

KURSUS WAJIB DS45 UTeM (Penyelidikan & Inovasi)

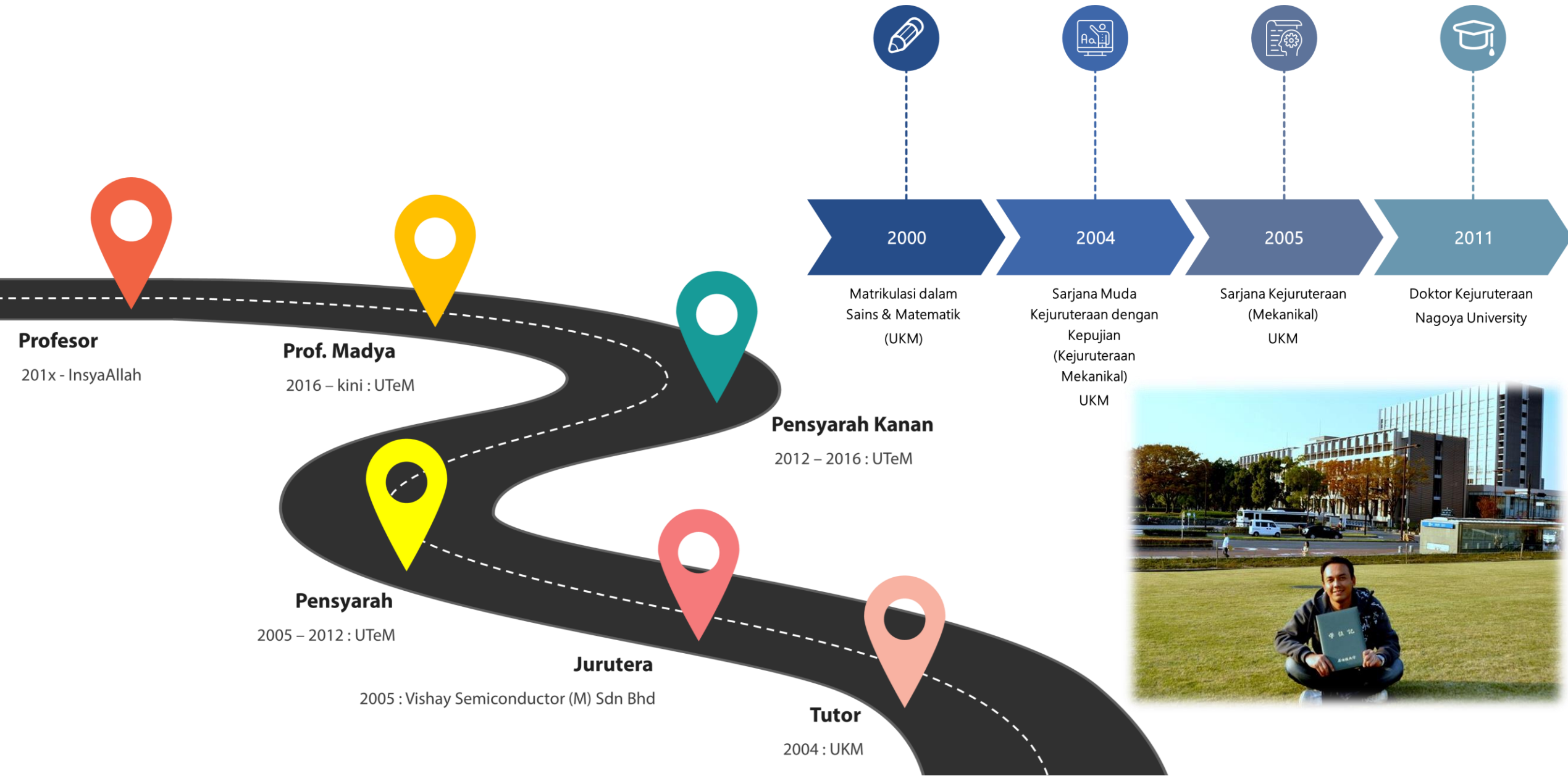
Mohd Fadzli Bin Abdollah, Dr.Eng.

Professor Madya

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www.mohdfadzli.com

Fadzli – Kelayakan Akademik & Kerjaya



Make a Career Plan

S



M



A



R



T

Specific

Are my short- and long-term goals specific?
Exactly what do I want to achieve?

Measurable

Are my goals measurable? How will I know when a goal is achieved?

Attainable

Are my goals attainable?
Am I setting goals that can be achieved?

Realistic

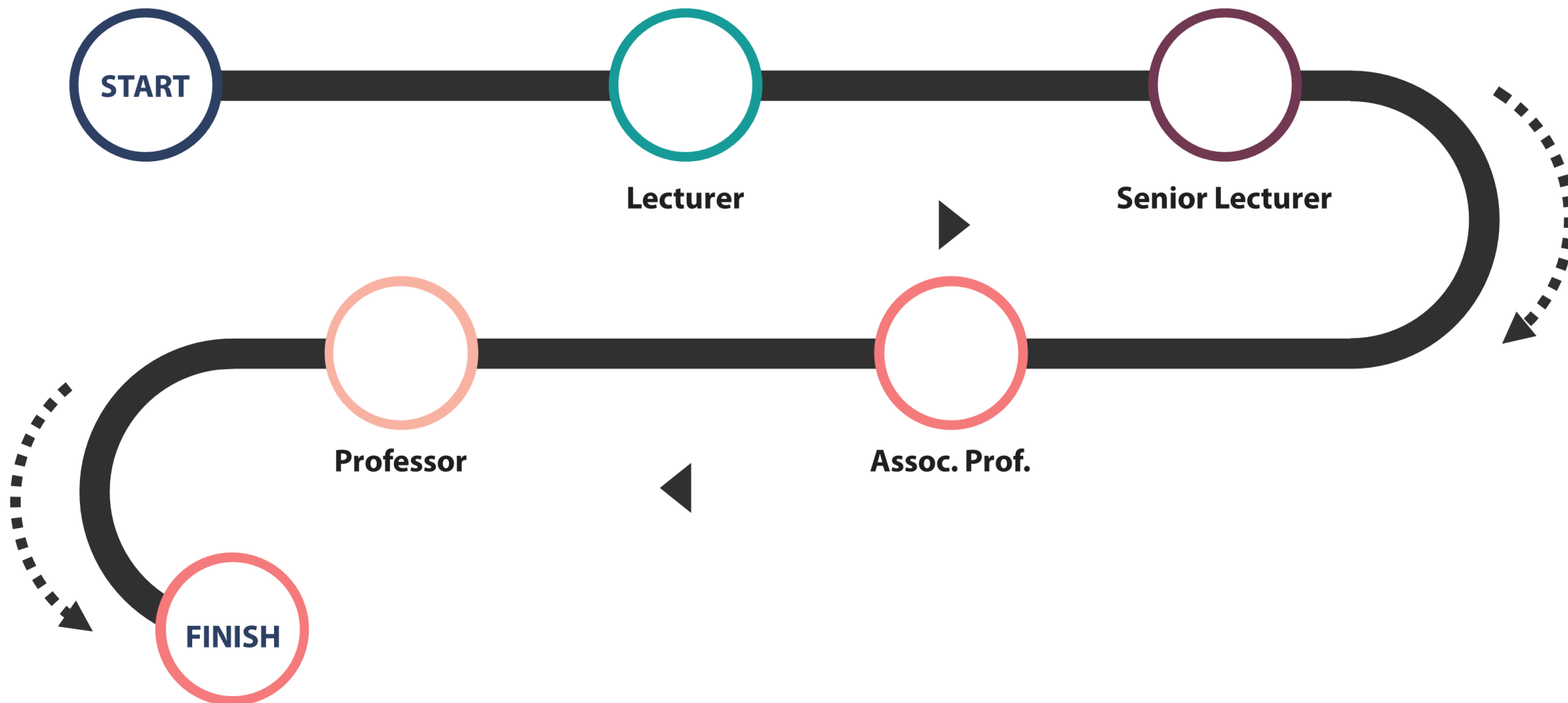
Are my goals realistic?
Have I set goals that are practical?

Timely

Are my goals timely?
Are the dates for achieving my goals appropriate?



Academic Career Path



KPI for Article Published in Index Journal

3.1 Mesyuarat Senat Bil.6/2017 yang bersidang pada 21 Jun 2017 telah bersetuju meluluskan KPI baharu bilangan minimum artikel jurnal berindeks setahun bagi setiap pensyarah mengikut gred jawatan adalah seperti berikut:-

is not yet implemented

| Gred Jawatan | Lain-lain Laluan | Laluan Penyelidikan |
|--------------|------------------|---------------------|
| DS45 | 1 | - |
| DS51/52 | 2 | 3 |
| DS53/54 | 2 | 4 |
| VK | 3 | 5 |

Component for Promotion

| Kategori | *DS52 | *DS54 | *VK7 |
|--|-------|-------|------|
| Pengajaran & Penyeliaan | 160 | 215 | 280 |
| Penyelidikan & Penerbitan | 110 | 165 | 230 |
| Sanjungan & Kepimpinan Akademik | 50 | 80 | 120 |
| Khidmat kepada Universiti & Masyarakat | 90 | 110 | 140 |
| Perundingan & Jaringan Industri | 30 | 60 | 100 |

*Pekeliling Pentadbiran UTeM Bil.30/2019

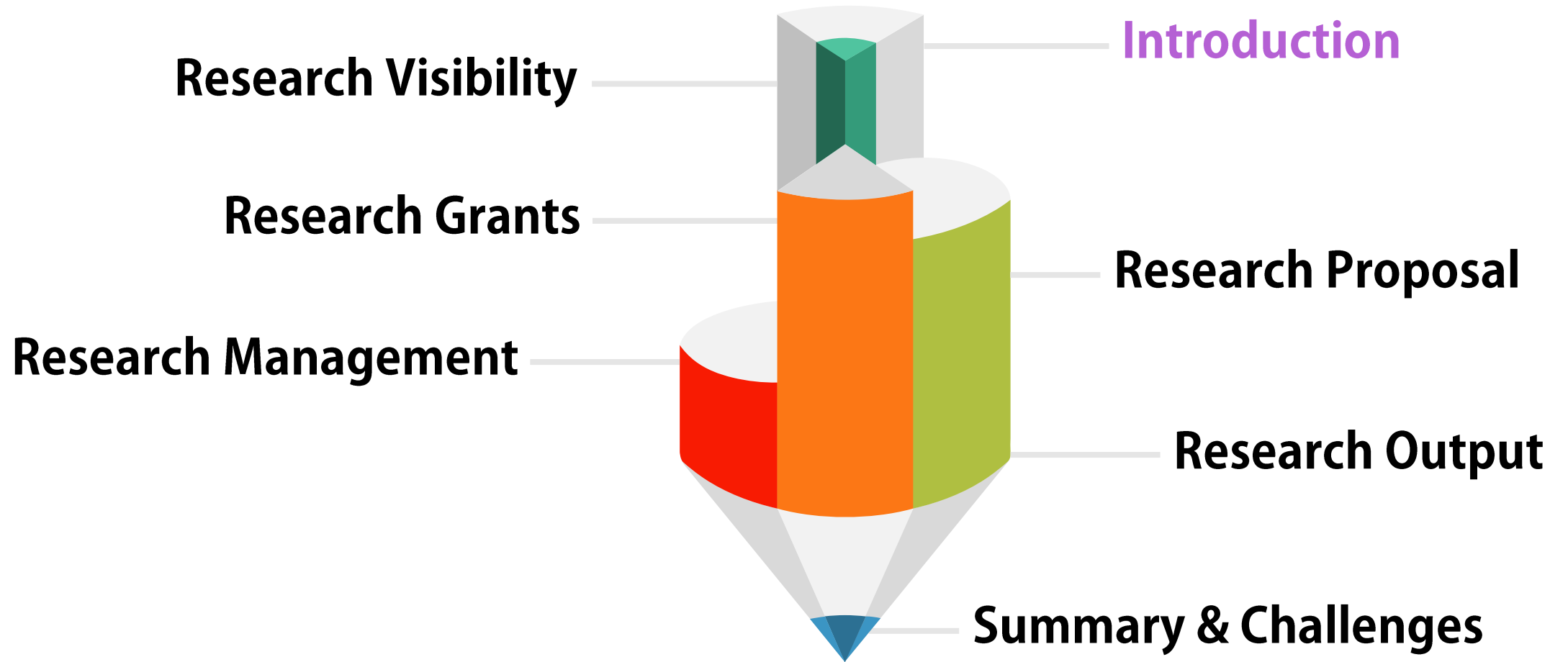
Component for Promotion

Penyelidikan & Penerbitan

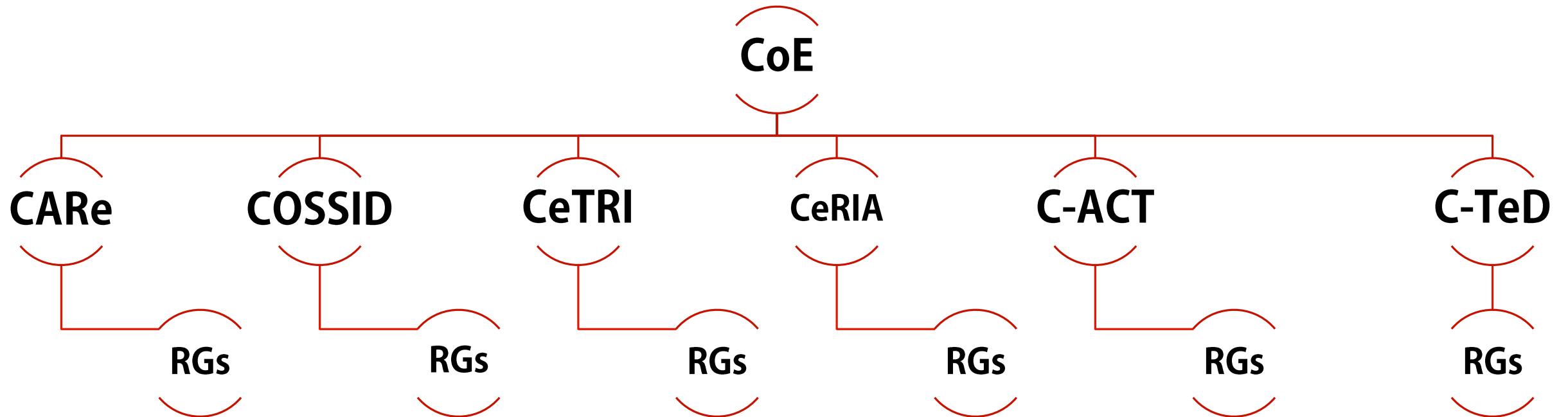
It covers:

- **Research grants**
- **Students supervision**
- **Publications**
- **Recognition & Awards**
- **Consultation**
- **Etc.**

Highlights



Research @UTeM



What is Research & Innovation?

“Research is a detailed study of a subject, especially in order to discover (new) information or reach a (new) understanding”

“Innovation is a new idea or method, or the use of new ideas and methods for development of new products or designs”

(Cambridge Dictionary)

“Research is the journey...Innovation is the reaching of destination”

Objectives of Research

- To **discover** new facts.
- To **verify** and **test** important facts.
- To **analyze** an event or process or phenomenon to identify the cause and effect relationship.
- To **develop** new scientific tools, concepts and theories
- To **find** solution to scientific and social problems.
- To **overcome** or solve the problems occurring in our every day life.

Objectives of Innovation

- **Time** - to make things **faster**.
- **Productivity** - to get more output for an hour worked.
- **Efficiency** – to get more output for a unit of input.
- **Convenience** – to makes things easier for customer.
- **Risk** – to reduce a risk.
- **Knowledge** – to develop valuable Intellectual Properties.
- **Sustainability** – to transform a process that isn't likely to end well to one that has a bright future.
- **Quality of life** – to make a life better.

Why People Do Research?

- To get a research **degree** (PhD /MSc).
- To get a teaching **position** in a college or university.
- To **solve** the unsolved and challenging problems.
- To get **joy** of doing some creative work.
- To acquire **respectability**.
- **Curiosity** to find new things.

Who Does Research?

Graduate Students

- Masters Degree (lower standard)
- Ph.D. Degree (higher standard)

Researchers at universities

- Post-Doctoral students
- Faculty members

Researchers in industry

- Research scientists
- Many other technical workers

Undergraduate students, School

Mentor & Teamwork



Tips for Better Teamwork

Team understands the goals and is committed to attaining them



Creativity, innovation, and different viewpoints are expected



Communication is open, honest, and respectful



People are comfortable taking reasonable risk



Members of the team make high quality decisions together



Types of Research

BASIC research

- Desire to **expand knowledge**.
- Curiosity driven.
- Intended to answer **why, what** or **how** questions.
- Increase understanding of fundamental principles.
- Does **not** have immediate **commercial** objectives.
- It may not necessarily result in an invention or a solution to a practical problem.

Answer initial question how things work

Products, technologies & processes

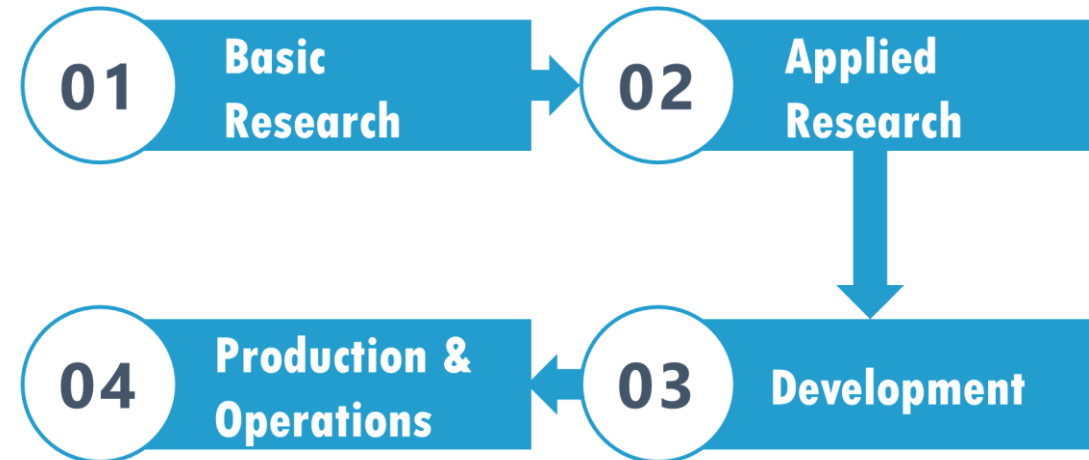
VS

APPLIED research

- New knowledge acquired has **specific commercial** objectives: products, procedures or services.
- Answer **specific questions** aimed at solving practical problems.

Products, technologies and processes

New fundamental questions



Types of Research

Quantitative Research



- **Structured data**
- **Statistical analysis**
- **Objective conclusions**
- **Surveys, experiment**

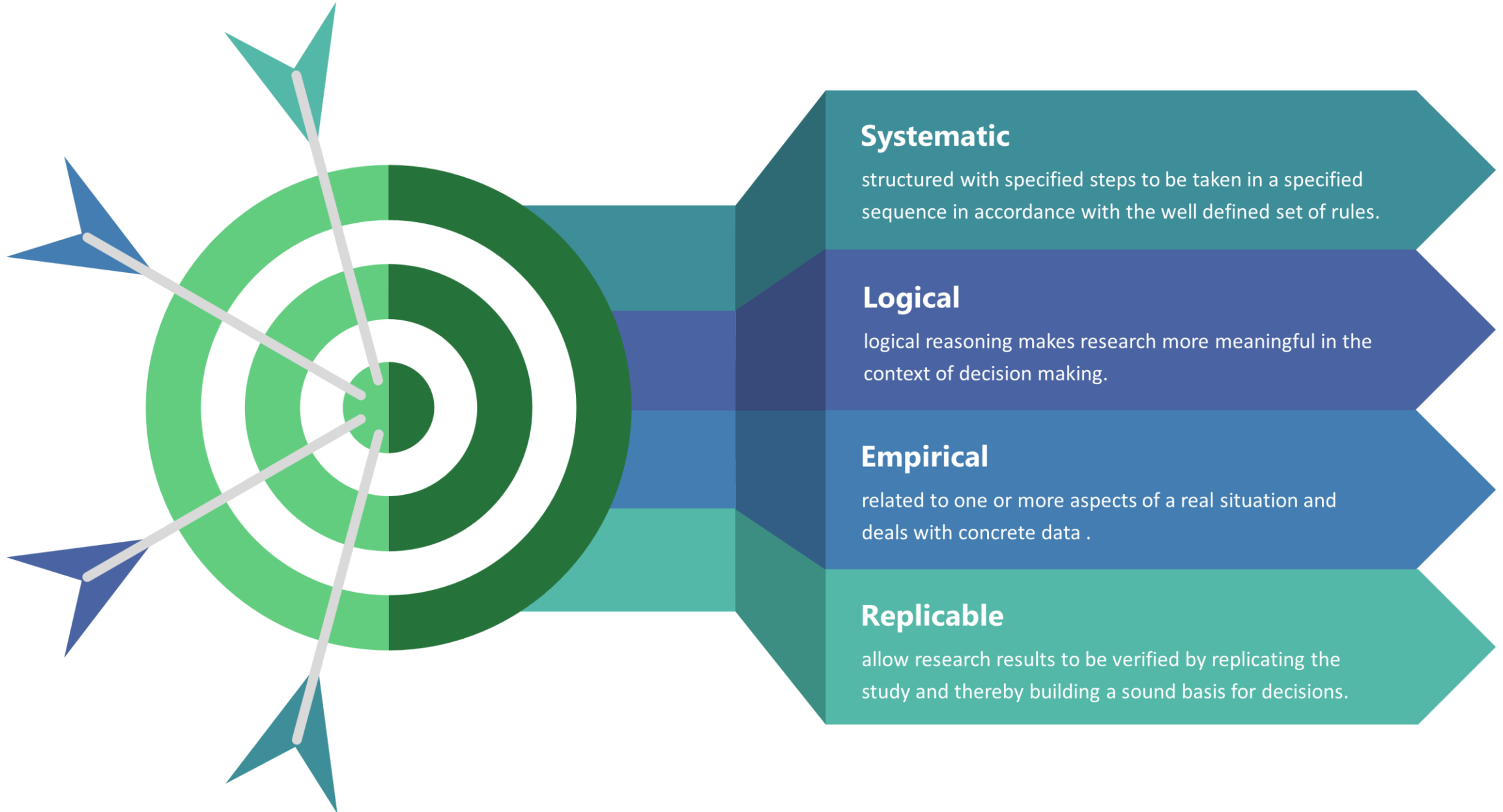
| Qualitative | | Quantitative | |
|-------------|-----------|--------------|----------|
| Like | Easy | 23,406 | 4.3 |
| Awkward | Squirrel | 2m32s | Squirrel |
| | Efficient | | 76.8% |
| Slow | How | RM55.43 | 1,524 |
| | Ambiguous | | |
| Confusing | | \$356,22 | |

Qualitative Research



- **Unstructured data**
- **Summary**
- **Subjective conclusions**
- **Interview, observations**

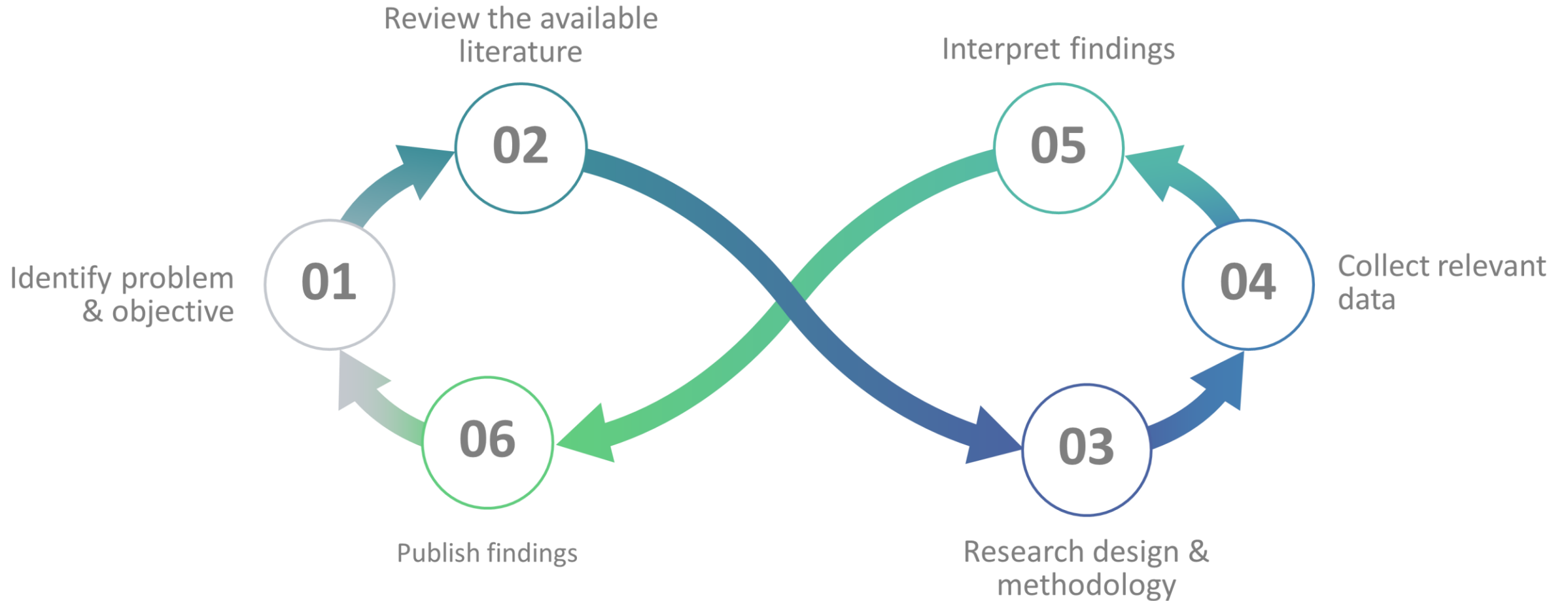
Criteria of Good Research



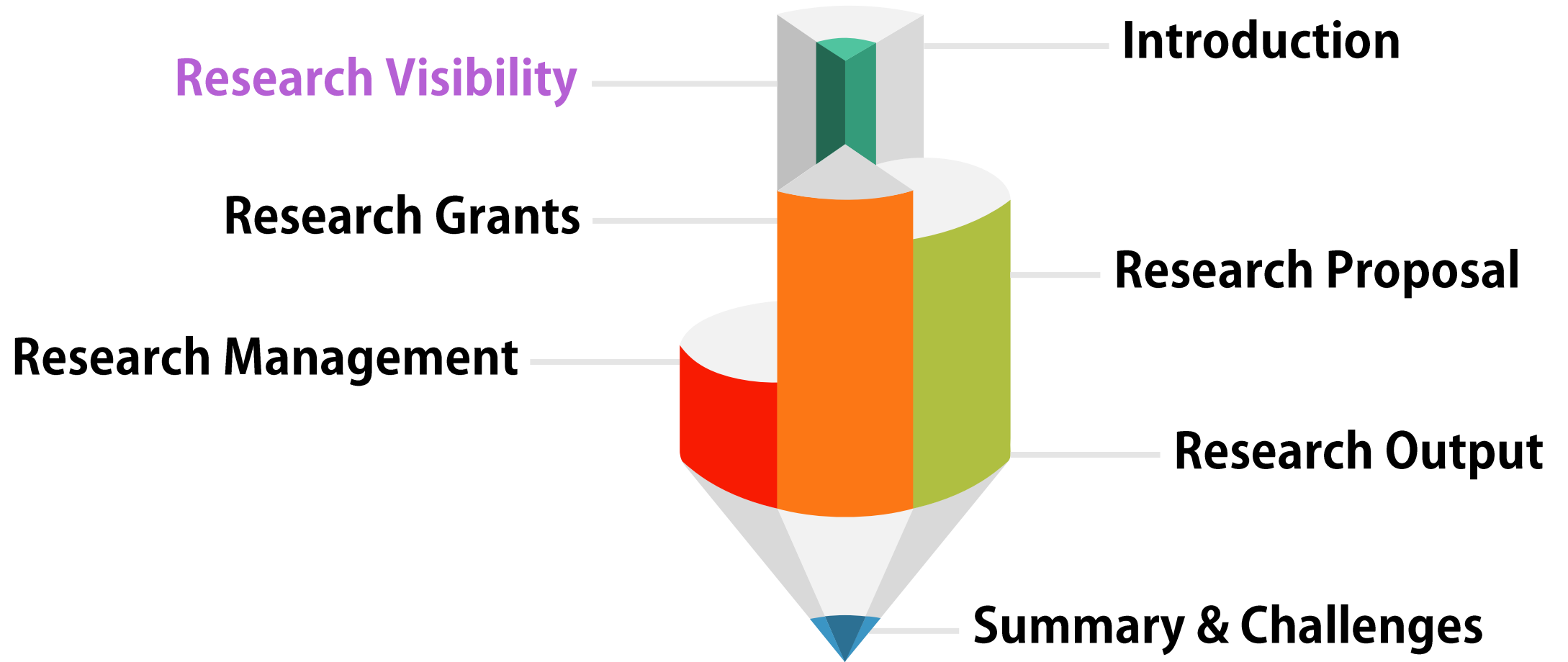
Criteria of Good Research



Research Cycle



Highlights



Research Visibility Tips

Manage your researcher profiles
(ORCID, Scopus ID, Publons,
Google Scholar) – Keep them
updates, consistent and public.

1

Promote your research
online with social media
(website, blog and
LinkedIn).

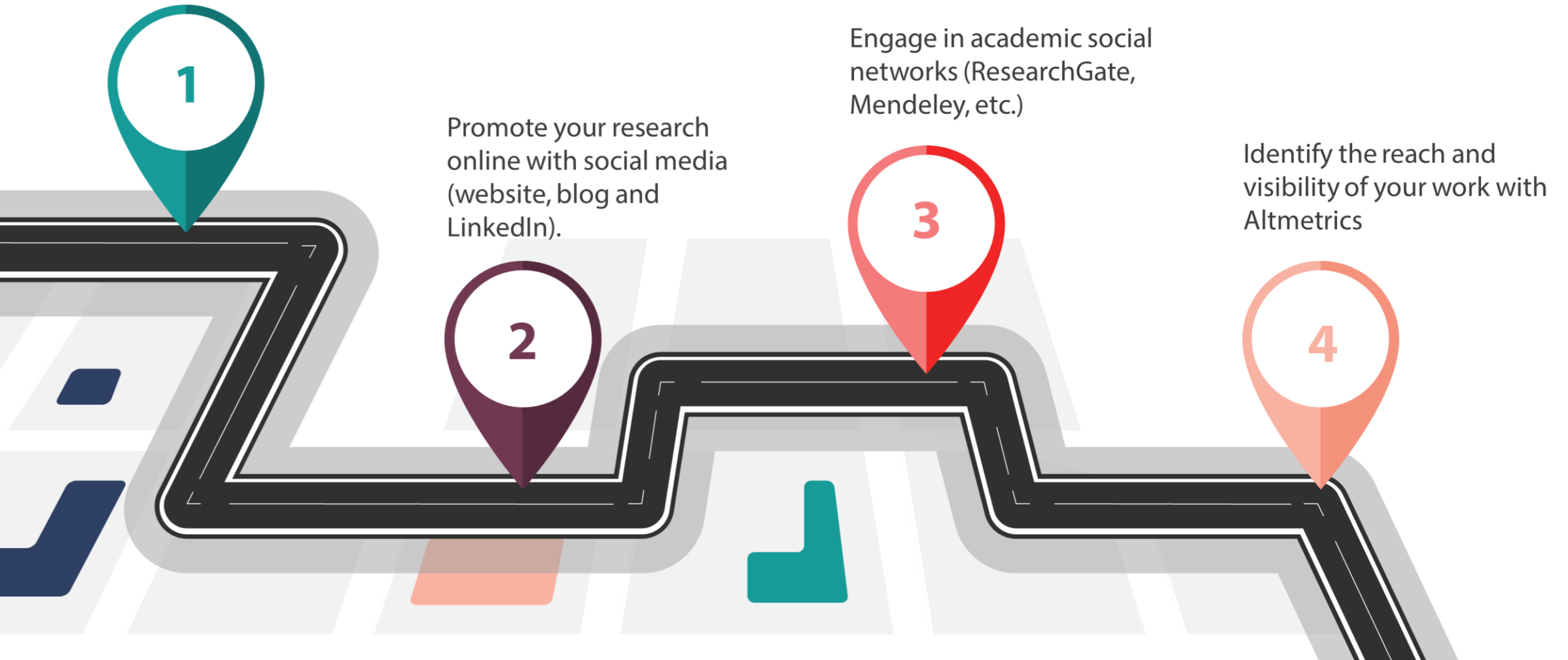
2

Engage in academic social
networks (ResearchGate,
Mendeley, etc.)

3

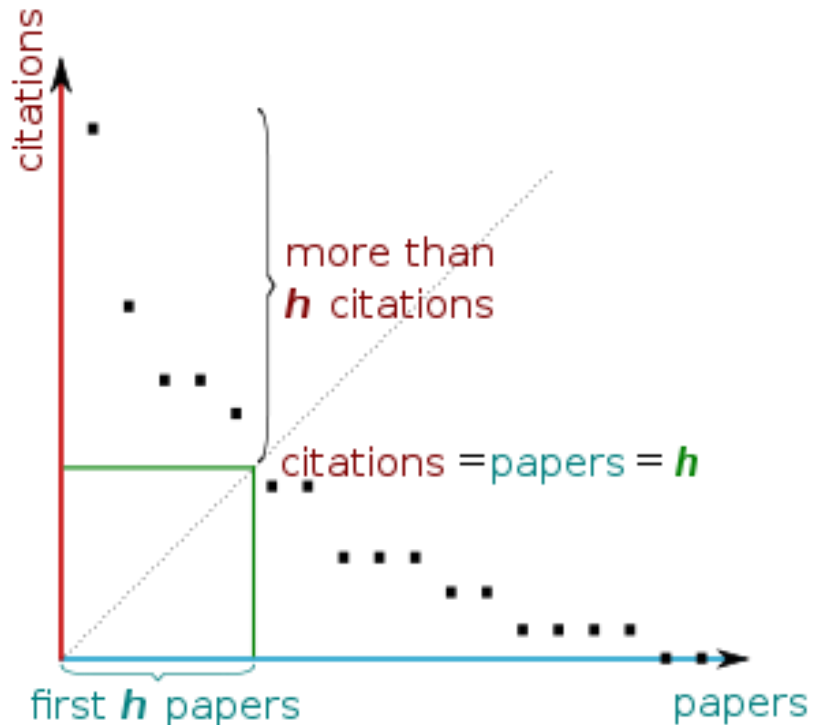
Identify the reach and
visibility of your work with
Altmetrics

4



What is H-index?

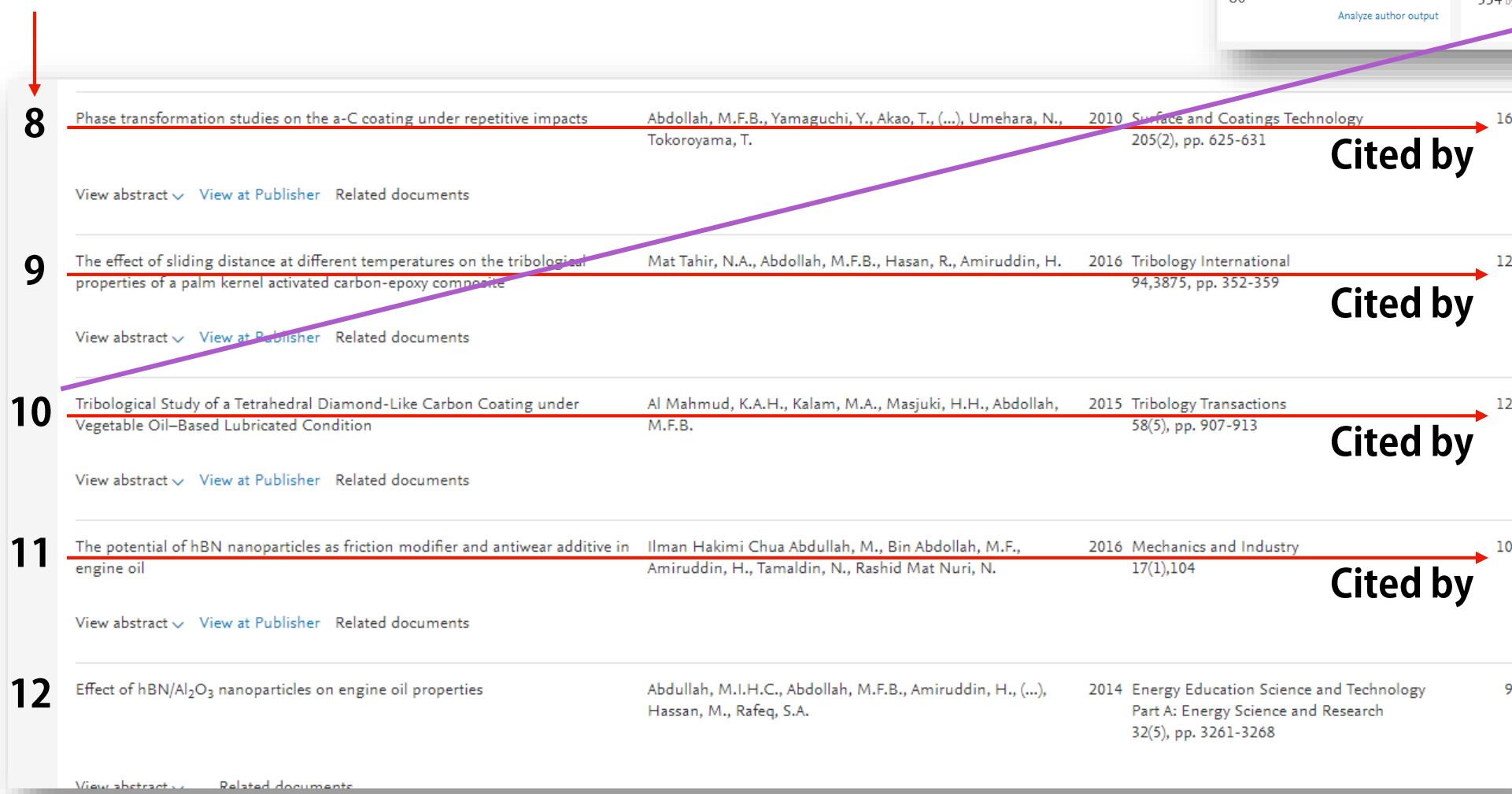
- The h-index is defined as the **maximum value of h** such that the given author/journal has **published h papers** that have each been **cited at least h times**.



| Rank | Article | Times cited | Explanation |
|------|-----------|-------------|--|
| 1 | Article A | 11 | . |
| 2 | Article B | 6 | . |
| 3 | Article C | 4 | ← h-index is 3 |
| 4 | Article D | 3 | ← The citation number here is less than the article rank |
| 5 | Article E | 3 | . |
| 6 | Article F | 1 | . |

What is H-index?

Article rank



Bin Abdollah, Mohd Fadzli

Author ID: 36238801000 [ORCID](#)
<https://orcid.org/0000-0002-2460-2888>

Affiliation(s): [Universiti Teknikal Malaysia Melaka](#), Malacca, Malaysia [View more](#)

Other name formats: [Abdollah, Mohd Fadzli](#) [Abdollah, Mohd Fadzli Bin](#) [Abdollah, M. F.B.](#) [Fadzli Abdollah, Mohd](#) [Abdollah, Mohd Fadzli bin](#)

Subject area: [Engineering](#) [Materials Science](#) [Physics and Astronomy](#) [Energy](#) [Computer Science](#) [Chemical Engineering](#) [Environmental Science](#) [Chemistry](#) [Business, Management and Accounting](#) [Social Sciences](#) [Mathematics](#) [Economics, Econometrics and Finance](#) [Multidisciplinary](#)

Documents by author: 80 [Analyze author output](#)

Total citations: 354 by 259 documents [View citation overview](#)

H-index = 10

[View potential author matches](#)

[View h-graph](#)

H-index Body

Bin Abdollah, Mohd Fadzli **Scopus** [View potential author matches](#)

Author ID: 36238801000 [ORCID](#)
<http://orcid.org/0000-0002-2460-2888>

Affiliation(s): [Universiti Teknikal Malaysia Melaka, Malacca, Malaysia](#) [View more](#)

Other name formats: [Abdollah, Mohd Fadzli](#) [Abdollah, Mohd Fadzli Bin](#) [Abdollah, M. F.B.](#) [Fadzli Abdollah, Mohd](#) [Abdollah, Mohd Fadzli bin](#)

Subject area: [Engineering](#) [Materials Science](#) [Physics and Astronomy](#) [Energy](#) [Computer Science](#) [Chemical Engineering](#) [Environmental Science](#) [Chemistry](#) [Business, Management and Accounting](#) [Social Sciences](#) [Mathematics](#) [Economics, Econometrics and Finance](#) [Multidisciplinary](#)

Documents by author: 80 [Analyze author output](#)

Total citations: 354 by 259 documents [View citation overview](#)

h-index: 10 [View *h*-graph](#)

Bin Abdollah, Mohd Fadzli [Claimed by the author](#) BETA [View Full Profile on Publons](#)

University Teknikal Malaysia Melaka
Fak Kejuruteraan Mekan
DURIAN TUNGGAL, MELAKA, MALAYSIA

Web of Science ResearcherID: M-6875-2013

WoS/Clarivate Analytics

Alternative names: [Bin Abdollah, Mohd Fadzli](#) [Abdollah, M. F. B.](#) [Abdollah, Mohd Fadzli](#) [Abdollah, M. F.](#) [Bin Abdollah, M. Fadzli](#)

Organizations: [2020-2020 Univ Tekn Malaysia](#) [2013-2020 University Teknikal Malaysia Melaka](#) [2006-2019 Universiti Teknologi Malaysia](#) [2017-2017 Fac Mech Engn](#) [2010-2012 Nagoya University](#) [View more organizations +](#)

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Citation Network

H-index: 10
Sum of Times Cited: 334
Citing Articles: 257
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Mohd Fadzli Bin Abdollah; MFB Abdollah [FOLLOWING](#)

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[Dry friction and wear of mat...](#) [Surface engineering](#) [Tribology](#) [Automotive](#)

| | CITED BY | YEAR |
|---|----------|------|
| verification of kenaf fibres as an alternative friction material using Weighted ix method | 58 | 2015 |
| of tribological performance of hBN/Al2O3 nanoparticles as engine oil | 56 | 2013 |

[3 Abdollah, H Amiruddin, N Tamalidin, NRM Nuri](#)
[ering 68, 313-319](#)

Cited by

| | All | Since 2015 |
|-----------------|-----|------------|
| Citations | 612 | 561 |
| <i>h</i> -index | 14 | 13 |
| i10-index | 18 | 15 |



Mohd Fadzli Bin Abdollah **Publons** [Web of Science ResearcherID M-6875-2013](#)


"MFB Abdollah"
[Universiti Teknikal Malaysia Melaka](#)

| PUBLICATIONS | TOTAL TIMES CITED | H-INDEX | VERIFIED REVIEWS | VERIFIED EDITOR RECORDS |
|--------------|-------------------|---------|------------------|-------------------------|
| 154 | 334 | 10 | 149 | 18 |

Can I have more than one profile name?

Bin Abdollah, Mohd Fadzli

Author ID: 36238801000 ⓘ

 <http://orcid.org/0000-0002-2460-2888>

Affiliation(s): ⓘ




Universiti Teknikal Malaysia Melaka, Malacca, Malaysia [View more](#) ▾

Other name formats:

Abdollah, Mohd Fadzli Abdollah, Mohd Fadzli Bin Abdollah, M. F.B. Fadzli Abdollah, Mohd Abdollah, Mohd Fadzli bin

[View potential author matches](#)

Profile actions

-  [Edit author profile](#)
-  [Connect](#) Click to request author d
-  Alerts
 - [Set citation alert](#)
 - [Set document alert](#)

What will you be able to do: ✕

- Set the preferred name
- **Merge Profiles**
- Add and remove documents
- Update Affiliation Added new feature

Before you can make any changes, you must sign in:

[Sign in](#)


[View potential author matches](#)

[Edit author profile](#)

Researcher ID

Bin Abdollah, Mohd Fadzli

Author ID: 36238801000 ⓘ

 <http://orcid.org/0000-0002-2460-2888>

Affiliation(s): ⓘ

Universiti Teknikal Malaysia Melaka, Malacca, Malaysia

Other name formats:

Scopus

Bin Abdollah, Mohd Fadzli

✓ Claimed by the author BETA

University Teknikal Malaysia Melaka
Fak Kejuruteraan Mekan
DURIAN TUNGAL, MELAKA, MALAYSIA

Web of Science ResearcherID: M-6875-2013 ⓘ

WoS/Clarivate Analytics


ORCID

Registry ▾

Search

Mohd Fadzli Bin
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FAQ



WEB OF
SCIENCE

Researchers ▶ Mohd Fadzli Bin Abdollah



Mohd Fadzli Bin
Abdollah

"MFB Abdollah"

Universiti Teknikal Malaysia Melaka

Web of Science
ResearcherID[®]
M-6875-2013

PUBLICATIONS

154

TOTAL TIMES CITED

334

H-INDEX

10 ⓘ

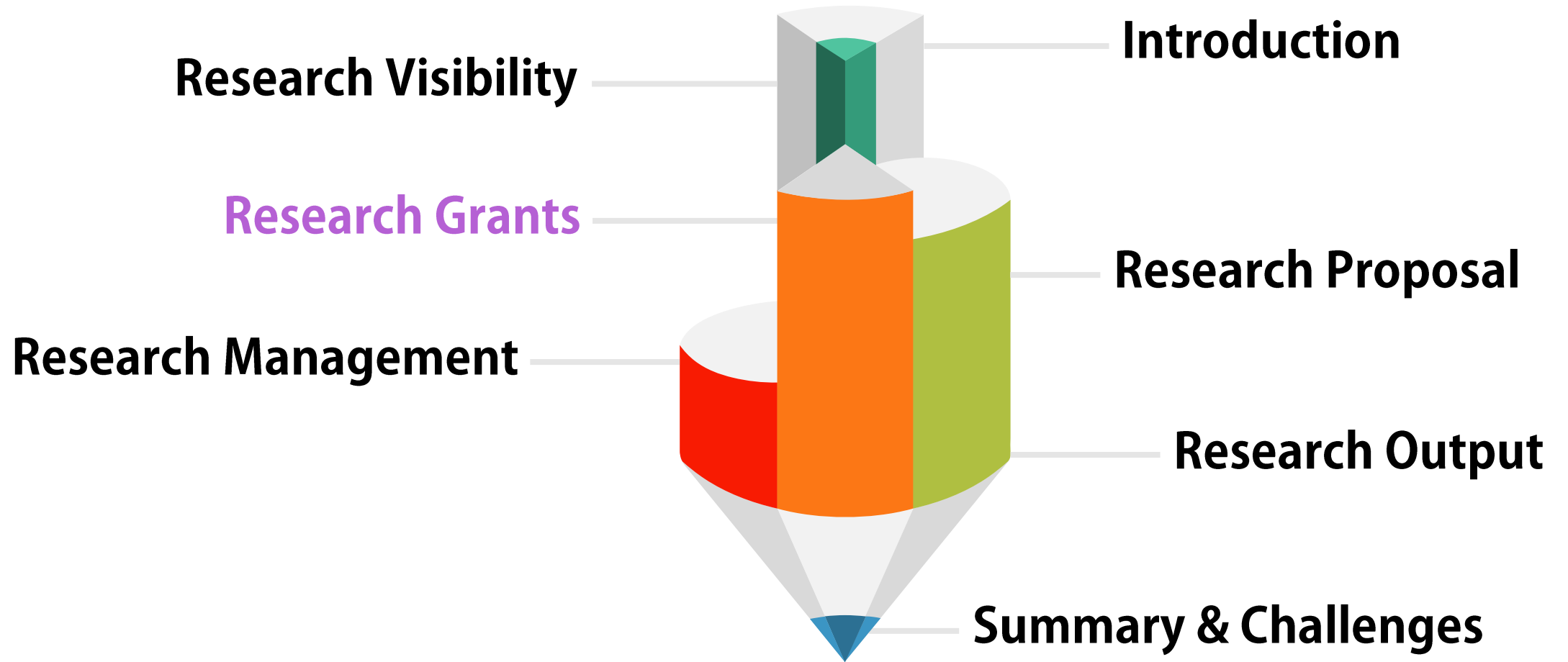
VERIFIED REVIEWS

149

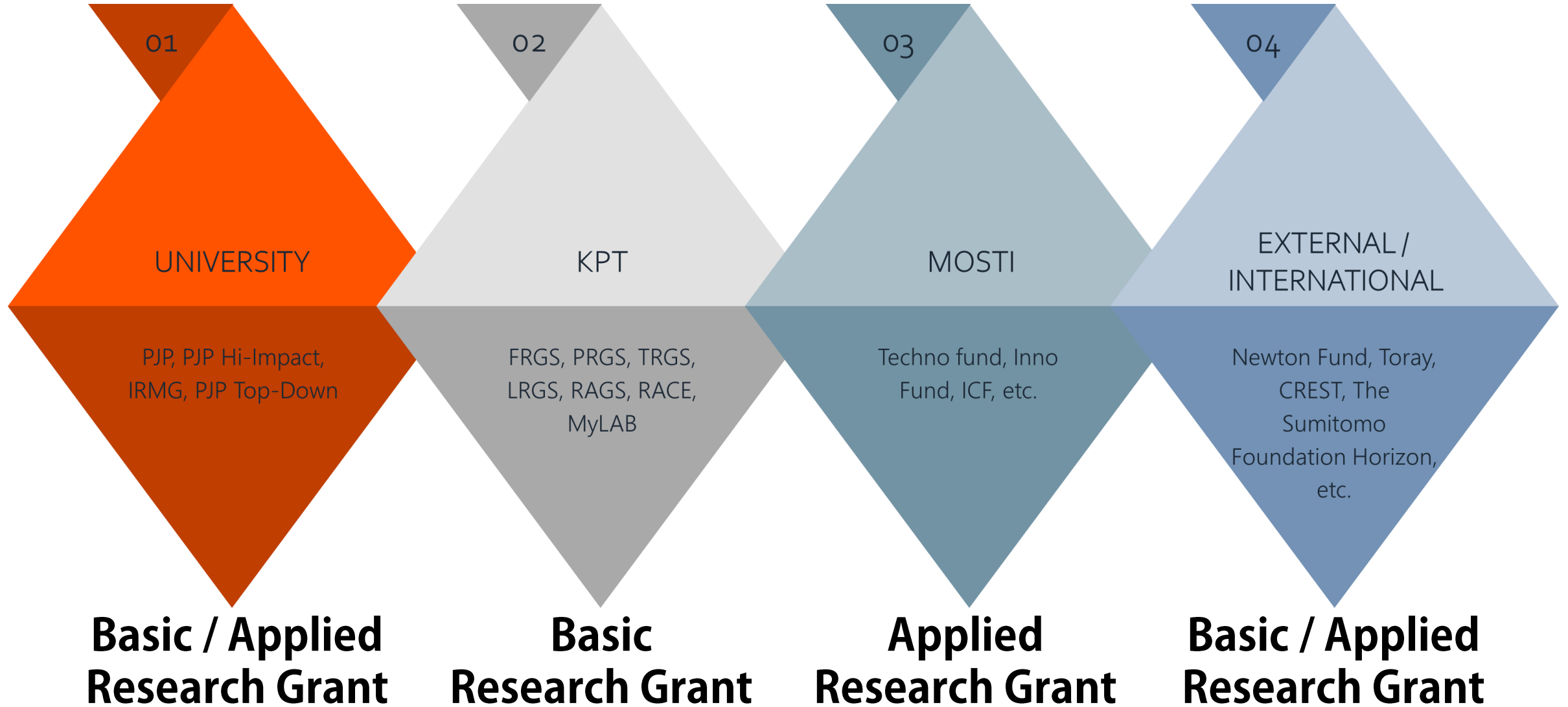
VERIFIED EDITOR RECORDS

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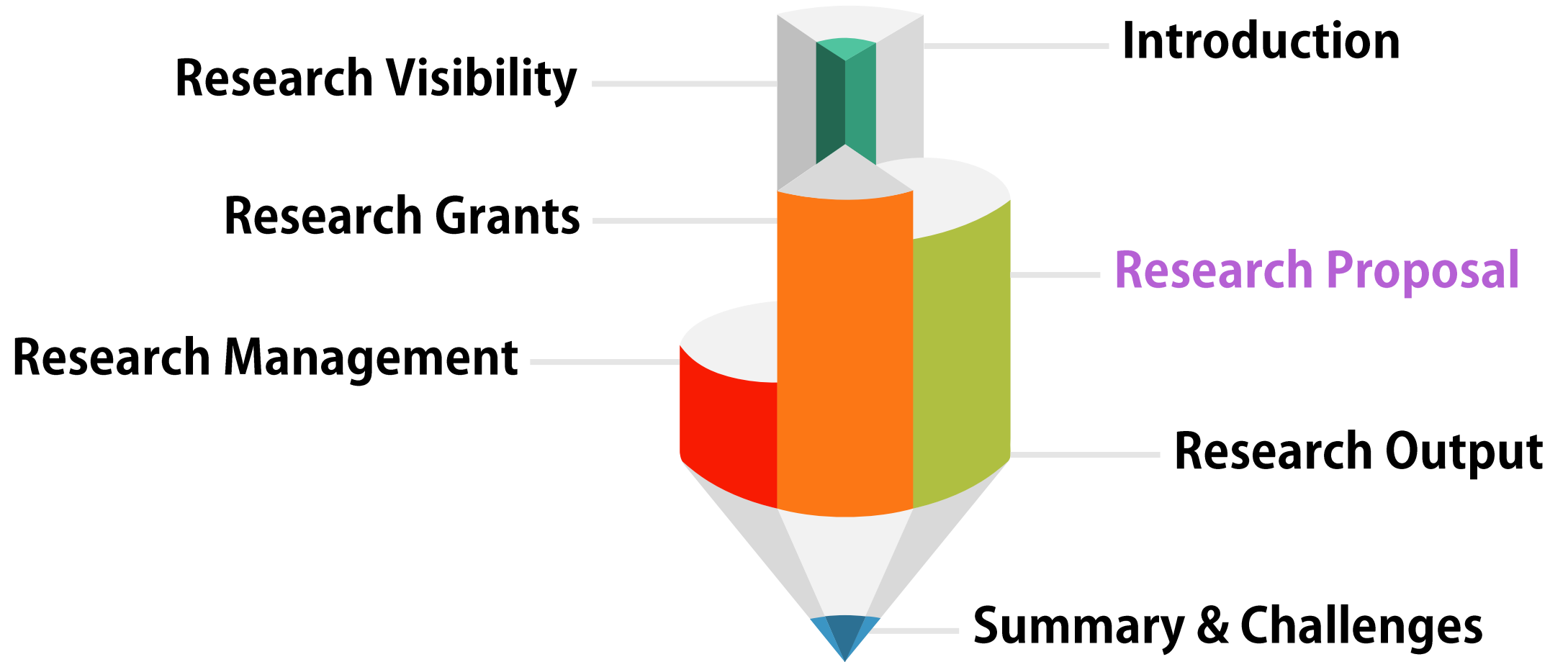
Highlights



Research Grants



Highlights



Basic Proposal Outline

- **Research title / Keywords.**
- **Executive summary.**
- **Research Problem.**
- **Hypothesis.**
- **Research questions.**
- **Objectives.**
- **Methodology.**
- **Schedule / Milestones**
- **Expected results / Outcomes**

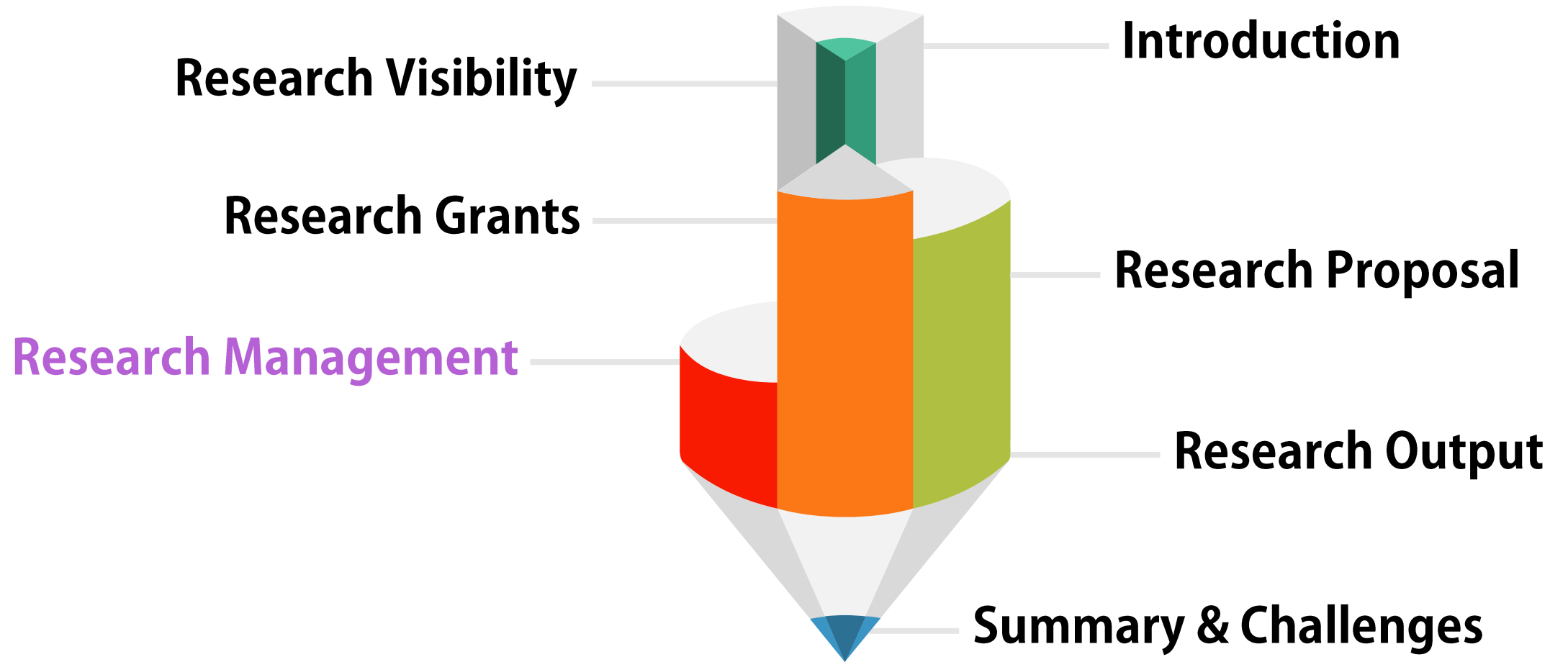
Practical Tips for Excellent Proposal

- **Articulates problem accurately.**
- **Provide appropriate background.**
- **Manageable within the time.**
- **Cost-effective.**
- **Linked to defined outcomes.**
- **Clear methodology.**
- **Seen to make a contribution to the field.**
- **Concise writing.**
- **Demonstrates right team approach.**
- **Last but not least ... Read the guidelines A-Z and stick to them.**

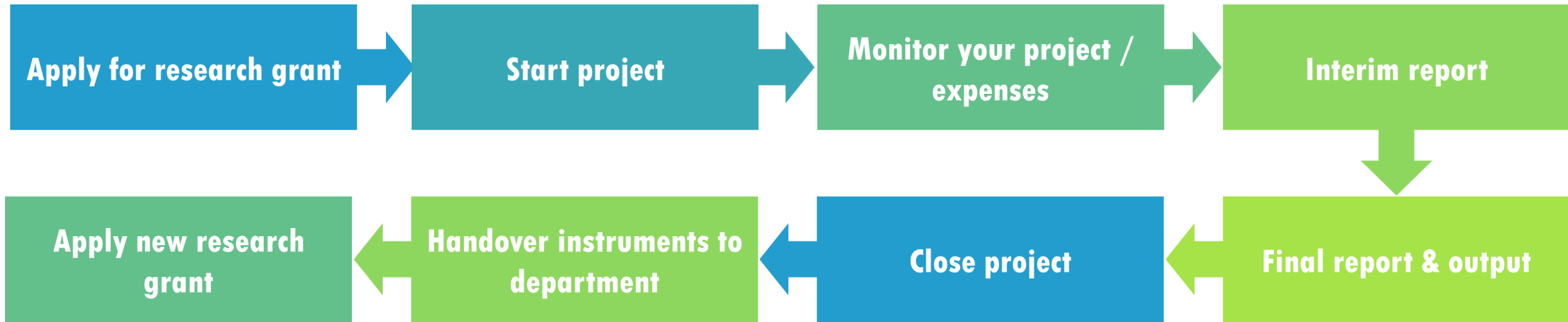
Common Reason Why the Proposal is Being Rejected

- **Technical knock-out: doesn't follow guideline.**
- **Doesn't match with the theme.**
- **Feasibility issues – team, facility, methodology.**
- **Less novelty / Problem statement unclear**
- **Language issues.**
- **Proposal writing / presentation.**
- **Last but not least ... Luck.**

Highlights



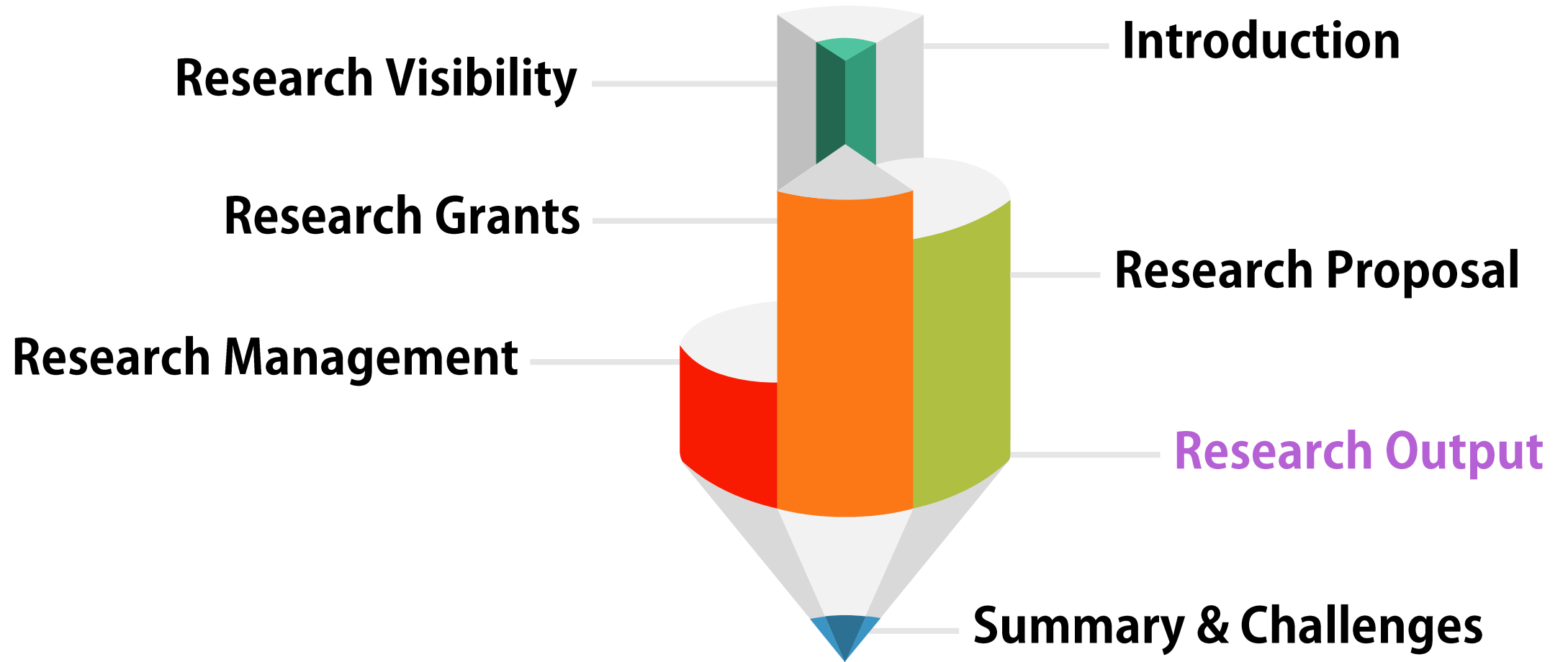
Good Governance of Research Grant



Financial Management

- **Spend money in accordance with the rules & guidelines.**
- **PI needs up-to-date accounting information.**
- **Expenditures are within the given budget.**
- **Compare expenditures with projected expenses per year.**
- **Last but not least ... plan virement if necessary.**

Highlights



Research Output

01

Human Capital

MSc, PhD, DEng

02

Publication

**At least publication of
papers in Scopus-
indexed journals**

03

**Intellectual
Properties**

**Copyright, Industrial
Design, Patent
(Details on MyIPO
website)**

04

**Innovation
Competition**

**UTeMEX, MTE,
PECIPTA, Bio-
Malaysia, etc.**

Human Capital

- **Ciri-ciri yang dinyatakan di dalam Al-Quran untuk menjana modal insan yang berkualiti:**
 - **menguasai ilmu,**
 - **berfikiran luhur,**
 - **memiliki akhlak tinggi,**
 - **bertoleransi,**
 - **mempunyai daya saing.**

(Mustafa Kamal et. al 2010)

Facts About Publication

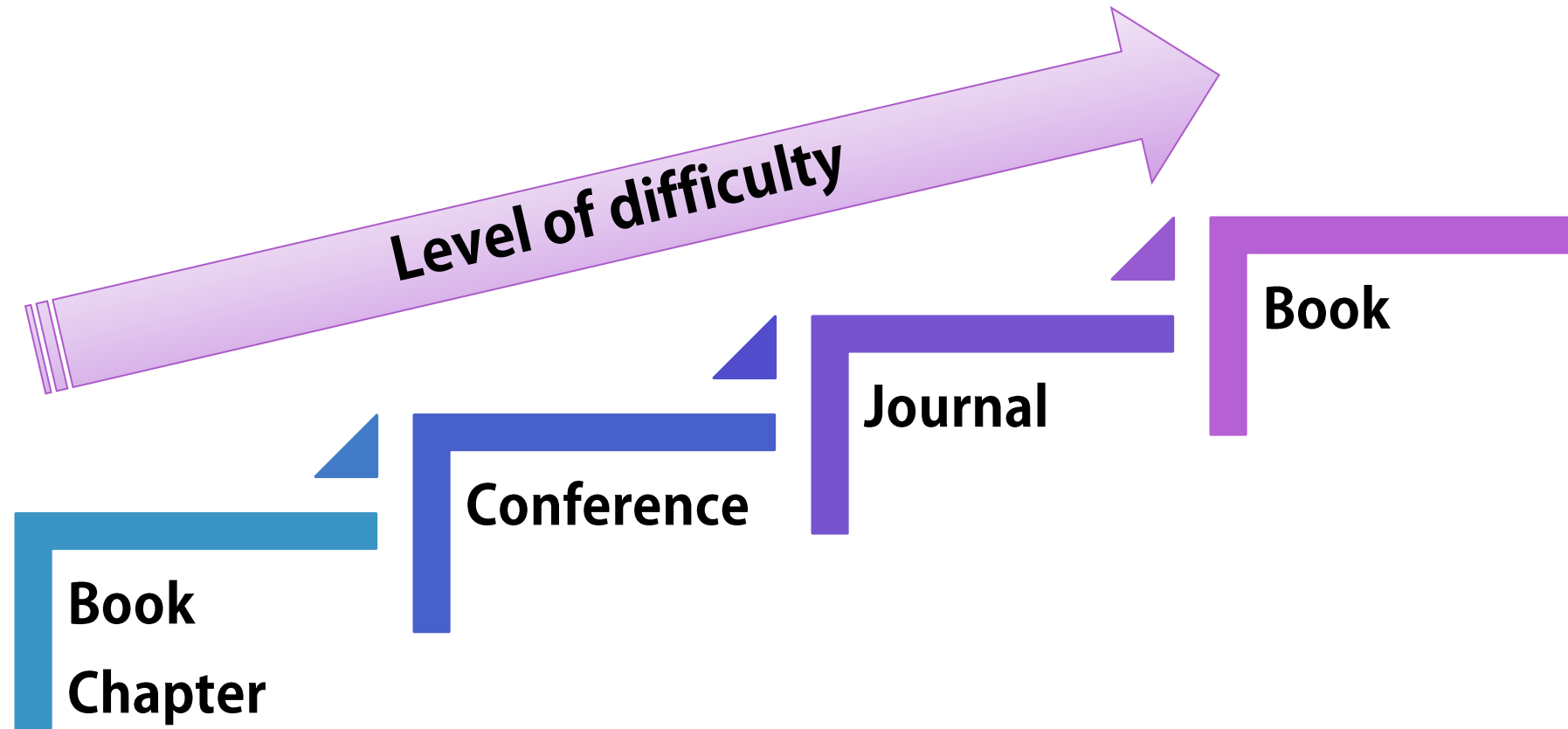
- Your research is **worthless unless it is published.**
- The **value of an article increases** when it is being cited in other research articles.
- The publication is the **knowledge sharing.**
- You “publish or perish”.

Being published means your paper ...

- is **permanent**.
- appears in **print and/or electronically**.
- is **improved** via the review process.
- is actively **promoted** by the publisher.
- is **trustworthy** – material that has been published carries a QA stamp.

Publication Types

- Journal papers
- Proceeding papers (Conferences, Workshops, Colloquiums etc.)
- Magazine papers
- Letters
- Patents
- Theses
- Chapter in a book
- Books
- and so on.



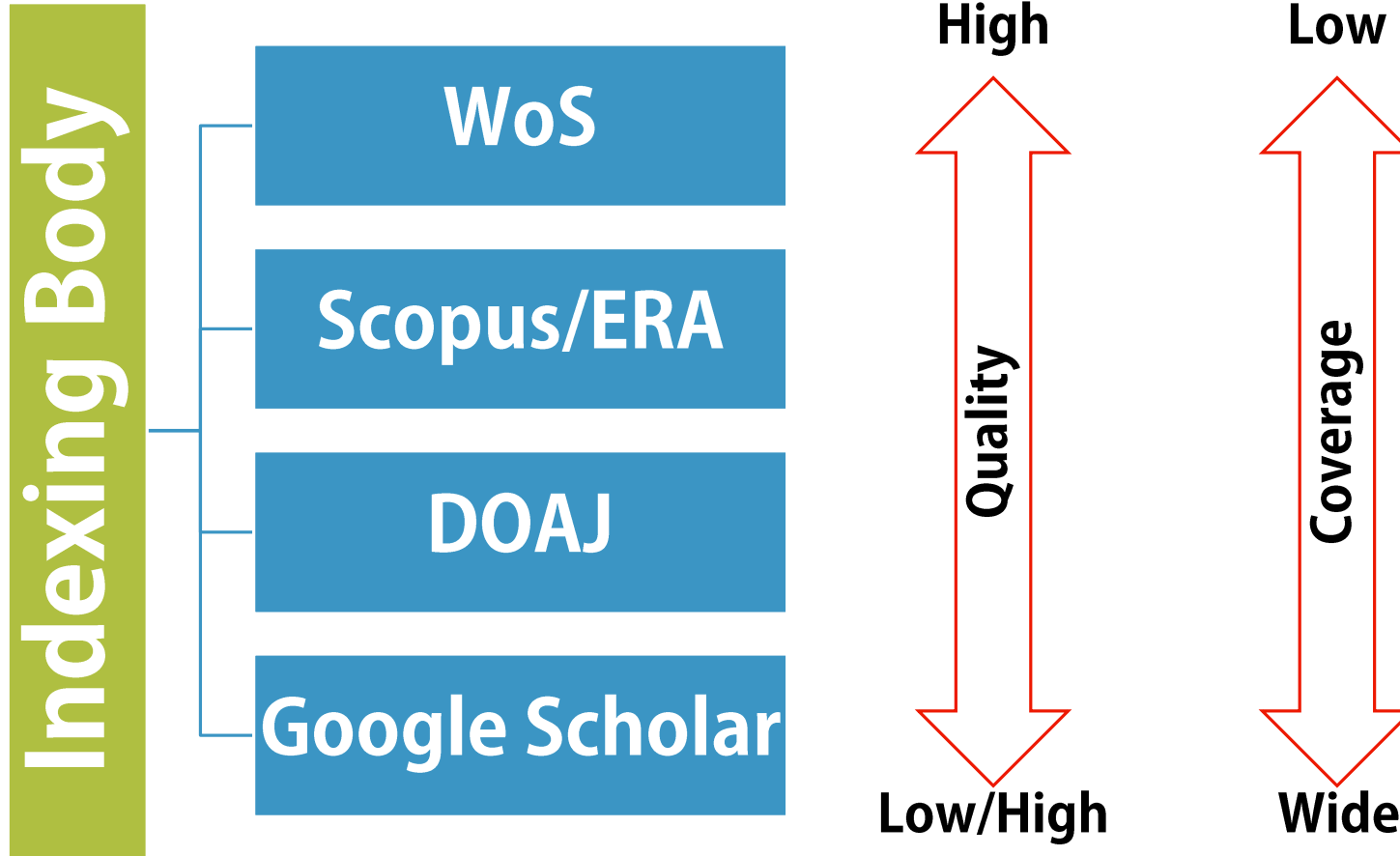
How to Select the Right Journal?

- Choosing a journal to publish in is an investment decision. A good choice can **enhance the impact of your work and your reputation**.
 - Factors to consider are **relevant** readership, recent articles, communicative, societies and internationality, likelihood of acceptance, circulation, **time** from submission to publication.
 - What **type of paper** are you planning to write i.e. practice paper, research paper, case study, review, viewpoint? Check first what type of paper the journal accepts.
 - Be **strategic** (e.g. five articles in international peer reviewed journals vs one in 'top' ranked journal).

How to Select the Right Journal?

- Use the Journal Finder Tool:
 - <https://authorservices.taylorandfrancis.com/journal-suggester>
 - <https://journalsuggester.springer.com>
 - <https://journalfinder.wiley.com/search?type=match>
 - <https://journalfinder.elsevier.com>

How to Select the Right Journal?



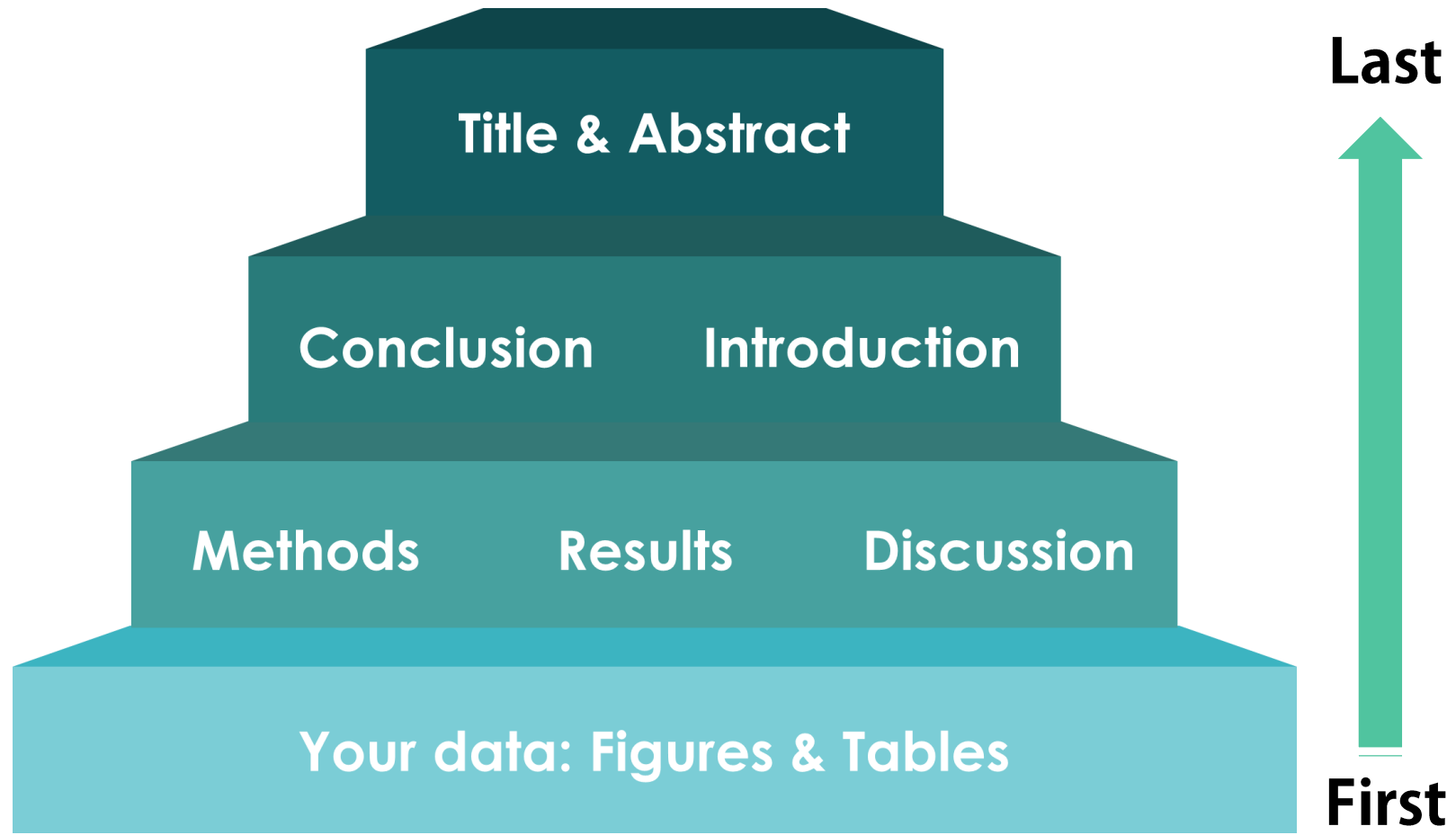
The common types of journal papers ...

- **Full-length article**
- **Short communication**
- **Review**
- **Short review**



Original research

Building the Manuscript



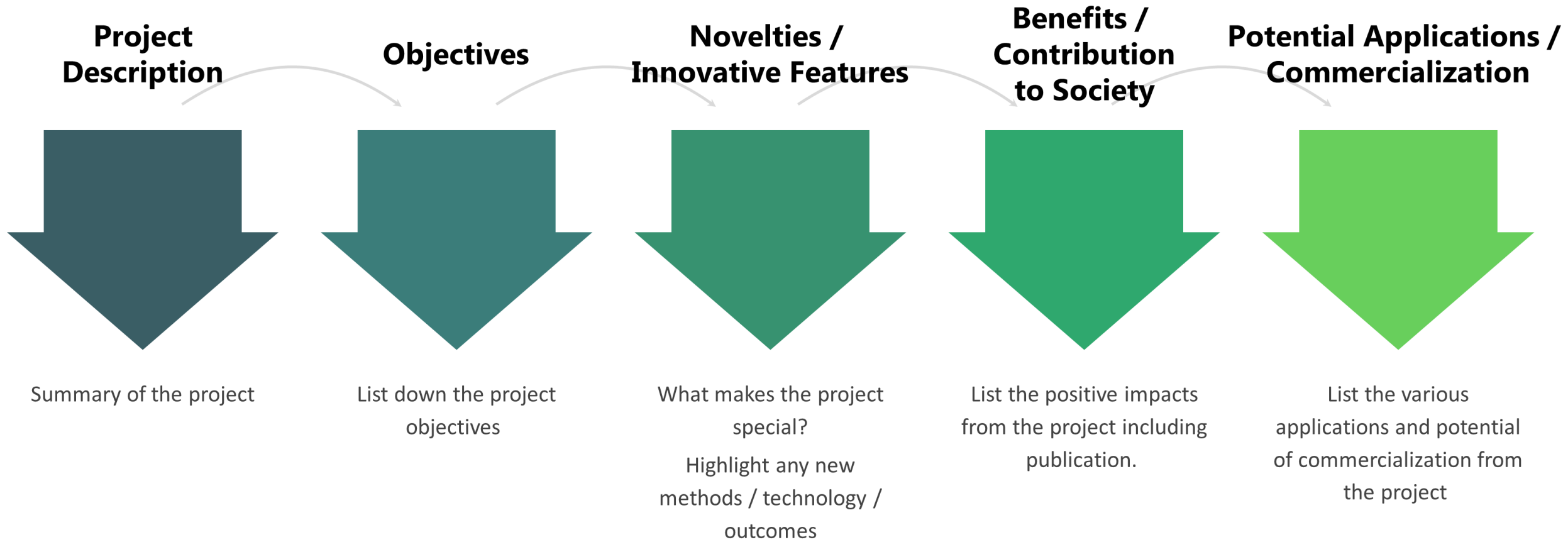
Preparing for Innovation Competition

- **Poster Presentation**
- **Criteria for evaluation / assessment.**
 - **Novelty and inventiveness**
 - **Contribution to New Knowledge/Technology**
 - **Usefulness**
 - **Relevance of the invention in solving the problem(s) concerned.**
 - **Contribution of the invention to health, safety, education(s), etc (Sociality's impact)**
 - **Commercial Potentialities**
 - **Market potential on the invention.**
 - **Evidence of market needs.**
 - **Product comparable or superior to similar products in the market.**

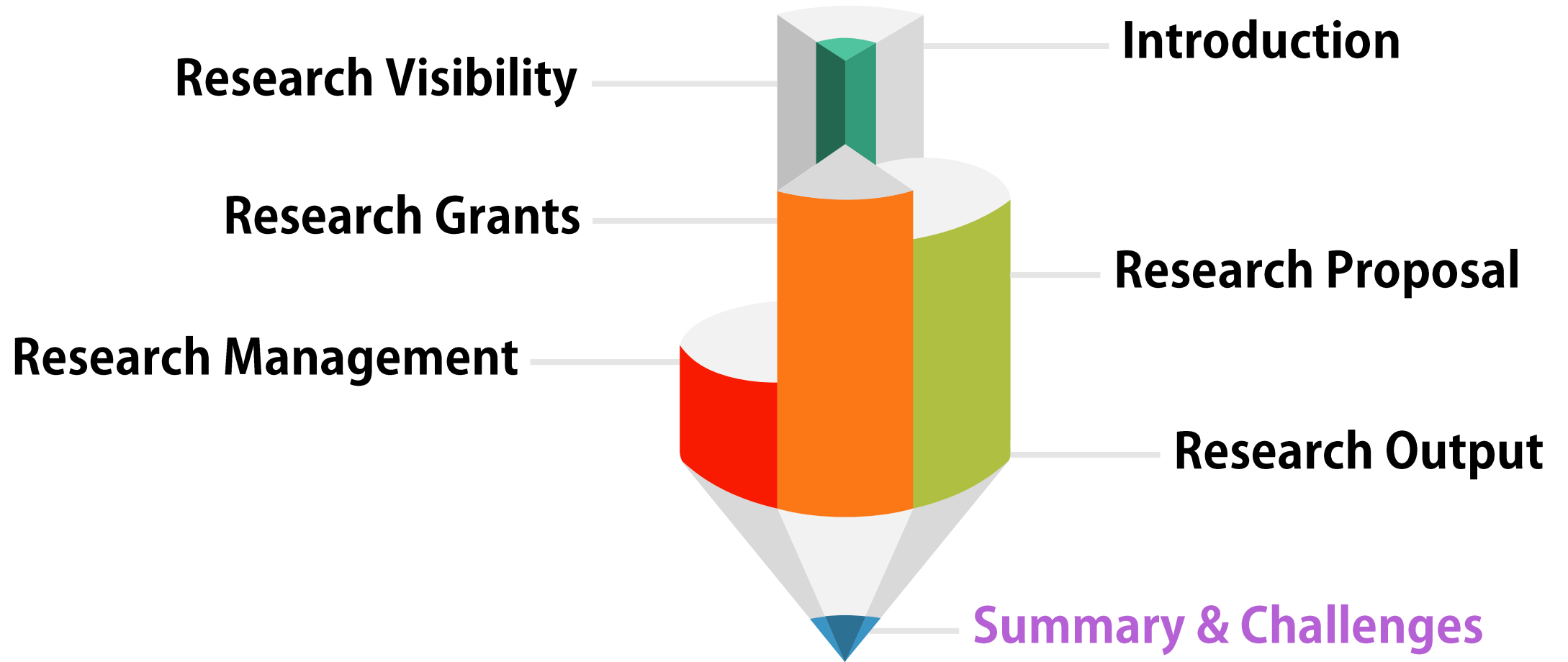
What Makes a Good Poster?

- Important information should be readable clearly.
- Title is short and draws interest.
- Word count of about 300 to 800 words.
- Text is clear and to the point.
- Use of bullets, numbering, and headlines make it easy to read.
- Effective use of graphics, color and fonts.
- Consistent and clean layout.
- Includes acknowledgments, your name and institutional affiliation.
- Last but not least ... Overview on how to make the best scientific poster can be refereed to <https://www.makesigns.com/tutorials>

Poster Contents



Highlights



What have you learned?

- 1. XXX**
- 2. XXX**
- 3. XXX**

**What are your biggest challenges 「read as a future tense」
when conducting research at UTeM?**

- 1. XXX**
- 2. XXX**
- 3. XXX**

Thank
You!