

Metanational Innovation: A framework to understand Configuration and Coordination decisions in Distributed Innovation

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(Adapted from "Managing Global Innovations", HBSP, forthcoming 2008)

Building Global Advantage

Home-Country Leadership

- Competence
- Cost
- Competition
- Customers



**The Traditional
Multinational**

Learning From the World

- Sensing
- Melding
- Leveraging



**The New
Metanational**

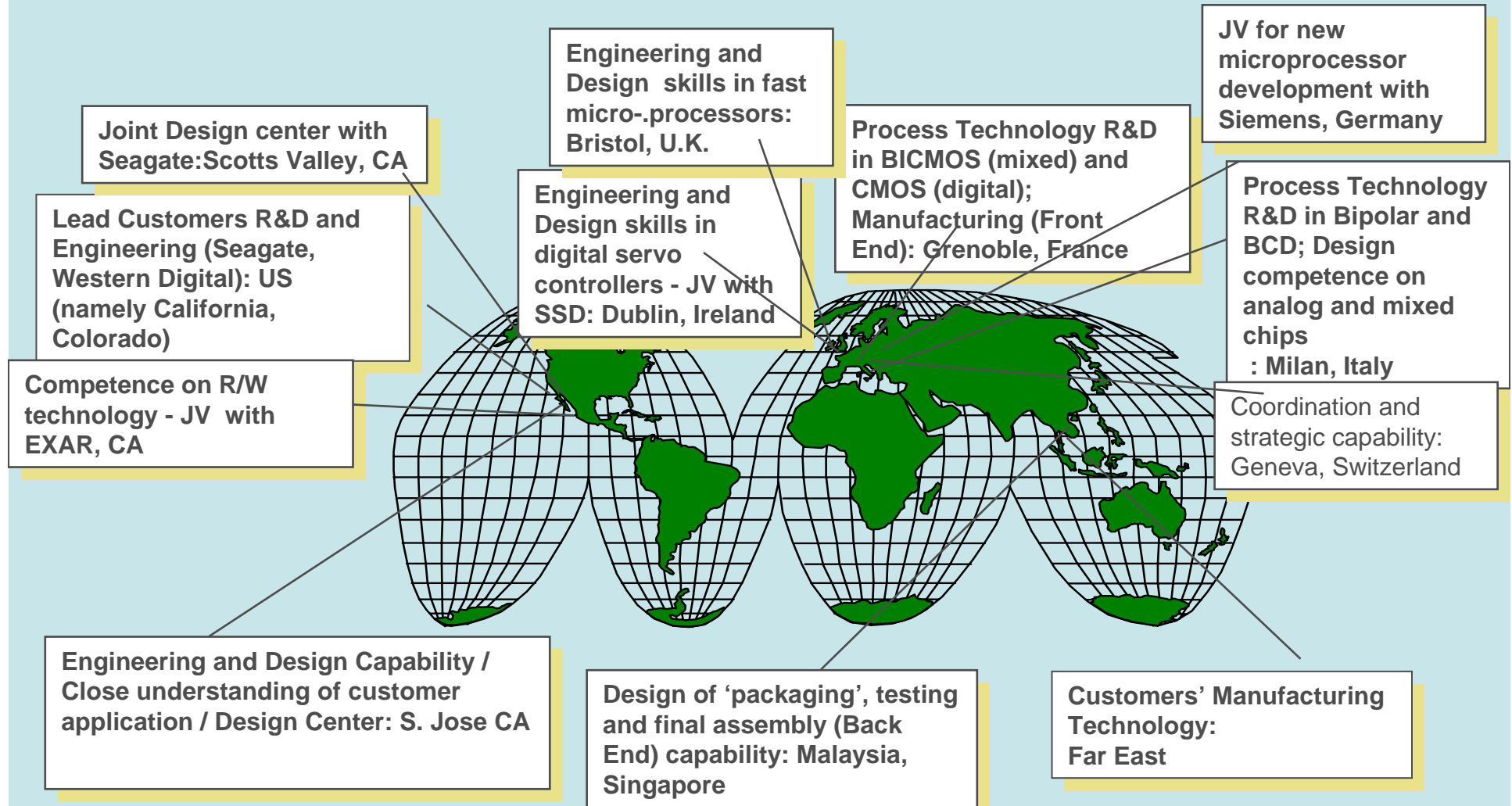
Even from Silicon Valley, can you ignore?

- **Austin, Texas;**
 - **Bangalore, India;**
 - **Boston, Massachusetts;**
 - **Cambridge, England;**
 - **Helsinki, Finland;**
 - **Salt Lake City, Utah;**
 - **Seattle, Washington State;**
 - **Singapore;**
 - **Sophia-Antipolis, France;**
 - **Tel Aviv/ Haiffa, Israel.**
- Hyderabad, India
Budapest, Hungary
Hsinchu, Taiwan
Tampere, Finland
St Petersburg, Russia
Ekaterinenburg, Russia
Tsukuba, Japan

Wired Magazine's 10 "Hotspots" Any IT Company Needs to Track

A global knowledge jigsaw:

e.g., ST Microelectronics' HDD controller chips

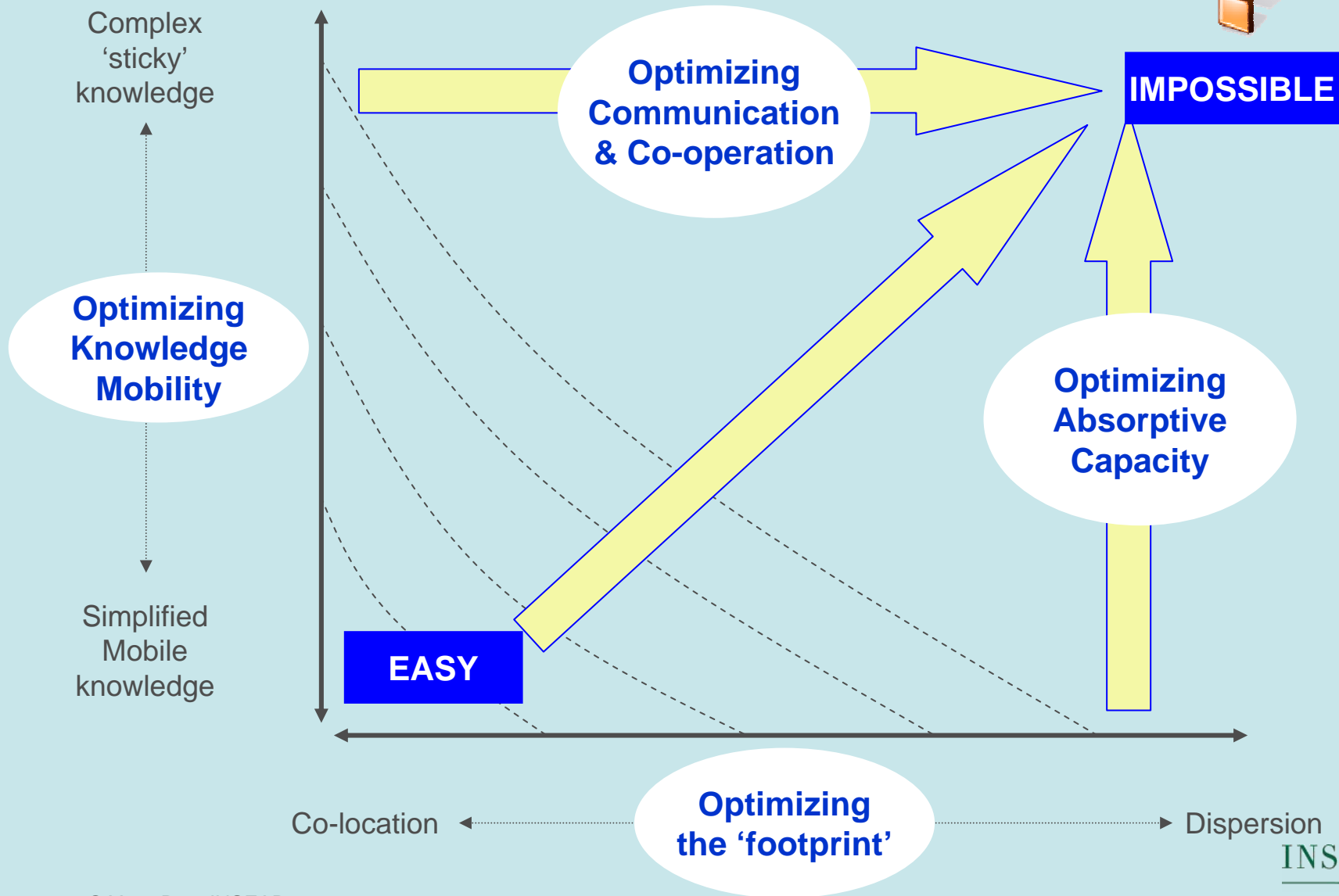


CAN YOUR ORGANIZATION DO THIS ?

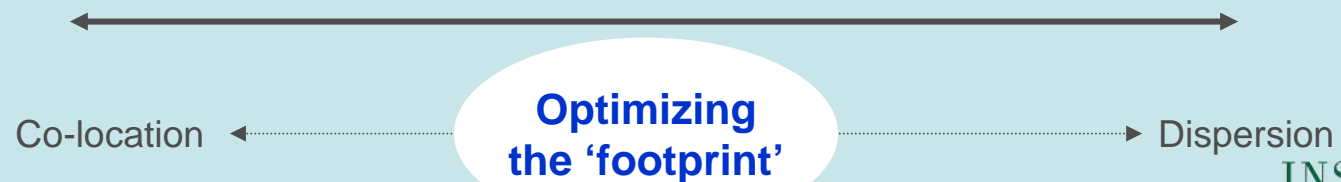
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Doz,Santos, Williamson, INSEAD, 2004

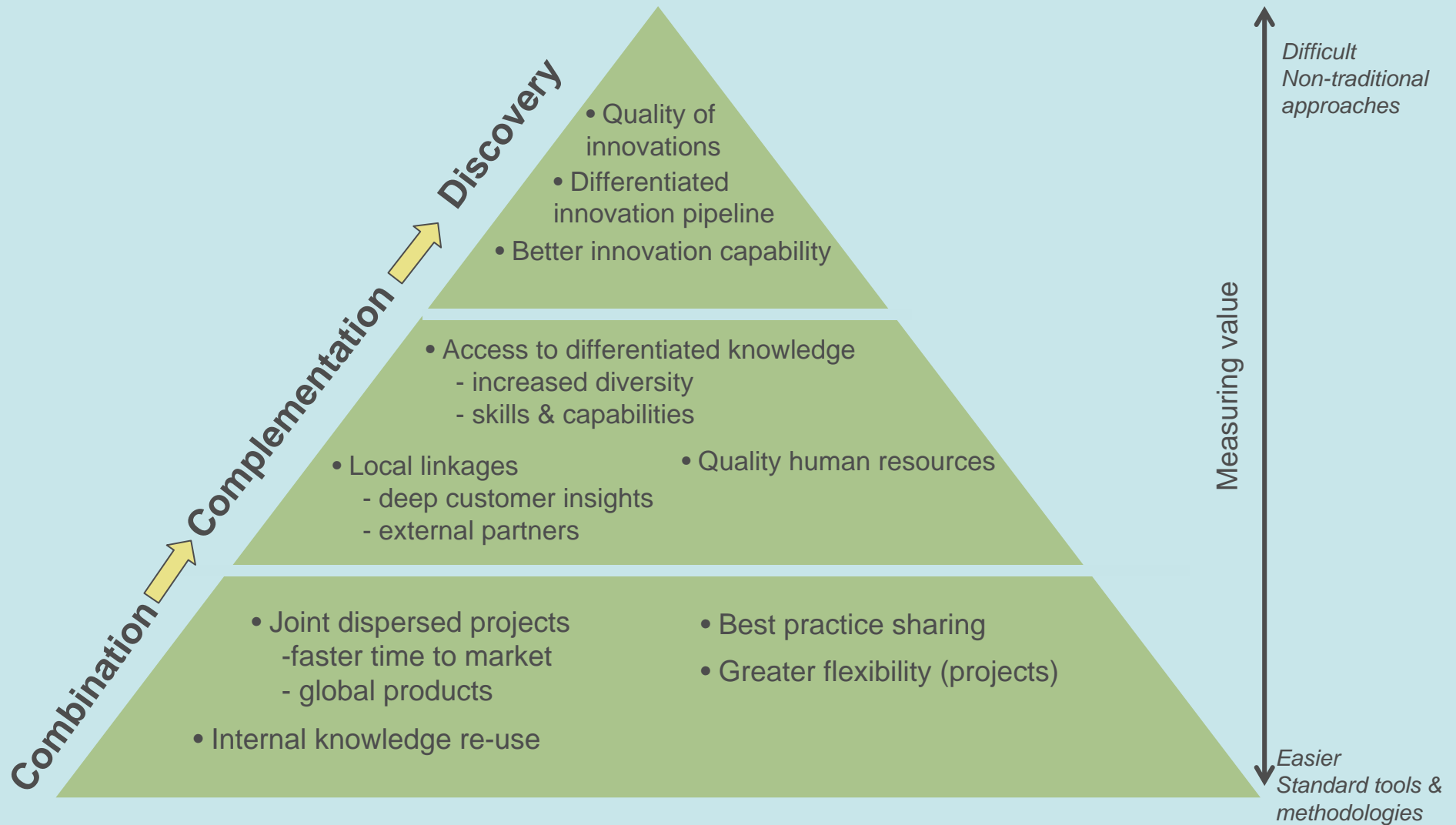
Moving the Innovation Frontier



Moving the Innovation Frontier

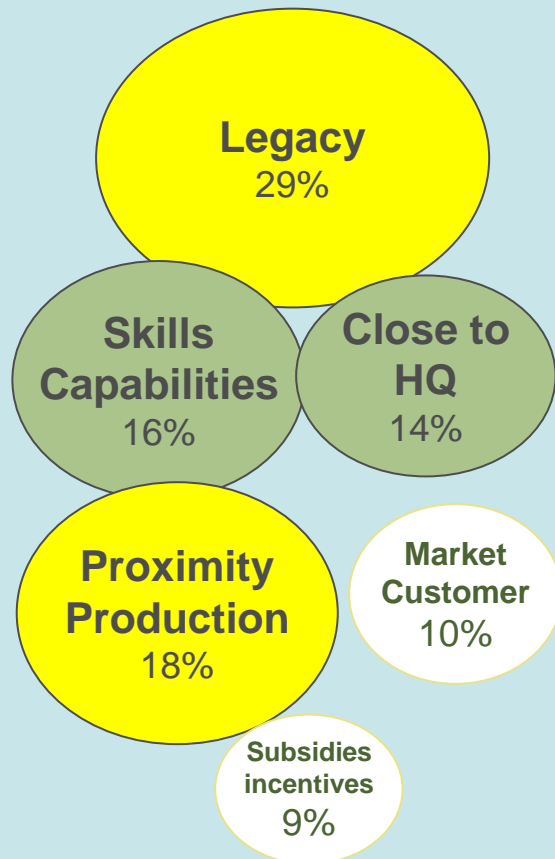


An innovation footprint needs to deliver value at three levels

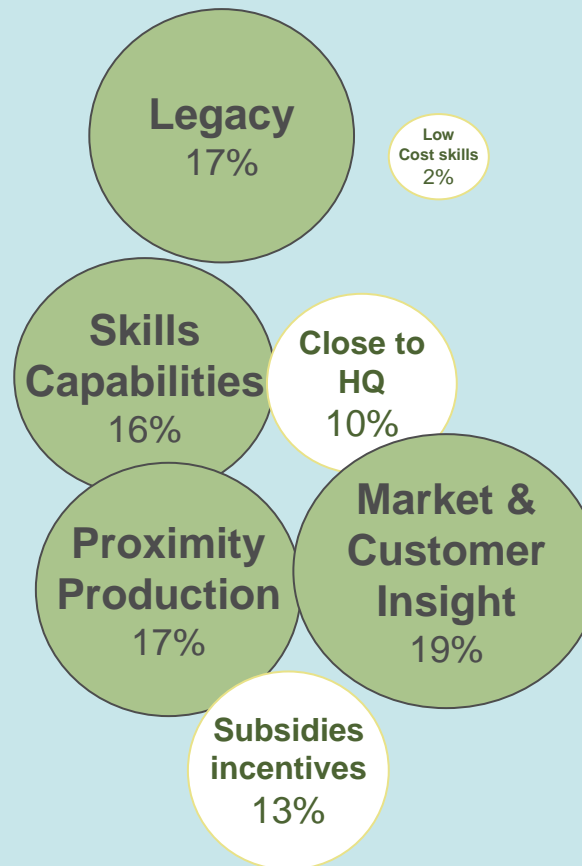


Changing drivers of internationalisation

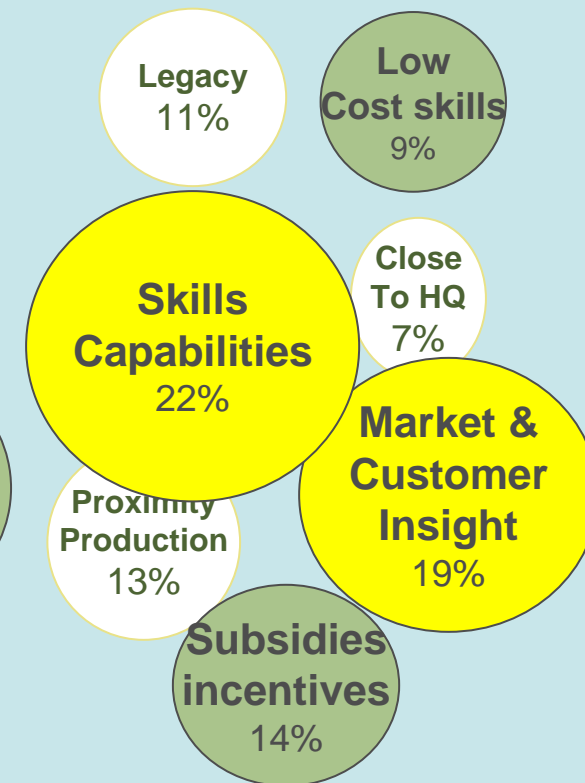
Up to 1979



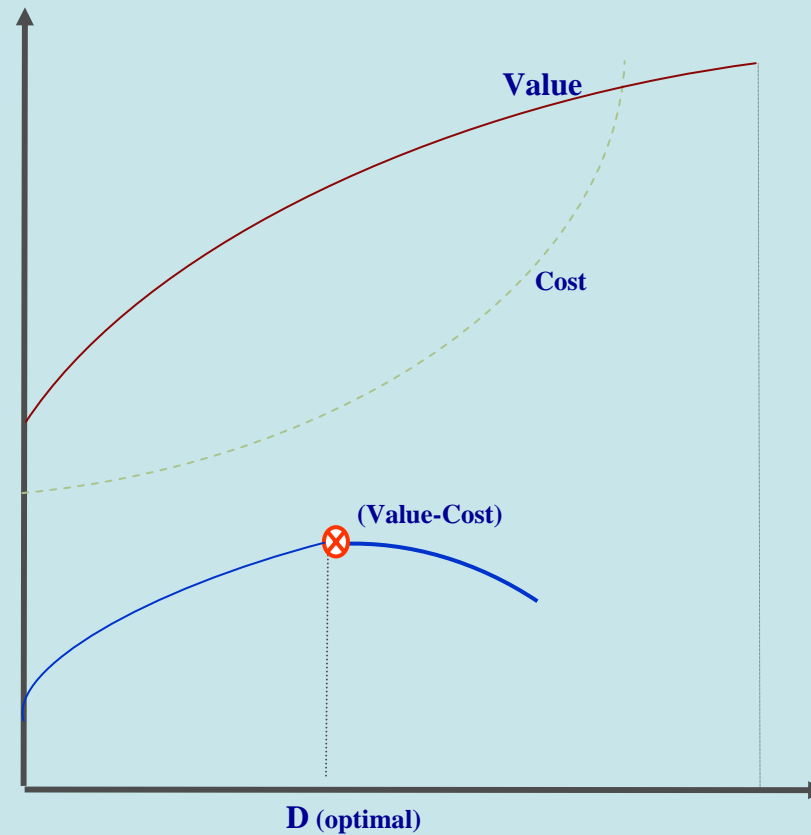
1980 to 1995



1996 to 2005



Value of Diversity vs. Cost of Dispersion



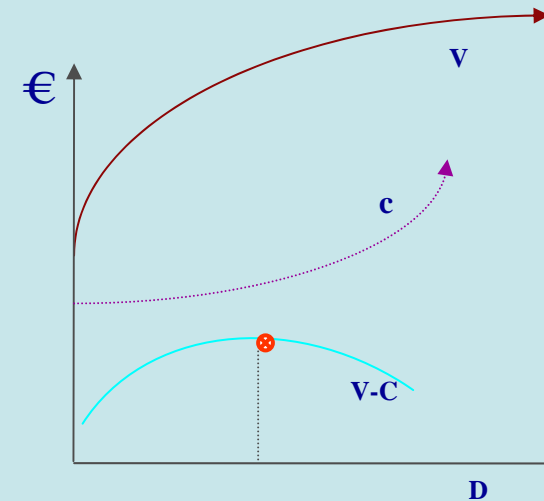
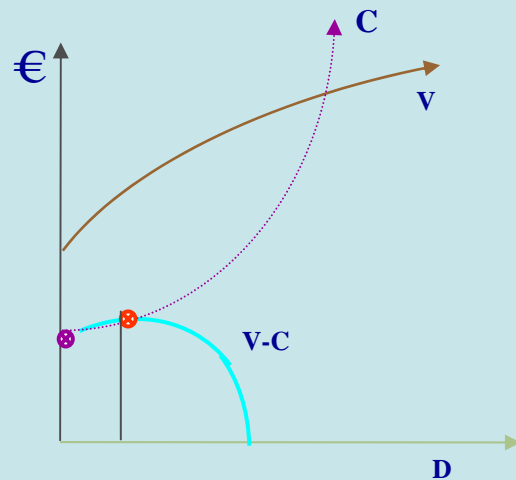
D (Degree of Dispersion = "footprint")

Value and Cost of an Innovation as a Function of Dispersion

•**STRONGLY
CO-LOCATED
EXCELLENCE**

A CONTINUUM OF SITUATIONS

•**DISPERSED
COMPLEMENTARY
SOURCES OF EXCELLENCE**



Knowledge Dispersion for Your Innovations (e.g., high speed drug lead screening vs. flat displays)

The nature and mobility of needed knowledge (e.g., perfumes vs. software code)

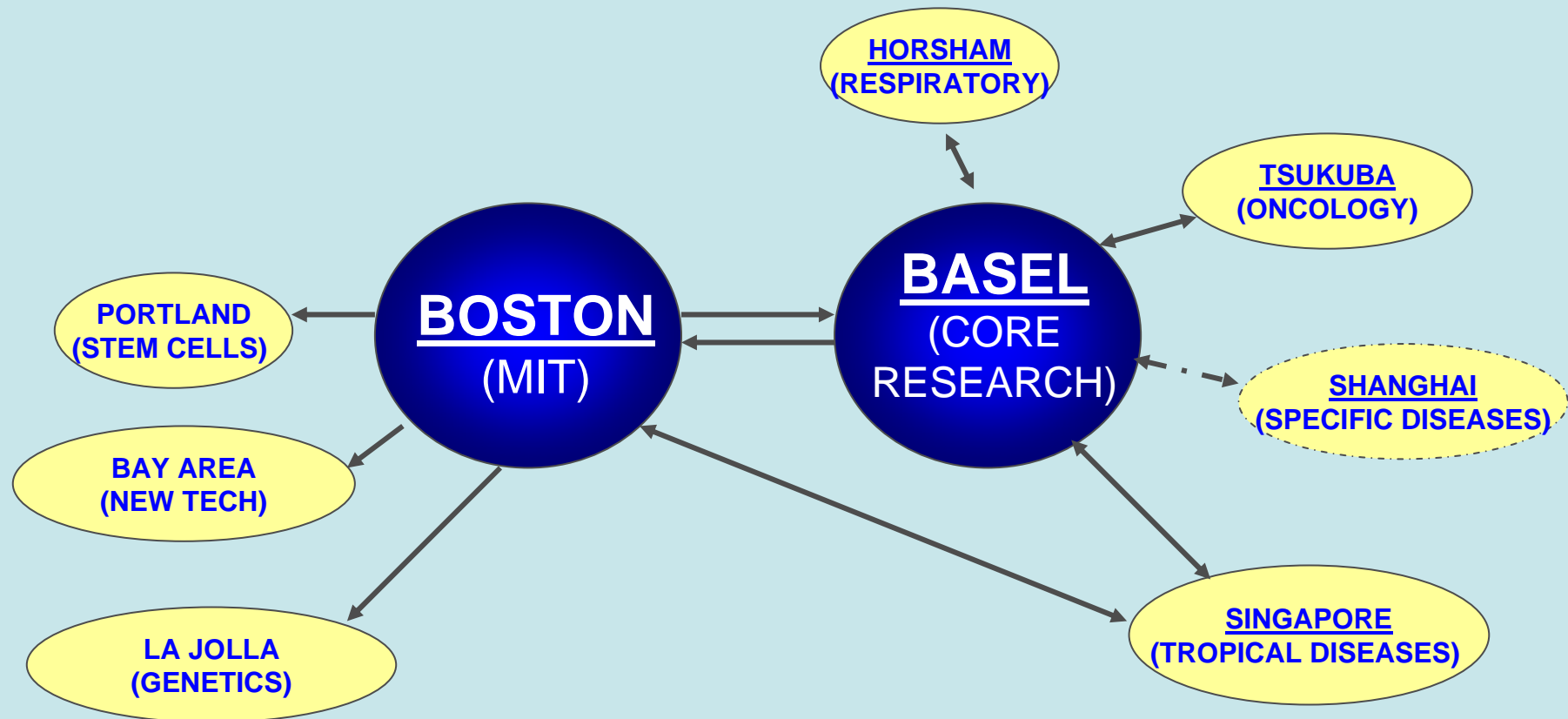
Your strategic choices (e.g., Intel vs. STMicroelectronics)

Your heritage and competence trajectory (e.g., Toyota vs. GM)

Distributed entrepreneurship and serendipity (e.g., Intel Israel, HP Singapore, Glaxo-Japan Tobacco)

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Novartis: Balancing cost & value

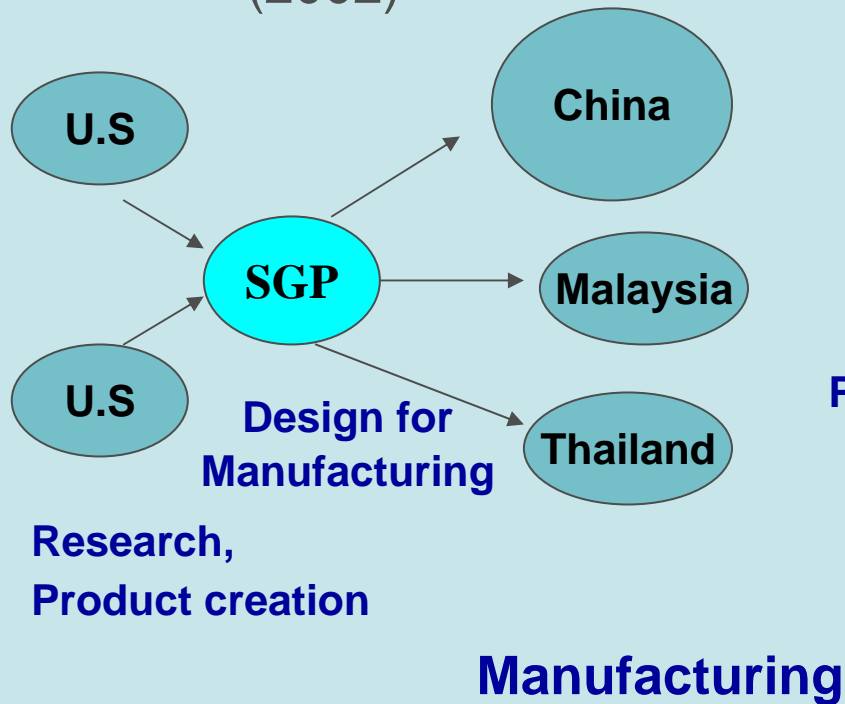


(simplified chart)

A Tale of Two Products

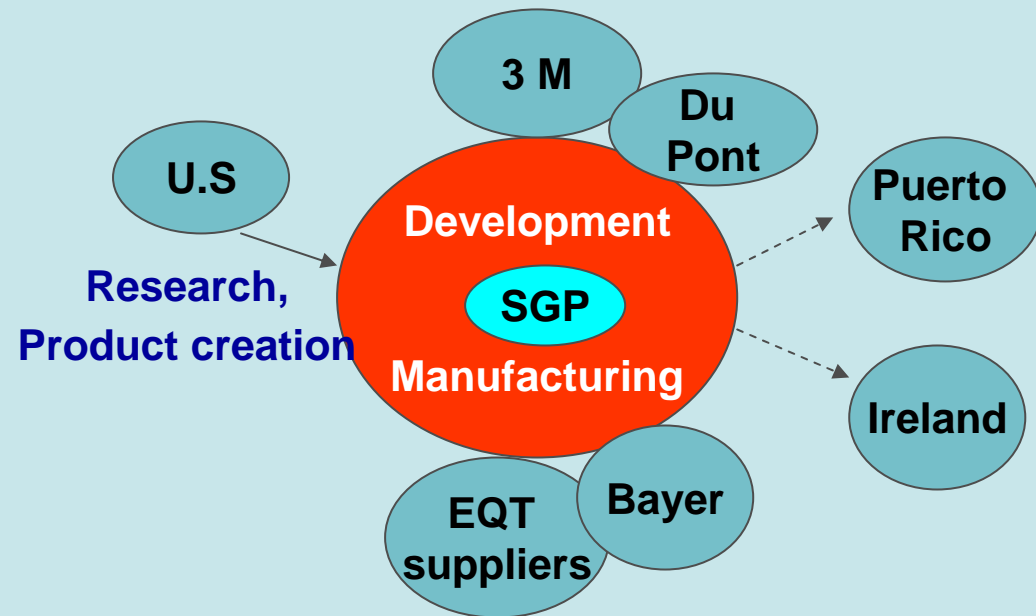
Printers

(2002)



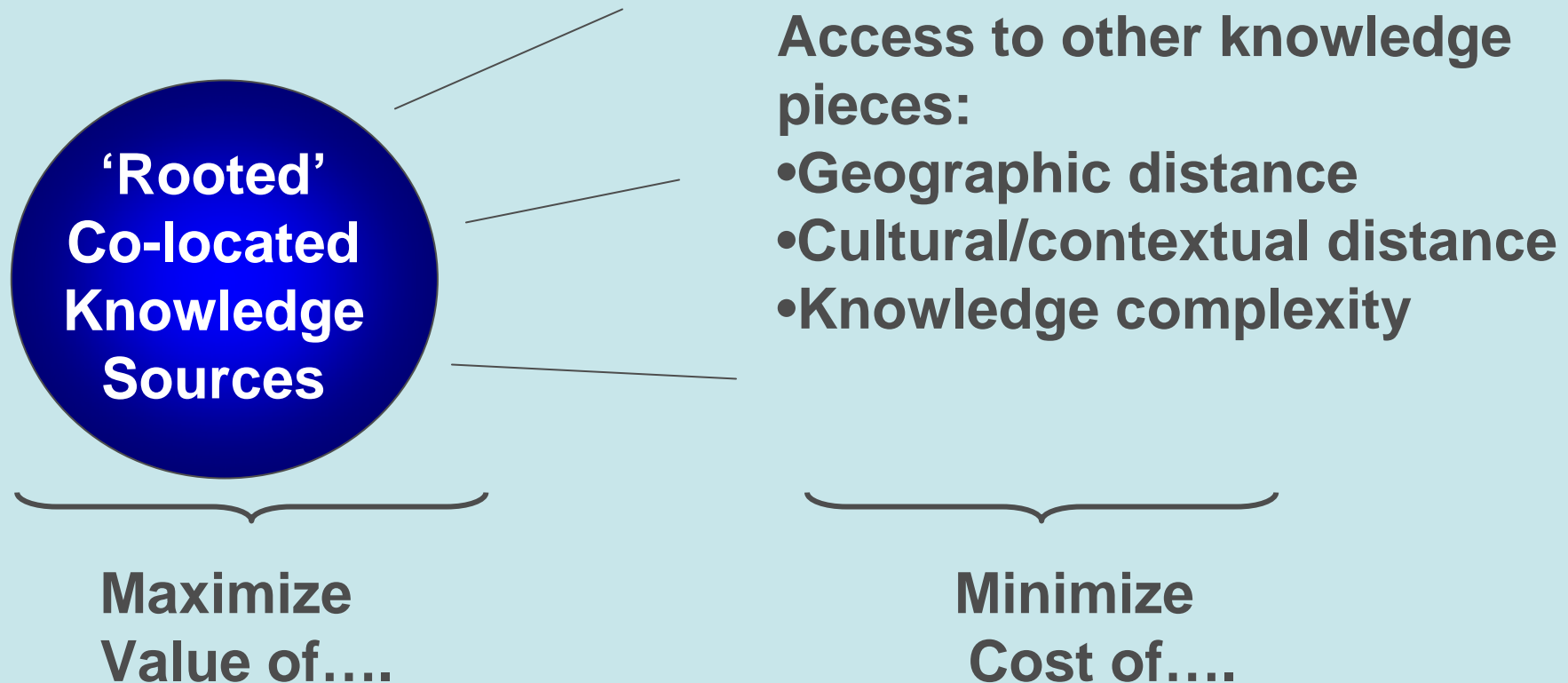
'Cartridges'

(2002)



Getting the best of both?

So as to minimize 'distance':



GM's Global Innovation Network

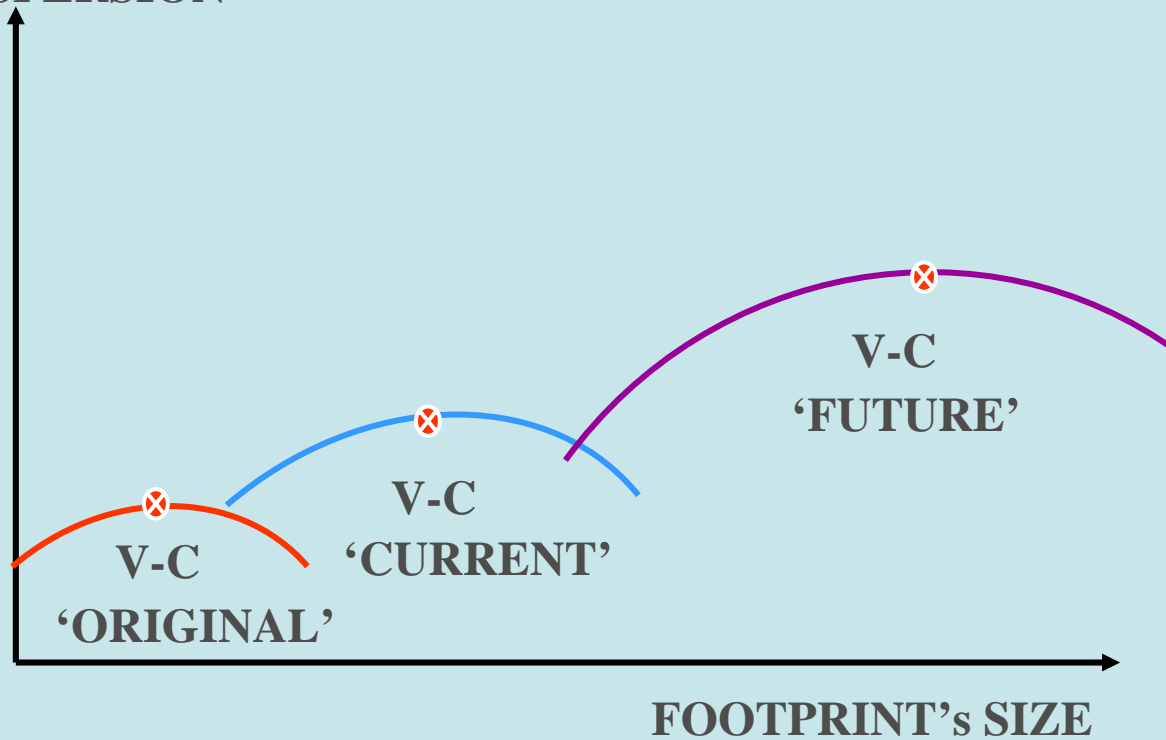


Issues to consider in choosing 'footprint':

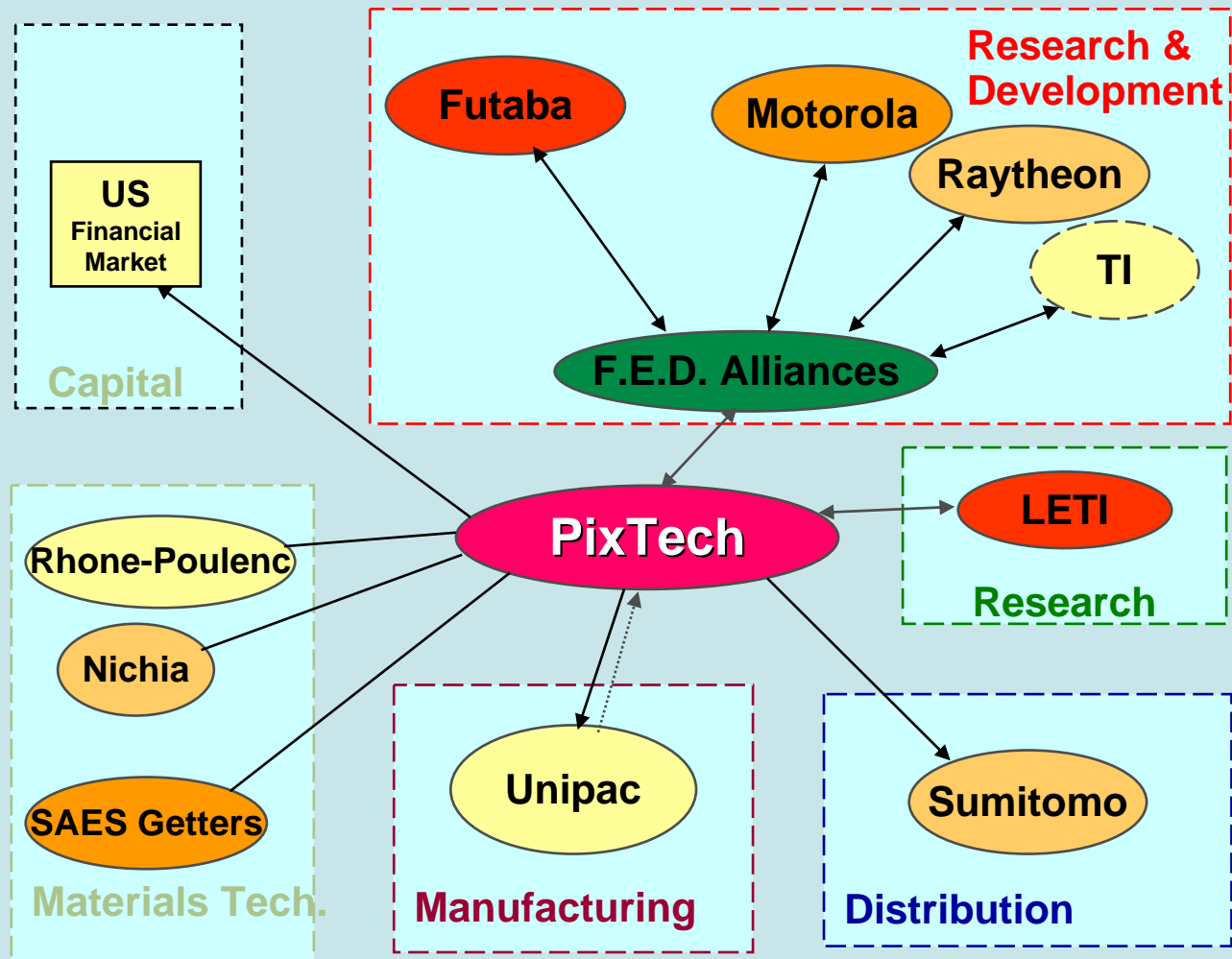
- How diverse and complementary (co-specialized) are potential knowledge contributions from different places?
- Ease and efficiency of being 'here, together, now' vs. Opportunity cost of getting only 'fair' expertise in some domains?
- Are some knowledge contributions more mobile than others?
- How difficult/costly is it to discover and access pieces of distant and diverse knowledge?
- **In Sum: Value of diversity vs. Difficulty of melding diverse and distant knowledge?**

'Metanational' dispersed innovation is likely to prevail in the future:

VALUE OF DIVERSITY
MINUS COST OF
DISPERSION



The Perils of Open Innovation: Pixtech's Alliances

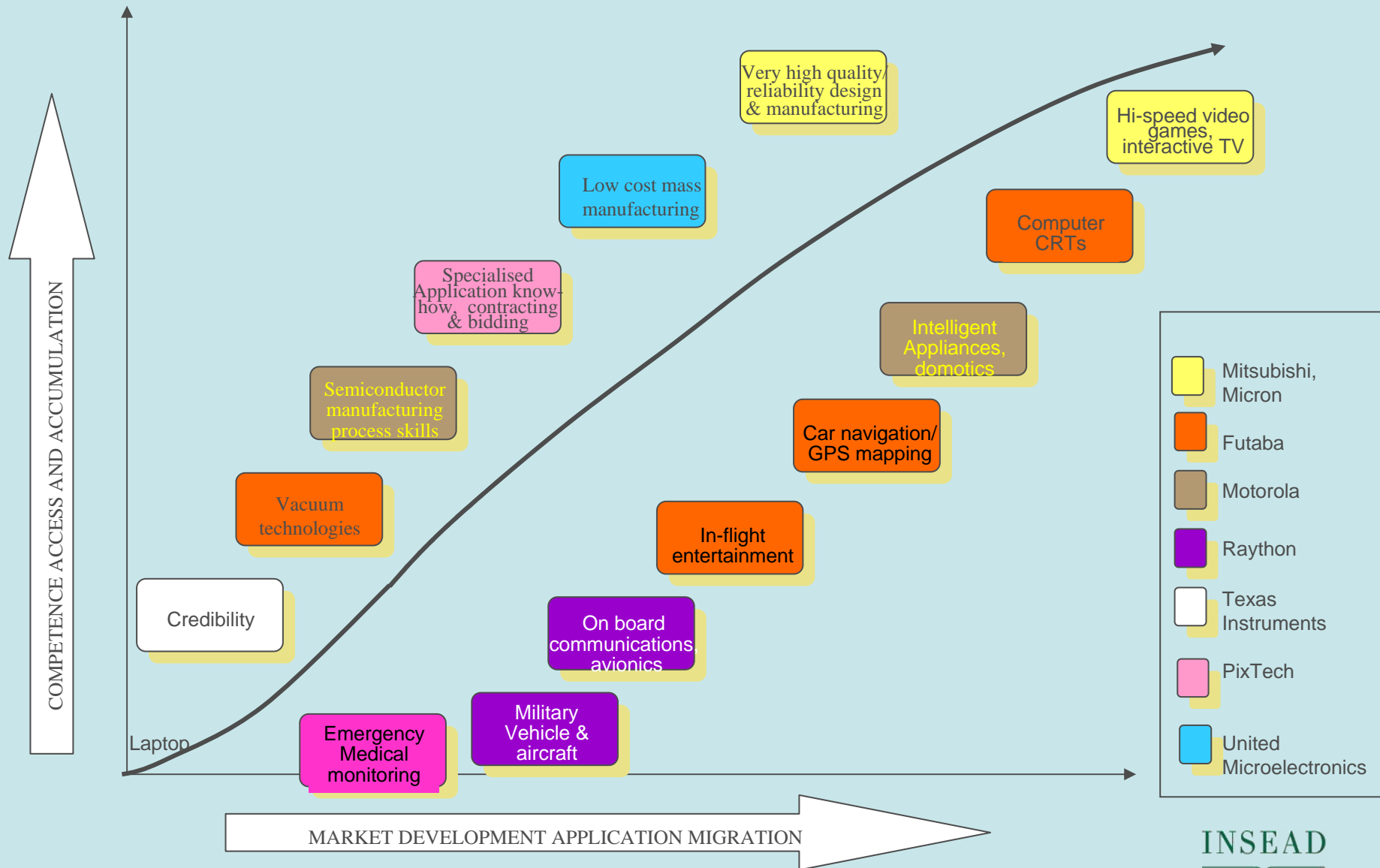


What Were the strategic Issues PixTech was Facing?

- To gain critical mass in R&D quickly
- To manage a migration path from small volume, early, high price applications to mass markets, fast enough
- To set interface and technology standards for F.E.D. screens
- To ramp up manufacturing and marketing fast enough
- To identify and intercept capabilities and know-how of leaders in related fields (e.g., AMLCD)

Speed, size, credibility, learning...

PixTech's Strategic Development Plan



New Style Partnering: PixTech's Open innovation Web

Strategic benefits

- Share and reduce risks of unproven technology
- Accelerate joint learning of new technology
- Co-opt major industry players / application developers into early adoption
- Catch up leading alternative technologies (e.g., AMLCD)
- Maintain leadership via network development and benevolent leadership

New Style Partnering: PixTech's Open innovation Web

Managerial demands

- **Strategic skills and vision, sense for sequencing series of alliances**
- **Social capital and broker roles / skills ("entrepreneur")**
- **Seeking success via dependence on others**
- **Network benevolent leadership**