Economic and Social Commission for Western Asia

EGM on Open Government and Digital Transformation for the New Urban Agenda in the Arab Region

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Smart Sustainable Cities and Smart Digital Solutions for Urban Resilience

Sukaina Al-Nasrawi, PhD
Social Affairs Officer, Sustainable Urban Development Lead
Gender Justice, Population and Inclusive Development
UNESCWA
al-nasrawi@un.org

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Outline

- Urbanization and COVID-19 in the Arab Region

- Urban Economic Resilience, Smart Sustainable Cities and Goal 11: Interlinkages and Status in the Arab Region

- Pandemic Resilience and Role of Smart Digital Solutions

- Smart Digital Solutions: Global and Regional Examples

- Recommendations

Urbanization and COVID-19 in the Arab Region

The Arab region has the highest rate of population growth after sub-Saharan Africa.

Today, half of the region is urban, but there are significant variations among countries, with some having urbanisation levels as high as 85%.

Moreover, urban population is projected to more than **double** in **2050,** compared with 2010

with almost **3/4** of the Arab region being urban by that time.

Measurement of progress in the Arab region towards implementation of SDG 11

on sustainable cities and communities is challenging due to low availability of data,

11 SUSTAINABLE CITIES AND COMMUNITIES

which are available for only **4 out of 15** indicators

covering only **3 out of 10** targets

The impact of COVID-19 has shed light on systemic vulnerabilities and community weaknesses in the Arab region,

as well as on inequalities compounding both, magnifying decades-long challenges that threaten resilience and sustainability of cities and communities. It has also highlighted yet again the importance of heeding the call for integrated, people-centred urban planning.

Urbanization and COVID-19 in the Arab Region

- **The Arab region is very far from being uniform**. It constitutes of countries and cities that vary in terms of socio-economic development status, financial capabilities and capacities, infrastructure and connectivity and others.

- In response to the impacts of COVID-19, the cumulative government fiscal stimulus in the Arab region amounted to about $102 billion, equivalent to **nearly 4% of the Arab region's GDP, significantly lower than the global average of 11%.**

- In 2020, **the economy of the Arab region shrank by 4.8 % in the region**.

- In 2021, **the recovery pace is slower than the global one** with a growth of 3.8 % in 2021.

- The impacts on people, businesses, workers and families **varied largely by sector**, enterprise conditions and workers status
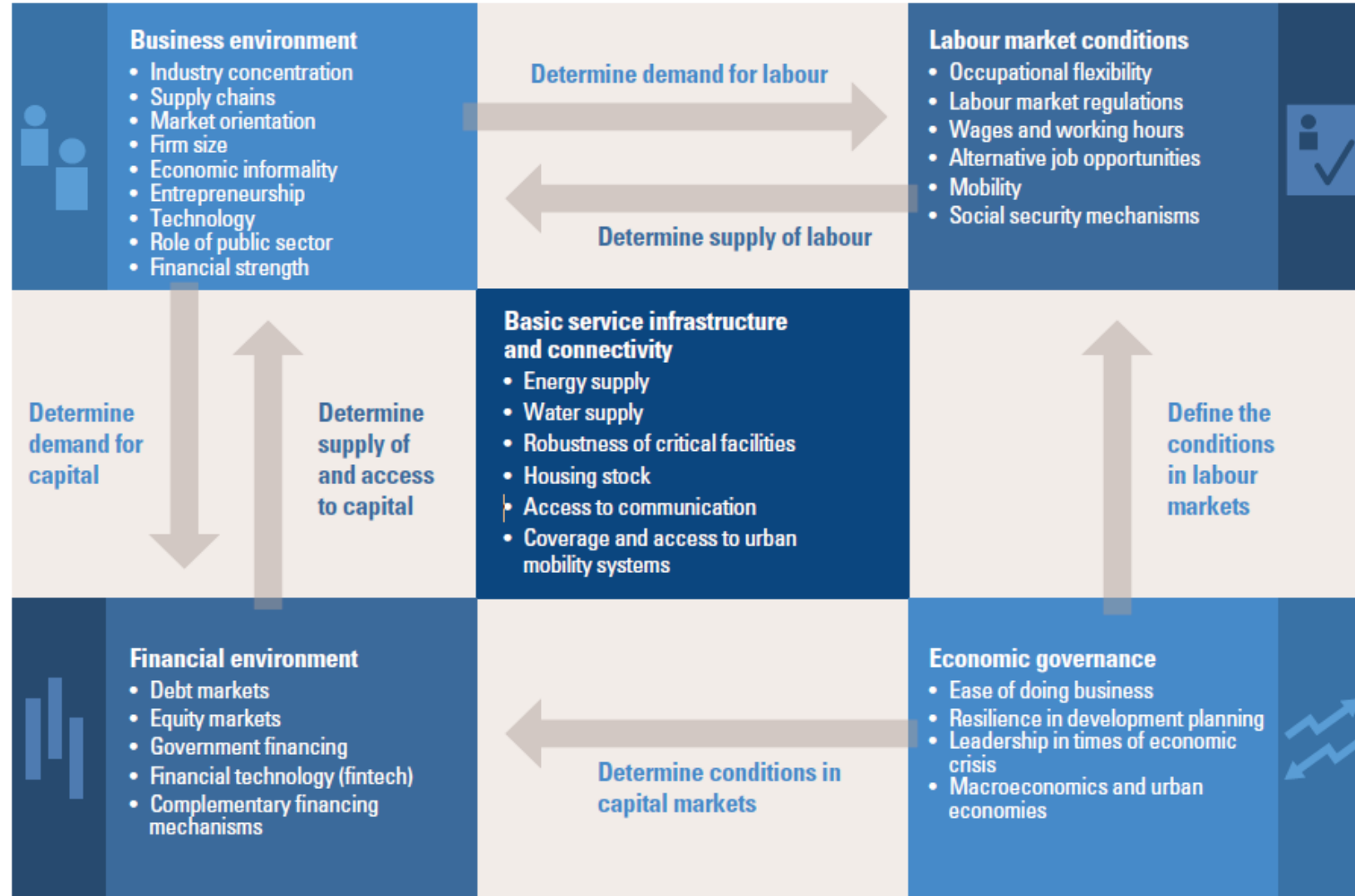
Urban Economic Resilience

Project on Building Urban Economic Resilience during and after COVID-19

Urban Economic Resilience

Capacity and related capabilities of urban communities to plan for, anticipate negative shocks, including long-term stresses, to their economies, reallocate and mobilize resources to withstand those shocks, recover from the shocks, and rebuild at least to pre-crisis levels, while placing their economies on the path to sustainable economic growth and simultaneously strengthening their capacity to deal with any future shocks.
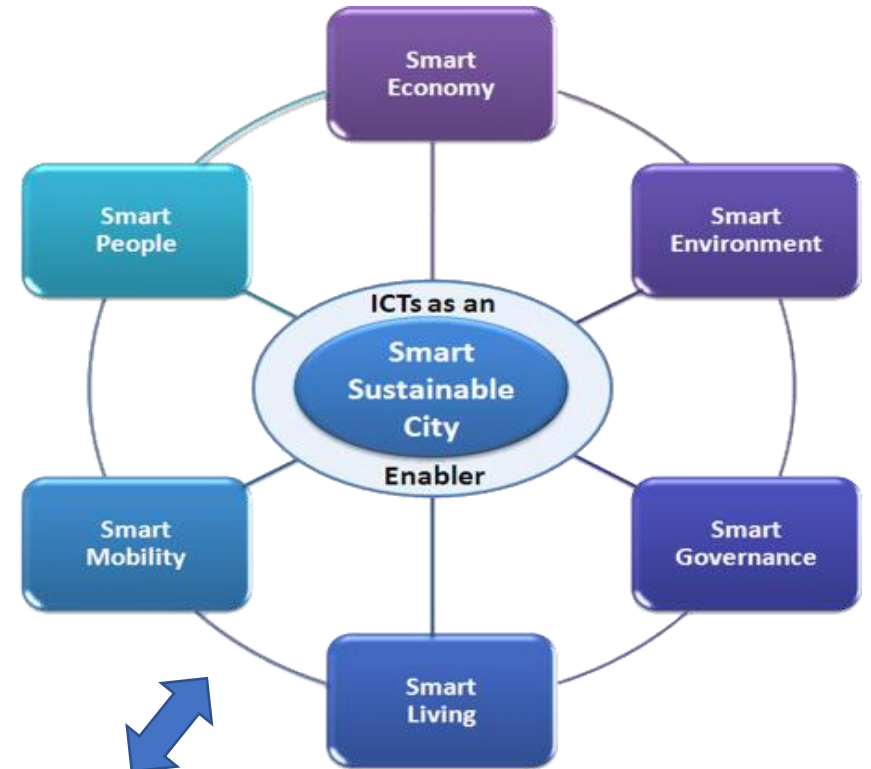
(ESCWA, ECA, ECE, ESCAP, ECLAC, UNCDF, UN-Habitat)

Building Urban Economic Resilience during and after COVID-19
UNDA Rapid Response Project

Business environment
- Industry concentration
- Supply chains
- Market orientation
- Firm size
- Economic informality
- Entrepreneurship
- Technology
- Role of public sector
- Financial strength

Determine demand for labour

Determine supply of labour

Labour market conditions
- Occupational flexibility
- Labour market regulations
- Wages and working hours
- Alternative job opportunities
- Mobility
- Social security mechanisms

Determine demand for capital

Determine supply of and access to capital

Basic service infrastructure and connectivity
- Energy supply
- Water supply
- Robustness of critical facilities
- Housing stock
- Access to communication
- Coverage and access to urban mobility systems

Define the conditions in labour markets

Financial environment
- Debt markets
- Equity markets
- Government financing
- Financial technology (fintech)
- Complementary financing mechanisms

Determine conditions in capital markets

Economic governance
- Ease of doing business
- Resilience in development planning
- Leadership in times of economic crisis
- Macroeconomics and urban economies

Components of city economy and resilience

Smart Sustainable Cities (SSCs)

Smart Sustainable City

an innovative city that uses Information and Communication Technologies (ICTs) and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social and environmental as well as cultural aspects. (ITU)

- **COVID-19** accelerated the use of smart digital solutions, especially those related to SSCs to mitigate the harmful consequences of the pandemic on development

Interlinkage between Urban Economic Resilience, SSCs and SDG 11

Urban Economic Resilience	SSCs	SGD 11		Interlinked SDGs
		SDG 11 Target		
Urban Services (Housing stock, robustness of critical facilities, access to communication)	**Smart Living** (Housing quality, educational facilities, cultural facilities, individual safety)	**Target 11.1** (By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums)		-
Urban Services (coverage and access to urban mobility systems)	**Smart Mobility** (Local accessibility, (Inter)-national accessibility, sustainable, innovative, safe transport systems)	**Target 11.2** (By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons)		**SDGs 1, 3, 8, 9, 10,13***
Urban Services (Energy supply, water supply)	**Smart Environment** (Environmental protection, pollution, Sustainable resource management, attractive natural conditions)	**Target 11.6** (By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management)		**SDGs 12, 13, 14, 15*, 17**
Economic Governance (Resilience in development planning, ease of doing business, leadership in times of economic crisis)	**Smart Governance** (Political strategies & perspective, public and social services, participation in decision-making) **Smart Living** (Social cohesion)	**Target 11.b** (By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels)		**SDG 16**
Economic Governance & Business Environment & Labour Market Conditions	**Smart Economy** (Innovative spirit, Economic image and trademarks, Flexibility of labour market, Ability to transform, Entrepreneurship, Productivity, International embeddings)	**Through related SDGs**		**SDG 8** - Good Jobs and Economic Growth – **SDG 9** - Innovation and Infrastructure -

Interconnected Dimensions & Targets

Smart Sustainable Cities in the Arab region

Country	SSC Initiative
Algeria	Algiers Smart City; Cyberpark City of Sidi Abdellah
Bahrain	Manama
Egypt	New Capital (unnamed yet); Smart Village
Jordan	Amman Smart City; Eco-city Feta
Kuwait	Kuwait City; South Saad Al Abdullah City
Lebanon	BeitMisk Village
Morocco	Rabat City; Casablanca; Tangier Tech City; BenGuerir
Oman	Muscat
Palestine	Ramallah City; Rawabi City
Qatar	Doha City; Lusail City
Saudi Arabia	Riyadh City; King Abdullah Economic City; Knowledge Economic City ; Neom Smart City
Tunisia	Tunisia Economic City (in planning)
Syria	Marota City (near Damascus city)
UAE	Dubai City; Abu Dhabi City ; Masdar City

SDG11 Implementation in the Arab Region

Legend:
- 🟢 SDG achieved
- 🟡 Challenges remain
- 🟠 Significant challenges remain
- 🔴 Major challenges remain
- ⚫ Data not available

Goals:
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

Countries: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Somalia, Palestine, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen

Collected available data show that all Arab States perform well on SDG 11, except for Mauritania, Sudan, Syria, Tunisia and Yemen, where trends are deteriorating on this goal.

The missed data are related to:
(1) targets to ensure inclusive cities & the participation of civil society in human settlement planning and management
(2) targets to ensure sustainability in land
(3) targets to ensure **resilience** to natural & human-caused disasters

Pandemic Resilience and Role of Smart Digital Solutions

Pandemic Resilience: The tools that permit a society to control a highly infectious disease while preserving essential public institutions, mobilizing the economy to provide surge capacity to fight the disease, and keeping the rest of the economy maximally open. *(as defined by Harvard)*

Selected solutions being deployed as a response to the health and economic crisis caused by COVID-19 pandemic

	Responses to the HEALTH CRISIS	Responses to the ECONOMIC CRISIS
Drones	» Delivery of critical supplies. » Disinfection of public spaces. » Measurement of body temperatures. » Enforcement of quarantine controls.	» Increased efficiency on delivery of services. » Scan extensive and highly populated areas and broadcast information.
Robotics	» Monitoring and assisting patients. » Optimization of medical stock. » Delivery of medicine and food.	» Remote inspection, repair and maintenance. » Semi-autonomous operations.
3D Printing	» Production of medical equipment and essential components.	» Counteract component shortages. » Design and test prototypes for new products.
Blockchain	» Digital identity, including health status. » Medicine safety tracking. » Management of healthcare claims.	» Resilience of supply chains. » Traceability and transparency about the origin and transformation process.
AI & Big Data	» Analyze data and model viral outbreaks. » Assist the development of vaccines. » Analyze patterns to improve control.	» Data and trend analysis to predict demand changes and assess impacts.
IoT	» Public health data collection. » Analyze air quality inside buildings. » Assist transport of critical goods. » Surveillance applications.	» Improve accuracy and response time. » Enhance understanding of consumers preferences and needs. » Digital twinning of industrial facilities to enable quick switch of production lines.

Smart Digital Solutions: Global and Regional Examples

Drones

Spray disinfectant on public areas:
- China, Honduras, Spain, UAE.

Deliver groceries:
- Australia, China, USA.

Restrict citizens movements:
- Belgium, China, France, Italy, Jordan, Kuwait, Saudi Arabia, Spain, UAE, UK.

Measure people's body temperature:
- Saudi Arabia

AI-based thermal imaging cameras & Wristbands

The AI-based thermal imaging cameras:
- Scan public spaces to identify any potentially sick people.
- China, UAE, UK.

People-tracking wristbands:
- Monitor COVID-19 patients' movements.
- Algeria, Bahrain, Belgium, Bulgaria, India, Jordan, Hong Kong, Oman, South Korea.

Telemedicine and Mobile Apps

Telemedicine:
- Provide healthcare services virtually to people.
- Australia, Canada, China, Ireland, UAE, USA.

Mobile Apps:
- Provide awareness data on the disease, highlighting affected areas.
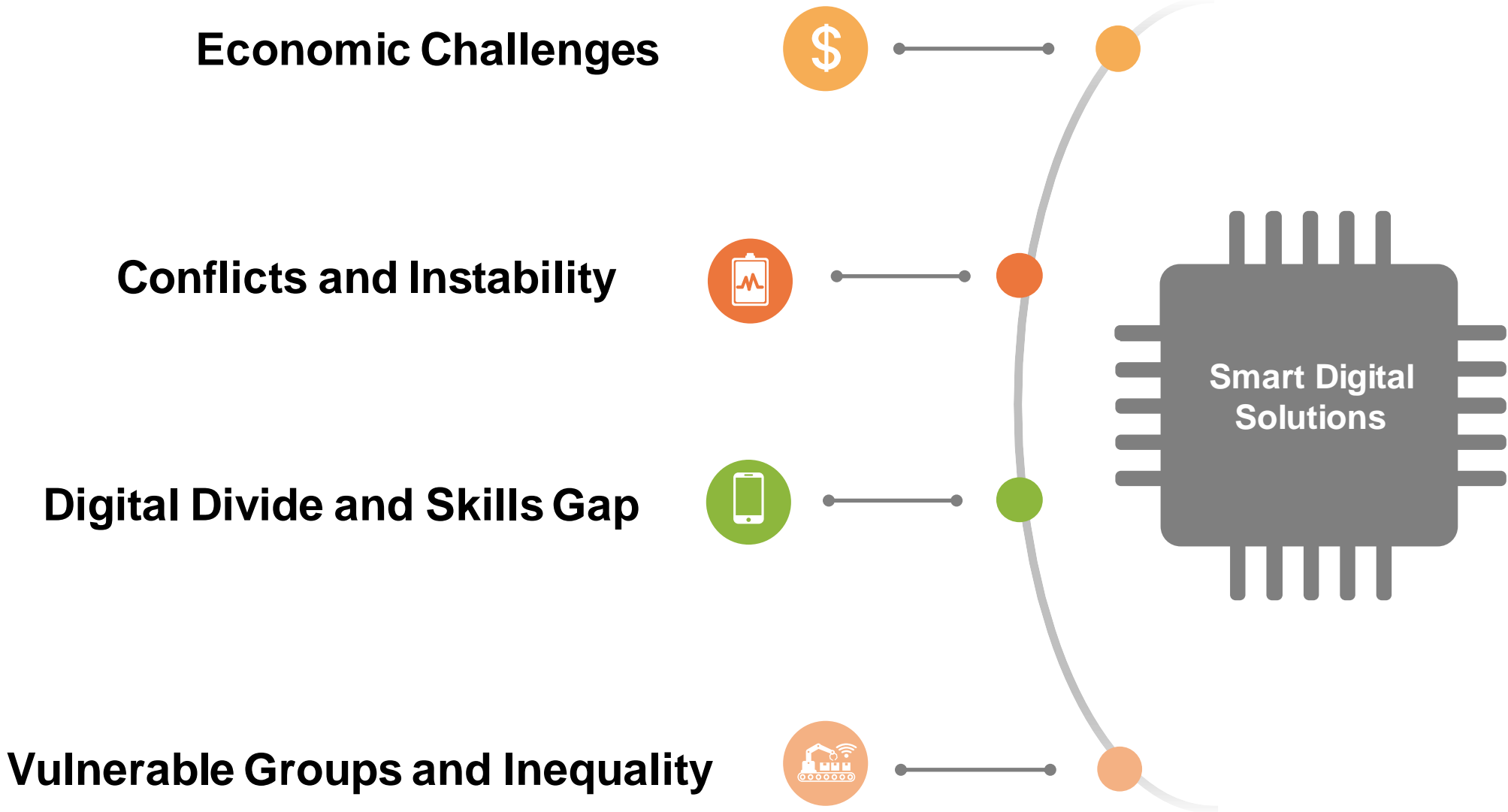- China, Egypt, Germany, Morocco, Saudi Arabia, UAE, UK.

Robots and Online Platform

Robots:
- Deliver medical supplies and meals within hospitals and to patient room, guaranteeing a contactless delivery process.
- China, Tunisia

Online Platform:
- Guarantee the continuity of learning and business systems.
- E-learning, online meetings & conferences
- Many countries around the globe including the region.

Smart Digital Solutions: Selected Challenges facing the Arab Region

Economic Challenges

Conflicts and Instability

Digital Divide and Skills Gap

Vulnerable Groups and Inequality

Smart Digital Solutions

Recommendations on Building Urban Economic Resilience – Arab Region

Recommendations for building urban economic resilience include:

Develop **inclusive policies,** encourage community engagement and promote a meaningful transition to a more sustainable approach for emergence of cities from the pandemic stronger and more resilient.

Complexity of the socioeconomic impacts of the pandemic require a **whole-of-society approach,** with use of smart and digital solutions helping mitigate these impacts on urban economic resilience.

Use **smart and digital solutions** to transform and/or build smart sustainable cities.

Pursue resilient, inclusive, gender-equal **economic recovery.**

With the SDGs as a framework, address inequalities in income, health, education, and affordable housing for recovery to lead to resilient, sustainable cities.

Build **urban economic resilience** through focusing on components of city economy; namely, labour market conditions, business environment, economic governance, financial environment, and infrastructure and connectivity.

Intensify efforts to close the digital divide and ensure **digital rights for all.**

Thank You

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