



## Topic 8: The Effective Use of IP for Business Competitiveness and Market Development

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*African Conference on the Strategic Importance of Intellectual Property (IP) Policies to Foster Innovation, Value Creation and Competitiveness*  
organized by WIPO and JPO in cooperation with Government of United Republic of Tanzania,  
*Dar es Salaam, United Republic of Tanzania, March 13, 2013*

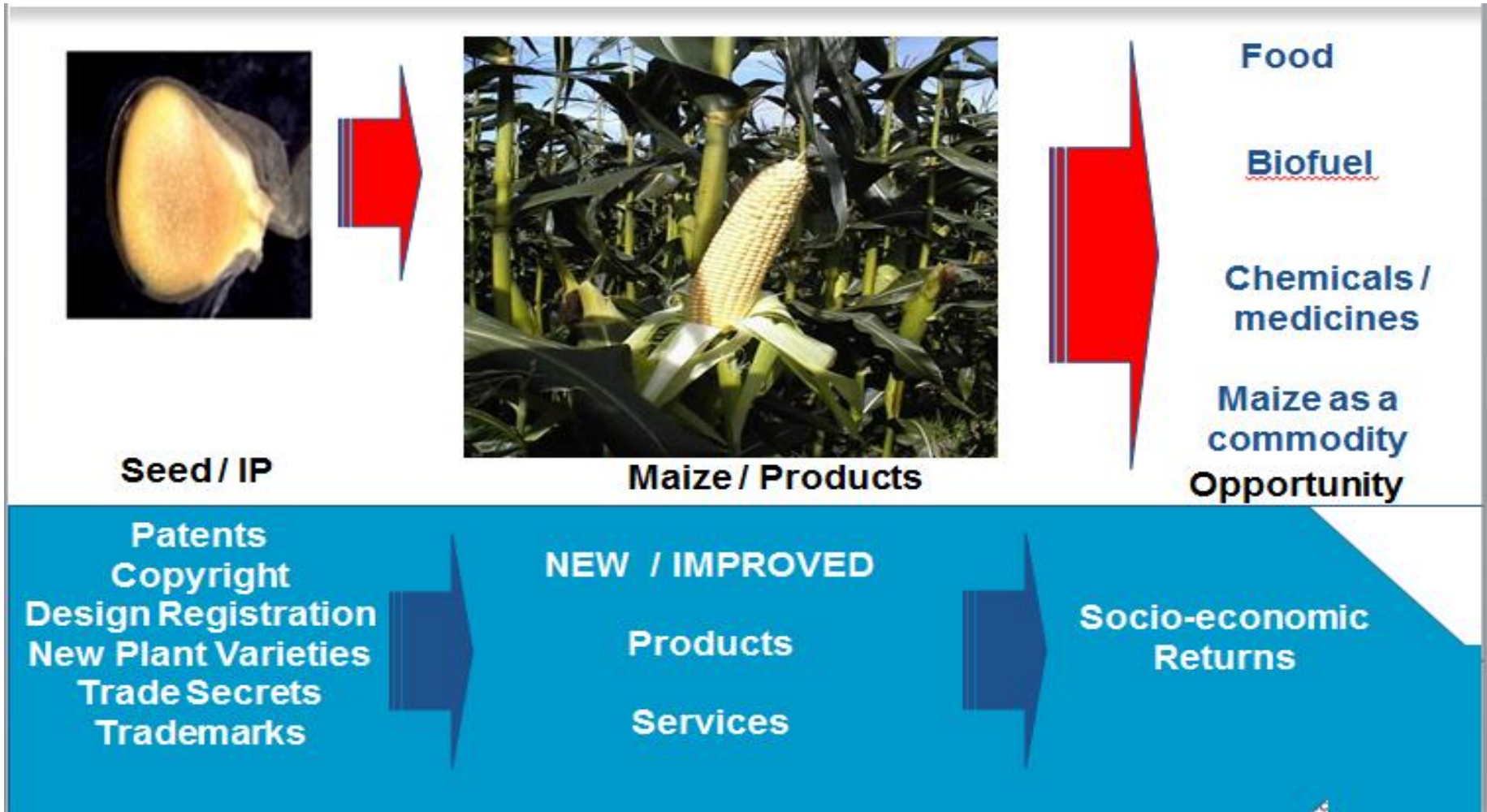
# Presentation Outline

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- Introduction
- Patent System
- Managing Intellectual Property
- Open Innovation, Intellectual Property and Business
- Concluding Remarks

# Introduction

## *Intellectual Property and Innovation Value Proposition*



# Introduction

## *Intellectual Property Value Proposition*

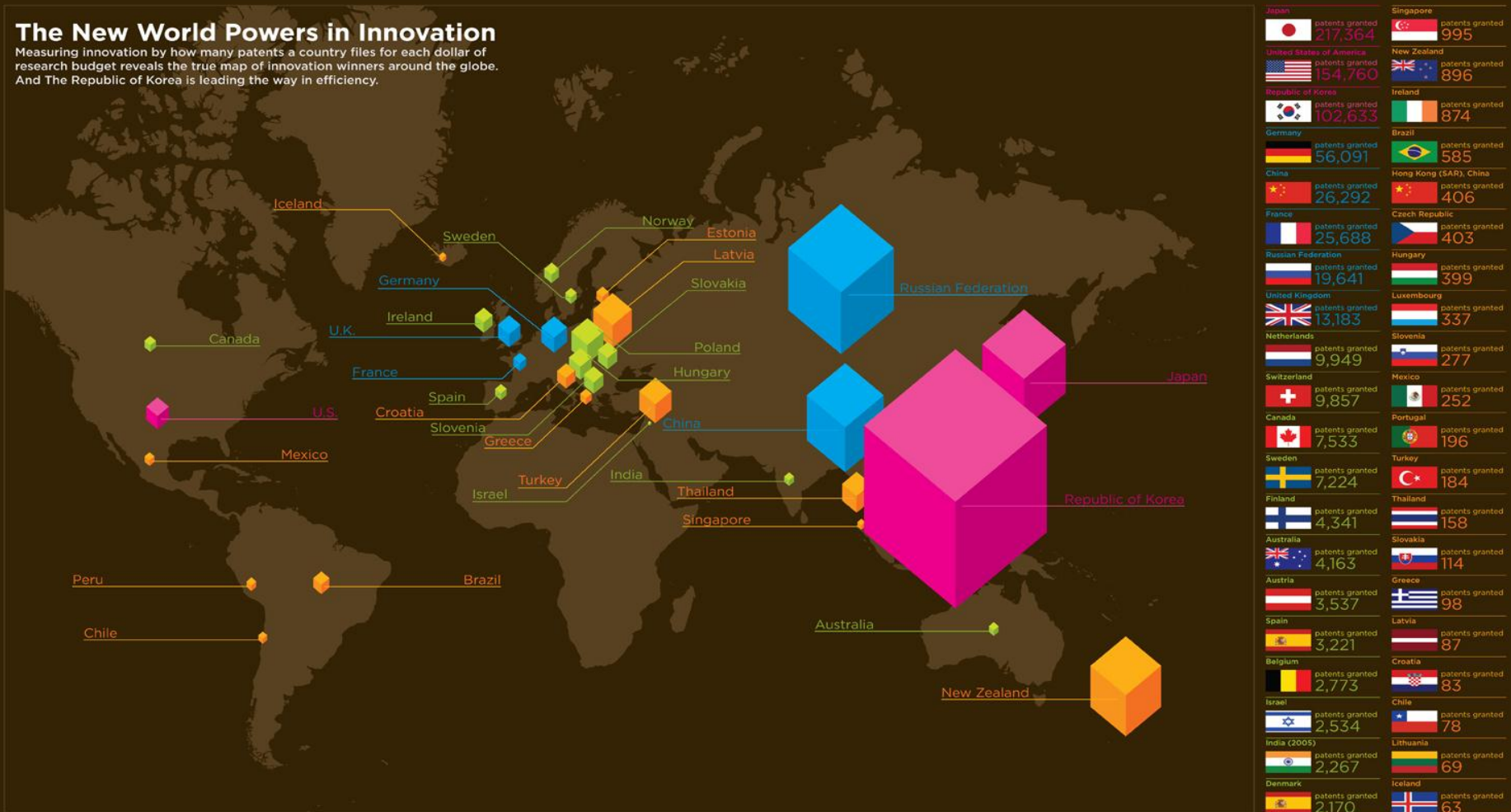
The World Economic Forum Global Competitiveness Report indicates a correlation between the protection of intellectual property rights and national competitiveness. In 2004, the 20 countries that were perceived as having the most stringent intellectual property protection were classed among the top 27 in the WEF's growth competitiveness index. Conversely, the 20 countries perceived as having the weakest intellectual property regimes were ranked among the bottom 36 for growth and competitiveness.

# Introduction

## Africa and Intellectual Property

### The New World Powers in Innovation

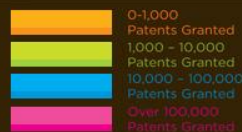
Measuring innovation by how many patents a country files for each dollar of research budget reveals the true map of innovation winners around the globe. And The Republic of Korea is leading the way in efficiency.



### Patent Filings Per Research and Development Expenditure

Figures taken from "World Patent Report: A Statistical Review (2008)"  
Supplied by the World Intellectual Property Organization

The size of the box illustrates relative patent filings per R&D expenditure



#### No Data Available for the Following Countries

Albania, Angola, Benin, Chad, Dominica, Gabon, Ghana, Iraq, Libyan Arab, Jamahiriya, Papua New Guinea, Saint Kitts and Nevis, United Republic of Tanzania, Ethiopia, Marshall Islands, Mauritania, Saint Vincent and the Grenadines, T F Y R of Macedonia, Bahrain, Nigeria, Oman, Cameroon, Bolivia, Vietnam, Saint Lucia

# Patent System

## *Basis for Patent System*

❑ 1603 British courts ruled that ...*patents only good when they benefit the public as a whole*

“Where any man by his own charge and industry or by his own wit or invention doth bring any new trade into the realm or any engine tending to the furtherance of a trade that was never used before and that for the good of the Realm; that in such cases the King may grant to him a monopoly patent for some reasonable time ... otherwise not”

# Patent System

## *Basis for Patent System as System for Competitiveness*

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- ❑ Patents grant a limited negative rights:
  - Exclude others (without permission) to manufacture, exercise, dispose, import, use the patented invention
  - Rights owner can grant permission - enable use of invention
  
- ❑ Rights are limited
  - 20 year period, subject to maintenance
  - Territorial – opportunity to exploit where no patent protection
  - Subject to rights of third parties
  
- ❑ Disclosure requirement important
  - Scope of protection clear in claims
  - Sufficient disclosure of invention
    - Teach the invention / Enable others to build on

# Patent System

## *The Patent Document*

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- Patent document more than just a document
    - Source of state of art before embarking on R&D
    - Suppliers
    - Potential commercialisation partners
    - Developments by competitors
    - Validity and scope of patents
    - **Search reports**
-



# Patent System

## *The Patent Document*

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- ❑ A source of most up to date technology
  - State of art before filing a patent application
  - Avoid duplication in the innovation process
  - Jump-start own innovation process and ride on back of others developments
  
- ❑ Source of market intelligence
  - citation analysis
  - assignee analysis
  - filing rates
  - inventors and hence resources to be acquired

# Patent System – Citations

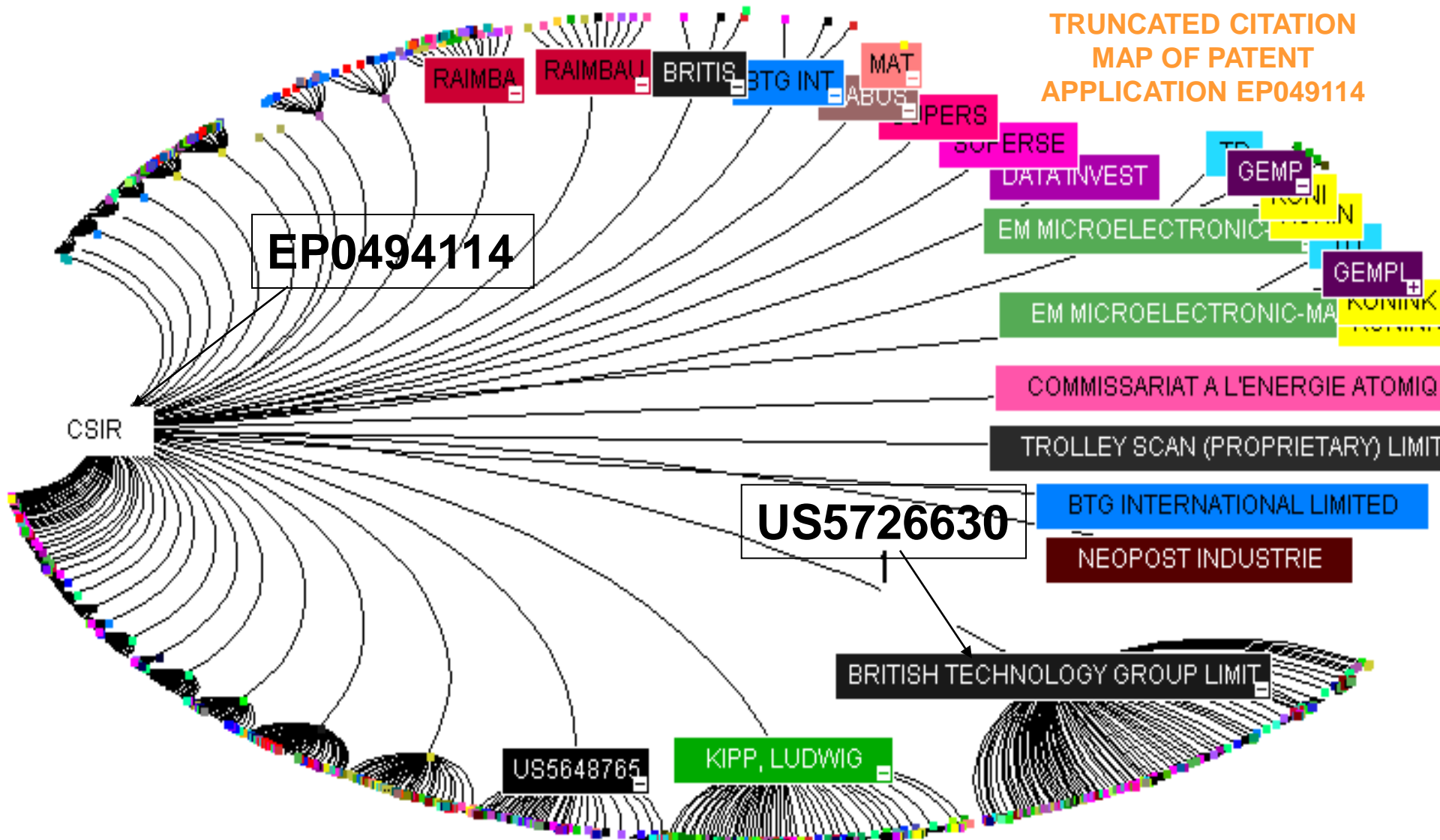
## Top 10 Most Cited Patents (1991 - 2005)

source document list: ZA LANDSCAPE US EP GRANTED 1991 to 26 Sept 2005

Document ID	Assignee	Cited by	Percentage
US5144660	NONE	101	1.2%
US5586937	NONE	94	1.2%
US5007207	NONE	93	1.1%
US5566441	BRITISH TECHNOLOGY GROUP LIMITED	91	1.1%
US5519381	BRITISH TECHNOLOGY GROUP LIMITED	72	0.9%
US5214410	CSIR	69	0.9%
US5726630	BRITISH TECHNOLOGY GROUP LIMITED	65	0.8%
US5316877	TECHNOLOGY FINANCE CORPORATION (PROPRIETARY) LIMITED	61	0.8%
EP0494114	BRITISH TECHNOLOGY GROUP LIMITED	60	0.7%
US5537105	BRITISH TECHNOLOGY GROUP LIMITED	54	0.7%
<b>Number of citations in Top 10 documents</b>		<b>760</b>	
<b>Total number of citations</b>		<b>8142</b>	
<b>Number of documents after filter</b>		<b>2051</b>	
<b>Total number of documents in group</b>		<b>2051</b>	

# Patent System – Citations

Top 10 Most Cited Patents (1991 - 2005): EP0494114





# Patent System – Citations

## Citations Analysis .... Lithium Manganese Oxide Patents

Forward & Backward Citations US4980251 : Method of synthesizing a lithium manganese oxide



Organizations

● [1] Csiir, Administrati...	● [9] Nanogram Corp	● [8] Fmc Technologies, ...	● [4] Oryx Technology Co...	● [3] C.a.r.u.s. Informa...
● [2] Showa Denko Packag...	● [2] Valence Technology...	● [2] Bell Communication...	● [2] Motorola, Inc.	● [2] Sanyo Electric Co...
● [2] Panasonic Storage ...	● [2] Sony Corporation	● [2] Kerr-mcgee Stored ...	● [2] The Procter & Gamb...	● [2] Japan Finance Corp...
● [1] Tronox Incorporated	● [1] The National Energ...	● [1] Mitsui Mining & Sm...	● [1] Foundation Science...	● [1] Honjo Chemical Cor...
● [1] Proprietary Techno...	● [1] Alstom Sa	● [1] Ngk Spark Plug Co...	● [1] Mitsubishi Chemica...	● [1] Spectrum Brands
● [1] Panasonic Corporation	● [1] Siemens Healthcare...	● [1] Csiir	● [1] Gs Yuasa Corporation	● [1] Zentrum Fur Sonnen...
● [1] Elbit Systems Ltd.	● [1] Seiko Instruments ...	● [1] U S Department Of ...	● [1] Avestor Ltd Partne...	● [1] Delphi Corporation



# Managing Intellectual Property

## *The IP Landscape ... 1/4*

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- Understand the IP landscape
  - Who are the key technology players
  - What are the complimentary IP
  - Searches
  - Mapping
  - Citation Analysis
  
- Holistic approach to IP
  - Not just patents

# Managing Intellectual Property

## *The IP Landscape ... 2/4*

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### □ Searches

- Novelty searches – when deciding to file
- Freedom to Operate searches – commercial strategy
- Submarine effect – 18 month window
- Territoriality
- Patent families
- Prosecution history
- Validity



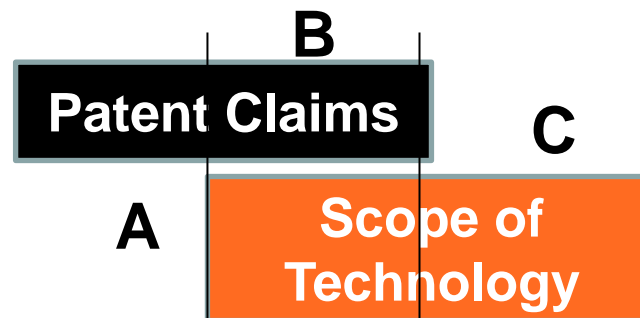
# Managing Intellectual Property

## *The IP Landscape ... 3/4*

### □ Scope of Claims

- Number of claims – caution against focus on Claim 1
- Do the claims protect the key product features
  - Demand drivers
  - Premium price justification

### □ Risk or threat presented by competitors' portfolios



# Managing Intellectual Property

*The IP Landscape ... 4/4*



***Hope!***

## **PATENT:**

- US patent
- EP patent (limited rights)
- National Patent
  - Tanzania patent
  - Australian patent
  - Japanese patent

## **PATENT APPLICATION:**

- Provisional patent application
- PCT application
- National patent application



***The Brat is here!***

# Managing Intellectual Property

## *Intellectual Property Audit ... 1/2*

- ❑ Database of all intellectual property owned / right of use
  
- ❑ Invention Disclosure processes
  - ❑ Inventor / originator / ownership
  - ❑ Contracts of employment / SLAs
  
- ❑ Patents, Design Registrations and Trademarks
  - What product / service does this intellectual property cover
  - Where is the monopoly?
  - Are you exploiting it in all the territories?
  - Opportunities for licensing and generating new revenue streams
  - How much time of protection still remaining?
  - When are renewals due?

# Managing Intellectual Property

## *Intellectual Property Audit ... 2/2*

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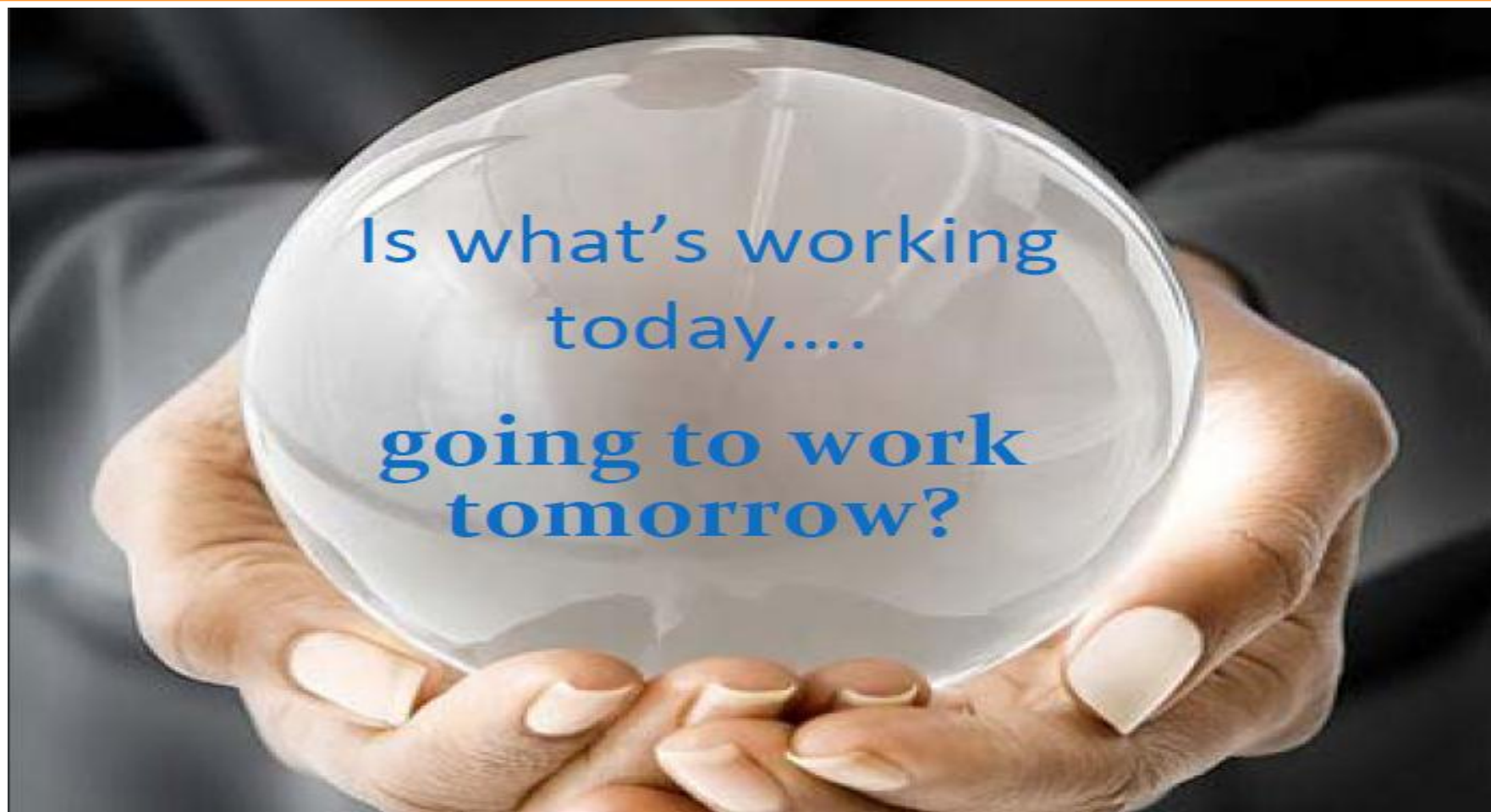
### □ Copyright

- What
- What product / service does this intellectual property cover
- Documentation to prove copyright
- Ownership
- Trackers for infringement

### □ Trade Secrets

- Commercial value in secret?
- Procedures in place for secrecy
- Product / service
- Who is producing – high tech and low tech

# Open Innovation, Intellectual Property and Business ... *The Procter & Gamble Story .... 1/3*



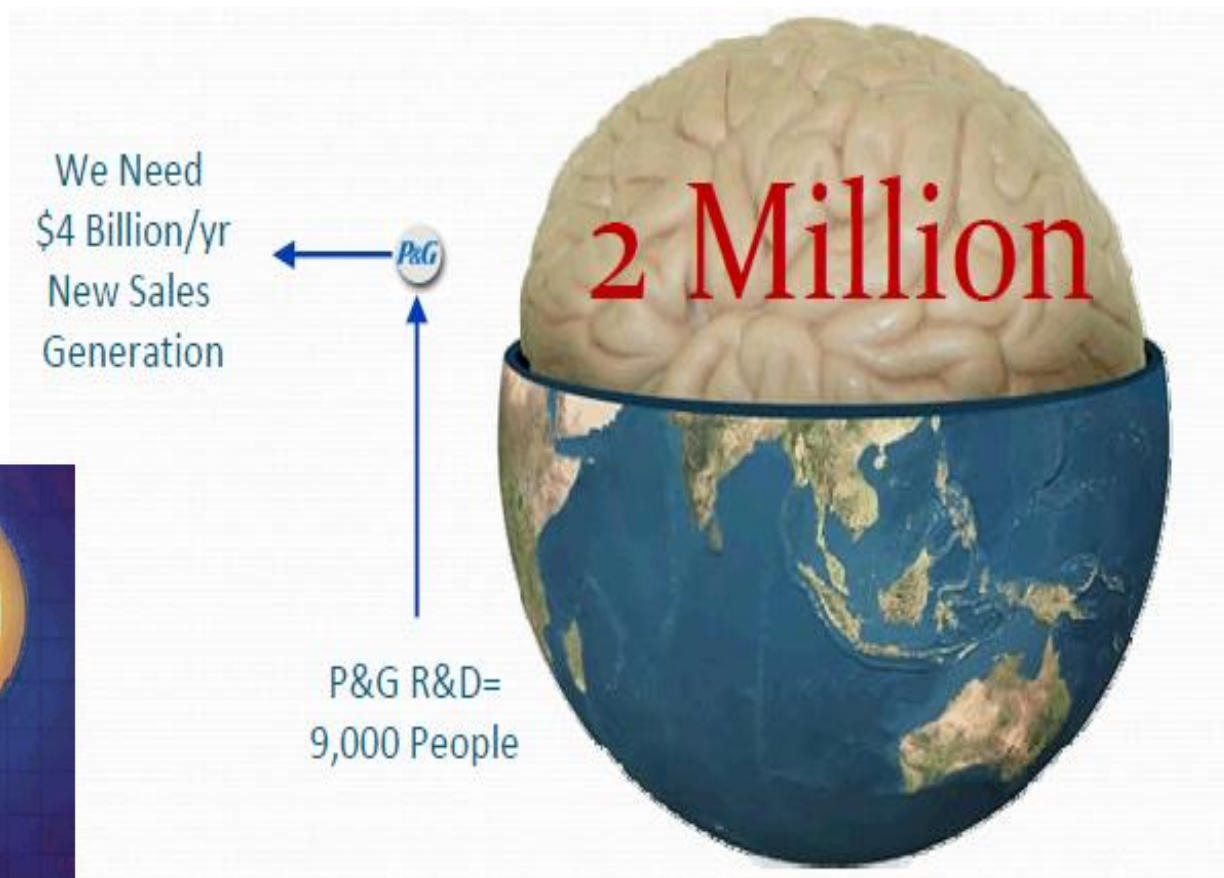
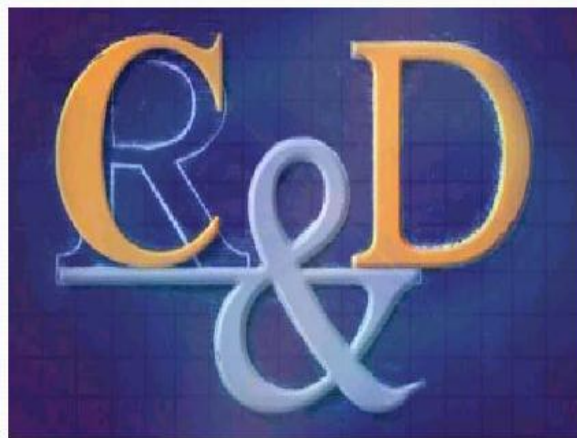
**Courtesy** - Professor Roy Sandbach, Procter & Gamble, June 20th 2011, International Association of Science Parks, World Congress, Copenhagen.

# Open Innovation, Intellectual Property and Business ... *The Procter & Gamble Story .... 2/3*

FROM

# R&D

to



# Open Innovation, Intellectual Property and Business ... *The Procter & Gamble Story .... 3/3*

## Vision

## Previous

### Scope

- Acquire 50% of ideas externally

<25% of Innovation Externally Sourced

### Focus

- Cooked Ready-to-Go Technology
- Cooked Ready-to-Go Products/Designs
- Disruptive Technologies/Designs
- Commercial Designs/Innovations

Mostly Technology Leads That We Reduce to Practice

### Rewards

- Shared Risk/Reward Agreements

P&G Pays and Owns Everything

### Organization

- Manage Know-How and Know-Who

Manage Know-How

### Intellectual Property

- License, Sell, and Donate Where Appropriate

Keep It Within P&G

# Concluding Remarks

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- ❑ Intellectual Property important as mechanism of incentive and progress for innovation and development
- ❑ In knowledge based economy, intellectual property is the new currency
- ❑ Essential that intellectual property is:
  - Relevant to the business
  - Protect actual or emerging business interest
- ❑ Open Innovation provides real opportunities to fast-track development and commercialisation – IP enables open innovation



# Thank You!

## The Innovation Hub

Innovation Catalyst for a Smart Province: Gauteng,  
Republic of South Africa

[www.theinnovationhub.com](http://www.theinnovationhub.com)

