



WCRC

Wireless Communication
Research Community

Wireless Communication Research Community PROFILE

By Hadi Suwastio, Ir., M.Phil., PhD

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Indonesia ICT Industry Challenges

1. Digital Divide
2. National Productivity
3. Technology Acquisition and Research
4. Industry and Market Development
5. Manufacturing Industry Building

Issues

1. National Commitment & Spirit for development
2. Infrastructure sufficiency's
3. Supporting Industry
4. Studies on Competencies and Potencies
5. Market creation and distribution
6. Information dissemination
7. Standardization on Technology and Manufacturing process
8. Technology Selection and adoption strategy
9. Government incentives

WCRC

- Organisasi profesi yang bertujuan "Memajukan kecakapan SDM dan Kemampuan Rancang Bangun Industri Teknologi Informasi dan Komunikasi (TIK) khususnya telekomunikasi Nirkabel (*Wireless*)".
- WCRC didirikan oleh STT Telkom, PT. Indosat M2, Intel Indonesia, PT. Inti, PT. CMI, ITB, ASSI, RisTI-Telkom, Ditjen Postel, dan Diknas.

Fungsi-Fungsi:

1. Menjadi fasilitator bagi kegiatan riset dan pengembangan (R&D) bagi akademika, industri-industri kecil, komunitas-komunitas riset, dengan pendanaan dari operator-operator dan dana dana pemerintah
2. Memberikan masukan bagi pemerintah (kominfo, ristek, deperin, diknas, berkaitan dengan *roadmap* pengembangan teknologi dan *roadmap* industri yg berkaitan dengan telekomunikasi nirkabel (*wireless*))

Fungsi-Fungsi:

3. Menghasilkan prototipe dan pengembangan suatu produk bagi suatu perusahaan telekomunikasi nirkabel (*wireless*) dengan prinsip kemitraan
4. Menghasilkan naskah/laporan tertulis berkaitan dengan *test bed*, kajian, cetak biru (*blue print*), analisis yg menyeluruh baik secara teknis maupun peluang bisnis (*business opportunity*) terutama untuk teknologi telekomunikasi nirkabel (*wireless*)
5. Mendukung upaya pemerintah dalam hal kesenjangan digital (*digital divide*), seleksi dan perolehan teknologi (*technology acquisition and selection*), pendidikan dan pelatihan, dll.

WCRC programs

- Research/ Studies
- Test-bed
- Focus group discussion
- Information dissemination
- Knowledge/Technology adoption
- International expert sharing
- Prototyping for Manufacturing

WCRC Scope of Work

1. Studies on Wireless Deployment Plan and Interoperability
2. Technology selection
3. Studies on Potential Market
4. Manufacturing roadmap and Prototyping
5. Standardization Recommendation
6. USO studies
7. Wireless Application and Content dev't plan
8. Skill development roadmap

Scoping

Technology implication

Product
Enhancement

Technology road map

Possible
Development

Market Studies

Research

Strategy

- Government to put strong leadership on coordinating *the National Strategy & Roadmap*
- Government to appoint formal institution for execution
- National Kick-off by SBY

Collaboration Scheme

ACADEMIA

BUSINESS

GOVERNMENT



WCRC: Wireless Communication Research Community



R & D

Product
Development

Prototyping

WCRC Output

- White Paper/Jurnal
- Standardization studies
- Generic research (Theoretical)
- Recommendation, Training and Consultation
- Blue Print/ Manufacturing Roadmap
- Prototyping Products/Application

Possible Products for R&D (1)

Hardware

- Set-top box
- PCB
- Antenna, peripheral & Connectors
- Power supply, batteries, rectifier, generators
- Soft-switch, gateway, application server
- RF parts (converter, amplifier, diplexer)
- interfacing / format converter
 - ethernet-to-v.35
 - gateway

Possible Products for R&D (2)

Hardware

- PC, modem
- Handset
- Wireless phones
- Storage & Display
- Web Cameras
- SIM-card/ Chip card
- Cables
- Radio transmission
- Ground segment

Possible Products for R&D (3)

- Aplikasi

- Back office : NMS, Network Planning, Billing, Provisioning, Inventory/Asset, Maintenance
- Front office : CRM

- Content

- Education, tourism, Information
- Games berbasis open source
- Traffic monitoring
- Mobile shopping (Comparison shopping)
- Medical record
- LBS (Location Based Service)

Possible Products for R&D (4)

– Sistem

- ip-to-satellite interoperability
- wimax-to-satellite interoperability
- Bayar Toll dengan RFID
- Reservation (parking, hotel, hospital , dll)

– Operational

- Service manager
- Operation manager
- View manager
- Knowledge manager

WCRC Milestone

1st year, Stage – 1:
Institutional Development and Research

2nd year, Stage – 2:
Research, prototyping & Campaigning

3rd year Stage – 3:
Research, Industry building and
Manufacturing for light products

4 th year Stage – 4:
Facilitating for Intensive Manufacturing

Resources & Targets

Funding

- Operational + R&D: Operator, Telco
- Facility: Vendor, Telco
- Operational + R&D: Government, Ditjen POSTEL, Ristek, DIKNAS & Int'l Institutions

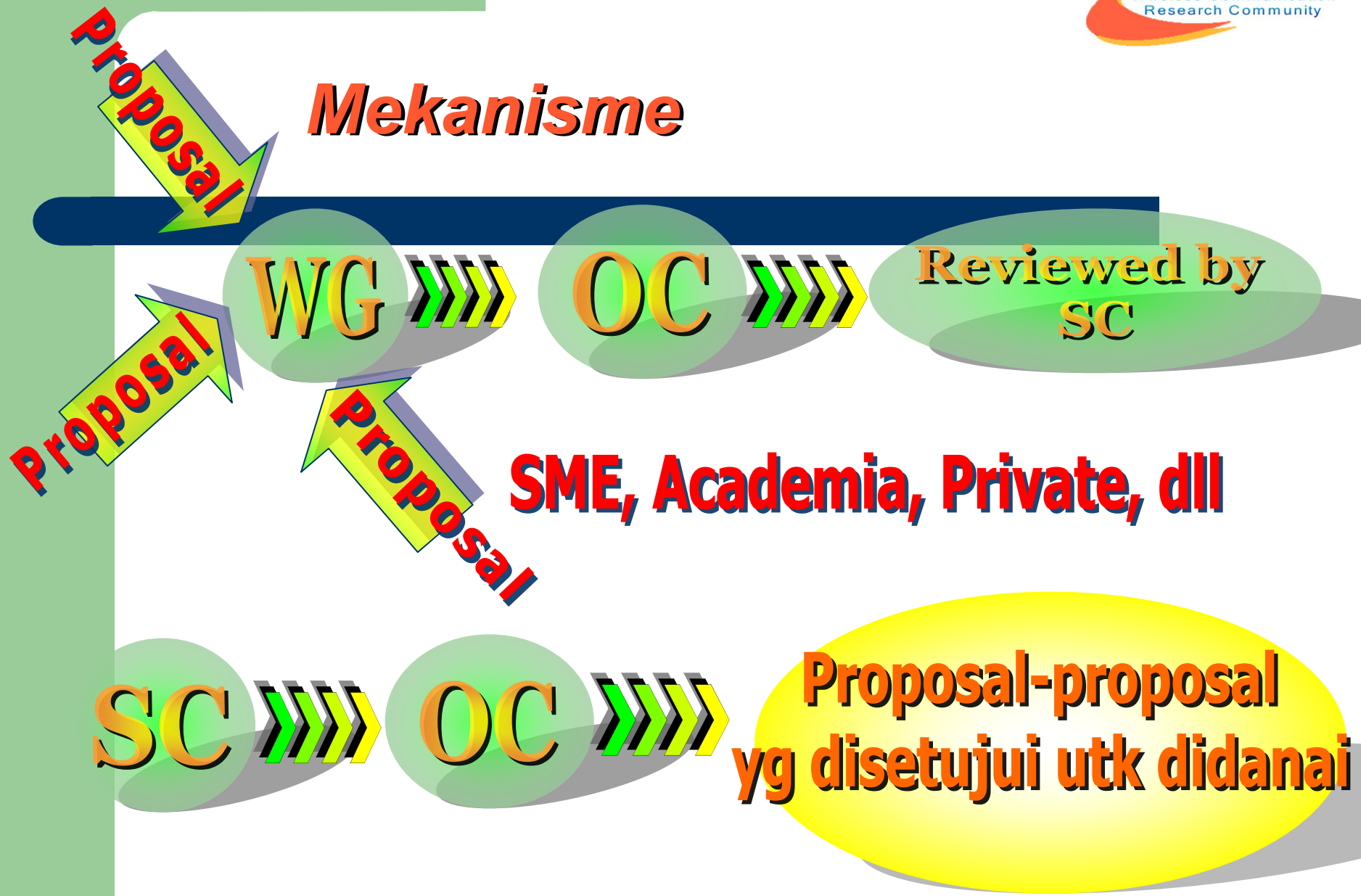
Spending

- Operational Office, Sekretariat, Meeting, dll
- R&D Cost

Target R&D

- Academia
- Small Medium Enterprenuer
- Expert Private

Mekanisme



Organisasi WCRC

- Komite Pengarah (*Steering Committee*) yang kami harapkan dari Pemerintah, Operator, Vendor, dan Akademia.
- Komite Pelaksana (*Organising Committee*) yang terdiri atas: Ketua (*Chairman*), Wakil Ketua (*Deputy Chairman*), Sekertaris Jenderal (*General Secretary*), Sekertaris (*Secretary*), Ketua Kelompok Kerja (*Chief of Working Group*), dan Kelompok Fungsional (*Fuctional Group*).

TKTI

Steering Committee

**Chairman,
Deputy,
Secretary**

WG (Working Group)

AdHoc-Functional Group

Mobile Comms

HaKi

WIMAX

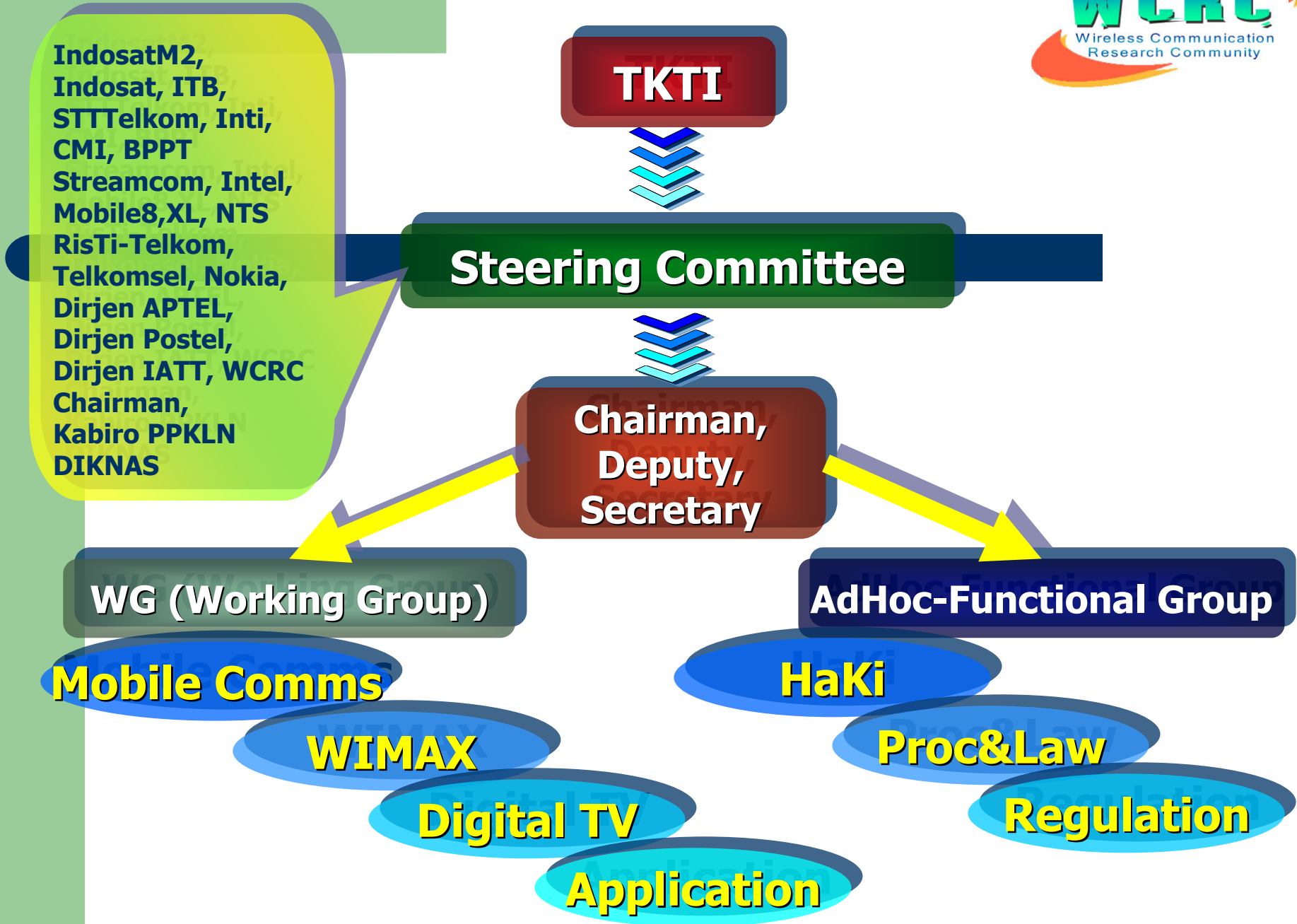
Proc&Law

Digital TV

Regulation

Application

IndosatM2,
Indosat, ITB,
STTTelkom, Inti,
CMI, BPPT
Streamcom, Intel,
Mobile8,XL, NTS
RisTi-Telkom,
Telkomsel, Nokia,
Dirjen APTEL,
Dirjen Postel,
Dirjen IATT, WCRC
Chairman,
Kabiro PPKLN
DIKNAS




Working Group

1. *WG WiMax*
2. *WG Mobile Comms*
3. *WG Wireless Application n Services*
4. *WG Interopperability*
5. *WG Digital TV*

Functional Group

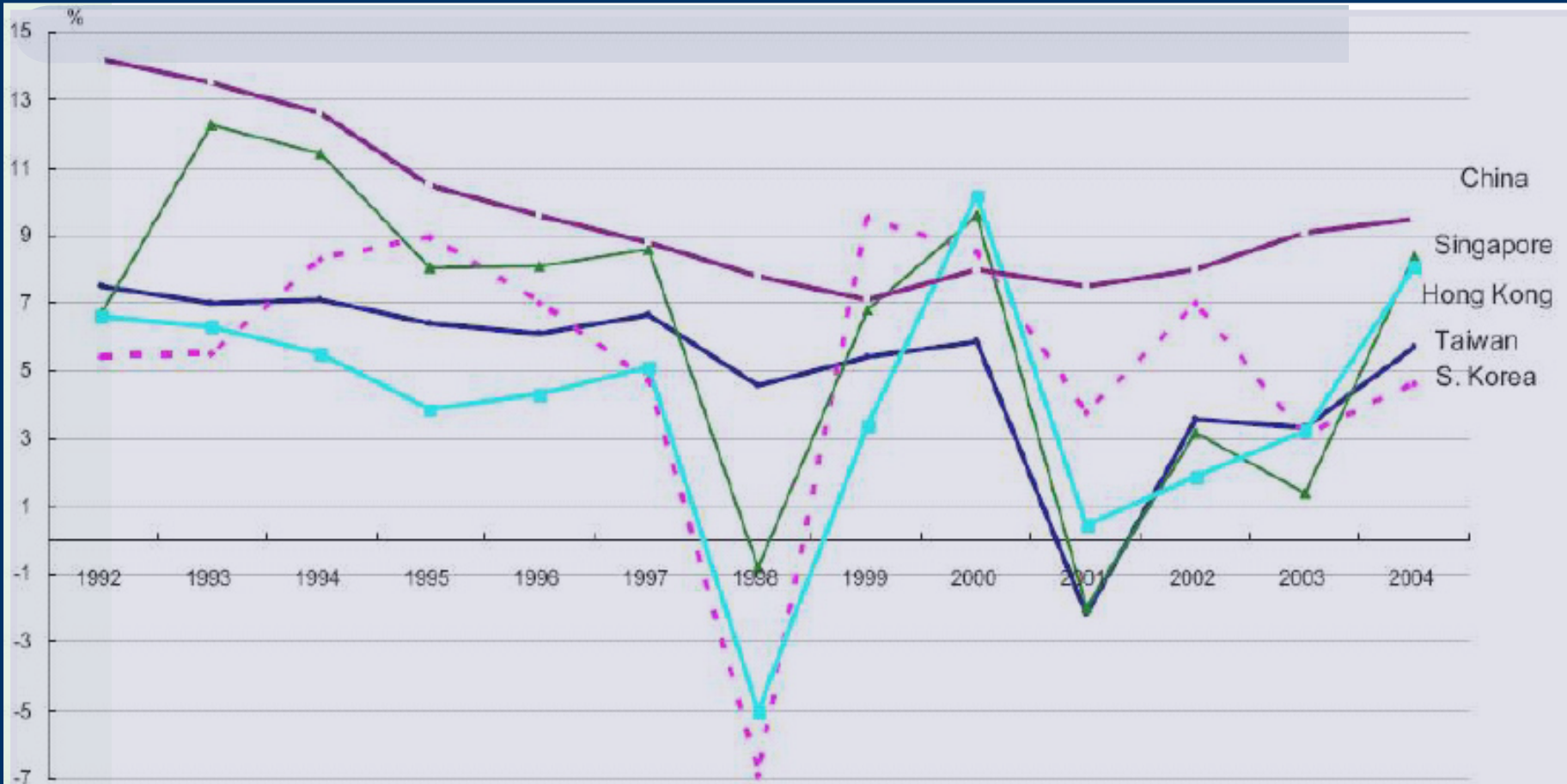
1. *FG Test Bed*
2. *FG Regulation n HaKi*
3. *FG Adm & Law*

- WCRC saat ini mendapatkan dukungan cukup baik dari berbagai akademia ITB, ITS, STT Telkom, Poltek Manufaktur, Poltek Bandung, Kominfo, Ristek, Diknas, Ditjen Postel, dan operator-operator serta vendor-vendor Telekomunikasi.
- Mengingat pada saat ini ancaman Cina, Vietnam, dan India bagi *home electronics*, produk TIK/ICT, dll amat serius, Indonesia perlu melakukan upaya-upaya yg serius agar ke depan *growth engine* kita dapat diperoleh dari industri-industri TIK/ICT.

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Karena itu kami sangat memerlukan dukungan dari Dep. Perindustrian, DepNakerTrans, Kantor Meneg BUMN, instansi terkait lainnya, operator dan vendor telekomunikasi dan IT serta dunia perbankan, agar upaya kami melakukan konsolidasi dunia bisnis, pemerintah, dan academia dapat mencapai hasil yang optimal.

China outperformed most Asian Tigers during 2004



Source: World Bank; Directorate General of Budget, Accounting, and Statistics; CEPD