



UNTIRTA
Jawara
Jujur Adil Wibawa Amanah Religius Akuntabel



Profile UPA Laboratorium Terpadu

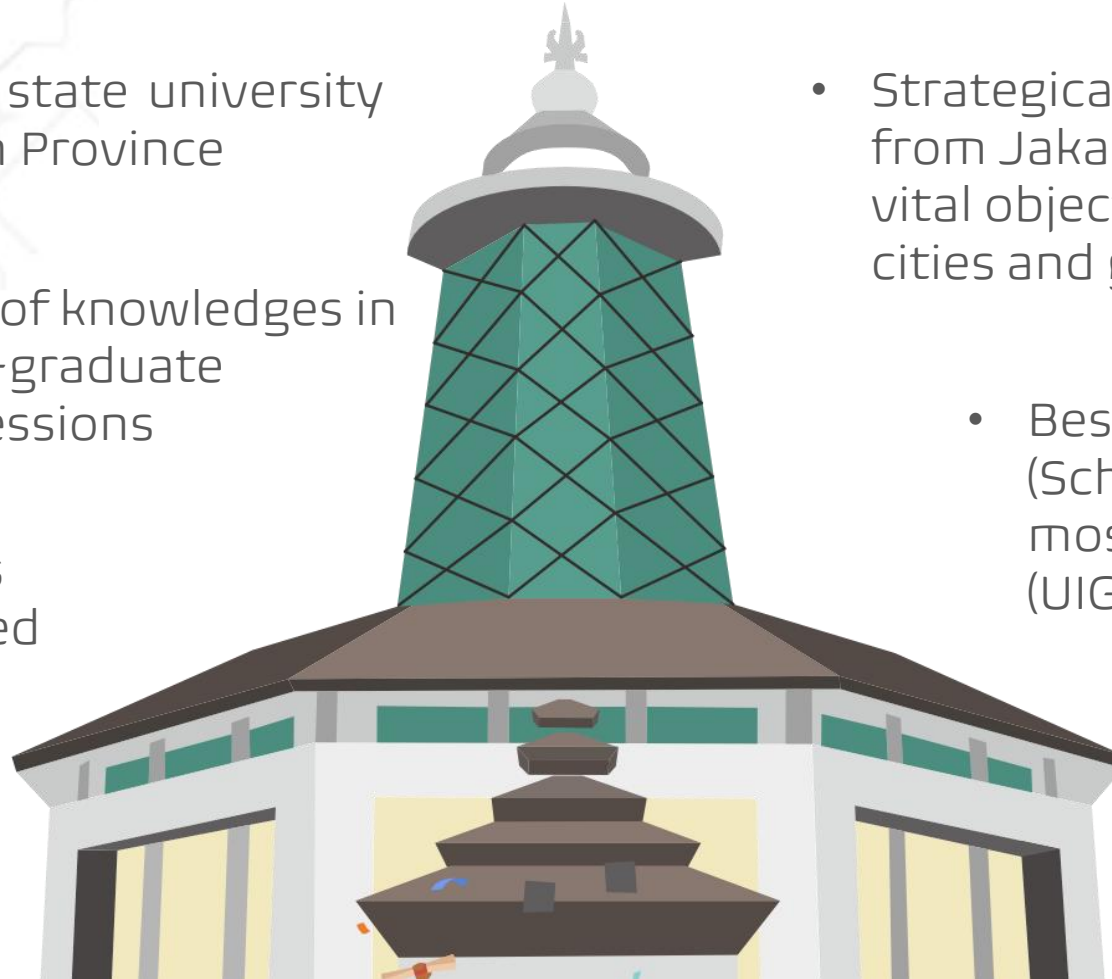


Yus Rama Denny, Ph.D



ABOUT US

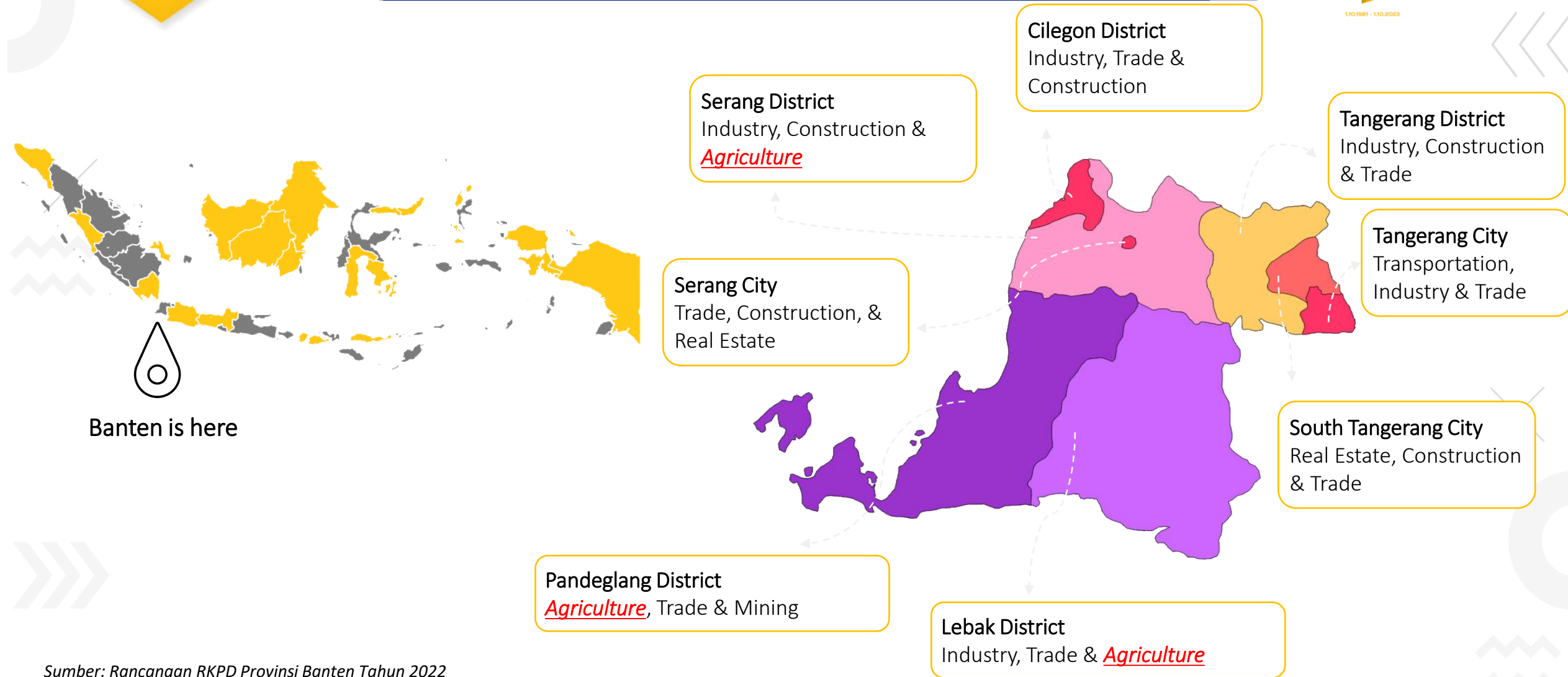
- The only state university in Banten Province
- Variety disciplines of knowledges in bachelor and post-graduate program and professions
- Over 90% departments are nationally accredited and 4 departements internationally accredited (AUN-QA)



- Strategically located, only 84 Km from Jakarta and nearby national vital objects such as industries, cities and government site
- Best 15 innovative campus (Schimago Rangking) and 17th most sustaibnable university (UIGM)
- Research-focused on green and sustainability



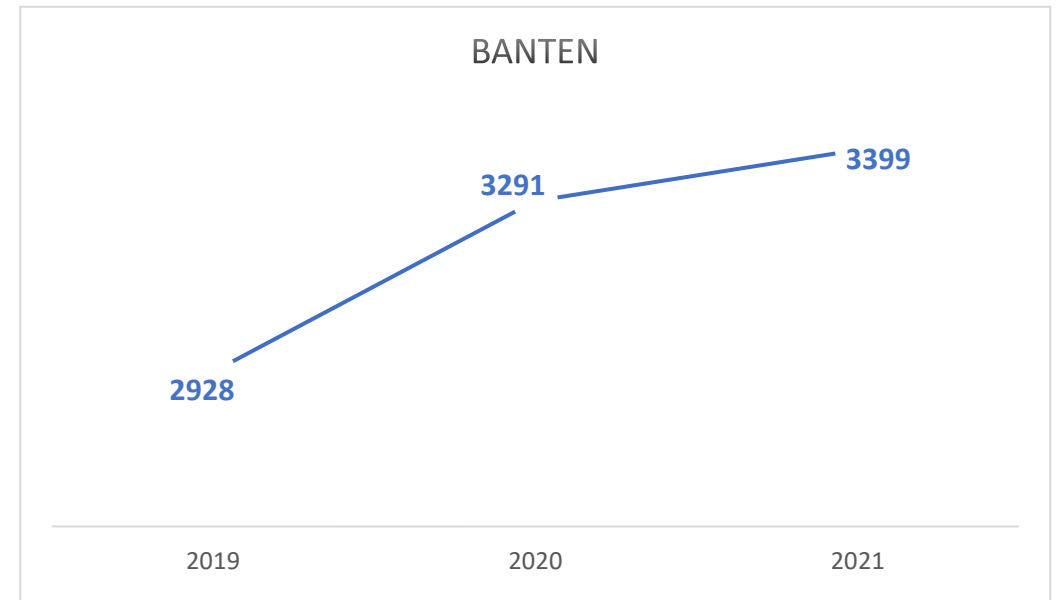
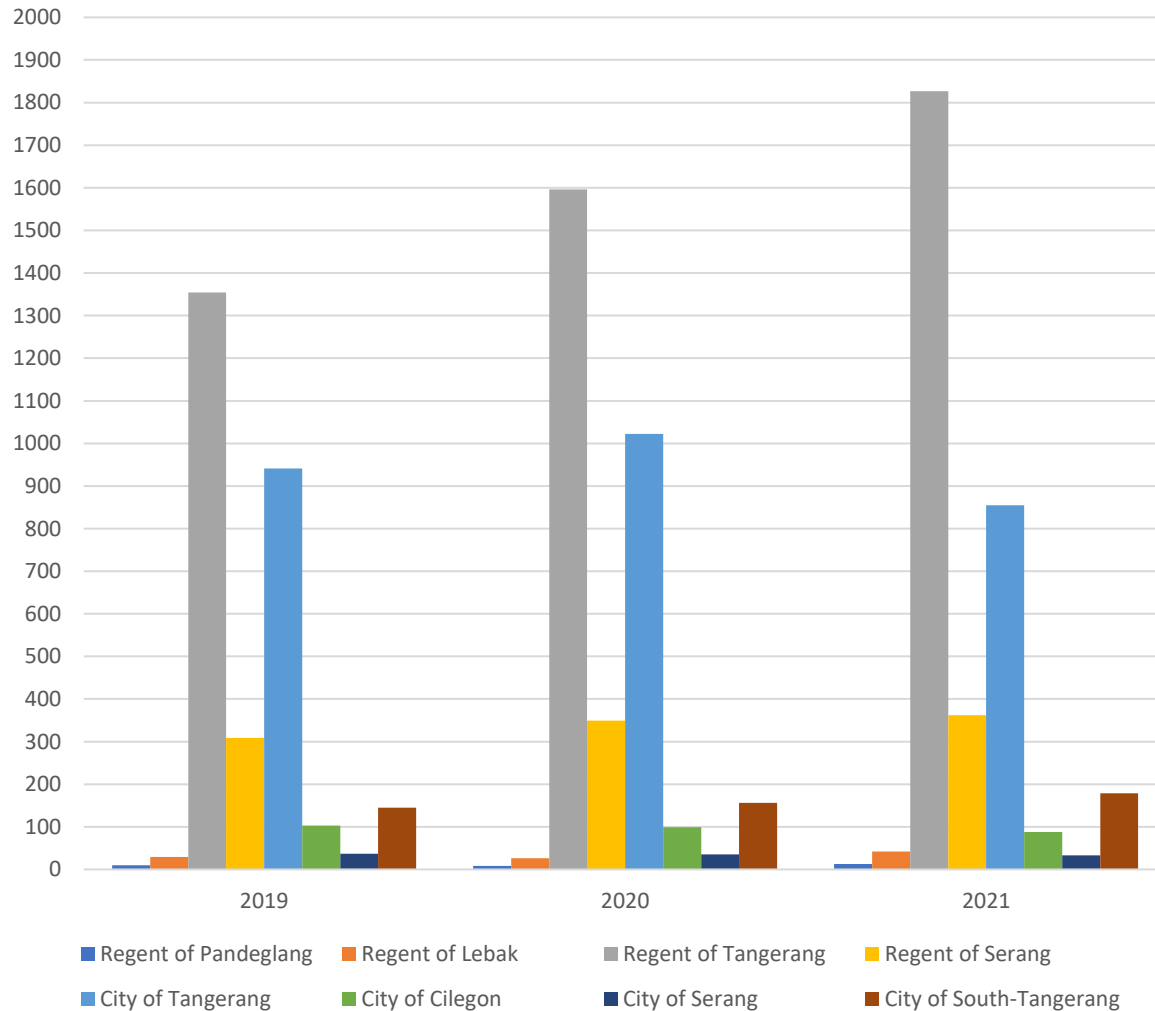
BANTEN's POTENTIAL



Sumber: Rancangan RKPD Provinsi Banten Tahun 2022



INDUSTRIES IN BANTEN



VISI UPA Laboratorium Terpadu UNTIRTA

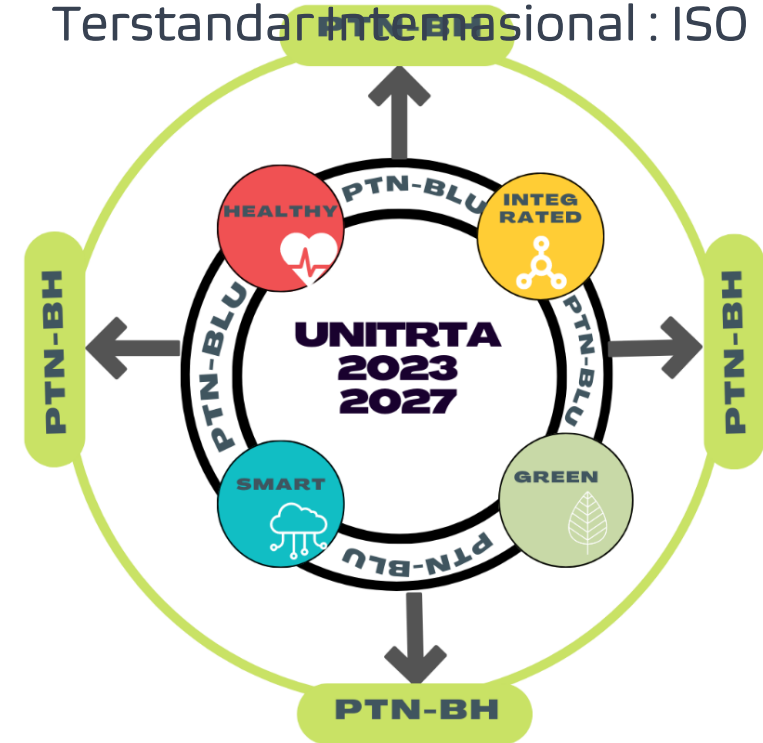
Menjadi Unit Penunjang Akademik (UPA) Laboratorium Terpadu yang unggul, terakreditasi, dan berstandar internasional dalam melayani penelitian, pengujian, dan pelatihan, guna mendukung tercapainya Healthy, Integrated, Smart, and Green (HITS Green) University yang Unggul, Berkarakter, dan Berdaya Saing Global pada tahun 2035.

Menyediakan layanan penelitian, pengujian, dan pelatihan yang berkualitas dan terakreditasi sesuai dengan standar nasional dan internasional.

Unggul : daya saing tinggi.

Terakreditasi : KAN

Terstandar Internasional : ISO 17025, 9001



Scheme of HITS and Green University

MISI UPA Laboratorium Terpadu UNTIRTA

1

Menyediakan layanan penelitian, pengujian, dan pelatihan yang berkualitas dan terakreditasi sesuai dengan standar nasional dan internasional.

2

Mendukung pengembangan Untirta sebagai universitas yang sehat, terintegrasi, cerdas, dan ramah lingkungan (HITS Green).

3

Memfasilitasi kolaborasi antara akademisi, industri, dan lembaga penelitian baik nasional maupun internasional.

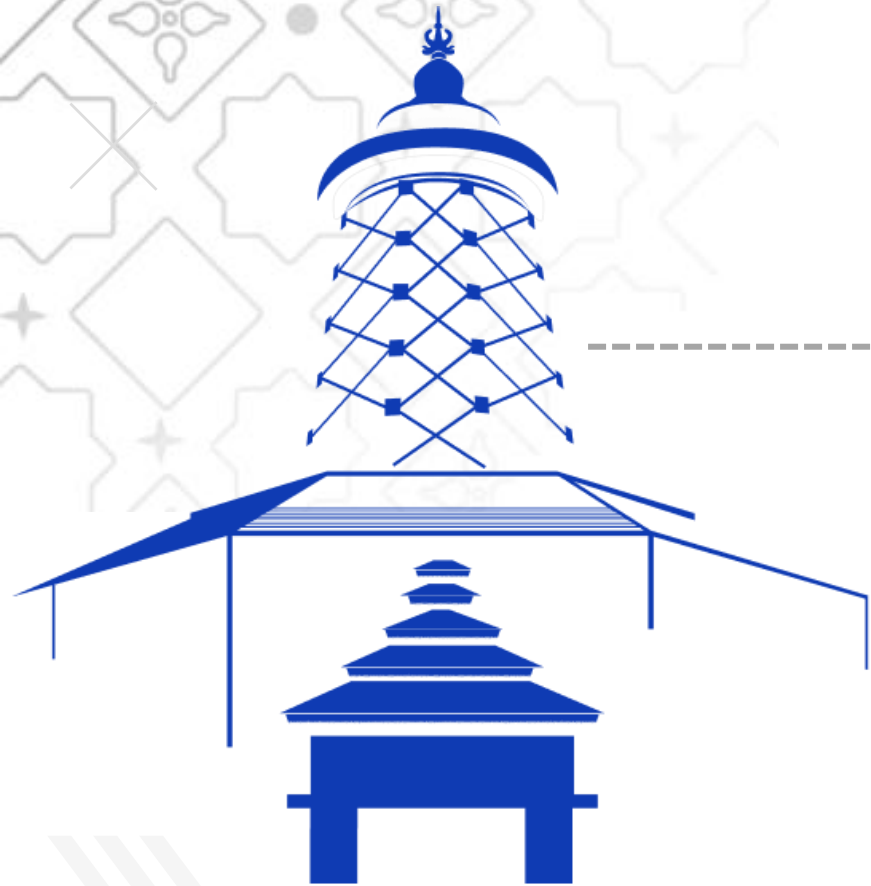
MISI UPA Laboratorium Terpadu UNTIRTA

4

Menyediakan fasilitas laboratorium modern yang mendukung kegiatan inovasi dan penelitian yang berkelanjutan.

5

Meningkatkan kompetensi sumber daya manusia di bidang laboratorium melalui pelatihan dan pengembangan profesional berkelanjutan.

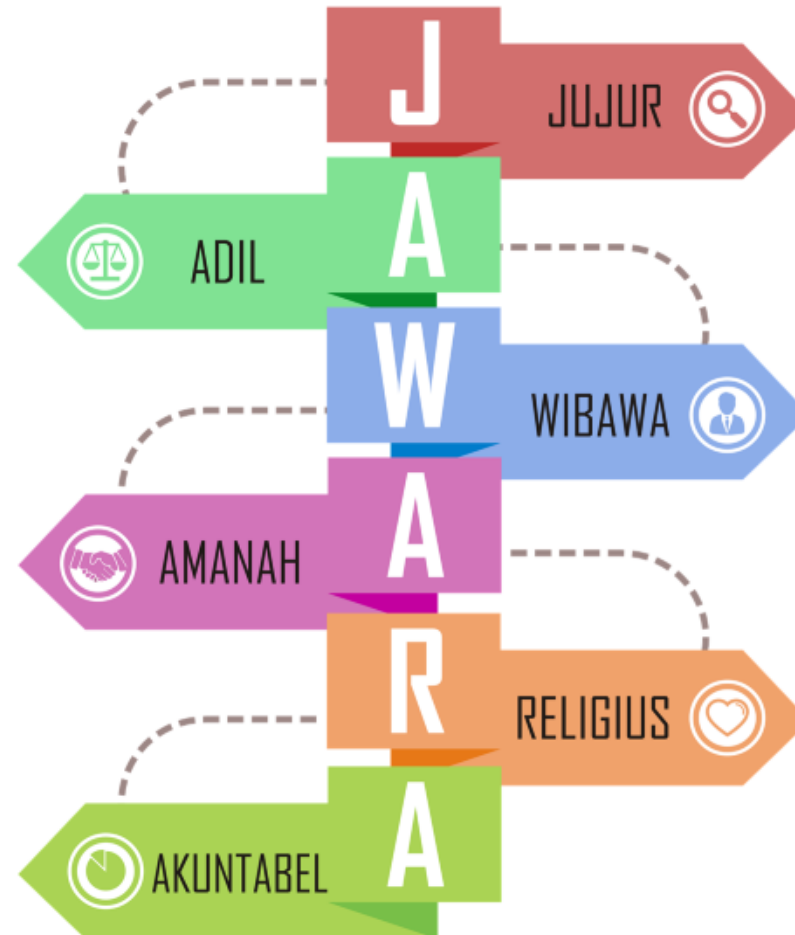




VALUE/NILAI

Nilai Kejuangan Sultan Ageng Tirtayasa

- Jiwa social
- Peduli lingkungan
- **Kerjasama**
(Thandrasasmita, 1967)
- Nilai **persatuan dan kesatuan** melalui pembentukan kekuatan untuk mempertahankan dan melakukan strategi penyerangan antara Belanda. (Michrob, 1993)
- Nilai **Kerjasama** dimana beliau memperkuat hubungan-hubungan dengan daerah-daerah sekitar kesultanan Banten. (Lubis, 2003)



Nilai Pemikiran Syekh Nawawi Al-Bantani

- Eksistensi alam semesta
- Potensi-potensi manusia
- Eksistensi Manusia
- Tujuan Pendidikan
- Prinsip-prinsip aktivitas pendidikan Islam

(Hidayat, 2019)

Pembentukan kompetensi akhlak merupakan perpaduan akhlak pada tataran kognisi, emosi dan tindakan. Yang meliputi:

- Akhlak terhadap Allah SWT
- Akhlak terhadap diri sendiri
- Akhlak terhadap Masyarakat



PENGEMBANGAN GREEN UNIVERSITY

Water

1. Water conservation program
2. Recycle water program ★
3. The use of water-efficient devices
4. Consumable Water program ★

Energy

1. 10% Renewable energy
2. Solar panel use ★
3. Internal Building Energy Audit ★
4. The use of energy efficient device
5. 20% reduction of enery consumption ★
6. Biogas unit

Waste Management

1. Paperless and plastic less program ★
2. Integrated waste management
3. Untirta Sewage Systems (USS) ★
4. Litter bank system
5. Tipping fee litter for 500 ton/hari
6. Incenerator procurement
7. 3R Garbage ban ★

Setting and Infrastructure

1. Open green space for 30% of the area
2. Community for Family Herb Medicine
3. Forest area in campus
4. Water absorbent area ★
5. Green pedestrian line
6. Reducing parking area and personal vehicle ★
7. Untirta's arboretum

Education and Human Resources

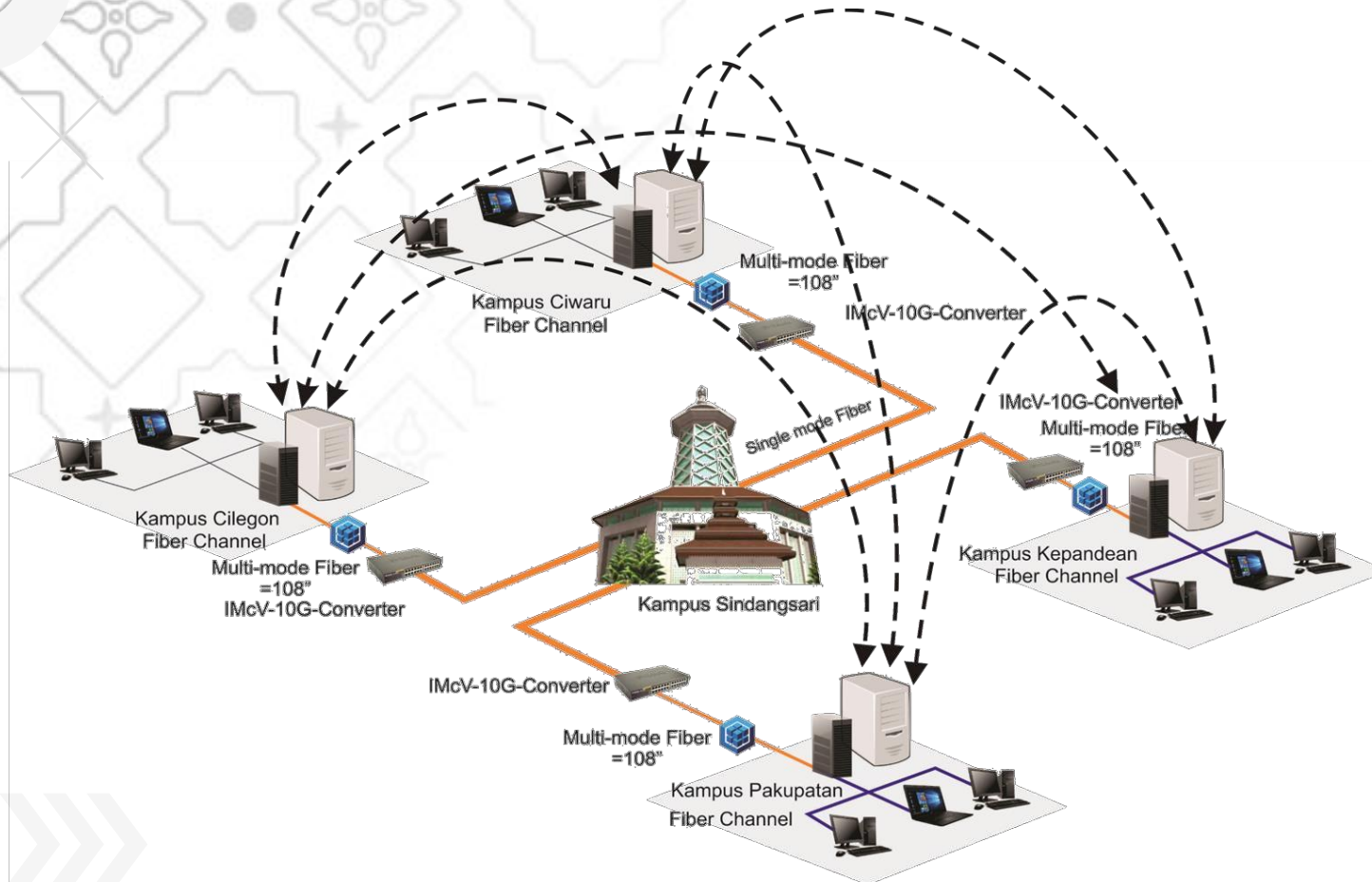
1. Establish Smart and Green Unit ★
2. Insentive for SDG research ★
3. Establish Faculty of Environmental Studies
4. Publication, event, workshop and student unit in the basis of sustainable paradigm ★
5. Untirta Data Center for SDGs ★



★ Sudah tercapai

INTEGRATION

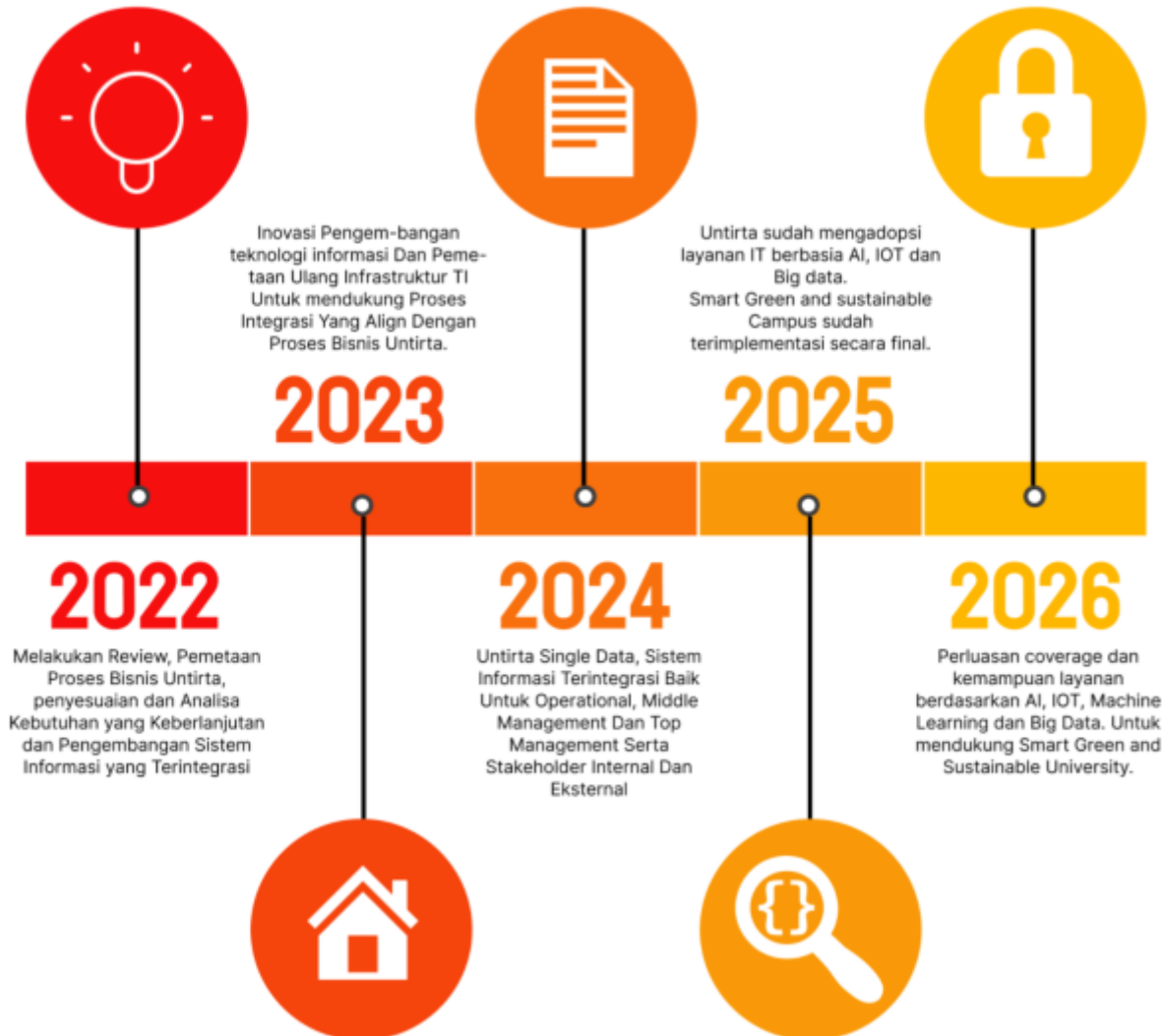
Physical



Non-Physical



ROADMAP SMART CONCEPT (IT-BASED)



PURPOSE

- Improve the implementation of an integrated online learning management system with the learning platform
- Increase employee productivity with an integrated performance management system
- Improve student experience with service management system
- Improve operational efficiency with administrative management system with easy real-time monitoring

GREEN UNIVERSITY DEVELOPMENT

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★ Achieved

INTEGRATED LABORATORY FACILITIES



HITS & GREEN UNIVERSITY

Healthy

Integrated

Smart

Green



UNIVERSITAS
SULTAN AGENG
TIRTAYASA

UNTIRTA's Achivement

UNTIRTA
Jawara
Jujur Adil Wibawa Amanah Religius Akuntabel

UNTIRTA – INDUSTRY ECOSYSTEM

Partner

Business World / Industrial World



Chandra Asri



PT. DINAMIKA OTOMASI INDONESIA



株式会社 凛
RIN
COMPANY LIMITED

KRAKATAU POSCO

PURANTARA
By CAS Food

GEI 格林美
资源有限 循环无限
Recycling for future!



PT. FUJI PROSPEK INDONESIA



PT GUNUNG RAJA PAKSI Tbk

Creation of
Opportunities



GOVERNMENT

Expanding Access

Accelerating Innovation

Process Automation

Pentahelix

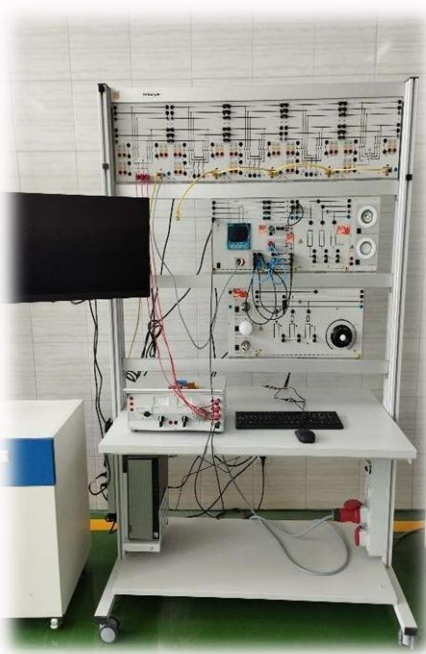
Industry - UNTIRTA
Collaboration

UNTIRTA



Creative
Design

Renewable Energy Laboratory



EPD Busbar System



Photovoltaic Hybrid System
with Battery

Rooftop Solar Panel
Universitas Sultan Ageng Tirtayasa



Phase 1 = 107,5 KWp
Phase 2 = 387,2 KWp
Total = 494,7 KWp
Equal to 0,5 MWp

Smart Grid Technology Training Center



Nanomaterials Laboratory



XRD D8 ADVANCE



SEM EDX



Sputter Coater



Critical Point Dryer

Nano Material Laboratory is laboratory that focus on research and analysis small-scale materials, including nanoparticles, nanorods and tubes, micron-scale particles, dry powders, and suspensions

Collaborated with :



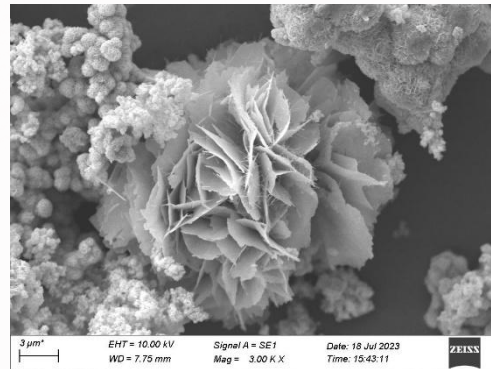
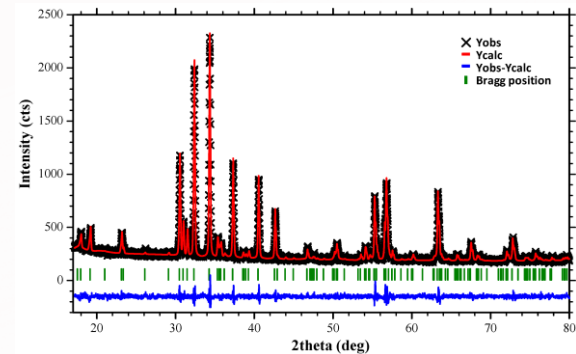
PT GUNUNG RAJA PAKSI Tbk



PT. DINAMIKA OTOMASI INDONESIA



BRIN



Biotechnology Laboratory

Halal test with PCR



Laboratory that focuses on food testing using molecular principles.



Qiagen-Rotor Gene Q



Freezer Innova U410



Water Purification System



Sample collection and DNA isolation



Primer design and prediction of melting temperature



Multiplex HRMA optimization

95 °C 56 °C 72 °C
PCR amplification



Centrifuge



Gel Doc

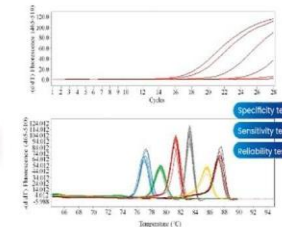


Nano-photometer

Collaborated with :



Application of multiplex HRMA for commercial food products



Validation of multiplex HRMA



Available at : <https://halalcenter.untirta.ac.id/>



BADAN POM

Source : <https://www.sciencedirect.com/science/article/pii/S2352364621000225>

Spectroscopy Laboratory



GCMS (Gas Chromatography Mass Spectrophotometer)



AAS (Atomic Absorption Spectrophotometer)



LCMS/MS (Liquid Chromatography Double Mass Spectrophotometry)



FTIR (Fourier Transformation Infra Red)

Collaborated with :



Industrial Machinery Laboratory

International Standard Welding Booth



Universal Testing Machine (UTM) Dynamic 100 kN



Khosupa Assesment



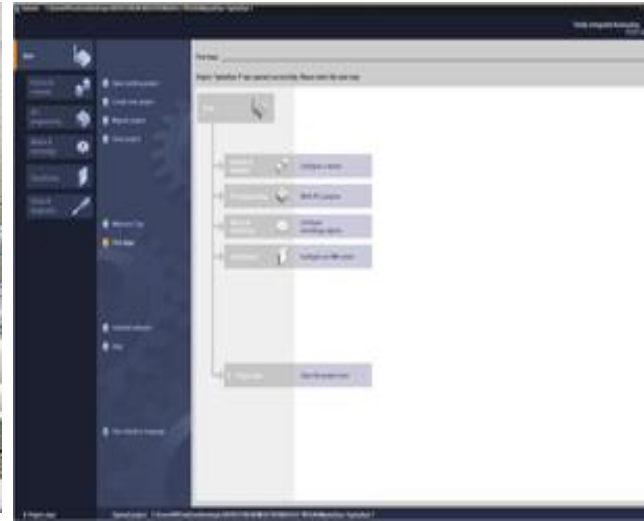
Future Potential Collaboration



Simulated Welding Training Machine (dual user)



Mechatronics Laboratory



Software TIA
Portal V16

Siemens Mechatronic System Certification Program
(SMSCP) IEG3432

Siemens Mechatronic System Training Center





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THANK YOU

