

Wireless Communication Research Community

*Presentasi & Kesepakatan Rapat
Di PT. INDOSAT Kamis, 11 Mei 2006
&
Di Ditjen Postel Rabu, 24 Mei 2006*

Indonesia ICT Industry Challenges

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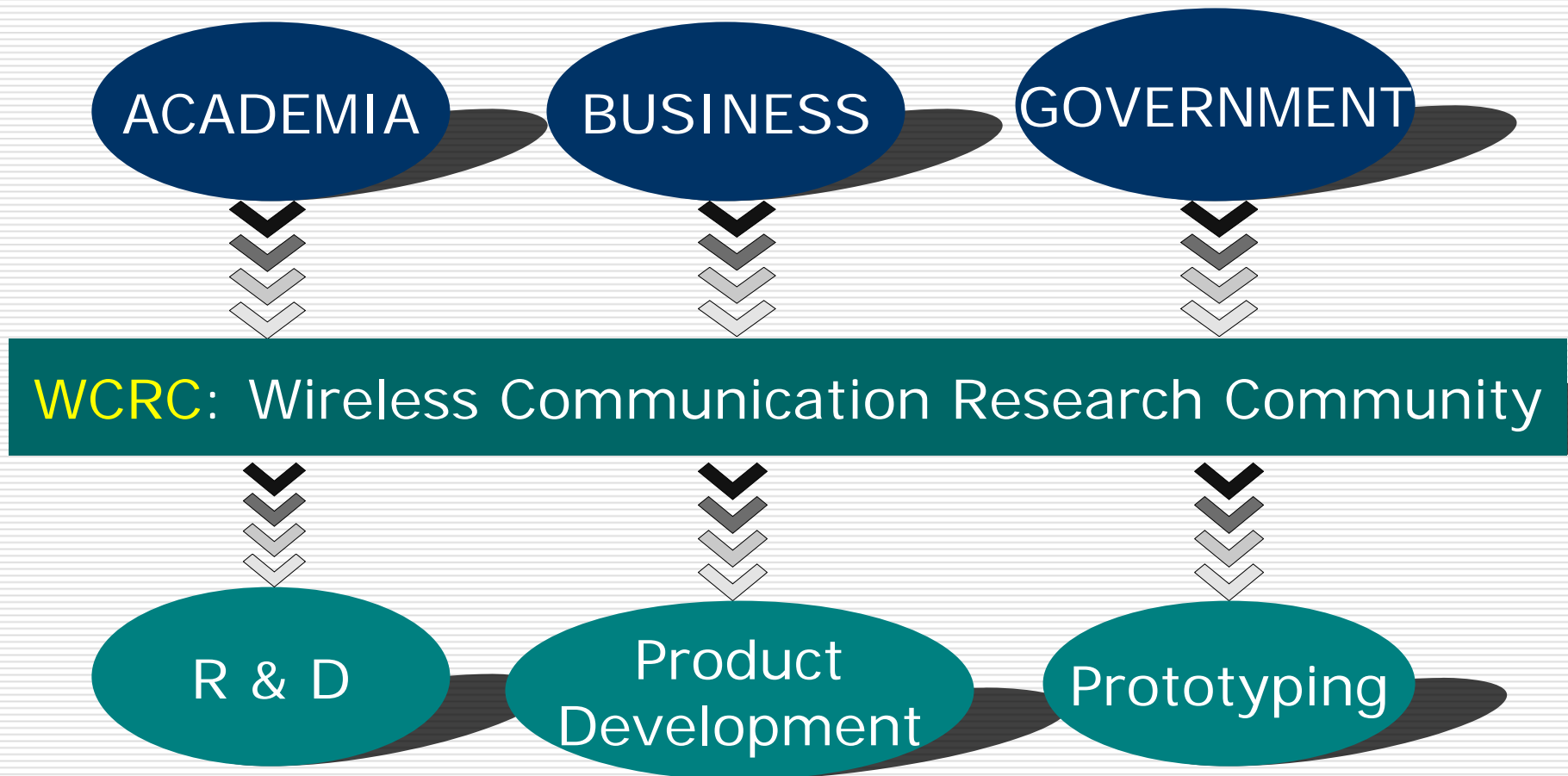
Issues

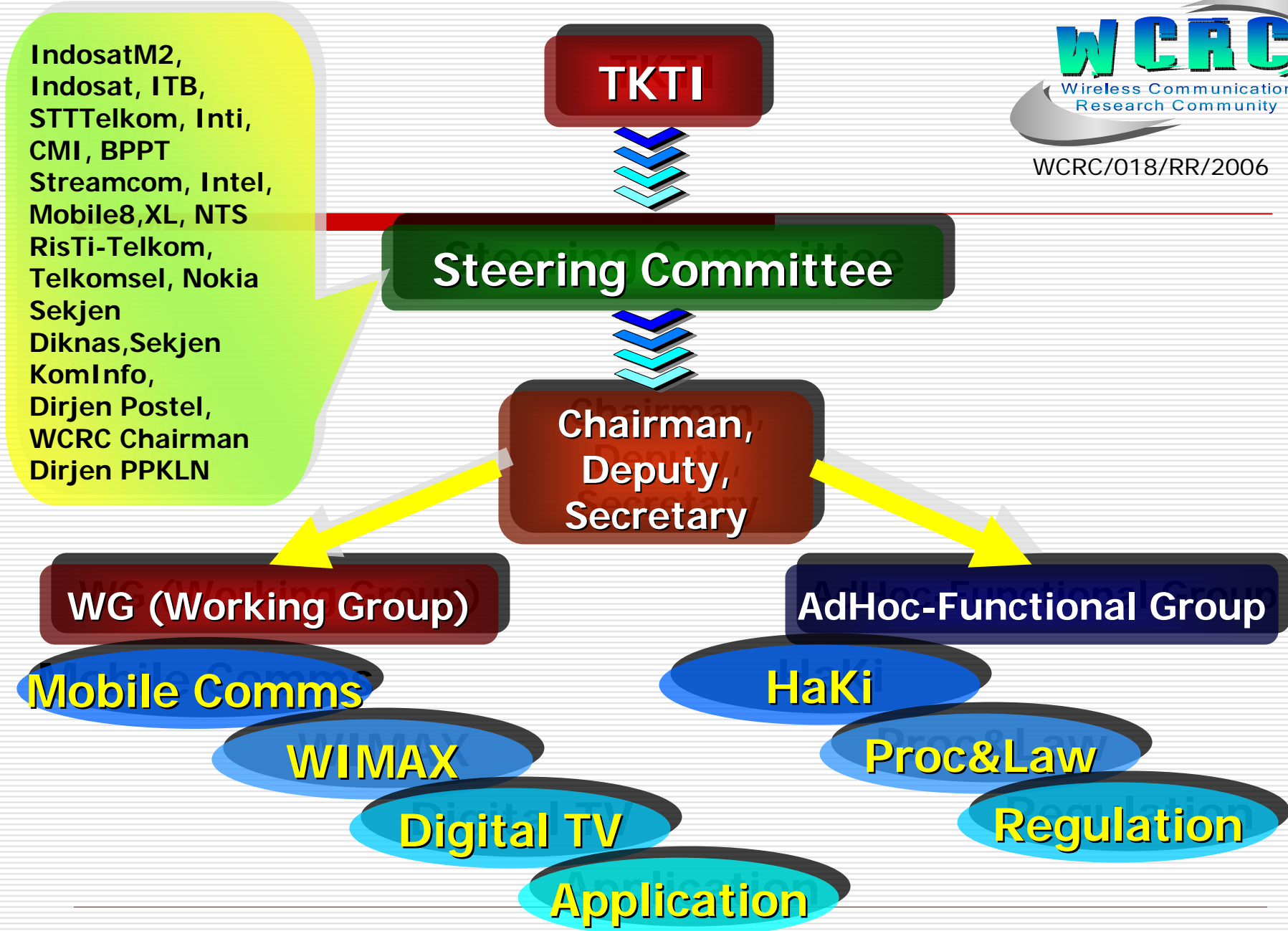
1. National Commitment & Spirit for development
 2. Infrastructure sufficiency's
 3. Supporting Industry
 4. Studies on Competencies and Potencies
 5. Market creation and distribution
 6. Information dissemination
 7. Standardization on Technology and Manufacturing process
 8. Technology Selection and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





IndosatM2,
Indosat, ITB,
STTTelkom, Inti,
CMI, BPPT
Streamcom, Intel,
Mobile8,XL, NTS
RisTi-Telkom,
Telkomsel, Nokia
Sekjen
Diknas, Sekjen
KomInfo,
Dirjen Postel,
WCRC Chairman
Dirjen PPKLN

WG (Working Group)

Mobile Comms

WIMAX

Digital TV

Application

AdHoc-Functional Group

HaKi

Proc&Law

Regulation

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
-

WCRC programs

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

Scoping



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:
Facilitatng 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



Hasil Diskusi di Ditjen Postel

18 April 2006



WCRC/018/RR/2006

1. Local content industri : 30%
 2. Industri 1% utk R&D, 1% utk SDM
 3. 2005 : konsolidasi gagasan
 4. 2006 : tahun action
 5. WCRC akan presentasi di seminar ITB
-

Lembaga

- Konsep lembaga WCRC
 - Konsorsium
 - Yayasan

 - Lembaga tsb direstui oleh
 - Menkominfo
 - Menristek
 - Menperin
-

Financing

- Postel akan menkoordinasikan 50% dari kewajiban 1% dana research dari Industri
 - Tahap awal: Indosat, Telkom, Telkomsel, XL
 - Strategic Financing Research
 - Tidak harus tender
 - Sesuai Kepres 80
 - Konsep Swakelola
(akan dieksplorasi lebih jauh)
-

Strategic Financing (Usulan)

- Hibah sebagai Dana Abadi, digunakan untuk mendapatkan dana ikutan dan diinvestasikan agar mendapatkan dana bagi operasional rutin (Perlu KepMen)

 - Sebagai Suatu Kegiatan Program Khusus Departemen melewati Dinas KomInfo
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Strategic Financing (Usulan)



WCRC/018/RR/2006

- ❑ Sebagai Dana Penelitian Strategis Nasional
 - ❑ Dana Swakelola (Kegiatan dipecah menjadi beberapa kegiatan kecil)
 - ❑ Dilewatkan melalui lembaga Pendidikan spt STTTelkom (Dilakukan Deprin pd ITS u R&D Industri Perkapalan-ref Dirjen IATT)
 - ❑ ? Mekanisme Lain
-

Regulasi

□ **Regulasi terkait**

- Kepres 80 tahun 2003 ttg pedoman pelaksanaan barang/jasa pemerintah
 - Kepres No 61 tahun 2004 ttg perubahan atas Kepres 80 tahun 2003 ttg pedoman pelaksanaan barang/jasa pemerintah
 - PP No 32 tahun 2005 ttg perubahan kedua atas Kepres 80 tahu 2003 ttg pedoman pelaksanaan barang/jasa pemerintah
-

Next Action

- Disepakati bersama PT Inti akan menjadi basis sementara (sekretariat) kegiatan WCRC
 - WCRC akan melakukan Eksplorasi
 - Konsep Lembaga
 - Mekanisme financing yg legal dan tidak bermasalah
 - Dirjen Postel akan melakukan lobby kpd Menristek, Menperin, Menkominfo utk lembaga riset (WCRC)
 - Dirjen Postel akan melakukan lobby kpd Indosat, Telkom, Telkomsel, XL utk koordinasi dana riset
 - WCRC akan melakukan Presentasi lanjutan kpd Dirjen Postel pd bulan Mei
 - WCRC akan melakukan presentasi dan sosialisasi di Seminar ICT di ITB tgl 3-4 Mei 2006
 - WCRC akan diundang pada acara IEEE Ind section (Prof Roberto S-Italia) di Bandung tgl 19 Mei 2006
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Possible WCRC format

- Foundation (Yayasan)
 - Pendiri
 - Pembina
 - Pengurus
 - Pelaksana (professional)

 - Source of Fund
 - Government
 - Sponsorship
 - WCRC services
-

Kehadiran

1. Basuki Y. Iskandar - Ditjen POSTEL
 2. Taufik Hasan - RisTi TELKOM
 3. Budi Wahyu Jati - INTEL
 4. Yadi Karyadi- INTEL
 5. T. Gusti N. Panca - TELKOMSEL
 6. Andi Kristianto - TELKOMSEL
 7. Nies Purwati - XL
 8. Lukman Hutagalung - Ditjen POSTEL
 9. Hadi Suwastio - STTTelkom
-

*Diskusi WCRC di PT
Indosat 11 Mei 2006*

Struktur Organisasi (USULAN)

□ **Steering Committee:**

- IndosatM2, STTTelkom, Inti, CMI
 - Streamcom, Intel, Mobile8, Microsoft, Bakrie Telecom
 - RisTi-Telkom, Telkomsel, Nokia
 - Sekjen DIKNAS, Sekjen KomInfo
 - Dirjen Postel, WCRC Chairman
 - Kabiro PKLN-DIKNAS, RisTek
-

Pendana Kegiatan WCRC

WCRC/018/RR/2006

SPONSOR:

- OPERATOR:
TELKOMSEL,
TELKOM,
EXCELKOMINDO,
MOBILE-8, NTS,
INDOSAT, IM2, ...
- VENDOR: INTEL,
MOTOROLA, NOKIA,
SIEMENS, ALCATEL,
MICROSOFT, ...

PEMERINTAH:

- DITJEN POSTEL,
DITJEN IATT, DITJEN
PKLN DIKNAS
- KNRT
- BAPENAS

GRANTS:

- ITU?
 - JICA
 - USAID
-

Struktur Organisasi (USULAN)

- 1. Ketua:** STTTelkom
 - 2. Deputy:** PT INTI
 - 3. Sekjen:** IM2
 - 4. Bendahara:** PT INTI
 - 5. Sekretaris Office:** Profesional
 - 6. Engineers:** STTTelkom, ITB, UI, ITS, BPPT, CMI, INTI, dll
 - 7. Anggota Community:**
 - Industri: PT. TKD, PT Streamcom, PT Inti, PT CMI, Intel, Motorola, Microsoft, Nokia, Siemens, Alcatel, Samsung dll
 - Government: Postel, Dikmenjur, Ristek, BPPT, Deperin, dll
 - Akademisi: STTTelkom, ITB, UGM, UI, ITS, Unibraw, dll
 - Operator: PT IM2, Telkomsel, Mobile-8, Indosat, XL, Natrindo, Cyber, Access, Telkom Risti, Bakrie Telecom
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Pembina

(Ex-Officio-dgn Ijin-USULAN)

WCRC/018/RR/2006

1. Dirjen Postel – Dr. Ir Basuki Yusuf Iskandar
 2. Dirjen IATT – Dr. Ir. Budi Dharmadi
 3. Kabiro PKLN Diknas - Dr. Ir. Gatot H. Priowirjanto
 4. Ketua BPPT – Dr. Ir. Said Jenie
 5. Ketua STTTelkom – Ir. Husni Amani, MBA., MSc
 6. Ketua STEI - ITB – Prof. Dr. Ir. Adang Suwandi A
 7. Dirjen APTEL – Ir. Cahyana A
-

Pendiri

1. Ir. Hadi Suwastio M.Phil., Ph.D (STTTelkom)
 2. Ir. Brata T Hardjosubroto, MBA (INDOSAT)
 3. Dr. Ir. Atmadji (CMI)
 4. Prof. Dr. Ir. Adang Suwandi (ITB)
 5. Ir. Budi Wahyu Jati (INTEL)
 6. Bagiono Dip. Ing., MSc (DIKNAS)
 7. Ir. Philips Kembaren (PT INTI)
 8. Dr. Ir. Taufik Hasan (TELKOM)
 9. Dr. Ir. Basuki Yusuf Iskandar (DIRJEN POSTEL)
 10. Dr. Ir. Budi Darmadi (DIRJEN IATT)
 11. Ir. Husni Amani MBA., MSc (STTTELKOM)
-

Pengurus Ex-officio?

(USULAN)

Dewan Pengurus

1. Brata T. Hardjosubroto MBA., Ir.– Indosat
 2. Ir. Budi Wahyu Jati - Intel
 3. Dr. Ir. Atmadji Soewito – CMI
 4. Dr. Ir. Taufik Hasan – RisTi Telkom
 5. Ir. Philips Kembaren MBA - Inti
 6. Ir. Hadi Suwastio, MPhil., PhD STTTelkom
 7. Nana Rachmana, M. Eng – ITB
 8. Dr. Ir. Gunawan Wibisono – UI tbc
 9. Dr. Ir. Wawan – ITS tbc
 10. Dr. Ir. Hary Budiarto - BPPT
- (dilakukan pembagian tgs n tanggungjwb)
-

Pengawas Ex-officio? *(USULAN)*

1. Dipl. Ing. Bagiono Jokosumbogo - Diknas
 2. Dr. Ir. Arifin Nugroho - StreamComm
 3. Dr. Ir. Richard Mengko – KNRT tbc
 4. Ir. Lukman Hutagalung? – Postel - Tbc ke P. Basuki
 5. Dr. Ir. Giri Soeseno –Asosiasi - Mastel
-

Pelaksana Harian/ Org Committee (USULAN)

Ketua

Hadi Suwastio (STTTelkom)

Deputy

Ari Wijanarko (Inti)

Bendahara

Bayu (Inti)

Sekjen

Andri Fisateredi (Indosatm2)

Ketua WG

I. Part-Time

Miftadi Sudjai (STTTelkom)

Ketua FG

Ali Muayyadi (STTTelkom)

Fauzy (CMI)

Trio Adiono (ITB)

Nana Rachmana (ITB)

Atmadji Soewito (CMI)

Dharu A (STTTelkom)

Mas Wigrantoro (Mastel)

Engineers

II. Full

Office Secretary

Zulfi MT (Engineer-1)

Engineer-2

Engineer-3

Engineer-4

Engineer-5

Novie Agusthina (Professional-Secretary)

Working Group

R&D Area	Personal	Chairman
BroadBand Wireless Access	Miftadi (STTTel), Soegito(STTT), Widya (Inti), Hermanudin (IM2), Gunadi (Risti), Yadi Karyadi (Intel), Didin Saefudin(SMKN1 Cimahi), Tonda P (TELKOM), Novie Eko P (STTT), Boslem Sinaga (STTT), Adit (Diknas), Bondan (Unibraw), Zubair (SMK Wonosari), Supriadi (SMK4 Bdg), ?(SMK 4 Pontianak)	Miftadi (STTT)
Digital TV	Bambang S, Miftadi, Iwan I, (STTTel), Syafrudin (Poltek ITS), Trio Adiono (ITB), Agung Wijanarko (IM2), Denny Darlis (STTT), Iswahyudi H (STTT), Basuki (STTT), IndoVision(?), SCTV(?), RCTI(?)	Trio Adiono (ITB)

Working Group

TVE	Herdiana (Diknas), Budi (Poltek ITS), Atmadji (CMI), Bambang S (STTT), Suhadi (Diknas), ?? (Pustekkom). Teddy A. Santosa (SMK 1 Cimahi), Agus Virgono (STTT), Elly (IM2)	Herdiana (Diknas) (Pustekkom)
Interopperability	Atmadji (CMI), Hadi S (STTT), Suryanto (TELKOM), Rahma (TKD), Joko Haryatno (STTT), Hermanudin (IM2), Dharu-Bambang Setyo N (STTT)	Atmadji (CMI)

Working Group

<p>Mobile (3G, CDMA)</p>	<p>Ali (STTTel), Ricardo (Inti), Mieke (IM3), Asep (Telkomsel), Heroe W-Kris S (STTT), Lukas (M8), Aulia Hasan (Nokia), ?? (RDC TELKOM), Bambang Hidayat (Telkom)</p>	<p>Ali (STTT)</p>
<p>Wireless App</p>	<p>Fazmah-Hadi-Suyanto, Burhanudin (STTTel), ? (Risti), Andri F (IM2), Yudi LY (Inti), Rachmat B (Telkomsel), Denny (AINAKI), Ari M (STTT), Efry (STTT), Kokok (Polman Bdg), Harly (VEDC Malang)</p>	<p>Andri F (IM2)</p>

Functional Group

R&D Area	Personal	Chairman
Test Bed	Atmadji (CMI), Salomo (Inti), Agus V (STTTel), Rochadi (IM2), Ali (STTT)	?(Inti)
Regulasi Telekomunikasi	Wigrantoro (MASTEL), Soleman (POSTEL), Farda (STTTel), Bayu (Inti)	Mas Wigrantoro (MASTEL)
Manufacture Prototype	Joko (STTTel), Supriatno (Inti), Kokok (Polman Bdg), Harly (VEDC Malang), Taufik/Fauzi (CMI)	?(CMI)

Revenue Streaming

Training	Dharu (STTTel), Made (IM2), Darman (Inti), Suprayogi (STTT), Rainbow (Intel)	Dharu (STTT)
Certification		
Seminar		
Publishing		

Usulan Baru Kegiatan

(program khusus-contractual base dg WCRC)

WCRC-PT INTI-PT Indosat (3 Mei-11 Mei 2006)

(Yg akan dilakukan dlm waktu dekat)

Research/Studies(melibatkan Working Group yg berkaitan)

- a. E-learning Contents Developments (IndosatM2-Diknas,RisTi-Telkom) - **ok**
- b. Wimax Test (Diknas, ITB-STTT-RisTi-CMI-Im2) – **tbc?**
- c. E-Gov Implementation & Constraint (RisTi-Telkom, STTTel, KomInfo) – **ok**
- d. Mobile Access Deployment (Motorola, Telkomsel, Indosat, Excelcom, M-8, NTS, Microsoft) – **tbc?**
- e. Multi Purpose Community Tele Center (Intel-Pemda DIY-Pemda Jw Barat - STTTelkom) - **ok**
- f. TV Digital System (ITB-STTTelkom, Nokia) – **tbc?**
- g. Manufacture & Industrial Possible Dev. & Potential (CMI-Inti, STTTel, Microsoft) - **ok**

Usulan Baru Kegiatan

WCRC-PT INTI-Indosat (3 Mei – 11 Mei 2006)

(Yg akan dilakukan dlm waktu dekat)

WCRC/018/RR/2006

2. Development

- a. Road map (Ditjen Postel)
 - Telecomm Technology
 - Telecomm Industry
 - Telecomm Regulation
 - Contents

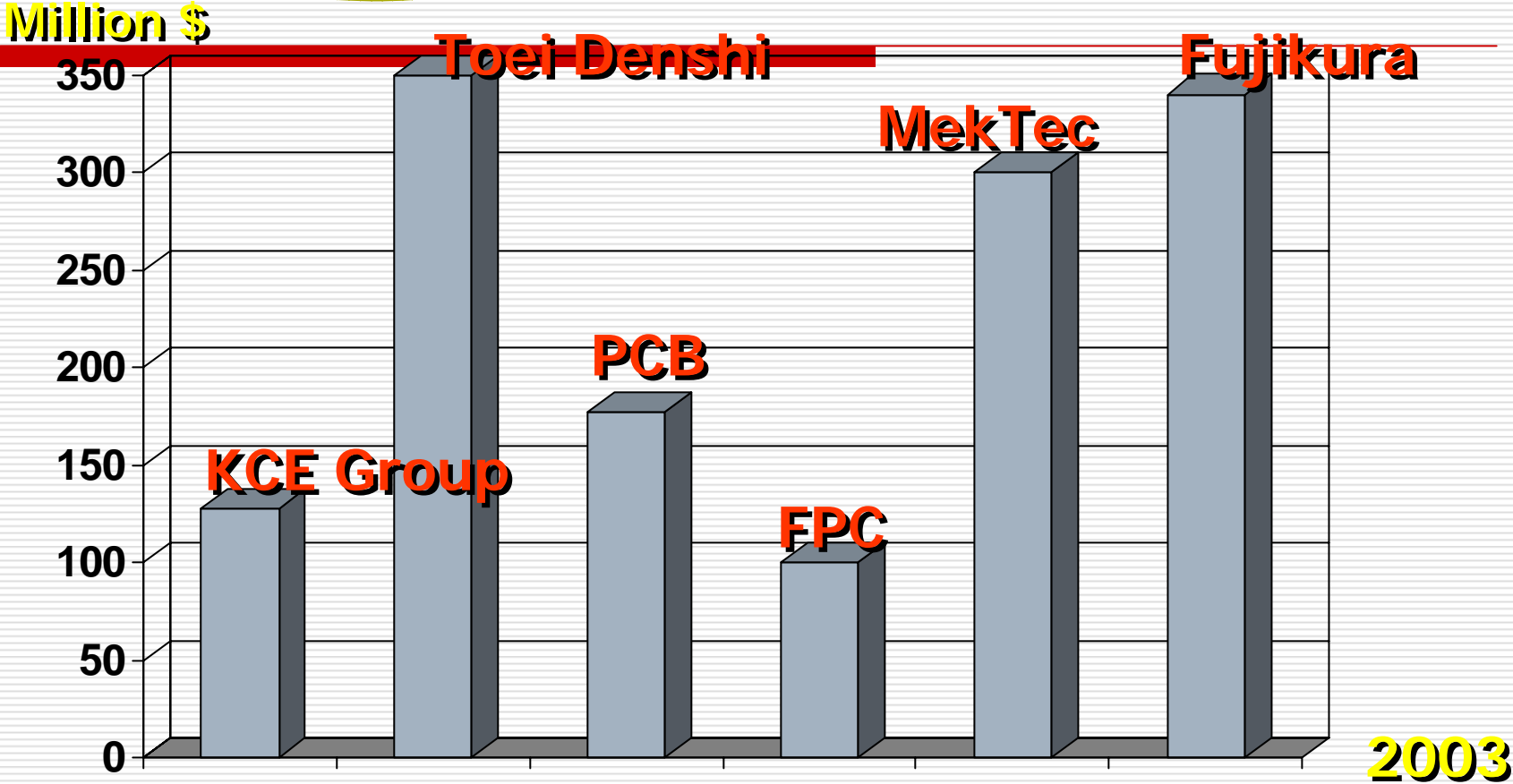
 - b. 3G and Wimax Contents
(Indosat/NTS/Telkomsel)
-

Financing Strategies

(Indosat 11 Mei 2006)

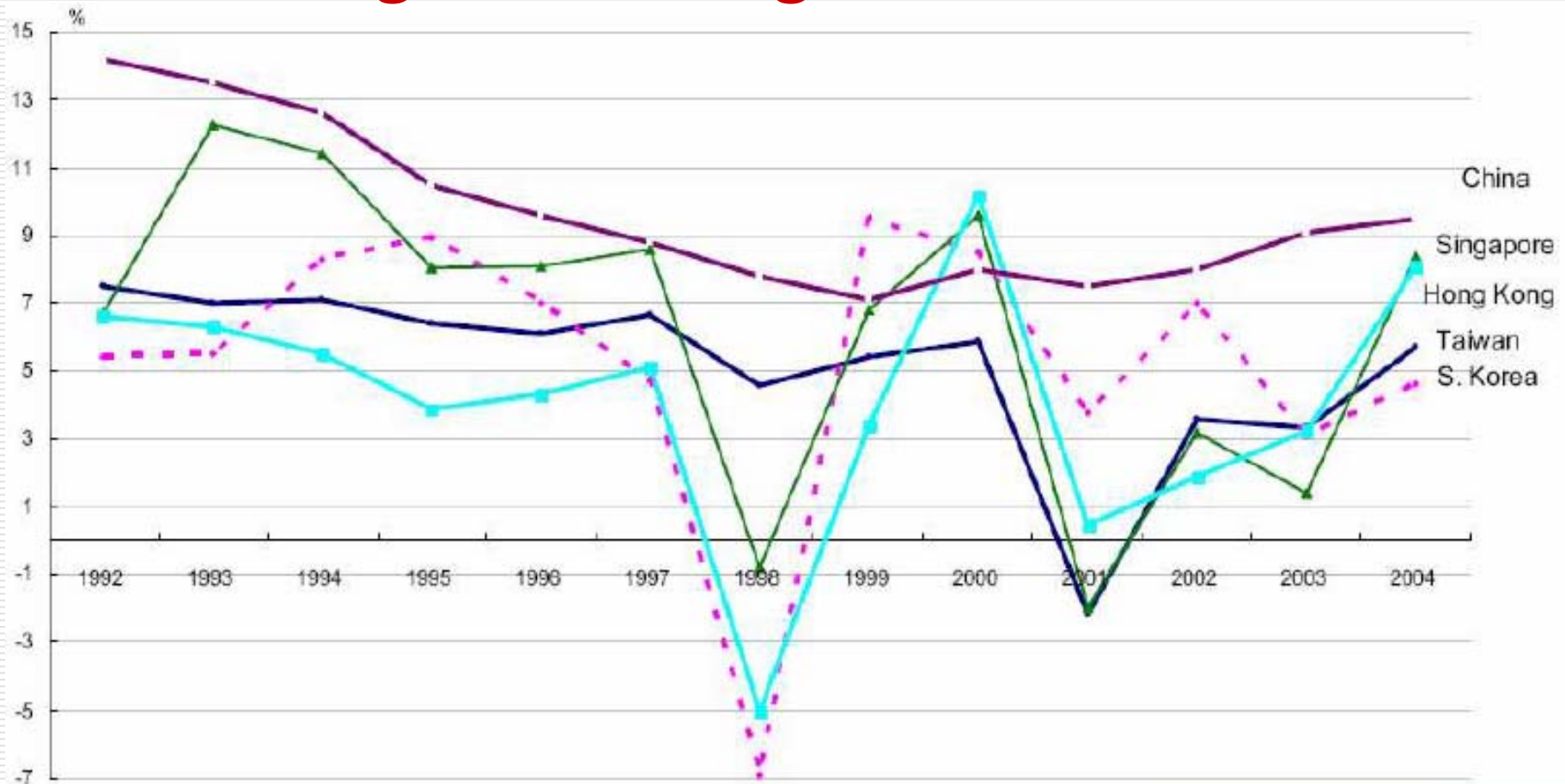
- Sekneg→WCRC agar mendekati departemen-departemen melalui Sekjen2 nya dan menawarkan melakukan beberapa kegiatan yang dilakukan o departemen-2 tsb
 - Ditjen Postel→Postel sedang melakukan study u pendanaan u program Invention Fund (Rp 15 milyar) yg digulirkan mulai th 2007
 - Sekneg→Bentuk Pendanaan tdk melalui tender maupun swakelola tetapi penunjukkan langsung memungkinkan sepanjang berkaitan dengan kegiatan program suatu departemen
 - Pertemuan berikut dengan Dirjen Postel harus sudah mendapatkan mekanisme pendanaan yang taktis & tepat
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Thailand



Total Revenue dari PCB: US\$ 1.5 Billion

China outperformed most Asian Tigers during 2004



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