



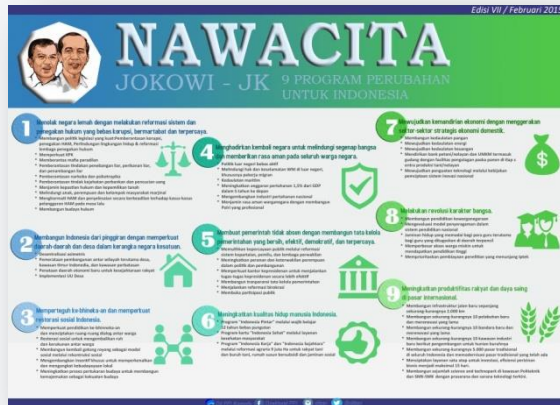
# EU-ASEAN ICT Collaboration and CONNECT2SEA contribution: Vision from Indonesia

*Chairman*

*The Agency for the Assessment and Application of Technology  
Republic of Indonesia*

**ASEAN – EU STI DAYS**  
Hanoi, 11 May 2016

# Indonesian Strategic Vision



National Development Agendas



3<sup>rd</sup> 5 Years Development Plan :  
National, Sectoral & Local  
Development Agendas

## Sectoral Development

Food;  
Energy & Power;  
Maritime & Marine;  
Tourism & Industry

## Development Areas :

- ...
- Science & Technology
  - S&T for productivity & competitiveness
  - Utilization & sustainability of national resources
  - Society toward globalization
  - R&D support
  - Technoparks .
- ...

directions



- ❖ Diffusion of R&D to production sector
- ❖ Engineering & Technology Services
- ❖ A-B-G Collaboration
- ...

# BPPT in a Glance



***BPPT (Agency for the Assessment and Application of Technology of Republic of Indonesia) is a non-departmental government agency under the coordination of the Ministry of Research Technology and Higher Education of Republic of Indonesia, which has the tasks of carrying out government duties in the field of assessment and application of technology.***

## **ROLE AND SCOPE**

- Technology Intermediation;
- Technology Clearing House
- Assessment of Technology
- Audit of Technology
- Technology Solution

## **TECHNOLOGY FIELDS**

- Technology Policy
- Technology for Natural Resources Development
- Agroindustry and Biotechnology
- Information Technology, Material and Energy
- Industrial Design and Engineering.

.

# Our ICT Centers & Laboratories

CENTER FOR INFORMATION & COMMUNICATION TECHNOLOGY

CENTER FOR ELECTRONIC TECHNOLOGY

*Medical Electronic  
Laboratory*

*EMC & Smartcard  
Laboratory*

*Telecommunication &  
New Media Laboratory*

*Intelligent Computing  
Laboratory*

*Intelligent Transportation  
System Laboratory*

*Digital Security  
Laboratory*

*e-Services  
Laboratory*

Data Center

Development

Engineering

Testing

Competency

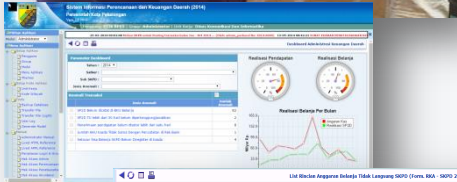
Facilities

Programs

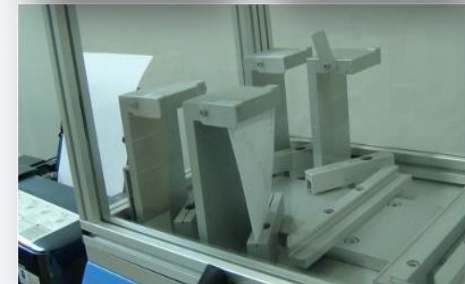
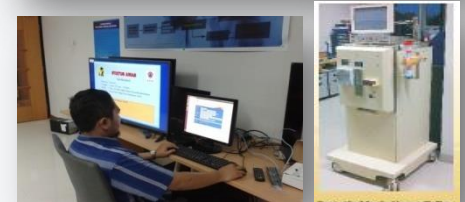
Financing



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(BPPT)

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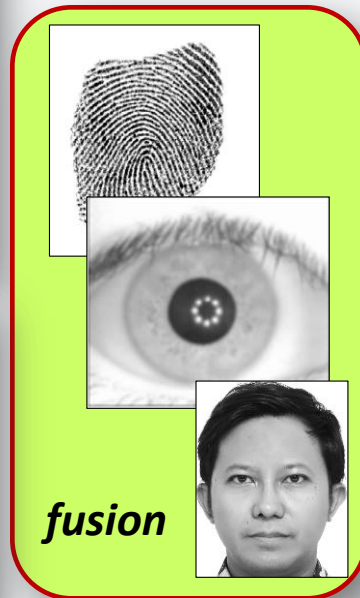
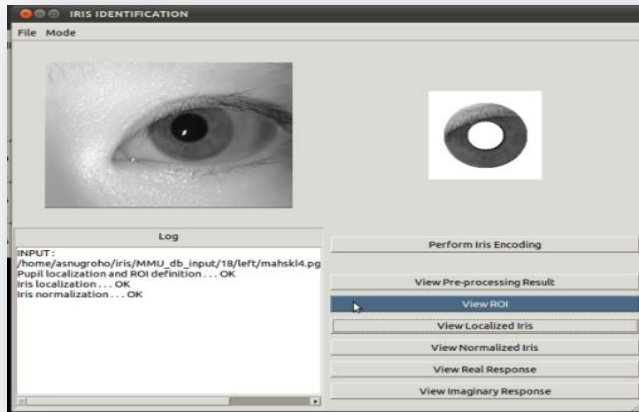
- **Internal ICT services :**
  - *ICT infrastructure*
  - *Development & provision of various e-Government applications (administratives, engineering support, etc.)*
  - *BPPT CIO Programme*
  - *...*



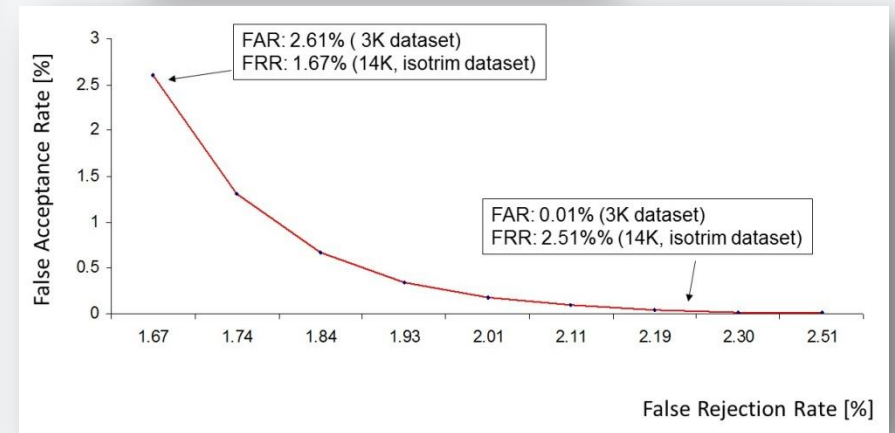
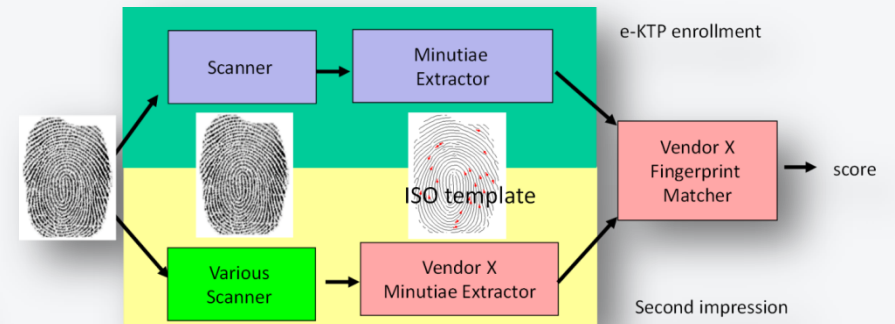
# BPPT ICT Innovation & Technology Services

## Biometric System

Multimodal Biometric,  
Automatic Fingerprint,  
IRIS, Face Recognition.



## Biometric Testing



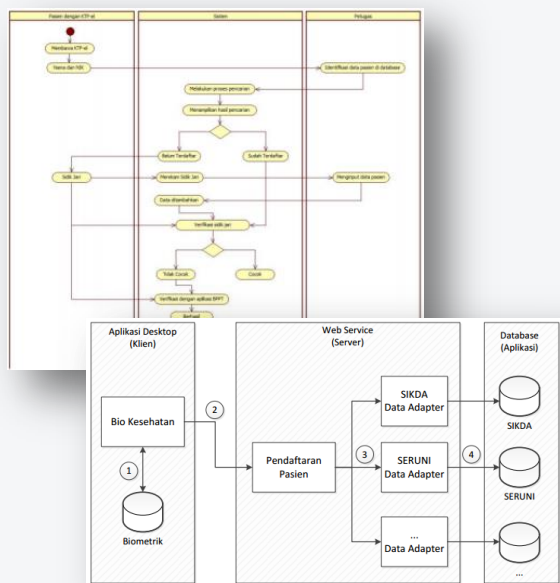
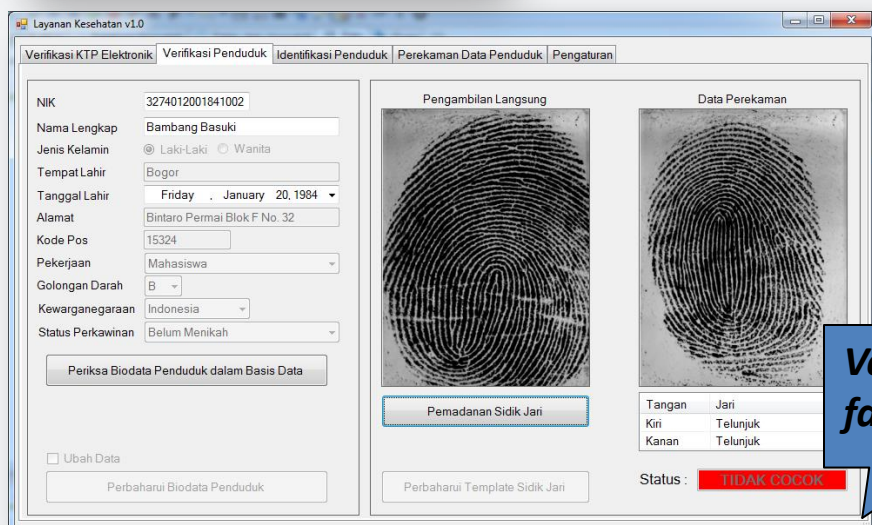
# Electronic Authentication

- Using Automatic Fingerprint Authentication System based on Free Open Source Software.

- Implemented on Patient Registration/Verification System, in complement with authentication using National e-ID (for example : for young patients who don't have e-ID yet)

- Features :

- Patient verification using National e-ID
- Patient verification without National e-ID
- Patient Identification
- Patient Registration.






**Layanan Kesehatan v1.0**  
Verifikasi KTP Elektronik | **Verifikasi Penduduk** | Identifikasi Penduduk | Perekaman Data Penduduk | Pengaturan

NIK: 3274012001841002  
Nama Lengkap: Bambang Basuki  
Jenis Kelamin: ☒ Laki-Laki ☐ Wanita  
Tempat Lahir: Bogor  
Tanggal Lahir: Friday, January 20, 1984  
Alamat: Bintaro Permai Blok F No. 32  
Kode Pos: 15324  
Pekerjaan: Mahasiswa  
Golongan Darah: B  
Kewarganegaraan: Indonesia  
Status Perkawinan: Belum Menikah

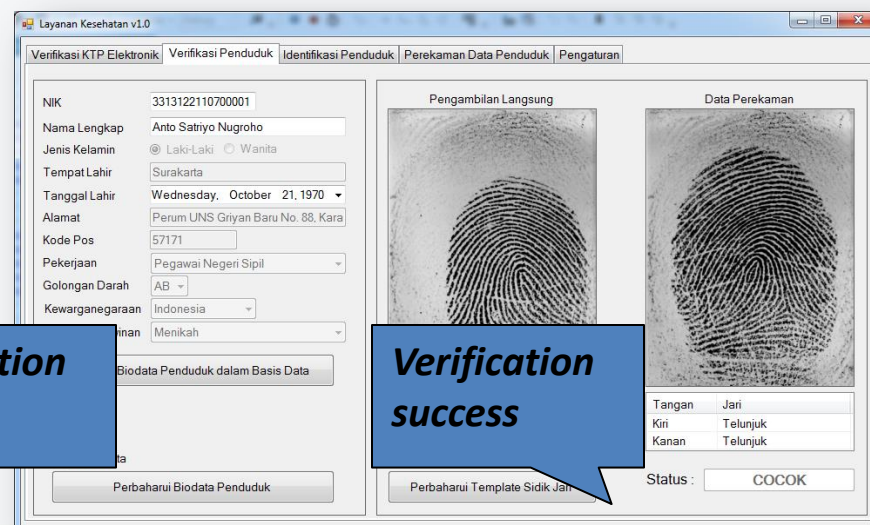
Periksa Biodata Penduduk dalam Basis Data

☐ Ubah Data  
Perbarui Biodata Penduduk

**Pengambilan Langsung**  
  
Pemadanan Sidik Jari

**Data Perekaman**  
  
Tangan: Kiri, Kanan  
Jari: Telunjuk, Telunjuk  
Status: **TIDAK COCOK**

Verification failed





**Layanan Kesehatan v1.0**  
Verifikasi KTP Elektronik | Verifikasi Penduduk | **Identifikasi Penduduk** | Perekaman Data Penduduk | Pengaturan

NIK: 3313122110700001  
Nama Lengkap: Anto Satriyo Nugroho  
Jenis Kelamin: ☒ Laki-Laki ☐ Wanita  
Tempat Lahir: Surakarta  
Tanggal Lahir: Wednesday, October 21, 1970  
Alamat: Perum UNS Griyan Baru No. 88, Kara  
Kode Pos: 57171  
Pekerjaan: Pegawai Negeri Sipil  
Golongan Darah: AB  
Kewarganegaraan: Indonesia  
Status Perkawinan: Menikah

Periksa Biodata Penduduk dalam Basis Data

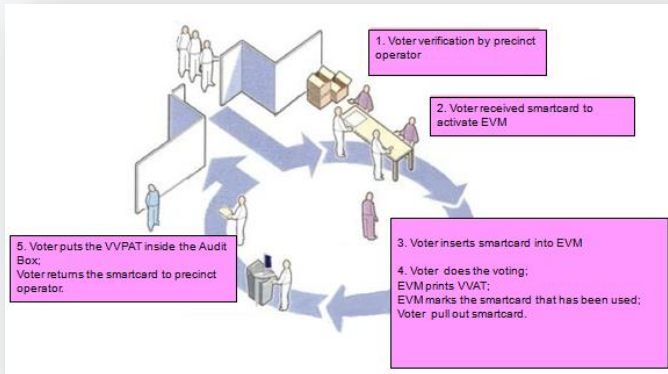
☐ Ubah Data  
Perbarui Biodata Penduduk

**Pengambilan Langsung**  
  
Pemadanan Sidik Jari

**Data Perekaman**  
  
Tangan: Kiri, Kanan  
Jari: Telunjuk, Telunjuk  
Status: **COCOK**

Verification success

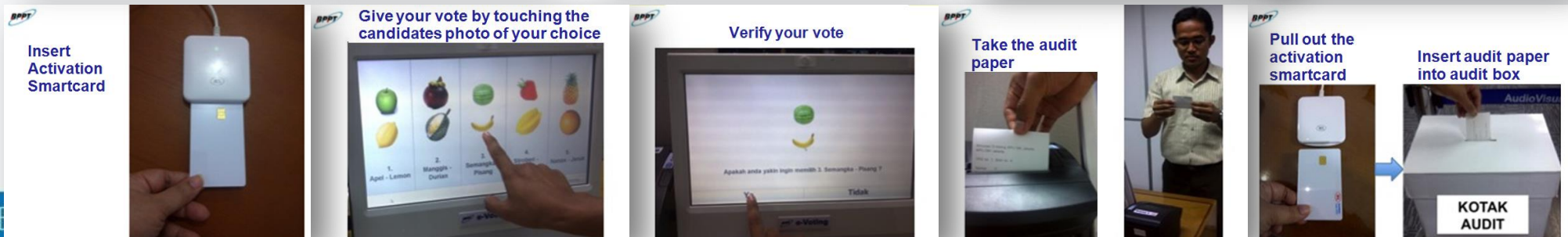
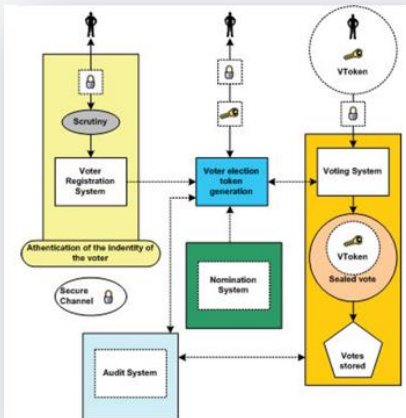
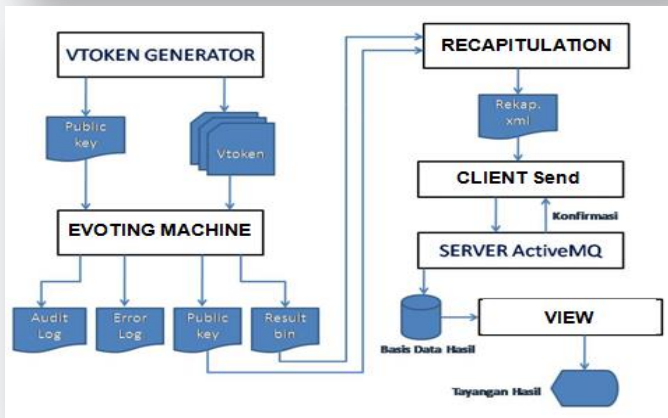
# Toward Electronic Election in Villages, District, Regencies, Cities and National Election

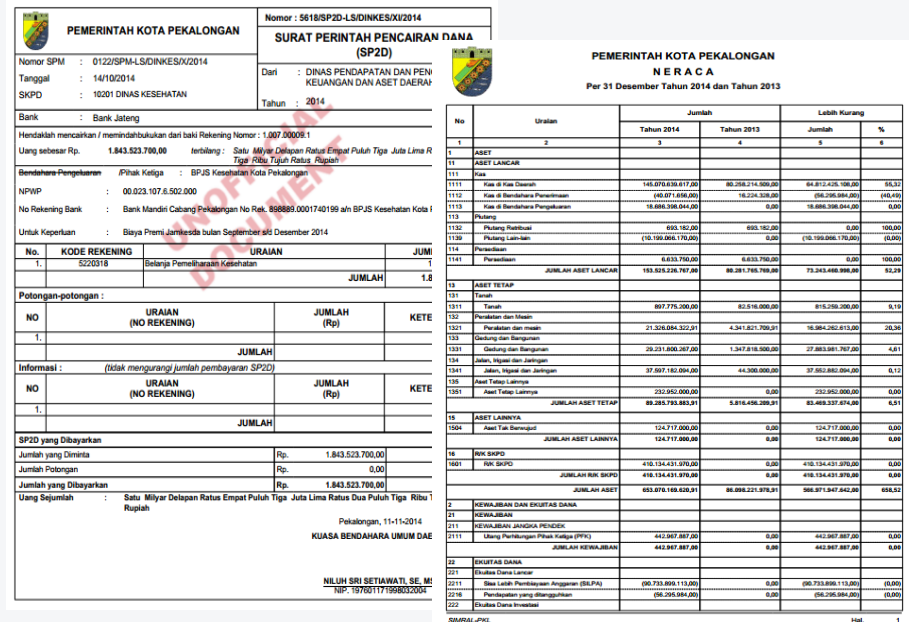
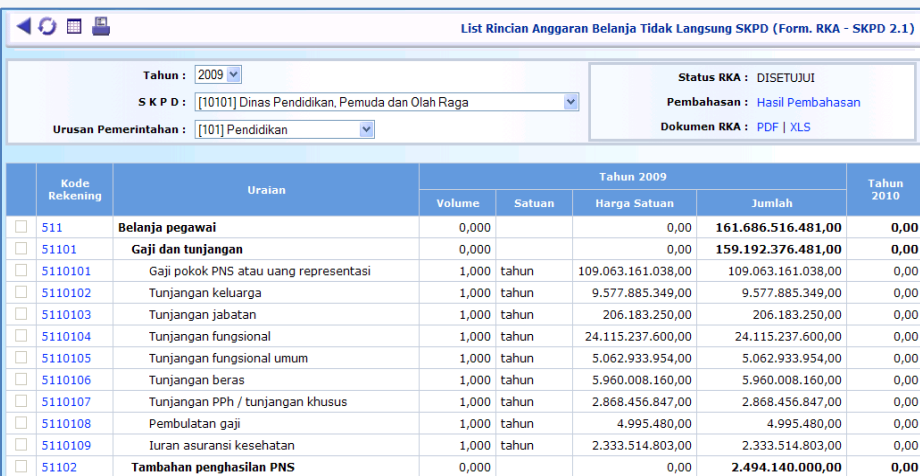


## Electronic Voting

Implemented on > 200 villages in Indonesia

Security features in e-Voting using VTOKEN & VVPAT (Voter Verified Paper audit Trail)







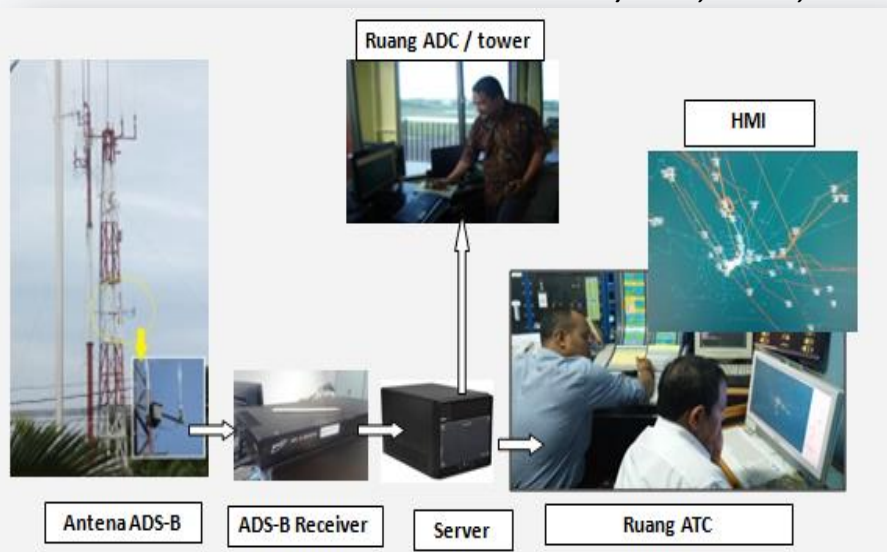
**BPPT**  
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(BPPT)

## Government CA Infrastructure



## Air Traffic Management

CNS/ATM, ADSB, ETA



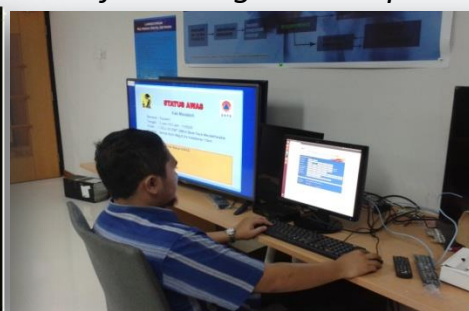
## Electromedica

USG,  
ECG,  
Haemodialisis



## Early Warning System

EWS Feature for TV Digital Settopbox.



## Electronic ID & Smartcard

National e-ID & Smartcard Reader, Development & Testing.



# Partners & Collaborations

- **National**

- **Ministries :** National Election Committee, Coord.Min for Politic, Law & Security, Min. of Communication & Informatics, Min. of Internal Affairs, Min. of Health, etc.
- **Districts governments :** South Tangerang City, Pekalongan City, Bogor City, Musi Rawas Regency, Pemalang Regency, Pemalang Regency, Batanghari Regency, Probolinggo Regency, Situbondo Regency, etc.
- **Industry :** PT. INTI, PT. LEN, PT. Solusi247, etc.
- **Associations :** APJII, ICSF, etc.
- **Universities :** UNS\*

- **International**

- Universal Speech Translation Advanced Research (U-STAR) Consortium
- ALT (Asean Language Treebank) Consortium\*
- Hongkong PKI,
- MDEC Malaysia,
- Asean CIO Association
- Connect2Sea Consortium



KEMKOMINFO



# EU-ASEAN CIO Forum

## “Building the Digital Platform – Exchanging on ASEAN and EU Best Practices and Fostering toward Enhanced Collaboration”

Jakarta, 2 March 2016



Mr. Budi Yuwono from  
ASEAN Secretariat



- Organizers : Connect2Sea Consortium & BPPT
  - Coorganized by ASEAN CIO Association (ACIOA)
- Objectives :
  - To share the challenges, experiences and good practices on the role of Chief Information Officer in making use of digital platforms and maximizing their use;
  - To promote ASEAN and ASEAN-EU ICT collaboration opportunities.
- Attendees :
  - Directive from ASEAN Secretariat
    - Speakers & Moderators : ~ 16
    - Participants : ~ 70
  - CIO Associations of Indonesia and ASEAN countries,
  - Government-, Corporate- and Academic CIOs,
  - ICT Experts and Councilors from EU & SEA,
  - ICT policy makers,
  - Government (ICT) Officers,
  - ICT industries & ICT practitioners,
  - ICT researchers and engineers.

Mr. Hammam Riza from BPPT  
as Connect2Sea Member & organizer



## ***“CIO challenges, best practices and lesson learns in public- and private sectors”***



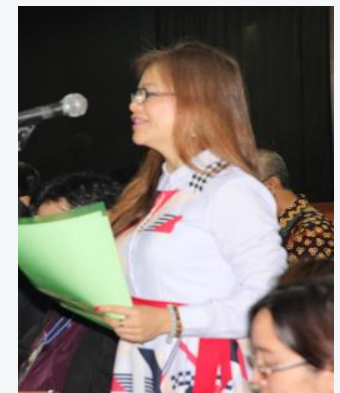
### **Discussion Points :**

- Key components of successful collaboration, and weaknesses in collaboration method beside cultural issues.
- Strategy and experiences of CIOs in implementing ICT, in government and corporate organizations.
- Sharing of challenges such as policy, regulation and structural issues; including different orientation between government and corporate CIO's, that government was more process oriented, and corporate was more technology oriented..
- The needs for common vision in collaboration, and also the need for standard, policy, and collaboration of ASEAN government CIOs.

### **Session 1 speakers :**

- Mr. Chaicharearn Atibaedya – Thailand (President of ACIOA)
- Mr. Wallace Koh Hoe Aik – Councilor ACIOA, Brunei Darussalam
- Mr. Michael Andreas Purwoadi – Director of ICT Centre, BPPT
- Mr. Alessandro Guarino, StudioAG, Italy, Expert member of the TC on Cybersecurity, ETSI
- Mr. Nicolas Ojeda Jr., Deputy Exec. Director for Cybersecurity, DoST Philippines

Moderator : Mr. Hammam Riza.



## ***“Challenges for CIO in designing, building and making use of digital platform for value creation in the organization”***



### **Discussion Points :**

- The main drivers of ICT business are technology, employee and customer experiences
- Characteristic of bimodal IT, which was on one side emphasized safety and accuracy, and on the other- agility and speed.
- Key challenges in providing services from digital culture, leadership, digital business center of excellence, HR knowledge and skills, to creation of new business capabilities
- Sharing of corporate strategic initiatives such as IT core modernization, building secure and smart platform.
- Sharing of Gov. Architecture Framework of ITI (ITI-GAF), a practical approach as step-by-step guidance for CIO.
- There were ***common concerns about security, data privacy protection and security compliance issues between different regions.***

### **Session 2 speakers :**

- Mr. Sihmirmo Adi – Deputy SGM Inf. System Center, PT. Telekomunikasi Indonesia
- Mr. Juan Luca de Tena Riveiro, PT. Indra IT Services Indonesia-Spain
- Mr. Aiviet Nguyen – ITI VNU, Vietnam
- Ms. Lim May-Ann, Exec. Director of the Asia Cloud Computing Association (ACCA), Singapore
- Mr. Tony Seno Hartono - NTO Microsoft Indonesia

Moderator : Mr. M. Sarinanto



## *“Opportunities for ICT collaboration and networking between CIOs/ICT specialists”*

### Session 3 speakers :

- Mr. Suhono H. Supangkat – International Academy of CIO (IAC) Indonesia – ITB Bandung
- Mr. Pierre-Yves Danet, Chair of Research and Innovation Working Group of ETNO, and Orange Labs, France
- Mr. Ardi Sutedja K., Indonesia Chief Information Officers (id.CIO).
- Mr. Isara Ai, Secretary General of ICT Federation, Cambodia

Moderator : Ms. Hongsin Kwek



### Discussion Points :

- Sharing information on various ICT opportunities in different countries, both from implementation sides and RDI.
- Such opportunities were for example cloud open stack environment and middleware platform; mobile applications, big data and cloud computing; data protection and cyber security, and also **smart city**.



# Conclusions from the CIO Forum ...



CIO Forum closing remarks by  
Connect2Sea Project Coordinator  
Ms. Svetlana Klessova

- CIO held such an important role, as one who
  - stand between external- and internal parties of organization
  - responsible to the board- and must adhere to the regulators
  - deal with the strategic-, as well as implementation issues

- Understanding the ICT issues were critical
  - to open and develop potential ICT collaboration,
  - for embracing trends and anticipating business needs,
  - driving changes
  - and strengthening CIO community.



# ... and way forward

- Importance of CIO Forum :
  - where discussions and sectors collaboration may occurred,
  - cover many topics from a holistic approach and from the actual organizations problems and needs
  - the linkage between strategic implementation and operational issues, to research, development and innovations.
- CIO Forum should be encouraged, whether it is:
  - CIO Forum for inter-government or between government organizations ,
  - CIO Forum between government and non-government/corporate CIOs
  - CIO Forum between CIOs from countries in one region, or between regions.

# THANK YOU