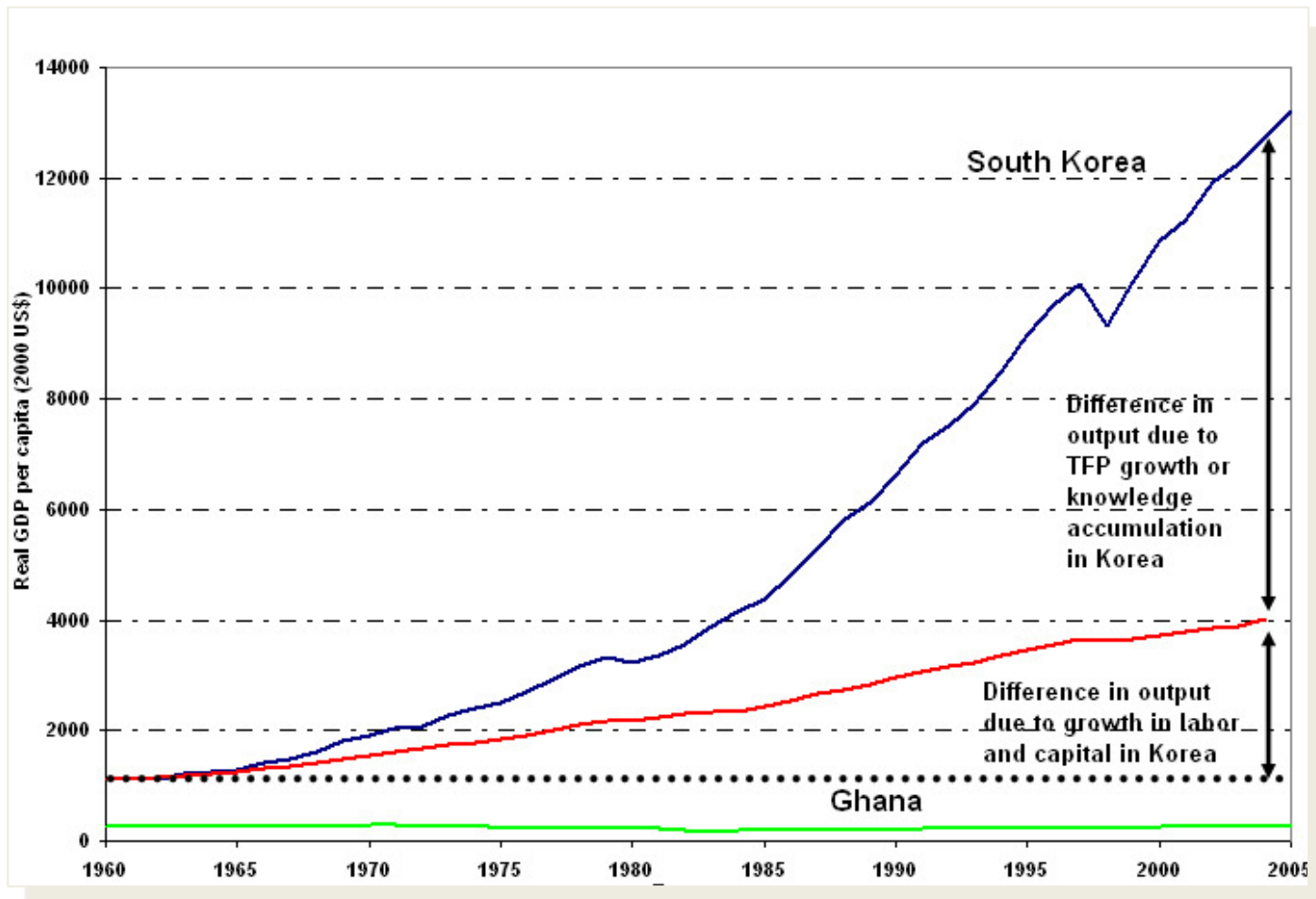


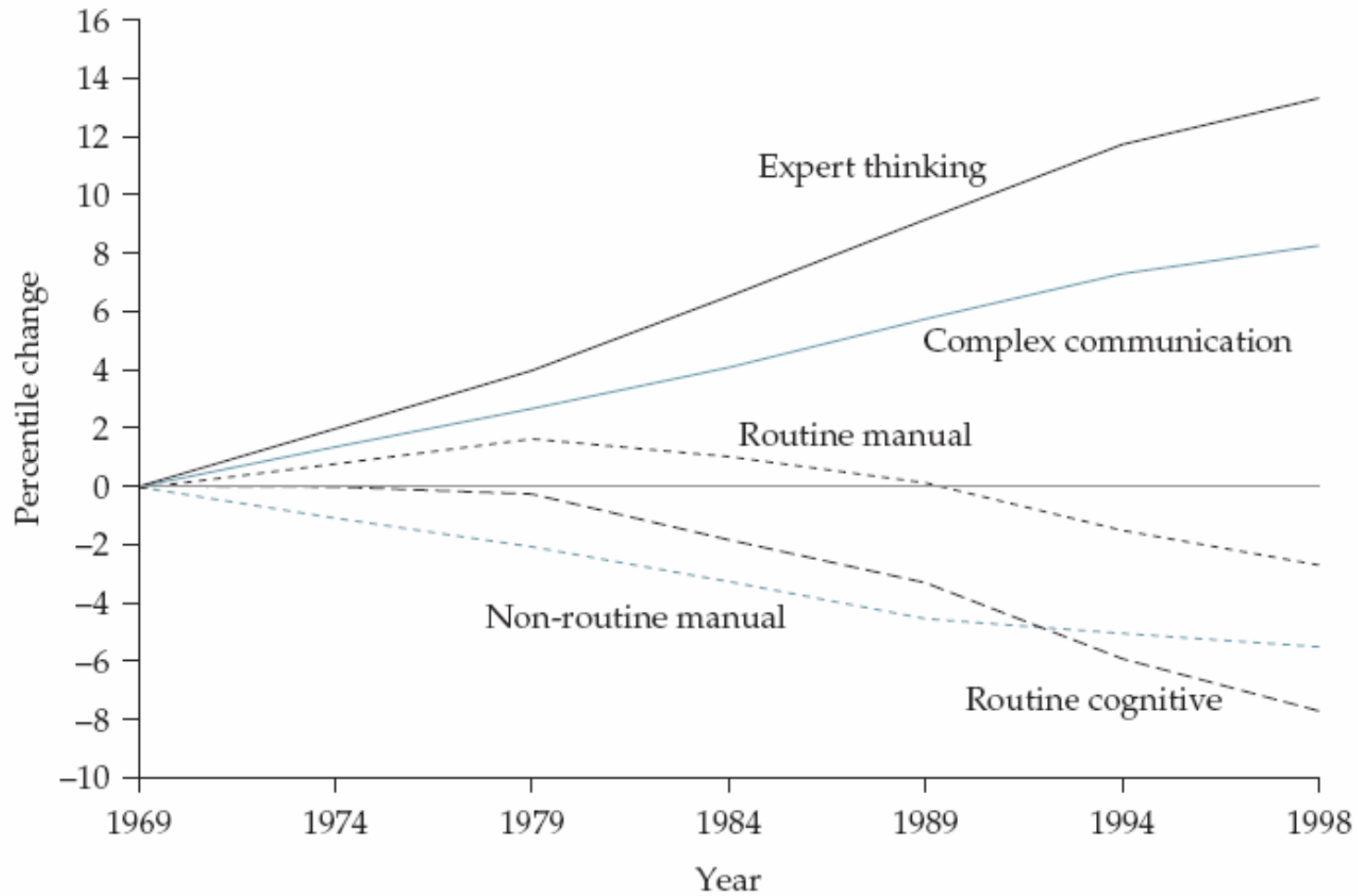
Knowledge Economies: Lessons from the Global Experience

Jean-Eric Aubert
Vienna, June 2010

GDP GROWTH (per capita) SOUTH KOREA, GHANA



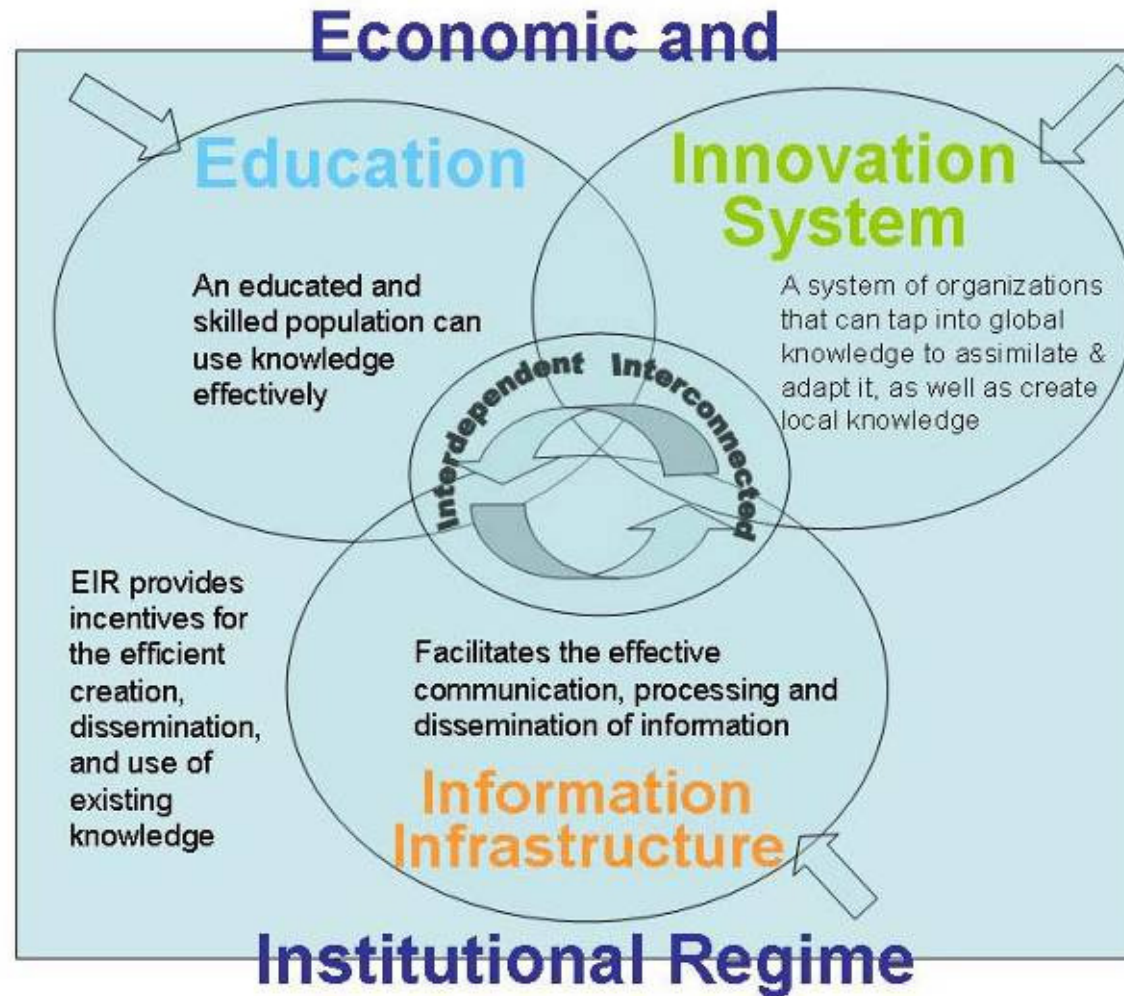
BRAIN vs. BRAWN: THE PATH OF THE FUTURE



Institutional Drivers towards KE

- Global Knowledge Forum (KL, Toronto, etc), with WB and others
- EU Lisbon Strategy (2000), OECD
- World Bank Institute's Knowledge for Development Program (2000-2009)
 - Country studies (China, India, Finland, and others)
 - Regional conferences: MNA, Africa, Latin America
 - Flagship publication: « Building Knowledge Economies: Advanced Strategies for Development » (2008)
 - Benchmarking: KAM data base

The World Bank 4 PILLAR FRAMEWORK



the WBI KAM Data Base

Knowledge Assessment Methodology

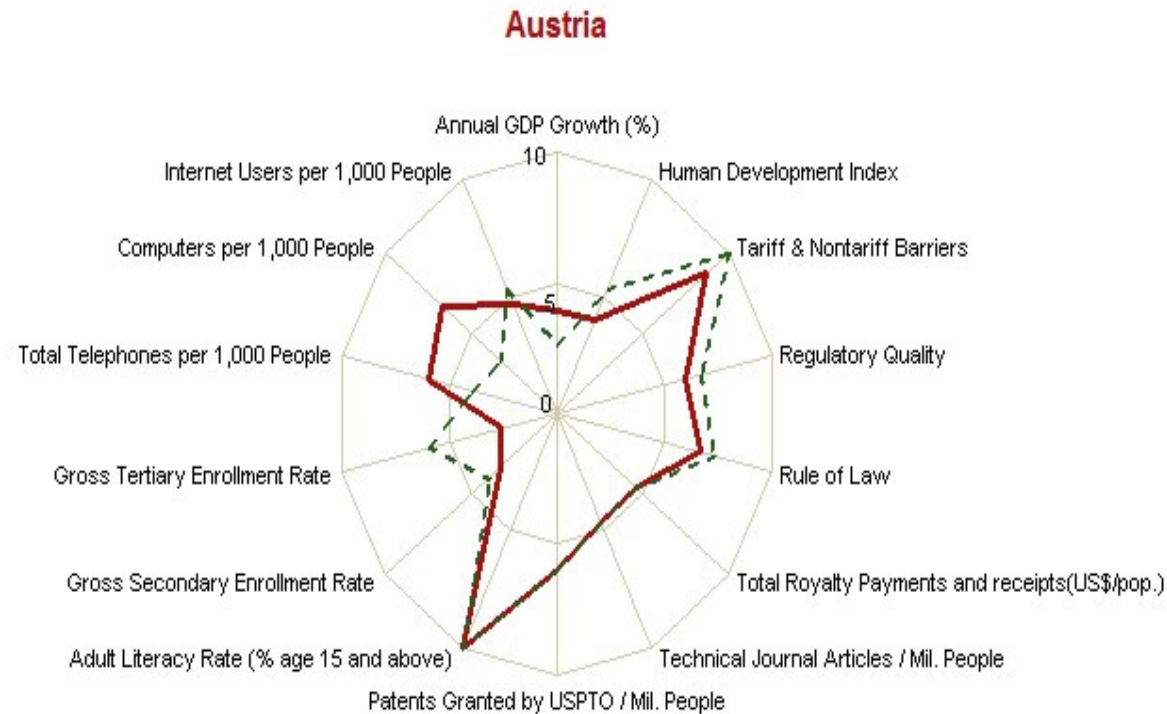
. 80 variables, 128 countries

A basic score card with 12 variables

Benchmarking based on rankings, not on
absolute values

Regularly updated since 1995 data

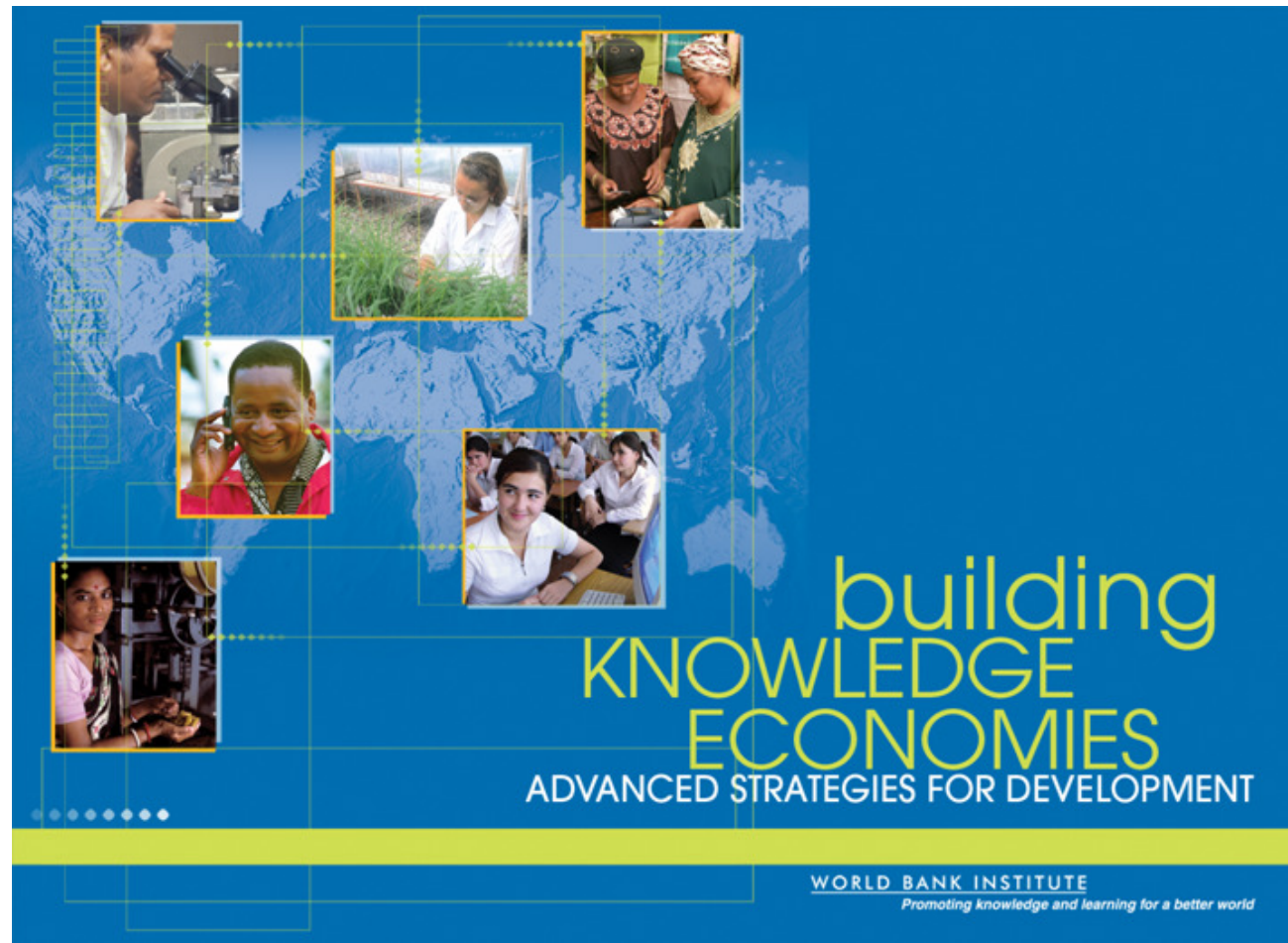
Austria : 1995-2007/8 data



Comparison Group: **Western Europe**; Type: **weighted**; Year: **most recent and 1995** (KAM 2008)

— most recent
- - - 1995

Publication WBI (Available on the Net)



Success stories of KE-based Development (a partial list)

- All over the continents: Finland, Denmark, Sweden, Estonia, Ireland, Chile, Singapore, South Korea, UAE
- Cities/regions such as Monterrey, Bangalore, Shanghai, etc, in addition to well known sites in developed countries such as Silicon Valley, Cambridge, etc.
- Is there an optimal size – in the range of 5-10 M people – as key to successful KE-based growth?

Common features to success stories

(I) A four pillar approach

- Government policies have acted in a coordinated way on all four KE pillars (WB framework with KAM data base – next slide) :
 - **Education**: literacy for the whole population with good technical culture; world class universities
 - **ICT** world class infrastructure, accessible to the whole population, massive applications (e-government, e-learning, etc)
 - **Innovation** ecology, providing space to all sorts of innovation undertakings, not only focused on R&D, making good use of FDI, diaspora, and global knowledge networks
 - High quality **business environment**, low bureaucracy, efficient regulation, good IPR protection;
- Un(fully) successful countries on their way to KE have tended to focus on one or two pillars (notably ICT), or neglect fundamentals such as the education system.

Common features to success stories

(II) Key attitudes

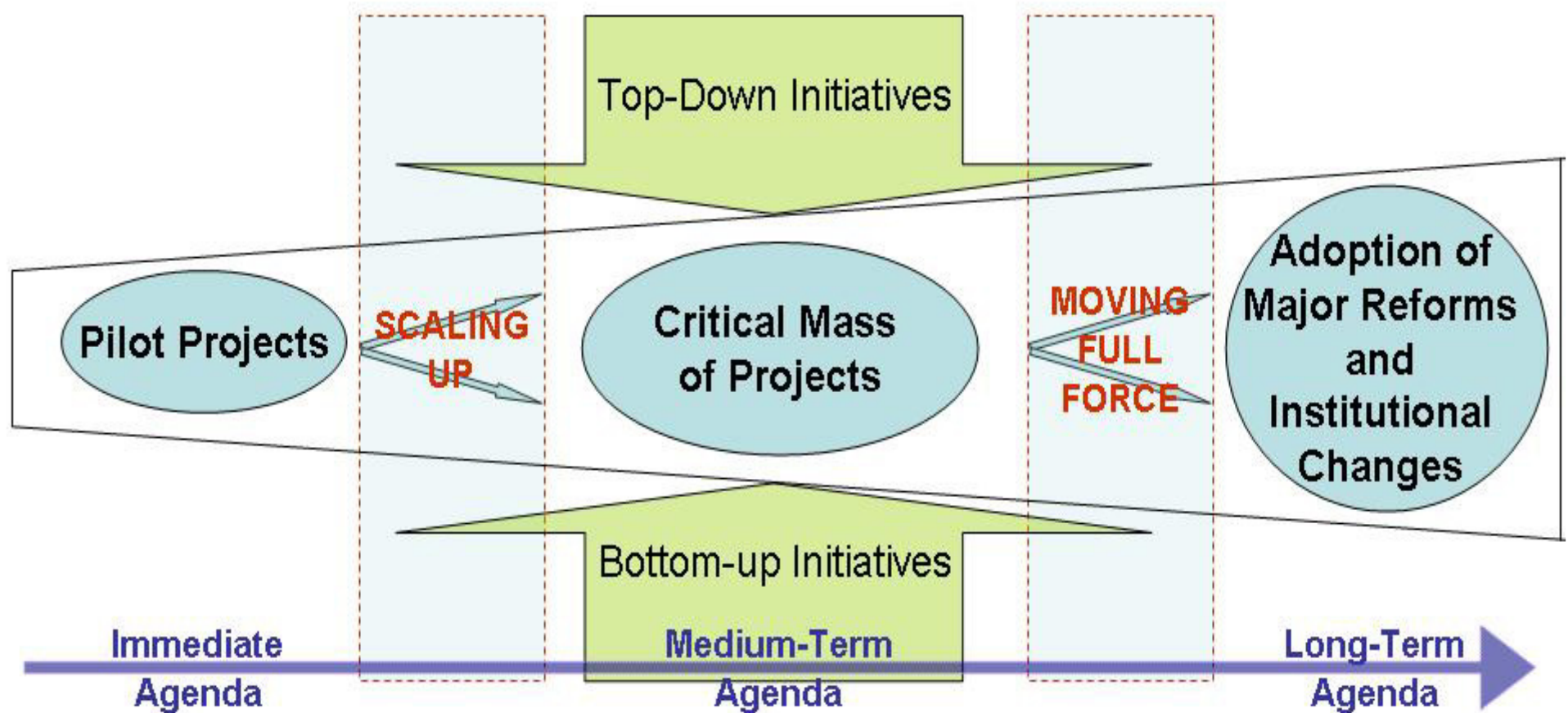
- **A strong sense of identity (cultural island), with a feeling of pressure**, even of survival threat (KE strategy as reaction to a crisis situation: e.g. Finland in the early nineties, South Korea in the late nineties, Ireland in the late eighties)
- **Ambition**: being in the top league of nations, world leader in R&D effort, first world maritime hub, etc
- **Mobilization**: key role of powerful coordination bodies at the top level (e.g. in Finland PM led Council for ST Policy, Parliament Committee for the Future)
- **Speed**: moving forward on all reform fronts in a few years, although a deep and long investment has preceded in key areas such as education.

Common features to success stories

(III) Strategic dimensions

- Industrial Strategy:
 - Building on strengths: natural resources (Finland, Chile), FDI-based for Europe (Ireland)
 - Gradually climbing the sophistication ladders: Korea from low tech to super high tech.
- Societal Strategy:
 - Building « naturally » on cultural specificities: e.g. sense of consensus, entrepreneurial spirit, collective discipline (depending on countries)
 - Creating a climate of trust and self confidence, by a good combination of top/down and bottom/up initiatives, leading gradually to major reforms

TIME-SEQUENCING AND SCALING UP: HOW TO CREATE A VIRTUOUS CYCLE?



Challenges to KE-Based Development Strategies

- Risk of over self confidence, hence lack of control: financial and/or real estate speculation (Ireland, Dubai)
- Insufficient diversification of the industrial base (Chile)
- Tensions within society due to increasing inequalities between rich and poor, dynamic and laggard regions, highly qualified and low qualified people (Korea)
- Difficulties to overcome cultural features, which have been advantageous in the past (e.g. disciplined, literate labor force, with authoritarian regime as an asset for high tech mass production), but can be a burden when facing new challenges (requiring notably truly societal entrepreneurs exploring new fields).

New Global Challenges

- Global economic recession, conditions of recovery and way out are uncertain
- Strong budget deficits of governments and nations, requiring frugality, creativity and mobilization of new actors
- Risk of protectionism and breaking of world trade (regionalization)
- Environmental un-sustainability of world growth regime, although newcomers (BRICS notably) have full legitimacy to develop along the production and consumption pattern of the now developed nations

New avenues for KE and innovation-based strategies – Mindset Changes

A new generation of strategies in order to cope with today challenges.

(IC6 conference, WB/NCP, June 1&2 2010)

Need to act at different levels, to open myriads of innovation spaces:

- **National level:** Review critically government policies, which tend to look like more and more the same, lacking efficiency, and not taking enough account of country specificities
- **Meso level:** multiply exploratory initiatives, through social experiments, « living labs », future centers, etc
- **Individual level:** expose massively managers, students, youth, etc. to societal challenges, to provoke emotional moves and engagement
- **Global level:** develop global innovation programs to tackle global issues (environment, urbanization, education, security, etc)

THANK YOU

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