urban development. The policy considers the maturity and orientation of the innovation ecosystem, entrepreneurial attitudes in problem-solving, resource management, stakeholder inclusion, and addressing environmental and social impacts.

## Policy

1. Strengthening the Innovation Ecosystem:
  - 1.1 Foster collaboration between academia, research institutions, and industry to drive innovation and knowledge transfer.
  - 1.2 Establish entrepreneurship centers, incubators, and innovation hubs to provide support services, mentorship, and access to resources for startups and entrepreneurs.
  - 1.3 Encourage public-private partnerships to promote research and development activities aligned with urban sustainability goals.
2. Entrepreneurial Attitude and Problem-Solving:
  - 2.1 Promote an entrepreneurial culture that encourages individuals to identify and solve urban challenges through innovative and sustainable business solutions.
  - 2.2 Facilitate entrepreneurship education and skill development programs at all levels of education to nurture entrepreneurial mindsets.
  - 2.3 Recognize and celebrate entrepreneurial successes to inspire and motivate aspiring entrepreneurs.
3. Efficient Resource Management:



3.1 Encourage the use of sustainable and efficient resource management practices in urban entrepreneurship, such as renewable energy, waste reduction, and water conservation.

3.2 Promote circular economy principles to minimize resource consumption, waste generation, and environmental impacts.

3.3 Support startups and entrepreneurs developing technologies and solutions for sustainable resource management.

#### 4. Inclusive Stakeholder Participation:

4.1 Foster an inclusive entrepreneurial ecosystem by promoting diversity and inclusion, including the participation of women, marginalized communities, and persons with disabilities.

4.2 Ensure accessibility to entrepreneurship support services, funding opportunities, and networks for all urban stakeholders.

4.3 Encourage public participation and engagement in the development and implementation of urban entrepreneurship policies and initiatives.

#### 5. Environmental and Social Impact:

5.1 Encourage startups and entrepreneurs to integrate environmental and social considerations into their business models and operations.

5.2 Provide support and incentives for startups that contribute to environmental sustainability, social well-being, and community development.

5.3 Establish mechanisms to monitor and evaluate the environmental and social impacts of urban entrepreneurial activities and promote continuous improvement.

#### 6. Policy Alignment with Sustainable Goals:

6.1 Regularly review and align policies with national sustainable development goals.



6.2 Leverage emerging technologies for innovative solutions that contribute to sustainability.

6.3 Encourage businesses to adopt socially responsible practices.

#### 7. International Collaboration:

7.1 Establish partnerships with international organizations, fostering a global entrepreneurial network.

7.2 Participate in knowledge-sharing initiatives to benefit from global best practices.

7.3 Encourage Jordanian entrepreneurs to explore international markets and collaborations.

#### **Implementation and Monitoring:**

1. Develop an action plan with specific targets, timelines, and responsible stakeholders for implementing the policy.
2. Allocate necessary resources and funding to support the implementation of the policy and related programs.
3. Establish monitoring and evaluation mechanisms to assess the effectiveness of the policy in achieving sustainable development goals.
4. Regularly review and update the policy based on feedback, emerging trends, and changing urban contexts.
5. Foster collaboration and knowledge-sharing among relevant stakeholders, including government agencies, private sector entities, academia, and civil society organizations.