



# Technological Cooperation with Morocco

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[www.fsmd.ch](http://www.fsmd.ch)

# Scope

- Morocco and her economy
- FSMD: raison d'être
- Key technology drivers
- Driving toward success: IT&C and energy
- Oujda: a current initiative
- Your takeaway message

# Kingdom of Morocco in brief



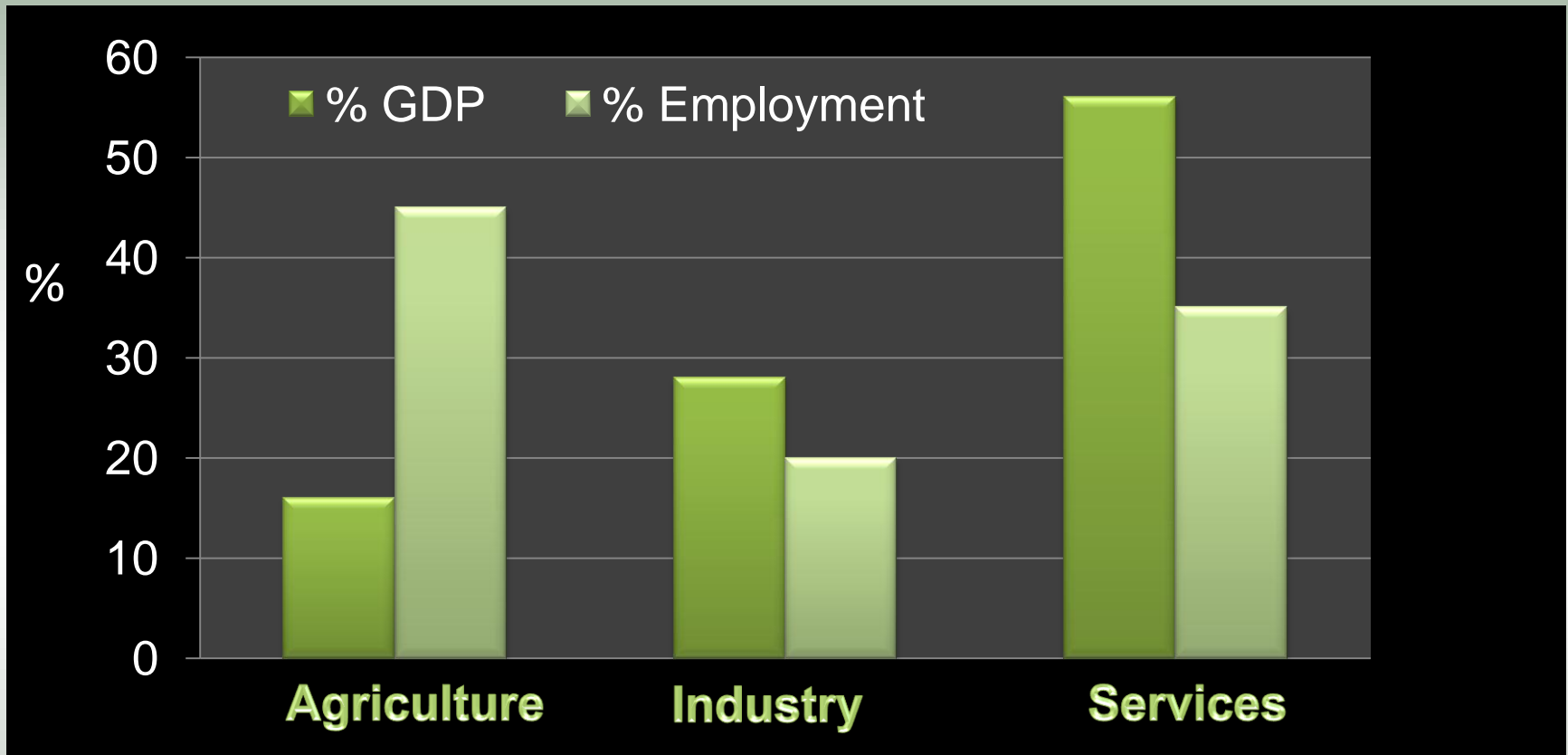
- ❑ Located between the European Union and Sub-Saharan Africa
- ❑ Area: 710.000 Km<sup>2</sup>
- ❑ Capital: Rabat
- ❑ Population: 32 million
- ❑ Languages:
  - ❑ Arabic
  - ❑ Berber dialects
  - ❑ French – the main language of business



# Morocco 2000-2010: A Social and Economic Transformation

- ❑ Solid program of human development and political liberalization
  - Gross national income per person more than doubled up to \$2,800
  - Average life expectancy has increased to 73 years (+5)
  - Dramatic decline in the average number of births per woman (from 6 to 2.3)
  - Primary school enrollment increased 25% (up to 92%)
  - Quasi-universal access to potable water in urban areas
  
- ❑ Progressive diversification of the economy and solid macro-economic management
  - GDP (\$100 billion) growth rate averaging around 5%, and FDI at 6% of GDP
  - Decrease in the overall poverty rate from 15.3% to 9%
  - Open trade with regional and global partners:
    - 2006: FTA-USA; 2010: Advanced status agreement with EU
  - Unemployment rates falling constantly and are now at a 30-year low: today ~9%

## Economic growth: GDP overview



- The Agricultural sector extremely vulnerable to climatic variation
- Volatility in food and energy prices
  - *Pushes up consumer price support charges*
  - Q) *Are we employing the people in the right sector?*
  - Q) *Are we investing in the right sector (ROI)?*

# The down side in more details

## ❑ Economic performance still tied to commodities and sectors of vulnerability

- Sensitive to global economic volatility
- Strong dependence on foreign energy (95% of energy needs are imported)
- Strong dependence on foreign technologies
- Demonstrable shortage of talents in key development areas
- Largely SMEs

☞ *Difficult access to specialty markets*

## ❑ Inadequate social indicators relative to the country's income level:

- 16 million Moroccans are under the age of 25
- School enrollment: Primary 92%, Secondary 60%, Tertiary 12%
- Youth unemployment youth (ages 15-24): 18% (33% urbans, 5% rurals)
- Poverty is touching almost 43% of Moroccan youth

☞ *Growth is unable to effectively absorb new entrants to the work force*

# Fondation Suisse Maroc pour le Développement Durable (FSMD)

Switzerland-Morocco Foundation for Sustainable Development

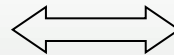
## **Who:**

- Non Governmental Non-Profit Organisation, Created in 2004, HQ Geneva
- Granted Consultative Special Status “Economic and Social Council” ECOSOC by the United Nations
- ***Tool for socio-economic development***

## **Focus:** Youth population perspective

### ***Accelerate competence creation***

- Specialized training
- Aligned education



### ***Decrease economic vulnerability***

- Differentiated business
- Novel technologies

## **How:**

- Raise the awareness on potential sustainable development opportunities
- Partner with key stakeholders and understand/analyze their needs
- Drive forward investment projects towards knowledge and transfer of best practices; create new value networks

# Key Technology Drivers - *Agriculture*

## □ Context

- 16% of GDP; 45% of total workforce; high potential for growth (or is it?)
- THE VECTOR for population balance between rural and urban areas

## □ Challenges

- Depends heavily on rainfall as less than 10 % of the arable land is irrigated
- The farming practices are underdeveloped and cannot compete internationally
- Lack of investment in research and development, marketing infrastructure,
- Imports are still higher than exports with huge domination by the EU

## □ Growth options

- Reduce EU dependency: access to new markets
- Diversification, industrialization: producing smart and producing quality
- Modernizing the new agriculture: cultivate and train the farmers equitably
- Water management and energy access; especially for small holders
- **Plan Maroc Vert (PMV):** Agriculture an engine of equitable growth and poverty reduction
  - Large scale irrigation and commercial agriculture

# Key Technology Drivers –*General Industry*

## □ Context

- 28% of GDP; 20% of total workforce;
- Dominated by mining industry especially phosphate

## □ Challenges

- Tied to commodities
- Strong dependence on foreign technologies and shortage in key talents
- Innovation culture is quite absent
- R&D investment and IP performance are weak
- Weak international positioning (decrease in competitiveness and export shares)

## □ Growth options

- Resize/shrink existing portfolio to gain competitive advantage
- Improve the marketing and the strategic positioning abroad
- Diversify and transform towards high value added (simple and efficient) products
- Implement innovation culture and create national cross-collaborations
- Implicate public R&D in innovation and product development
- Strengthen Academic-Industry links
- **Industrial pact to create 220,000 jobs in Morocco by 2015,**
  - Large investments in basic infrastructure (tourism, off shore, goods transport...)

# Key Technology Drivers - Information Technology & Communication

## ❑ A possible success story

- Developed within a few years through well shaped liberalization processes
- Morocco is a recognized leader in the region
- 5 million IT users and 24 million mobile customers
- Significant investments in innovation infrastructure
  - Technopark Rabat, Casablanca and Oujda; hold separate engineering, high-tech, colleges and R&D spaces
  - Several foreign companies are already established in the Technoparks (Nemotek Technologie, EDS-HP, Cleanroom, Alcatel and many others...

## ❑ Leveraging capabilities

- **“Maroc Numeric 2013” Government initiative:**
  - Targeting to implement a national IT initiative (0.5 billion Euros).
  - Expected to **increase GDP by 2.5% and create 26,000 new jobs.**
  - The strategy envisages nationwide access to high-speed internet, an e-government program and computerization of SMEs.

## ❑ How to keep competitive in a global environment?

# Key Technology Drivers - Energy

## □ Context

- 95% of Energy needs are imported
- Effect of climate change will be the reduction of rain-falls: future of agriculture?
- Increasing deforestation in rural areas
- Meet the growth of the demand related to the socio-economic evolution (6% /year)
  - ☞ *Morocco has to take measures to prevent damages*

## □ Potential for wind energy

- Excellent potential of wind: 7–11 ms<sup>-1</sup> annual average (North & South mainly)
- Electric power of over 1000 TWh/a could be generated (3500 km seacoasts)

## □ Potential for solar energy

- Annual solar direct normal irradiation is 2.5 MWh/m<sup>2</sup> (more than 2200 FLH/y)
- Space for solar collectors for several 1000 TWh/a is available (5 km<sup>2</sup> / TWh/a)

## □ Very interesting option for sea water desalination (improvement of energy surplus)

- 100 MW electric power = 25,000 people: 4 kW elec. + 1.3 m<sup>3</sup> water per day per person

# Morocco's commitment: A very aggressive program during 2000-2010

## ❑ Renewable Energy targets by 2012

- Electricity production share 20%; Energy consumption share 10%

## ❑ Realized projects

- Wind : 4 farms of a total of over 250 MW, 1000 GWh/ y
- Solar-PV
  - PERG Program: Solar individual panels for 45,000 poor households,
  - Tit Mellil: PV-Solar connected to the network 50 KW
- Solar thermal
  - Ain Beni Mathar : Hybrid system : Tot. 472 MW ; 20 MW of Solar RE

## ❑ Outlook

- Wind: Target 1000 MW in 2012
- Solar Thermal: Over 440 000 m<sup>2</sup> for warm and clean water in 2012
- PV Solar: Low voltage networks 10 MW in 2012 and 80 MW in 2020

# Oujda: An Ambitious Program

- ✓ Issues identified and well understood
- ✓ Clear needs expressed
- ✓ High willingness to grow, flexible, open
- ✓ Program in place
- ✓ Decision maker



The program includes:

- Set-up of an environmental management policy for the city.
- Improvement of the governance of municipal services: citizen support oriented.
- Introduction of ITC in the administration of the municipality.

# Oujda: Partnership Project



OUJDA



- Water management
- Waste management
- Renewable energies
- Governance
- e-Government
- Training

Framework agreements signed at the 4th economic symposium organized by the FSMD, November 5<sup>th</sup>, 2010, Geneva

# Why should YOU invest in Morocco ?

- ❑ A model for Africa, the Arab and Islamic world in socio-economic development
- ❑ It has the potential to be a source of young talents
- ❑ Politically stable and geographically well situated
- ❑ A willingness to grow and organized for growth
- ❑ Extensive international experience and partnerships

The journey is not an easy one

*Morocco needs courageous people who can be innovative and who take the initiative to improve the lives of Moroccans.*

***THE ONES WHO MAKE IT HAPPEN***



# THANK YOU

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