

PENJANAAN PENDAPATAN

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Pengarah

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RESEARCH EVOLUTION

MOHE

MOSTI, MOA , etc.

Fundamental

Applied

Development

Industrial
Design

Pre-
Comm

Business
Venture

Post-
Comm

FRGS /
LRGS/
PRGS

ERGS

*PRGS

Market Test

**Development of
New Knowledge**

**Development
of New
Technologies**

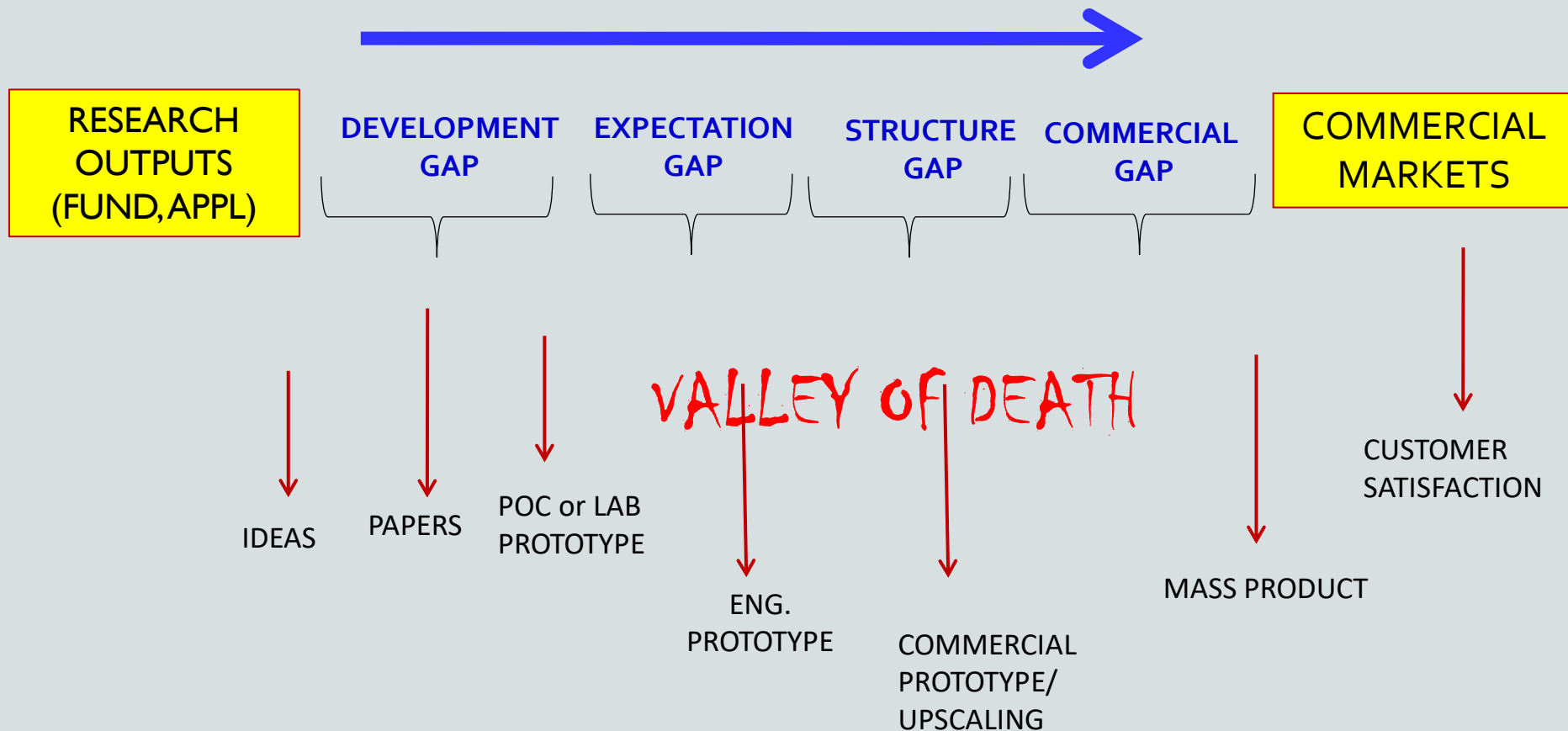
**Development
of New
Products**

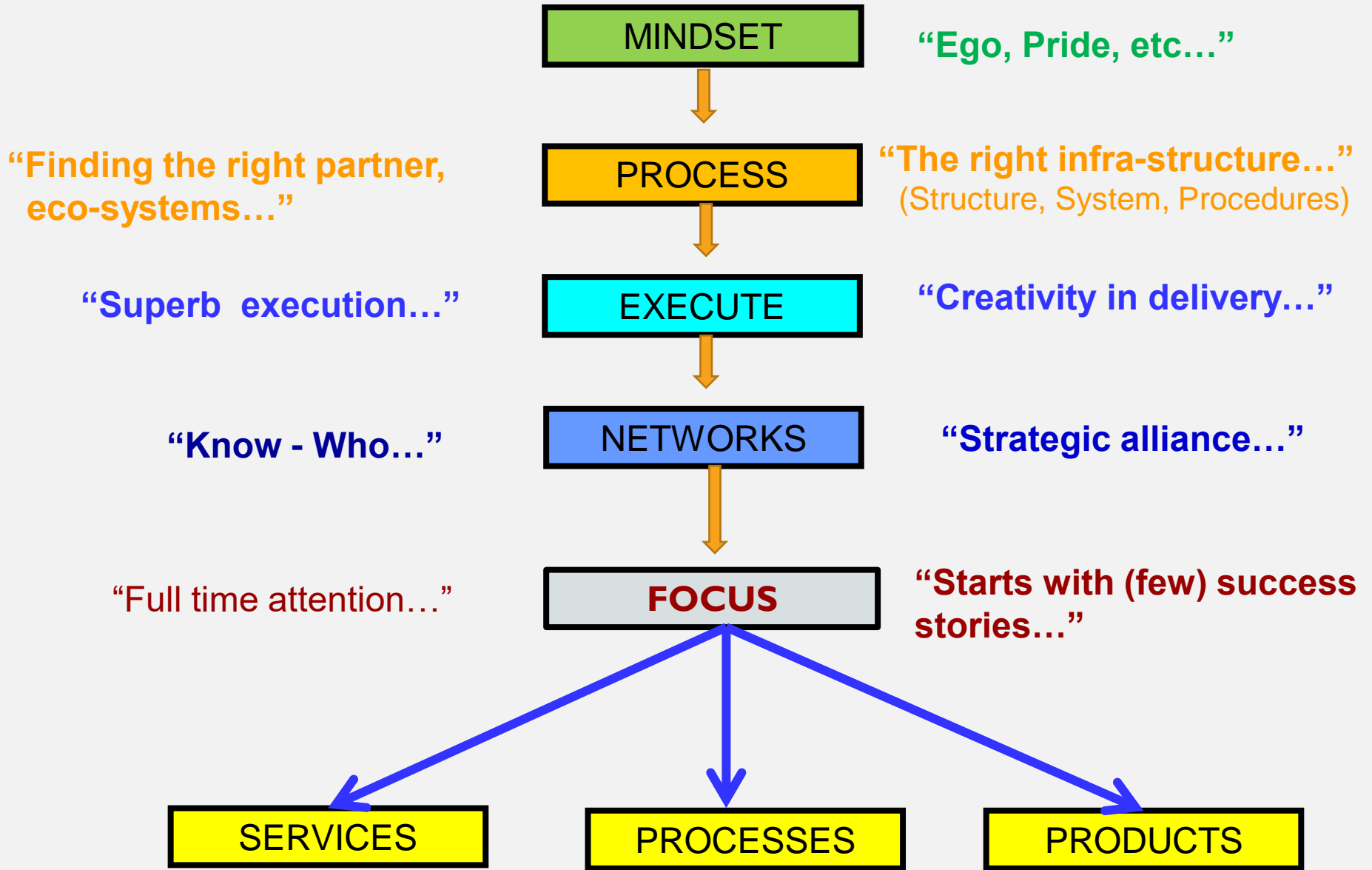
KNOWLEDGE
BASED ECONOMY

Spin off
Innovation



THE GAPS IN COMMERCIALISATION EFFORT





“THE SIMPLER THE BETTER”



Innovation-Value-Chain-(IVC)

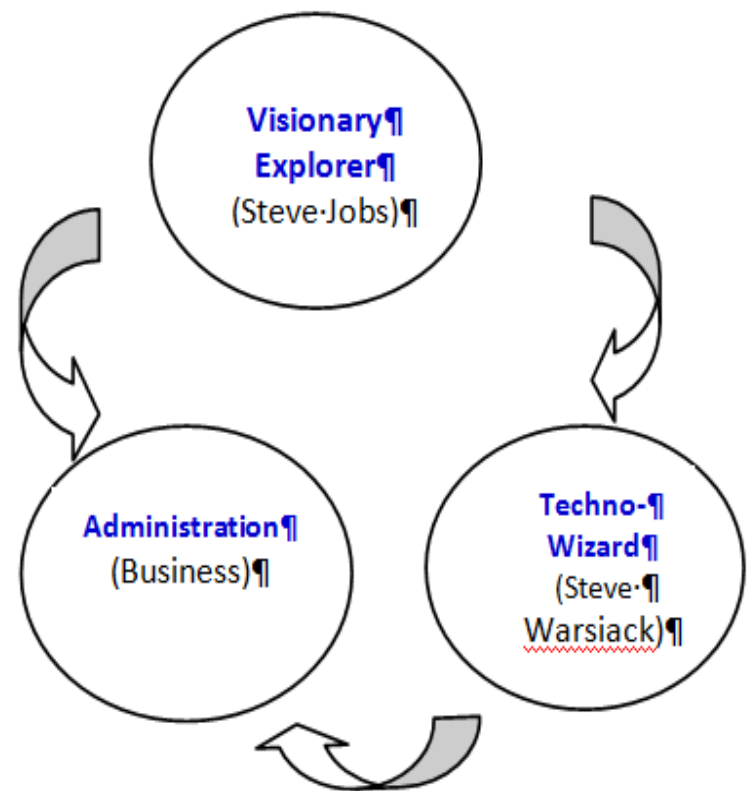
¶

“Know-Why”.....Basic-Research¶

“Know-How”.....Applied-Research¶

“Know-What”.....Pre-Commercialisation¶

“Know-Who”.....Full-Business-Venture¶



ACADEMICIANS VS. BUSINESSMEN

1. Generate Knowledge
2. Distribute Knowledge
3. **Publish first**
4. End with papers
5. Selfless
6. Idealistic
7. Highly principled
8. Trusting
9. Frank
10. Never lies
11. **Analytical/Methodological**
12. **Insensitive to expenses**
13. Marketing is the least important

1. **Generate Income/Money**
2. Keep knowledge
3. Publish last
4. End with income/money
5. Self interest first
6. Practical
7. Highly pragmatic
8. Careful
9. Reserved
10. Never tells the whole truth
11. **Bottom line**
12. Very sensitive to expenses
13. **Marketing is the most important**



The challenges of Academia-Industry Collaboration:

- **Lack of trust over issues such as intellectual property.**
- Uncertainty about the potential benefits of working together.
- **Difficulty on both sides of finding the time for initial exploratory conversations.**
- While businesses may be seeking saleable products, academics value research outputs and **publications**.
- **Concerns, particularly among small businesses, that universities may not find their problems interesting.**
- They (Business entity) didn't know **who to talk to** or find out if a university could help them solve their business challenges.



How to make more effective collaborations?:

- Provide a single “*who you gonna call*” phone number that businesses could ring **to find the right person to talk to.**
- **'Sandboxes'** that allow groups to focus on and experiment with ideas without fear of failure.
- Provide a platform where academics and business people alike can drop in at any time and be sure of finding someone with common interests to bounce ideas off.
- Incubators to do more than rent desk space to companies. They should **facilitate networking opportunities**, access to the academic ecosystem, opportunities to learn, pitch for business funding and get **advice from established entrepreneurs.**
- Collaborations, can enhance reputations and provide revenue streams for universities but these benefits are only available **to those who are able to seize these opportunities.**

“NO SINGLE APPROACH THAT FITS ALL”



CHARACTERISTICS OF A TECHNOPRENEUR

- **Passionate**
- **Endurance:** It is like running in a marathon
- **Technology know-how:** Technology, IT & Media.
- **Market know-how:** Business Development
- **Risk management skills** (Technical, business, financial, etc.)



“Entrepreneurship is the practice of consistently converting good ideas into profitable commercial ventures.”

“Innovation a systematic act of turning something (product, idea, information, technology, etc.) into a resource that is of high value to its target market.”

Peter F. Drucker - “Innovation and Entrepreneurship”

“Technopreneurship is not a product but a process of synthesis in engineering the future of a person, an organization, a nation and the world.”

“Technopreneurship is the only source of long-run sustainable competitive advantage But without skills and technopreneurship there are no successful organizations.”

Manuel Cereijo



“As futuristic as it may sound, a **technopreneur** is basically an entrepreneur with both **business** and **technical** training background; or one who applies technology and innovation as the business core operating model.”

Ghaz Ghazali

“A synergistic **technopreneurship** would ideally comprise a **technopreneur** as the business initiator; **research institutions** as centres of innovation of new technologies; and a **venture capital (VC)** company as competent financier.....

To achieve this, we need a business incubator to serve as a centre of learning, with a conducive business atmosphere supported by adequate laboratory facilities.”

Muhammad Abdullah Zaidel (Unimas)

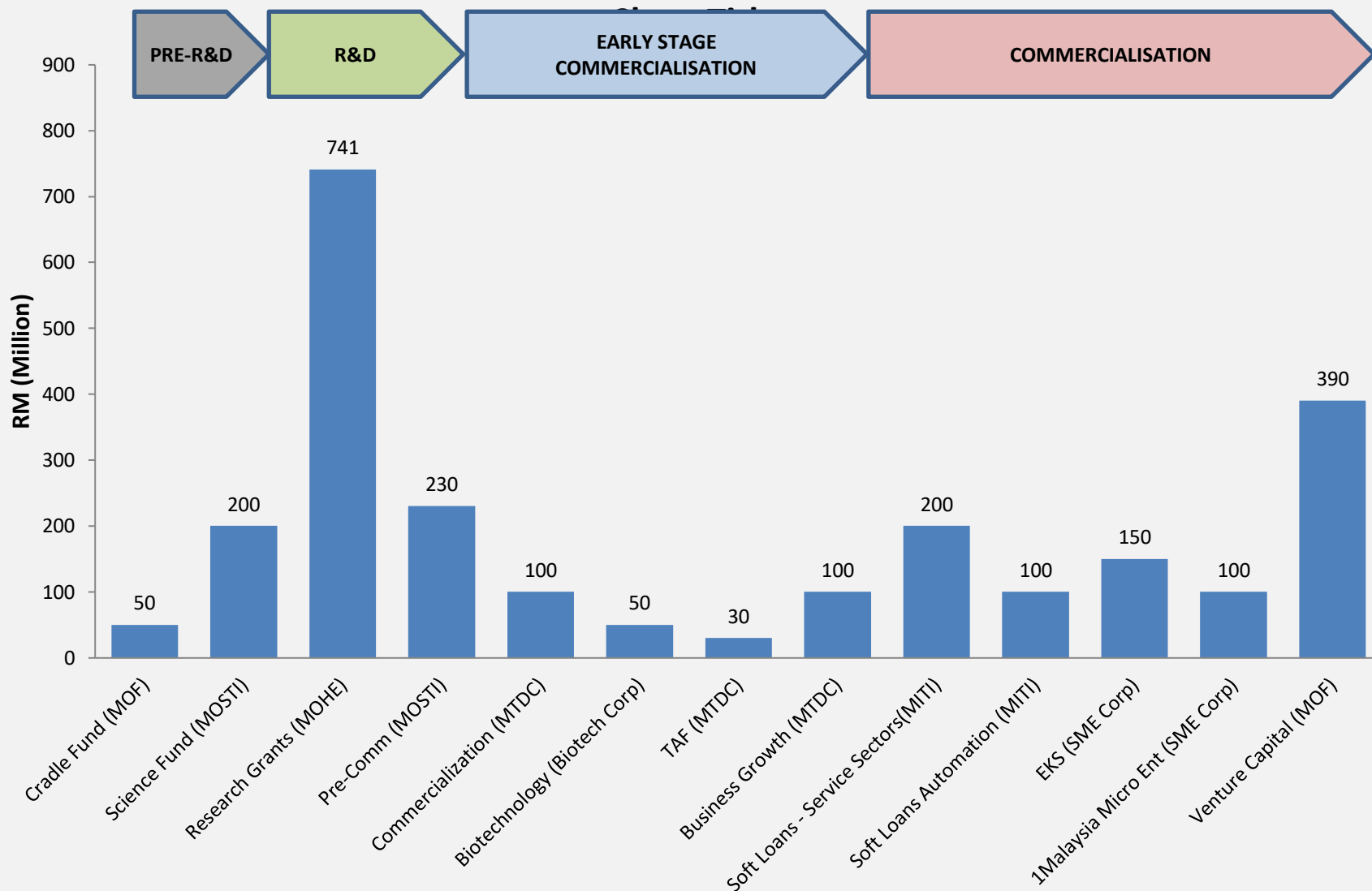


Government agencies namely **MTCD**, **SME Corp**, Malaysia External Trade Development Malaysia (**Matrade**), Ministry of Entrepreneur and Co-operative Development (**MeCD**), Ministry of Science, Technology and Innovation (**Mosti**) and Credit Guarantee Corporation (**CGC**) have been offering grants specifically for local SMEs and small/medium industries that meet the criteria.

With numerous programmes set up by the government to develop ideas into products, all parties should team up to take these ideas to next stage of full commercialisation.

<http://www.theborneopost.com/2011/12/11/technopreneurship-a-promising-call-for-the-unemployed/#ixzz24idOk8wP>





Tenth Malaysia Plan Funding Allocations Among STI programs



Some successful Technopreneurs:

- Sabeer Bhatia started Hotmail with \$300,000 and sold it two years later to Microsoft for \$400 million.
- Yahoo! began as a student hobby and evolved into a global brand that has changed the way people communicate with each other, find and access information and purchase things.
- Google was co-founded by Larry Page and Sergey Brin while they were students at Stanford University. Their IPO took place on August 19, 2004, raising \$1.67 billion, making it worth \$23 billion.
- eBay was founded as a marketplace for the sale of goods and services for individuals.
- Skype was founded by 2 entrepreneurs from Estonia and was acquired by eBay for \$2.6bn (£1.4bn).
- YouTube is a popular free video sharing website which lets users upload, view, and share video clips. It was acquired by Google in 2006 for \$1.65 billion



PRINCIPLES OF INNOVATION BY GENERAL ELECTRIC

1. Co-Creating values with customers
2. Users Involvement in Innovation processes
3. Accessing and Combining Globally-Dispersed Knowledge (Info vs Knowledge)
4. Forming Collaborative Networks and partnerships
5. Technology's Role as an Enabler of Innovation
6. Country, Environmental, Welfare, etc to drive Innovation



PRINCIPLES OF INNOVATION BY PETER DRUCKER

1. Begin with an analysis of the opportunity
2. To see if people will be interested in using the innovation
3. The innovation must be simple and clearly focused on a specific needs
4. Effective innovation starts small
5. Aim at **market Leadership**



A contact sport

Jim Mitchell, a former Director of Sun Labs, has often said that **technology transfer** is a contact sport.

The process is arduous, often bumpy with setbacks, requires continuous pushing, and can be **mentally exhausting**.

Unexpected subtleties

Transferring a lab group or activity successfully into the company requires among other things **considerable diplomacy**.



The essence of business can be summed up in the following four “C” words:

- **Competence**: the quality, efficiency, effectiveness, and accomplishment of what you are supposed to be doing.
- **Control**: the cost control, strategy, and knowledge of what is going on.
- **Care**: care for the customer, for the work force, which is ultimately your most precious resource, and for the community (for example environment concerns).
- **Creativity**: the soul of the business. Without creativity you have a body with no soul. Creativity provides the value that is the whole purpose of any business.

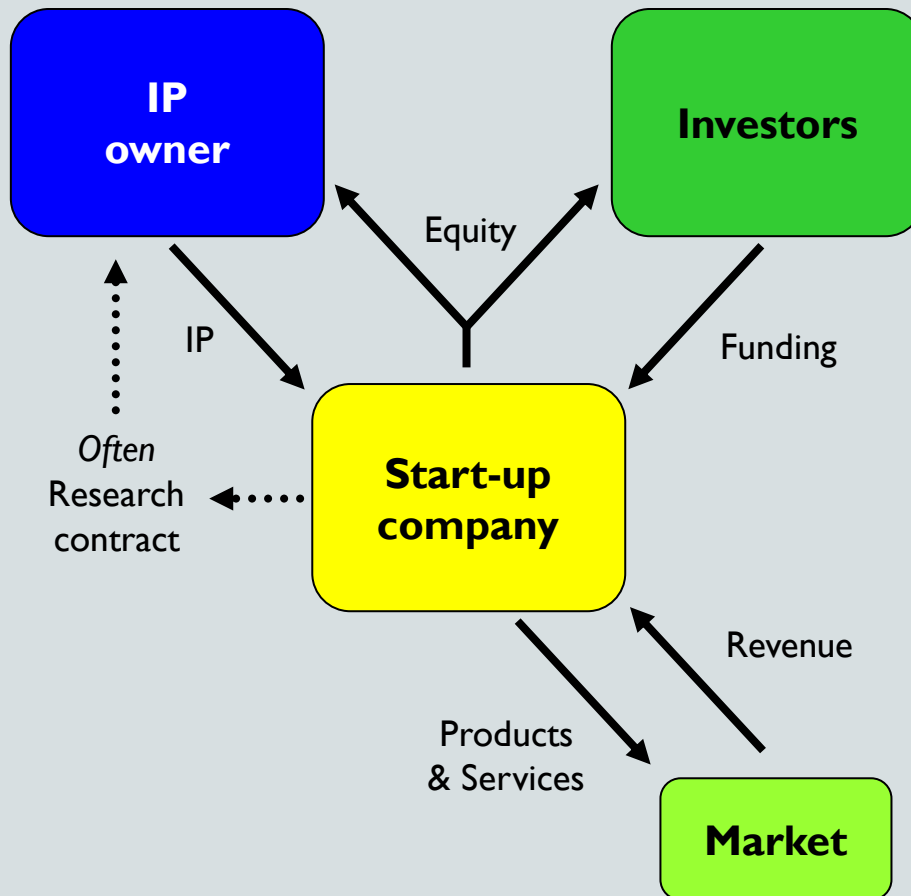


Commercialisation:

- *Outright sale or assignment*
- Licensing
- *Spin Off* company



BASICS OF COMMERCIALISATION VIA A STARTUP



Characteristics

- Higher risk
Science, market technology, human, financial
- High management work load
- Corporate governance
- Taxation consequences
- Potential for greater control and longer term profits
- IP owner obtains equity and/or royalty
- Possible research contract back to institution
- Availability of seed funding



Key Business Planning Issues

- 1. What's your product or service?** (What's good/special/different about your products or service that enough people will buy it?)
- 2. What does it cost to make/buy in/provide the product or service?** (If you are buying and selling products or using materials consider the cost prices - Divide your required annual wage by the number of work hours available to you, and this is your notional hourly labour cost.)
- 3. What price will the product/service sell for?** (Ideally small businesses need a healthy profit margin or mark-up - doubling the cost is good if the market will accept it.)
- 4. Who will buy the product/service?** (Identify your customers and market. Do you know this for sure? Test your assumptions.)
- 5. How much/many do you need to sell in a year? And how many customers do you need?** (This is a vital part of the proposition to confirm that the gross profit.)
- 6. How will people know about the service/product?** (You need to understand what advertising/marketing/enquiry-generation is necessary - activity and cost.)
- 7. Does all this add up and better still provide a cash surplus at the end of a year?** - If so then it's probably a good business model.



PERKEMBANGAN AKTIVITI PENJANAAN PENDAPATAN UNIVERSITI



Jawatankuasa Strategik Penjanaaan Pendapatan Universiti (JSKU) dahulu dikenali sebagai Jawatankuasa Penjanaaan Pendapatan Universiti (JPPU)



POLISI PENJANAAN PENDAPATAN UTEM TAHUN 2015

Latihan Akademik Dan Teknikal (Eksekutif Dan Profesional)

Wakaf, Endowmen dan Sumbangan

**Perkhidmatan Pengurusan Aset dan Kemudahan Universiti
& Pengurusan Ladang**

Pascasiswazah

Perundingan

**Pengkomersilan Produk
Penyelidikan**

Jualan/*Business Online*

Faedah Dari Pelaburan



LIMA BUKU PANDUAN UNITP



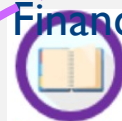
UniTP Green Book

Governance
Enhancing
University Board
Governance and



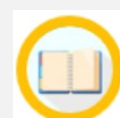
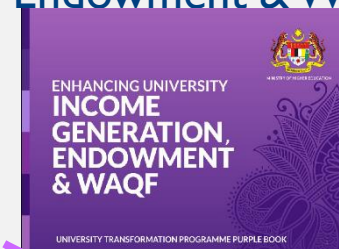
UniTP Blue Book

Performance Mgmt
Strengthening
Performance
Management and
Financial Reporting



UniTP Purple Book

Income Generation
Enhancing University
Income Generation,
Endowment & Waqf



UniTP Orange Book

Career Pathway
Strengthening
Career Pathways
and Leadership
Development



UniTP Silver Book

Productivity
Improving Academic
Productivity and Cost
Efficiency

Sumber: PMO KPT

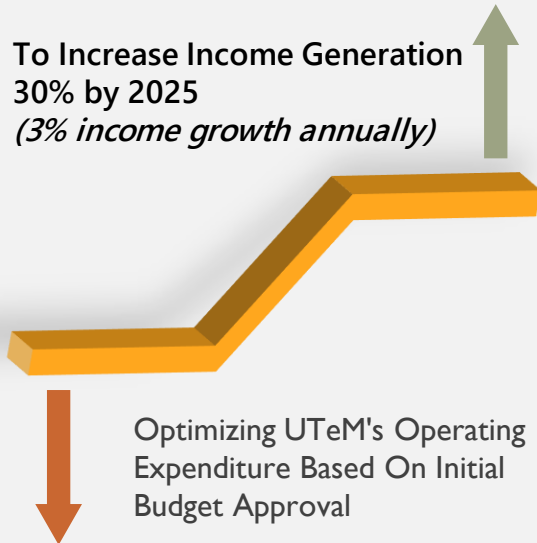


SEVEN STRATEGIC GOAL OF UTeM (SSG UTeM) : 2021-2025

GOAL 7 : FINANCIALLY SUSTAINABLE

Deliverables

To Increase Income Generation
30% by 2025
(3% income growth annually)



DIGITALIZATION IN THE NEW NORM

Perancangan Tahun 2021 : Penyediaan Platform untuk Kursus Pendek Berbayar Secara Dalam Talian (online)



Platform Kursus Pendek Secara Dalam Talian UTeM

Adobe Illustrator CC - Essentials Training Course

Learn Adobe Illustrator CC graphic design, logo design, and more with this in-depth, practical, easy-to-follow course!

Bestseller 4.8 ★★★★★ (15,346 ratings) 58,627 students

Created by [Video School](#), [Phil Ebner](#), [Daniel Walter Scott](#), [Instructor HQ](#)

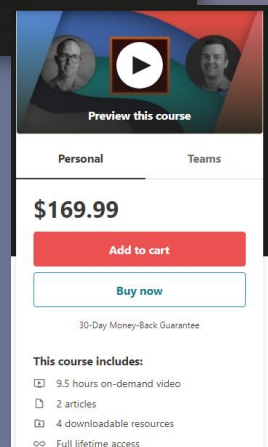
⚙ Last updated 1/2021 🌐 English 🗣 English, Italian [Auto], [3 more](#)

Wishlist ❤

Share ➡

Gift this course

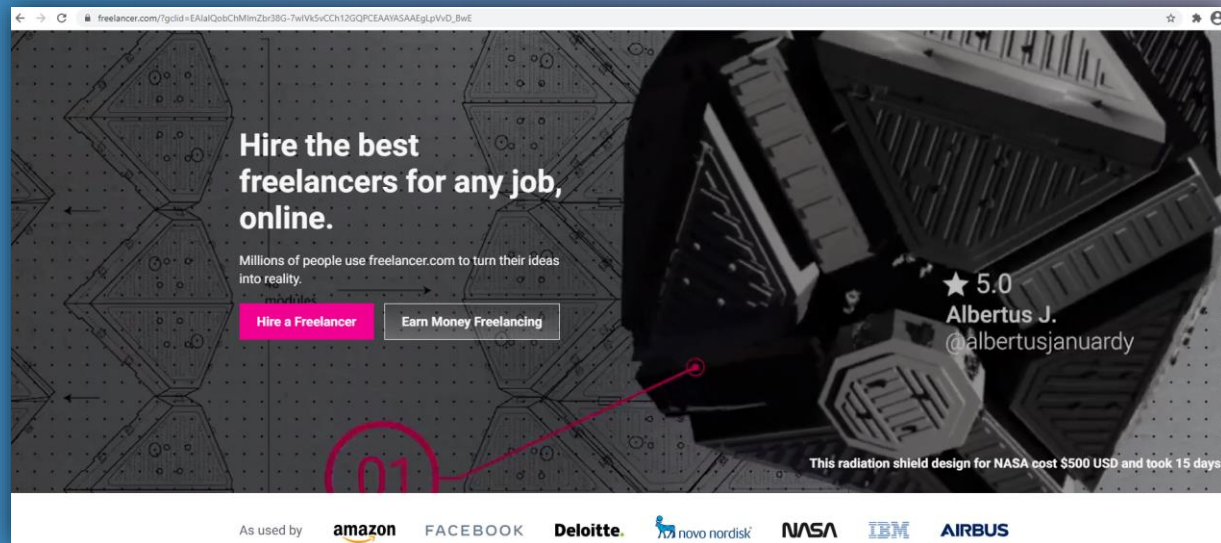
Platform terkenal *udemy.com*
Kursus bernilai USD 169.99
mendapat langganan 58, 627
pelajar. Jumlah jualan kasar= USD
10 juta



DIGITALIZATION IN THE NEW NORM

Perancangan Tahun 2022: Perundingan secara dalam talian

- Sebuah platform dalam talian akan disediakan untuk membolehkan para perunding dari UTeM memberikan khidmat secara dalam talian



Contoh platform perundingan dalam talian terkenal di dunia *freelancer.com*



PENYEWAAN RUANG DAN KEMUDAHAN

KEMUDAHAN	PIHAK YANG MENGURUSKAN	PIHAK MELULUS PELANTIKAN	GARIS PANDUAN	KONTRAK
KAFETARIA, KIOSK & SASANIAGA	Jawatan Kuasa Kafetaria, Pejabat Hal Ehwal Pelajar	Jawatankuasa Pemilihan Premis Perniagaan Dan Perkhidmatan Universiti Teknikal Malaysia Melaka (UTeM)	Garis Panduan Pengurusan Premis Perniagaan Dan Perkhidmatan Universiti Teknikal Malaysia Melaka (UTeM) telah diedarkan pada 8 Mac 2021	Sewaan bertempoh & berkontrak
MESIN LAYAN DIRI	Pejabat Bendahari			
MESIN ATM		Bendahari	Garis Panduan kadar penyewaan yang berkuatkuasa	Kontrak pelantikan dengan Bank terpilih
SEWAAN PERALATAN DAN KEMUDAHAN	PTj masing-masing	Ketua PTj	Garis Penduan kadar penyewaan yang berkuatkuasa	Perlu sekiranya bertempoh/jangka panjang melebihi 4 bulan
SEWAAN PENGIKLANAN	Pejabat Canselori			





LAIN-LAIN PENJANAAN PENDAPATAN

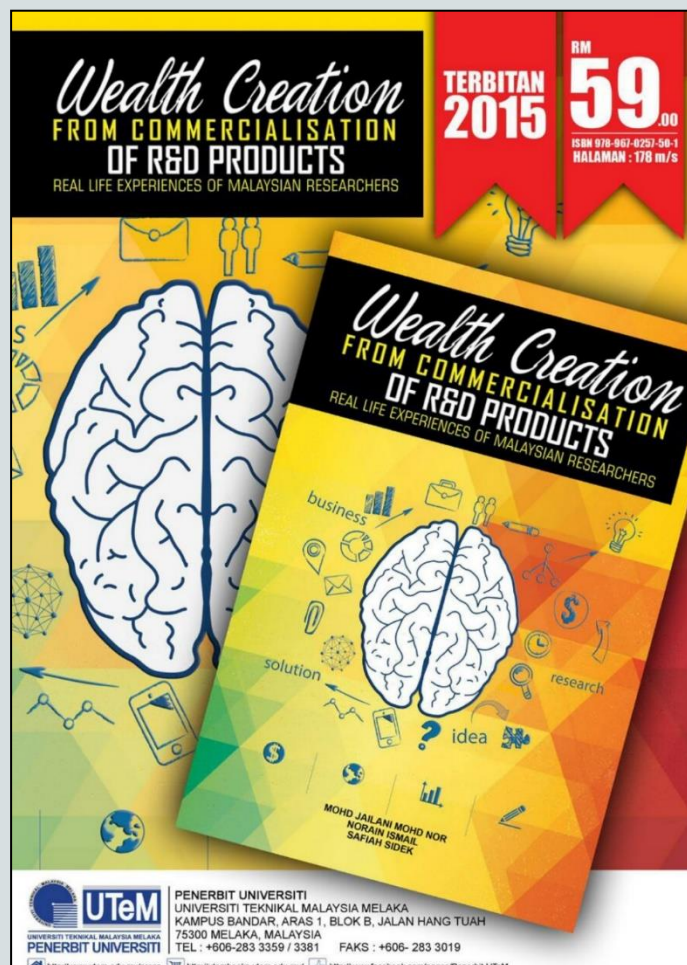
**TABUNG ENDOWMEN
TABUNG SUMBANGAN
TABUNG WAKAF**



TUJUAN PENUBUHAN TABUNG ENDOWMEN, TABUNG WAKAF & TABUNG SUMBANGAN

- Tabung kebajikan untuk **mengumpul dana** serta memberi peluang kepada **syarikat korporat, agensi luar, orang ramai, individu, alumni, PTj dan staf UTeM** untuk menghulurkan sumbangan bagi merencanakan lagi aktiviti kesarjanaan ilmu dan pembangunan pendidikan di UTeM.
- Para 6 Bab J Penjanaan Pendapatan, Bahagian Pengurusan Wang Universiti, PKPU





Anugerah Buku Negara

Dengan Ini diperakui bahawa buku
Wealth Creation from Commercialisation of R&D Products:
Real Life Experience of Malaysian Researchers

oleh
Mohd Jailani Mohd Nor, Norain Ismail & Safiah Sidek

terbitan
Penerbit Universiti, Universiti Teknikal Malaysia Melaka (UTeM)


adalah penerima
Buku Penyelidikan dan Pembangunan (R & D) Terbaik


pada
14 Disember 2016
bersamaan
14 Rabiulawal 1438 Hijrah

bertempat di
Pusat Dagangan Dunia Putra (PWTC)
Kuala Lumpur

"Membaca Sepanjang Hayat"




YAB Dato' Seri Dr. Ahmad Zahid bin Hamidi
SPMP, SSP, SJMH, DPMP, DPMK, DMSM, AMP, PPT, PIK, JP
Timbalan Perdana Menteri Malaysia
merangkap Menteri Dalam Negeri


Haji Hasan bin Hamzah
AMN, AMP
Pengerusi
Yayasan Pembangunan Buku Negara
(YPBN)


Tan Sri Profesor Datuk Wira
Dr. Abdul Latiff bin Abu Bakar
PSM, BCM, DMSM, DCSM
Pengerusi Panel Penilai Profesional
Anugerah Buku Negara 2016

Dengan Kerjasama:



Dengan Sokongan:



Try to become somebody who can contribute to the community and the country because we are using the public money to grab our opportunity. Not many people get such a good opportunity. So, make a difference in your life and always think about how you want people to recognize you even after you no longer exist in this world.

With an awareness on the use of public money, Professor Ahmad Fauzi strongly believes that researchers need to consider their contribution to the community and country. His words are very inspirational to encourage more active participants in R&D product commercialisation in the university setting. He has also inspired young researchers to think of what contribution they can bring to the community as a whole.

BOX 2.4. General Advice for Researchers

- R&D product must be in full package
- Researchers should have soft skills to communicate effectively
- Researchers need to be far sighted and work in a team
- They have to work smart and diligently
- Be a person who can contribute knowledge to the community, people and country
- Think about what you want people to remember you after you are no longer in the world



PROBLEMS IN R&D PRODUCT COMMERCIALISATION

There are many obstacles and challenges that you need to overcome in your effort to commercialise your R&D products. For Professor Jailani, the main obstacle is that to maintain a good and dynamic relationship with the business partner. He observed that:

The main obstacle is to maintain the relationship. It is a dynamic relationship. It is like a marriage as well. You have to manoeuvre, you have to steer this relationship,

daily, everyday. You cannot let it go just like that. You have to have each other. Your partner needs you; you also need your partner's help. The understanding of each other is not static because people change and situation change. At the time of signing agreement, everything looks very nice and all that, suddenly ... there are new things popping up. So my toughest task is to maintain the relationship to be in good condition and sometimes there are things that we need to adjust in order to move forward.

BOX 3.8. Maintaining Dynamic Relationship with the Business Partner

- Record and document all meetings
- Negotiate fairly with empathy towards others
- Develop healthy relationship based on trust and commitment
- Upgrade the players that manage the system



One of the important challenges is to produce a product that has market potential. According to Professor Ku Halim it is very important for researchers to have input from the industry to produce a product that meets the needs of the industry. In this respect, researchers need to make contact with the industry. According to Professor Ku Halim, it is common for researchers to prepare their product proposal without considering the needs of the industry. They never study the needs of the industry. That is why most of their proposals were rejected. Professor Ku Halim further suggested that it is very important for researchers to build networking and collaborate with the industry. He said that

Sometimes we can get the industrial needs from our students' industrial visits and internships. We create rapport with the industry people and investigate what are their needs and their problems. Then, we offer our talent (expertise) and seek for future collaboration. Identify their needs and offer our talent. Make good rapport with them. Do not seek for money at the beginning; definitely they are not going to give the money. ...

Yes, that's how I did. Eventually, they will not be stingy; they will give a lot to us until we do not have enough hands to do it. ...

BOX 4.2. STRATEGIES TO PRODUCE A STRONG MARKETABLE RESEARCH

- Tap the product with market demands and needs
- Produce not merely for monetary gain
- Identify the industrial problems and offer expertise
- Build good rapport with the industry



According to Professor Khazani, the R&D conducted in the university settings is usually heavily inclined toward Research (R) with little Development (D). Professor Khazani provides a clear explanation to distinguish between the research and development stages. According to him, research refers to a series of definite processes with final goal to prove the idea or concept or hypothesis is actually true or working, thus the so called Proof of Concept (POC) in the form of laboratory prototypes. In Research stage, the idea is first converted into a concept and during this stage, researchers usually conduct testing, measurements and many other related activities. The activities are meant for the purpose of proving that the idea is working. He highlighted that the lab prototype developed at the university setting is actually not yet at the Development stage, but rather

BOX 5.1. MISCONCEPTIONS IN R&D PRODUCT

- Innovation Value-Chains should be well understood by researchers
- Research should be distinguished and used separately from Development. The term R&D can be misleading
- Product laboratory prototype and Proof of Concepts are the last process in Research stage, and are not part of Development stage.
- Commercialisation and Business are two different processes.
- Valuation of technology/products should not be based on potentials only
- Academic researchers should focus and prioritize on successful commercialisation i.e. placing their products in the market, rather up-front gains (monetary returns). Huge monetary returns should only be expected through realization of the potential incomes and shared together with the companies (thus fairly share the risks)
- Marketing and Sales are more important than the technology for sustainable businesses



Block TG-B-08,
UKM-MTDC Technology Centre,
Universiti Kebangsaan Malaysia,
Bangi 43650, Selangor Darul Ehsan
Phone: (603) 8925 8415/8921 6016
Fax: (603) 8921 6016

**TITLE OF PROJECT :
AUTOMOTIVE SIMULATOR FOR DRIVING
BEHAVIOUR AND COMPETENCY
EVALUATION (ASIS)**

Source of Technology

: Universiti Kebangsaan Malaysia

Date of Approval

: 14th June 2008



AUTOMOTIVE SIMULATOR

ASIS™-HM



MODEL	ASIS™-HM
Feature	<ul style="list-style-type: none"> - Body/Cover from Fiberglass - LCD Monitor (17 inch (angle screen) - Real Speeds Meter
TECHNICAL SPECIFICATION	
Hardware	<ul style="list-style-type: none"> - Working voltage : AC240V \pm 50Hz - External Dimension(mm) : 700(DxH) 600x1650 - Resolution Factor of Display : 1920 x 1080 - Monitor (inch) : 17-inch LCD - Relative Humidity : 70% - 90%
Software**	<ul style="list-style-type: none"> - Three scenarios : Driving without Road ,highway and city - ODI test <ol style="list-style-type: none"> 1. Urban Mercedes Brake 2. Urban 3 posture 3. Urban Honda brake(parking) - Weather : Day - Traffic Density 8 Vehicles - Training Modules: Hazard perception test, pre-driving test, Training simulation test.

**Customizable according to customer needs at negotiable fee

COMPETENCY ANALYSIS (MONITORING)

- Automatic level/post logging of driving activities

(This simulator is for training purpose only)

SVI

WWW.SVI.COM

ASIS - HM

Handwritten signature or logo in the bottom right corner.



THE UPIN – IPIN EXPERIENCE



A man in a dark suit and tie is standing on the left side of the frame, holding a microphone and gesturing with his right hand towards the slide. The slide is projected onto a large screen and has a yellow-to-blue gradient background. The title 'Early Stage' is at the top right. The main content is a bulleted list. In the top right corner of the slide is the 'MSC' logo with 'Malaysia Computer' underneath. In the bottom right corner is the 'LES' COPAQUE' logo with 'FEDERATION' underneath.

Early Stage

- Getting the right process/methodology
 - 8 months research
 - developing training module
- Developing the right product
 - type of animation
 - target market
 - type of story

MSC
Malaysia Computer

LES' COPAQUE'
FEDERATION

“It is people that make it works and not entirely the organisation”.

Hence, participation of individual matters as much if not more on academia and industry collaboration.

Chris Saville and Norsaadah Ismail (2009)



THANK YOU

