



Commercialisation of Universities R&D Activities

Sharing Experience in Marketing & Selling Innovations

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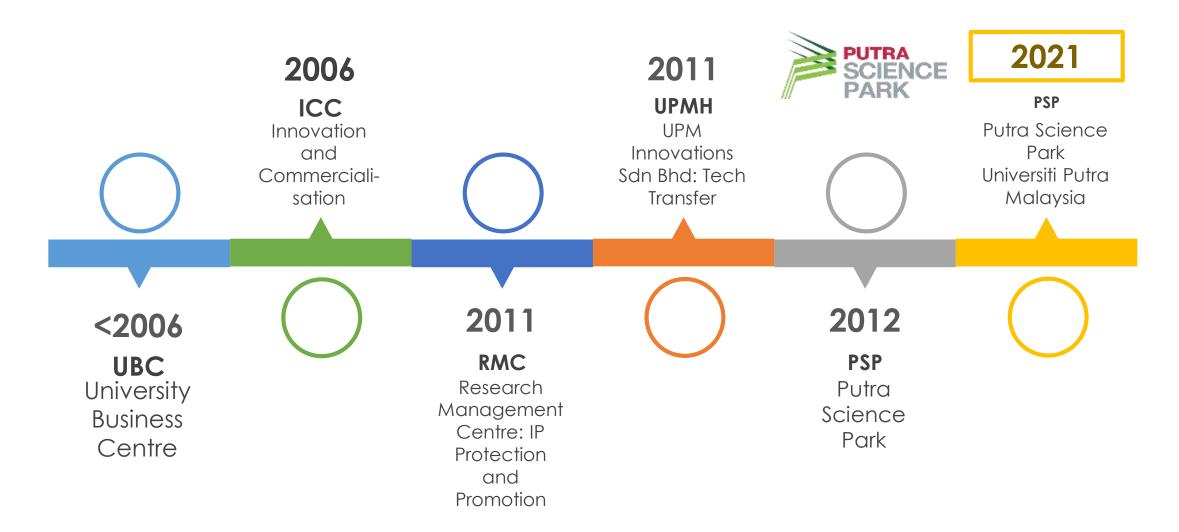
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Development of Society By Science And Technology: UPM's Story- Technology Transfer Office





UPM Technology Transfer PROSPERING THROUGH INNOVATION

PSP is involved with technology transfer activities in Universiti Putra Malaysia (UPM), moving potential technologies and inventions from the laboratories to the marketplace.

PSP assists in securing and protecting novel innovations through intellectual property (IP) processes and identifying applicable commercialisation strategies for the created IP.





COMMERCIALISATION ACHIEVEMENTS



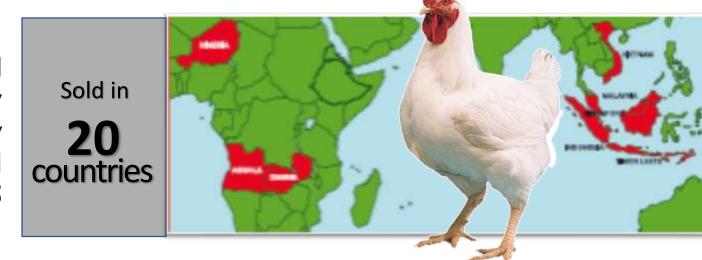
Increase efficiency, revenue, create new industries







NDV4, Fowl Pox & MyVac Vaccines – Led to the establishment of the 1st and only vaccine manufacturing company for animal health. MVP is now producing several other vaccines and has been in business for more than 15 years







Increase efficiency, revenue, create new industries





Zappa

A specially formulated seed germination enhancer



A foliar fertilizer used for crops such as rice, vegetables, Fruits and ornamental plants.





Products exported to other countries

Increase Revenue, Create New Industries

REMDII SENSITIVE

Natural, Preservative-Free Palm-Based Anti inflammatory Lipid Bioactives Skin Formula for for Eczema Patients





SOLD | 500 clinics & pharmacies in Malaysia & Singapore
HELP | >10,000 eczema patient





Company: : Lipidware Sdn Bhd









Commercialisation Management

Innovation Roadmap Towards Value Creation

A. Dyomoti

IP Protection

IP Management

Maintenance

Promotion & Marketing of IP

Promotion

- Business Networking& Matching
- Showcase

Technology Transfer

- Negotiation on Transfer of Technology Terms
- Transfer of Technology
 Contract
- Transfer of Technology Activities
- Demo / Pilot Scale

Commercialisation

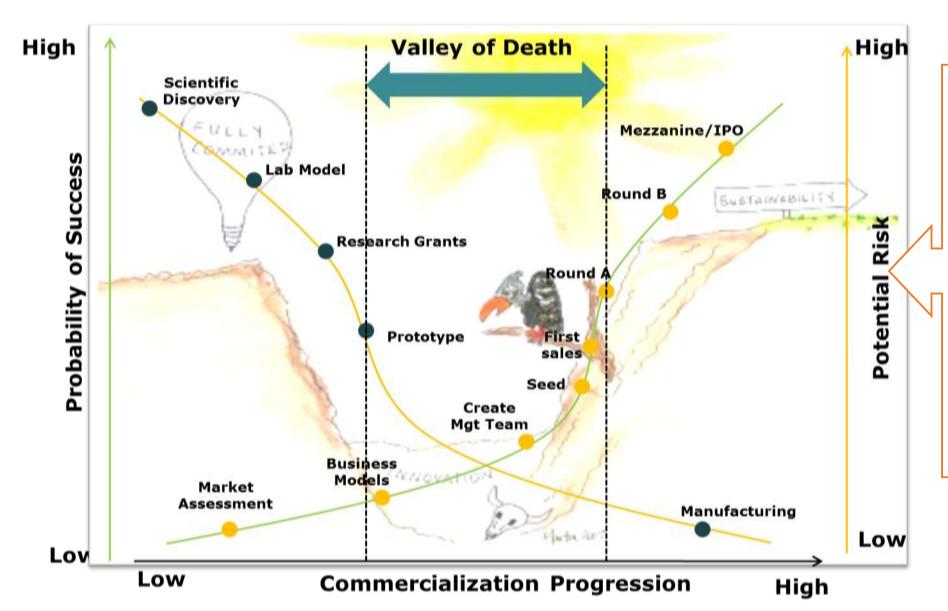
- Industrial Scale
 Production
- UPM & Industry Partner
 - Licensing & Royalty
 - Outright Sale
 - Joint Venture
 - Startup Venture

CHALLENGE! Unlock the value in R&D... for wealth creation!

Researchers innovate technology for university BUT do not produce product!



The Gap Scenario: Valley of Death



Challenges:

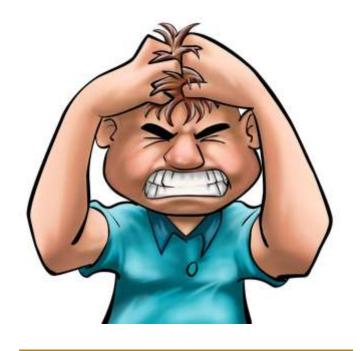
- No market market validation to point to the right market
- Legal issues involvement of researcher in commercialisation
- No talent unipreneur to assist via startup
- Less financial support grant, VC
- Not ready domain right application for the technology

CHALLENGE: Silo Ecosystem



CHALLENGE: Mismatched Expectations

NOT Ready



NOT Scalable

NO Go for Commercialisation

Immature Technology NO Market Potential

CHALLENGE: Limited Resources

Initial prototype

Lab Scale R&D

- •- Facility
- •- Equipment

Ready MVP for commercialisation

Prototype Scale

- Talent

Proven Results:

InnoHubbers of UPM managed to prove of selling

Reach certain level of production

Pilot Scale

- Financial gap



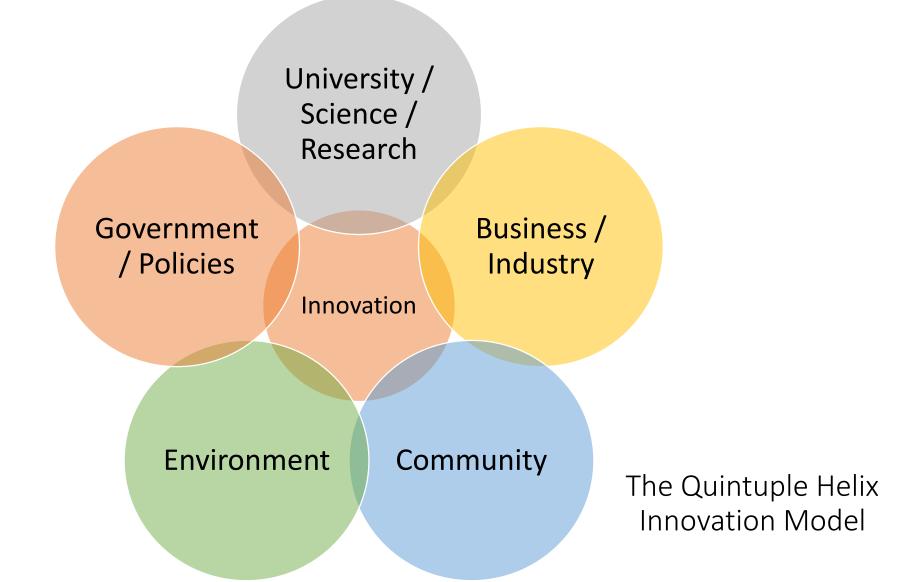
Industry Scale

commercialisation

Mass scale for

- Channel
- Right partner
- -Conducive ecosystem

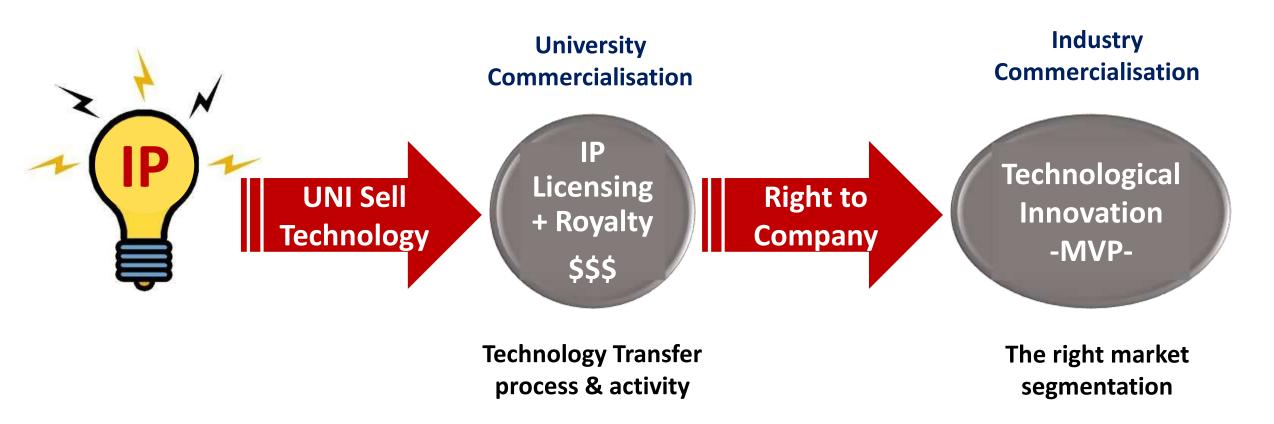
Why is commercialisation important? How can manufacturers benefit from it?



RDCE

• Commercialisation of research is to provide new products and services as the best solution that can be used to solve some of life's most critical problems, as well as making significant improvements to the quality of life for the targeted consumers from the market segment and business effectiveness across a wide variety of domains.

Commercialisation - Impact Beyond Academia



Licensing enables the **university** to maintain ownership of its intellectual property and oversee that it **is** developed and **commercialised** by the licensee whilst at the same time generating royalty income from the use of its intellectual property by industry.

RDCE – Impact Beyond Academia

Promote high quality IPs

- VALUE CREATION

"If you don't work on important **problems**, it's not likely that you'll do important work"

Richard Hamming

Identify key NEEDS / DEMANDS of the POTENTIAL CLIENT / CUSTOMER

RDCE Impact

To bridge the GAP between academia & industry to

contribute to society, environment & innovationled-economy with sustainable business model



The **BENEFITS** for those companies with collaboration with UPM are many such as:

1.

1.Pass the R&D for diversification & expansion to UPM.

Many do not know that University researchers are eager to know the problems and requirements of the industry.

There are parts of running or a process within a company that requires further R&D and many companies are put off to expand that lucrative area because it requires further research.

The **BENEFITS** for those companies with collaboration with UPM are many such as:

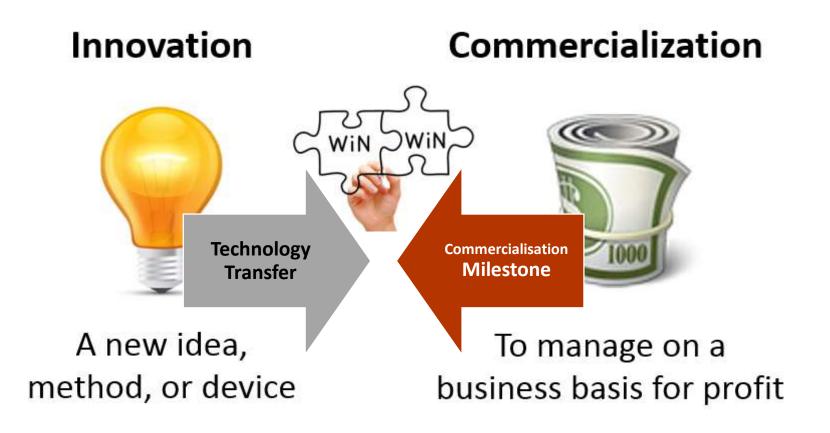
2.

PhD students are eager beaver at UPM costs.

Many companies are not aware that one of the cheapest R&D are through employing PhD (and Master) students to do the research work, at UPM research costs.

This is versus the expensive route of employing in house research officers. Moreover the headache of HR portion managing researchers is outsourced to UPM faculty.

What do manufacturers need to know when collaborating with the universities?



Key Players in Commercialisation Landscape

INNOVATOR

University / Research Institute / Individuals

TAKER

Company / Business Entity / Industry

POLICY MAKER & AGENCY

TECHNOLOGY TRANSFER PROFESSIONAL as FACILITATOR

TTO / Tech Managers / Incubator Science Parks / Technology Parks / Technology Scouters / IP Brokers

FUNDER

Venture Capitalists / Angel Investors / Government Grants & Funding Agencies



SCIENCE IP Commercialisation Methods



Spin-off/Start-up Venture

Licensing + Royalty



Outright Sale



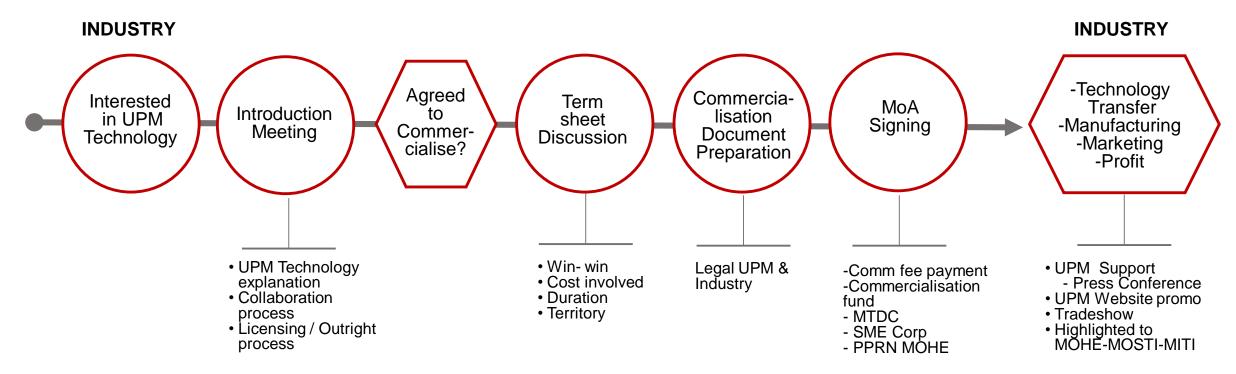
Joint Venture



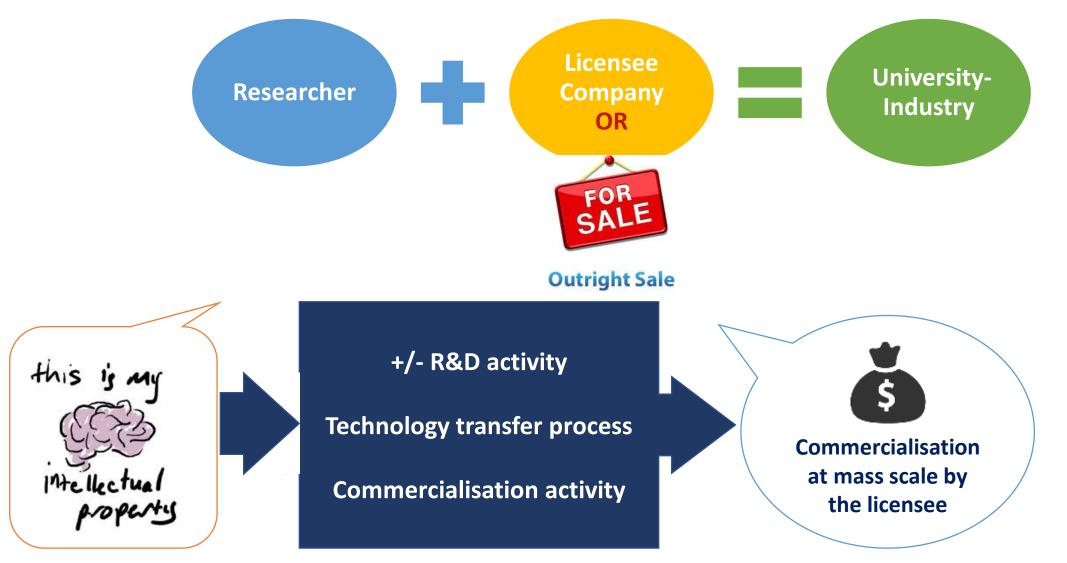
Engagement Process

UPM-INDUSTRYCommercialisation Process





VENTURE: License/Outright Sale to Company



VENTURE: Joint Venture/Key Partner & Funding



High Impact R&D

- Problem-Solution Fit
- Lab Scale
- Prototype Scale



Lab-to-Market

- Product-Market Fit
- Pilot Scale
- Funding Support





Uni-Stakeholders

- Scale-up Fit
- CommercialisationScale

VENTURE: Talent as Founder / Startup

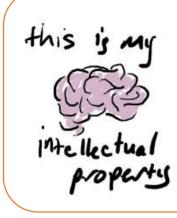




Unipreneur



Startup /
Founder
Team





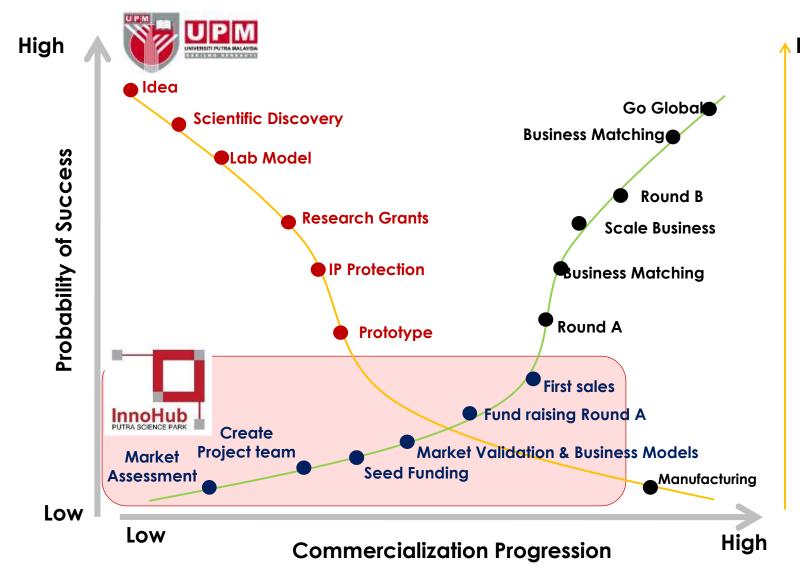






Techventure

Technological Innovation as the value creation for the targeted early adopter



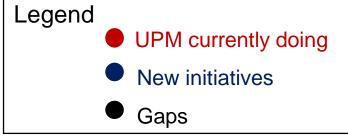
High

InnoHub's Role

Potential Risk

Championing UPM's R&D IPs to market by training and nurturing young unipreneurs to fill the commercialisation gap

Low



Strategic Commercialisation





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Innohub bantu pasarkan produk inovasi penyelidik

SERIAGAI salah sebuah universiti pergelidikan terkeninka negara. Iniversiti Putra Malaysia (UPM) sentinsa komited dan menggalahkan penyalidik serta pelajar mereka menghasikan produk-penduk hiromet dari Semasa ke semasa.

Dalam usaba memasarkan inevasi isovasi yang dihasilkan itu, satu program pembangunan diahawas takmologi laitu Imohab di bawah kendalian Putra Science Park (PSP)

Pengarah PSP, Prof. Madya Dr. Samsilah Roslan berkata, Ionobub merepakan makmal inovesi pasarun yang menggunukan pelan perniagnan lestari bagi produk atau teknologi.

pasaran.
"Bakan sennog untuk sesautu produk atsu teknologi bahara itu musuk ke pasaran. Judi, di Imolubi komi menggimukan serubagi inovitif ague badi kajian penyelidik UPM di purelua. dalam pasaran.
"Misalnya produk nanoselulosa. Kami

"Missinya prodisi nanoochinisa. Kami meseti mengetahni sanoochinisa kunjadan yang alian menggunakunnya. Jadi, kami akan merancang pembangunan dan peban pertilagnan agar perduk ita mendapat permintan di pasaran. katanya kedika dinubangi Kosme buru-buru ini. Tambahnya, palaksaman program imoduli talah menarik penyeraan 82 syurikat yang

ditabahkan oleh pelajar dan penyelidik untuk mengkamersialkan produk atau taknologi yang

dihasilkan.

Didan pada itu, Sarmaliah menjeduskan, PSP olidan pada itu, Sarmaliah menjeduskan, PSP olidan satu platiform yang membaletikan pihak pada pada pada pengelidik 12PM.

Medalai PSP sparikat operlati bag badeh berbalabaran dengan penyelidik 12PM mutak produkangunion sonara teksukagi atau pecelak dan membangunion sonara teksukagi atau pecelak dan membangunion sonara penyelidik tidam pecelak dan hemadian nesegkonerakan bermalah mengalam sengangan penyelidik disam penyelak tengatan tetap sengatikat mullihasional dari Amerika Sparikat mullihasional dari Amerika Sparikat mullihasional dari Amerika Sparikat mullihasional mengalam dengan penyelidik 11PM katanga.

Tambahaya, PSP akan pembarata dari segi mengarakkan penjaian intara penyelidik dan ugurukat yang menjainahan kerjanama.

teknologi UPM ditingkatkan hingga 2 kali





Insultan

PPT LIBERTAL

From research labs to the market



6 the creating manager com-resistant or purpose com-resistant the sounds.

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 autobjoo Nextor Material NV7 Angels
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UPM komited terhadap penggalakan budaya inovasi

SEBAGAI salah satu universiti penyelelikan terkemuka negara, Universiti Putra Malaysia (UPM) kemited dan semantinas menghasilkan produk-produk

Naib Canselor UPM, Prof. Datin Paduka Dr. Aini Ideris dalam kabangan warga UPM merupakan satu proses yang telah bertaku sejak sekian lama.

Pada peringkat awal, UPM telah menjalinkan kerjasama dengan nelbacol entiti dan universiti terkemuka yang terkenal dengan bactern inovest mereica.

Memuratrya, menerual pelbagan program that billhan yang diadakan. obih 200 orang pensyagah UPM telah diengkat sebagai Jaara

invest uten Innovetions Champions di UPM.

Mercka loilth yang memberstuk nukleus perapperak utama budaya movosi di universiti. terrechut.

UPM terindəp penggalakan badaya movasi ini disahirkan melahui. pembengunan eksetetent empon-sported.

Terdapat pellagni geran, dana, insentif, mugerah serta perkhidmatan sokongan untuk penghusilan dan pembangunan movest, pomfallus harta mtelek, promosi inovasi sehinggo kepada poringkat pengkomornialus.



*Ketrampilan UPM monoruni napek ini tehih pelloggi amgersh serta rapking dalam dan har

nopera, katanya. Tambahnya, menyedari pelajar adalah tuma potensi yang pertu digilan, UPM memantikan bakat mereka dipupuh dan

diberi kepercayaan. In tatak hanya mendawa

movasi mereka ke tengsit, bahkan noembonemkan permisenan bermaskan movani dan teknologi yang dicipta bersama pensyamh. Aini berkuta, usaha itu Gloksanakan menerusi programfunohub di UPM.

""Di Innolmb, pero pelojar dibunbing until mengenal pastipotensi porningnan hagi inevasi yang telah dibasikan di UPM.

Program in adalah komprehensif, merangkumi kujian validasi pasaran, pembangunan

"Perkers poling utama adalah sesi pitebing kepada pemberi dana man pelabur berpotenni agar perniagaan yang telah dibangunkan dapat direnlisasikan,"

jelasnya. Tumbuhnya, sehingga kini, terdapat projek projek dalam Inrobab yang telah mencapal produksi dan igalan pada akala iodustri dengan jamlah himpuna

Who in the universities to approach? What are the innovations available for commercialisation?



VENTURE: Professional TTO



Promotions

Riding on the university's platform, technology are promoted through

Exhibitions Tradeshow Conference





Websites
Social Media
Email
LinkedIn



Business Matching Networking Garden parties for investors

Press
Conference –
Putra Cipta
Press Release





Publications catalogues, Innovation directories





TECH-TRANSFER

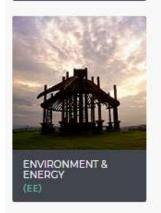
- Technologies presented are protected, not yet taken by industry.
- •Investor who sign licenses will get the right to:
 - produce solely (exclusive)
 - non exclusive
 - Joint venture companies with researcher
- Assistance with upscaling cost, growth fund from other agencies.
- Further disclosure, demo, lab visits can be arranged with Putra Science Park
- Talk to our experts.

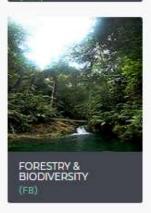








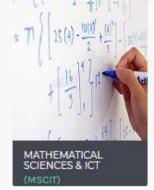


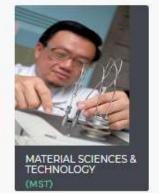




















Innovation Directory:

https://sciencepark.upm.edu.my/industri-2263





Next2U@Putra





SCIENCE Industry-Friendly Ecosystem



RENT: Building



RENT: Office Space





RENT: Land for Agricultural Trial Plots









R,D, C & E SHOWCASE





PLAY, LEARN AND STAY YOUNG!



How Are HUMAN Bones Different From ANIMAL Bones?



UPM Human Anatomy Museum

Trainings: Putra Dynamics





- Putra Dynamics PSP training house
- Exploiting experience gathered over the years
- Learning from the best:
 - ✓ Stanford Research International (SRI) and Silicon Valley.
 - ✓ Licensing Academy University of California, Davis
 - ✓ Alliance of Technology Transfer Professionals (ATTP)
 - ✓ Intellectual Property Corporation of Malaysia (MyIPO)
 - ✓ World Intellectual Property Organization (WIPO).

PUTRACIONAMICS

in collaborations with:











Trainings: Putra Dynamics



IP protection

- 5 Discipline of Innovations: Important needs, Value creations, Innovation Champion, Innovation team, organizational alignment.
- Managing technology transfer
- Negotiating licensing
- Business development for Innovations.
- Jumpstart of organizational 'innovation to market' program



