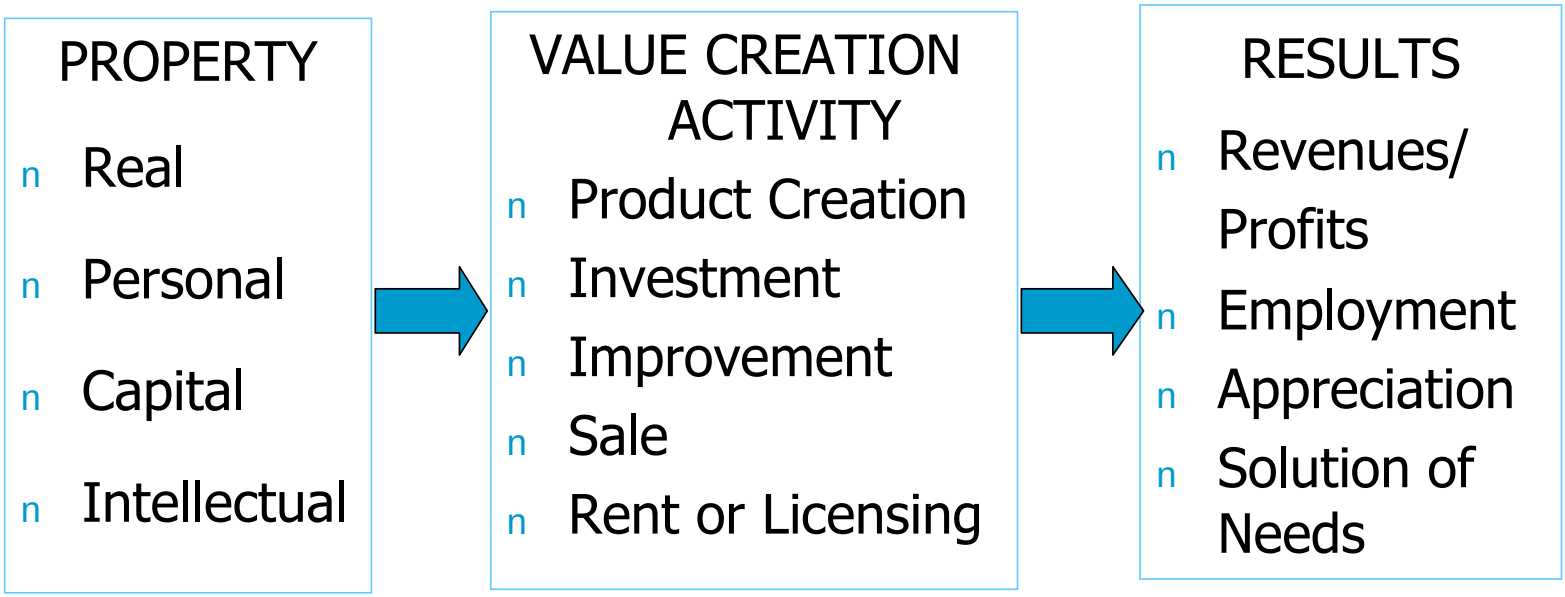
IP Assets Development and Management: A Key Strategy for Economic Growth

WIPO-MOST Intermediate Training Course
on Practical IP Issues in Business
November 10-14, 2003

Topics to be Covered

- I. What are Intellectual Property Assets?
- II. Why Do IP Assets Matter?
- III. Can IP Assets Be Developed Using Strategies?
- IV. Who Will Make IP Strategies?
- V. What are the Essential Components of IP Asset Strategies?
- VI. What is an Example of an IP Asset Strategy?
- VII. What IP Strategy for China's (Guangdong) Pharmaceutical Sector?

I. What are IP Assets?



What are IP Assets?

- Patents (inventions)
- Trademarks
- Industrial designs
- Geographical indications
- Copyright (works of authorship)
- Trade Secrets, etc.

+

Human Capital

Strategically Developed, Targeted to a Market and Used

More basics…

What are IP Assets?

- Multiple types of IP apply to products and technologies;
- IP is an economic asset, not only a legal theory;
- IP generates revenue when used strategically in a market context;
- IP's greatest value is in licensing and valuation;
- Every country has IP.

II. Why IP Assets Matter?

- **Economies based on land, physical assets**
- **Trade in goods**
- **Cheap labor**
- **Nationally based trade**
- **Pre-Internet economy**

· **Knowledge Based Economies**

·**IP Licensing**

·**Productive Human Capital**

·**Regional/Global Markets**

·**Internet**

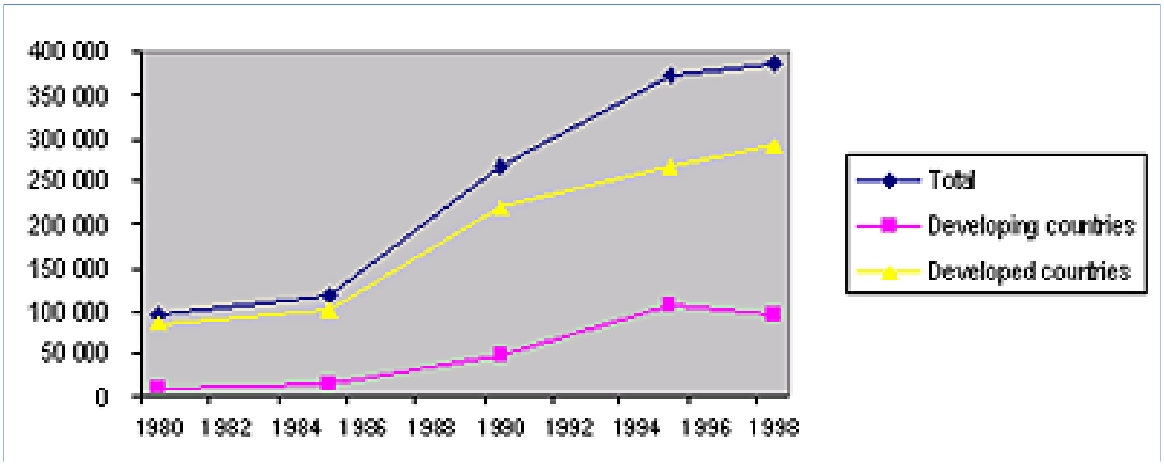
Why IP Assets Matter?

Because of the IP Divide...

- 91% of patents are from OECD countries.
- PCT filings and national patent filings in developing countries are by non-residents primarily.

World Trade of Cultural Goods

(in millions of dollars, 1980-98)



Source: Study on International Flows of Cultural Goods Between 1980-98, UNESCO 2000.

Cultural industries

- Trade in cultural goods has grown exponentially over the last two decades. Between 1980 and 1998, annual world trade of cultural goods surged from US$95.3 billion to US$387.9 billion.
- On a global scale, trade remains concentrated in a few countries: in 1998, thirteen countries were responsible for more than four-fifths of imports, and twelve countries for the same proportion of exports.

Why IP Assets Matter?

IP Assets Create Macroeconomic Benefits By:

- Increasing GDP (revenues from product sales and licensing royalties);
- Enhancing exports of high value;
- Attracting mutually beneficial FDI;
- Stimulating local education and R&D;
- Curing "brain drain" by providing incentives;
- Addressing human needs; and
- Developing "national brand".

IP Assets Create Microeconomic Growth By:

Why IP Assets Matter?

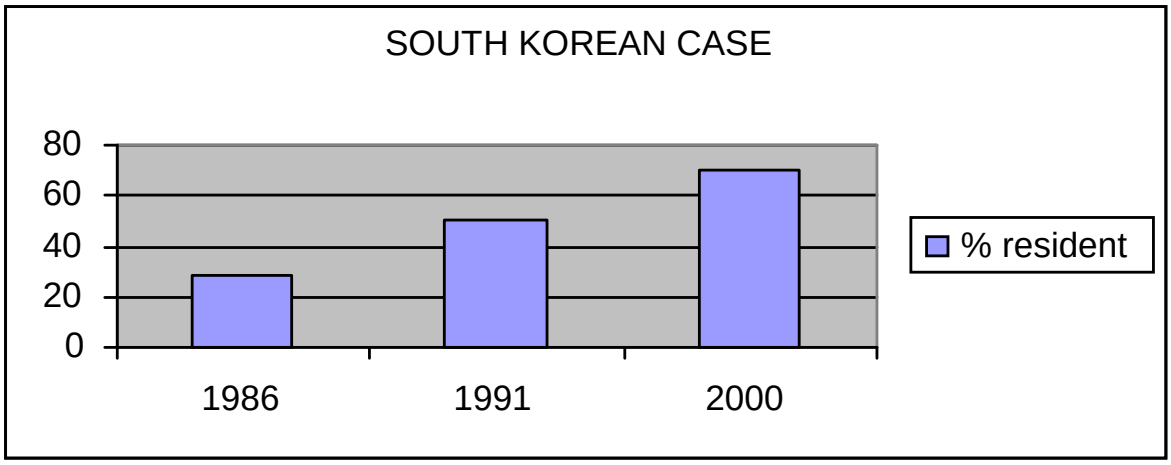
- Building portfolios of IP as core competence for licensing revenues;
- Enhancing products and promoting brand value for advertising;
- Facilitating strategic alliances, joint ventures and cross licenses;
- Enhancing corporate valuation;
- Avoiding litigation;
- Boosting employee morale by providing incentives and recognition.

IP Assets Promote National Economic Growth...

III. Can IP Assets be Developed?

Changing the statistics with proactive policies...

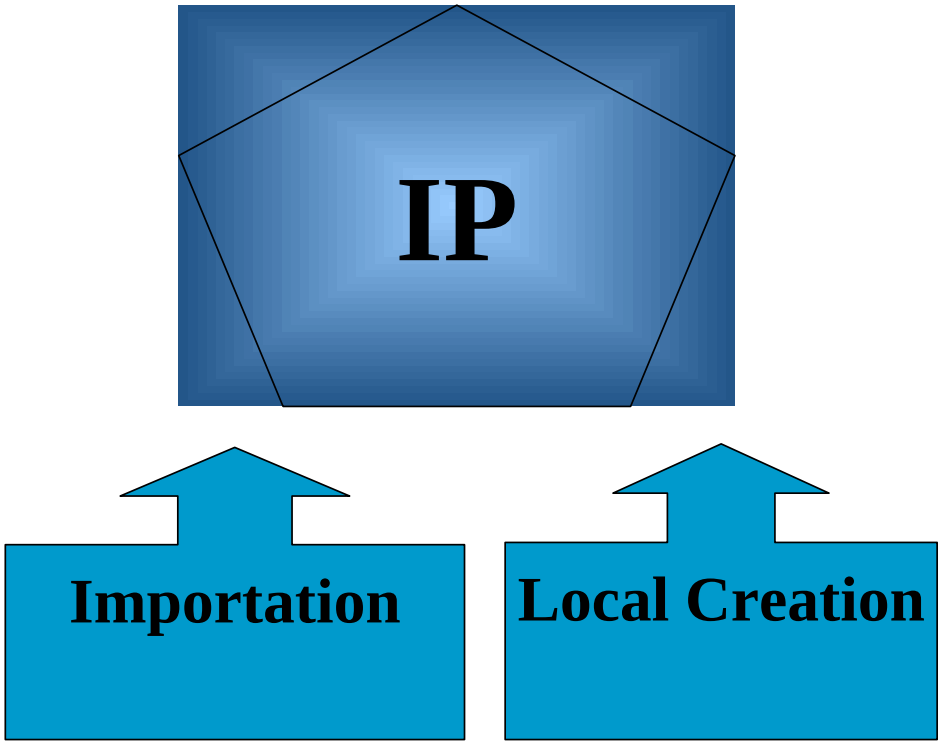
Can IP Assets be Developed?



- What is happening here?
- The task is to identify what governmental and enterprise policies support such results, and to provide tools to Member States to implement such policies in a proactive way.

Can IP Assets be Developed?

Two Complementary Ways



Can IP Assets be Developed?

IMPORTATION OF IP ASSETS

- Foreign direct investment;
- Licenses for manufacturing, distribution;
- Training programs and informal technology transfer; and
- Use of patent databases.

Can IP Assets be Developed?

LOCAL CREATION OF IP ASSETS

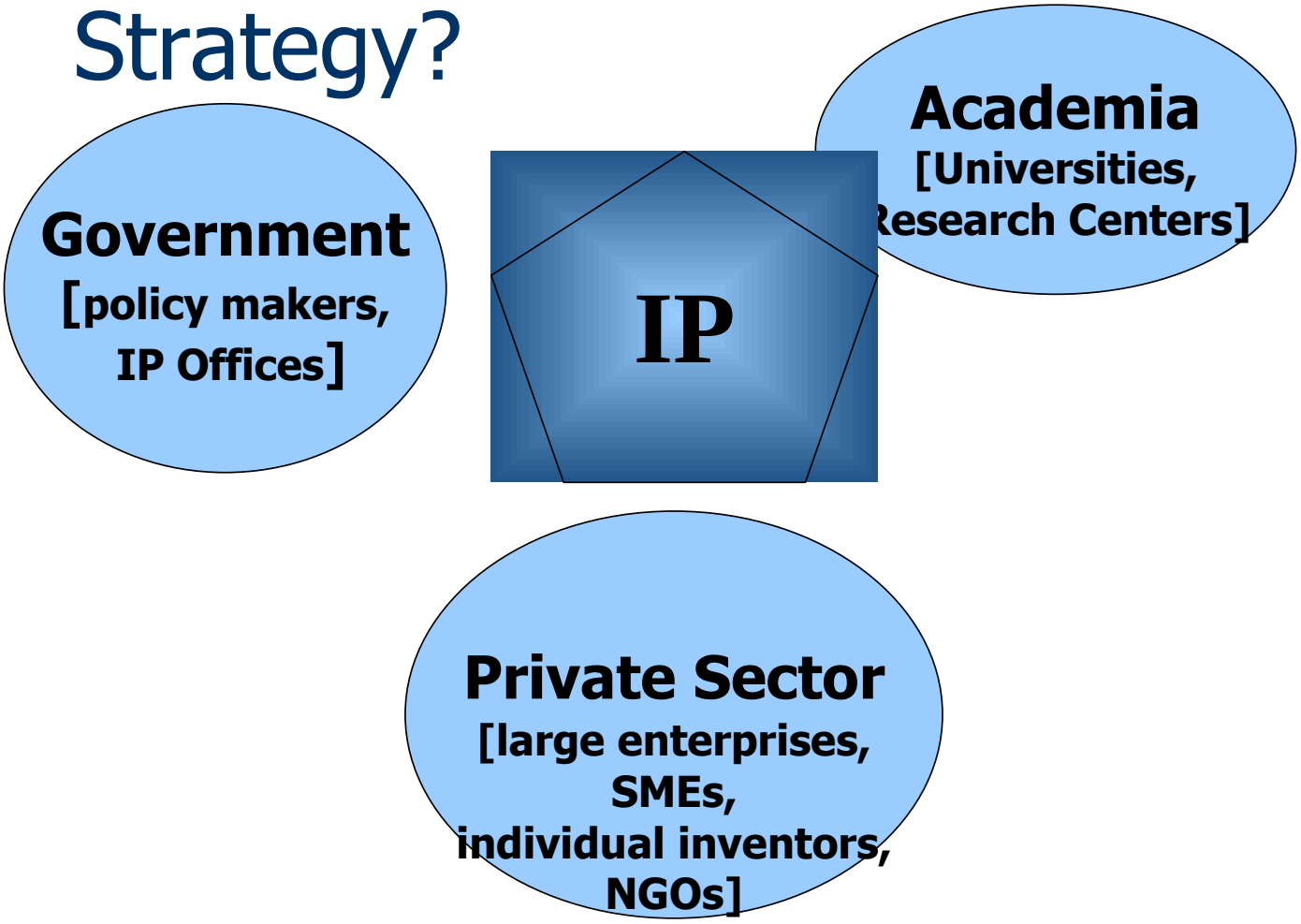
- Universities, public research centers;
- SME promotion and incentives;
- Targeting and protecting new technology;
- Harvest from participation in joint ventures, FDI, technical assistance;
- Modification, enhancement, and use of traditional knowledge/folklore.

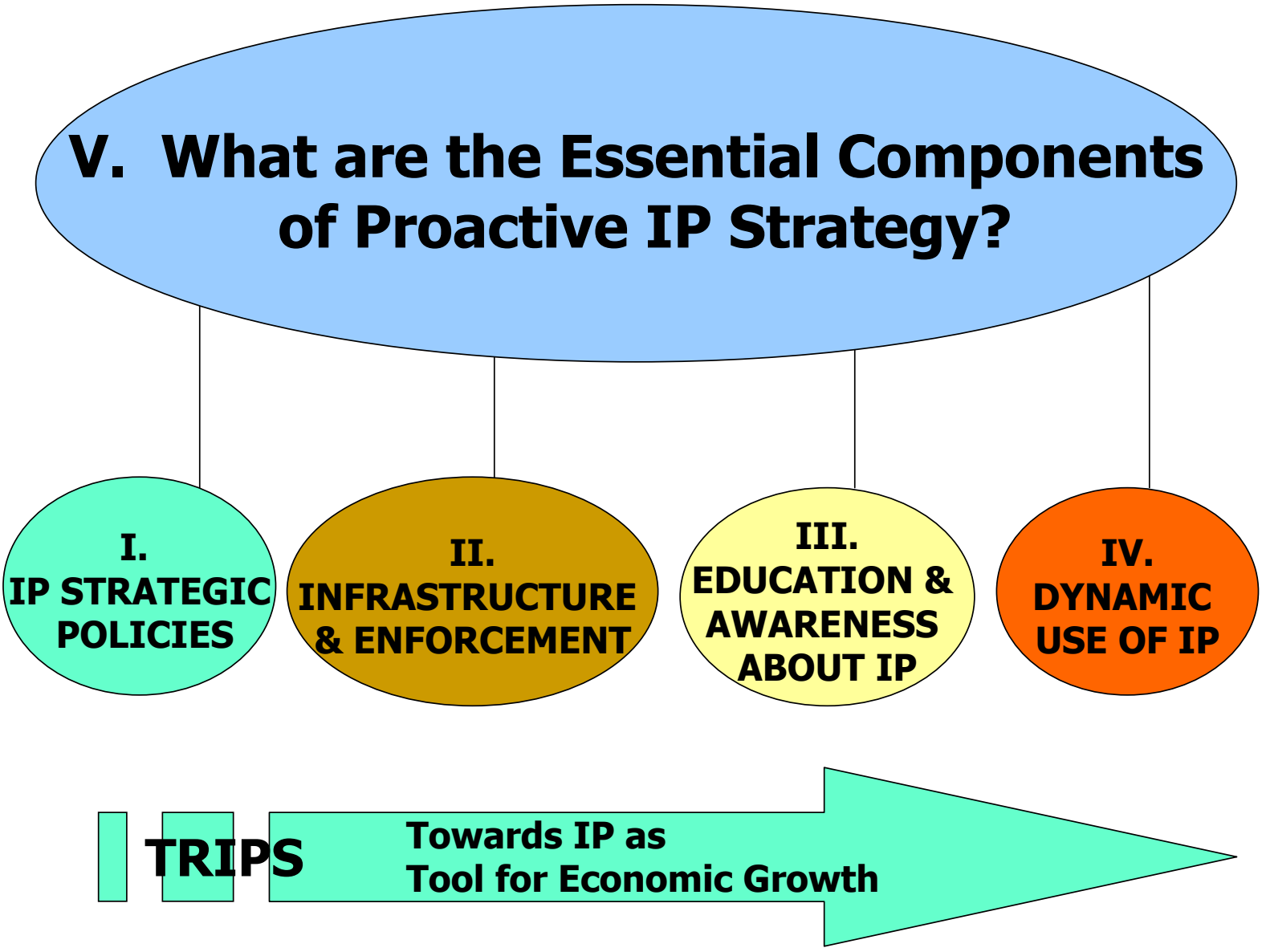
Some High-Priority Research Areas and IP Content

Categories of technical projects funded by the World Bank and Regional Development Banks	**Issued patents by the USPTO (since 1976) related to those categories**	**Patents published in 2001 and 2002 at the Espacenet** *
Water:	147,017	100,000
Management	145	675
Irrigation	886	2,687
Sanitation	54	205
Power	4,962	17,229
Drink	261	1,649
Agricultural technologies	396	6,202
Food processing	913	4,837
Agricultural irrigation	6	125
Cotton	2,304	21,526
Mango	25	96
Rice	1,150	29,493
Coconut	257	1,927
Solar power	1,187	4,157
Photovoltaic	1,716	5,870
Transport	23,643	83,281
Road construction	260	1,918
Emergency assistance	82	215

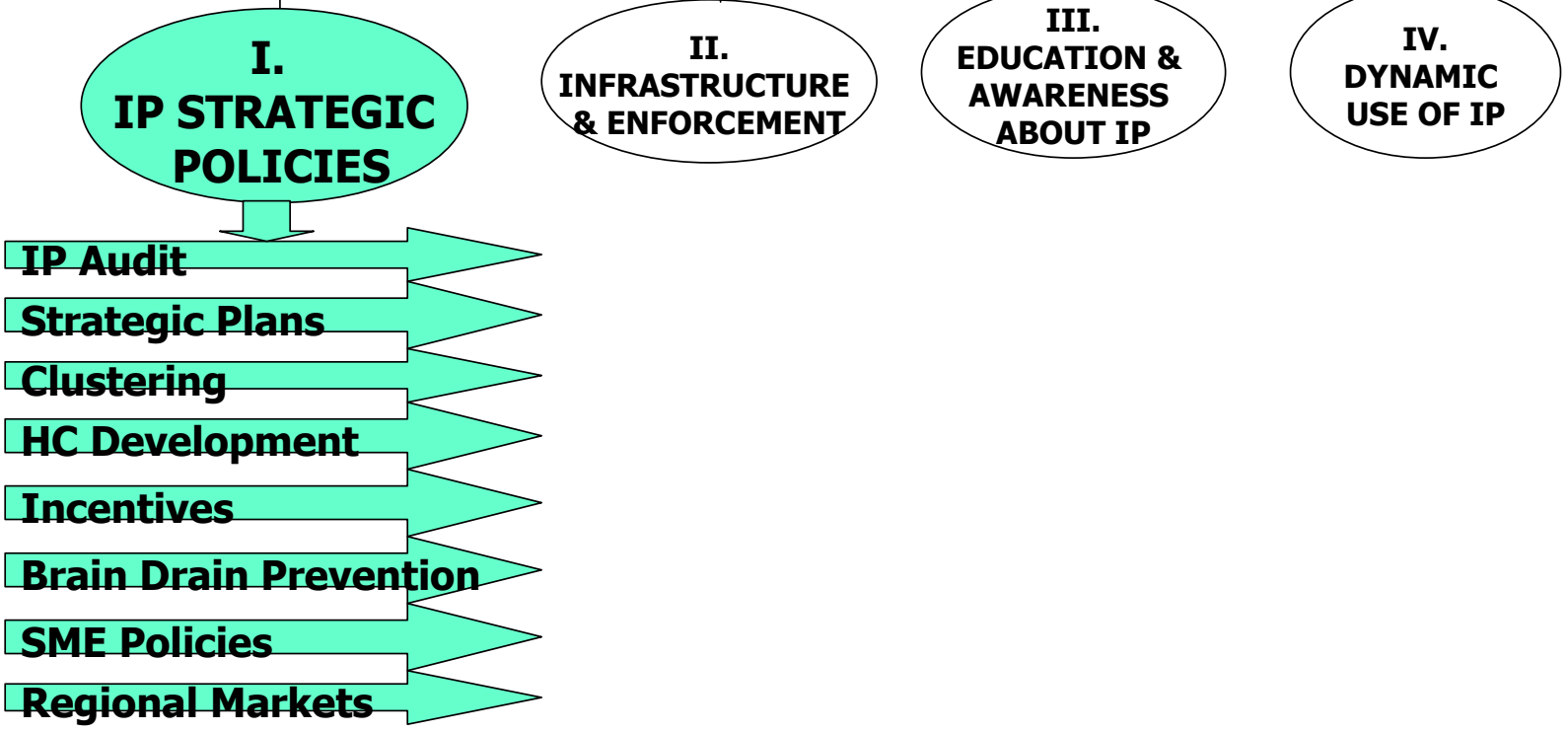
*Patent applications published in 2001 and 2002 in member States of the European Patent Organization, the European Patent Office and the World Intellectual Property Organization .

IV. Who Will Do Proactive IP Strategy?




V. What are the Essential Components of Proactive IP Strategy?
I. IP STRATEGIC POLICIES
II. INFRASTRUCTURE & ENFORCEMENT
III. EDUCATION & AWARENESS ABOUT IP
IV. DYNAMIC USE OF IP
TRIPS
Towards IP as Tool for Economic Growth

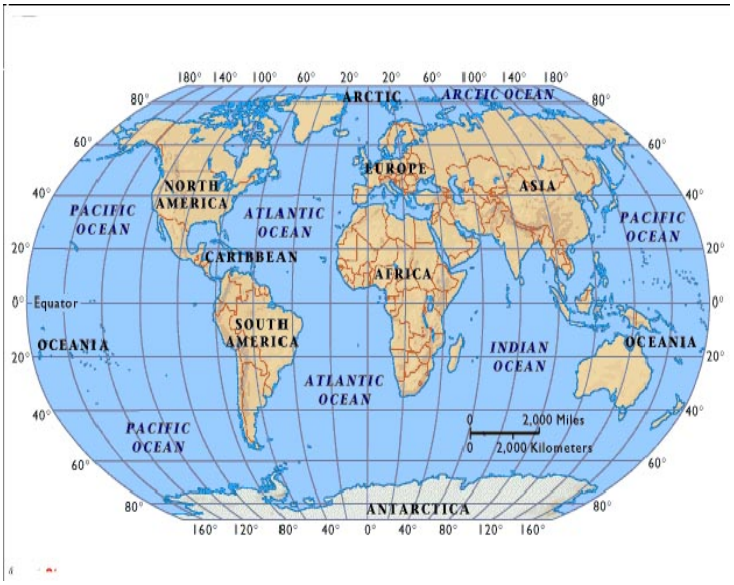
V. What are the Essential Components of Proactive IP Strategy?



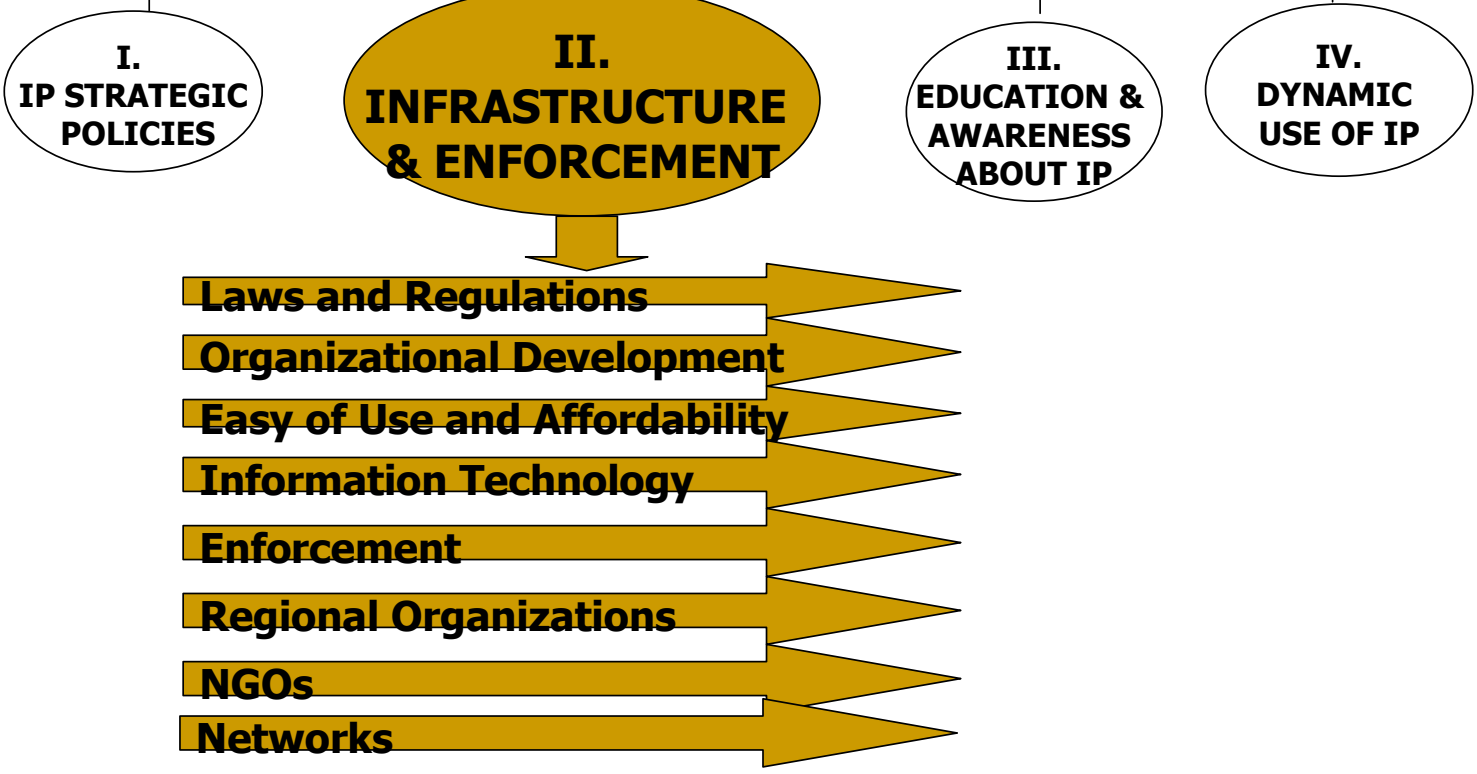
What are essential components of proactive IP strategy?

Strategic Policies in Market Context

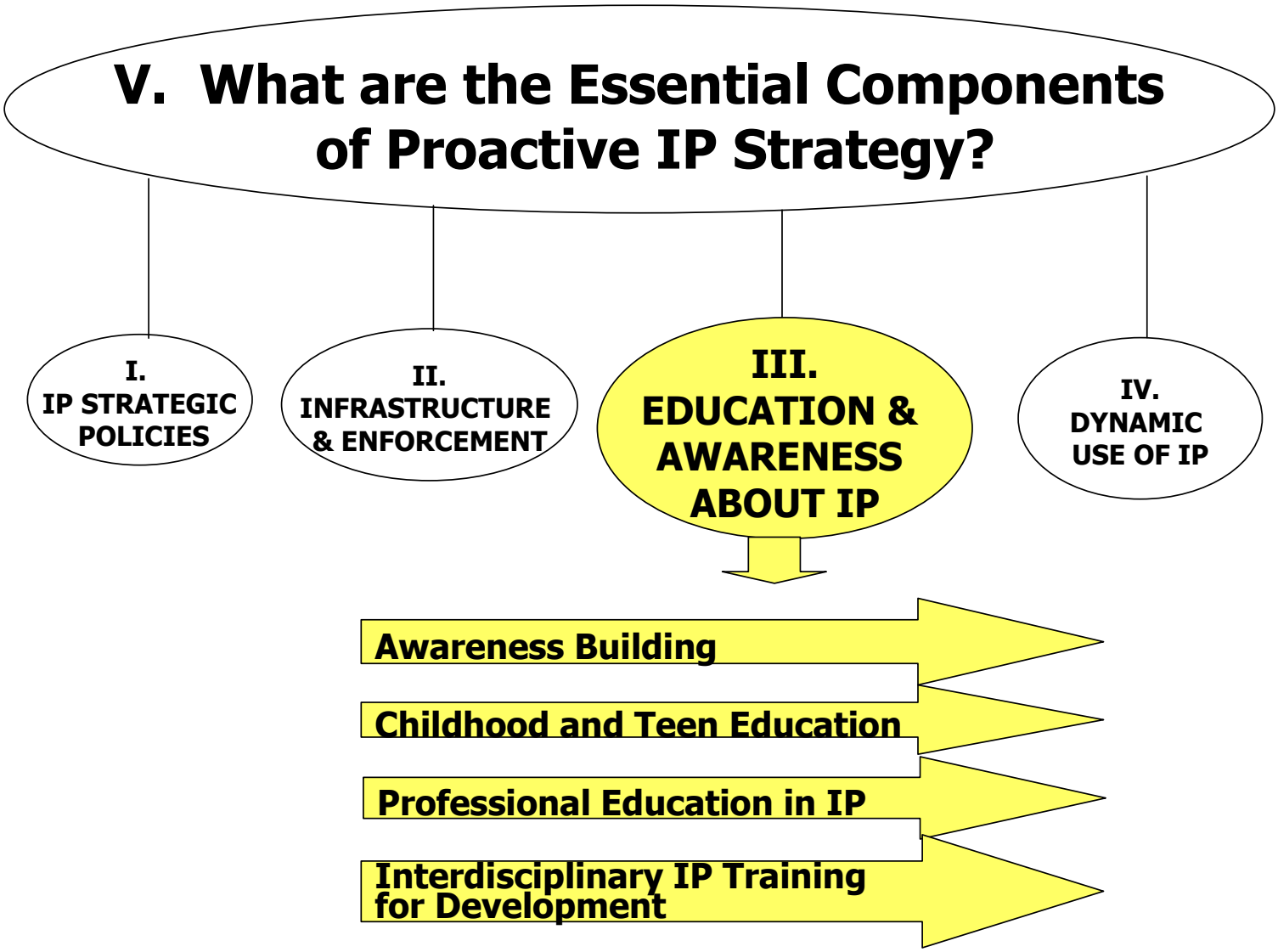
- Define market for IP and IP based products
  - customer population
  - manufacturing
  - making, using, selling
- Local, national, regional, global markets



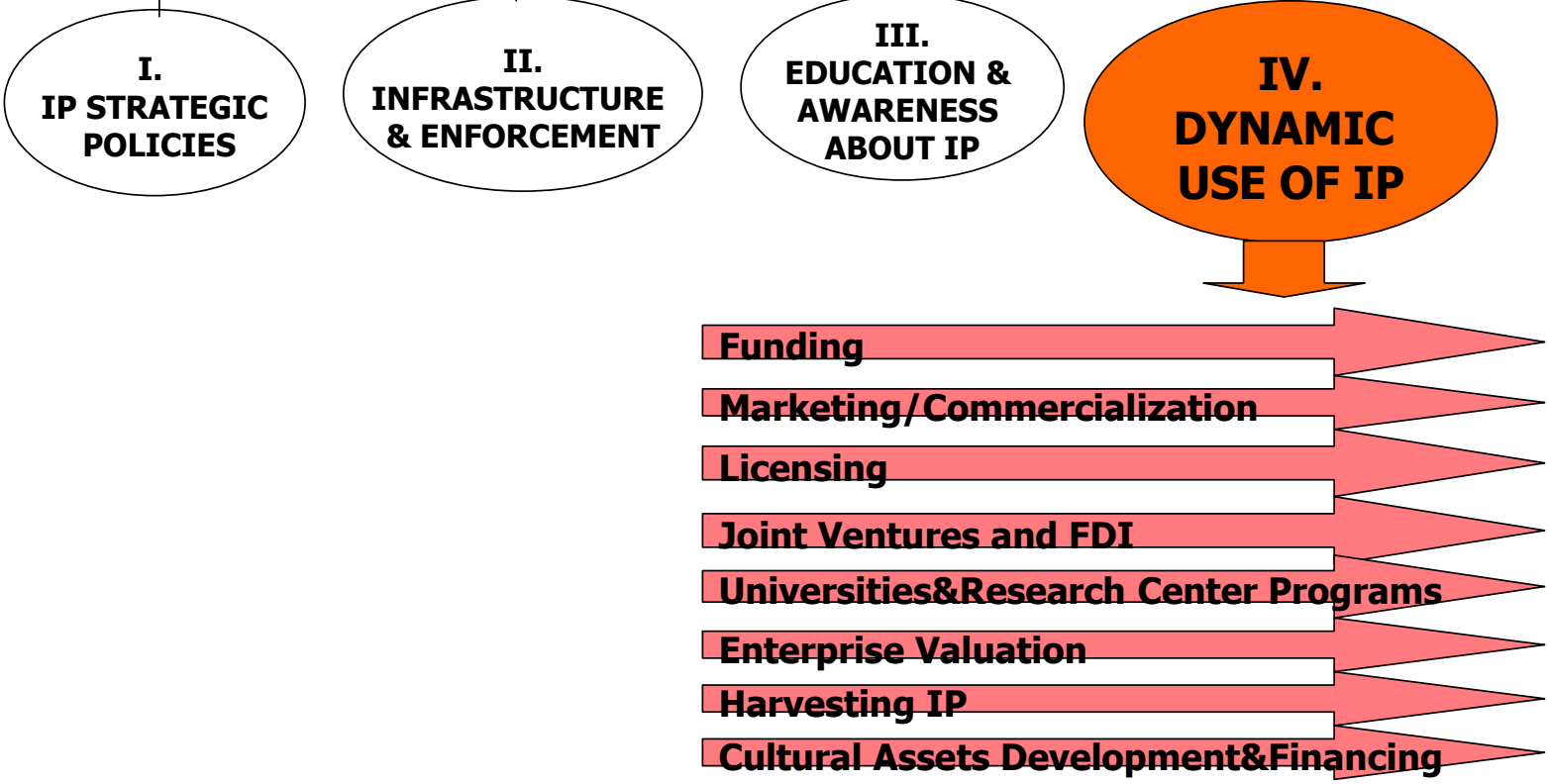
V. What are the Essential Components of Proactive IP Strategy?



V. What are the Essential Components of Proactive IP Strategy?



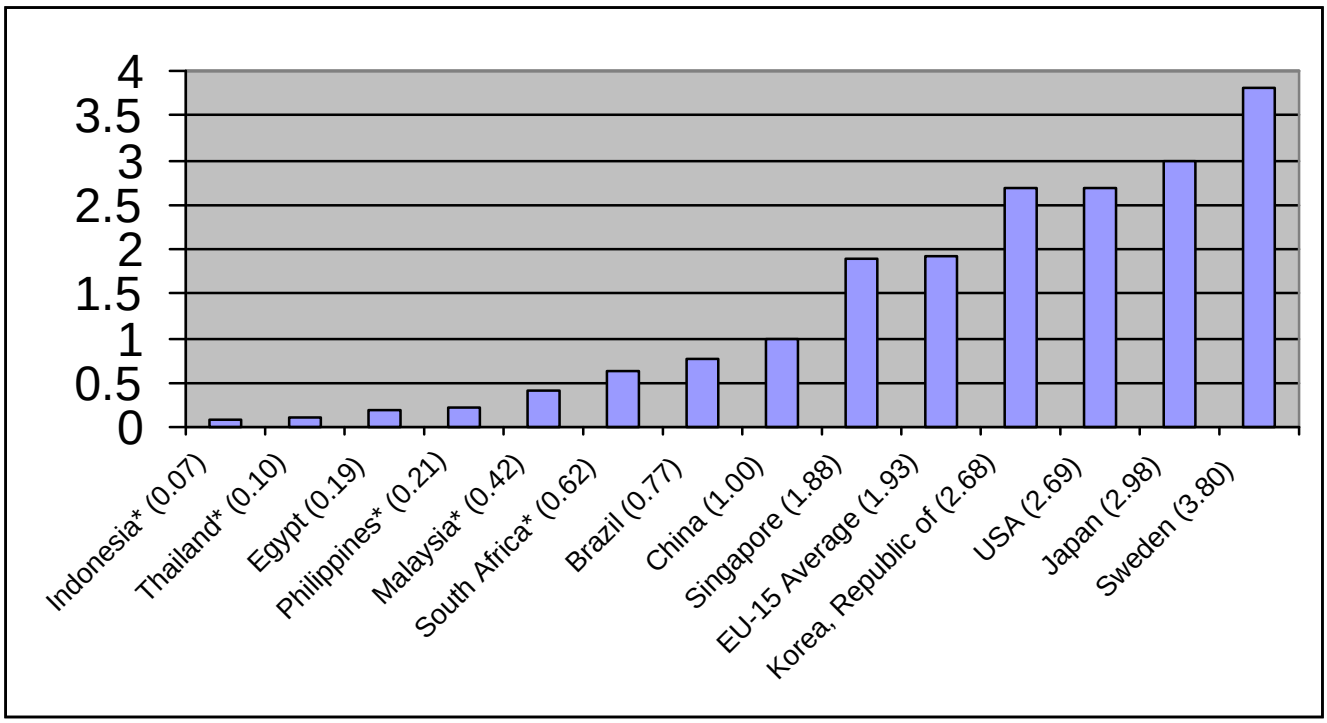
V. What are the Essential Components of Proactive IP Strategy?



VI. What is an Example of an IP Strategy?

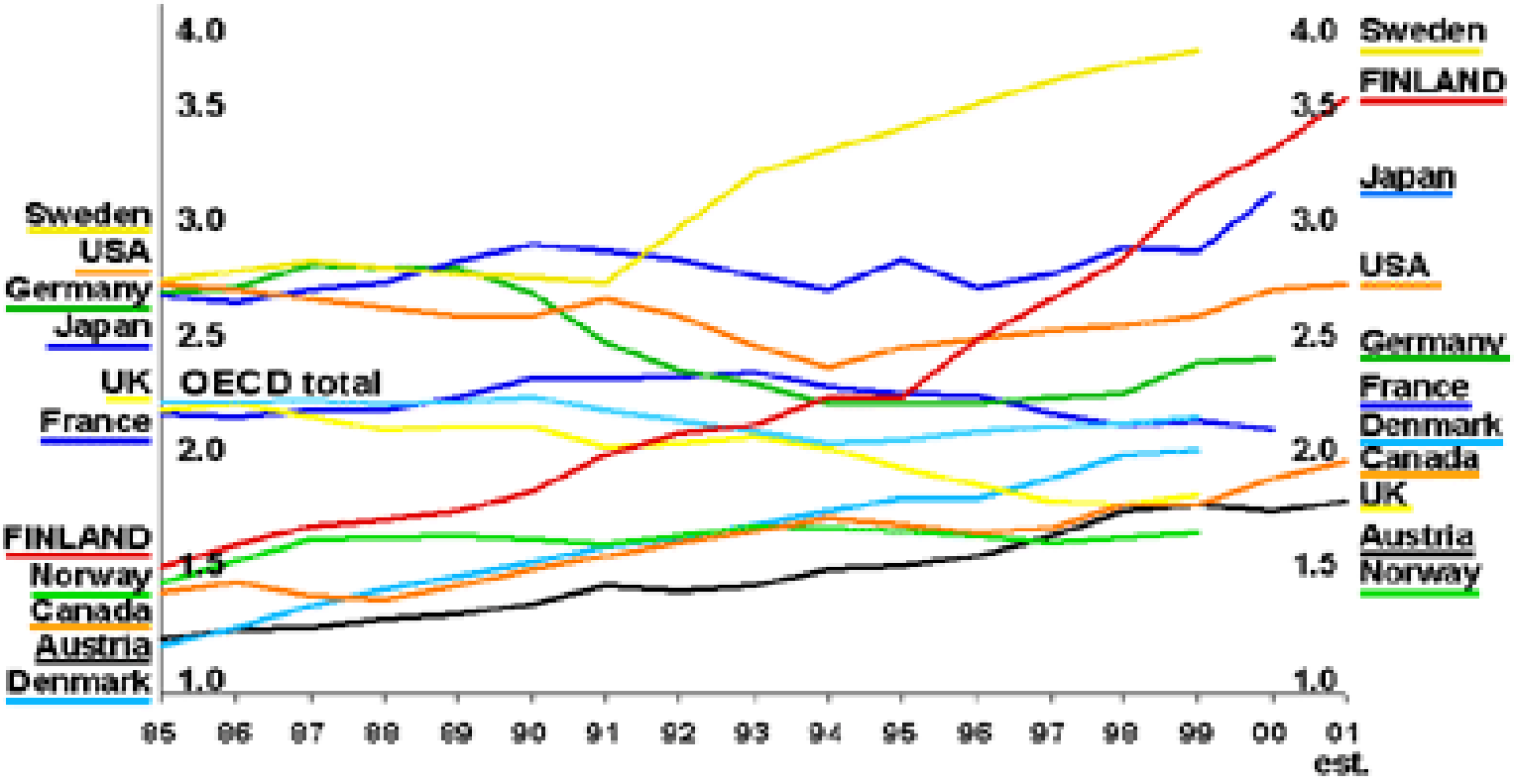
Research and Development (R&D) Networks

Expenditure in R&D as % of GDP 2000



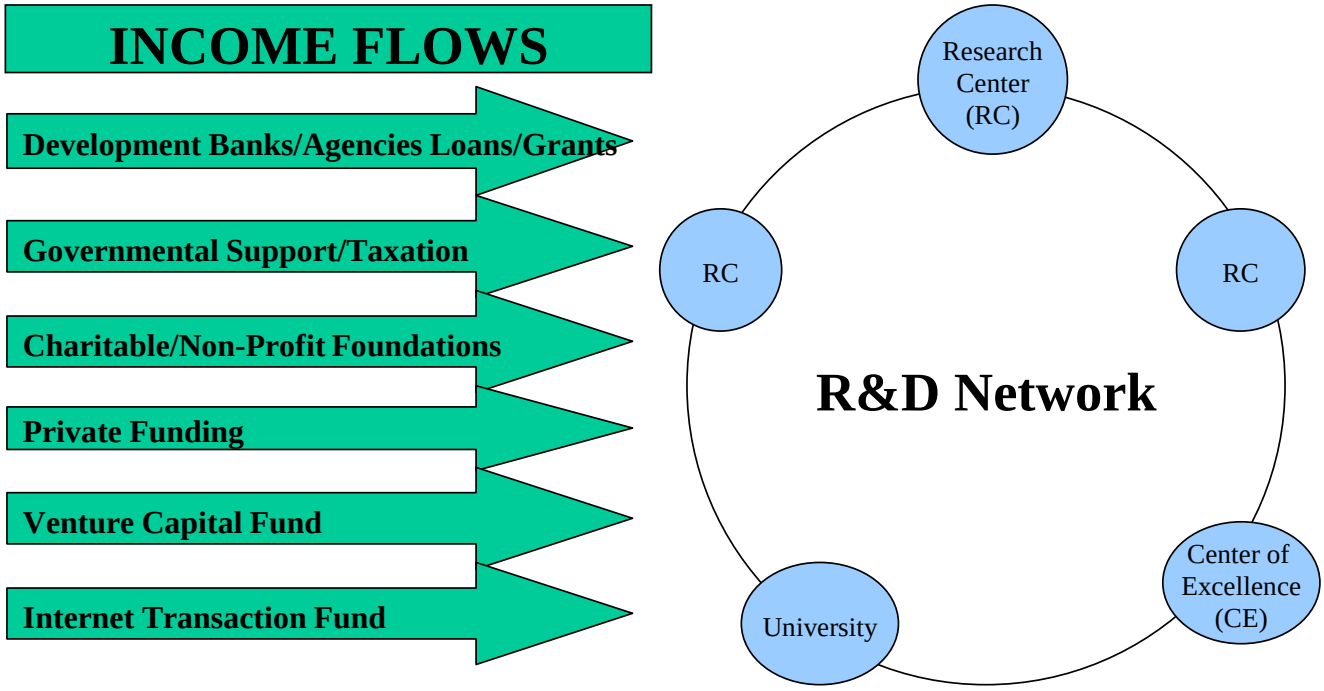
Total Expenditures (1989-2000 average) in R&D as a % of World GDP: 2.12%
Sources: 2002 World Development Indicators (World Bank) and UNESCO Institute for Statistics (November 2002).
* 1989-2000 Average

R&D input in some OECD countries (% of GDP)



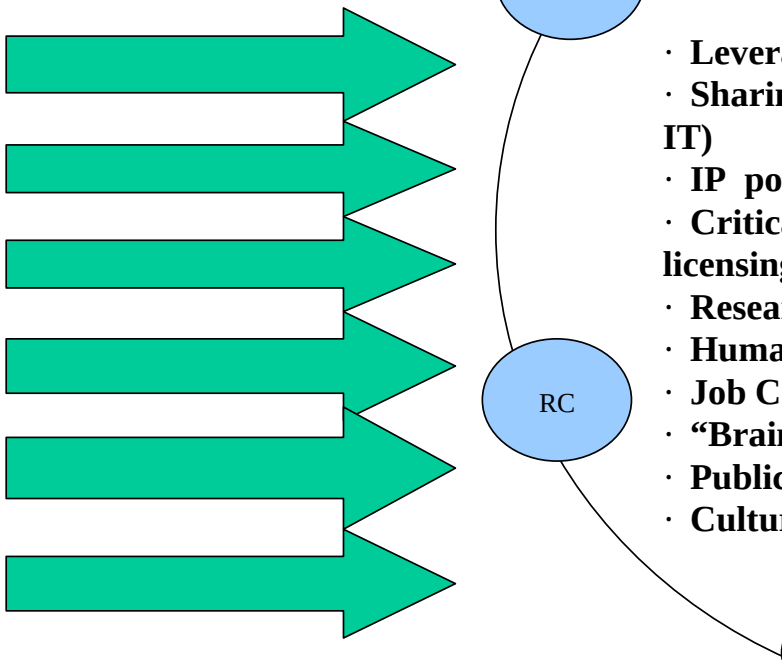
Sources: OECD, Main Science and Technology Indicators Database, Statistics Finland (Finland 2001) and Tekes est. (USA 2001).
http://www.tekes.fi/eng/rd/statistics.html

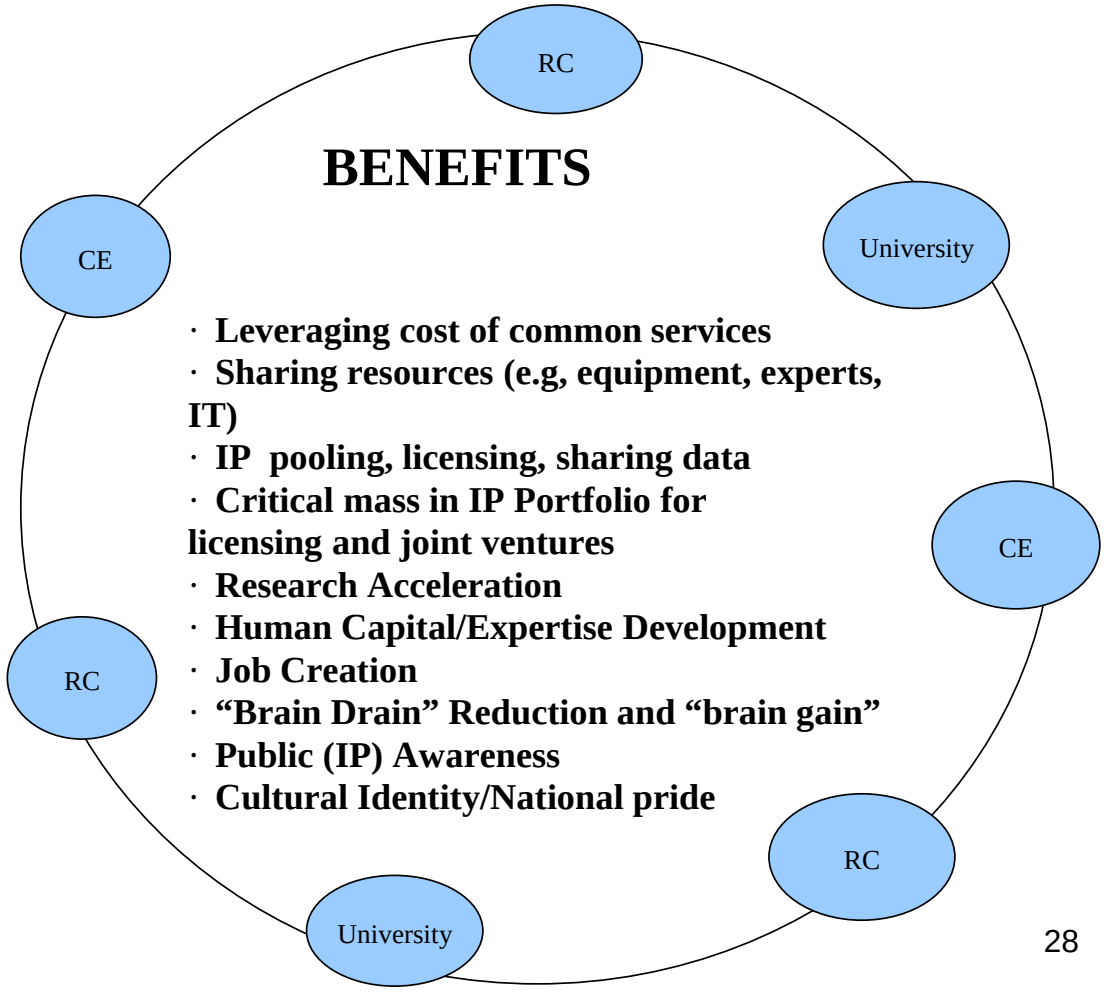
Pre-start and Start Stage



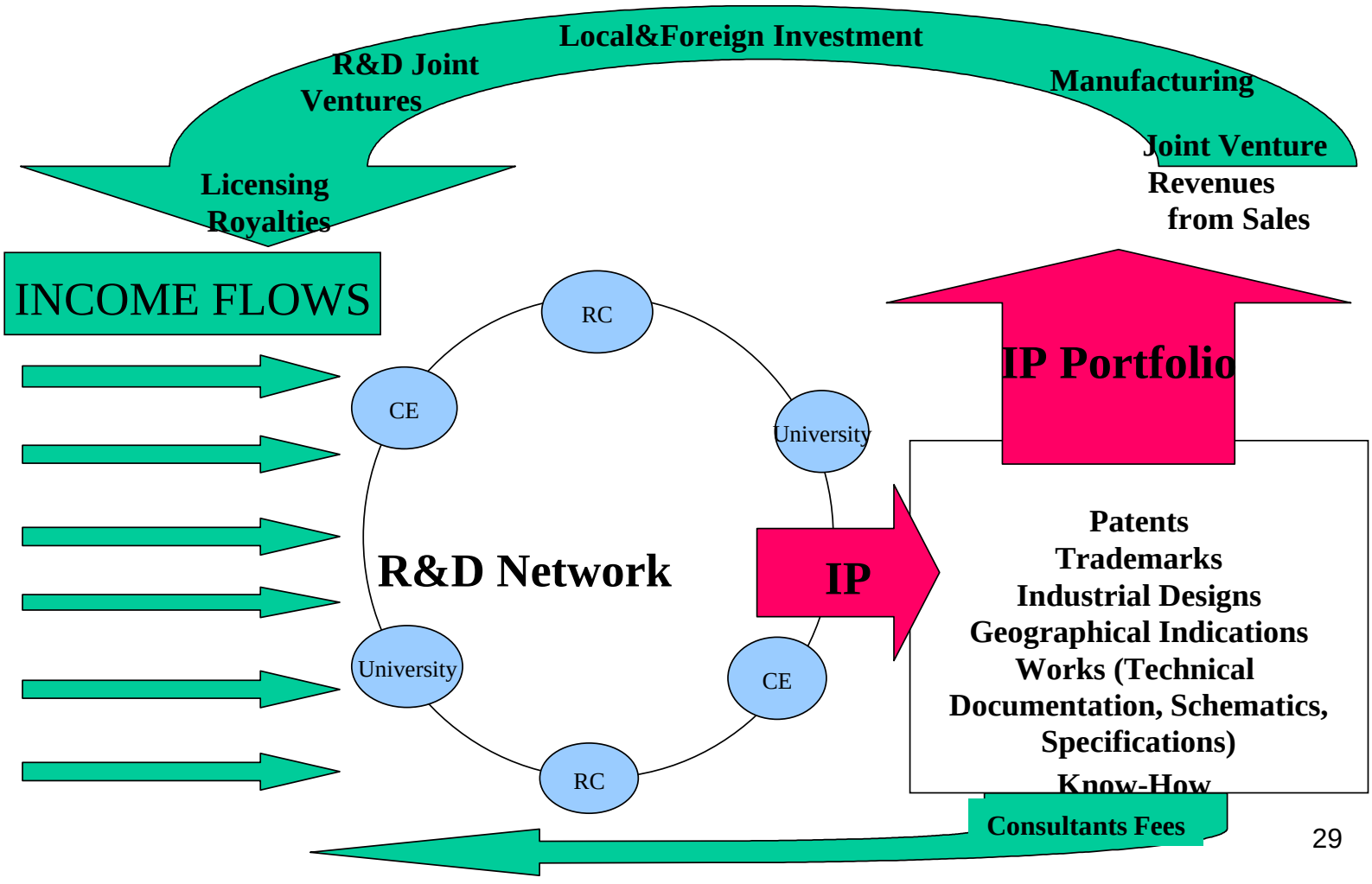
Early Development Stage
Advantages of R&D Network

INCOME FLOWS

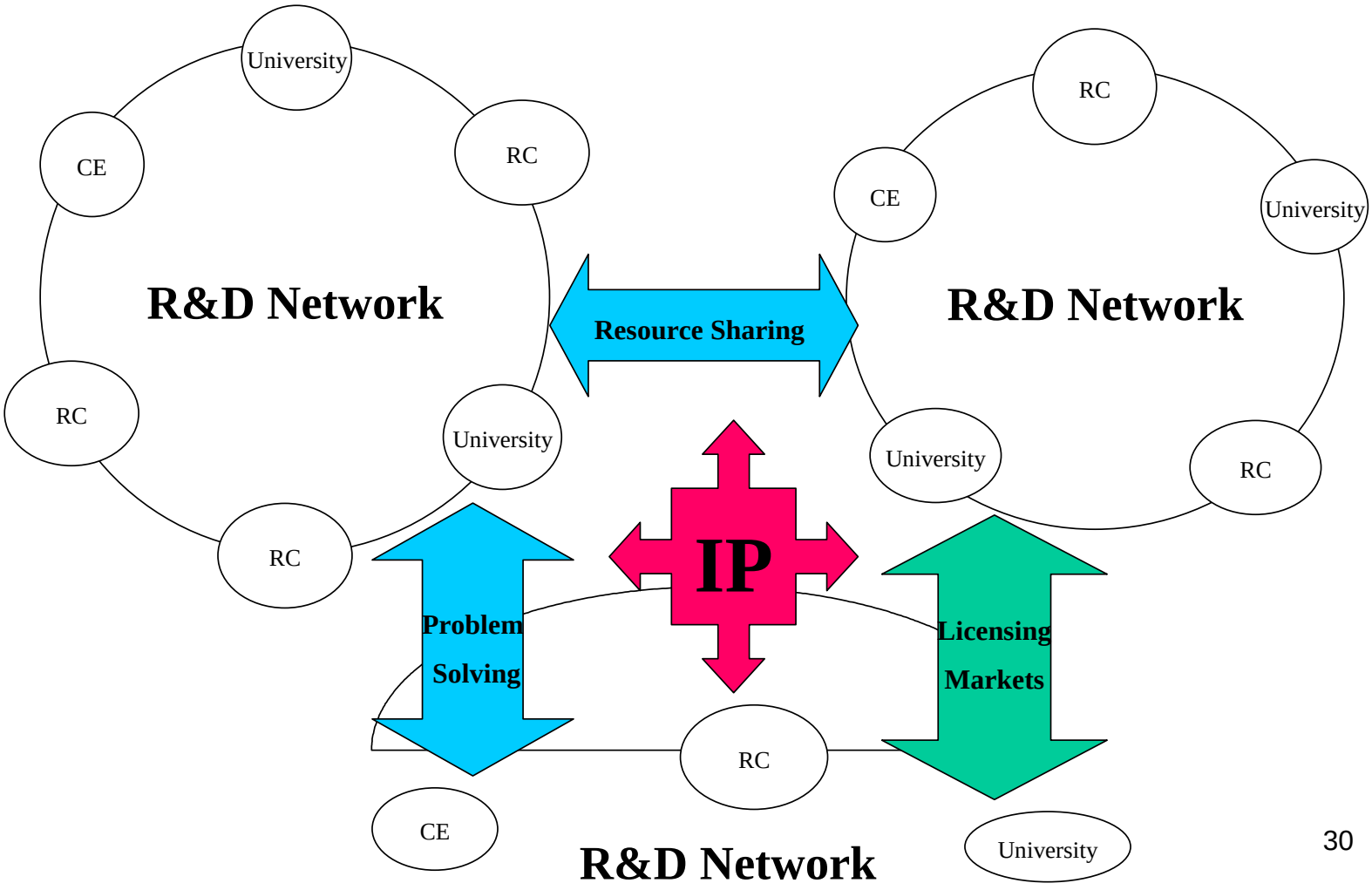




Growth Stage



IP as a Link Between R&D Networks



VII. What IP Strategy for China's (Guangdong) Pharmaceutical Sector?

Challenges

- Foreign companies to enter pharmaceutical market in Dec. 2004
- Currently more than 16,000 medicine production and distribution companies in China
- Targeting and meeting the needs of the Chinese healthcare sector
- Public R&D-private sector (domestic and overseas)
- Increase patenting/ technology ownership/ technology management personnel
- Funding for R&D
- National and international quality standards

Advantages

- Domestic pharma occupy 70% of local market, with an annual growth rate exceeding 10%
- Market-Market
- Undergoing healthcare system reform
- Fine Chemical Industry Cluster
- National commitment to R&D (e.g. Torch Program by MOST)
- Very rich traditional knowledge (TCM)
- Human resources / R&D institutions:
  - Only in Guangzhou more than 20 post-graduate research units (about 20,000 post-graduates)
  - 192 independent scientific R&D institutions
- FDI (34 countries investing)
- Drug R&D institutes must be registered with the SDA and 1/4 pharma enterprises passed GMP certification

Role of IP in Addressing Challenges

- Without IP it is difficult to commercialize the results of R&D
- IP enables technology diffusion for social needs
- IP protection and IP-related financial incentives attract FDI
- IP and R&D permit mutually beneficial technology transfer
- IP is an incentive system that rewards and retains researchers
- IP and R&D create high-value employment in new tech sectors
- IP related service industry-- professionals
- IP value-add/higher exports/profit margins
- IP consortia/networks to attract funding, accelerate research, develop valuable IP portfolios, increase image and professional recognition
- Local ownership/ local economic and social development/ lessened dependence

Challenges in Moving to an IP Asset Strategy?

- Prioritizing education and R&D
- Training professionals who can work with IP
- Meeting the challenge of funding
- Engaging in technology transfer with a clear definition and awareness of risk
- Using national branding and marketing
- Developing an IP Asset Strategy and joining it with R&D strategy--what will China (Guangdong) own ten years from now?


WIPO