Technology and Innovation Report 2021: Innovation with Equity

Takeaways and Recommendations

Alfred Watkins

Global Solutions Summit

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1. POLICY CHALLENGES AND OPTIONS

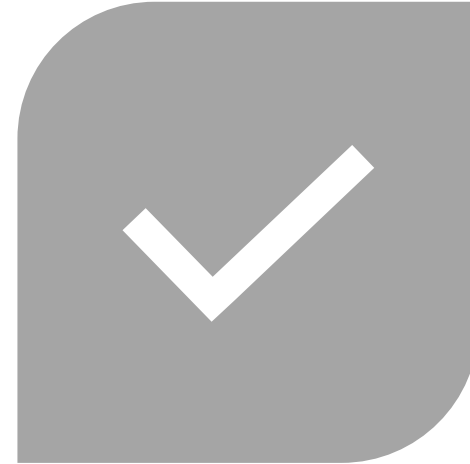|		
Can't be complacent about risks	**Must strive for innovation and progress with equity**	**But frontier technology will persist and progress -- with or without you**

Technology Upgrading, Supplier Development, Needs Assessments, and Catching Up: Learn to harness and scale deployment of frontier technology to solve problems while mitigating risks

Fall further behind

2

MEGA CHALLENGES

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MEGA OPPORTUNITIES

SMALL SCALE, DISTRIBUTED SOLUTIONS

Scaling Frontier Technology: An Urbanization Perspective

Africa will have 24 million more people living in cities each year between 2020 and 2045
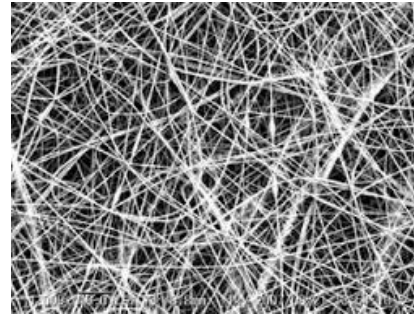
3. Frontier technology is an essential part of the solution; but it is not the entire solution

A technology is not a product

A product is not a business

A business is not necessarily environmentally, operationally, and financially sustainable

Challenge: Transition from a technology to an operationally, financially and environmentally sustainable business

4. Deployment is technology agnostic

- Market studies
- Supply chain development
- Local partners
- Installation
- O&M
- Workforce training
- Community outreach
- Business scaling model – coops, franchise, income generation
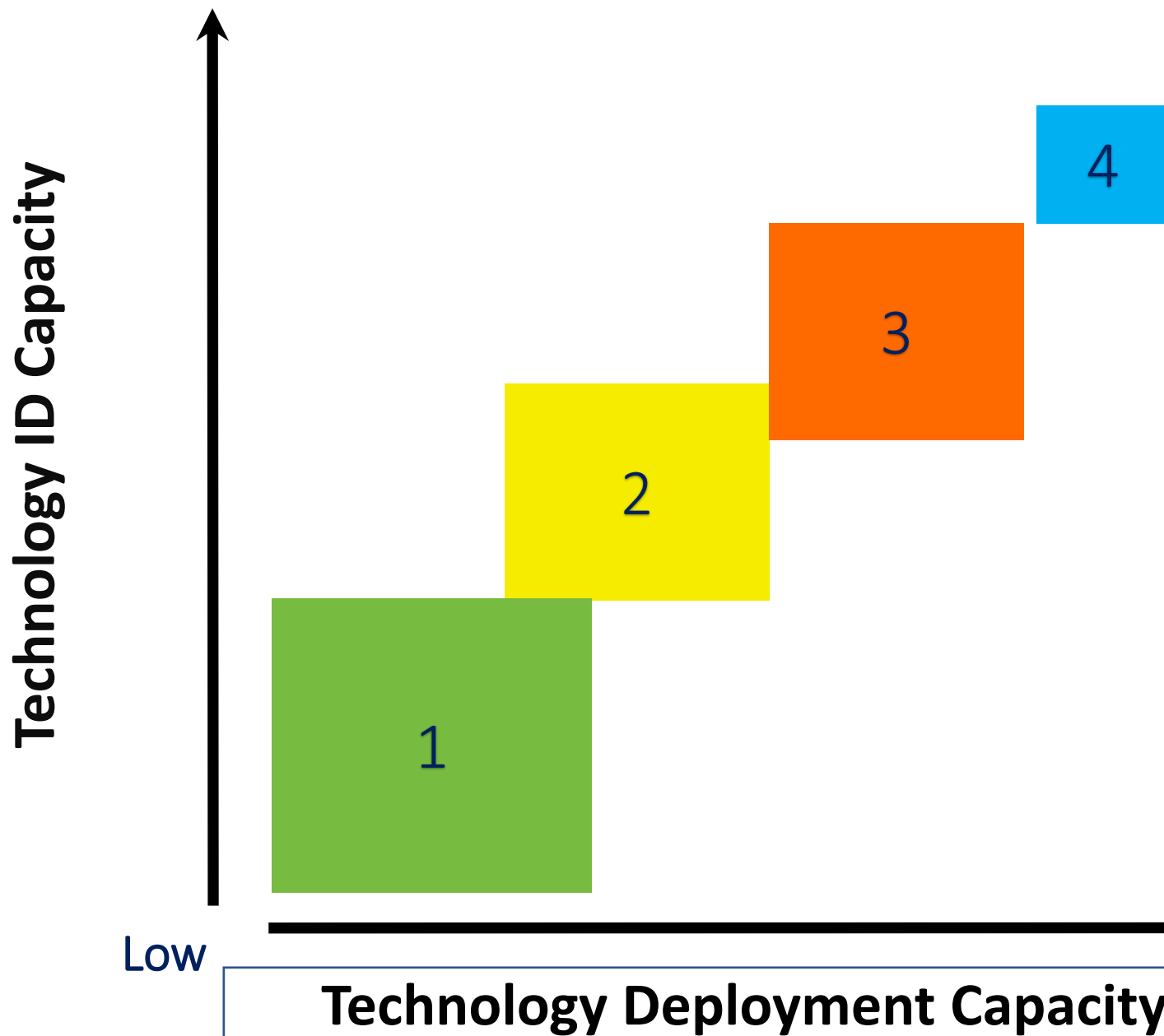- Finance

Deployment Ecosystem is Technology Agnostic

Entrepreneurs	Community Leaders	Technology Vendors	Local Suppliers
Social Enterprises	Local and National Governments	Foundations	NGO's
Financiers	Local Universities, Scientists, and Engineers	Multinational Corporations	Multilateral and Bilateral Agencies

5.   Technology Upgrading, Catching Up, Latecomer Advantage, Leapfrogging, and Supplier Development:

"Anyone can buy a sophisticated machine. Not everyone can use it to produce a globally competitive product."

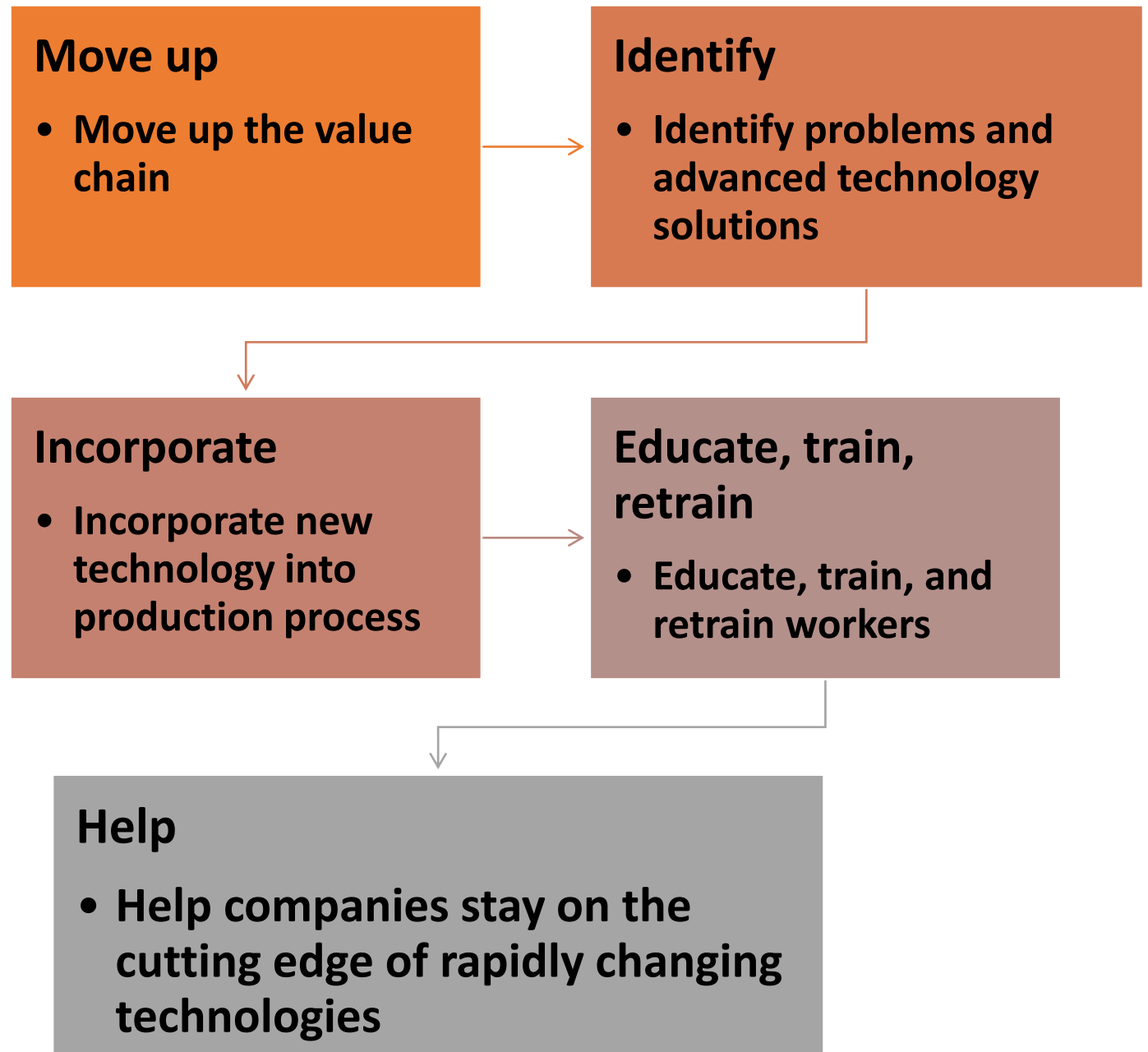**Can non-smart second or third tier suppliers coexist in the same value chain with smart factories?**

Technology Upgrading and Catching Up:

Supplier development programs can help companies

Move up
- Move up the value chain

Identify
- Identify problems and advanced technology solutions

Incorporate
- Incorporate new technology into production process

Educate, train, retrain
- Educate, train, and retrain workers

Help
- Help companies stay on the cutting edge of rapidly changing technologies

6. Needs Assessments: A Critical Piece of the Puzzle

- **Not merely an inventory of sector specific frontier technologies**
- **Participatory; not top down**
- **Multidimensional solution: not technology alone, not one problem in isolation, and not one technology by itself**
- **Define a problem; then identify a package of technologies and other interventions that will solve the problem**

Potable drinking water

Smarter suppliers for smart factories

Enhance smallholder farmer livelihoods

1. Identify the widest possible range of local stakeholders
2. Define a specific project or problem via workshops and continuous dialogue with the community, local NGOs, government and private sector officials, potential financiers, and other relevant stakeholders
3. Establish a Technology Working Group (TWG) from local and national universities, research institutes, and business community.
4. Conduct a Needs Assessment
5. Develop a comprehensive roadmap to meet each objective – package of technologies, business plan, etc.
6. Calls for Proposals via Grand Challenges

THANK YOU!!

Alfred Watkins
Global Solutions Summit
alfred.watkins07@gmail.com