IMPACT ORIENTED
INTERDISCIPLINARY RESEARCH GRANT PROGRAMME (IIRG) 2019-2021

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Dean, Frontiers of the Natural World

14th May 2019

Auditorium, Level 1, Research Management & Innovation Complex, UM

RESEARCH CLUSTER AREAS NICHE & THRUST

In alignment with UM's aspiration to be the preferred partner in research & champions in leading interdisciplinary research, Research Cluster will focus on research areas with promising performances & experts-ready with critical mass (Niche) and emerging areas (Thrust).

NICHE AREAS

THRUST AREAS

CLUSTERS

SOCIAL ADVANCEMENT & HAPPINESS

Cultural, Heritage and Civilization
Behavioral Studies

Education for the Future
Smart Society

HEALTH & WELL-BEING

Cancer
Active Ageing

Innovative Health
Mental Well-Being
Lifestyle Diseases

FRONTIERS OF THE NATURAL WORLD

Nature-inspired Technology (Drug Discovery)

Curiosity-driven Fundamental Research

INNOVATIVE INDUSTRY & SUSTAINABILITY SCIENCE

Energy
Materials

IR4.0
Water & Environment
Sustainable living

NICHE

THRUST
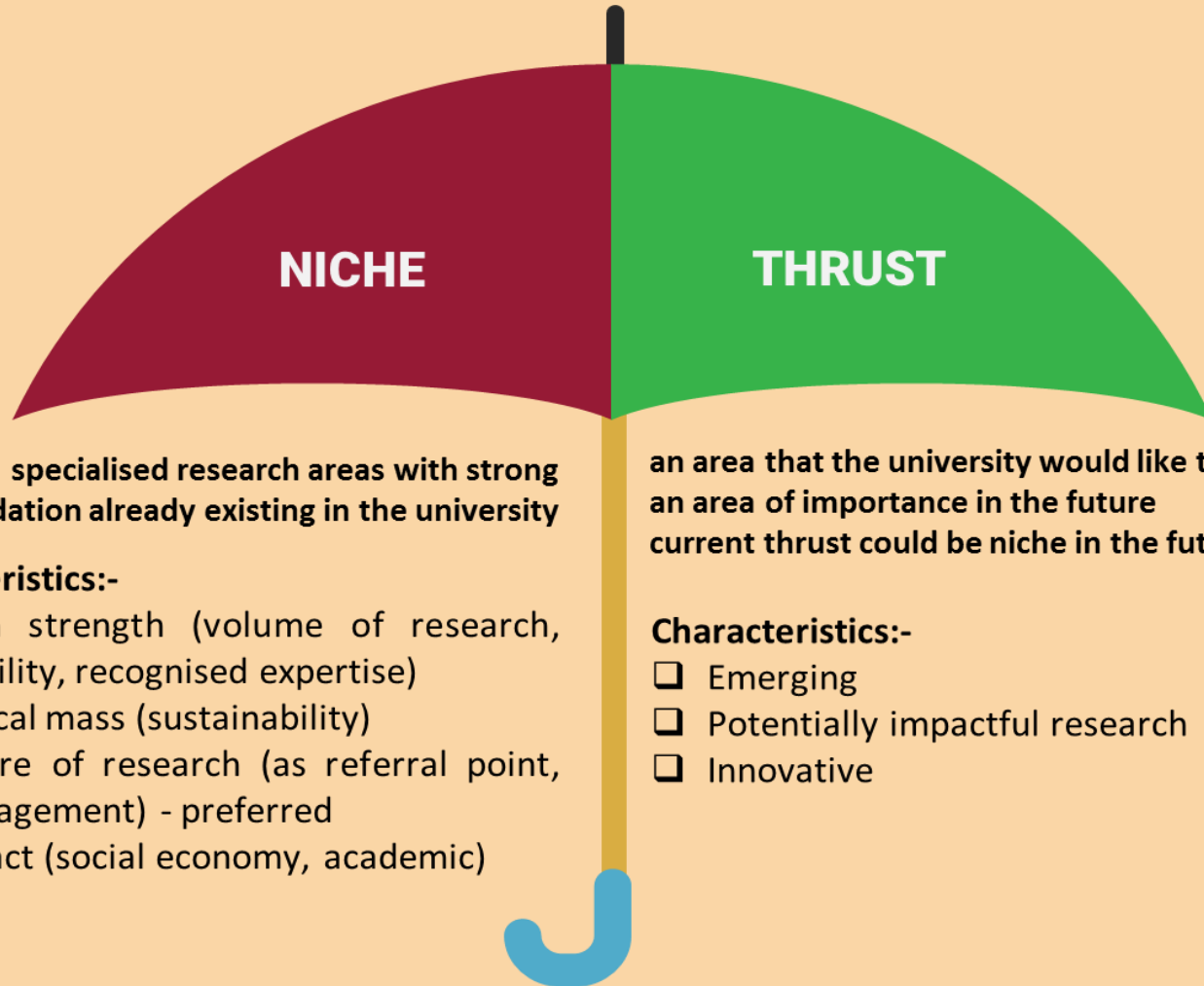
specialised research areas with strong foundation already existing in the university

Characteristics:-
- ❑ With strength (volume of research, visibility, recognised expertise)
- ❑ Critical mass (sustainability)
- ❑ Centre of research (as referral point, management) - preferred
- ❑ impact (social economy, academic)

an area that the university would like to push
an area of importance in the future
current thrust could be niche in the future

Characteristics:-
- ❑ Emerging
- ❑ Potentially impactful research
- ❑ Innovative

"To develop impactful research projects that address real world issues relevant to the society and industry. It is at these interfaces between different disciplines that creativity and innovation thrive"

DEFINITION - INTERDISCIPLINARY

a mode of research by teams or individuals that **integrates information**, **data**, **techniques**, **tools**, **perspectives**, **concepts** and/or **theories** from **TWO** or **more disciplines** or bodies of specialized knowledge **to advance fundamental understanding** or to **solve problems** whose solutions are beyond the scope of a single discipline or area of research practice.*

AIMS

- **strengthen niche & nurture thrust areas**

- **encourage interdisciplinary research**

- **drive impact oriented research**

Single, Multi, Inter and Trans-disciplinary Research

Within

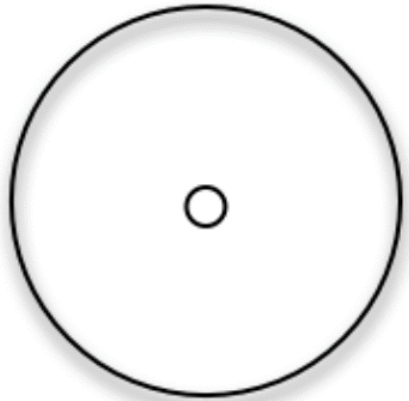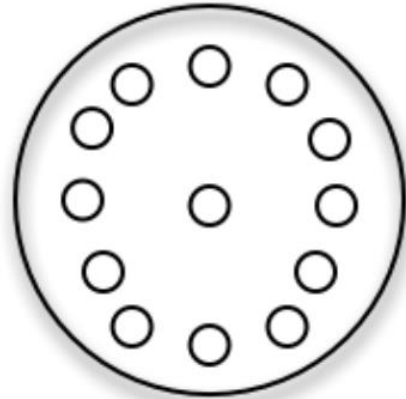Looking a problem within the frame of a **single, recognised discipline**. For example, dental research project focusing on bonding agent will mostly include dental material or material scientists and collaborators will publish in similar journals.

Add, Multiply

Looking at one problem by **adding multiple** perspectives and disciplines. Participants exchange knowledge and compare results, but stop short of integrating them. The disciplines maintain their distinctiveness and the results remain grounded in the framework of the root discipline
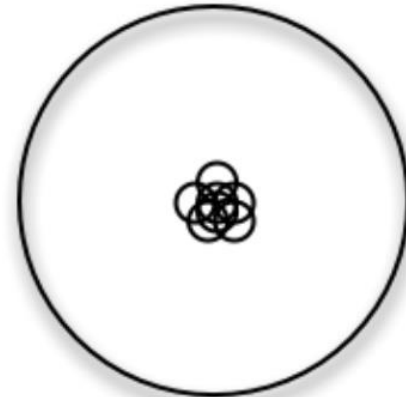
Integrate, Synthesis

"among, between, in the midst" — **integrating knowledge and methods** from different disciplines using a synthesis of approaches. Interdisciplinary concerns collaborations between contrasting academic disciplines or research methods for new applications, new analyses, or the creation of entirely new disciplines (Nicolescu 1997).
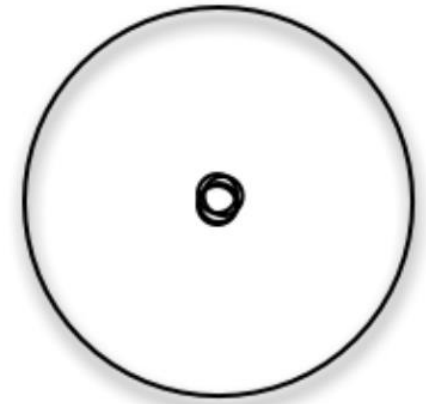
Transcend, Whole

"across, over, beyond" — emergence of a **new discipline transcending the boundaries of disciplinary** perspective. Transdisciplinarity combines interdisciplinarity with a participatory approach. The research paradigms involve non-academic participants as (equal) participants in the process to reach a common goal — usually a solution to a problem of society at large. It can be considered as the culmination of interdisciplinary efforts. The field of 'sustainability' in essence is a transdisciplinary one.

Single, Multi, Inter and Trans-disciplinary Research
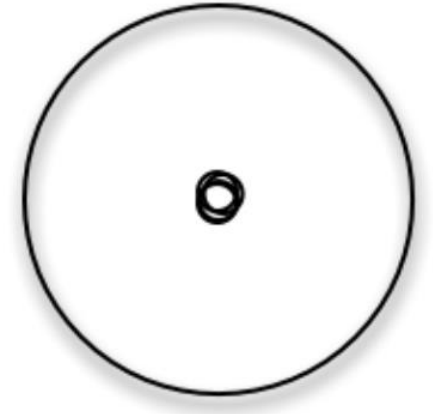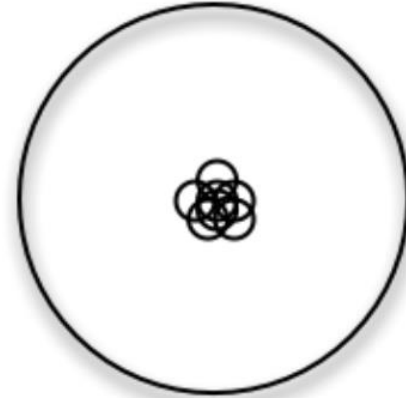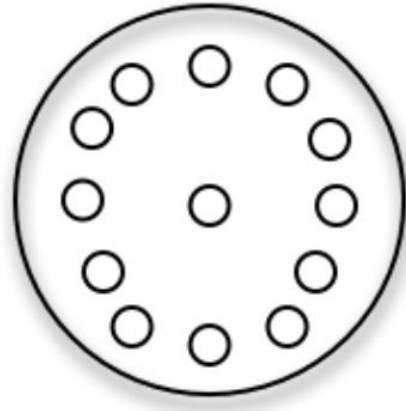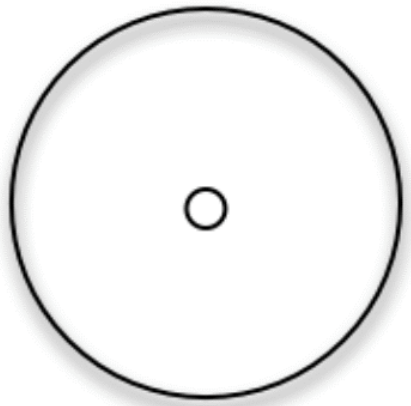
ANALOGY

SPECIFIC CRITERIA

NO OF SUB-PROGRAM

≥3 researchers must come from at least
2 different disciplines &
2 different faculties

MAXIMUM CEILING / PROGRAM

DURATION

24
MONTHS

RM 300,000
SCIENCE

RM 150,000
NON-SCIENCE

APPLICATION FORM

UNIVERSITY OF MALAYA IMPACT-ORIENTED INTERDISCIPLINARY RESEARCH GRANT PROGRAMME (IIRG) 2019-2021

PROGRAMME SUMMARY : PART A
[Incomplete Form will be rejected]

PROGRAMME LEADER		
PROGRAMME TITLE		.
SUB-PROGRAMME TITLE & LEADERS	SUB-PROGRAMME TITLE	SUB-PROGRAMME LEADER
	1.	
	2.	
	3.	

A. Research Programme [Please tick (√) ONE (1) Research Cluster AND ONE (1) Niche OR Thrust area only]

RESEARCH CLUSTER:

- [ ] Frontiers of the Natural World
- [ ] Health & Well Being
- [ ] Innovative Industry & Sustainability Science
- [ ] Social Advancement & Happiness

NICHE AREAS:

- [ ] Nature-Inspired Technology (Driving Drug Discovery)
- [ ] Active Aging
- [ ] Cancer
- [ ] Energy
- [ ] Materials
- [ ] Behavioural Studies
- [ ] Cultural, Heritage and Civilization

THRUST AREAS:

- [ ] Curiosity-Driven Fundamental Research
- [ ] Innovative Health
- [ ] Lifestyle Diseases
- [ ] Mental Well-Being
- [ ] IR4.0
- [ ] Water & Environment
- [ ] Sustainable Living
- [ ] Education for the Future
- [ ] Smart Society

B. EXECUTIVE SUMMARY (max. 300 words: Should include, but not limited to background of research, objectives, problem statement (needs, approach, benefits, competition) and brief methodology)

C. LINKAGES BETWEEN SUB-PROGRAMME (max. 300 words)

D. QUALITY OF RESEARCHERS

i. Research Team Track Record

No.	Name	Faculty	H-Index	Citations	No. of Publications**	Role/ Contribution
1.						
2.						
3.						

** For the past 5 years and **MUST** be relevant to the proposed programme

ii. International Collaborations/External Collaborator and Stakeholders (**MUST be relevant to the proposed programme**)

No.	Institution	Name of Researcher	Role/ Contribution
1.			
2.			
3.			

E. TARGETTED RESEARCH OUTPUT(Please select at least 1 (ONE) from each category)

i.   ACADEMIC OUTPUT

No.	Details	Output
1.	ISI	
2.	IPR/Copyright	
3.	Human Capital Developments	
4.	Book (s)/Chapters in book (s)	
5.	Scopus / Peer reviewed journal articles (for non-science only & journal category A & B)	
6.	Policy	

ii.   NON-ACADEMIC OUTPUT

No.	Details	Output
1.	Commercialization	
2.	Media Articles	
3.	Website	
4.	Software/Applications	
5.	Societal Engagement	
6.	Others: Please specify	

Researcher

What could my research change

Whom could my research benefit

How do I make this happen

Routes to Impact

Dissemination of my research

Engaging key stakeholders

Involving possible end users

Co-production

My research itself is shaped and developed

Uptake and use of my research outside academia

IMPACT!

IMPACT

F. RESEARCH IMPACT [i]

You can use these columns to help write your 'IMPACT SUMMARY'		This may be helpful for structuring your 'Impact Summary' and 'Pathways to Impact' sections	You can use these columns to help write your 'PATHWAYS TO IMPACT'				
Who will your research benefit? (non-academic beneficiaries)	What will be the benefits to them from your research?	How would you categorise this benefit/beneficiary? (E.g. public, industry, Policy?)	How are you going to share your research with them? (I.e. what is the specific activity?)	When are these activities going to take place? (Be as specific as possible)	Who from your research project is going to arrange and deliver this activity?	What resources/ training will you need for this activity? (Include in costs & justification of resources)	How will you know these activities have been successful?

ADDITIONAL INFORMATION

B(viii)	Latest CV & Researchers' Profile (maximum 1 page each- Please use attached template for the profile and enclose in the Appendix) *CV Terkini & Profile Penyelidik (maksimum 1 muka surat bagi setiap dokumen - Sila gunakan template yang telah disediakan bagi profil penyelidik dan lampirkan di bahagian Apendiks)*

D	RESEARCH DETAILS / BUTIRAN PENYELIDIKAN
Di)	**Detailed Proposal of Research Sub-Programme :** *Maklumat cadangan sub-program penyelidikan secara terperinci:* (a) **Abstract (maximum 150 words)** *Abstrak (maksimum 150 patah perkataan)* (b) **Graphical Abstract (maximum 1 page-A4)(Please use attached template and enclose in the Appendix)** *Abstrak grafik (maksimum 1 muka surat-A4)(Sila gunakan template dan lampirkan di bahagian Apendiks)* (c) **Research background including Introduction /Hypothesis /Research Questions and Literature Reviews.** *Keterangan latar belakang penyelidikan termasuk Pengenalan/kenyataan hipotesis / persoalan penyelidikan dan kajian literatur.* (d) **SMART Objective (s) of the Research/ SMART Objektif Penyelidikan**** **SMART** i.e. specific, measurable, achievable, realistic and timely **SPECIFIC:** outline in a clear statement precisely what is required. **MEASURABLE:** include a measure to enable you to monitor progress and to know when the objective has been achieved. **ACHIEVABLE:** objectives can be designed to be challenging, but it is important that failure is not built into objectives. Employees and managers should agree to the objectives to ensure commitment to them. **REALISTIC:** focus on outcomes rather than the means of achieving them **TIMELY**(or time-bound): agree the date by which the outcome must be achieved.

S	**Specific, Significant, Stretching** Outline in a clear statement precisely what is required.
M	**Measurable, Meaningful, Motivational** Include a measure to enable you to monitor progress and to know when the objective has been achieved.
A	**Agreed upon, Attainable, Achievable, Acceptable, Action-Oriented** Objectives can be designed to be challenging, but it is important that failure is not built into objectives. Employees and managers should agree to the objectives to ensure commitment to them.
R	**Realistic, Relevant, Reasonable, Rewarding, Results-Oriented** Focus on outcomes rather than the means of achieving them
T	**Time-based, Time-bound, Timely, Tangible, Trackable** Agree the date by which the outcome must be achieved

Allocation

- salary & wages: max = **RM 30,000/year**. Each SP must hire at least 1RA
- Travel = **fieldwork ONLY**
- **X equipment**

Research continuity

- Must **show evidence** that a **proposal** is ready for submission for **external funding application** as a **continuation** of the **work** in **IIRG** (at month 21)

Research output will be ONLY accepted if:

- **after** the grant is being **awarded**.
- **relevant** to the project/programme approved.

HIGHLIGHTS

UM Safety & Research Handbook

• Applications are subjected to all requirements stated in **UM Safety & Research Handbook**. **DISQUALIFIED** if failed to do so.

•Proof of submission of **Notice of Intent [NOI]** to IBBC must be attach with your proposal for research involving use of **infectious** & **potentially infectious agents/materials & biological toxins**.

Research Ethics

• Research involving **human participants** and the **use of vertebrate animal subjects** must be referred to the appropriate ethics committee

•If you are successful, please be reminded that **proof of ethics application must be submitted prior to the activation of research account**

ALL RELATED DOCUMENTS ARE AVAILABLE AT

UM RESEARCH CLUSTER

Impact Oriented Interdisciplinary Research Grant Programme (IIRG) - Cycle 2

File	Type	Size	Uploaded on	Download
IIRG Guideline Version 2 May 2019	PDF	500.36 KB	07 May, 2019	Download
A1-programme-summary-application-form Version 2-May 2019	DOC	498.50 KB	07 May, 2019	Download
A2-sub-programme-application-form Version 2-May 2019	DOC	343.50 KB	07 May, 2019	Download
Biography	DOCX	12.82 KB	07 May, 2019	Download
Profile	PPTX	190.76 KB	07 May, 2019	Download
Graphical Abstract	PPTX	181.91 KB	07 May, 2019	Download
A1-Checklist-form-May 2019	DOC	90.50 KB	07 May, 2019	Download
A2-Checklist-form-May 2019	DOC	79.50 KB	07 May, 2019	Download
code-of-research-ethics	PDF	189.01 KB	07 May, 2019	Download
ibc-guidelines	PDF	1.08 MB	07 May, 2019	Download
malaysia-laboratory-biosafety-biosecurity-policy-and-guideline	PDF	599.04 KB	07 May, 2019	Download
UM Safety Handbook	PDF	1.63 MB	07 May, 2019	Download
um-animal-care-and-use-policy	PDF	1.59 MB	07 May, 2019	Download
universiti-malaya-policy-and-procedure-on-laboratory-biosafety-and-biosecurity	PDF	676.73 KB	07 May, 2019	Download

CHECKLIST A1

NOTE
- **The Programme Leader must ensure all documents in the checklist are submitted.**
- **Incomplete applications will not be processed.**

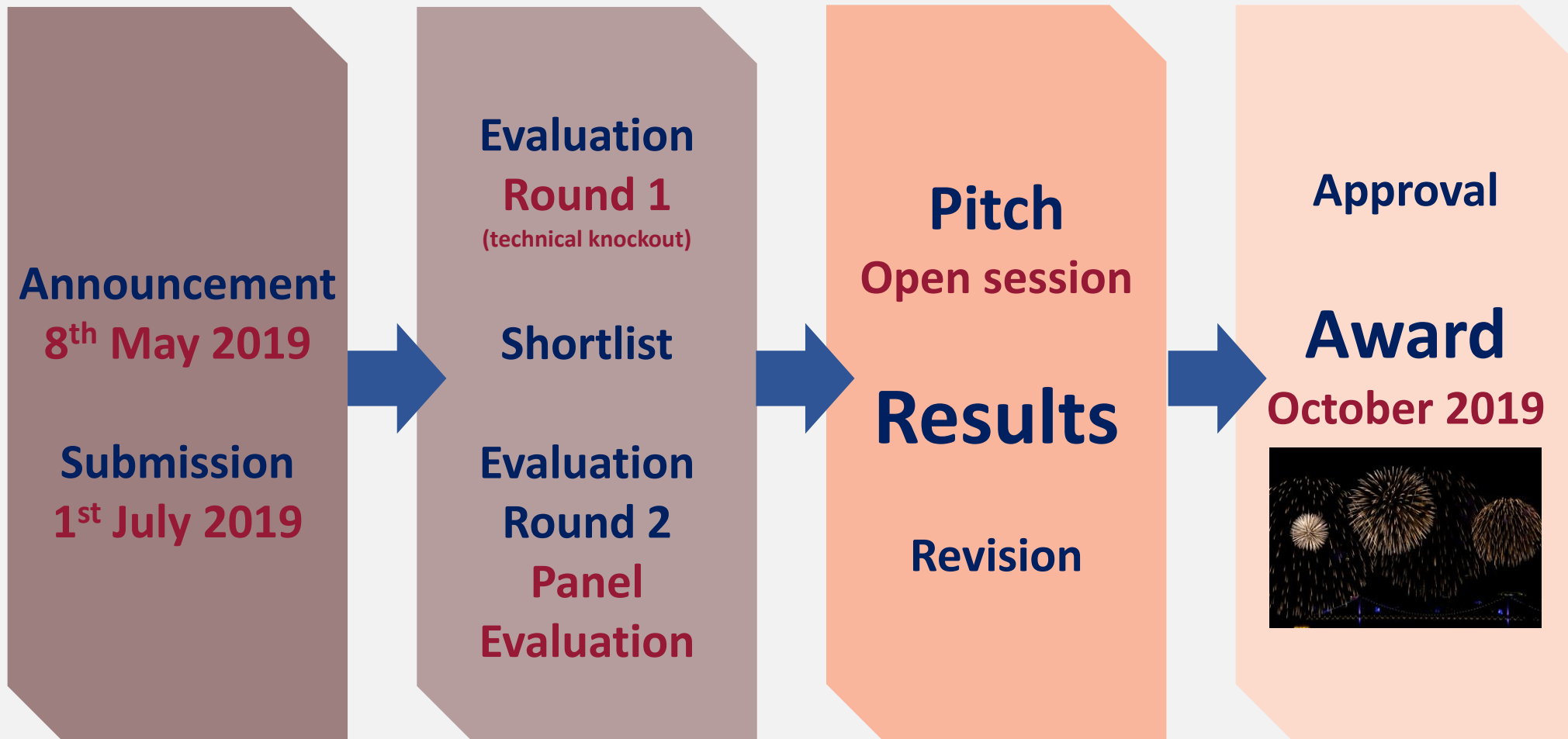| No.	DETAILS (Please tick ([v])	Programme Leader
1.	A1 Form - Programme Summary	
2.	CV (For the past 5 years and MUST be relevant to the proposed programme) - maximum 5 pages i. Programme Leader & Sub- Programme Leader	
	ii. Co-researcher(s) (Internal & External)	
3.	Biography (maximum 1 page) i. Programme Leader	
	ii. Sub- Programme Leader	
4.	Researchers' Profile (maximum 1 page) i. Programme Leader	
	ii. Sub- Programme Leader	
5.	Commitment Letter for External Co-Researcher/s (if any)	
6.	Document related to engagement with stakeholder (if any)	
7.	Graphical Abstract (maximum 1 page)- Programme Summary	
8.	Gantt Chart of Research Activities including Milestones- Programme Summary	
9.	Flow Chart of Research Activities - Programme Summary	
10.	Softcopy of proposal-with attachments (Programme & Sub-programme) to PPGP	

CHECKLIST
A2

No.	DETAILS (Please tick ([V])	Sub-Programme Leader	PPGP Office
1.	**A2 Form- Sub-Programme**		
2.	**Graphical Abstract** (maximum 1 page)- **Sub-Programme**		
3.	**Gantt Chart** of Research Activities including **Milestones**		
4.	**Flow Chart** of Research Activities		
5.	Justification/ Details of **Proposed Budget**		

NOTE
1.The Sub-Programme Leader must ensure all documents in the checklist are submitted. **Incomplete applications will not be processed.**
2.Does this research need **BIOSAFETY APPROVAL?** (if yes, proof of submission Notice of Intent [NOI] to IBBC must be submitted prior to proposal evaluation session)
3.Does this research need **ETHIC APPROVAL?** (if yes and your application is successful, please be reminded that proof of ethics application must be submitted prior to the activation of research account)

FLOW: ANNOUNCEMENT TO AWARD

Announcement
8th May 2019

Submission
1st July 2019

Evaluation
Round 1
(technical knockout)

Shortlist

Evaluation
Round 2
Panel
Evaluation

Pitch
Open session

Results

Revision

Approval

Award
October 2019

1st round based on

- Executive Summary
- Linkages between sub-programmes
- Quality of Researchers
- Research Impact

INVITATION TO PRE PROPOSAL WORKSHOP – IIRG CYCLE 2/2019

29 May 2019 (Wednesday)	30 May 2019 (Thursday)	12 June 2019 (Wednesday)	13 June 2019 (Thursday)	14 June 2019 (Friday)
8.30 am – 10.00 am	10.00 am – 12.00 pm	10.00 am – 12.00 pm	10.00 am – 12.00 pm	10.00 am – 12.00 pm
☐ Nature-inspired Technology (Driving Drug Discovery) ☐ Curiosity-driven Fundamental Research	☐ Cancer ☐ Active Ageing ☐ Innovative Health ☐ Mental Well-being ☐ Lifestyle Diseases	☐ Energy ☐ Material	☐ Cultural, heritage & civilization ☐ Behavioral studies ☐ Education for the future ☐ Smart society	☐ IR 4.0 ☐ Water & environment ☐ Sustainable living
Venue: Jupiter Meeting Room, Level 4, KPPI	Venue: Banquet Room, Level L, KPPI	Venue: Banquet Room, Level L, KPPI	Venue: The Cube, Level 4, KPPI	Venue: Banquet Room, Level L, KPPI

* The aim of the workshop is to facilitate researchers in preparing proposal for applying IIRG with interdisciplinary elements & research impact.

RESEARCH CLUSTER

Contact us

researchcluster@um.edu.my

+603-79677801/7802/7804/7805/7809

Level7, Research Management & Innovation Complex (RMIC), University of Malaya

https://www.um.edu.my/research-and-community/information-for-researchers/research-clusters