



UPM
UNIVERSITI PUTRA MALAYSIA
BERILMU BERBAKTI

Funding, Tax & other Incentives for Promoting Innovation



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Universiti Putra Malaysia

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General trends for R& D funding



Grants for R & D & C



Tax incentives



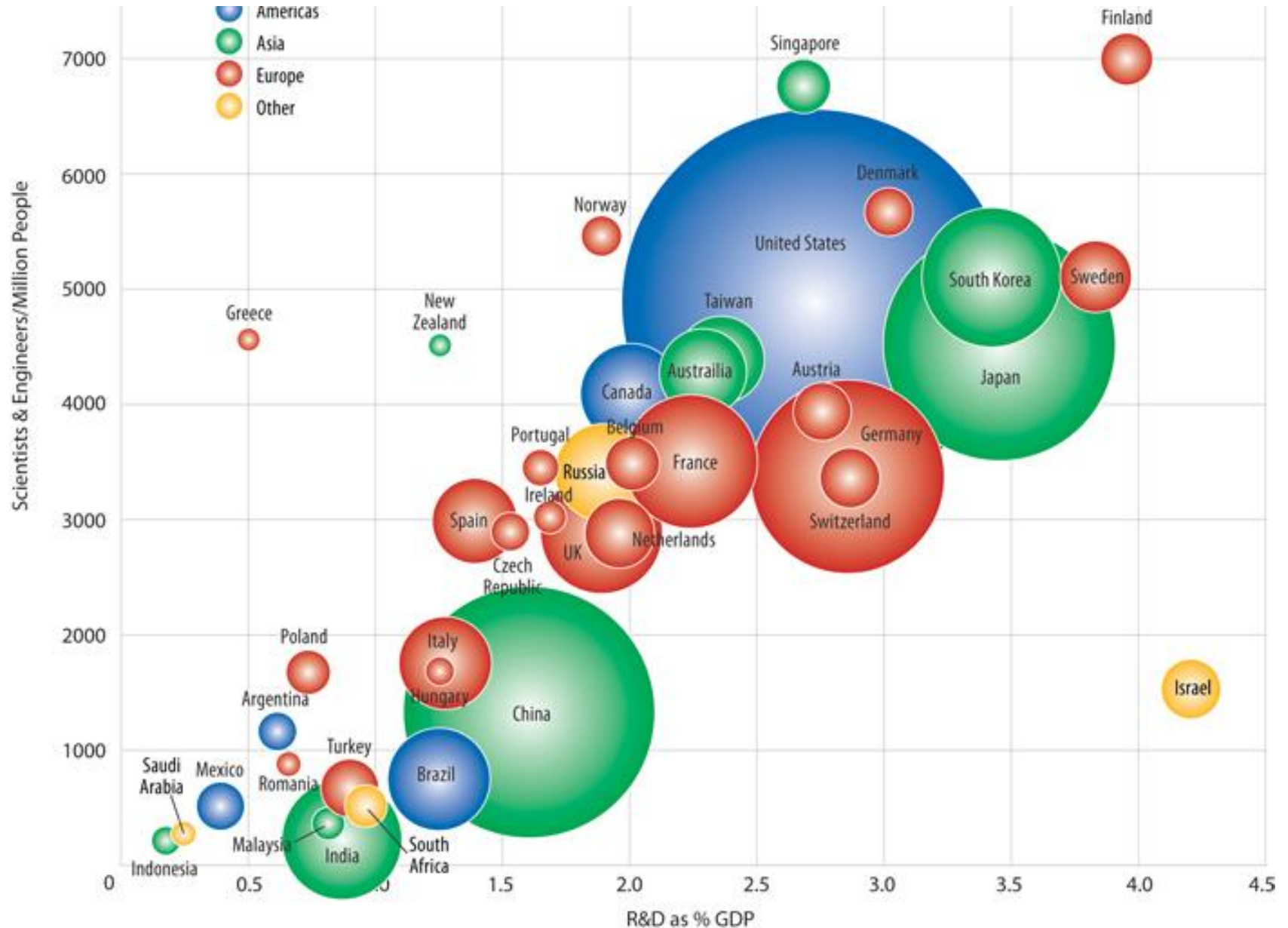
Innovation awards



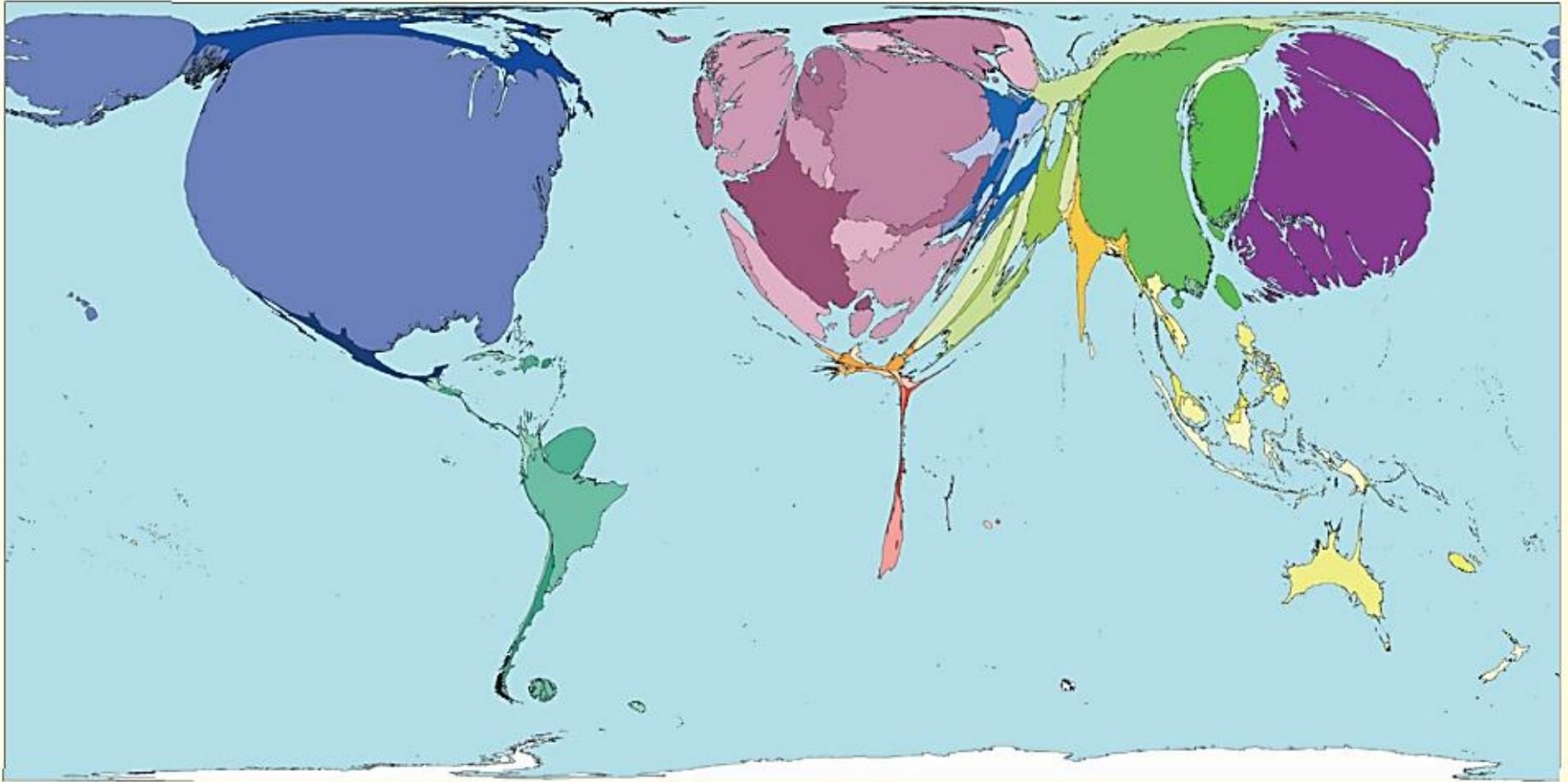
Challenges

World of R&D 2011

Size of circle reflects the relative amount of annual R&D spending



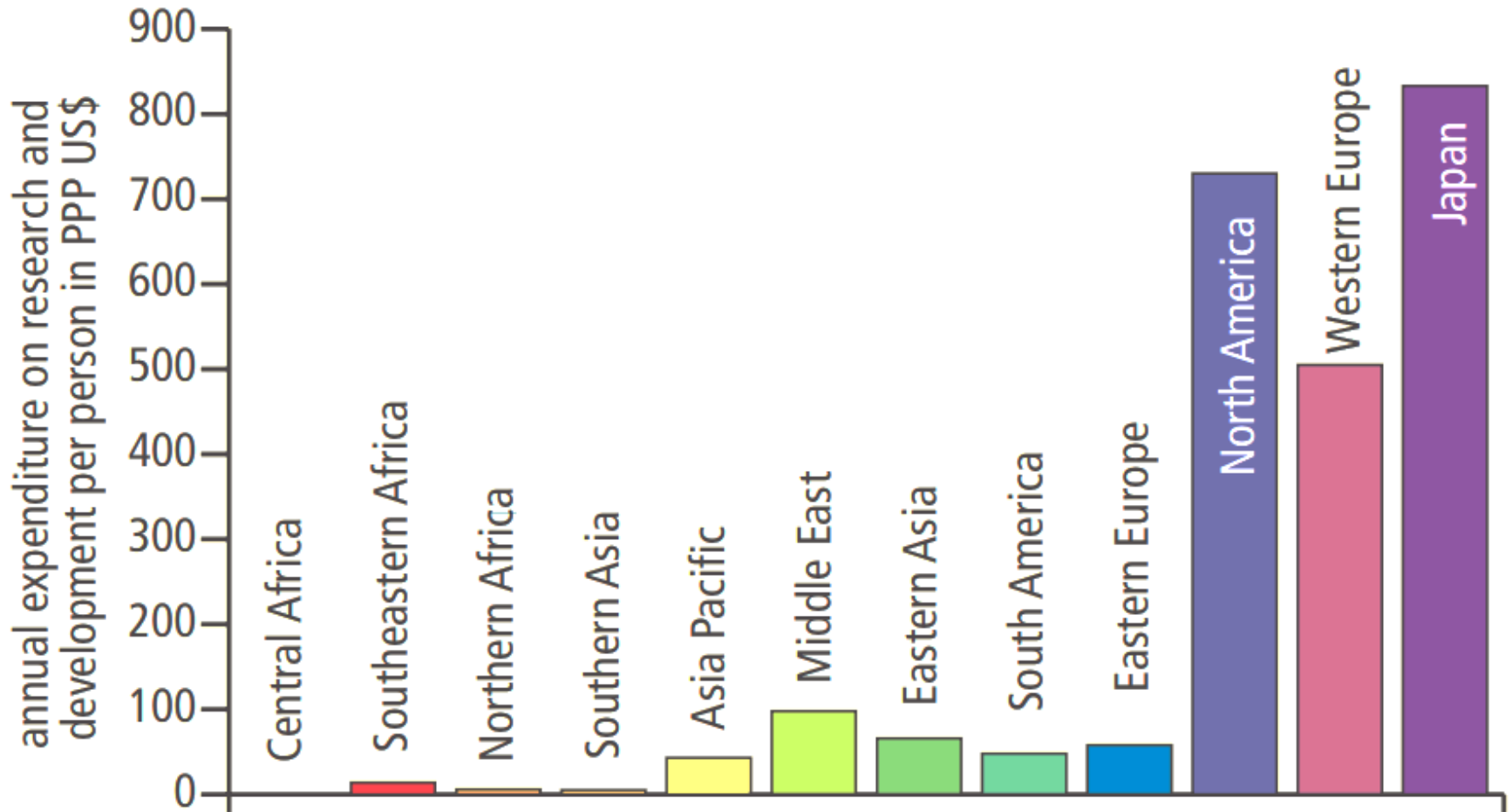
Research and Development Expenditure



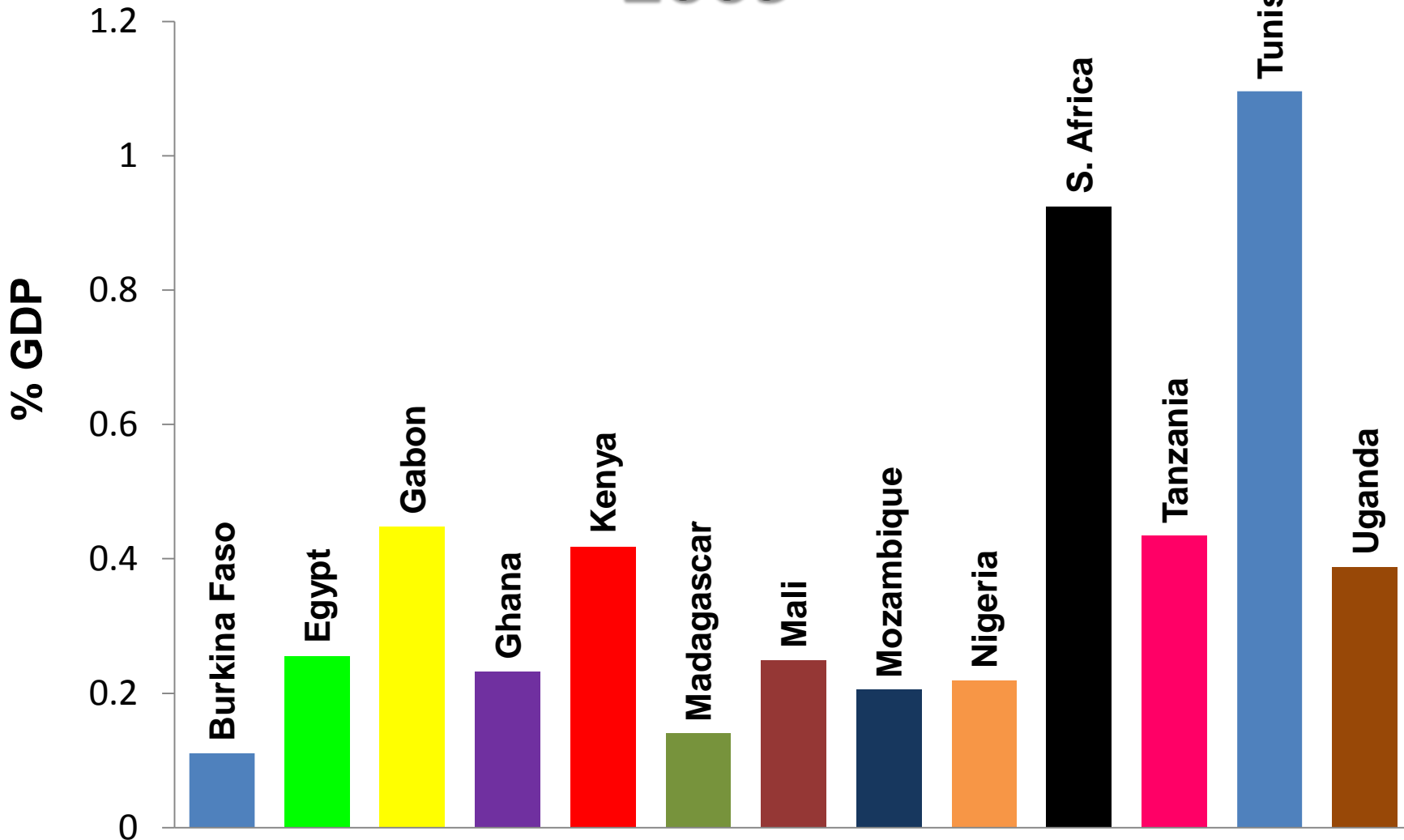
Territory size shows the proportion of worldwide R&D spending that is spent there

http://www.worldmapper.org/posters/worldmapper_map165_ver5.pdf

RESEARCH AND DEVELOPMENT SPENDING

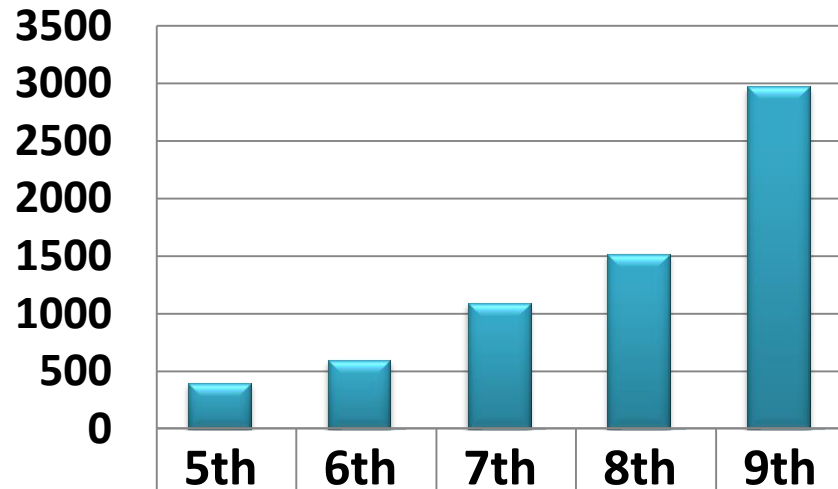


Research & Development Expenditure 2009



Malaysia's R&D Expenditure 0.6% of its GDP

-2009



Malaysia's Expenditure on R&D (RM Million)	400	600	1,096	1,524	2,971
Percentage Increase in R&D Expenditure	0%	50%	83%	39%	95%

December 2009 Report:

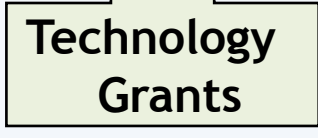
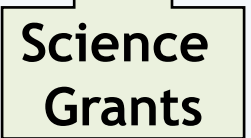
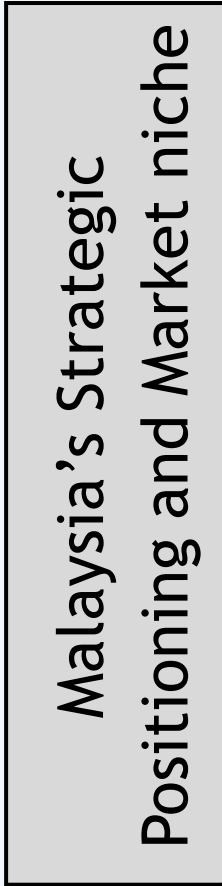
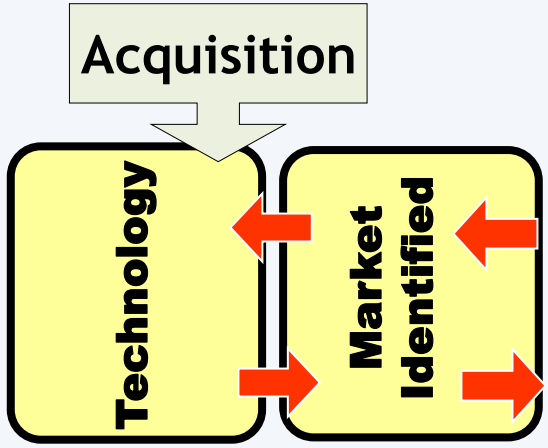
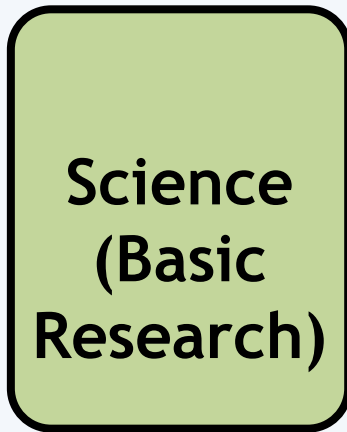
- USA (2.8%)
- South Korea (3.3%),
- Finland (3.9%)
- Taiwan (2.4%).

National Innovation Model Technology Focused

Focused

Approach 1:
Technology Driven Innovation (TDI)

Approach 2:
Market Driven Innovation (MDI)



Funding Landscape



GRANTS

LOANS

VENTURE
CAPITAL

ANGELS



Individual /
Groups

Companies

Universities
/ Research
Institutes

Opportunities for Funds

Patent
Tech Transfer

Collaboration
with industry

BioTech Corp

Further product
development

Product Market
Opportunities
Feasibility study

CRDF 1

CRDF 2-3

Product development
New benefit
Safe

Garage
fund

sale

Techno fund

Commercial
Production

Market
Development

Product
Sales

ScienceFund

Innovation of products or processes for further development & commercialisation



\$91k

Lab scale investigation for production of CQ10

Max: \$162K



TechnoFund

Develop products & technologies for pre-commercialization stage



**Max:
\$1.6 Million**

**Pilot scale production
of CQ10
\$1.6 Million**

Commercial plant - VC - \$20 million

InnoFund

encourage innovation of
new or existing products,
process, or services for
commercialisation



\$16 – \$162K

Ministry of Higher Education (MOHE)



Fundamental Research Grant Scheme (FRGS)

Encourage development of new ideas/ concepts/theories for new findings, knowledge, development & inventions

Exploratory Research Grant Scheme (ERGS)

Explore new ideas & concepts catalyst for new discoveries & inventions

Long Term Research Grant Scheme (LRGS)

Fundamental research - studies of more than 3 years



**Prototype
Research Grant
Scheme**

**Research for product development
prior to commercial launch**

**Toray Science
Foundation -
S & T Research
Grant**

**Conduct fundamental scientific
research which has the potential to
contribute greatly to the
advancement of S&T**



Malaysian Technology Development Corp. (MTDC)

A Govt. – Industry Venture Capital Co.

Commercialisation R&D Fund (CRDF)

CRDF 1

**\$162K
or 90 %**

- Commer. activities of locally developed technologies/R&Ds
- Focus on business development & producing product via out-sourcing mode

CRDF 2

**\$162K
or 70 %**

- Must operate from Technology Centre



Technology Centre



CRDF	Recipient	Tech.	Grant Amount	Duration
1	Univ/RI spin-off Co.	Completed ready made /prototype	\$162K or 90%	2 yrs
2	As above		\$162K or 70%	
3 a	SME		\$1.3 million or 70%	2 yrs
3b	Non-SME		\$1.3 million or 50%	2 yrs

The Business Growth Fund (BGF)

- ❑ A transition & a bridge from grant to VC financing
- ❑ A mix of 2 components:
 - a grant portion
 - an equity portion
- ❑ Structured as VC financing – more flexible



Build enough "commercial" value in Co. to make it attractive for financing by VCs & others



SYMBIOSIS

Graduate Entrepreneurship Program

- Train selected graduates to become technopreneurs
- Startup** Co. to commercialise Uni/Ri IPs
- Receive fund & nurturing & other value added services



- **Promote commer. of R&D output of Uni/RI**
- **Increase pool of young entrepreneurs with excellent business knowledge & skills**

Facilitate Co. acquire foreign technologies for immediate incorporation into Co. manufacturing activity

- **Japan** microalga production for Astaxanthin - enclosed **“Dome”** shape type **Photo-bioreactor**



- Catalyst targeted at budding entrepreneurs
- Helps local start-up companies to attain commercialisation

**The Co. owns IP
rights of product
or service**

**Co. has a prototype which requires
another 8% to 10% product
refinement to meet market &
industry expectations**

Max: \$161,500



Biotechnology Commercialisation Fund (“BCF”)

Term loan/financing

- Facilitate on-going commercialisation of biotechnology products & services
- Facilitate expansion of existing biotechnology business

Maximum \$1 million

Interest rate - 5% - 6.25% monthly rest basis



BIOTECHCORP
MALAYSIAN BIOTECHNOLOGY
CORPORATION

Typical expenditure:

BCF

Term loan/ Financing

a. Project/Machinery

- Expansion of production, research & service related facilities
- For production or laboratory equipment



b. Working Capital

BCF

**Term loan/
Financing**



- IP filing
- Clinical or field trial
- Raw materials, consumable or livestock
- Compliance & regulatory costs
- R&D towards improving existing products/ services – No salaries
- Business expansion to introduce products/services into global market

Other sources of funding

**KeTTHA -
Green Tech.
Financing Scheme**

Help incorporate green technology elements in specific project

**MATRADE -
Market Develop
Grant**

Assist SMEs expand to overseas market

**Multimedia Super
Corridor R&D
Grant**

Innovative of ICT/multimedia products -potential commercialisation

**MDEC –
IP Grant Scheme**

Delivery of the No. of IP rights protected & commercialised for MSC Malaysia

Tax Incentives



R&D incentives:

- Investment Tax Allowance (ITA)
- Super Deductions
- Enhanced benefits for Pioneer Status

Investment Tax Allowance (ITA)

- In-house R&D - **50%** on capital expenditure incurred within 10 years
- R&D service providers - **100%** capital expenditure incurred within 10 years
- Any unutilized allowances can be carried forward to subsequent years



Investment Tax Allowance (ITA)



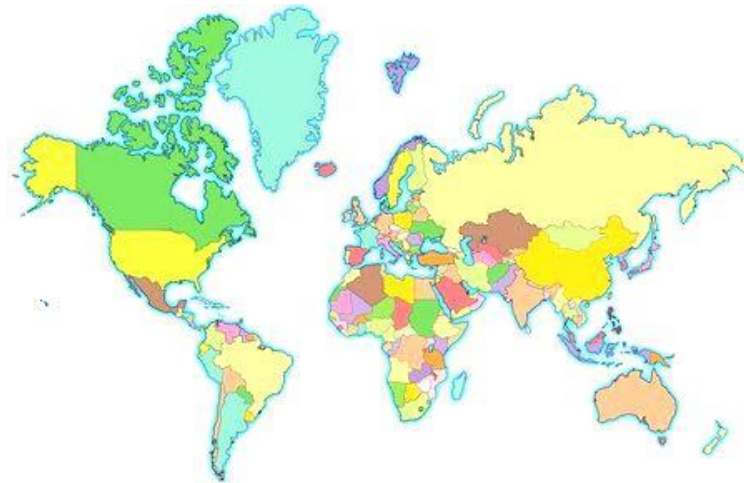
If an R&D Co. does not claim benefit for services provided to related companies, the related Co. can receive a **200% super deduction** for payments made to R&D Co.

200% Super Deductions

- In-house R&D can claim **200% super deductions** for non-capital expenditures
- Cash donations to research institutes
- Payments for use of services of RI, RC



200% Super Deductions



R&D activities undertaken outside of Malaysia

Including the training of Malaysian staff

Enhanced Benefits for Pioneer Status

- ❑ Income from activities & products that benefit economy
- ❑ R&D companies:
 - high tech
 - software development companies
 - manufacturing
 - producing world class products
- ❑ Tax exempted for **5 years** can extend addition 5 years





Biotechnology Co. approved with BioNexus Status

- Tax exemption on 100% statutory income for **10 years**
- Tax exemption on dividends



Angel Tax Incentive

Angel accorded a tax relief of up to \$161,500 p.a. in the 3rd year (after 2 years) of his/her shareholding.



PROF. DR. MD NORDIN HJ LAJIS
Professor

Department of Chemistry
Faculty of Science
Natural Product Chemistry:
Organic Synthesis



**“Challenges
are seeds for
success.
Complacency
breeds failure”**

a world leader in **new** tropical agriculture

**“Challenges are seeds for success.
Complacency breeds failures”**

Academic Award



**National University Best Commercialised
Product Award - \$13K**

Royal Award

*Bestowed
the honorific
title
“Dato” (Sir)*



National Awards

- ❑ Cash prize – **\$16 K**
- ❑ **Award Logo** for publicity purpose for 3 years
- ❑ **Tax exemption** of 100% of value of increased export (VIE) for winner of Export Excellence Award
- ❑ **Free** standard booth for 3 international trade fairs



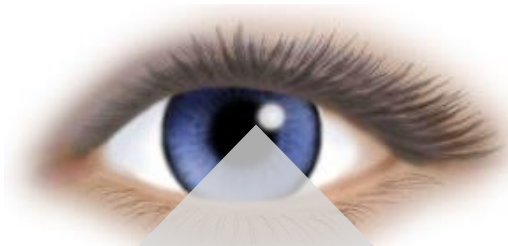
National Awards

- ❑ **Publicity** overseas on profile of Co. together with its products & services
- ❑ Nominated for **Prime Minister's Industry Excellence Award**
- ❑ Given **priority soft loan**
- ❑ **Publicised** in newspapers





Challenges



COMPLEXITY

Technology

Economics

Learning Theory

Systems

Generic Strategy

PIMS

Tools

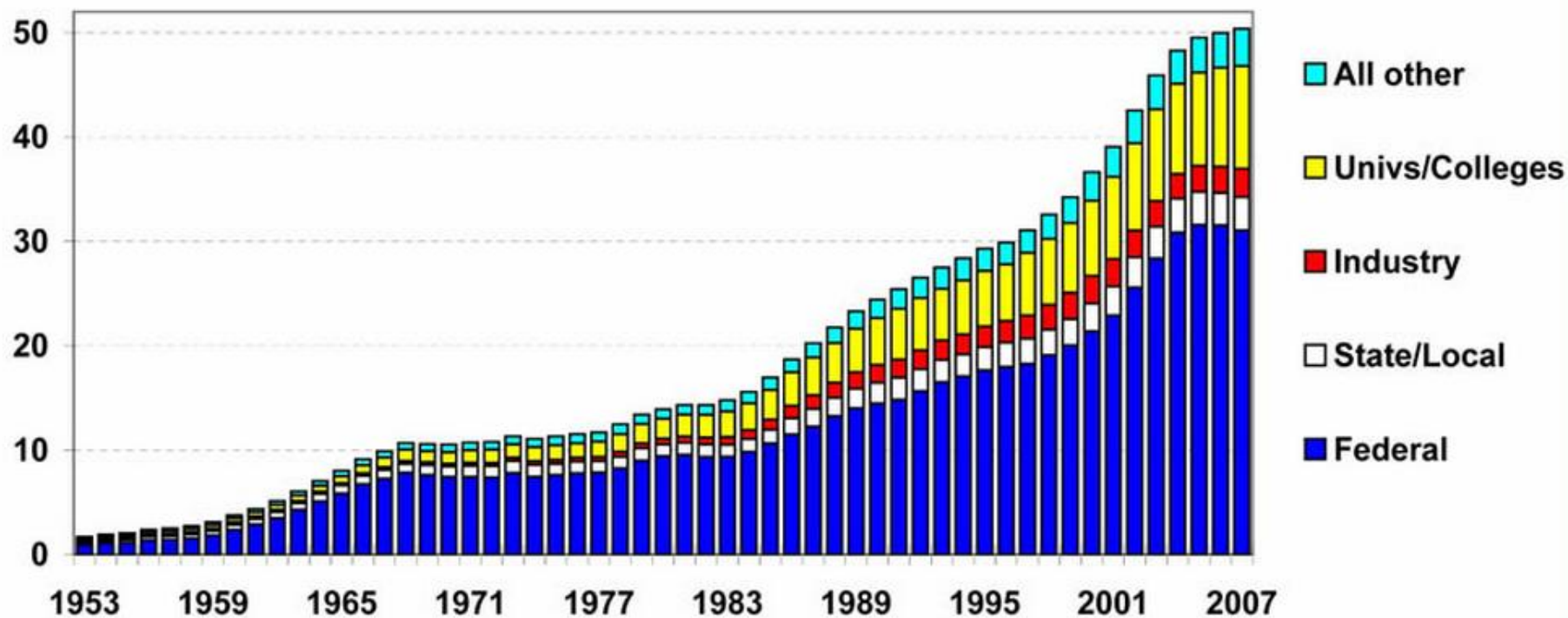
Creativity/Innovation

Human Behaviour

SCOPE OF STRATEGY RESEARCH

Weak linkages between Univ. /RI - industry

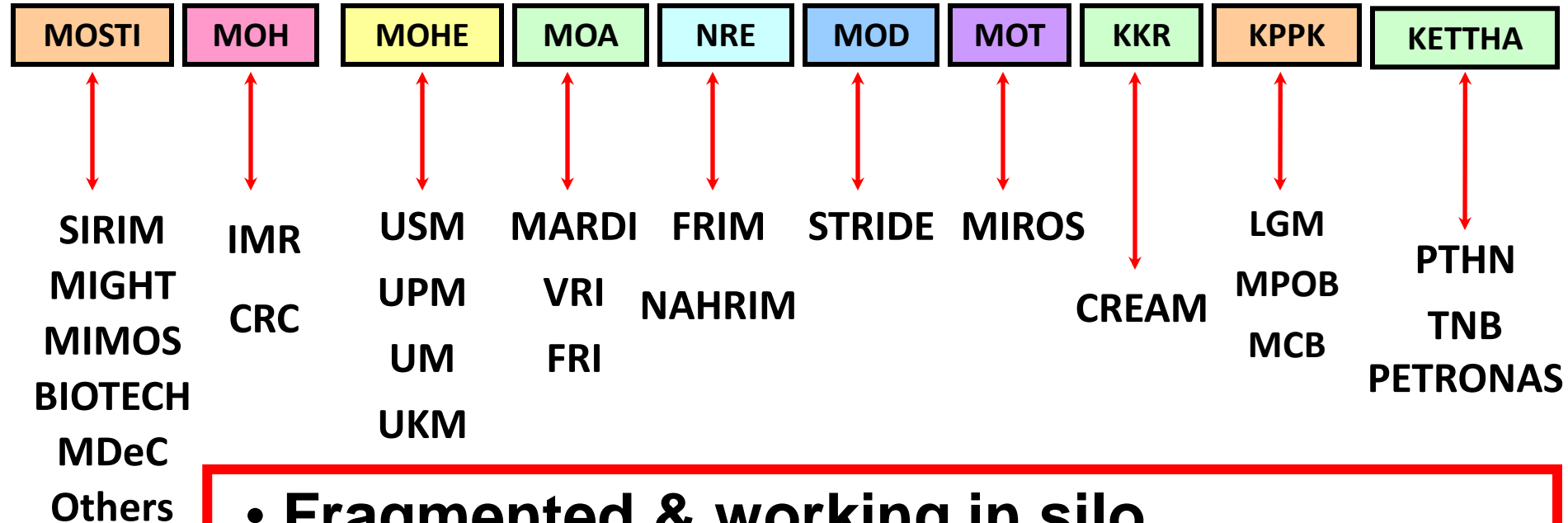
R&D at Colleges and Universities by Source of Funds
in billions of constant FY 2008 dollars, FY 1953-2007



Early stage collaboration with industry partners



Fragmented research activities within ministries

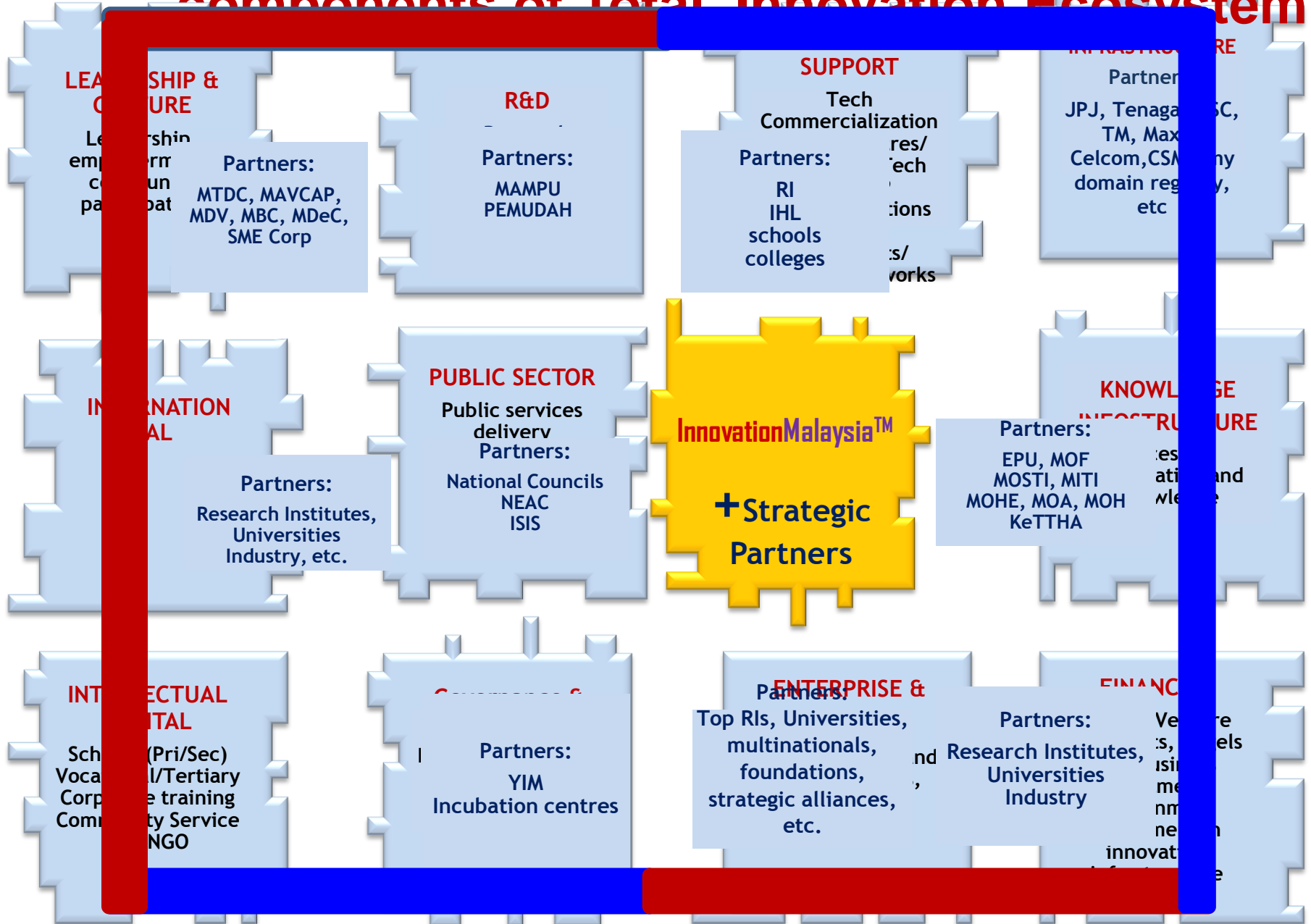


- **Fragmented & working in silo**
- **No single agency to collaborate R&D**
- **No centralised database on R&D**
- **R&D allocation is not optimally utilised**

And in reality, gaps exist at implementation level by the various factors...



Need to facilitate and synergise all components of Total Innovation Ecosystem

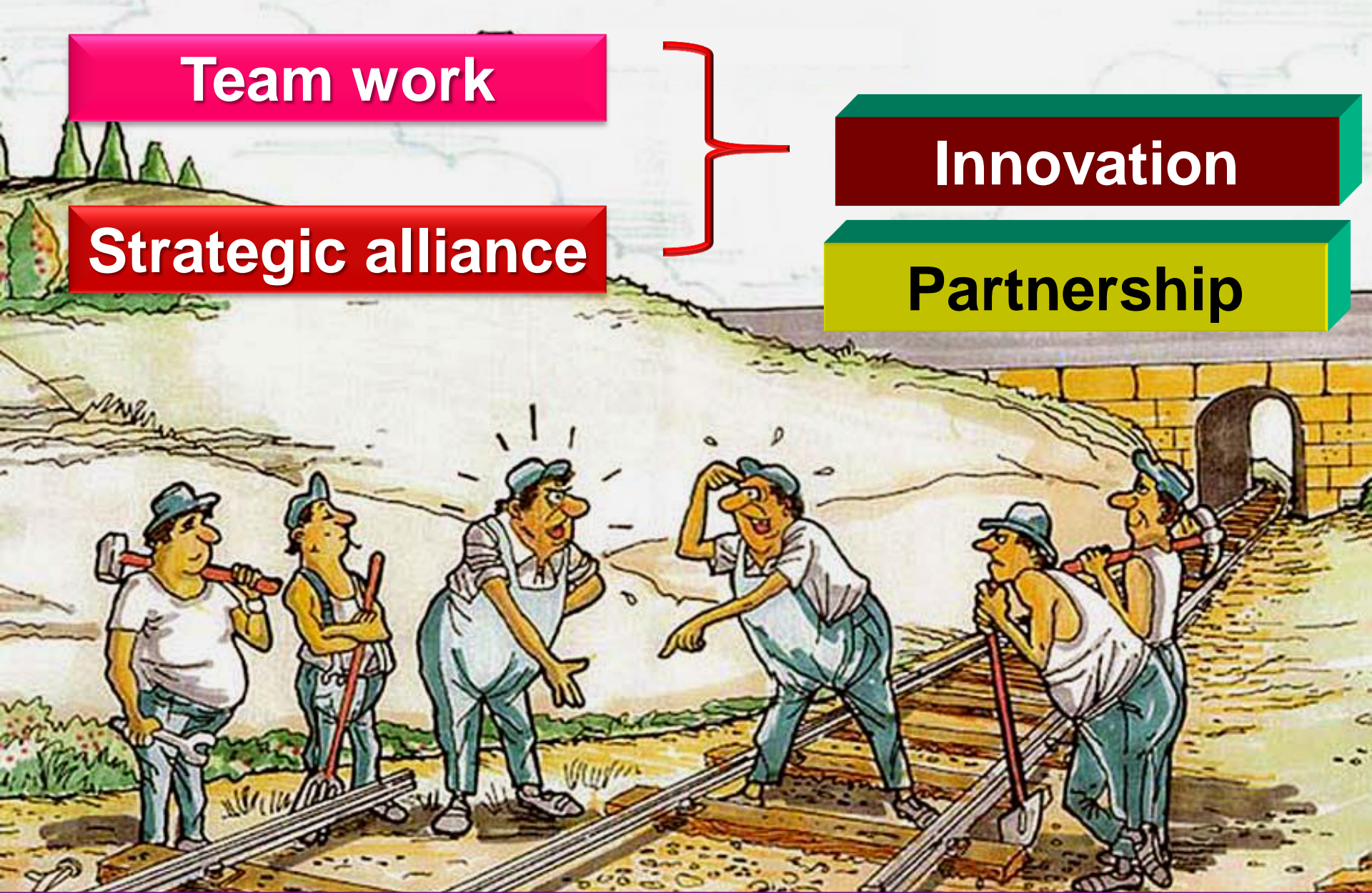


Team work

Strategic alliance

Innovation

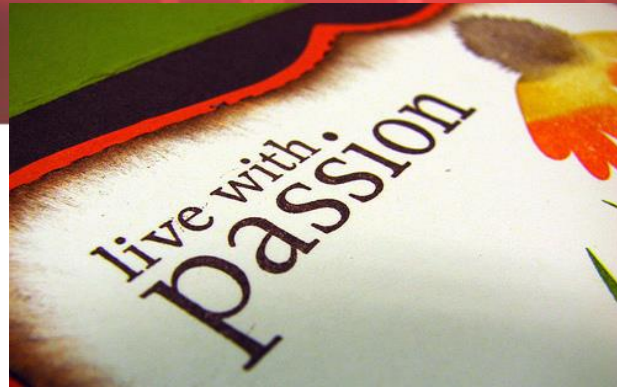
Partnership



Same vision, mission & wavelength!

The secret of





Whatever you do,
do it with

Passion

Twin Towers

Asante

Terima Kasih

