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Indonesia Cyber Education Institute Initiative in Indonesia

Presented at ADB Higher Education Projects
9th International Skills Forum: Reimagining Education and Skills Development for a New Normal
23-27 August 2021

Paulina Pannen

ICE Institute, Universitas Terbuka, Indonesia

2021



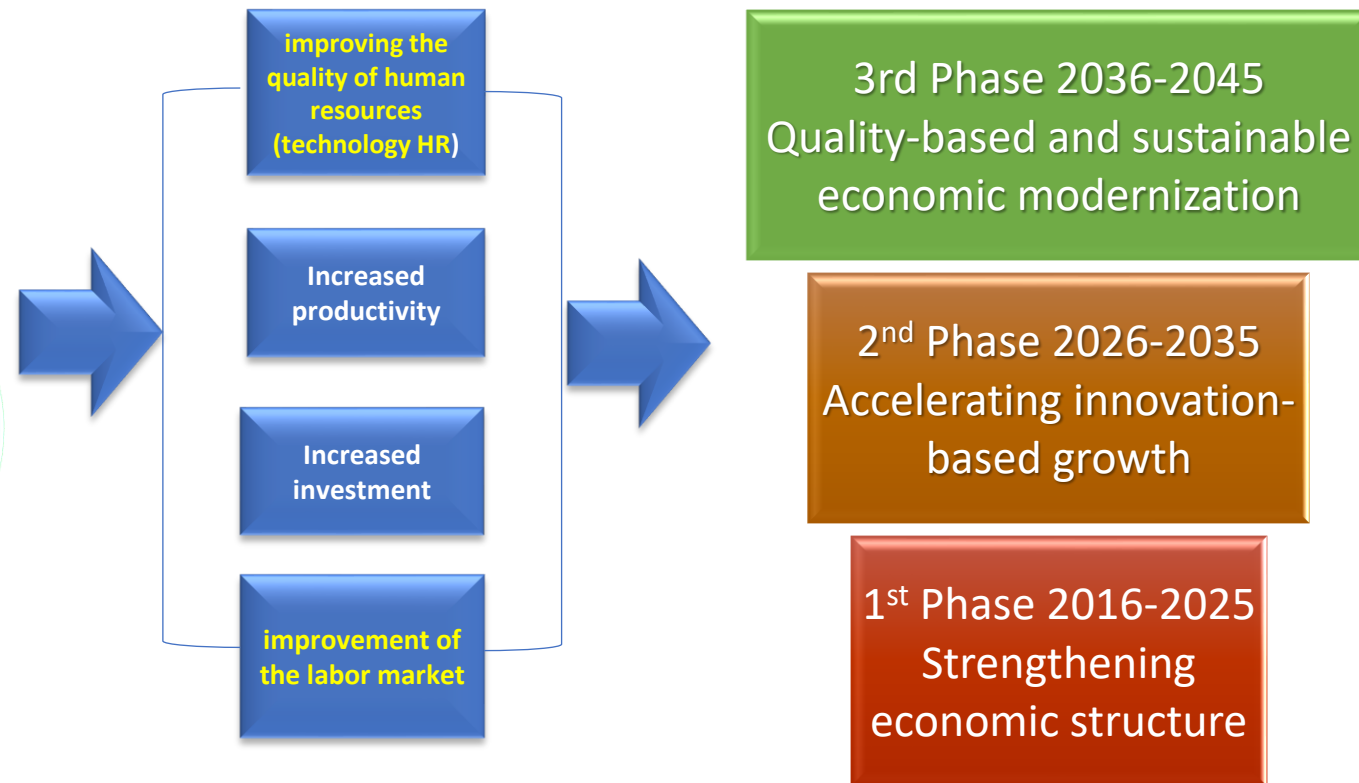
Higher Education in Indonesia

Indonesia 2045 Innovation and Technology-based Economy



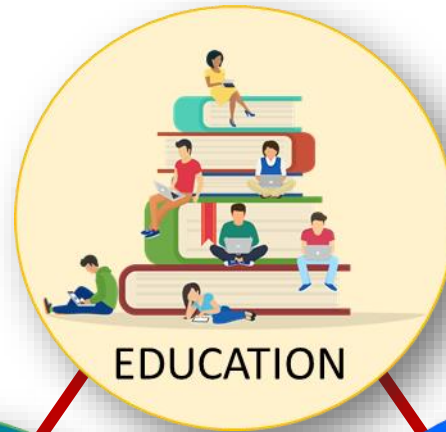
Three Pillars of HEI in Indonesia

4.591 HEIs GER 31% 294.687 lecturers
35.895 study programs 8.840.489 students

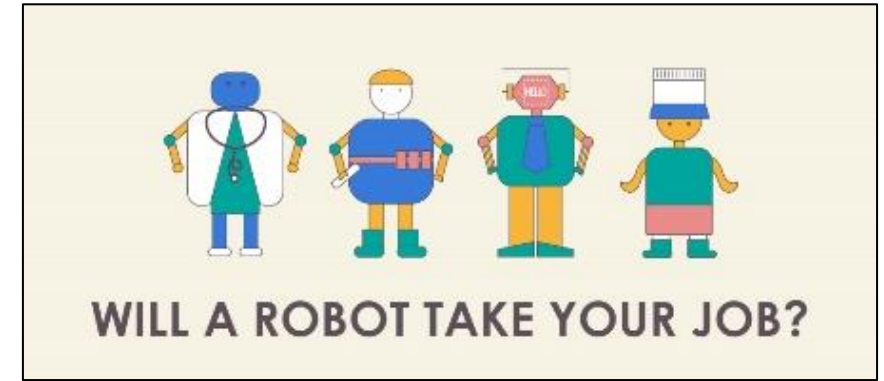


Industrial Revolution 4.0

- new skills,
- new ways of learning (seamless and accessible),
- new technology



- being innovative
- seeking continuous improvement of the things around them



- broaden skill sets
- new prerequisites for the workplace
- much wider range of new technologies options

Policy: Merdeka Belajar Kampus Merdeka

Freedom Learning Freedom Campus

2019

Minister of Education and Culture Nadiem A. Makarim

- 3 (three) semesters off campus (60 credit hours or 40%)
- to increase quality of graduates – tangible and real-life experience, prepare them to be entrepreneur and/or skillful human resources.
- intercultural, international, industrial, community, academic, entrepreneurial, philanthropical experience



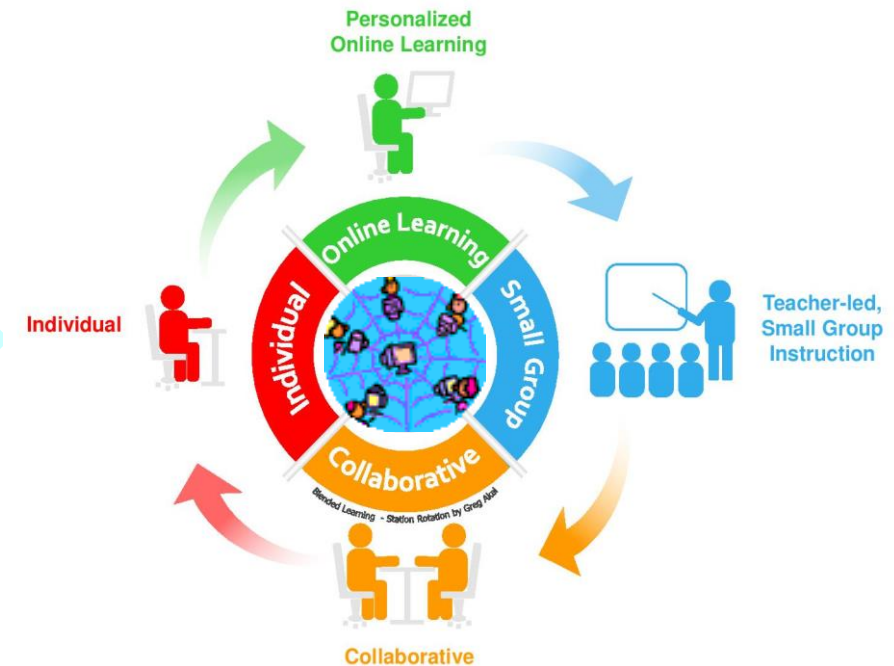
- **Policy:** 49% of online courses is allowed (No. 51/2018, renewed: No. 7/2020)

Covid-19 Pandemic

Belawati and Nizam (2020): *Indonesian HEIs have undergone digital transformation through adoption of “online learning” after Indonesia enforced limited social movement.*

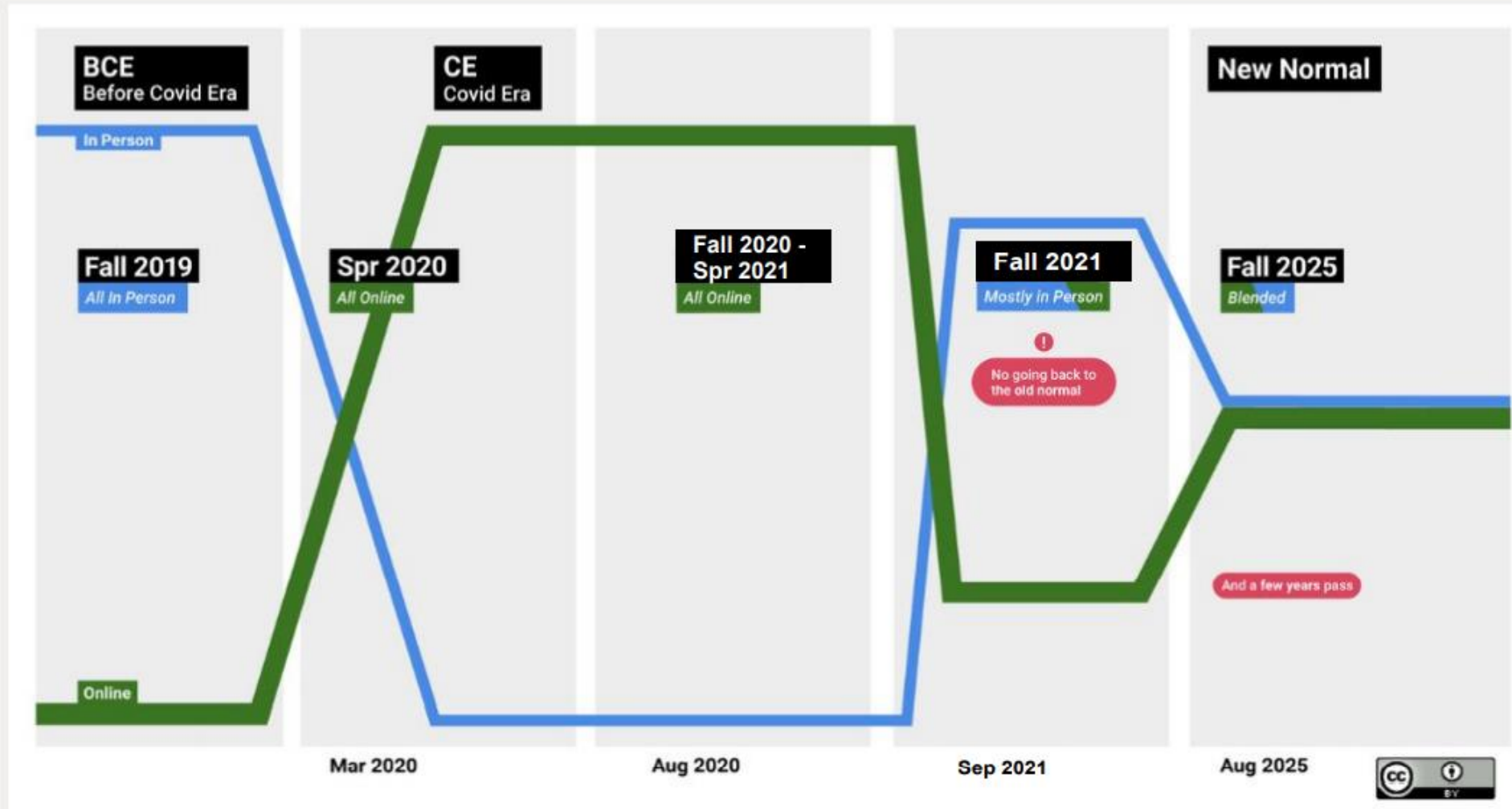
- less than a month, 98% of 4,621 HEIs in Indonesia “switched into online learning”
- In Jakarta, 65% of 325 HEIs directly switched into online learning
- “online learning”, “distance education” → emergency remote learning – learning from home
- 2 months in the Pandemy, 60% of HEIs effort is to prevent the spread of C-19 in campus.

- 76% lecturers dan 46% students have experienced online learning.
- Google online learning platform, MOODLE, Microsoft Teams or MS Teams, **Zoom**
- Learning materials: PowerPoint, MSWord, portable document format, and video
- 75% lecturer and 43% students are willing to continue online learning or blended learning



The New Normal will be Blended

Agarwal, A. (2021) The New Normal of Education. Presented at the 4th Cyber Education Forum Webinar, ICE Institute, 29 July, 2021.



Milestones of Indonesian Education



Indonesia Cyber Education Institute

Merdeka Belajar Untuk Semua

(soft launched 2019, officially launched 2021)



Freedom Learning for All
Peresmian ICE Institute
Merdeka Belajar untuk Semua

 Rabu, 28 Juli 2021



Prof. Ir. Nizam, M.Sc., Ph.D., IPM., ASEAN Eng.
DIRJEN DIKTI



Prof. Ojat Darajat, M.bus., Ph.D.
REKTOR UNIVERSITAS TERBUKA



Prof. Paulina Pannen, M.L.S.
KEPALA ICE INSTITUTE





ICE Institute is an online course marketplace that has been officially launched by Director General of Higher Education,

https://drive.google.com/file/d/1eSchW6gPXOF5CyxV2iDoczVeYrU_M3Fw/view?usp=sharing



Indonesia Cyber Education Institute

**Kampus
Merdeka**
INDONESIA JAYA



<http://www.icei.ac.id>



to provide marketplace of online courses in Indonesia



to provide equity & massive access to quality online courses through various technologies across time and space



to provide flexible learning through unbundled online courses for various purposes (formal, non-formal, upskilling, reskilling) (transferrable)



to provide blockchain-based learning credential system linked to the job market.



Partners

1. to collaborate with various institutions to provide quality online courses for all



Veritas, Probitas, Iustitia
— EST. 1849 —



UNS
UNIVERSITAS
SEBELAS MARET



UNIVERSITAS KATOLIK INDONESIA
ATMA JAYA



PRADITA
University



AFEBI



SPADA Indonesia



Kalibrr





Indonesia Cyber Education Institute

<http://www.icei.ac.id>

SELAMAT DATANG DI INDONESIA CYBER EDUCATION INSTITUTE

APA ITU ICE INSTITUTE?

UNIVERSITAS PARTNER

- ITS (Institut Teknologi Sepuluh Nopember)
- IPB UNIVERSITY
- PRADITA UNIVERSITY
- UNIVERSITAS BINA NUSANTARA

Penanganan dan Pengolahan Hasil Perikanan

About This Course

Course Number	cs1
Classes Start	May 24, 2021
Classes End	May 27, 2022
Estimated Effort	00:00

MERDEKA BELAJAR UNTUK SEMUA

APA ITU ICE INSTITUTE?

- 148 courses from partners
- EdX Online Campus Collection
- SPADA (970 courses)
- RELO

Requirements

Course Staff


Alamat

ICE Institute
Jl. Citarum Raya No. 100
Cibitunggal, Kota Bekasi
Jawa Barat 17133
Telp: +62 21 90000000
Email: info@icei.ac.id
www.icei.ac.id



Program

2. to support MBKM program – providing a marketplace of online courses – quality, transferrable, micro credentials, flexible → 3 semesters off campus (independent study or exchange students)



Online Campus

+

148 courses ICE Consortium

17.050 students



BEASISWA MENDIKBUDRISTEK
Merdeka Belajar Untuk Semua



EdX - ICE Institute
Online Campus Catalog
1381 mata kuliah daring
55 PT ternama dunia
2500 mahasiswa/semester



128 mata kuliah daring dari 13 PT/Institusi Indonesia
untuk 12.800 mahasiswa/semester

SYARAT

- Mahasiswa program Diploma, Sarjana dan Magister.
- Minimal semester 5, IPK min 3,0.
- Memiliki kemampuan Bahasa Inggris (TOEFL = 475) untuk mata kuliah EdX.
- Setiap perguruan tinggi mengusulkan maksimal 850 mahasiswa untuk menempuh 5 (lima) mata kuliah PT Indonesia dan 83 mahasiswa untuk menempuh 2 (dua) mata kuliah EdX.
- Lolos seleksi dari perguruan tinggi masing-masing

TANGGAL PENTING



**s/d
20 Agustus
2021**

Pengumuman dan Pendaftaran Mahasiswa oleh Perguruan Tinggi

Surat Resmi dari PT, Form Pendaftaran, dan Pakta Integritas ke sekretariat@ice.ac.id
Data mahasiswa diisikan ke: https://sl.ut.ac.id/Registresi_MataKuliah



**21-23
Agustus
2021**

Seleksi dan Verifikasi Calon Mahasiswa

Kode PT di PD Dikti, NIM yang diserahkan PT, email mahasiswa resmi dan PT



**27
Agustus
2021**

Pengumuman oleh ICE Institute

1. Pengumuman di website ICE Institute <http://www.ice.ac.id>
2. Surat resmi ke PT melalui email PT
3. Pemberian akses ke setiap mahasiswa melalui email

Ambil mata kuliah daring dari PT ternama

GRATIS

Ayo Mahasiswa Indonesia

GRATIS

Sertifikat untuk Alih Kredit

Beasiswa Mendikbudristek senilai US\$500,- per mahasiswa

First Come First Serve

Merdeka Belajar Untuk Semua

Info lebih lanjut: <http://www.icei.ac.id>
email: sekretariat@icei.ac.id



Beasiswa Mendikbudristek
Merdeka Belajar Untuk Semua



EdX - ICE Institute
Online Campus Catalog
1381 mata kuliah daring
55 PT ternama dunia
2500 mahasiswa/semester



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untuk 12.800 mahasiswa/semester

SYARAT

- Mahasiswa program Diploma dan Sarjana.
- Minimal semester 5, IPK min 3,0.
- Memiliki kemampuan Bahasa Inggris (TOEFL = 475) untuk mata kuliah EdX.
- Setiap perguruan tinggi mengusulkan maksimal 10 mahasiswa untuk menempuh 2 (dua) mata kuliah PT Indonesia dan/atau 2 (dua) mata kuliah EdX.
- Lolos seleksi dari perguruan tinggi masing-masing

TANGGAL PENTING



**s/d
20 Agustus
2021**

Pendaftaran Mahasiswa oleh Perguruan Tinggi

Surat Usulan Resmi dari PT, Pendaftaran Mahasiswa Beasiswa, dan Pakta Integritas ke <https://sl.ut.ac.id/Beasiswa-Merdeka-Belajar>



**21-26
Agustus
2021**

Seleksi dan Verifikasi Calon Mahasiswa

Kode PT di PD Dikti, NIM yang diserahkan PT, email mahasiswa resmi dari PT



**27
Agustus
2021**

Pengumuman oleh ICE Institute

1. Pengumuman di website ICE Institute <http://www.ice.ac.id>
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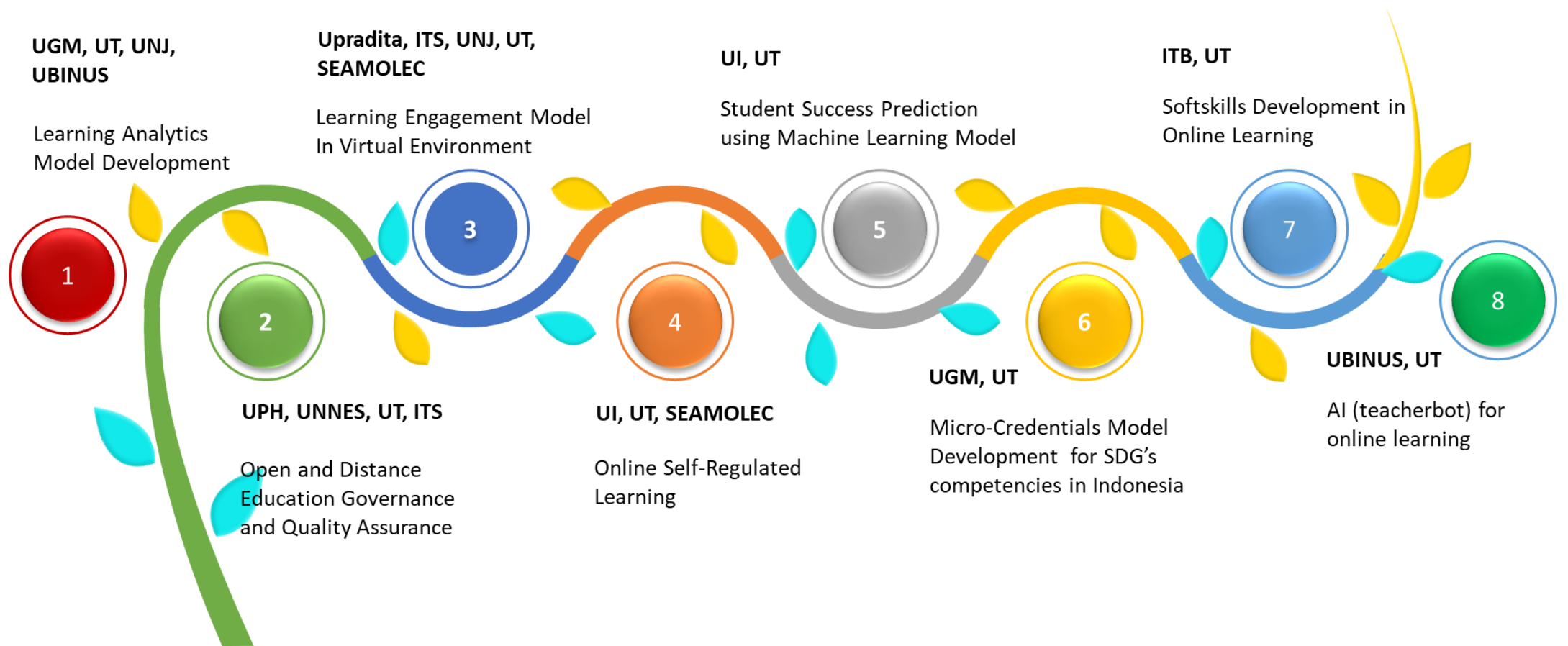
First Come First Serve

Merdeka Belajar Untuk Semua

Info lebih lanjut: <http://www.icei.ac.id>
email: sekretariat@icei.ac.id



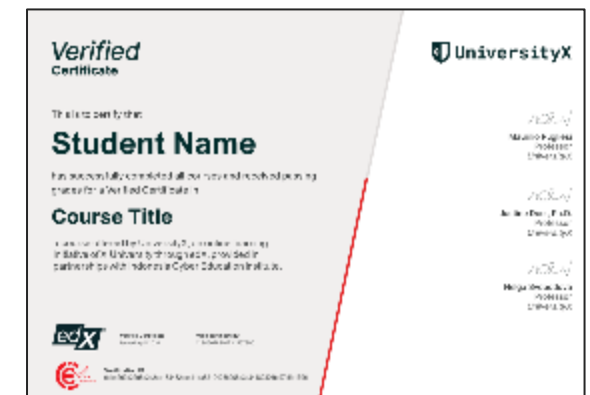
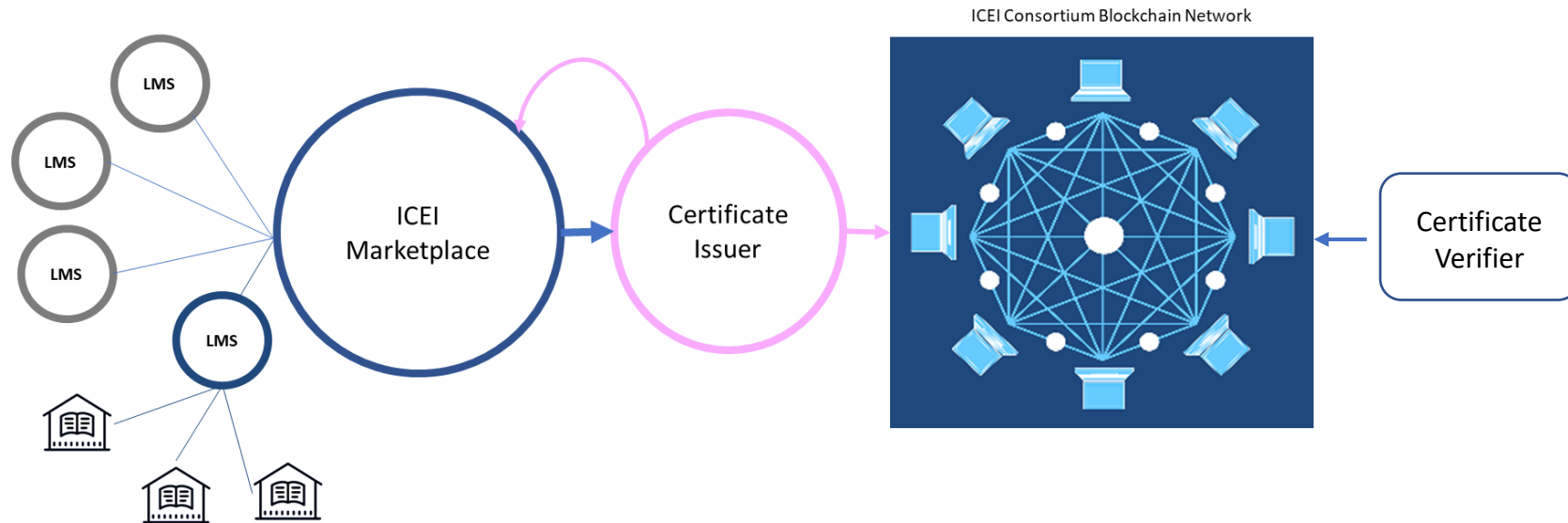
3. to conduct **collaborative research and seminar** to improve the practice of ICE Institute





BLOCKCHAIN FOR DIGITAL CREDENTIALS AT THE ICE INSTITUTE

The digital certificate will be automatically notarized in the blockchain systems.



*currently ICEI uses private blockchain services for digital credential from Accredible.



TA-9678-INO: Supporting the Advanced Knowledge and Skills to Sustainable Growth

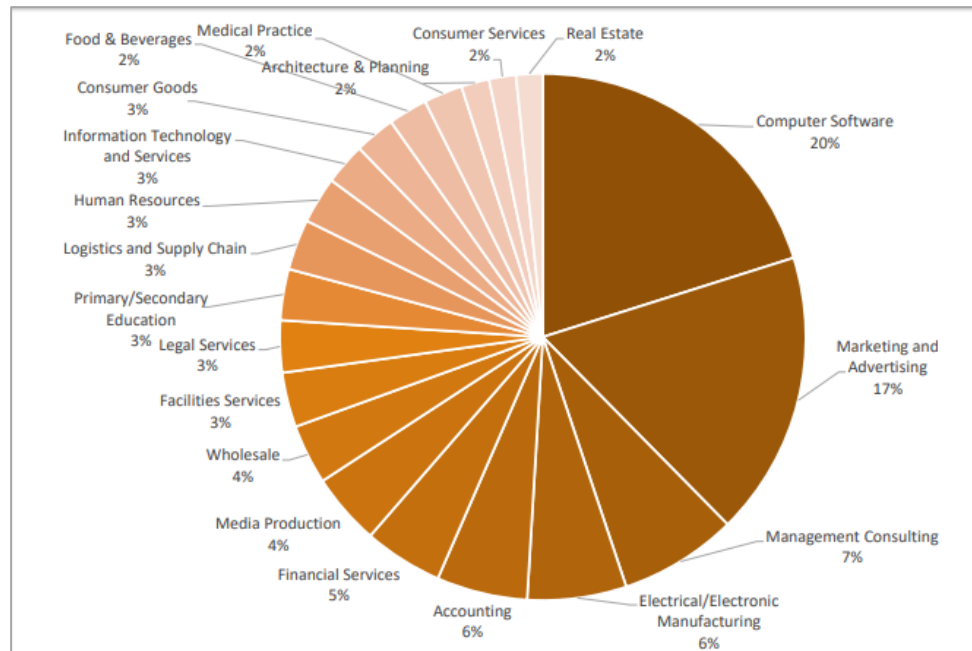
High-Level Technology Fund
Government of Japan



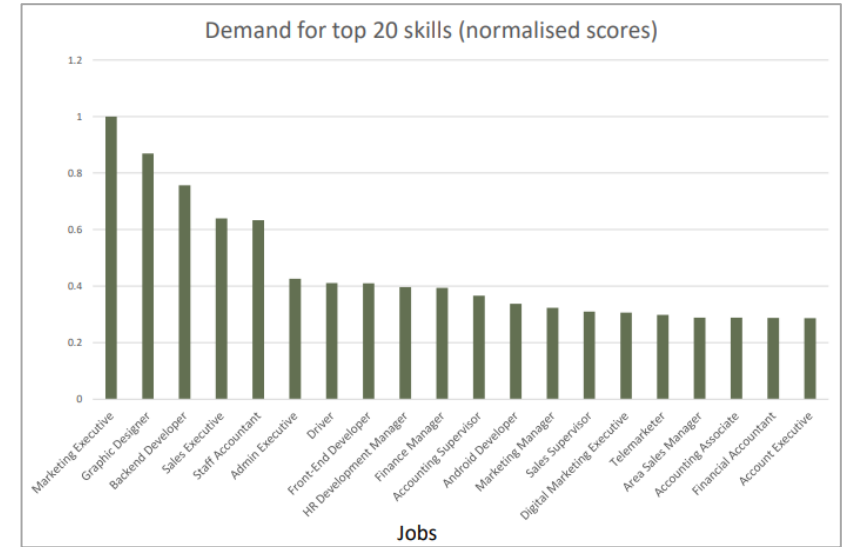
LEARNING JOURNEY TOWARD THE JOB MARKET

4. to equip quality graduates and to support workers during occupational transitions

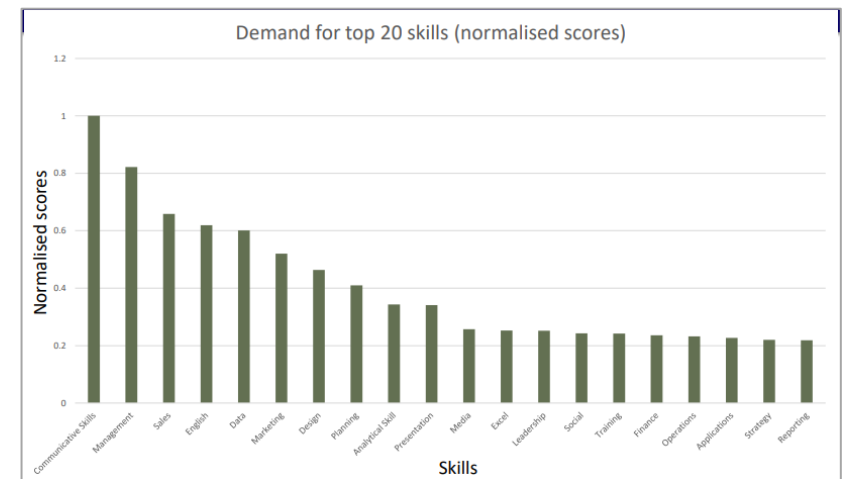
Top Industry in Indonesia



Top 20 job titles by demand



Top 20 skills by demand



Asia Development Bank (2021) Indonesia Labour Market Information: Research on Demand for Jobs and Skills (in partnership with Kalibrr and JobKred)



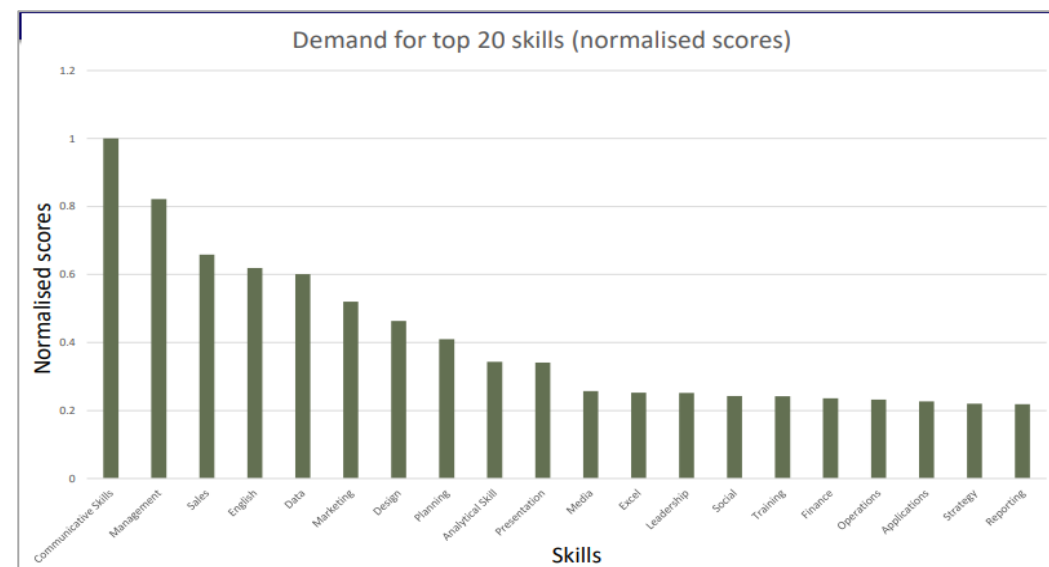
LEARNING JOURNEY TOWARD THE JOB MARKET

- to equip quality graduates and to support workers during occupational transitions

No.	Subject	# courses
1.	Science & Math	11
2.	Agriculture and Technology	15
3.	Health and Medicine	8
4.	Engineering	28
5.	Information Technology	9
6.	Arts, Languages and Literature	6
7.	Economy & Management	59
8.	Politics and Public Policy	15
9.	Social science (incl. communication and tourism)	9
10.	Education (incl. ed.tech)	17
11.	Psychology	4
		181

Profiling:
identifying gap of skills owned by each students to the skills demanded by the job market

Top 20 skills by demand



TABEL / TABLE : 1
GAMBARAN UMUM PERGURUAN TINGGI (PT)
OVERVIEW OF HIGHER EDUCATION (HE)
 STATUS / STATUS : NASIONAL / NATIONAL
 PERGURUAN TINGGI (PT) / HIGHER EDUCATION (HE)
 TAHUN / YEAR : 2020

Variabel Variables	Kemdikbud/MoEC				Total Kemdikbud Total of MoEC		*Perguruan Tinggi Agama Religious HE Institution		Perguruan Tinggi K/L Government HE Institution		Nasional National				
	Negeri Public		Swasta Private		Jml./No.	%	Jml./No.	%	Jml./No.	%	Jml./No.	%			
	Jml./No.	%	Jml./No.	%									(2)	(3)	(4)
Lembaga / Institutions	122	100,00	3.044	100,00	3.166	100,00	1.240	100,00	187	100,00	4.593	100,00			
Universitas / University	63	51,64	583	19,15	646	20,40	19	1,53	2	1,07	667	14,52			
Institut / Institute	12	9,84	120	3,94	132	4,17	138	11,13	1	0,53	271	5,90			
Sekolah Tinggi / School of Higher Learning	-	0,00	1.361	44,71	1.361	42,99	1.080	87,10	24	12,83	2.465	53,67			
Akademi / Academy	-	0,00	772	25,36	772	24,38	3	0,24	55	29,41	830	18,07			
Akademi Komunitas/ Community College	4	3,28	32	1,05	36	1,14	0	0,00	2	1,07	38	0,83			
Politeknik / Polytechnic	43	35,25	176	5,78	219	6,92	0	0,00	103	55,08	322	7,01			
Program Studi/ Study Program	7.182	100,00	15.815	100,00	22.997	100,00	5.377	100,00	1.039	100,00	29.413	100,00			
Universitas / University	5.780	80,48	9.280	58,68	15.060	65,49	926	17,22	30	2,89	16.016	54,45			
Institut / Institute	558	7,77	900	5,69	1.458	6,34	1.643	30,56	23	2,21	3.124	10,62			
Sekolah Tinggi / School of Higher Learning	-	0,00	3.935	24,88	3.935	17,11	2.799	52,06	113	10,88	6.847	23,28			
Akademi / Academy	-	0,00	957	6,05	957	4,16	9	0,17	89	8,57	1.055	3,59			
Akademi Komunitas/ Community College	12	0,17	59	0,37	71	0,31	0	0,00	5	0,48	76	0,26			
Politeknik / Polytechnic	832	11,58	684	4,33	1.516	6,59	0	0,00	779	74,98	2.295	7,80			
Mahasiswa Baru / New Entrants	762.084	100,00	1.068.912	100,00	1.830.996	100,00	262.786	100,00	69.900	100,00	2.163.682	100,00			
Universitas / University	661.222	86,76	729.895	68,28	1.391.117	75,98	90.412	34,41	630	0,90	1.482.159	68,50			
Institut / Institute	42.333	5,55	47.555	4,45	89.888	4,91	90.545	34,46	1.891	2,71	182.324	8,43			
Sekolah Tinggi / School of Higher Learning	-	0,00	233.849	21,88	233.849	12,77	81.721	31,10	3.743	5,35	319.313	14,76			
Akademi / Academy	-	0,00	30.920	2,89	30.920	1,69	108	0,04	1.606	2,30	32.634	1,51			
Akademi Komunitas/ Community College	280	0,04	1.564	0,15	1.844	0,10	0	0,00	154	0,22	1.998	0,09			
Politeknik / Polytechnic	58.249	7,64	25.129	2,35	83.378	4,55	0	0,00	61.876	88,52	145.254	6,71			
Mahasiswa Terdaftar / Students	2.994.015	100,00	4.374.994	100,00	7.369.009	100,00	939.986	100,00	174.218	100,00	8.483.213	100,00			
Universitas / University	2.736.371	91,39	2.979.397	68,10	5.715.768	77,56	352.139	37,46	694	0,40	6.068.601	71,54			
Institut / Institute	105.117	3,51	229.874	5,25	334.991	4,55	345.425	36,75	6.805	3,91	687.221	8,10			
Sekolah Tinggi / School of Higher Learning	-	0,00	971.100	22,20	971.100	13,18	241.929	25,74	12.208	7,01	1.225.237	14,44			
Akademi / Academy	-	0,00	106.459	2,43	106.459	1,44	493	0,05	4.486	2,57	111.438	1,31			
Akademi Komunitas/ Community College	521	0,02	1.284	0,03	1.805	0,02	0	0,00	247	0,14	2.052	0,02			
Politeknik / Polytechnic	152.006	5,08	86.880	1,99	238.886	3,24	0	0,00	149.778	85,97	388.664	4,58			
Lulusan / Graduates	464.945	100,00	865.919	100,00	1.330.864	100,00	135.446	100,00	68.764	100,00	1.535.074	100,00			
Universitas / University	395.673	85,10	548.407	63,33	944.080	70,94	57.037	42,11	250	0,36	1.001.367	65,23			
Institut / Institute	25.041	5,39	37.795	4,36	62.836	4,72	41.385	30,55	1.791	2,60	106.012	6,91			
Sekolah Tinggi / School of Higher Learning	-	0,00	218.245	25,20	218.245	16,40	36.947	27,28	4.001	5,82	259.193	16,88			
Akademi / Academy	-	0,00	37.801	4,37	37.801	2,84	77	0,06	3.577	5,20	41.455	2,70			
Akademi Komunitas / Community College	225	0,05	726	0,08	951	0,07	0	0,00	49	0,07	1.000	0,07			
Politeknik / Polytechnic	44.006	9,46	22.945	2,65	66.951	5,03	0	0,00	59.096	85,94	126.047	8,21			
Dosen / Lecturers	80.653	100,00	182.901	100,00	263.554	100,00	38.867	100,00	10.469	100,00	312.890	100,00			
Universitas / University	66.151	82,02	110.395	60,36	176.546	66,99	10.296	26,49	140	1,34	186.982	59,76			
Institut / Institute	5.636	6,99	9.150	5,00	14.786	5,61	11.681	30,05	304	2,90	26.771	8,56			
Sekolah Tinggi / School of Higher Learning	-	0,00	45.982	25,14	45.982	17,45	16.832	43,31	854	8,16	63.668	20,35			
Akademi / Academy	-	0,00	10.874	5,95	10.874	4,13	58	0,15	1.149	10,98	12.081	3,86			
Akademi Komunitas/ Community College	62	0,08	120	0,07	182	0,07	0	0,00	26	0,25	208	0,07			
Politeknik / Polytechnic	8.804	10,92	6.380	3,49	15.184	5,76	0	0,00	7.996	76,38	23.180	7,41			

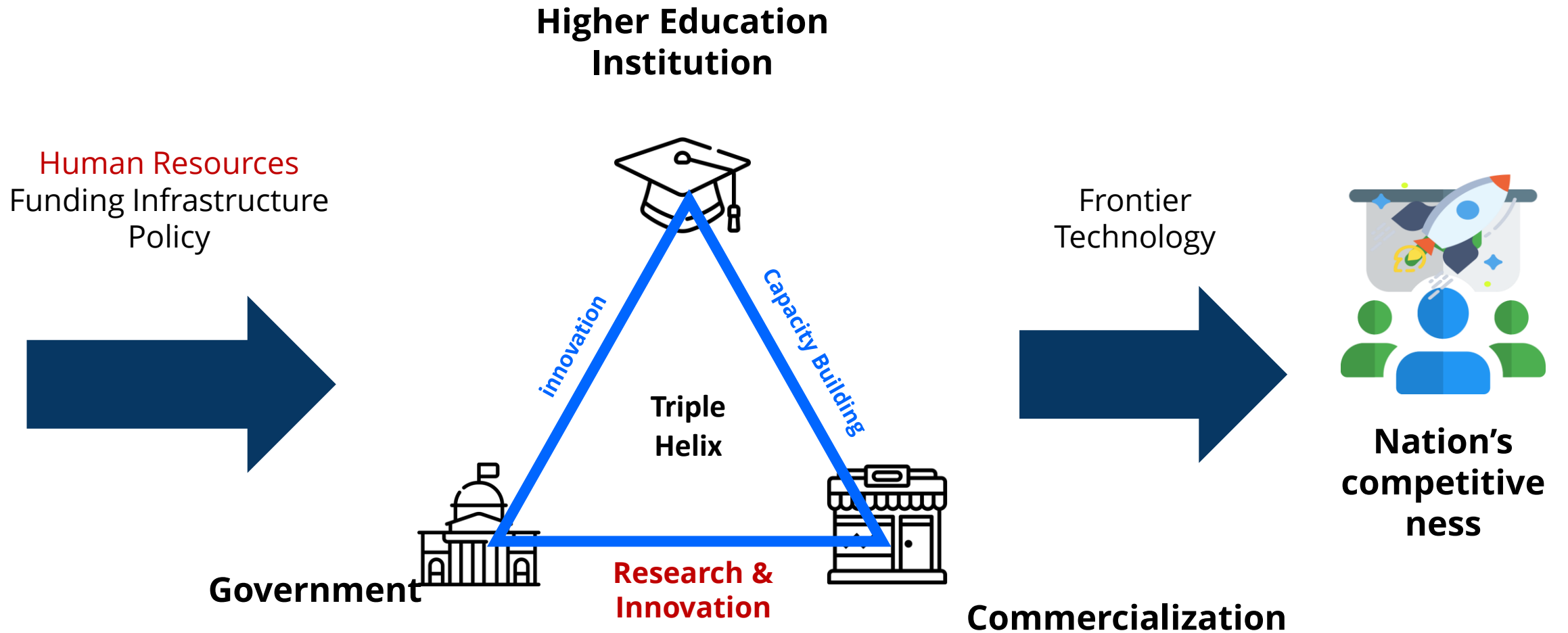
* Perguruan Tinggi Agama Negeri dan Swasta / Public and Private Religious Higher Education Institution



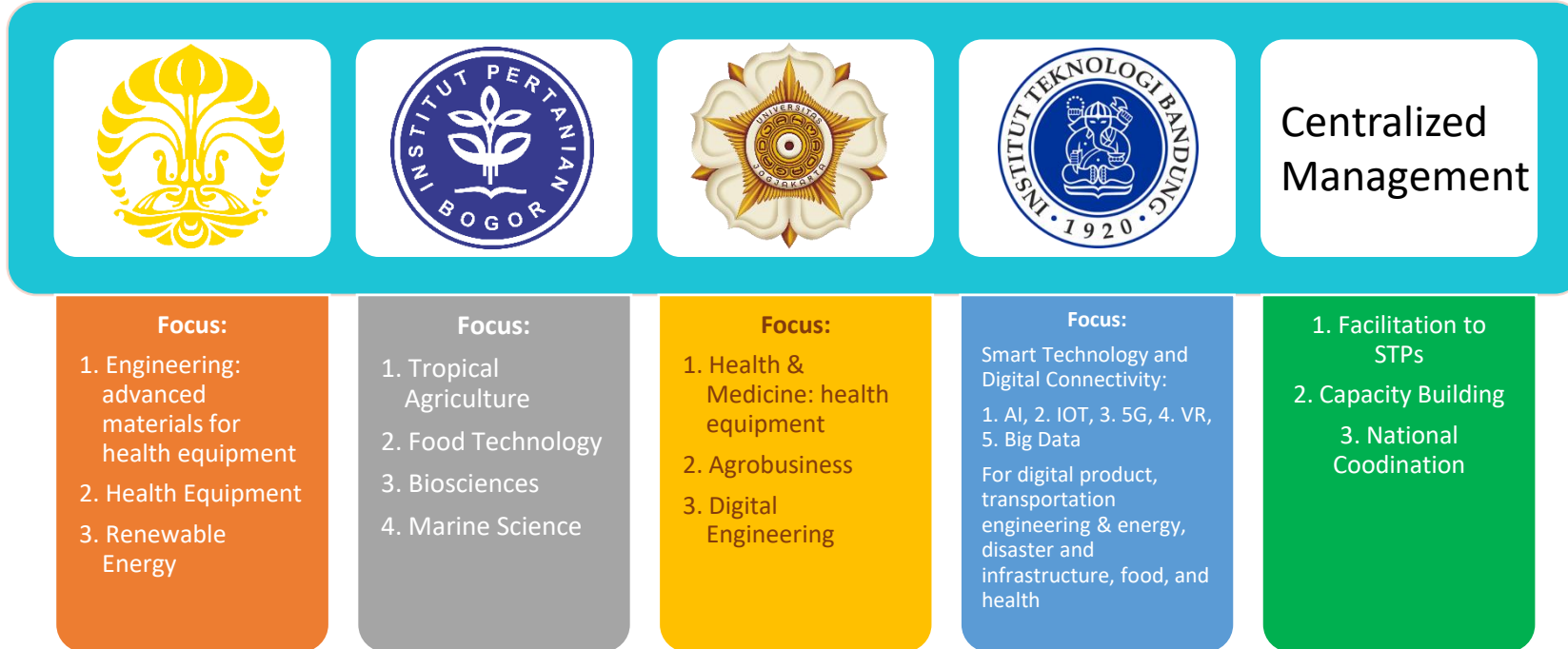
5. to reach the unreachable: Eastern part of Indonesia

According to BAN-PT (National Accreditation Agency)
<https://www.banpt.or.id/>
 only 2728 HEIs are accredited,
 1865 HEIs are not yet
 accredited.

Innovation-based Economic



Promoting Research and Innovation through Modern and Efficient Science and Techno Park (PRIME SteP): Development of Science and Technology Park (*pipeline*)



1. To upgrade and develop STP for economic development for Indonesia
 - a. strengthening STP Governance
 - b. strengthening STP's researchers (post-doc) and intermediary technologists (international certificate)
 - c. renew STP's Equipment
2. to conduct international collaborative research, development, and innovation in each STP and project and network



THANK YOU

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