



UTeM

UNIVERSITI TEKNIKAL MALAYSIA MELAKA



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Universiti Teknikal Malaysia Melaka

***Pengurusan
Projek Penyelidikan Ilmiah***

EXCELLENCE THROUGH COMPETENCY



Azizah Shaaban & Rabiah Ahmad
PPP- Kampus Bandar
16 April 2015



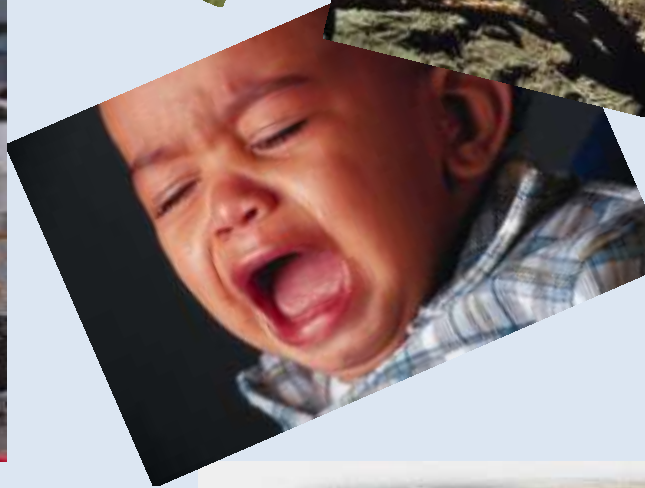
Pengisian

Kandungan	Masa
<i>Ice Breaking – Ta’ruf</i>	8.45 – 9.00 pagi
1 Pengenalan <i>Research</i>	9.00 – 9.45 pagi
2 Governan Penyelidikan	9.45 – 10.30 pagi
3 Pengurusan Penyelidikan dan Projek	11.00 – 1.00 tengahari
Makan Tengahari & solat	
4 Pengurusan Kewangan Penyelidikan	2.30 – 3.30 petang
5 Pengurusan Modal Insan	3.30 – 4.30 petang
6 URIS & Pengurusan Hasil Penyelidikan	4.30 – 5.00 petang
Rumusan	



Ice Breaking

Saya, Mereka dan Dunia Penyelidikan



Ice Breaking

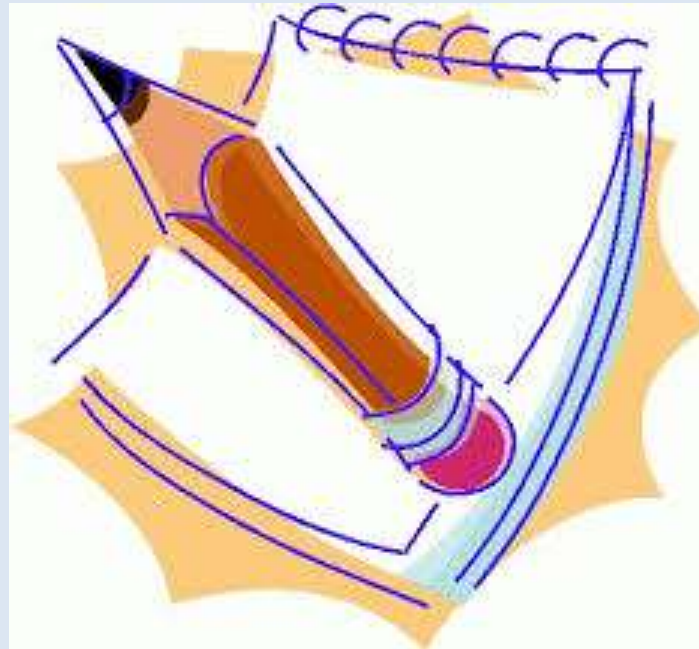
Harapan dan Matlamat Penyertaan

1. _____
2. _____
3. _____



1.0

Pengenalan Research



Dynamic



SUCCESS

Because you too can own this face of pure accomplishment



*Azizah Shaaban &
Rabiah Ahmad*





*"The more you do, the more you fail.
The more you fail, the more you learn.
The more you learn, the better you
get."*

POSITIVE ATTITUDE

Azizah Shaaban &
Rabiah Ahmad

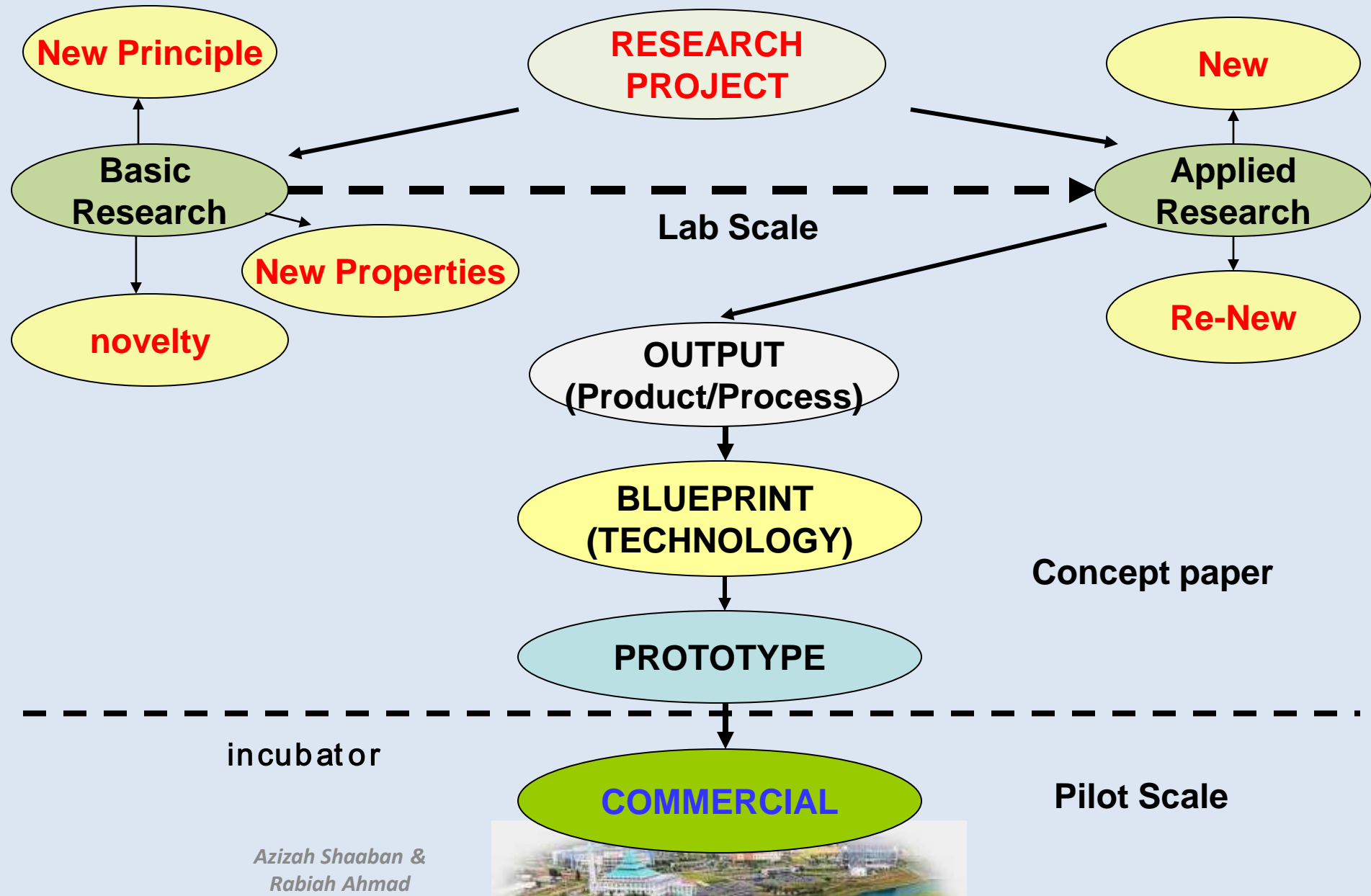


RESEARCH SHOULD INCREASE FUNDAMENTAL UNDERSTANDING OF THE SUBJECT AND CAN BE APPLIED TO IMPROVE KNOWLEDGE

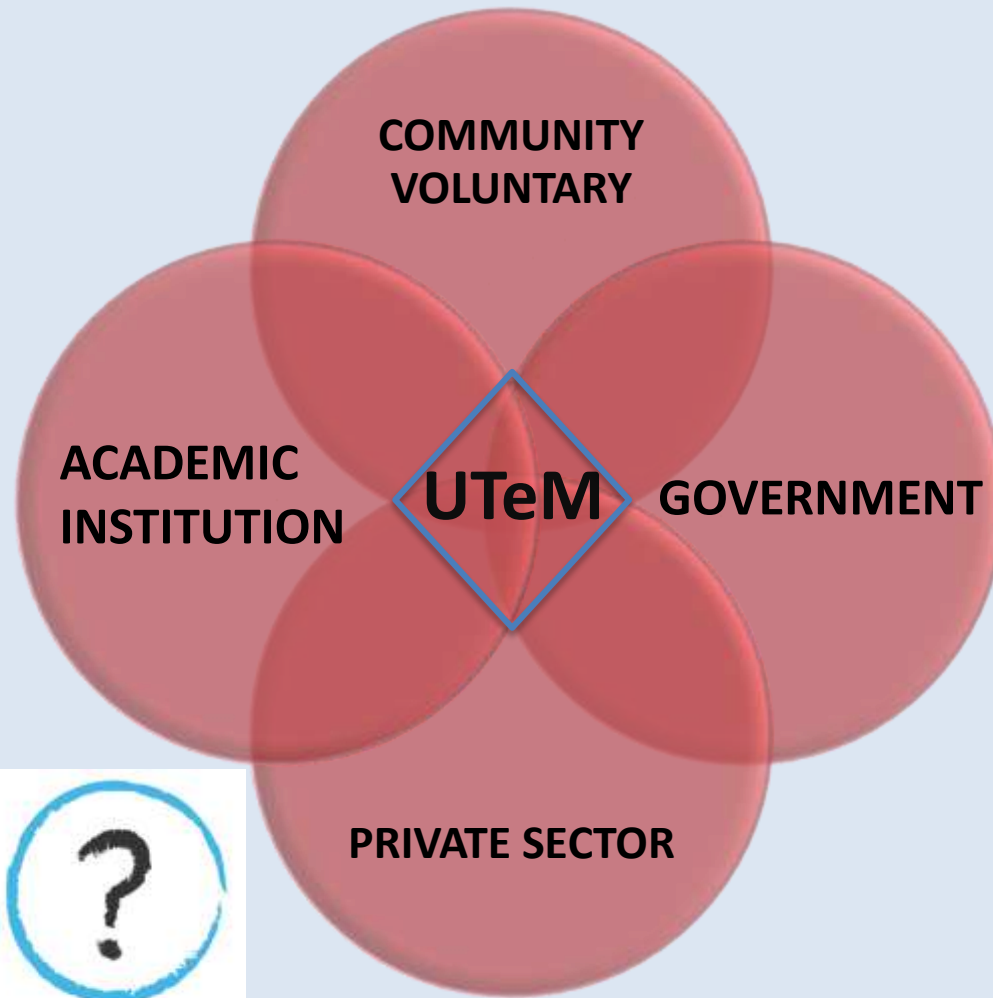
DR ALAN JOHNSON,
IMPROVING YOUR RESEARCH MANAGEMENT

SHOWCASE THE VALUE OF RESEARCH AND ITS INTELLECTUAL, SOCIAL, CULTURAL, INDUSTRIAL AND ECONOMIC IMPACTS

RESEARCH – The Journey



RESEARCH PARTNERSHIP



Azizah Shaaban &
Rabiah Ahmad



TEAMWORK

Project Leader
Project Team Members
Students / Project RA
Partnership / Collaborators
UTeM - IPTA/S - Industries
High Responsibilities



FOCUS

***ALWAYS A PIONEER
ALWAYS AHEAD***



MANAGEMENT

- CoE / R&I
- Incentives
- Information



OUTPUT

- Reports
- Publication
- Postgraduate
- Intellectual Property



RESEARCHERS

- Positive Attitude
- Knowledge
- Experience
- Niche Area

RESEARCH ENVIRONMENT



RESEARCH THOUGHT

RESEARCH CULTURE



***ALWAYS A PIONEER
ALWAYS AHEAD***

EthiCS

www.MickieOndard.com



*Azizah Shaaban &
Rabiah Ahmad*



***ALWAYS A PIONEER
ALWAYS AHEAD***

Q-Research



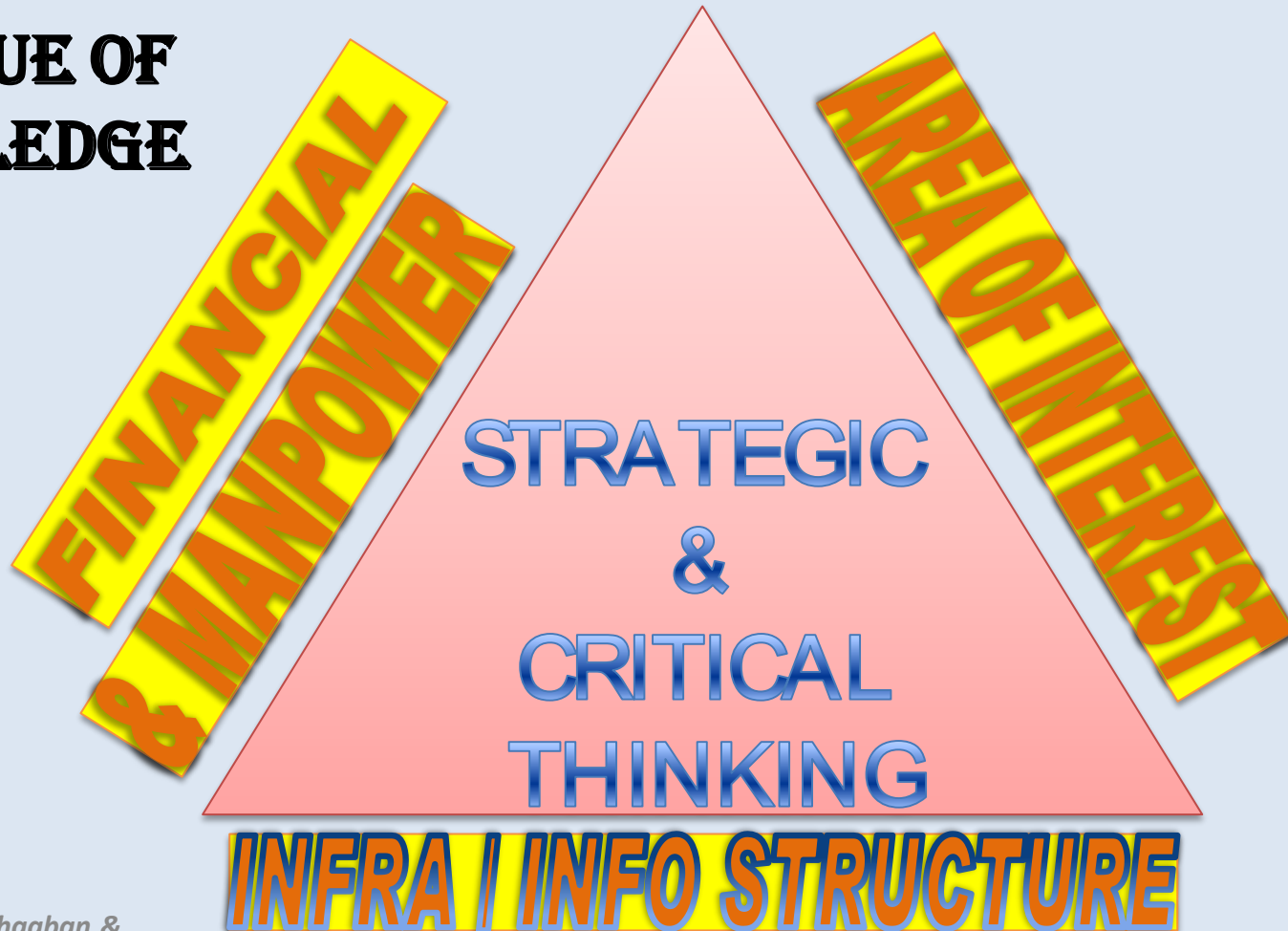
*Azizah Shaaban &
Rabiah Ahmad*

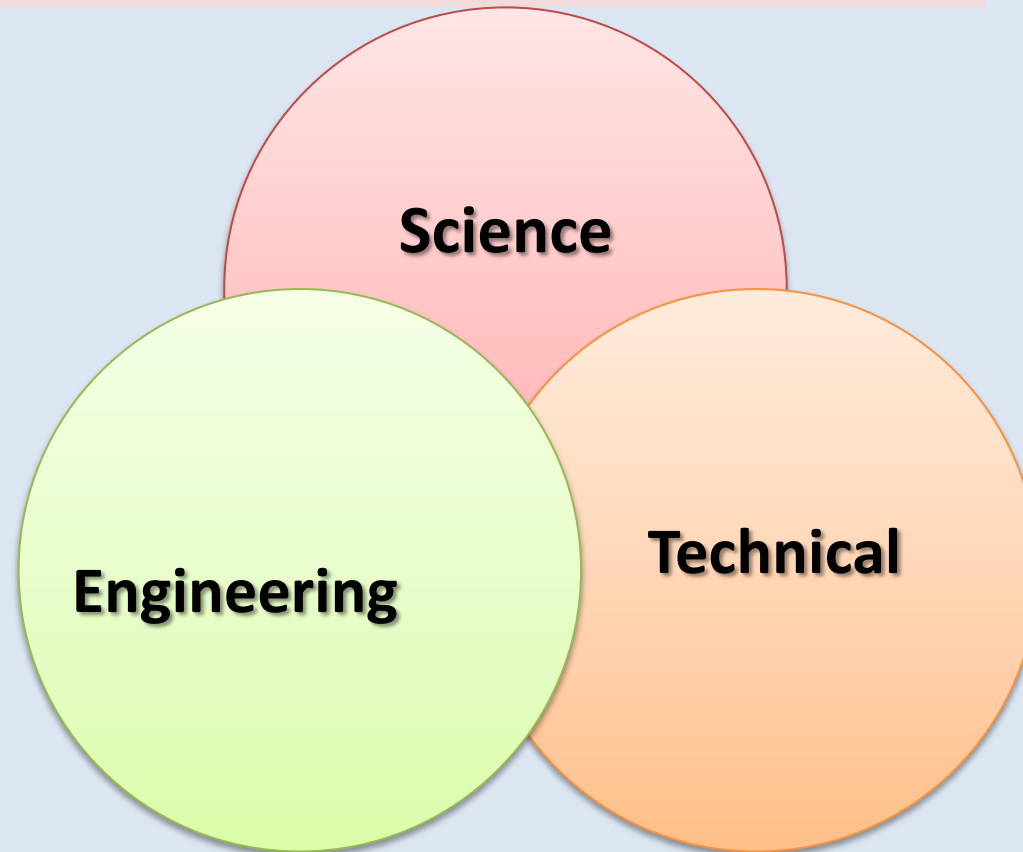


HIGH IMPACT Q-RESEARCH COMPONENTS

**CRITICAL
THINKING
& VALUE OF
KNOWLEDGE**

***ALWAYS A PIONEER
ALWAYS AHEAD***





**APPLICATION OF CUTTING-EDGE SCIENCE
TO GENERATE NEW TECHNOLOGY USING
A MIXTURE OF THEORY AND EXPERIMENT**



RESEARCH GAIN = OUTPUT/INPUT

**WITH THE SIMPLEST APPROACH
AT THE EFFECTIVE COST
BY/WITH THE LEAST RESOURCES
ACHIEVED IN THE SHORTEST TIME**



RESEARCH MODE
FUNDAMENTAL & APPLIED

... CRITERIA ...

**LEARN FAST
THINK SMART
SYSTEMATIC
CRITICAL THINKING
SPIRIT STRONG
LOVE R&W
ENJOY LEARNING
KNOW ETHICS
INDEPENDENT
COMMITTED
MATURED
AMBITIOUS**



RESEARCHER AND SCHOLAR



- Research Area and Scope
- Target PSM, Doctoral Degree or Master in Science
- Postgraduate Program vs Research Project
- Applied, Fundamental, Contract, Services
- Current Demand and niche ...
- CoE and Research Group



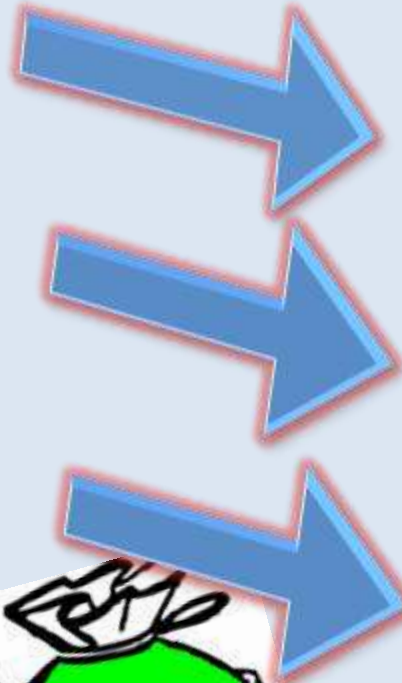
Azizah Shaaban &
Rabiah Ahmad



UTeM VISION

HIGH IMPACT
OUTPUT

RESEARCH
Is A Real
“University
Business”



WORLD CLASS
SCHOLAR

CJ
PUBLICATION

IP
COMMERCIAL &
COMMUNITY



Azizah Shaaban &
Rabiah Ahmad



**CLEAR RESEARCH QUESTION IS THE RESULT OF
CAREFUL EXPLORATION AND ANALYSIS,
AND SETS THE DIRECTION FOR
THE RESEARCH PROJECT**

..RESEARCH..

**THE SYSTEMATIC PROCESS OF COLLECTING
AND ANALYZING INFORMATION (DATA) IN
ORDER TO INCREASE OUR UNDERSTANDING
OF THE PHENOMENON ABOUT WHICH WE
ARE CONCERNED OR INTERESTED..**

Executive Summary

Problem Statement

Objectives

Methodology

Research Background

Gantt Chart



SELECTION OF FUNDING

TeM

MALAYSIA MELAKA

LRGS

**SCIENCEFUND
KTP**

RACE

PRGS

FRGS

RAGS

**INDUSTRIAL
GRANT**

EU GRANTS

PJP



Tips To Manage Research

- **Use logbook to monitor monthly progress**
- **Submit yearly progress report**
- **Create conducive research environment**
- **Keep motivate all the time**
- **Involve in internal-external research group discussion**
- **Spent time with your project team and show your commitment to them**
- **Action items, project milestone and research schedule have to be displayed and posted in front of your desk**



Tips To Manage Research (Cont..)

- **Collect and compile all related references and books as early as possible**
- **Purchase all required materials and tools immediately**
- **Prepare plan A and B**
- **Identify important equipment and labs**
- **Set extra target**
- **Looking for partner or collaborator for data or result comparison**



CONCLUSIONS

- RESEARCH FOR THE UNIVERSITY EXCELLENCE
- Q-RESEARCH FOR THE BEST OUTPUT
- SMART PARTNERSHIP ACCELERATES RESEARCH
- SISTEMATIC WAYS IN DOING RESEARCH



2.0

Pengurusan Penyelidikan



Keperluan

- Pengurusan berkesan penyelidikan menghendaki penghayatan dan keupayaan tinggi dalam 5 perkara iaitu:

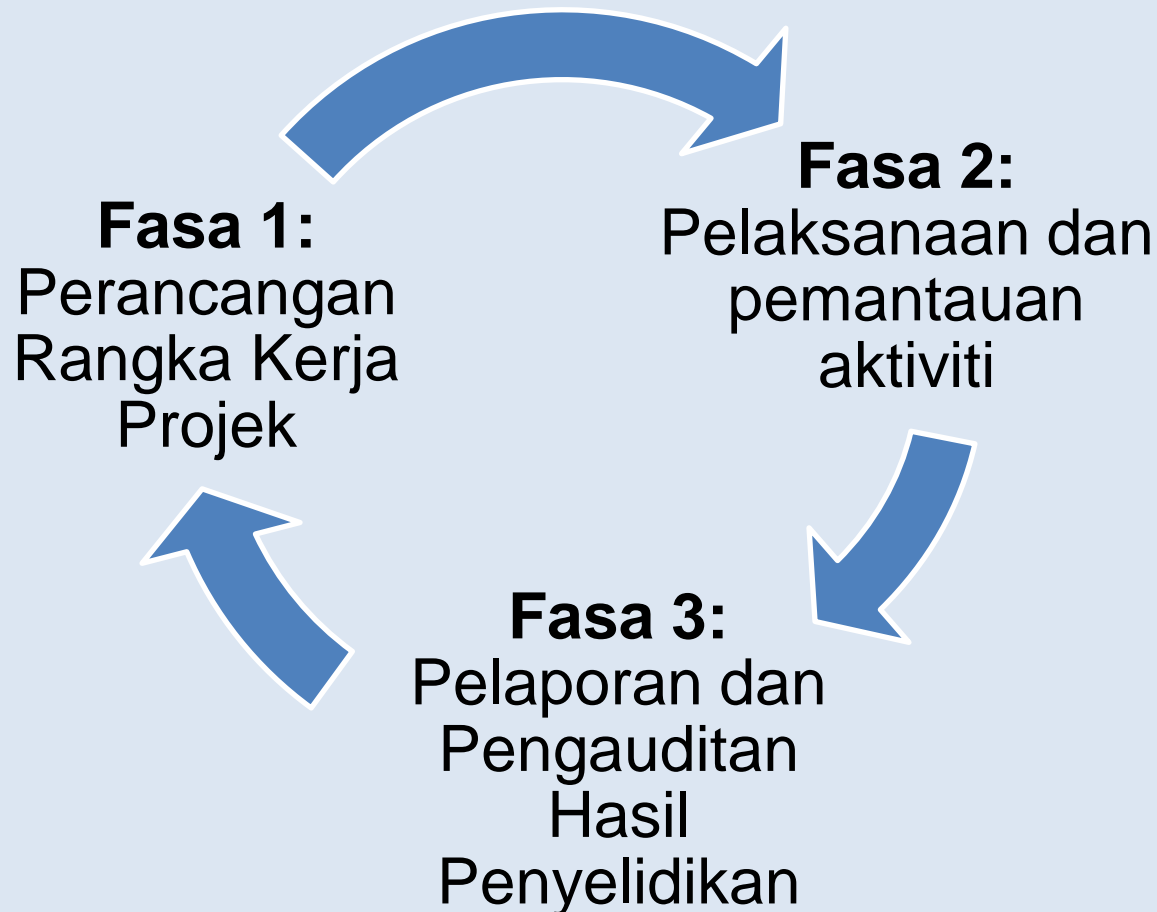
- Mendengar
- belajar,
- motivasi,
- inspirasi,
- Bimbing
- kepimpinan.



Keperluan dan Tanggungjawab



Kitaran Asas Penyelidikan



2.1

Governan Penyelidikan



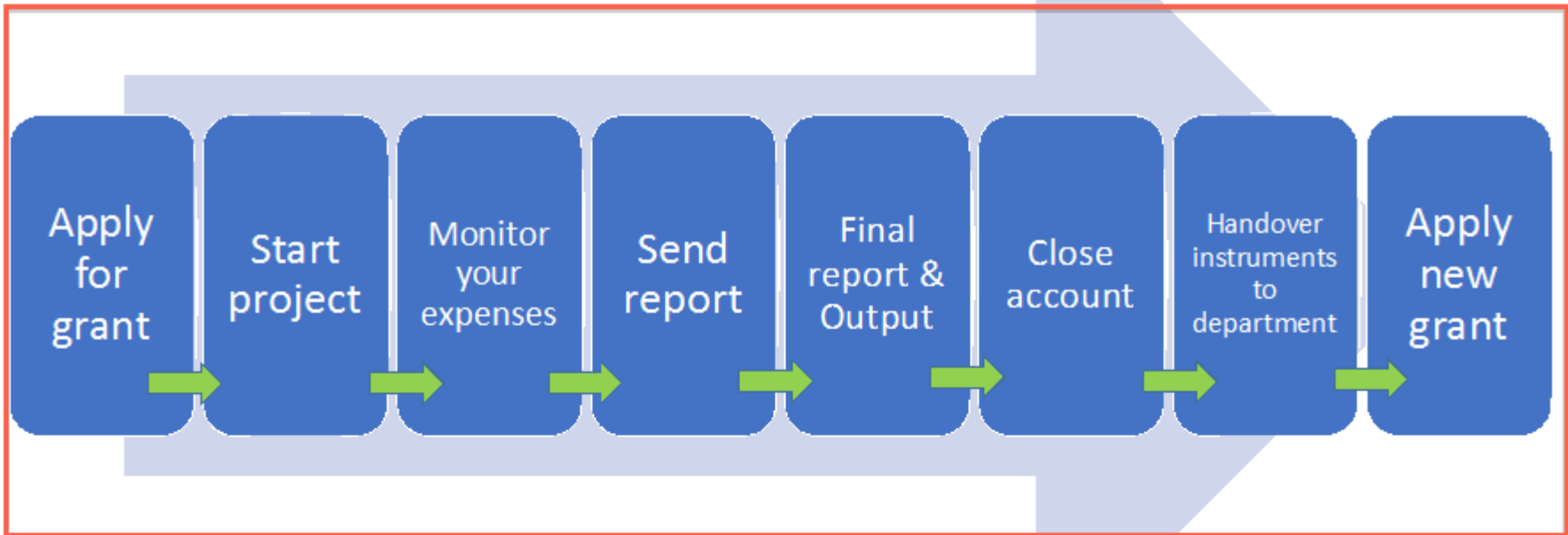
Governan Penyelidikan

- Aktiviti 1: Punca Kuasa, Polisi, Garis Panduan, Peraturan, Pekeliling, Etika *Awarder, Awardee,....*
 - Nyatakan bersama Huraian

Komponen Governan	Huraian



GOOD GOVERNANCE OF RESEARCH GRANT



2.2

Sistem Pengurusan Penyeldikan

URIS – UTeM Research Information
System

E-Science Fund Portal
Portal MyGRANTS



Matrik Pengurusan Berkesan

Komponen Pengurusan	Ada	Tiada	Pembinaan
Pejabat Pengurusan Penyelidikan	/		
Struktur Organisasi			
Dokumen Panduan			
Proses Kerja			
Pemantauan			
Audit			



3.0

Pengurusan Projek



Pengurusan Projek Penyelidikan



Ketua Penyelidik

Pemakluman keputusan permohonan geran
Tindakan setelah notifikasi geran diterima
— Contoh FRGS



Kemaskinin MYGRANTS
Kelulusan Bajet seperti diminta
Print dan Hantar Beserta
Perjanjian ditandatangani
Rujuk Carta Pebatuan –
Milesstone
Pelaksanaan aktiviti (Pembelian,
dll)
Penghantaran Laporan Progres (6
bulan, 12 Bulan)
Penghantaran Laporan Akhir



Planning for Implementation

- Workout logistic issue with each individual involve
- Reaffirm, update, review the grant timeline, reconfirm
- Discuss expectation and difficulties anticipated



PI/ Ketua Penyelidik

PI must know and follow proper procedure:

- PI must **know the respective officer** at each faculties (invoice, PO, purchase requisition)
- Number of **quotations based on the price** of the instrument.
- Instruments purchased **must be listed in the original proposal.**
- Small rupture (*pecahan kecil*) is a major offence.
- Field work schedule must be detailed
- Avoid high percentage of virement



Aktiviti

- Penuhkan petak kosong
- Cadangan tindakan
 - Keperluan entiti



Scenario Analysis

Scenario	Time	Requirement	Action - PI	Action - Researcher
Project Approved	Day 1	FORM Vote Distribution Agreement		
Budget Received	Week 1	Equipment GRA		
Project Start		Objective Timeline Activity		
Progress 1	Month 6	Deliverable		



Scenario Analysis

Scenario	Time	Requirement	Action - PI	Action - Researcher
Objective 1 Achieved	Month 8 (year 1)	Conferences Workshop		
Progress 2	Year 2	GRA		
PI – Left	Year 2			



Important !!!

The research group must always be aware of the deadline for project reports.

The percent of expenditure should be staggered appropriately throughout the grant period.



Reason For Failing to Meet Deadline / No Output

- Careless/ too occupied
- Poor timetable
- No expertise
- Seek no advice
- No collective effort/collaboration
- Leave establishment
- Abandon research



Reason for NOT Using Budget Fully

- Can't secure RA
- Minor change in the research objective
- Can't procure major equipment
- Over budget
 - Apply for a higher price in proposal
 - Propose huge number of respondents
 - Allocation for services and maintenance not used
- Secured a few grants at the same time
- On leave



4.0

Pengurusan Kewangan



FINANCIAL MANAGEMENT

- Spend money in accordance with the rules & guidelines.
- PI needs up-to-date accounting information.
- Expenditures are within the given budget.
- For MOSTI grants, virement can only be done once.
- Compare expenditures with projected expenses at fixed times during the budget year. (**Gantt Chart**)
- Plan future budgets.
- Usage of proper & updated application forms (application for attending conference/fieldwork)

Virement of fund: only those allowed



PI must know and follow proper procedure:

- PI must **know the respective officer** at each faculties (invoice, PO, purchase requisition)
- Number of **quotations based on the price** of the instrument.
- Instruments purchased **must be listed in the original proposal**.
- Small rupture (*pecahan kecil*) is a major offence.
- Field work schedule must be detailed
- Avoid high percentage of virement



BUDGET PROCEDURES

E.g: FRGS Budget

Sila nyatakan <u>secara lengkap</u> dengan pecahannya sekali	Amount requested by applicant (RM)
Vote 11000 - Salary and wages /Upah dan Elaun Untuk Pembantu Penyelidik Siswazah (GRA)	43,200
Vote 21000 - Travelling and Transportation/ Perjalanan dan Pengangkutan	46,610
Vote 24000 - Rental /Sewaan	1,050
Vote 27000 - Research Materials & Supplies Bekalan dan Bahan Penyelidikan	11,295
Vote 28000 - Maintenance and Minor Repair Services/ Baik pulih kecil dan ubahsuai	1,000
Vote 29000 - Professional Services /Perkhidmatan Ikhtisas	21,000
Vote 35000 - Accessories and Equipment Aksesori dan Peralatan	8,885
TOTAL: RM133,040	



BUDGET PROCEDURES



E.g: FRGS Budget details

Sila nyatakan secara lengkap dengan pecahannya	Amount requested by applicant (RM)
Vote 11000 - Salary and wages /Upah dan Elaun	1 Graduate Research Assistant (Msc): RM1,800 x 24 months <div>Total V11000 – RM43,200</div>
Vote 21000 - Travelling and Transportation/ Lodging & car rental	<u>Estimation cost:</u> i) Fieldwork, East Malaysia (RM0.70 x 2,000 km x 2 person x 8 states) Cost: RM3,360 (First year) & RM19,040 (second year) ii) National travel, East Malaysia (RM0.70 x 1,000 km x 2 person x 8 states) Cost: RM1,120 (First year) & RM10,080 (Second year) iii) Travel (RM0.70 x 500 km x 1 person x 10 libraries) Cost: RM1,250 (First year) & RM1,250 (Second year) *Refer to the Allowance Rate (Bursar) iv) Hotel and accommodation (national) (RM180.00 x 4 days x 2 person x 8 states) Cost: RM1,280 (First year) & RM10,240 (Second year) ***** iv) Overseas: Seminar/conference (RM6,000 x 1 person x 1 seminar/conference) Cost: RM6,000 (Second year) <div>Total V21000 – RM46,610</div>



BUDGET PROCEDURES

E.g: **FRGS Budget details**

Sila nyatakan secara lengkap dengan pecahannya	Amount requested by applicant (RM)	
Vote 28000 - Maintenance and Minor Repair Services/	Minor repair for printer and laptop cost RM1,000	Total V28000 – RM1,000
Vote 29000 - Professional Services	i. Enumerator (RM10.00 x 1,000 set – questionnaire) ii. Key-in questionnaire & analysis (RM5.00 x 1,000 set) iii. Workshop (RM5,000 x 1 workshop) iv. Article Processing Charge (RM50 x 20 pages x 3 articles)	Total V29000 – RM21,000
Vote 35000 - Accessories and Equipment Aksesori dan Peralatan	Thumb-drive (RM600.00) External Hard disk (RM300.00 x 2 unit) Surface Pro (RM5,500.00 x 1 unit) Video camera (RM1,500 x 1 unit) Digital Voice Recorder (RM400.00 x 2 unit)	Total V35000 – RM8,885
Please attach the <u>quotation(s)</u> for PPGP reference.		TOTAL: RM133,040



LANGKAH BERJIMAT-CERMAT

- Kurangkan *stationery*
- *Interlibrary loan*
- Kurangkan perjalanan sekiranya tidak perlu
- *In-home analysis*
- *Sharing of instruments*
- *Sharing of chemicals*



5.0

Pengurusan Aset



Pengurusan Aset

- Terima Aset
- Tindakan Susulan
 - Daftar Aset
 - Lokasi Aset
- Pemantauan
 - Penggunaan Aset
 - Kerosakan
 - Pindahan
- Penyerahan Aset
 - Tamat Projek



6.0

Pengurusan Modal Insan

*Azizah Shaaban &
Rabiah Ahmad*



Modal Insan

- Ketua Penyelidik
- Penyelidik
- Pembantu Penyelidik (RA)
- Pembantu Penyelidik Siswazah (GRA)
- Pembantu Penyelidik Pelajar (SRA)
- Enumerator !....



Scenario Analysis

- Principal Investigator
 - Example
- Researcher
 - Example
- GRA
 - “Jumping scenario”



NOTES

- Read the guidelines for RA.
- Check whether you **can hire more than 1 RA.**
- Check your **budget/account balance** – factor in KWSP
- **Criteria:** must the RA be a Malaysian? Student?
- Refer to the **Human Resource Division** for **issues relating to visa** for RA from overseas.
- Consider **time factor.**
- Recruit, interview, and select Research Assistant/Graduate Research Assistant.



- **Monitor your RA's progress:**
 - (i) Attendance
 - (ii) Safety
 - (iii) Service period
 - (iv) Work ethics
 - (v) Output



7.0

Pengurusan Hasil



Monitoring Output

- Only the **relevant output** is accepted.
- The **output should reflect the original** and approved proposal.
- Non compliance should result in closure of the account.
- Publication must **acknowledge grant number.**



Research to Business

- Research
- Publication
- IP
- Commercialization



Rumusan

- Matlamat Tercapai

1. _____
2. _____
3. _____



Terima Kasih

*Azizah Shaaban &
Rabiah Ahmad*

