

**Gaining a Competitive Edge:
Becoming a Region of Excellence**

**Case Study - The Secret Plan to Build a Jamaican
Biotech Industry**

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Why prosperity matters...

There is a correlation between incomes and:

- Productive attitudes toward authority
- Tolerance of others and support of civil liberties
- Openness toward foreigners
- Positive relationships with subordinates
- Self-esteem
- Sense of personal competence
- Satisfaction with one's own life
- The disposition to participate in community and national affairs
- Interpersonal trust

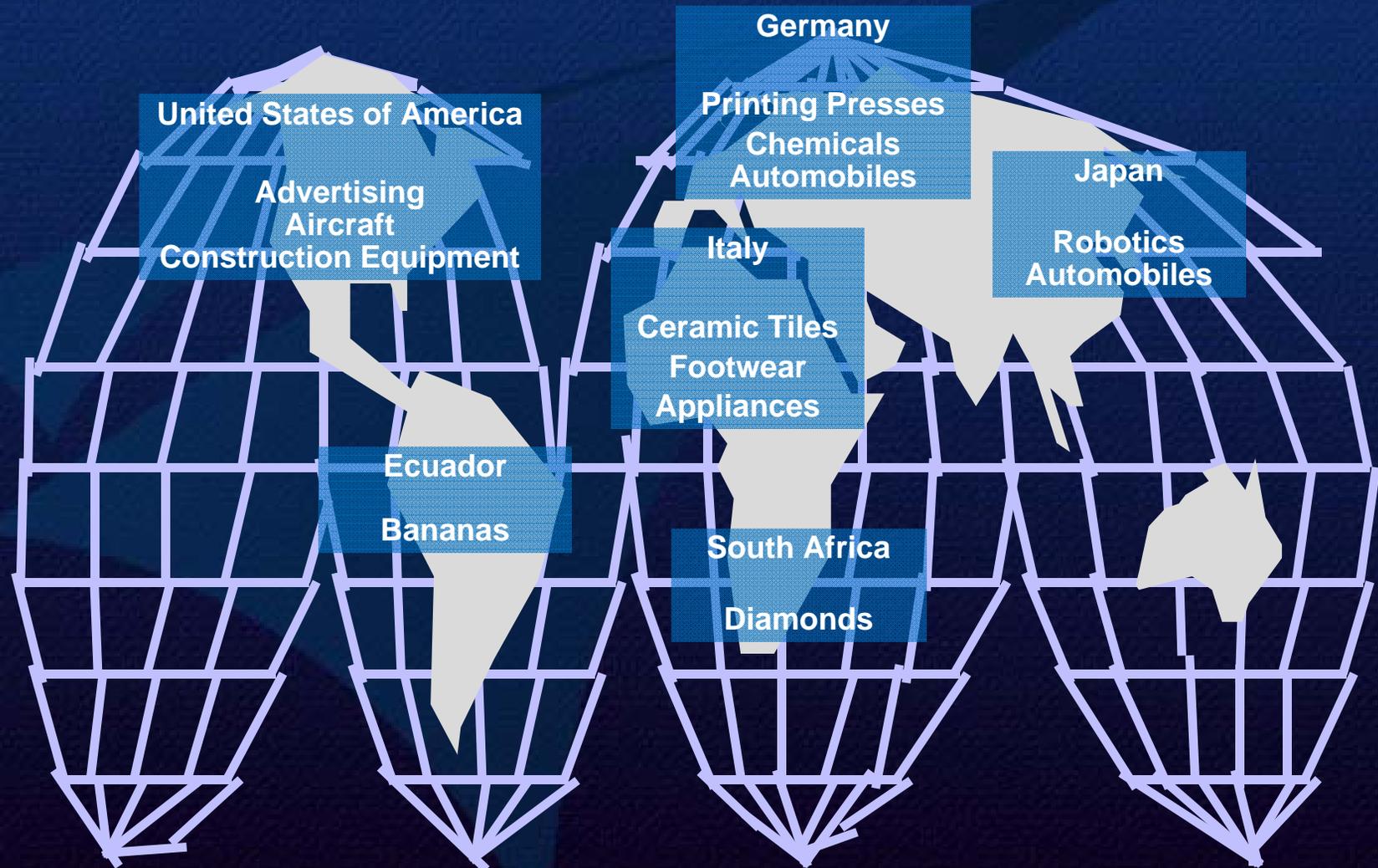
Competitiveness Theory

What is Competitiveness?

- Competitiveness has emerged as the preeminent issue in every nation – for companies and governments
- Upgrading a nation's export competitiveness requires a shared understanding of competitiveness within the nation
- Competitiveness is not simply:
 - A favorable exchange rate
 - Positive balance of trade
 - Industrial subsidies
 - Low inflation rate
- Rather, competitiveness is the productivity with which resources are deployed
 - Human resources
 - Capital
 - Physical assets
- Since competitiveness relies on productive deployment of resources, industry sectors and their firms compete, not nations
 - Government has a partial but significant role in creating the platform from which firms compete
 - Clusters of related and supporting firms are the building blocks of a competitive economy

Competitiveness Theory

Competitive Cluster Examples



- Nations have very different natural resources, macroeconomics and management cultures
- Learning and innovation at the level of the cluster and firm drive competitiveness

Two Paradigms

Thinking in the “Era of Total Competition”

OLD WAY

Protected markets

Macroeconomics

Influence leaders

Natural Capital

Hierarchy

Economies of scale

Event driven

Government as master strategist

Redistribution of wealth

Paternalism

Fatalistic

Marketplace

NEW WAY

Competition and globalization

Microeconomics

Firm-level Productivity

Human capital and knowledge

Meritocratic

Agility and Focus

Anticipation and shaping

Shared vision and collaboration

Wealth creation

Innovation

Introspective

Marketspace

Seven Forms of Capital

		Representative Elements	Representative Examples
Social	Cultural	<ul style="list-style-type: none"> Tangible Articulations Norms Mental Models 	<ul style="list-style-type: none"> Architecture, Music, Language Range of Acceptable Behaviors Trust, Wealth Creation Attitudes, Long-Term Thinking
	Human	<ul style="list-style-type: none"> Health and Population Education and Training Attitudes and Motivation 	<ul style="list-style-type: none"> Nutrition, Medical & Mental Health Primary & Secondary, Technical Self-responsibility, action-orientation
	Knowledge	<ul style="list-style-type: none"> Qualitative, Quantitative Data Frameworks and Concepts Knowledge Generation 	<ul style="list-style-type: none"> Statistics, Opinions, Records Theories, Processes, Procedures Universities, R&D, Market Learning
	Institutional	<ul style="list-style-type: none"> “Good, Clean Governance” Justice System Connective Organizations 	<ul style="list-style-type: none"> Transparency, No Hidden Costs Property Protection, Predictable Regulations Chambers of Commerce, Unions
Physical	Financial	<ul style="list-style-type: none"> Financial Systems Private Wealth Public Wealth 	<ul style="list-style-type: none"> Banks, Stock Markets Bank Deposits Bank Reserves, Taxes, Duties, Macroeconomic Stability
	Man-Made	<ul style="list-style-type: none"> Transportation, Communication Power Water and Sewerage 	<ul style="list-style-type: none"> Roads, Ports, Telephone Systems Electric Grids, Generation Capacity Pipelines, Pumping Stations
	Natural Endowments	<ul style="list-style-type: none"> Environmental Issues Raw Materials Climate and Location 	<ul style="list-style-type: none"> Conservation, Restoration Agricultural, Mineral, Petroleum Proximity to Markets

The Value of Developing Economy Markets to International Firms

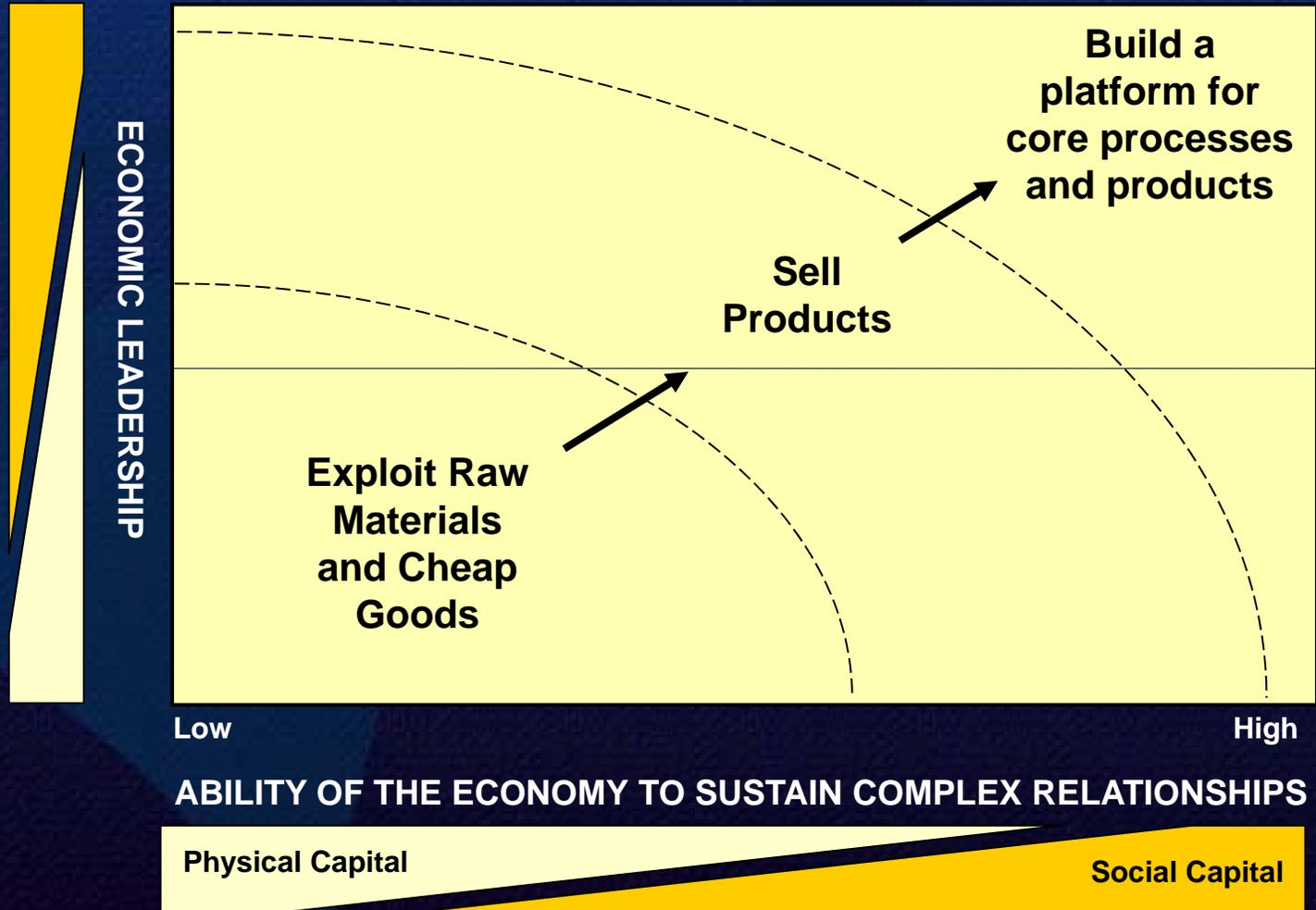
The Evolution of a Developing Economy

Private Sector Leadership

- Choosing Customers and Markets
- Defining Distribution Channels
- Investing in Employees

Government Leadership

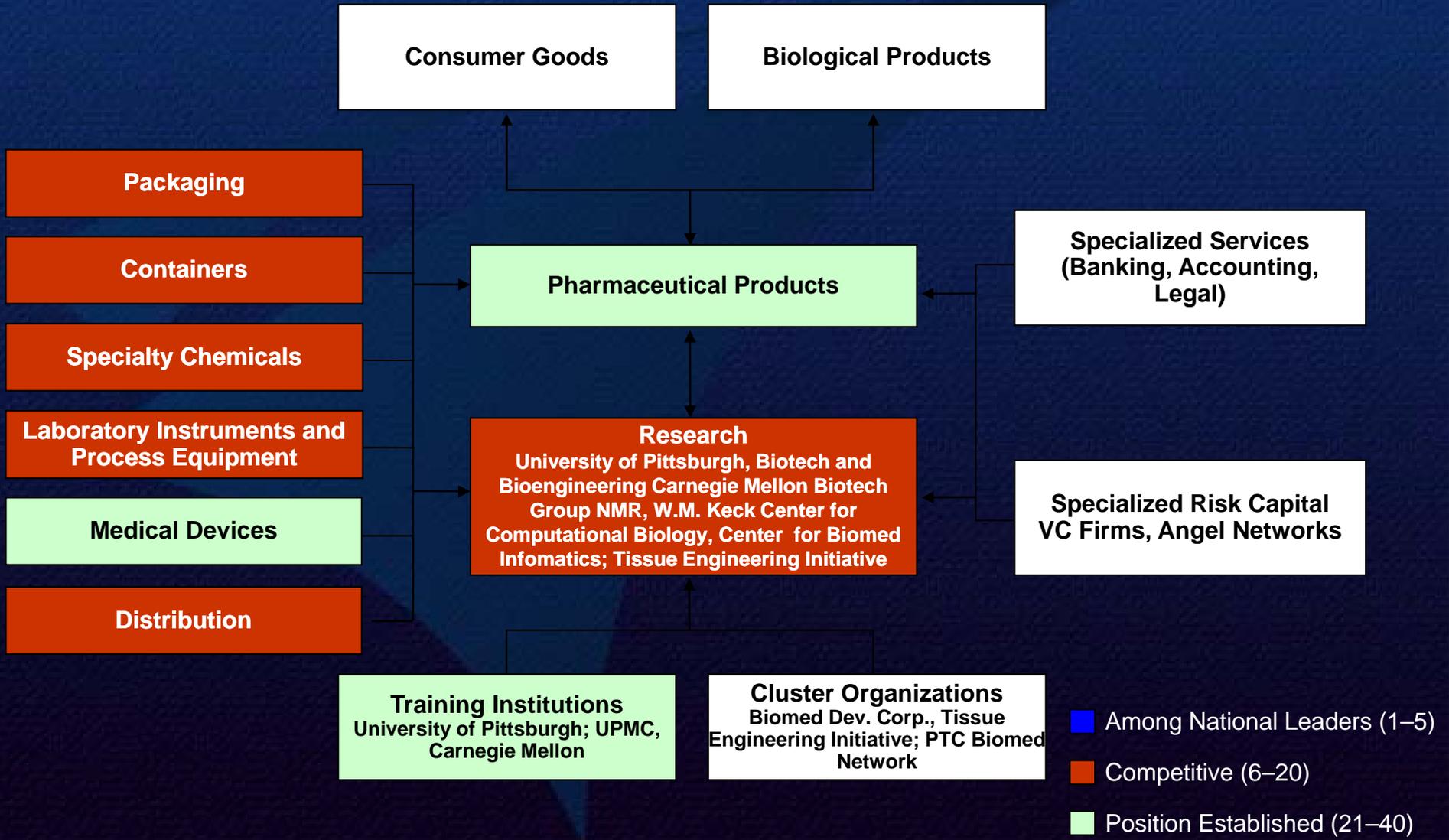
- Stable Macroeconomic environment
- Rule of law
- Allocation of Resources



Developing countries must invest rents from selling physical capital in creating the higher Forms of social capital required to develop and sustain a complex economy

Biotechnology / Pharmaceutical Cluster

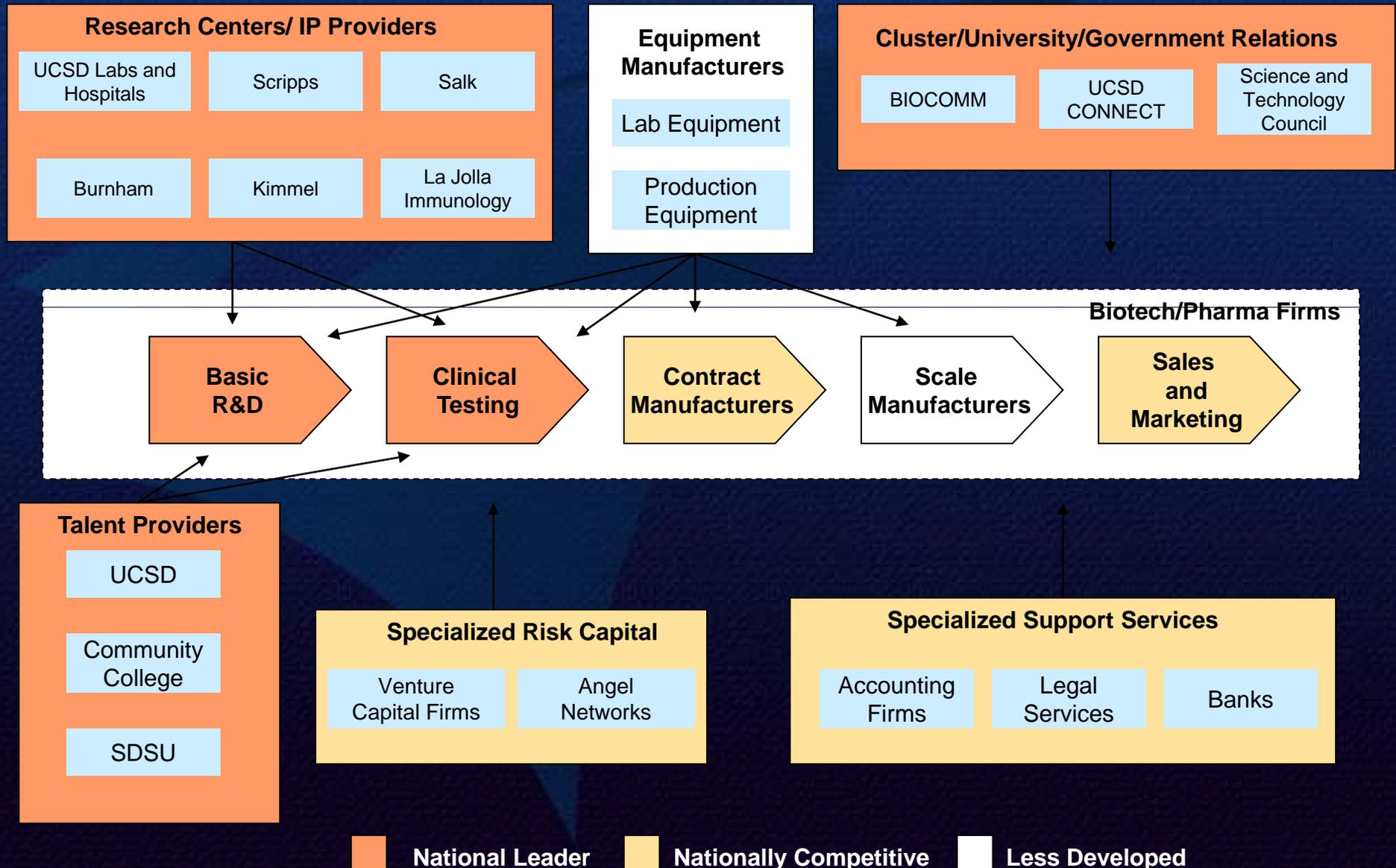
Competitive Position of the Pittsburgh Economic Area



Source: Clusters of Innovation Initiative, Regional Survey; Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Interviews

Confidential

San Diego Regional Biotech/Pharma Cluster



Source: OTF Interviews, Analysis

Confidential

Methodological Approach

**Regional
Economic
Performance**

**Evolution
and
Composition
of the
Regional
Economy**

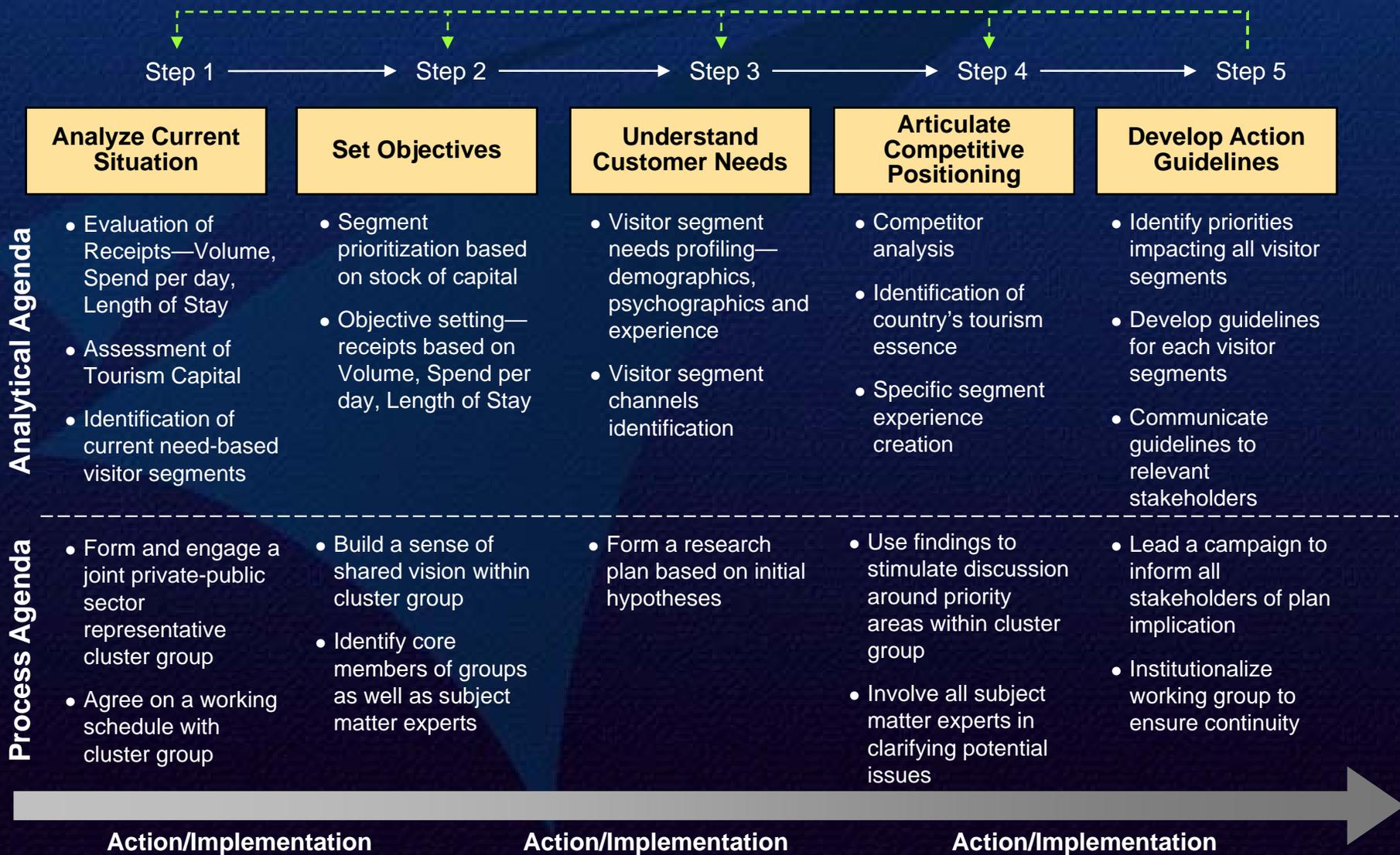
**Assessment
of the
Business
and
Innovation
Environment**

**Competi-
tiveness of
Selected
Regional
Clusters**

**Findings
and
Implications
for the
Regional
Agenda**

Five Step Process

Change Process for Tourism



Institutions for Collaboration

Selected Institutions for Collaboration in Pittsburgh

Private Sector

- Pittsburgh Regional Alliance
- Cluster Specific Organizations — i.e., SPIRC
- Pittsburgh High Technology Sector
- Pittsburgh Biomedical Development Corporation
- Industrial Research Center for Manufacturing
- Advanced Manufacturing Network
- Industrial Development Authority

Joint Private / Public

- Pittsburgh Digital Greenhouse
- Pittsburgh World Trade Center
- Governor's Action Team
- Allegheny Conference on Community Development

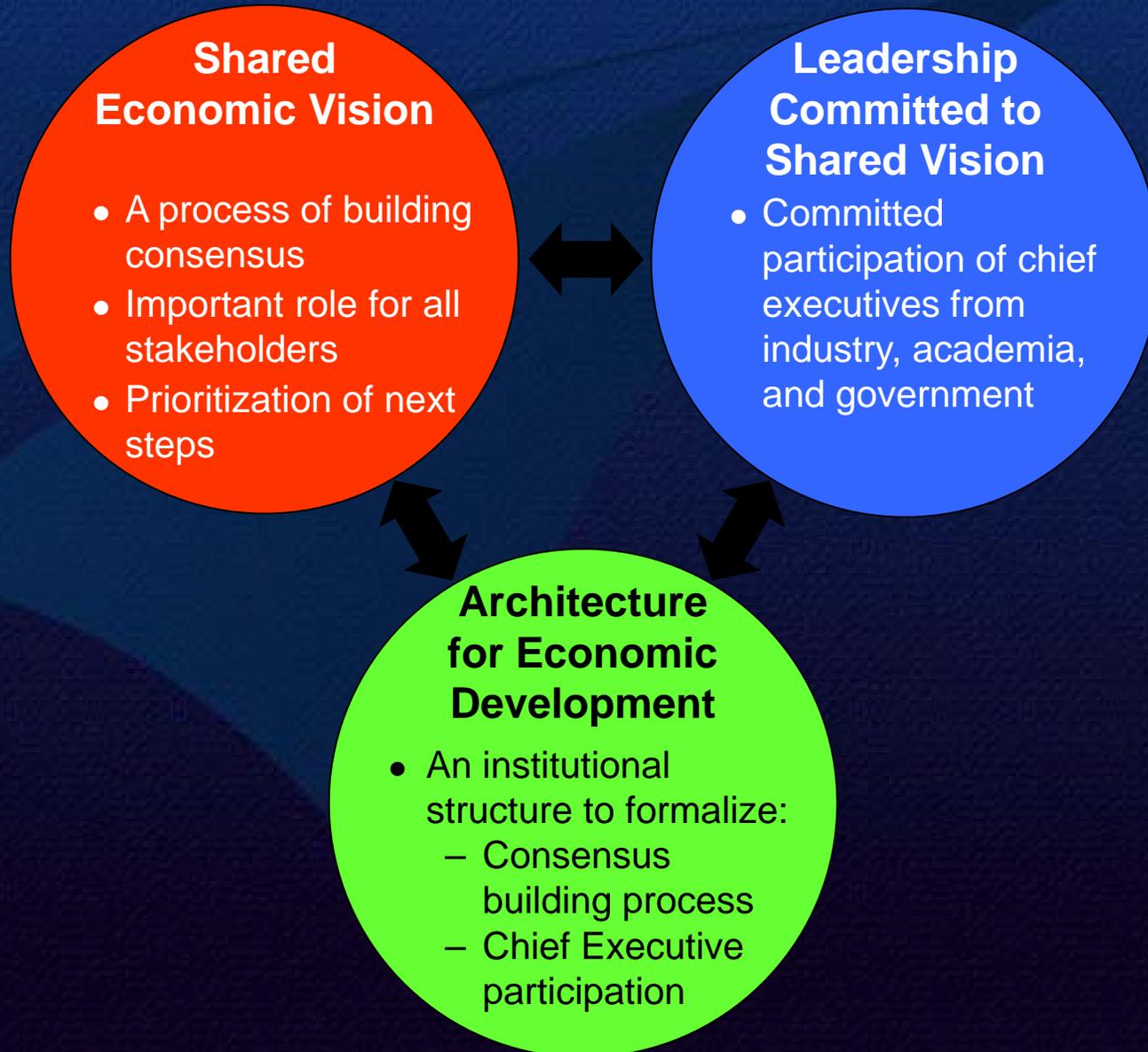
Informal Networks

- Carnegie Mellon University Alumni
- University of Pittsburgh Alumni
- Duquesne University Alumni
- Angel investor community

Public Sector

- Small Business Administration
- Center for Economic Development
- Small Business Development Center
- Allegheny Working Together Consortium
- SWPA Regional Development Council
- Innovation Works

Organizing for Action



Massachusetts Governor's Council on Economic Growth and Technology

Governor's Council on Economic Growth and Technology

Industry Cluster Committees

- Advanced Materials
- Biotechnology and Pharmaceuticals
- Defense
- Marine Science and Technology
- Medical Devices
- Software
- Telecommunications
- Textiles
- Information Technology

Functional Task Forces

- International Trade
- Marketing Massachusetts
- Tax Policy and Capital Formation
- Technology Policy and Defense Conversion

Issue Groups

- Cost of Doing Business
- Financing Emerging Companies
- Health Care
- Western Massachusetts
- Business Climate
- Competitive Benchmarking

Prosperity is a Choice

Eight Imperatives for Fostering Change

1. We need to define and make explicit our **moral purpose: a high and rising standard of living for the average citizen.**
2. Understand the **the world has changed dramatically**: political boundaries have disappeared, costs of communications, transportation and learning are declining rapidly.
3. Acknowledge that **we are overdependent on the basic advantages** of location, and the abundance of natural resources.
4. Understand that **wealth in the future** is based on insight, sophisticated human capital, cultural attitudes focused on embracing competition, learning, trust, cooperation and investing in complex advantages.
5. Understand that **economic growth and social equity** are the same thing.
6. Understand that **competitiveness is productivity**; and productivity is *where* we choose to compete and *how* we choose to compete.
7. Acknowledge that the government must **do everything it can to assist the private sector, except to impede competition**; invest in people, infrastructure, learning organizations and a non-defensive dialogue between the public and the private sectors.
8. Understand that the private sector needs to invest in more learning: customer preferences, knowledge of position relative to competition, possibilities of changing the distribution channels, and **investing in the upgrade of its products.**