

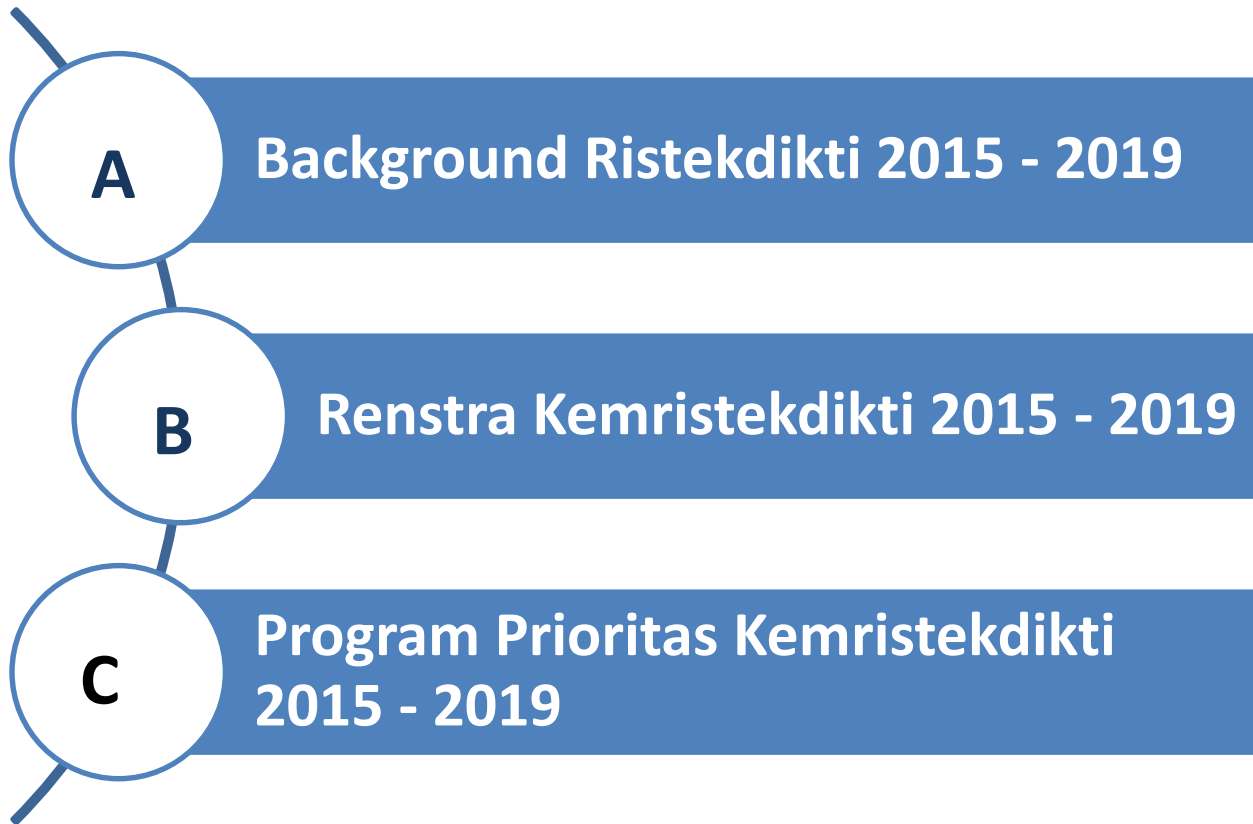
Peran Kemristekdikti dalam Meningkatkan Daya Saing Bangsa

Patdono Suwignjo

**Direktorat Jenderal Pendidikan Tinggi
Kementerian Pendidikan dan Kebudayaan**

Jakarta 2015

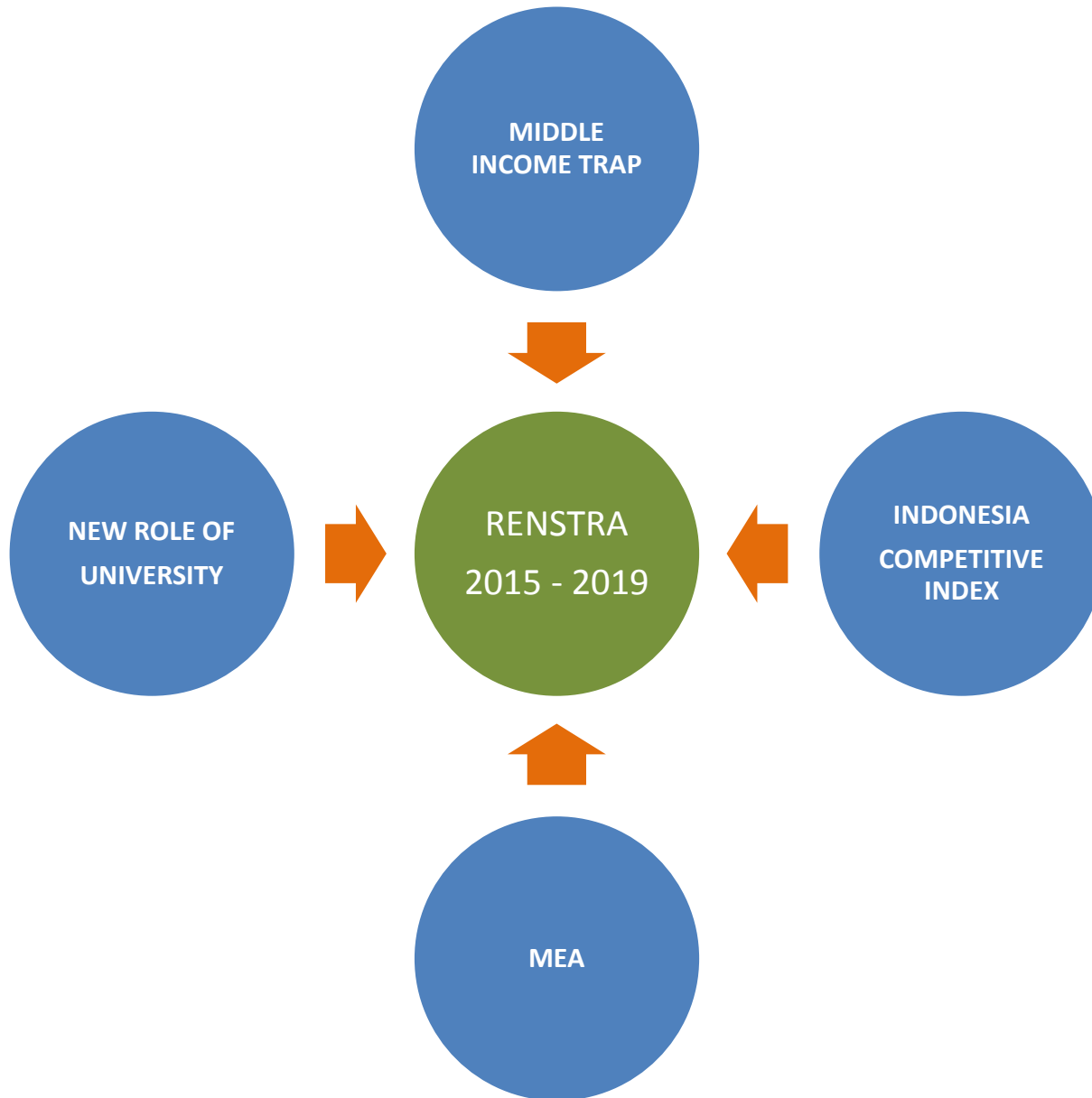
Outline



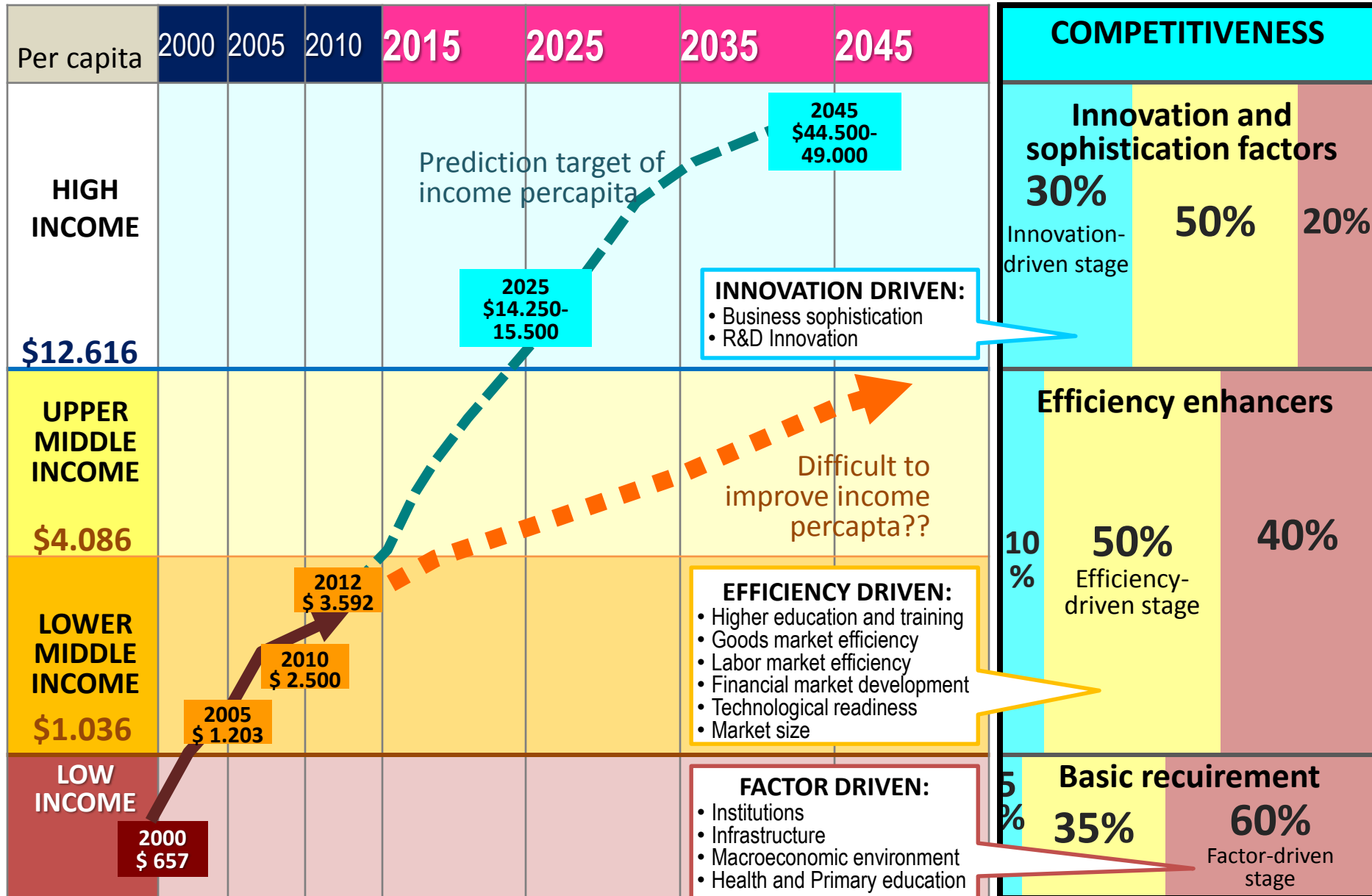
A

Background Ristekdikti 2015 - 2014

Background Ristekdikti 2015 - 2019



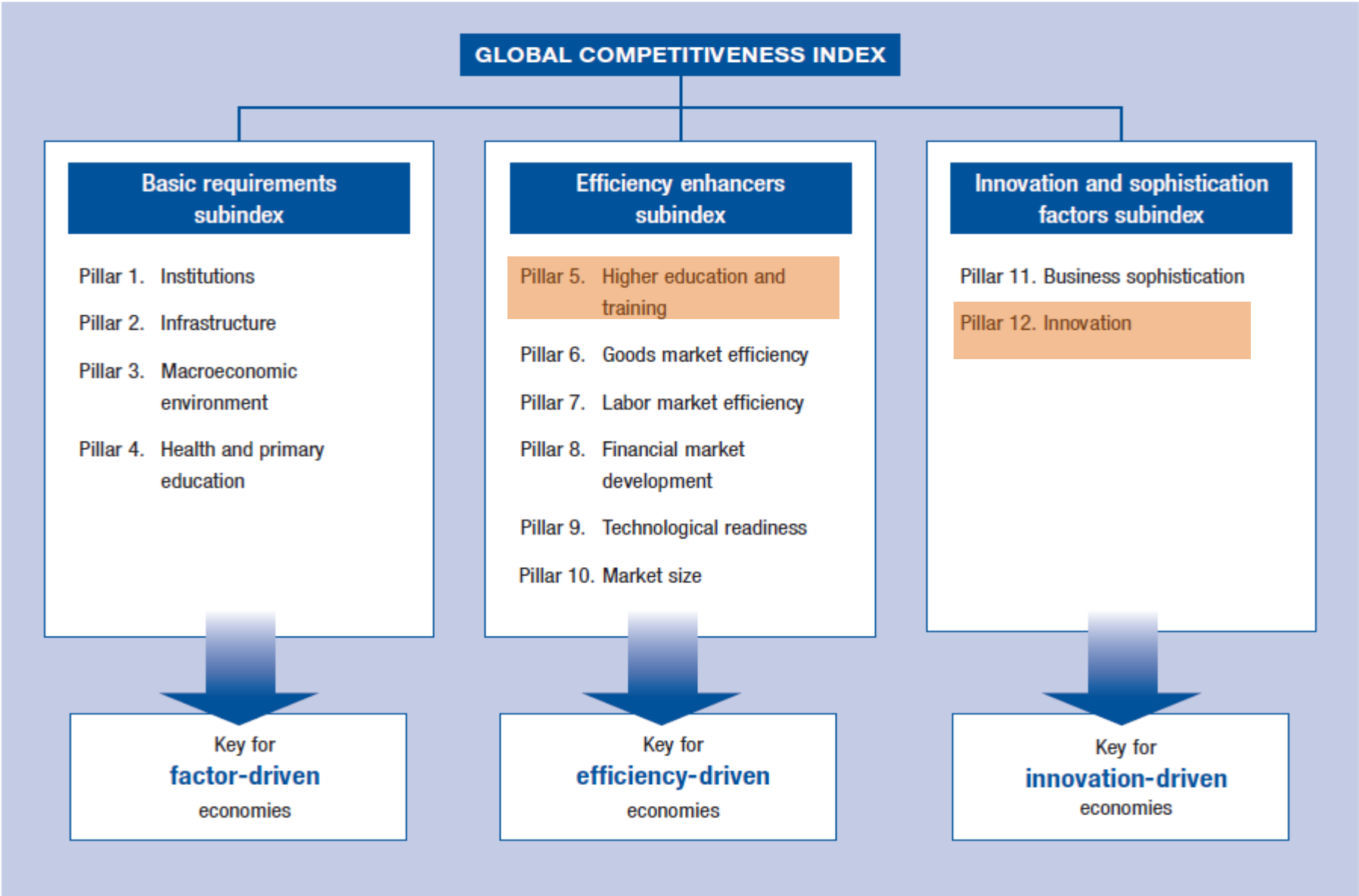
ESCAPING FROM MIDDLE INCOME TRAP



Sumber: Economist Pocket World in Figures 2014, WEF-GCR 2013

IMPROVING COMPETITIVENESS INDEX

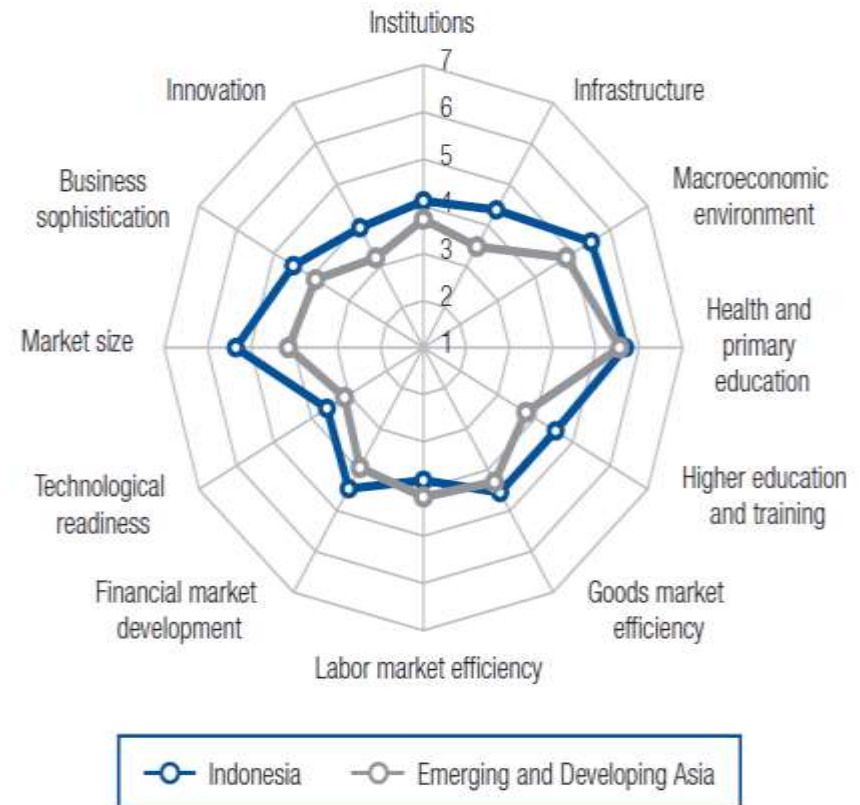
Figure 1: The Global Competitiveness Index framework



Global Competitiveness Index

| | Rank (out of 144) | Score (1-7) |
|------------------------------------------------------------|----------------------|----------------|
| GCI 2014–2015 | 34 | 4.6 |
| GCI 2013–2014 (out of 148)..... | 38..... | 4.5 |
| GCI 2012–2013 (out of 144)..... | 50..... | 4.4 |
| GCI 2011–2012 (out of 142)..... | 46..... | 4.4 |
| Basic requirements (40.0%) | 46 | 4.9 |
| Institutions..... | 53..... | 4.1 |
| Infrastructure..... | 56..... | 4.4 |
| Macroeconomic environment..... | 34..... | 5.5 |
| Health and primary education..... | 74..... | 5.7 |
| Efficiency enhancers (50.0%) | 46 | 4.4 |
| Higher education and training..... | 61..... | 4.5 |
| Goods market efficiency..... | 48..... | 4.5 |
| Labor market efficiency..... | 110..... | 3.8 |
| Financial market development..... | 42..... | 4.5 |
| Technological readiness..... | 77..... | 3.6 |
| Market size..... | 15..... | 5.3 |
| Innovation and sophistication factors (10.0%) | 30 | 4.2 |
| Business sophistication..... | 34..... | 4.5 |
| Innovation..... | 31..... | 3.9 |

Stage of development



FULFILLING PEOPLE EXPECTATION (ROLE OF UNIVERSITY)

“...university encompasses a ‘third-mission’ of economic development in addition to research and teaching.” Readings (1996)

ULTIMATE CONTRIBUTION

PEOPLE EXPECTATION

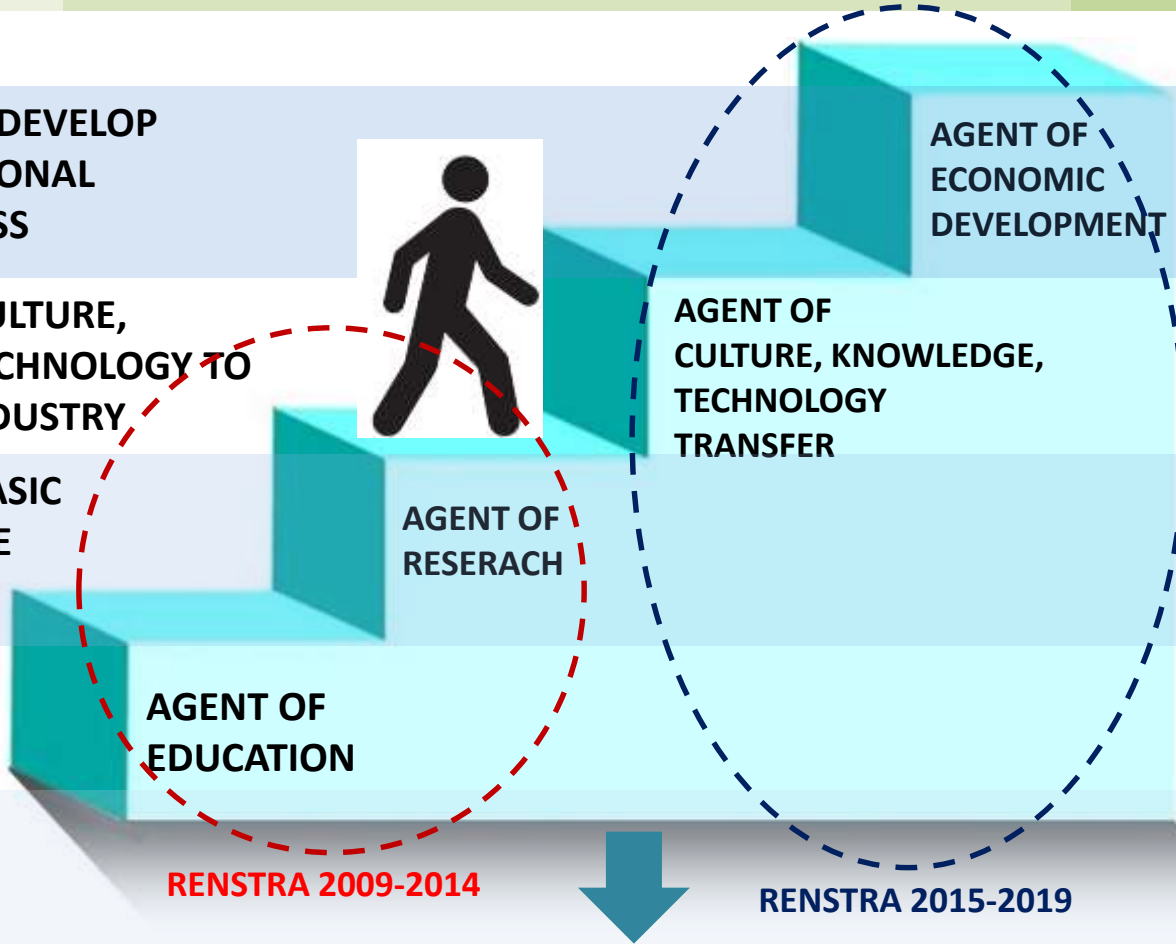
MAIN PERFORM. INDICATOR

INNOVATING TO DEVELOP LOCAL AND NATIONAL COMPETITIVENESS

TRANSFERRING CULTURE, KNOWLEDGE, TECHNOLOGY TO SOCIETY AND INDUSTRY

RESEARCHING BASIC AND APPLICATIVE PROBLEMS

EDUCATING PEOPLE



INNOVATION,
EMPLOYMENT
INDUSTRY
Rp GENERATED

C,K,T
TRANSFERED
INDUSTRY AND
COMMUNITY

PUBLICATION
PATENT
CITATION
UNIVERSITY RANKING

GRADUATE
EMPLOYABILITY
WAITING TIME

RENSTRA 2009-2014

RENSTRA 2015-2019

PERLU REFORMASI PENDIDIKAN TINGGI (TERMASUK RESTRUKTURISASI DIKTI) SEHINGGA DISAMPING MENGHASILKAN LULUSAN, RISET, TRANSFER TEKNOLOGI KE MASYARAKAT, PERGURUAN TINGGI JUGA MENGHASILKAN INOVASI YANG BISA MENINGKATKAN DAYA SAING DAN KESEJAHTERAAN MASYARAKAT DAN BANGSA

Apa itu Masyarakat Ekonomi ASEAN?

ASEAN Economic Community (AEC 2015): key characteristics

- Free flow of goods
- Free flow of services
- Free flow of investment
- Free flow of capital
- Free flow of skilled labor

**Single
market and
production
base**

**Competitive
economic
region**

- Competition policy
- Consumer protection
- Intellectual property rights
- Infrastructure development
- Taxation & e-commerce

- SME development
- Initiative for ASEAN integration

**Region of
equitable
economic
development**

**Region fully
integrated
into the
global
economy**

- Coherent approach towards external economic relations
- Enhanced participation in global supply networks

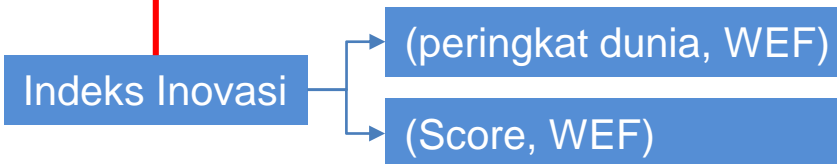
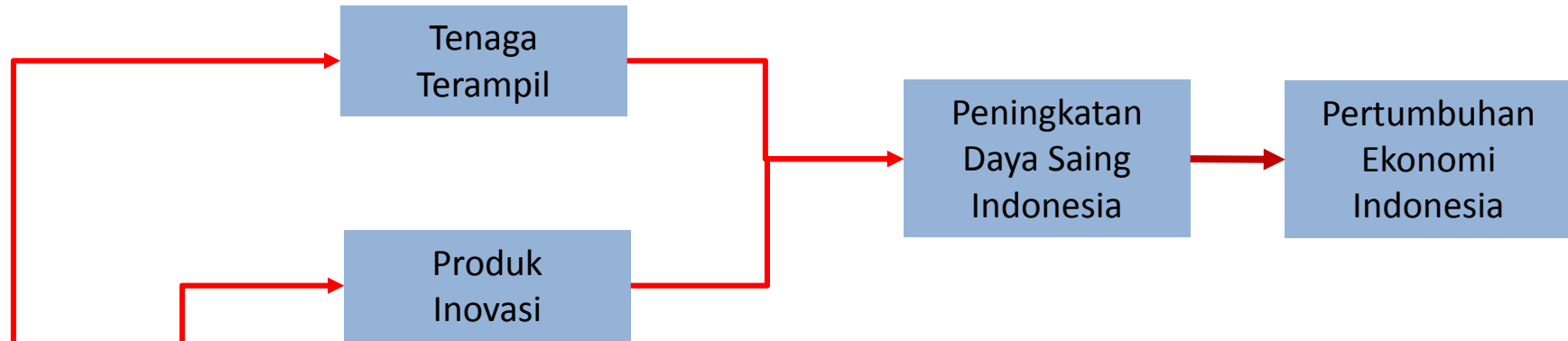
Kekuatan Ekonomi ASEAN

| Country | Gross domestic product at current prices | Gross domestic product per capita at current prices | | International merchandise trade | | | Foreign direct investments infow | |
|-------------------|------------------------------------------|-----------------------------------------------------|----------|---------------------------------|--------------|--------------|----------------------------------|--------------|
| | US\$ million | US\$ | US\$ PPP | US\$ million | US\$ million | US\$ million | US\$ million | US\$ million |
| | 2012 | 2012 | 2012 | 2012 | 2012 | 2012 | 2011 | 2012 |
| Brunei Darussalam | 16,969.7 | 42,445.5 | 55,399.6 | 13,182.2 | 3,674.1 | 16,856.3 | 1,208.3 | N/A |
| Cambodia | 14,411.2 | 977.6 | 2,515.6 | 7,434.9 | 11,228.8 | 18,663.7 | 891.7 | 1,557.1 |
| Indonesia | 878,223.4 | 3,587.9 | 4,971.4 | 190,031.8 | 191,689.5 | 381,721.3 | 19,241.6 | 19,853.4 |
| Lao PDR | 9,083.1 | 1,394.3 | 2,904.5 | 2,655.2 | 3,503.5 | 6,158.8 | 300.7 | 294.4 |
| Malaysia | 305,154.4 | 10,337.9 | 16,975.4 | 227,537.8 | 196,392.6 | 423,930.3 | 12,000.9 | 9,400.0 |
| Myanmar | 52,524.9 | 861.4 | 1,450.2 | 9,314.9 | 9,188.4 | 18,503.3 | 2,057.0 | 1,152.3 |
| Philippines | 250,542.7 | 2,564.6 | 4,339.4 | 51,995.2 | 65,386.4 | 117,381.6 | 1,815.9 | 2,797.0 |
| Singapore | 276,609.5 | 52,068.7 | 61,461.2 | 408,393.6 | 379,723.3 | 788,116.9 | 55,285.2 | 56,172.0 |
| Thailand | 366,126.6 | 5,391.2 | 9,610.8 | 229,524.2 | 247,777.7 | 477,301.9 | 8,999.4 | 10,697.0 |
| Viet Nam | 141,669.1 | 1,595.9 | 3,706.5 | 114,510.7 | 113,282.5 | 227,793.3 | 7,519.0 | 8,368.0 |
| ASEAN | 2,311,314.7 | 3,748.4 | 5,865.4 | 1,254,580.7 | 1,221,846.8 | 2,476,427.4 | 109,319.9 | 110,291.2 |

Source: <http://www.asean.org/news/selected-key-indicators>

B

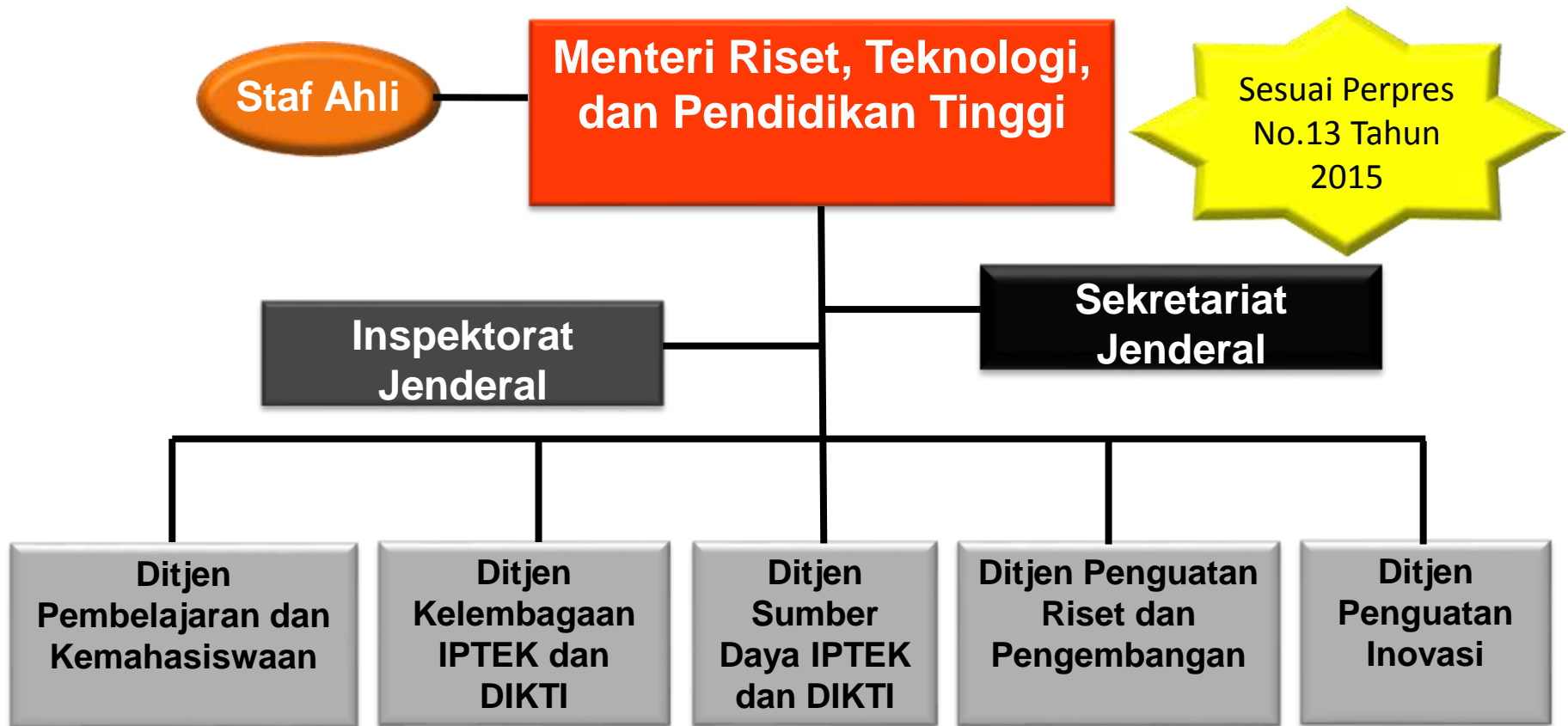
Renstra Kemristekdikti 2015 - 2019



| | 2015 | 2016 | 2017 | 2018 | 2019 |
|------------------------|------|------|------|------|------|
| (peringkat dunia, WEF) | 30 | 29 | 28 | 27 | 26 |
| (Score, WEF) | 4,6 | 4,7 | 4,8 | 4,9 | 5,0 |
| (peringkat dunia, WEF) | 60 | 59 | 58 | 57 | 56 |
| (score, WEF) | 4,0 | 4,1 | 4,2 | 4,3 | 4,4 |



STRUKTUR ORGANISASI KEMENRISTEK DAN DIKTI



TARGET PROGRAM KEMENRISTEK DAN DIKTI (1)

Program Pembelajaran dan Kemahasiswaan

| No | Indikator Program | Target | | | | |
|----|--------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 |
| 1 | APK PT Usia 19-23 Tahun *) | 26.86% (5.800.097 / 21.592.800) | 28.16% (6.117.847 / 21.727.300) | 29.54% (6.453.374 / 21.847.000) | 31.07% (6.816.845 / 21.941.000) | 32.56% (7.167.036 / 22.012.400) |
| 2 | Persentase Mahasiswa Diploma dan Sarjana yang Dilatih Kewirausahaan dengan Bekerjasama dengan Dunia Usaha/Dunia Industri | 50% (50% X 5.800.097) | 60% (60% X 6.117.847) | 70% (70% X 6.453.374) | 80% (80% X 6.816.845) | 90% (90% X 7.167.036) |
| 3 | Persentase Lulusan bersertifikat kompetensi | 60% | 62% | 65% | 70% | 75% |

*) Perhitungan APK berdasarkan Jumlah Mahasiswa PT diluar PTA dibagi Jumlah Penduduk Usia 19 – 23 Tahun berdasarkan sensus Tahun 2010

TARGET PROGRAM KEMENRISTEK DAN DIKTI (2)

Program Penguatan Kelembagaan

| No | Indikator Program | Target | | | | |
|----|---------------------------------------------|--------|------|------|------|------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 |
| 1 | Jumlah Perguruan Tinggi Masuk Top 500 Dunia | 3 | 4 | 5 | 6 | 7 |
| 2 | Jumlah PT berakreditasi A | 29 | 39 | 53 | 99 | 194 |
| 3 | Jumlah STP | 100 | 100 | 100 | 100 | 100 |
| 4 | Jumlah Pusat Unggulan Inovasi | 10 | 20 | 30 | 40 | 50 |

Program Penguatan Sumber Daya

| No | Indikator Program | Target | | | | |
|----|---------------------------------------------------------------------------|--------|--------|--------|--------|--------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 |
| 1 | Jumlah Dosen Berkualifikasi S3 | 24.000 | 26.000 | 29.000 | 32.000 | 35.000 |
| 2 | Jumlah SDM Litbang berkualifikasi master dan doktor | 3.398 | 3.483 | 3.568 | 3.653 | 3.738 |
| 3 | Jumlah sarana dan prasarana litbang dan pendidikan yang direvitalisasi *) | 125 | 130 | 135 | 140 | 145 |

*) Belum ada alokasi anggaran untuk sarpras litbang

TARGET PROGRAM KEMENRISTEK DAN DIKTI (3)

Program Penguatan Riset dan Pengembangan

| No | Indikator Program | Target | | | | |
|----|---------------------------------------|--------|------|------|------|-------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 |
| 1 | Jumlah Paten yang Terdaftar | 1580 | 1735 | 1910 | 2100 | 2305 |
| 2 | Jumlah Publikasi Internasional | 5008 | 6229 | 7769 | 9689 | 12089 |
| 3 | Jumlah Prototipe/Teknologi Tepat Guna | 530 | 632 | 783 | 930 | 1081 |

Program Penguatan Inovasi

| No | Indikator Program | Target | | | | |
|----|-----------------------|--------|------|------|------|------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 |
| 1 | Jumlah Produk Inovasi | 28 | 38 | 50 | 62 | 74 |

C

Program Prioritas Kemristekdikti 2015 - 2019

Program Prioritas

- Implementasi SNPT
- Implementasi KKNI
- Pendirian LAM
- Pendirian LL-DIKTI
- Pendirian dan pemberdayaan AK
- Sertifikasi Profesi
- Bidikmisi
- Pelatihan Kewirausahaan
- World Class University**
- Pembangunan RS-PTN

- Pendirian STP**
- Hilirisasi hasil penelitian (Inovasi)
- Pusat Unggulan Iptek**
- Desa Inovasi

Output

Tenaga Terampil Pendidikan Tinggi

Produk Inovasi

Outcome

Peningkatan Daya Saing Indonesia

| |
|----------------------|
| GCI 2015–2016 ... ?? |
| GCI 2014–2015 ... 34 |
| GCI 2013–2014 ... 38 |
| GCI 2012–2013 ... 50 |
| GCI 2011–2012 ... 46 |

Kebijakan Pengembangan World Class University (WCU)

Top 500 Dunia 2014/2015/2016



VS



| Universitas | Rangking 2015 | Rangking 2016 |
|-------------|---------------|---------------|
| 1 UI | 310 | 358 |
| 2 ITB | 461-470 | 431 - 440 |
| 3 UGM | 551-600 | 551 - 600 |
| 4 IPB | 701 + | 701 + |
| 5 UNAIR | 701 + | 701 + |

| No | Universitas | Ranking 2015 | Rangking 2016 |
|----|-------------|--------------|---------------|
| 1 | UM | 151 | 146 |
| 2 | UKM | 259 | 312 |
| 3 | UTM | 294 | 303 |
| 4 | USM | 309 | 289 |
| 5 | UPM | 379 | 331 |

| Kode | Sasaran Program (Outcome)/IKP | | | | | |
|------|---------------------------------------------|--------------|-------------------|-------------------|---------------------------|----------------------------------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 |
| IKP1 | Jumlah Perguruan Tinggi masuk top 500 dunia | 2 UI, ITB | 3 UI, ITB, UGM | 3 UI, ITB, UGM | 4 UI, ITB, UGM, IPB | 5 UI, ITB, UGM, IPB, UA |

- Pembentukan Tim Pendamping World Class University
- Pendalaman metode perancangan
- Pendalaman data yang dibutuhkan
- Pemetaan nilai saat ini
- Pendalaman kelemahan PT Indonesia
- Perumusan program peningkatan ranking
- Pemberian hibah peningkatan ranking
- Pelaksanaan pendampingan oleh Tim Pendamping
- Monitoring Evaluasi

Kebijakan Pengembangan Science and Techno Park



VISI-MISI PRESIDEN RI

Nawa Cita ke-6:

Membangun sejumlah Science dan Techno Park di daerah-daerah, politeknik dan SMK-SMK dengan prasana dan sarana dengan teknologi terkini.

STP dibangun sebagai wahana hilirisasi IPTEK untuk mendorong pertumbuhan ekonomi daerah melalui penyebaran pusat-pusat pertumbuhan dalam rangka pemerataan antar Wilayah

Kawasan yang dikelola oleh manajemen profesional untuk mendorong pertumbuhan ekonomi secara berkelanjutan melalui penguasaan, pengembangan, dan penerapan Iptek yang relevan.

Diadaptasi dari *International Association of Science Parks, 2002*

LAYANAN STP BAGI MASYARAKAT / *TENANT*

| FUNGSI | LAYANAN STP THDP PENGGUNA | FASILITAS PENDUKUNG | OUTPUT |
|-----------------------------|-------------------------------|-----------------------------------------------------|--------------------------------------------------|
| Unit Pelayanan Teknis (UPT) | 1. Pelatihan | Ruang Pelatihan | Jumlah usaha kecil atau masyarakat yang dilayani |
| | 2. Pemagangan | Fasilitas Produksi Percontohan | |
| | 3. Demonstrasi | | |
| | 4. <i>Advisory</i> | Ruang Pameran, Dokumentasi, Ruang Jaringan ke Pakar | |
| | 5. Informasi | | |
| Unit Pengembangan Teknologi | 1. Disain teknologi | Pusat Disain | Jumlah teknologi baru yang didiseminasi |
| | 2. Purwa Rupa | <i>Prototyping Center/Demplot</i> | |
| | 3. Layanan HKI | Penghubung ke Kantor HKI/Paten | |
| Unit Inkubator Bisnis | Dukungan bagi <i>Start Up</i> | Kantor Bersama | Jumlah wirausaha baru berbasis inovasi |
| | | Ruang Usaha | |
| | | Fasilitas Produksi Percontohan | |
| | | Pusat Layanan Bisnis | |
| | | Lembaga Pembiayaan | |
| | | Ruang Pelatihan | |

PENGEMBANGAN STP KEMENTERIAN/LEMBAGA

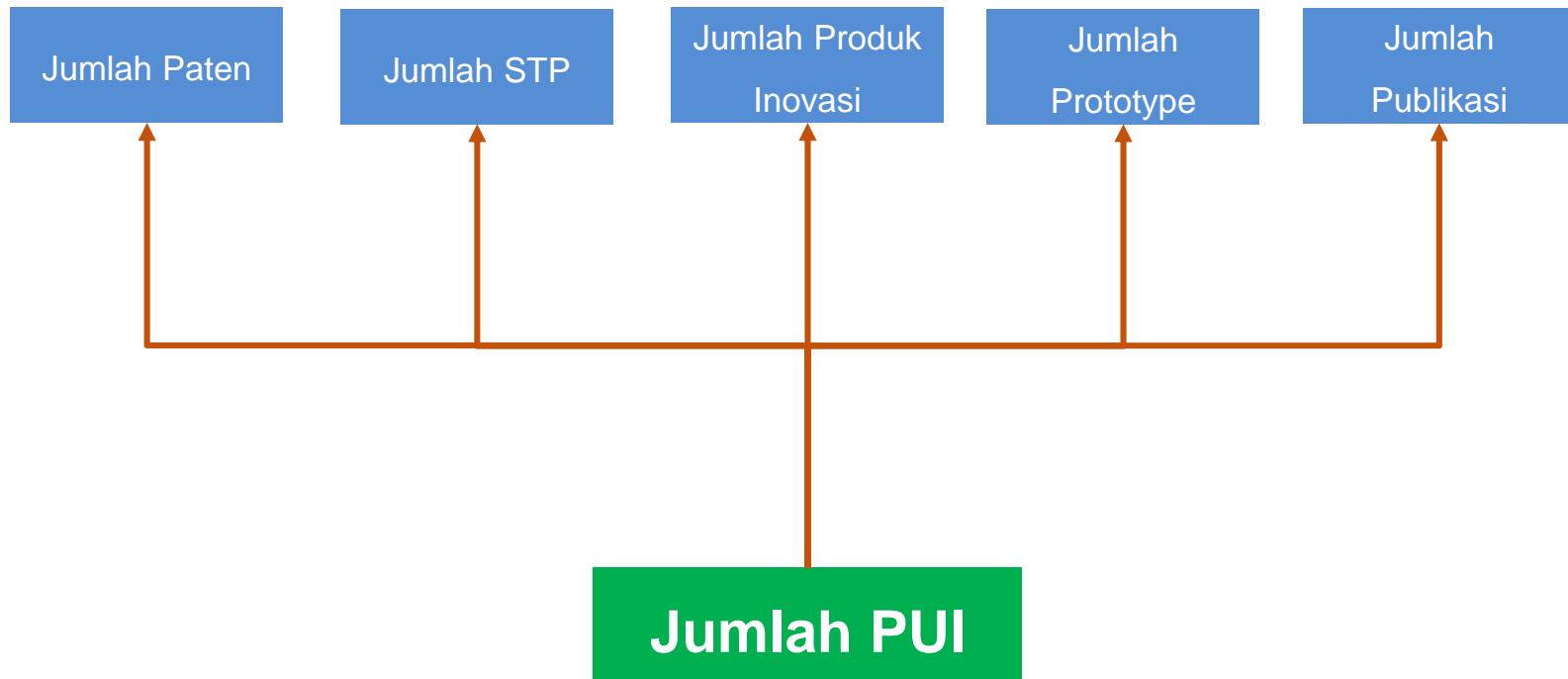
| No | K/L | Target 2015 | Realisasi 2015 | Target 2016 |
|----|------------------|-------------|----------------|-------------|
| 1 | Kemenristekdikti | 8 STP | 9 STP | 9 + ? STP |
| 2 | LIPI | 8 STP | 8 STP | 8 + ? STP |
| 3 | Batan | 3 STP | 3 STP | 3 + ? STP |
| 4 | BPPT | 9 STP | 9 STP | 9 + ? STP |
| 5 | Kemenperin | 5 STP | 5 STP | 5 + ? STP |
| 6 | KKP | 10 STP | 4 STP | 4 + ? STP |
| 7 | Kementan | 22 STP | 22 STP | 22 + ? STP |
| | Total | 65 STP | 60 STP | 100STP |

Kebijakan Pengembangan Pusat Unggulan Iptek (PUI)

Program Penguatan Kelembagaan

| No | Indikator Program | Target | | | | | Keterangan |
|----|-------------------------------------------------------------------|--------|------|------|------|------|----------------------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 | |
| 1 | Jumlah Perguruan Tinggi masuk top 500 dunia | 2 | 3 | 3 | 4 | 5 | Kumulatif |
| 2 | Jumlah Perguruan Tinggi berakreditasi A (Unggul) | 29 | 39 | 53 | 99 | 194 | Kumulatif |
| 3 | Jumlah Taman Sains dan Teknologi (TST) yang dibangun (Koordinasi) | 77 | 100 | 100 | 100 | 100 | Nominal lokasi tetap |
| | Jumlah Taman Sains dan Teknologi (TST) yang dibangun (Membangun) | 9 | 9 | | | | |
| 4 | Jumlah Taman dan Teknologi yang <i>mandiri</i> | 6 | 14 | 27 | 50 | 58 | Kumulatif |
| 5 | Pusat Unggulan Iptek | 12 | 15 | 20 | 25 | 30 | Kumulatif |

Pengaruh PUI Terhadap Indikator Lain



OECD Science, Technology and Industry Outlook 2014

INDONESIA

During the global financial crisis and the slowdown of the world economy, Indonesia maintained relatively high GDP growth, averaging 5.9% between 2009 and 2013. The government recognises the importance of innovation for maintaining strong growth.

Hot issue 1: Raising the returns to and impact of science. The role of universities and PRIs in supporting innovation has gained increasing attention, and the Ministry of Education and Culture has mandated universities to develop research plans based on national priorities, their existing resources and future development strategies. Excellence in basic and applied research is seen as essential and support for collaborative research is provided. In order to support universities' research capacity, their autonomy has also been strengthened.

Hot issue 2: Strengthening public R&D capacity and infrastructures. In carrying out the Master Plan for the Acceleration and Expansion of Indonesian Economic Development (MP3EI), the Ministry of Research and Technology (RISTEK) has developed the *Pusat Unggulan Iptek* (Centres of Excellence) Programme. Its aim is to increase the capacity and capability of Indonesia's leading research institutes by helping them improve their research infrastructures and by supporting strategic partnerships and networks and their contributions to the country's innovation system. Many of the institutions involved have connections abroad; these are reflected in Indonesia's indicator of co-authorship (Panel 1^a). In 2013 leading Indonesian researchers joined the International Institute for Applied Systems Analysis.

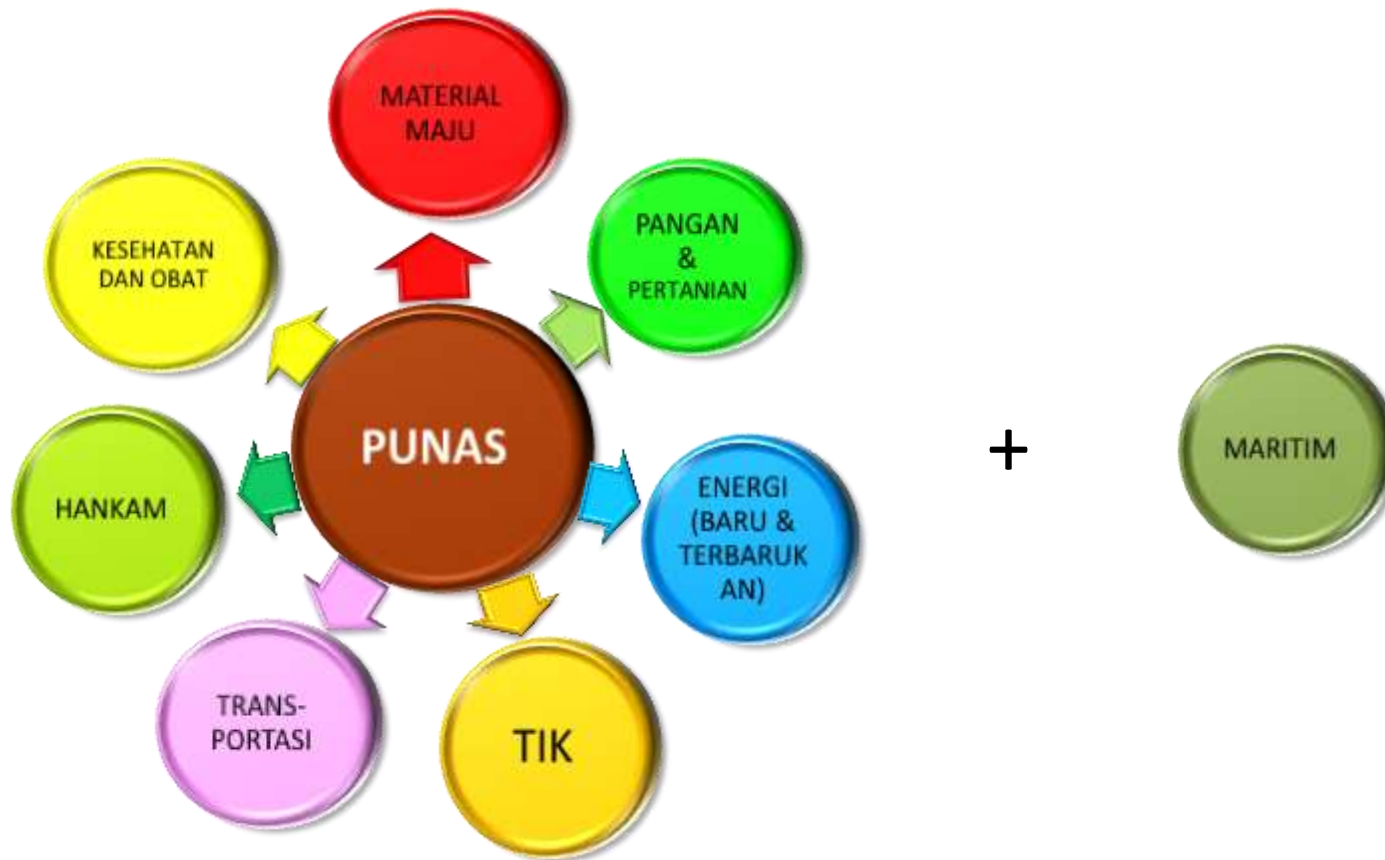
Hot issue 3: Improving the governance of the innovation system and policy. Indonesia's STI governance is complex and many bodies are involved. Effective co-ordination is a major challenge, which the independent National Innovation Committee (KIN), established in 2010, seeks to address. In 2012, a new institution, the Lembaga Pengelola Dana Pendidikan (IPDP), was created to manage Indonesia's education budget and the budget for research and related infrastructure development.

Hot issue 4: Targeting priority areas/sectors. The MP3EI has identified six economic sectors for development. Depend-

PUSAT UNGGULAN IPTEK

Suatu Organisasi Baik Berdiri Sendiri
Maupun Berkolaborasi dengan Organisasi
Lainnya (Konsorsium) yang melaksanakan
kegiatan-kegiatan riset spesifik secara
multi dan interdisiplin dengan standar hasil
yang sangat tinggi serta relevan dengan
kebutuhan Pengguna Iptek

TEMA RISET



KRITERIA PUI

Academic Excellence (35%)

- 1. 3 undangan untuk menjadi pembicara dalam konferensi internasional;**
- 2. 5 undangan sebagai pemakalah internasional;**
- 3. 3 kunjungan lembaga internasional ke Pusat Unggulan Iptek;**
- 4. 20 publikasi ilmiah pertahun dalam jurnal ilmiah nasional terakreditasi;**
- 5. 5 publikasi ilmiah pertahun dalam jurnal ilmiah internasional;**
- 6. 1 paten terdaftar atau rezim HKI lainnya yang terkait teknologi (khusus untuk lembaga litbang yang telah ditetapkan sebagai Pusat Unggulan Iptek minimal 1 paten *granted*);**
- 7. 2 lulusan S2/S3 per tahun berbasis riset.**

Komersialisasi & Pemanfaatan (65%)

- 1. 3 kontrak riset pada tingkat nasional;**
- 2. 1 kontrak riset pada tingkat internasional;**
- 3. 15 kontrak non riset (pelatihan, transfer teknologi, dan jasa konsultasi);**
- 4. 1 produk berbasis sumber daya lokal;**
- 5. 1 produk yang dilisensikan dan atau dimanfaatkan;**
- 6. 1 kontrak bisnis dalam rangka komersialisasi produk dengan industri;**
- 7. 1 unit bisnis yang melayani jasa sesuai dengan kompetensi inti lembaga.**

SEBARAN PUI 2015

| No | Pusat | Lokasi | Bidang | Status |
|----|-----------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------|-------------------------------------------------|
| 1 | Pusat Unggulan Iptek Kelapa Sawit (Puslit Kelapa Sawit, PT Riset Perkebunan Nusantara) | Medan, Sumut | Energi | Ditetapkan (2011) Pembinaan (2012-2014) |
| 2 | Pusat Unggulan Iptek Obat Herbal (Pusat Studi Biofarmaka, IPB) | Bogor, Jabar | Kesehatan & Obat | Ditetapkan (2013) Pembinaan (2013-2015) |
| 3 | Pusat Unggulan Iptek Bioteknologi Perkebunan (Puslit Bioteknologi dan Bioindustri Indonesia, PT Riset Perkebunan Nusantara) | Bogor, Jabar | Pangan & Pertanian | Ditetapkan (2014) Pembinaan (2015-2017) |
| 4 | Pusat Unggulan Iptek Hortikultura Tropika (Pusat Kajian Hortikultura Tropika, IPB) | Bogor, Jabar | Pangan & Pertanian | Ditetapkan (2013) Pembinaan (2012-2014) |
| 5 | Pusat Unggulan Iptek Karet (Puslit Karet, PT Riset Perkebunan Nusantara) | Bogor, Jabar | Lainnya () | Ditetapkan (2014) Pembinaan (2013-2015) |
| 6 | Pusat Unggulan Iptek Penyakit Tropis dan Infeksi (Lembaga Penyakit Tropis, Unair) | Surabaya, Jatim | Kesehatan & Obat | Ditetapkan (2012) Pembinaan (2012-2014) |
| 7 | Pusat Unggulan Iptek Kopi dan Kakao (Puslit Kopi dan Kakao, PT Riset Perkebunan Nusantara) | Jember, Jatim | Pangan & Pertanian | Ditetapkan (2012/2013) Pembinaan (2013-2015) |
| 8 | Pusat Unggulan Iptek Material Aktif (Pusat Litbang Material Aktif, Univ. Ma Chung) | Malang, Jatim | Kesehatan & Obat | Ditetapkan (2014) Pembinaan (2013-2015) |

SEBARAN PUI 2015

| No | Pusat | Lokasi | Bidang | Status |
|----|----------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|-----------------------|
| 10 | Pusat Unggulan Iptek Radiobiomolekul (Pusat Aplikasi dan Iradiasi Radioisotop, BATAN) | DKI Jakarta | Pangan & Pertanian | Pembinaan (2014-2016) |
| 11 | Pusat Unggulan Iptek Teknologi Isotop dan Radiasi (Pusat Teknologi Radioisotop dan Radiofarmaka, BATAN) | Tangerang Selatan, Jabar | Kesehatan & Obat | Pembinaan (2015-2017) |
| 12 | Pusat Unggulan Iptek Pascapanen Pertanian (Balai Besar Litbang Pascapanen, Kemtan) | Bogor, Jabar | Pangan & Pertanian | Pembinaan (2015-2017) |
| 13 | Pusat Unggulan Iptek Surfaktan dan Bioenergi (Pusat Studi Surfaktan dan Bioenergi, IPB) | Bogor, Jabar | Energi | Pembinaan (2015-2017) |
| 14 | Pusat Unggulan Iptek Teh dan Kina (Puslit Teh dan Kina, Gambung, PT Riset Perkebunan Nusantara) | Gambung, Kab. Bandung, Jabar | Pangan & Pertanian | Pembinaan (2015-2017) |
| 15 | Pusat Unggulan Iptek Teknologi Reklamasi Lahan (Konsorsium Teknologi Reklamasi Lahan, Jambi) | Jambi | Lainnya () | Pembinaan (2014-2016) |
| 16 | Pusat Unggulan Iptek Broadband Wireless Access (Pusat Mikroelektronika, ITB) | Bandung, Jabar | TIK | Pembinaan (2014-2016) |
| 17 | Pusat Unggulan Iptek Pengembangan Lahan Suboptimal (Konsorsium Riset Pengelolaan Lahan Sub Optimal, Unsri) | Palembang, Sumsel | Pangan & Pertanian | Pembinaan (2012-2014) |
| 18 | Pusat Unggulan Iptek Pengelolaan Hutan Berkelanjutan, Konsorsium Riset Pengelolaan Hutan Tropis Berkelanjutan, Unlam | Banjarbaru, Kalsel | Lainnya () | Pembinaan (2013-2015) |
| 19 | Pusat Unggulan Iptek Padi (Balai Besar Penelitian Padi, Kemtan) | Subang, Jabar | Pangan & Pertanian | Pembinaan (2015-2017) |

SEBARAN PUI 2015

| No | Pusat | Lokasi | Bidang | Status |
|----|--------------------------------------------------------------------------------------------------------|------------------------|------------------------|-----------------------|
| 20 | Pusat Unggulan Iptek Veteriner (Balai Besar Penelitian Veteriner, Kemtan) | Bogor, Jabar | Pangan & Pertanian | Pembinaan (2015-2017) |
| 21 | Pusat Unggulan Iptek Satwa Primata (Pusat Studi Satwa Primata, IPB) | Bogor, Jabar | Obat & Kesehatan | Pembinaan (2015-2017) |
| 22 | Pusat Unggulan Iptek Pariwisata (Konsorsium Riset Pariwisata, Udayana) | Denpasar, Bali | Lainnya () | Pembinaan (2013-2015) |
| 23 | Pusat Unggulan Iptek Rumput Laut (Konsorsium Riset Rumput Laut, Unhas) | Makasar, Sulsel | Pangan & Pertanian | Pembinaan (2013-2015) |
| 24 | Pusat Unggulan Iptek Ruminansia Besar (Konsorsium Riset Pengembangan Ruminansia Besar, Unram) | Mataram, NTB | Pangan & Pertanian | Pembinaan (2013-2015) |
| 25 | Pusat Unggulan Iptek Sagu (Konsorsium Riset Sagu, Univ. Papua) | Manokwari, Papua Barat | Pangan & Pertanian | Pembinaan (2013-2015) |
| 26 | Pusat Unggulan Iptek Agroindustri Berbasis Tebu (Puslit Gula, Pasuruan, PT Riset Perkebunan Nusantara) | Pasuruan, Jatim | Pangan & Pertanian | Pembinaan (2015-2017) |
| 27 | Pusat Unggulan Iptek Hidrodinamika Bangunan Apung (Balai Litbang Hidrodinamika, BPPT) | Surabaya, Jatim | (Transportasi) Maritim | Pembinaan (2015-2017) |

RENCANA PUI 2016-2019

| No | Pusat | Lokasi | Bidang | Status |
|----|----------------------------------------------------------|-------------------|--------|---------|
| 1 | Teknologi Kebencanaan, Unsyiah Aceh | Banda Aceh, NAD | | Rencana |
| 2 | Teknologi Pengembangan Energi, Unsri, Palembang | Palembang, Sumsel | | Rencana |
| 3 | Penelitian Baterai, Serpong | Tangsel, Jabar | | Rencana |
| 4 | Penelitian Agro Industri, Serpong | Tangsel, Jabar | | Rencana |
| 5 | Penelitian Biomaterial, Serpong | Tangsel, Jabar | | Rencana |
| 6 | Penelitian Bioteknologi, Cibinong | Bogor, Jabar | | Rencana |
| 7 | Penelitian Biologi, Cibinong | Bogor, Jabar | | Rencana |
| 8 | Penelitian Roket, LAPAN | | | Rencana |
| 9 | Perikanan Budidaya Perikanan | | | Rencana |
| 10 | Pengembangan Tanaman Pangan di Lahan Sub Optimal, Kemtan | | | Rencana |
| 11 | Pusat Studi Sains dan Teknologi Hijau, Unnes | Semarang, Jateng | | Rencana |
| 12 | Pusat Pengelolaan Lingkungan Hidup, Undip | Semarang, Jateng | | Rencana |
| 13 | Teknologi Perkapalan, ITS, Surabaya. | Surabaya, Jatim | | Rencana |
| 14 | Penelitian dan Pengembangan Bioteknologi, UGM | Yogyakarta, DIY | | Rencana |
| 15 | Penelitian Ekosistem Payau, KKP | | | Rencana |
| 16 | Penelitian Teknologi dan | | | Rencana |

KRITERIA KINERJA PTN-BH

| KRITERIA | SYARAT MINIMAL |
|---------------------------------------------------------------------|----------------------------------------------------------------------|
| A. AKADEMIK DAN MUTU | |
| PRODUKTIVITAS PUBLIKASI INTERNASIONAL | MASUK 9 BESAR DI INDONESIA |
| JUMLAH PATEN PER DOSEN | MASUK 9 BESAR DI INDONESIA |
| AKREDITASI INSTITUSI | A |
| AKREDITASI PROGRAM STUDI | > 80 % TERAKREDITASI A |
| AKREDITASI INTERNASIONAL | ADA PROGRAM STUDI/INSITUSI TERAKREDITASI INTERNASIONAL |
| B. TATAKELOLA | |
| COMPLIANCE | TAAT TERHADAP PERATURAN PERUNDANGAN TENTANG PENDIDIKAN TINGGI |
| OPINI LAPORAN KEUANGAN | MINIMAL 2 TH BERTURUT TURUT WTP |
| KASUS HUKUM BERAT | TIDAK ADA KASUS HUKUM BERAT |
| PNBP HASIL KERJASAMA | MINIMAL 100 M |
| PELAPORAN TEPAT WAKTU | TIDAK ADA LAPORAN WAJIB YANG TERLAMBAT |
| C. AFIRMASI MASYARAKAT MISKIN/TERTINGGAL | |
| BIDIKMISI | MELAKSANAKAN BISIKMISI DENGAN BAIK (JUMLAH DAN KETEPATAN PENYALURAN) |
| UKT | > 5 % KELOMPOK I, >5 % KELOMPOK II |
| ADIK | TIDAK MENOLAK PROGRAM ADIK |
| D. PRESTASI MAHASISWA | |
| JUARA PERTAMA DI KOMPETISI TINGKAT NASIONAL DUA TAHUN TERAKHIR | MINIMAL 4 |
| JUARA PERTAMA DI KOMPETISI TINGKAT INTERNASIONAL DUA TAHUN TERAKHIR | MINIMAL 2 |

Pengaruh MEA terhadap Perguruan Tinggi di Indonesia

Mutual Recognition Arrangement (MRA)

SEVEN MRAs SIGNED

- Engineering (December 2005)
- Nursing (December 2006)
- Architecture (November 2007)
- Land Surveying (November 2007)
- Medical practice (February 2009)
- Dental practice (February 2009)
- Accountancy (February 2009)

ROADMAP MOBILITAS BEBAS TENAGA KERJA KOMPETEN & PROFESIONAL

| 2008-2009 | 2010-2011 | 2012-2013 | 2014-2015 |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Harmonisasi regulasi • Perbaiki sistem dan penguatan institusi | <ul style="list-style-type: none"> • Persiapan dan pelaksanaan MRA | <ul style="list-style-type: none"> • Pelaksanaan MRA untuk okupasi yang sudah disepakati | <ul style="list-style-type: none"> • Perluasan, penyiapan dan pelaksanaan untuk bidang profesi lain |

BIDANG PROFESI YANG TELAH MEMILIKI MRA

| BIDANG PROFESI | | | |
|-----------------------|----------------|---|-------------------|
| 1 | ENGINEERS | 5 | MEDICAL DOCTOR |
| 2 | ARCHITECT | 6 | DENTIST |
| 3 | ACCOUNTANT | 7 | NURSES |
| 4 | LAND SURVEYORS | 8 | LABORS IN TOURISM |

Pengaruh AFAS terhadap Pendidikan Tinggi

ASEAN FRAMEWORK ON SERVICES (AFAS)

- AFAS covers liberalization of services and the trade of business services with impact on the following (Tullao, 2013):
 - Professional services
 - Construction
 - Distribution and logistics
 - Education
 - Environmental services
 - Maritime transportation
 - Health care
 - Telecommunication
 - Tourism

Pengaruh AFAS terhadap Pendidikan Tinggi

FREE MOVEMENT OF SKILLED LABOR: IMPLICATIONS FOR EDUCATION

- Free flow of labor means “allowing for managed mobility or facilitated entry for the movement of natural persons engaged in trade in goods, services and investments, according to the prevailing regulations of the receiving country.” (ASEAN, 2011)
- On one level, this is political-administrative:
 - Issuance of visas and employment passes for ASEAN professionals and skilled labor engaged in cross-border trade and investment-related activities

Pengaruh AFAS terhadap Pendidikan Tinggi

FREE MOVEMENT OF SKILLED LABOR: IMPLICATIONS FOR EDUCATION

- More critical is the provision “working towards harmonization and standardization, with a view to facilitate their (i.e. skilled labor) movement within the region.” (ASEAN, 2011)

Pengaruh AFAS terhadap Pendidikan Tinggi

FREE MOVEMENT OF SKILLED LABOR: IMPLICATIONS FOR EDUCATION

- Skilled workforce mobility and engagement will require new skill sets and work habit foundations. Other than technical/trade skills, HR managers will look for a wider range of “soft” skills that are developed using different methods of learning. (Sim, 2012)
 - Personal skills (P) – Skills learned by individuals for professional growth
 - Character-building skills (C) – Work habits and character developed within an individual that are salient to the work environment
 - Organizational skills (O) – Skill sets that will develop and sustain the workplace

Pengaruh AFAS terhadap Pendidikan Tinggi

FREE MOVEMENT OF SKILLED LABOR: IMPLICATIONS FOR EDUCATION

- Personal skills
 - Communication skills
 - Conflict management skills
 - Managerial and leadership skills for women
 - Change management
 - Reading, writing, listening
 - Presentation skills
 - Information technology (computer literacy and facility)
 - Marketing
 - Languages

Pengaruh AFAS terhadap Pendidikan Tinggi

FREE MOVEMENT OF SKILLED LABOR: IMPLICATIONS FOR EDUCATION

- Character-building skills
 - Interpersonal skills
 - Emotional quotient
 - Resilience
 - Career management (e.g. drive, ambition)
 - Mindful leadership
 - Networking and relationship-building
 - Execution (e.g. ability to deliver)
 - Entrepreneurship
 - Innovation
 - Creativity
 - Social literacy (related to EQ)

Pengaruh AFAS terhadap Pendidikan Tinggi

FREE MOVEMENT OF SKILLED LABOR: IMPLICATIONS FOR EDUCATION

- Organizational skills
 - Cross-cultural skills (e.g. ability to work with diversity)
 - Diversity (appreciation, understanding, ease with)
 - Coaching/mentoring
 - Accelerated learning techniques (e.g. self-learning)
 - Networking and relationship-building
 - Ability to think big picture, local execution

Pengaruh AFAS terhadap Pendidikan Tinggi

- Harmonisasi kurikulum antar PT ASEAN
- Membangun saling pengakuan lulusan antar PT ASEAN
- Membangun saling pengakuan sertifikat profesi antar negara ASEAN
- Membangun kerjasama dengan PT ASEAN untuk memfasilitasi pergerakan dosen dan mahasiswa