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Deutsches Institut für Entwicklungspolitik | German Development Institute

Enhancing domestic capabilities in renewable energies in MENA:

Supporting private sector development and employment

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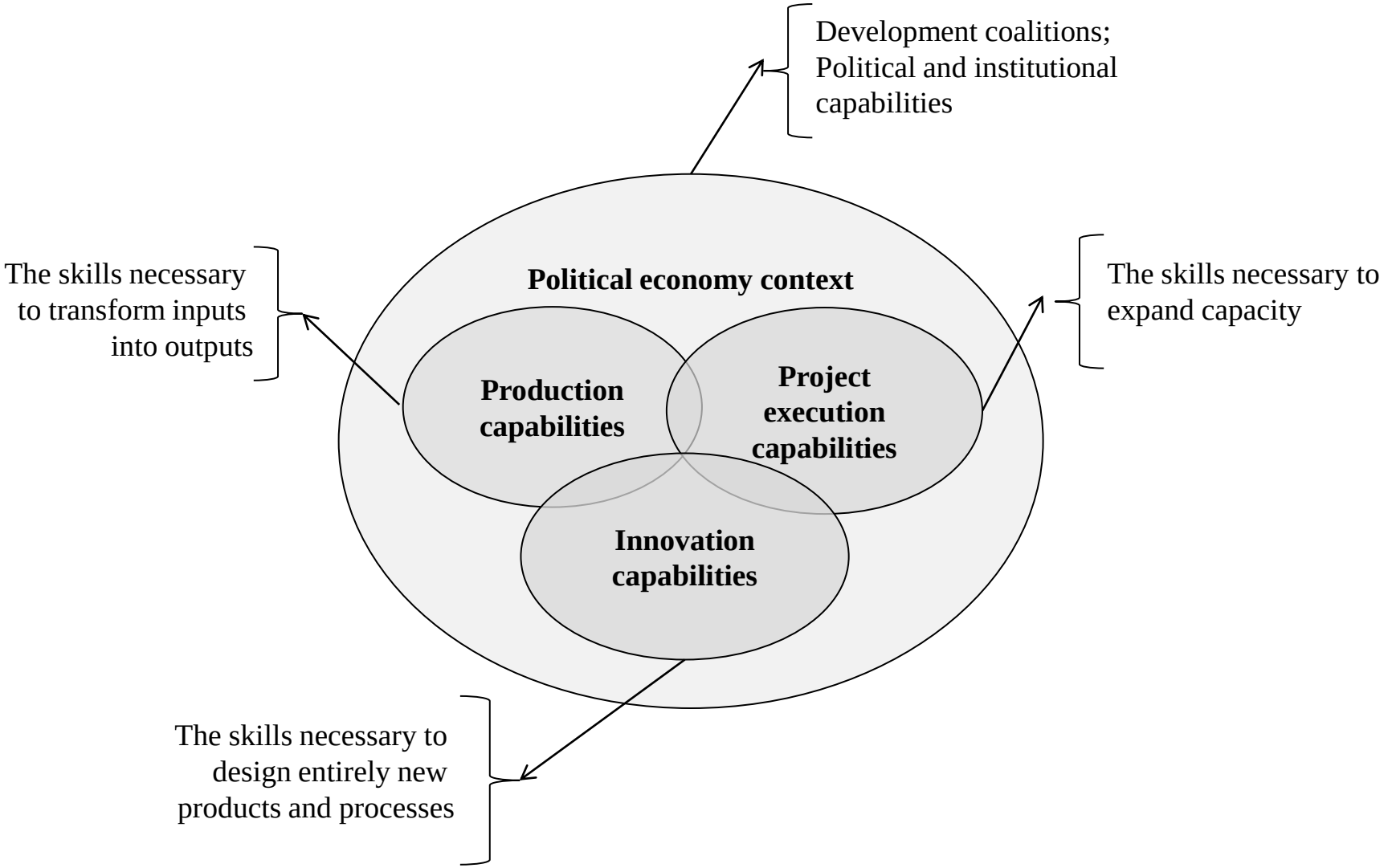
Large potential

- Electricity generation for domestic and export markets
- Industrial development and job creation

Need for integrated development process



Private sector development

- A sizable and diversified **local market** is critical:
  - Enable both large and small scale renewable energy installations
  - Technological diversity should be encouraged
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- **Political and institutional capabilities** are important:
  - Governance *capabilities to discipline and manage* development rents
  - *Supporting investments* in areas where new capabilities can be developed and *withdrawing conditional* benefits if competitiveness failed to emerge

Scientific and research capabilities

- **Developing local technological capabilities requires a steady stock of scientists and engineers involved in assimilating and adapting foreign technology**

- Education programs are necessary but not sufficient - *"know-how" / "learning by doing"* is what matters most:
  - Acquire know-how to operate new types of organizations and technologies
  - Access to laboratory equipment and experimentation –creates value for universities-private sector collaboration
  - Mechanisms (i.e. technology incubators) to enhance the "third mission" of universities and increase participation in R&D
  - Technology transfer and know-how development through long-term research programs

Job creation potential

Renewable energy training in Germany:

- Most important “sunrise industry”: Solar-PV
  - 2008: 53,000 - 2009: 63,000 jobs

- Broad skill basis on several levels:
  - Technical and vocational training
  - “Hands-on-engineers” (Universities of Applied Science)

- Dynamic uptake of new skill requirements in training systems
  - No generalized preference of *white-collar*, as opposed to *blue-collar* jobs (job perspectives, salaries, reputation)
  - 36 occupational profiles in the “green” field

FIGURE 3. COMPARISON OF JOB-YEARS ACROSS TECHNOLOGIES (JOB-YEARS/GWh) IRENA (2011)

International cooperation

- What does this mean for international cooperation?

  - Assist MENA countries in becoming technology producers focusing on “win-win” opportunities
  - Develop mechanisms to facilitate technology transfer, learning and to support adaptive R&D
  - Focus on integrative development approaches: education/training and private sector competitiveness
  - Support in building technical base for experimentation
  - Ensure cooperation and synergy between programs at EU level to enhance complementarities

"*… fears that environmental regulations will lead to massive job losses or loss of competitiveness are probably as unfounded as the hope that green jobs will single-handedly solve countries' employment problems*."

World Bank (2012): Green Growth Report