



**Dr. BERRY JULIANDI, S.Si., M.Si.**

**PROGRAM: MANAJEMEN TALENTA FMIPA UNTUK  
INOVASI AGRO-MARITIM 4.0**

**BAKAL CALON DEKAN FMIPA 2020-2025**

# Manajemen Talenta FMIPA



**Dosen, Tendik dan Mahasiswa**

# Transisi Peran Universitas

	1 <sup>st</sup> Generation	2 <sup>nd</sup> Generation	3 <sup>rd</sup> Generation
Objective	Education	Education & Research	Education, research & know-how exploitation
Role	Defending the truth	Discovering nature	Creating value
Method	Scholastic	Mono-disciplinary science	Inter-disciplinary science
Human Capital Development	Professionals	Professionals & scientist	Professionals, scientist & Entrepreneurs
Orientation	Universal	National	Global
Language	Latin	National Languages	English
Organization	Colleges	Faculties	Institutes & Centers
Management	Rector & Chancellor	Part-time academics	Professionals management

## 4<sup>th</sup> Generation

Education, open innovation (research)

Enabling value creation

Multi-actor innovation

Professionals, scientist entrepreneurs, artists, customers, ecosystem participants

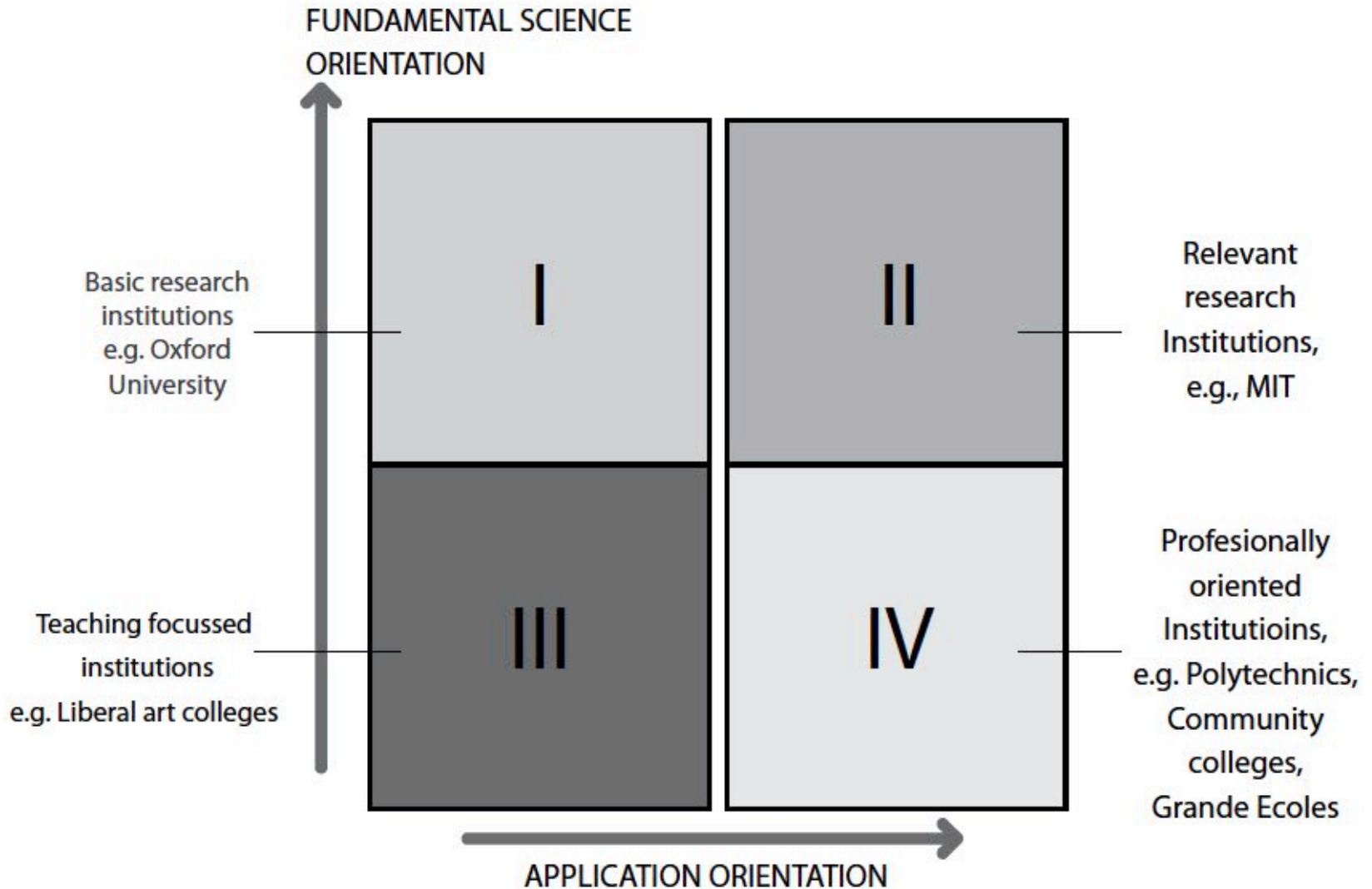
Ecosystem

English

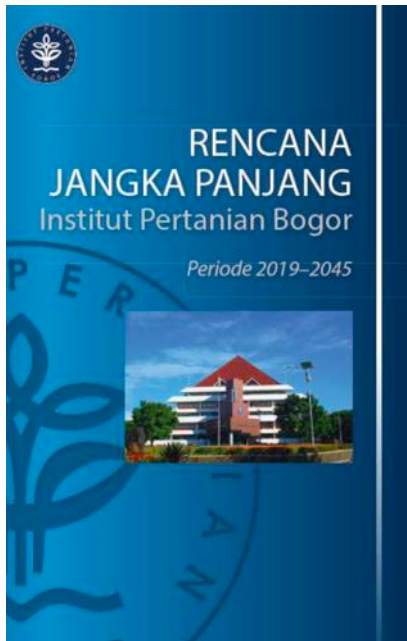
Innovation spaces

Disruptors

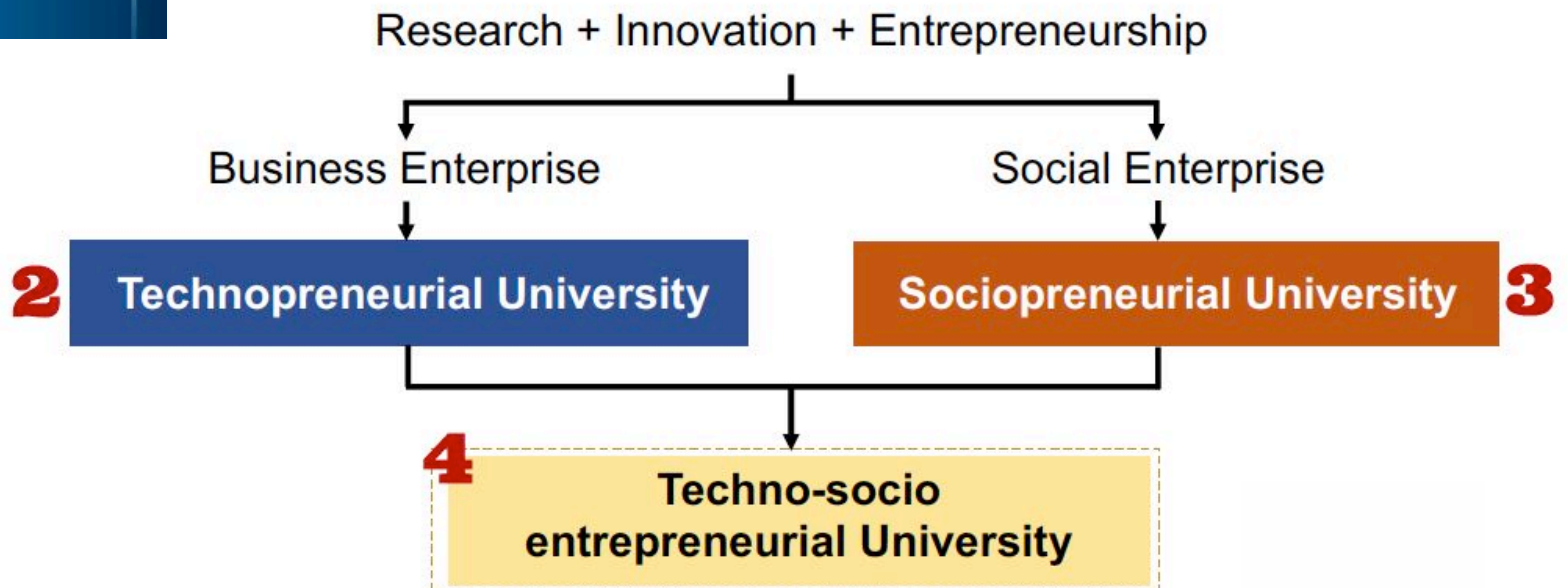
# Karakter Universitas



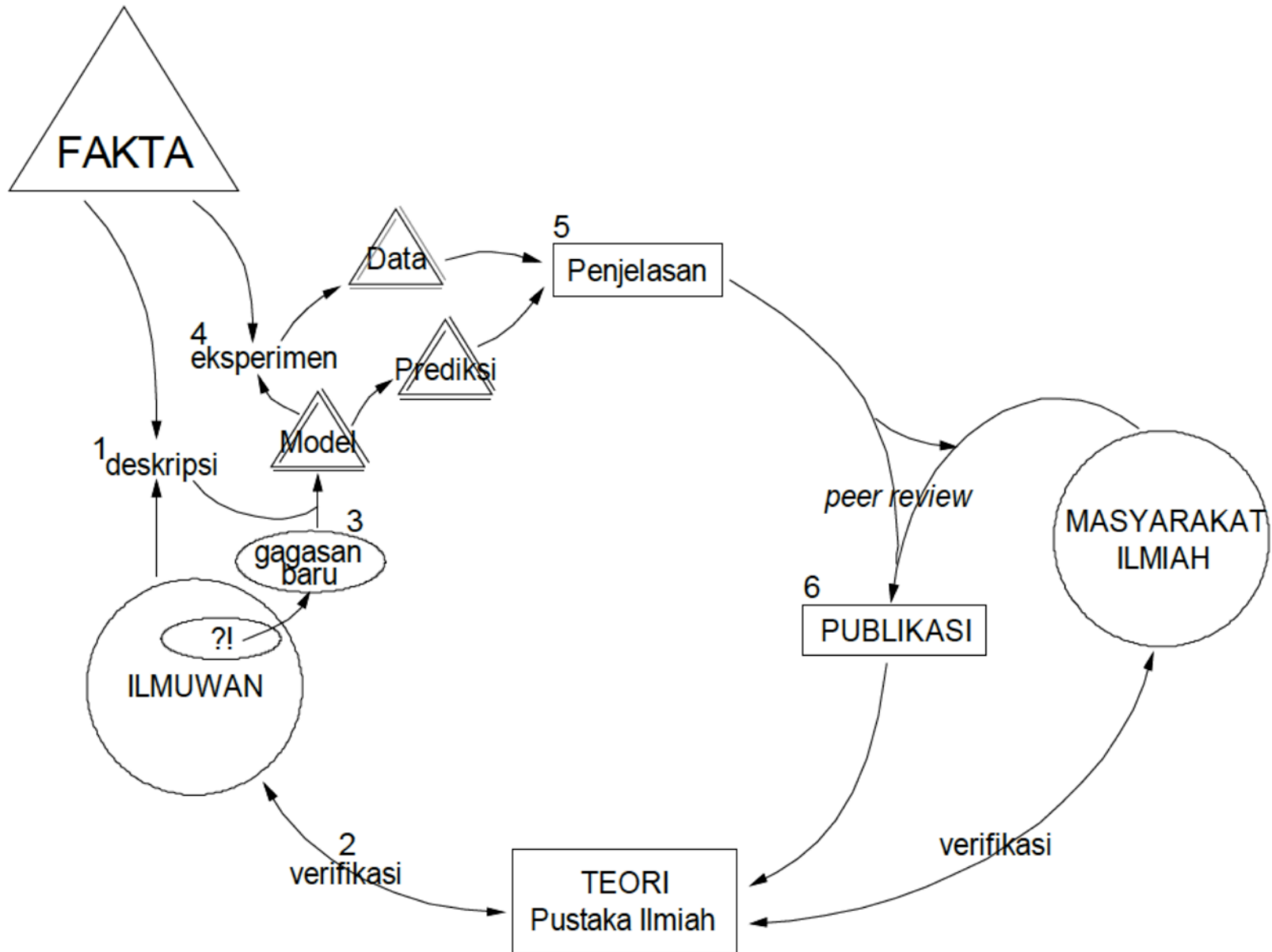
# Pilihan IPB



Teaching + Entrepreneurship = **Basic Entrepreneurial University** **1**



# Daur Penciptaan Ilmu Pengetahuan



# WHAT IS YOUR RESEARCH GOOD FOR?

## BASIC research

- Desire to **expand knowledge**.
- Curiosity driven.
- Intended to answer **why, what** or **how** questions.
- Increase understanding of fundamental principles.
- Does **not** have immediate **commercial** objectives.
- It may not necessarily result in an invention or a solution to a practical problem.

Answer initial question how things work

Products, technologies & processes

VS

## APPLIED research

- New knowledge acquired has **specific commercial** objectives: products, procedures or services.
- Answer **specific questions** aimed at solving practical problems.

Products, technologies and processes

New fundamental questions



*"I'll be happy to give you innovative thinking. What are the guidelines?"*





Research Institutions



Incubators & Accelerators



Angel Investors



Venture Capitalists

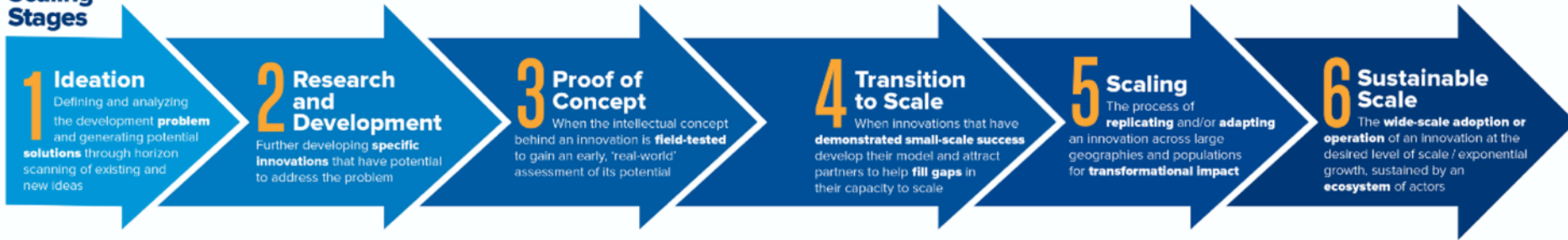


Private Equity Firms



Government

### Scaling Stages



Friends & Family



Civil Society Organizations



Development Agencies



Professionals



Start-Ups & Enterprises



Market Facilitators & Intermediaries



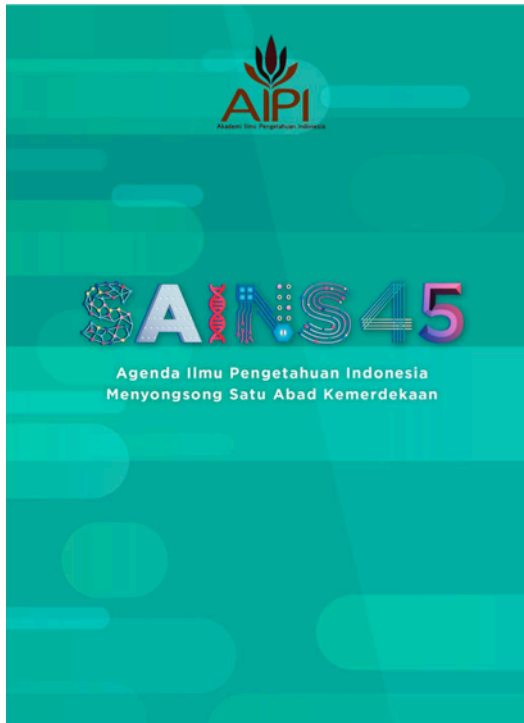
Private Companies

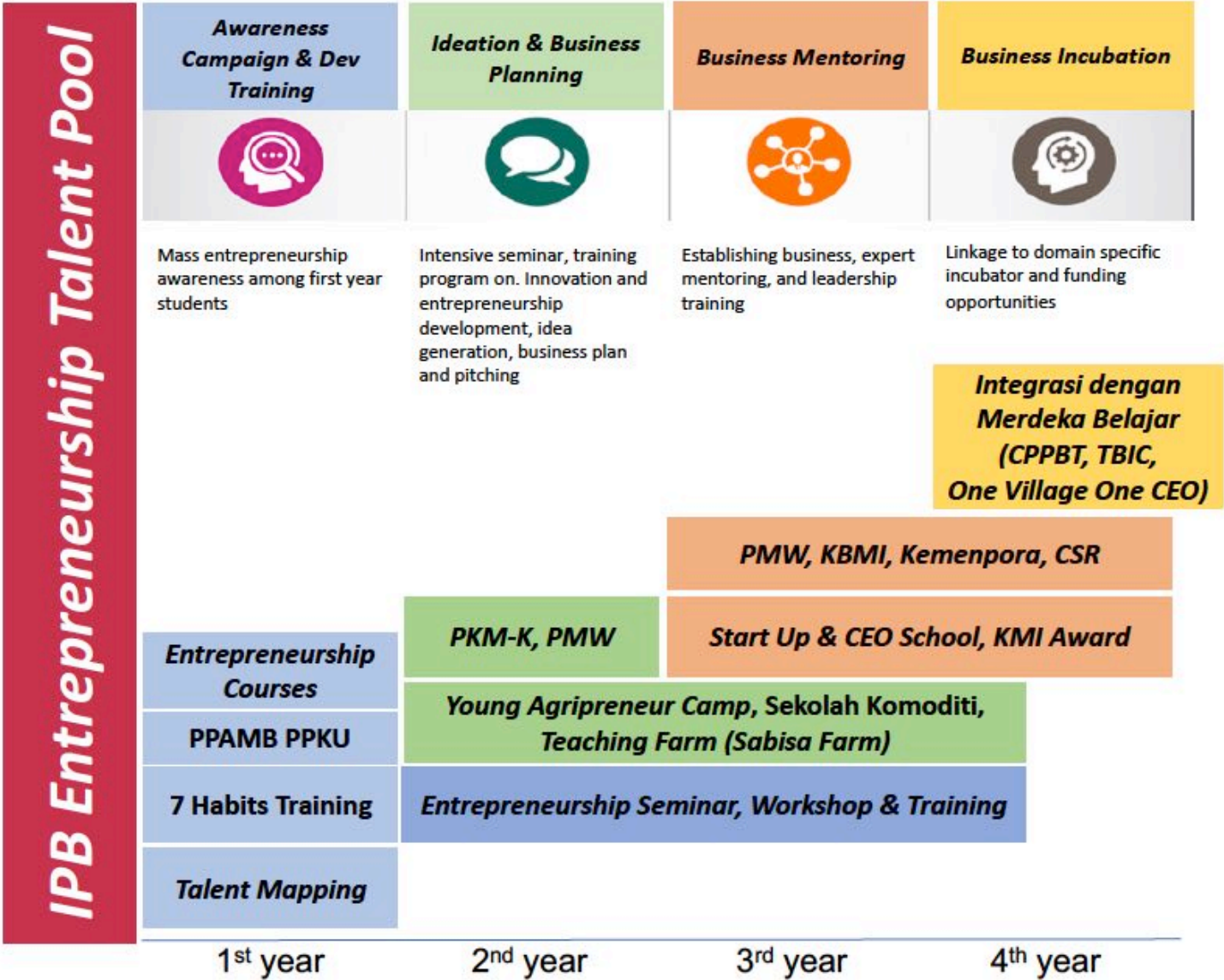
## Typical Ecosystem Actors along the IDIA Scaling Pathway

*Positions are indicative relative to stages*



# Tiga Buku Hasil Pemikiran





# Paving way for healthy knowledge ecosystem

Two weeks after the World Health Organization declared the current pandemic on March 12, the Research and Technology Ministry and the National Research and Innovation Agency (BRIN) announced a research and development consortium on the novel coronavirus.

Through a virtual press conference, the ministry and BRIN announce the reallocation of its funding to support research and development for COVID-19 test kits, personal protective equipment, sanitizers, vaccines and preventive supplements to increase immunity to the virus.

This was a welcomed move, similar to what the European Commission's Horizon 2020 had done one month ahead of the pandemic announcement. Horizon 2020 had allocated 10 million euro (US\$10.91 million) from its emergency budget to "advance understanding of the epidemic, contribute to more efficient clinical management of patients infected with the virus, as well as public health preparedness and response."

In Indonesia, the funding reallocation from the ministry and BRIN soon yielded results. By April 6, the COVID-19 consortium handed over 10 mobile handwashers and hand sanitizers to the national COVID-19 task force.

This is research and development at its best: responsive and relevant.

But responsive, relevant science does not just happen. On top of proper research infrastructure and scientific capabilities, funding is crucial to make research happen. The funding needs to be responsive and relevant, with a degree of flexibility to enable good research.

The most recent announcement of the 2020 state budget revision – announced through a new presidential regulation on budget reallocation – includes separation of the nonresearch higher education budget from research funding for higher education.

And this separation of funding reveals how small Indonesia's research and development budget actually is. Without the non-re-



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search higher education budget, the Research and Technology Ministry manages only around Rp 2 trillion (\$126.5 million).

If Indonesia aims to become a global research powerhouse, a responsive, relevant, flexible and sufficient research funding mechanism would be a prerequisite. And we have high hopes that such a mechanism will materialize through the new research endowment fund.

In 2019, in a bid to boost research funding, the government announced the allocation of Rp 990 billion for the research en-

lowing for joint funding.

In times of a pandemic like this, the priority list should balance research in health and medicine and supporting technology, with research into the social aspects of a pandemic because eventually it is society that will be most impacted and need to adapt to this new normal.

An even more advanced approach is not to separate research priority based on conventional disciplines or technological output but to challenge researchers to work in an interdisciplinary manner to solve a certain chal-

*This separation of funding reveals how small Indonesia's research and development budget actually is.*

lenged fund, with an additional Rp 5 trillion allocated in 2020.

So far, this remains unchanged, even with recent state budget reallocations to mitigate the economic impact of the pandemic. Any change should be a topped-up budget instead of slashed down as Indonesia's level of funding for research is still far below its Southeast Asian counterparts.

In 2017, the country spent only 0.25 percent of its gross domestic product (GDP) on research, which pales in comparison to Thailand's 1 percent and Vietnam's 0.5 percent according to a 2019 UNESCO report.

On a macro level, the research endowment fund should complement other forms of research funding via well-designed portfolio management.

The fund should balance support for government priority research and discovery research, top-down and bottom-up research, and interdisciplinary and sectoral research, as well as al-

lenged. This challenge-led research will force brains from different disciplines to complement each other.

Research funding should not only focus on how much is being spent. Importantly, it should focus on how it is being spent and how it is allowed to be spent, which takes us back to the point of having a responsive, relevant, flexible research funding mechanism, with strategic spending.

The root cause of the problem is perhaps the barely existent management of a research funding portfolio and the fact that research funding via the state budget is restrictive. This does not enable good research.

The new endowment fund for research supposedly provides some space for the budget to be treated differently from the annual state budget. After being invested, its yield can be accounted for as nontax state income.

Thus, the main added value of having such a fund should be

maintained by managing it outside of the annual state budget. This would allow for flexibility, sustainability and responsiveness, for example in responding to emerging research needs such as outbreaks or natural disasters.

The utilization of state research funding is bound by the financial year. After due process of budget allocation, researchers receive grants by the second quarter of the year and must complete projects before December. Continued funding is not guaranteed and carrying the budget over to the next financial year is not allowed, stifling projects from moving forward. Grants are also bound by unit costs and this often does not incentivize research activities, let alone innovation.

In 2018, the above ministry introduced more flexible, output-based, multi-year research funding. But its implementation covers less than 10 percent of the state research budget and it is still impeded by wariness on the financial audit side.

One of the key principles of research funding is to fund good research wherever needed. Hence, the endowment fund should be accessible to different categories of researchers – those based in universities, government research institutes, think tanks and even the private sector.

In finding good research to support, typically a competitive, peer-reviewed mechanism works most efficiently. This is as long as relevant scientists do reviews through a system that allows for feedback loops to help researchers improve their proposals. Such a review mechanism also allows for funders to support the most relevant research.

Applying these principles in funding research in Indonesia – accompanied by continuous debureaucratization and capacity building for researchers and research institutions – would support a healthy knowledge ecosystem.

And a healthy, functioning knowledge ecosystem would ensure that our society is agile enough to cope with any changes, even abrupt ones like the current pandemic.



## UTARA Podcast TEMPO Institute 13 April 2019 tentang EKOSISTEM RISET INDONESIA

**CNN Indonesia WEB INAR**

**PENDIDIKAN VOKASI MENJAWAB TANTANGAN INOVASI**

**NARASUMBER:**

- Wikan Sakarinto S.T., M.Sc., Ph.D.**  
Direktur Jenderal Pendidikan Vokasi Kementerian Pendidikan dan Kebudayaan
- Rosan Roeslani BA, MBA**  
Ketua Umum Kamar Dagang dan Industri Indonesia
- Benny Tjahjono, PhD MSc BEng**  
Professor of Supply Chain Management, Sustainable Production, Coventry University, UK
- Dr. Berry Juliandi S.Si., M.Si.**  
Sekretaris Jenderal Akademi Ilmuwan Muda Indonesia

**11 AGUSTUS 2020**  
14.00 – 16.00 WIB

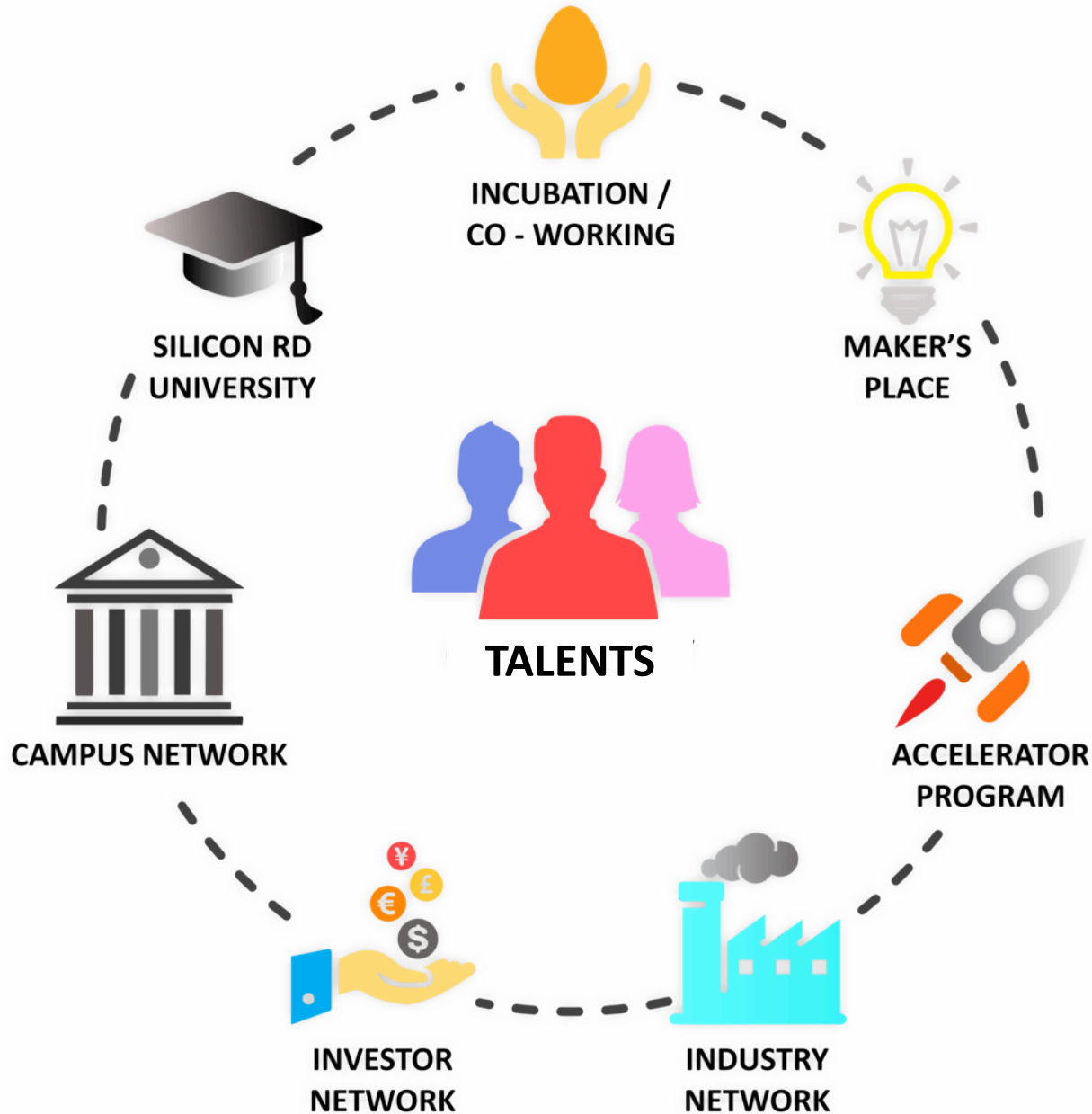
Register here: <https://bit.ly/2XvPRQb>

MITRAS BUDI, VOKASI BERKUALITAS INDONESIA

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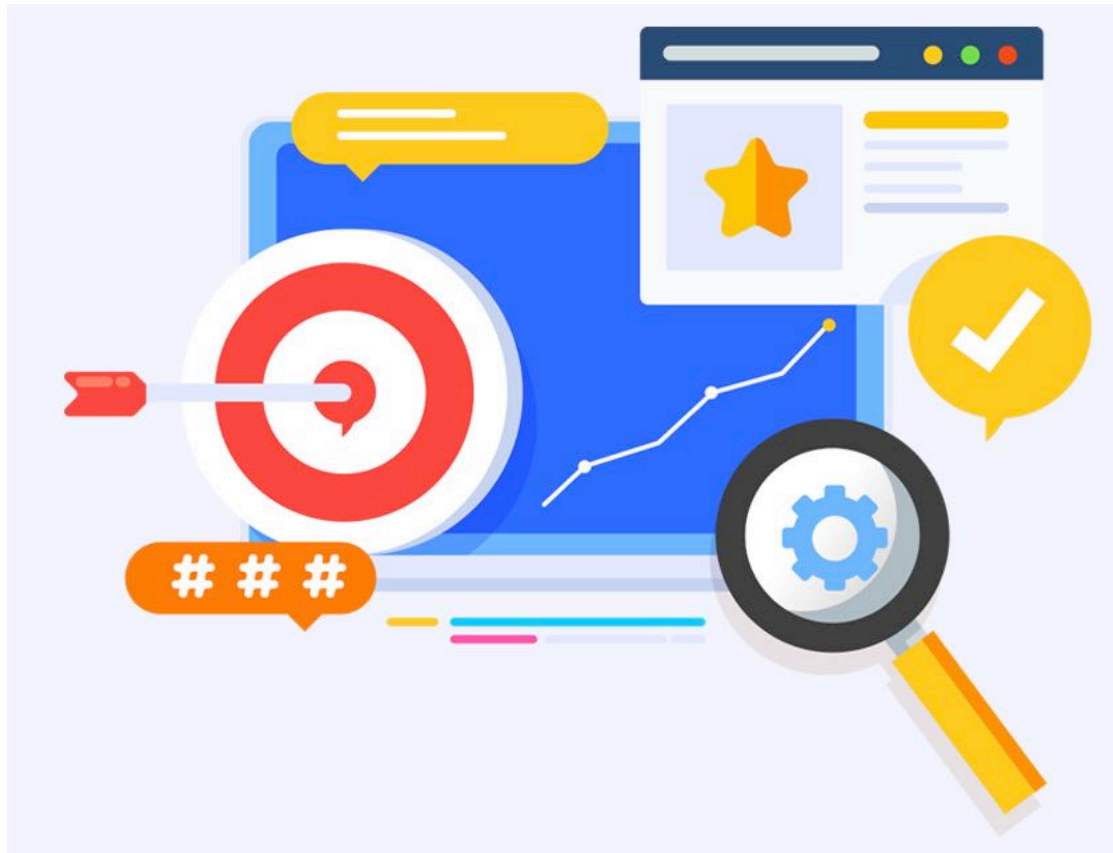
## CNN Indonesia, 11 Agustus 2020 tentang Inovasi dan Kemitraan Dunia Usaha dan Dunia Industri

# Proposed Ecosystem Model



# Program Kerja Unggulan 1

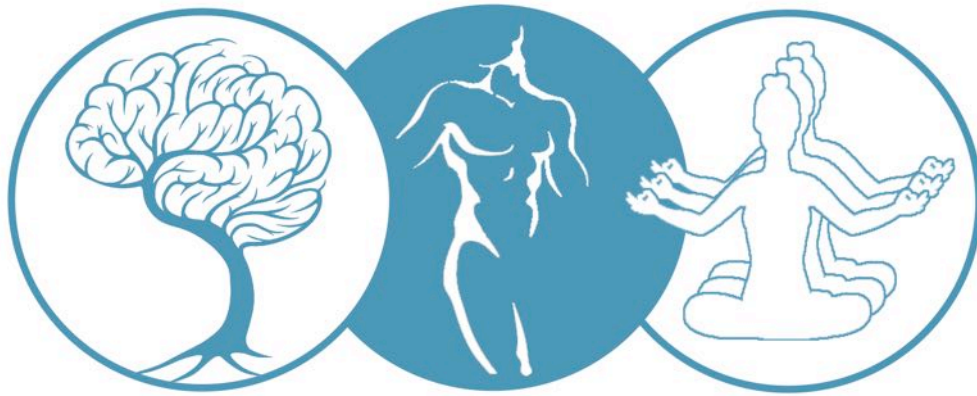
## Talenta FMIPA: Menelisis Masa Lalu, Meneropong Masa Depan



- Gap Analysis
- Talent Mapping and Scouting
- Roadmap Pengembangan Talenta Individu
- Education with Mission
- Pembukaan Prodi Mutakhir Lintas Departemen FMIPA: Bioinformatika, Neurosains, dan sejenisnya

# Program Kerja Unggulan 2

## Talenta FMIPA: Merawat Pikiran, Raga dan Jiwa



- Kegiatan Rohani dan Sosial Bernuansa Ilmiah
- Workshop Motivasi dan Kejiwaan
- Pentas Seni, Budaya dan Kreativitas Mingguan
- Latihan dan Kompetisi Olahraga
- Kerja Bakti Divisi setiap 6 bulan



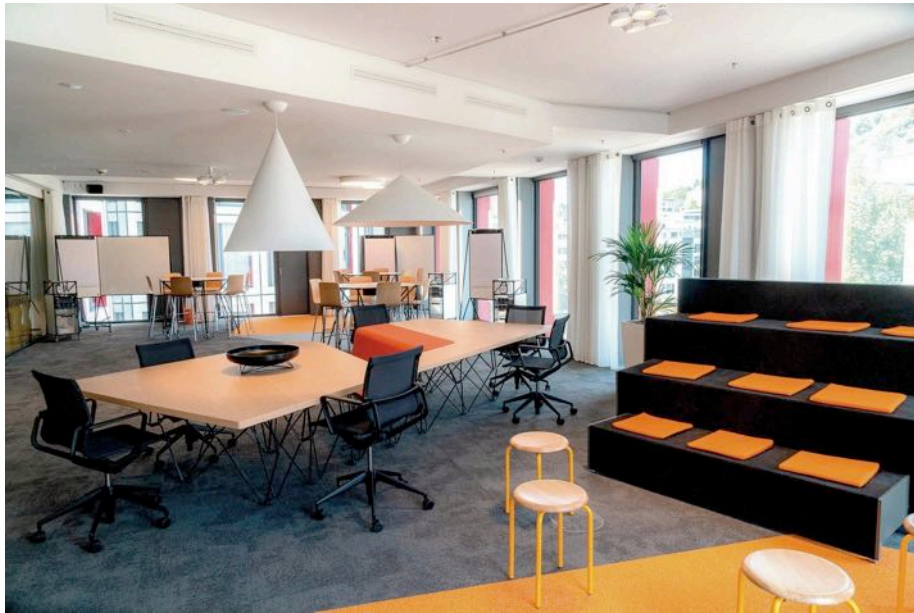
# Program Kerja Unggulan 3 Talenta FMIPA: Tak Seorang Pun Ditinggalkan



- Ngopi Bareng Dekan (Dosen Muda, LK dan GB, Tendik, Mahasiswa)
- Dekan Keliling (Rabuan)
- Dekan Peduli dan Responsif (Hotline dan Action)
- Pemberdayaan Komunitas untuk Bantuan Sosial

# Program Kerja Unggulan 4

## Sarpras: Bukan Hanya Teknologi, Tapi Ruang Kolaborasi dan Inovasi



- Penetapan minimal 1 Common Space di setiap Divisi/Kluster Keilmuan
- Penataan Ulang Ruangan Kuliah dan Adminitrasi Pelayanan Menjadi Berkonsep Common Working Space and Open Innovation
- Pengadaan Sarana Penelitian Kolaboratif dan Terpusat
- Pembuatan Ruang dan Pengadaan Sarana Relaksasi dan Kesenian
- Pembuatan Amphitheater Outdoor untuk Pertunjukan Seni dan Kreativitas

# Program Kerja Unggulan 5

## Riset FMIPA: Lumbung

### Pengetahuan dan Inovasi Dunia



- Pertemuan Divisi/Kluster Keilmuan 2 Mingguan
- Journal Club 2 mingguan
- Simposium Keilmuan Populer Fakultas Bulanan
- Penyelenggaraan Riset Kolaboratif Institusi, Nasional, dan Internasional
- Matchmaking dan Riset Bersama Dunia Usaha, Dunia Industri, Pusat Studi dan Diaspora
- Dukungan Untuk Peran Aktif di Himpunan Profesi

# Program Kerja Unggulan 6

## Pendanaan: Mandiri dan Berkelanjutan

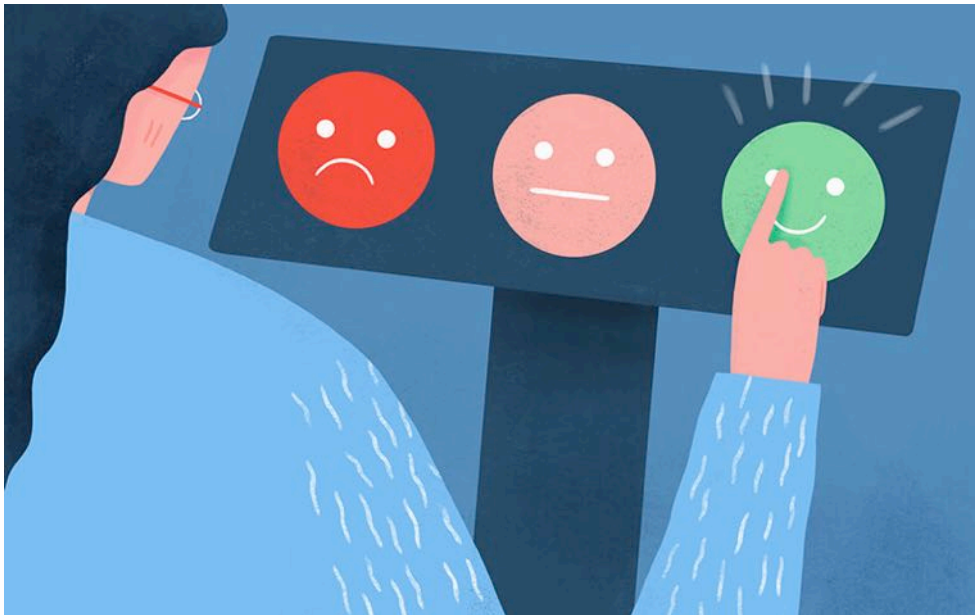


- Crowd Funding
- Dana Abadi FMIPA
- FMIPA Spin-Outs Projects for Alumni
- Collaborative Grant Funding



# Program Kerja Unggulan 7

## Administrasi: Jernih Datanya, Singkat Alurnya, Prima Pelayanannya



- Pembenahan dan Integrasi Data
- Revisi Alur Birokrasi dan Pelayanan
- Pelatihan Rutin Layanan Prima
- Pembuatan Sistem Feedback Layanan Real Time ke Pimpinan Fakultas

# TERIMA KASIH



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