

NATIONAL GRADUATE CONFERENCE 2012 (NATGRAD 2012)

“Promoting Innovation and Excellence in Research”

**DATE:
8th - 10th November 2012**



**PUTRAJAYA CAMPUS,
UNIVERSITI TENAGA NASIONAL**



National Graduate Conference 2012

8 -10 November 2012

UNITEN

KEYNOTE ADDRESS

**PROMOTING INNOVATION AND
EXCELLENCE IN RESEARCH**

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Professor Dr. Zainal Ariffin Ahmad
Doctor of Education (Ed.D.) 1994, M.B.A. 1989, B.Sc. 1987
Northern Illinois University

Head, Graduate Business School, UNITEN,
2010-present

BRAIN (Business Research for Applied Innovations in Neurosciences) Lab,
Graduate School of Business USM (2009) –
research on decision making and innovation.

Head, Human Development Lab at the
School of Management USM (2007-09) -
research on EEG brainwaves, learning and
creativity.

Anugerah Akademik Negara 2008 –
Recipient of the National Academic Award for
Teaching in Applied Arts and Social Sciences

Recipient of the **USM Outstanding Educators Award** 2007

Visiting Research Fellow, University
of New South Wales, 2009-2011

20 years of training, research and
consultancy experiences at Northern
Illinois University and Universiti Sains
Malaysia.

Conducts seminars, workshops,
consultancies & in-house training for
academic, public sector and corporate
clients on skills-based training, climate
& employee satisfaction survey,
strategic planning, neuroleadership,
adult learning, human resource
management, diversity, cross-cultural
communication, quality, productivity,
brain and mind.

Agenda

Promoting Innovation & Excellence in Research

In this keynote, I would like to draw the participants' (engineers, researchers, scientists, entrepreneurs, and students) attention on their roles in addressing the issues and challenges of promoting innovation and excellence in research at the international, national, organizational and individual levels.

INTERNATIONAL

World Innovation Forum KL “Inclusive Innovation for Transformation” <http://www.wifkl.com>

- KL Innovation Forum 2012
- BioMalaysia 2012 Conference & Exhibition
- NanoMalaysia Summit & Expo 2012
- National Innovation Conference and Exhibition (NICE) 2012
- Eight satellite events
- The World Innovation Expo
- Jejak Inovasi (www.YIM.JejakInovasi)



3 -7 NOVEMBER 2012
Kuala Lumpur Convention Centre
Malaysia

INCLUSIVE INNOVATION
FOR TRANSFORMATION



Inclusive Innovation

WIF-KL addressed key drivers and unique issues surrounding policies, framework strategies and best practices of innovative nations for all members of society, including the bottom billion.

During the opening dialogue session on “Invent, Innovate, Commercialize”, the discussants deliberated on topics:

- future trends of innovation
- the role of the financial sector
- financial innovation in promoting SMEs
- social innovation
- innovative solutions to climate change
- sustainable energy sources for a green and clean 21st century.

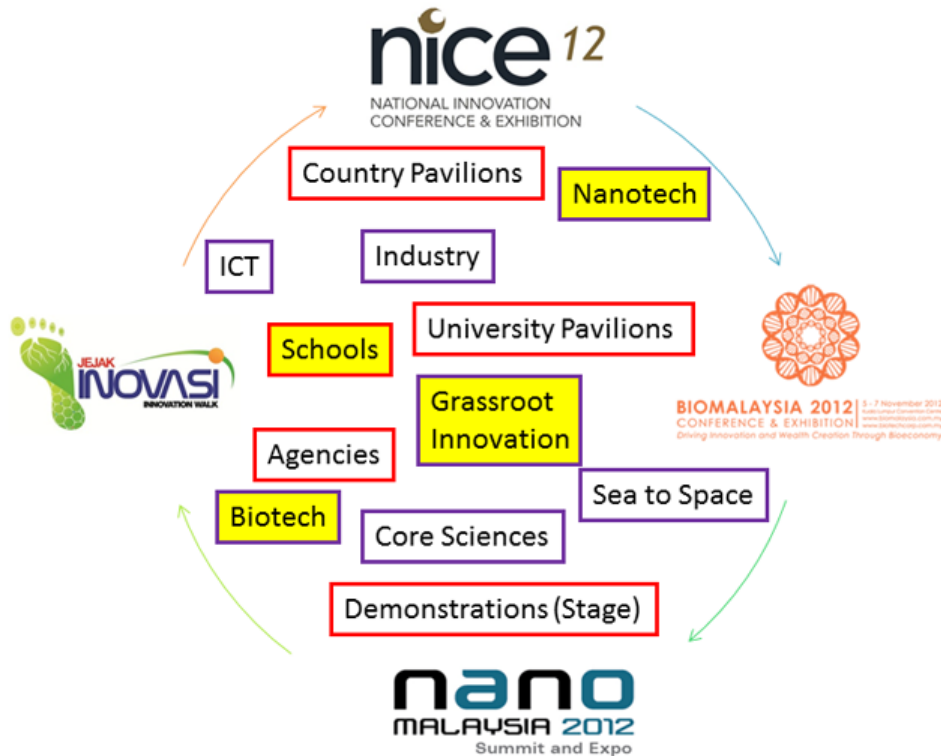
Question 1

- NatGrad – with 116 papers presented:

Q1. How many of us fit into the global move towards inclusive innovation for transformation?

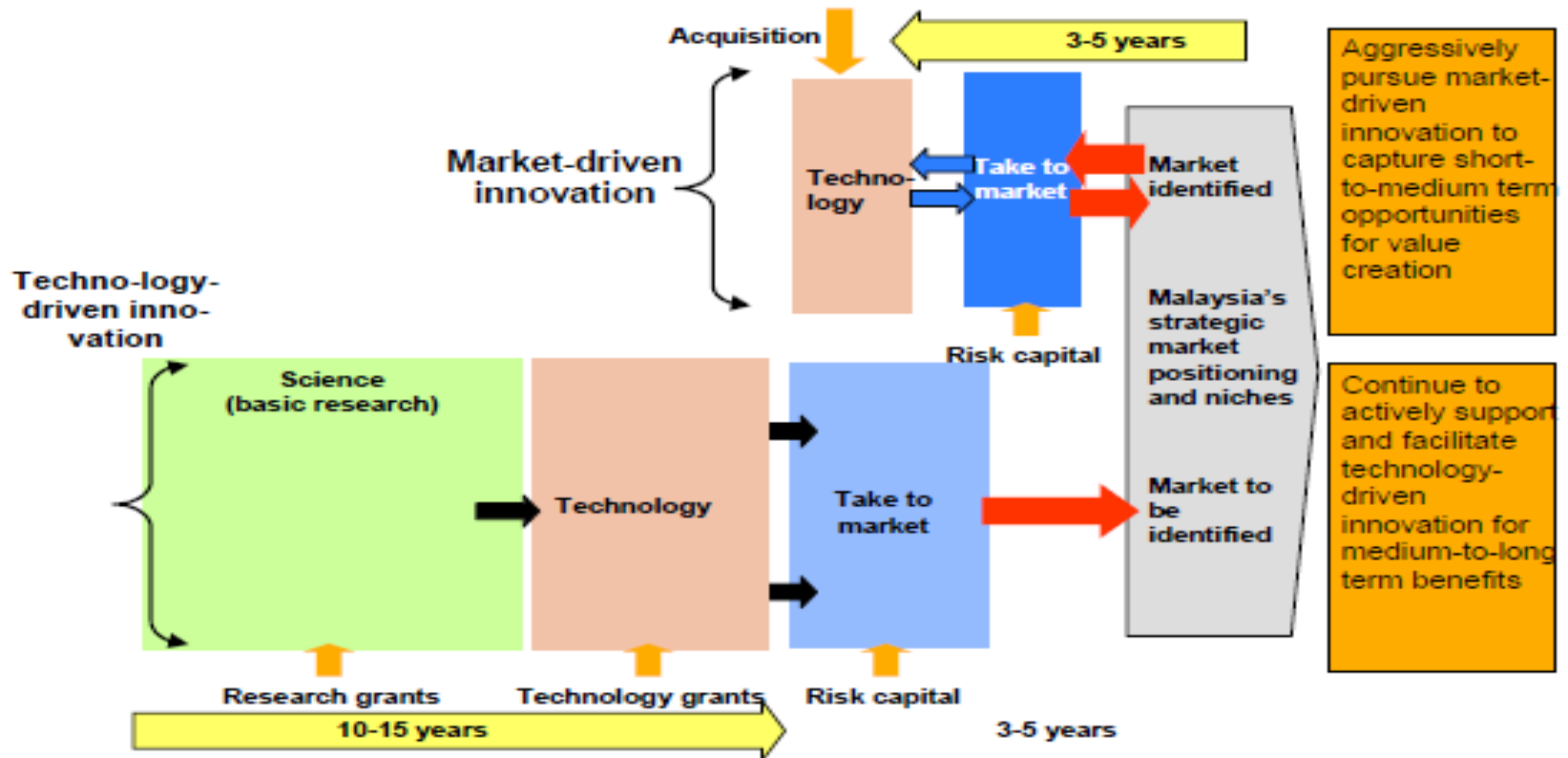


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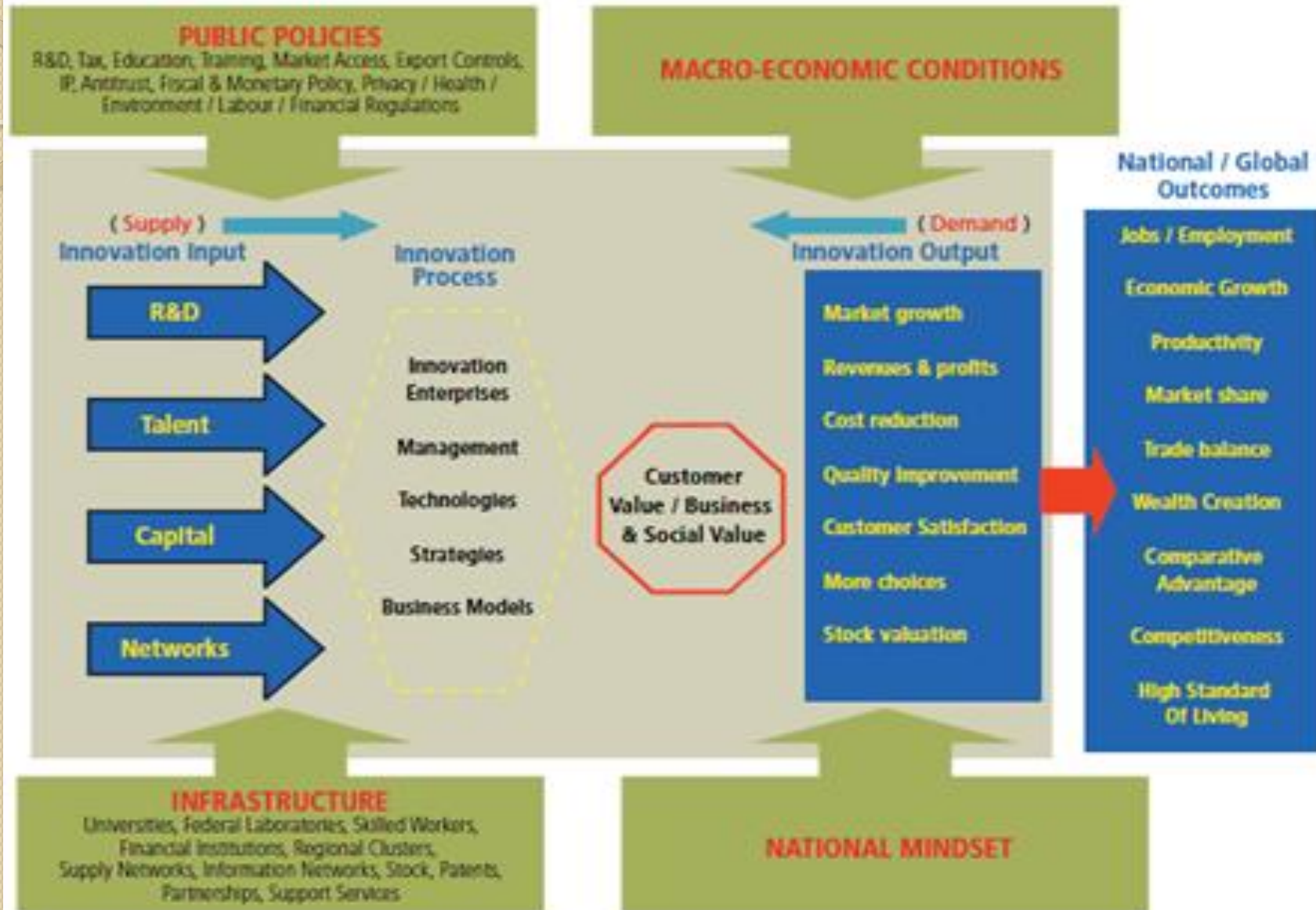
NATIONAL

The Balance Approach of Market and Technology Driven Innovation Adopted by Malaysia



Malaysia needs a new breed of SMEs and entrepreneurs to create a high income economy via an innovation-led economy.

National Innovation Ecosystem



Question 2

SME Masterplan (Pelan Induk PKS) 2011-2020 37% KDNK RM 15.6 billion stimulus package involving 56,000 SMEs. Green technology RMI.5 billion

Tax deduction on expenses occurred in registration of patent and trademarks

Growth in the following industries:

- Tourism
- ICT
- Finance & Islamic banking
- Halal & green technology industries
- Creative Industry (RM200 million – film, drama, music, animation, advertisement and local content development)

Q2. How do you see yourself in the National Innovation Ecosystem?

ORGANISATIONAL (UNIVERSITY)

- The R&D excellence initiatives began with the ‘National Higher Education Strategic Plan (NHESP)’ launched in 2007. The NHESP is now in phase 2 of the implementation stage (2011 – 2015)
- Research University (RU) programme - impact on driving Malaysia’s R&D excellence initiatives
- Higher Institutions Center of Excellence (HiCOE) programme
- Management of research funds such as the ‘Fundamental, Long-term, Exploratory and Prototype Development Grant Scheme (FRGS, LRGS, ERGS and PRGS).

Question 3

- In 2012, five research universities (UM, UKM, USM, UPM and UTM) were conferred autonomy by the Minister of Higher Education to act with full accountability and responsibility on matters related to administration, academic management, student intake, institutional governance, finance and human resource management. Spearhead high-impact research platform - FRGS, ERGS, LRGS, PRGS
- UNITEN conferred SETARA Tier 5 – Excellent – moving towards Research University
- **Q3. Where do you see yourself in the National Higher Education Strategic Plan?**

R&D PRIORITY AREAS

Biodiversity

*Exploitation of Malaysian **biodiversity** to address the following issues identified and anticipated.*

Cyber Security

- *Development of national **autonomous and secure systems** to reduce the dependency on foreign for systems of strategic importance*

Energy Security

- *Harnessing alternative resources and improving the **efficient use of energy** especially in the areas of **renewable energy** to reduce dependency on fossil fuel*

Environment & Climate Change

- *Supporting ecosystem management, protection and improvement to mitigate **flood, drought & air pollution** as well as promotion of **eco tourism** for sustainable development*

R&D PRIORITY AREAS

Food Security

- *Improvement of **food crops, live stock, fisheries & animal feedstock**; focusing on **post harvest physiology & technology** to reduce dependency of import on staple food and increase the level of self sufficiency.*

Medical & Healthcare

- *Improving health, wellbeing & longevity through the diagnostic, prevention & treatment of **lifestyle diseases** as well as **new and emerging diseases***

Plantation Crops & Commodities

- *Creating sustainable plantation crops and commodities sector by increasing the productivity and utilization, focusing on **Oil Palm, Timber, Rubber, Cocoa & Pepper***

Transportation & Urbanization

- *Reduce dependency of fossil fuel & enhance energy efficiency by focusing on the **use of alternative energy & design engineering**. Ensuring sustainable urbanization via efficient **urban waste management***

Water Security

- *Ensuring sustainable water supply & optimizing water usage focusing on **creating sustainable sources** and **improving the processing, treatment & distribution of water***

Q4. Does your research fall in these Priority Areas?

	Engineers	Researchers	Entrepreneurs	Scientists	Students
Biodiversity					
Cyber Security					
Energy Security					
Environment & Climate Change					
Food Security					
Medical & Healthcare					
Plantation Crops & Commodities					
Transportation & Urbanization					
Water Security					

Q5. Are we writing and publishing smart?

- Thomson Reuters Web of Science® database - Malaysia has increased its research output with an almost three-fold increase in papers produced from 2006 to 2010.
- Thomson Reuters Essential Science IndicatorsSM - Malaysia ranks as third after Singapore and Thailand by number of top 1% of Highly Cited Papers published worldwide amongst the six ASEAN countries. However, by ratio of Highly Cited Papers against total output, Malaysia ranks the lowest.

INDIVIDUAL

- According to the National Higher Education Strategic Plan 2011-2015, efforts has been intensified to increase the number of researchers, scientists and engineers (RSE) at a ratio of 50 RSEs per 10,000 workforce. To the engineers, researchers, scientists, entrepreneurs, and students in this conference, I ask:

Q6. Do you see yourself as part of this capacity building and nation building?

Question 7

**National Innovation Award (AIN) 2012
(categories: products, services, grassroots and schools),**

National Young Scientist Award 2012,

National Technologist Award,

**Grassroots Innovator Awards (categories:
open, youth, women, Kids Invent! Innovative
Family Award)**

BioInnovation Awards,

CIPTA Awards

***Q7. Are you aware, and would you
qualify for these awards?***



The 7 questions ...

Q1. How many of us fit into the global movement towards inclusive innovation for transformation?

Q2. How do you see yourself in the National Innovation Ecosystem?

Q3. Where do you see yourself in the National Higher Education Strategic Plan?

Q4. Does your research fall in these Priority Areas?

Q5. Are we writing and publishing smart?

Q6. Do you see yourself as part of this capacity building and nation building?

Q7. Are you aware, and would you qualify for these awards?

Conclusion

- In this keynote, I have presented to you the challenges at the macro and micro levels--international, national, organisational and individual—that lay before us in promoting innovation and excellence in research.
- Seven questions to ponder—in your different capacities as engineers, researchers, scientists, entrepreneurs, and students—on your roles in promoting innovation and excellence in research in your universities, communities, companies and nations.
- Good luck in your future endeavors.

Q&A

