Maximising Your Chances of Research Grant (CRF/FDS) Funding: Comprehensive Checklist and Actionable Tips

Welcome! The webinar starts at 4 pm HK time.

Feel free to leave any questions you have about the topic in the Q&A box

Purpose

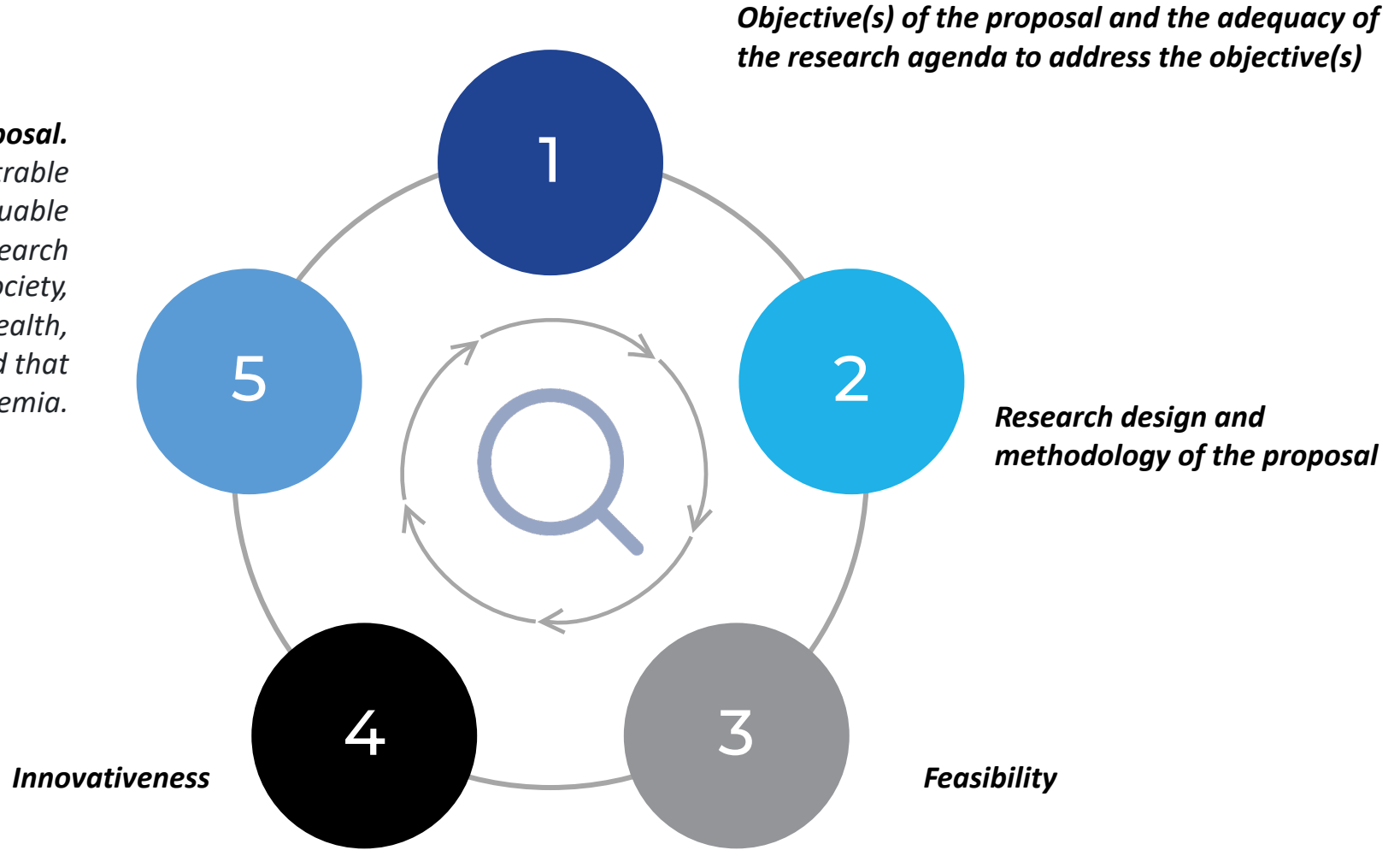## Faculty Development Scheme (FDS)

The FDS is designed to develop the research capability of individual academic staff in local self-financing degree-awarding institutions to enable them to **transfer their research experiences and new knowledge into teaching and learning**. It is expected that Principal Investigators (PIs) will deliver research outputs leading to advances in knowledge that could be transferred into teaching and learning, and insights of interest and / or value to the research community, including publications, patents, etc.

Collaborative Research Grant (CRG)

The IDS Collaborative Research Grant aims to encourage and support **collaborative research involving two or more self-financing institutions**, and / or group research activities that operate across disciplines within an institution, with a view to **enhancing the research output of self-financing institutions in terms of the level of attainment, quality, dimensions and / or speed**.

FDS: Assessment Criteria

Objective(s) of the proposal and the adequacy of the research agenda to address the objective(s)
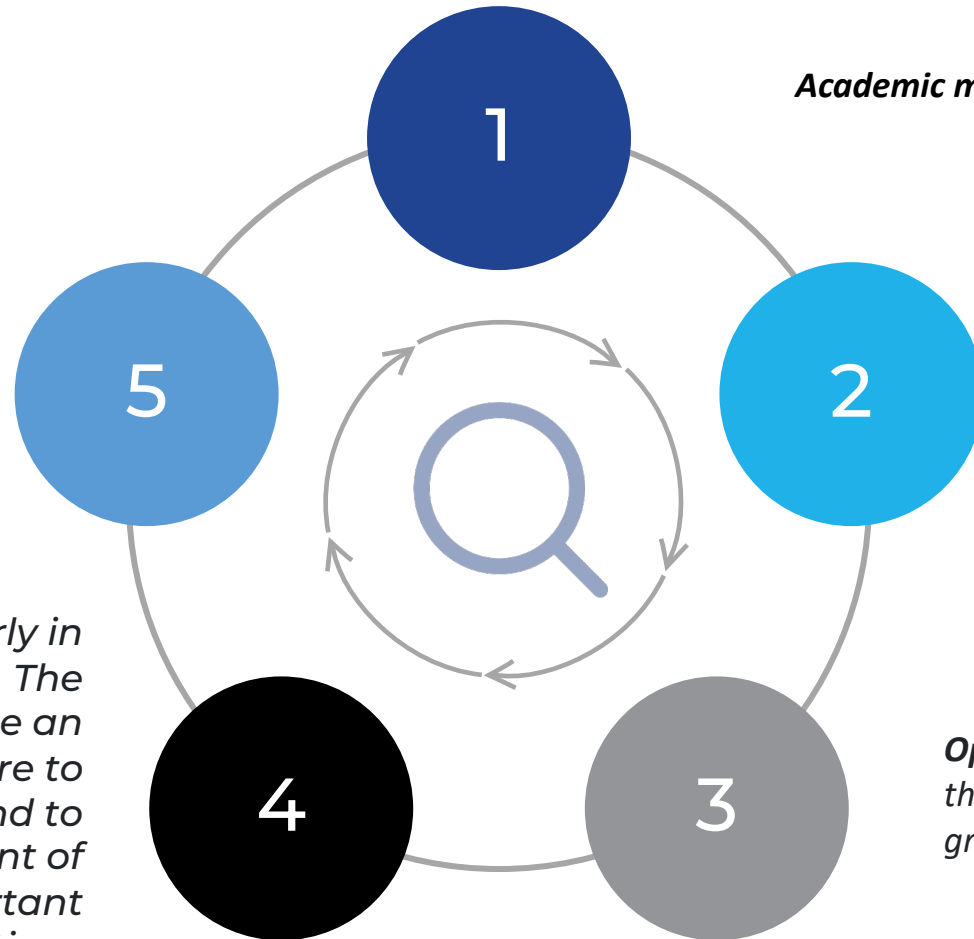
Potential research impact of the proposal. which is defined as the demonstrable contributions, beneficial effects, valuable changes or advantages that the research qualitatively brings to the economy, society, culture, public policy or services, health, the environment or quality of life; and that are beyond the academia.

1

5

2

Research design and methodology of the proposal

4

3

Innovativeness

Feasibility

CRG: Assessment Criteria

Potential research impact of the proposal, *which is defined as the demonstrable contributions, beneficial effects, valuable changes or advantages that the research qualitatively brings to the economy, society, culture, public policy or services, health, the environment or quality of life; and that are beyond the academia.*

Academic merit

1

5

2

4

3

Long-term goal *of the proposal and its potential to develop into an area of strength*

Viability of the proposal, *particularly in terms of its project management. The project team's ability to put in place an effective governance structure to monitor collaborating work and to ensure prudent deployment of resources would be important considerations*

Opportunities for effective synergy *among the participating researchers, research groups and institutions*

Convince the Reviewers

1 Passion & Prudence

How can your team enthusiastically offer its expertise to advance the field, help society, use funding well & deliver value, with minimal financial risk?
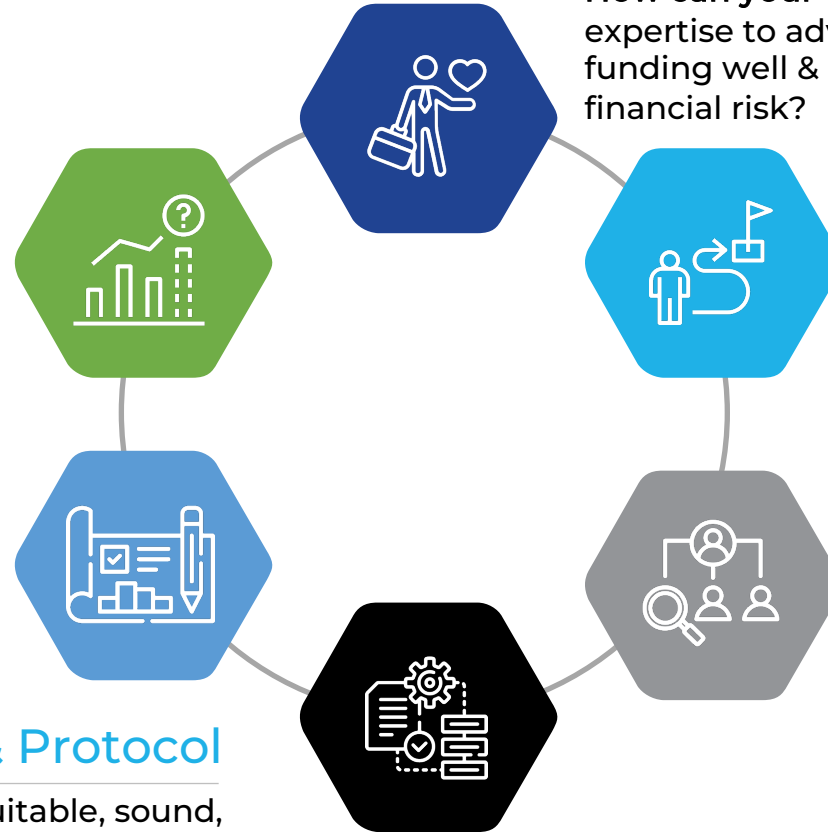
6 Prediction & Promise

What will be the results & benefits? Who will benefit, when & for how long? How can your innovation be scaled up or commercialised, or promote collaboration? How will you make the funder look good?

2 Purpose & Principles

What is the main problem that needs solving, what are key issues/ reasons/ factors & why should the funders care (motivation)?

5 Preparation & Precaution

Is your solution feasible, cost-effective & based on pilot studies? Will results be validated? How will you address limitations or funders' doubts?

3 Positioning & Pitch

Why has the problem been ignored or not (completely) solved? Why does it matter? What is the specific problem (technical, practical, analytical, conceptual) you can realistically solve?

4 Process & Protocol

Is your solution original, suitable, sound, ethical & better than others / your past rejected version; detailed enough to clearly explain methods & itemised budget (eg, Staff/Equipment/General)?

Create an Effective Title

	Clear and Concise	Title should be straightforward and avoid unnecessary jargon. It should give a clear idea of the research topic without being too wordy. ✓ "The Role of Gut Microbiota in Type 2 Diabetes Progression" ✓ "The Effects of Urbanization on Bird Migration Patterns"
	Specific	Should be specific enough to give reviewers a clear sense of the research focus. ✗ "Cognitive Behavioural Therapy for Depression" ✓ "Evaluating the Efficacy of Cognitive Behavioural Therapy in Treating Adolescent Depression"
	Engaging	Should be academic, but also capture the interest of the reviewers. ✓ "Unlocking the Secrets of the Deep: Exploring Marine Biodiversity in the Mariana Trench" ✓ "From Farm to Table: Tracing the Journey of Organic Produce"
	Avoid Abbreviations	Unless they are widely recognised, avoid using abbreviations or acronyms in the title. ✗ "Role of BDNF in Memory Formation" ✓ "Role of Brain-Derived Neurotrophic Factor in Memory Formation"
	Reflect the Research Question or Hypothesis	Should give a hint about the main research question or hypothesis you're investigating. ✓ "Does Early Exposure to Multiple Languages Enhance Cognitive Flexibility in Children?" ✓ "Investigating the Correlation Between Air Pollution Levels and Respiratory Diseases in Urban Areas"
	Avoid Sensationalism	Avoid sensational or over-hyped titles. The title should reflect the serious and academic nature of the research. ✗ "Solar Energy: The Ultimate Solution for Power Crises!" ✓ "Assessing the Potential of Solar Energy in Semi-Arid Regions"
	Avoid Technical Language	Review panel might include experts from various disciplines. Title should be understandable to someone outside your specific field. ✗ "Analysing the Cardiomyopathic Potential of Mutated MYH7 Genes" ✓ "The Role of Mutated Genes in Heart Disease"

Abstract

- Word limit of 400 words/one A4 page – longer than for a paper
- Must stand alone and be understandable to non-experts
    - Avoid using jargon and technical terms
    - Avoid acronyms
    - No references
- Must convince the reader that the project is necessary, important, and achievable
    - Define problem/need/knowledge gap
    - Emphasise why it is important – what/who will benefit?
    - Promote your/your team's expertise
- State aims and objectives
    - Use key statements from Project Objectives and Research Project Statement
- Propose research question/central hypothesis/approach
- Define key variables, sample size, treatments, data sources and analyses, measurable outcomes
- Emphasise strengths of your study design, anticipated results, contribution to your field/specific populations

Project Objectives

Word limit: 800 words/two A4 pages – bullet points

Aim: To test how [independent variable] is linked to [dependent variable] among [group].

Rationale:

- Define important problem/issue, unmet need, or knowledge gap; critique past solutions.
- Identify key variables; clarify specific problem and highlight solutions tried so far, a feasible new solution, and an answerable research question and/or testable central research hypothesis.
- Propose a feasible approach. Mention any pilot study/ collaboration.
- Propose a general goal, aim and study design.

Objectives:

To achieve the study aim, we propose the following objectives:

- *Objective 1:* To determine/test/assess/evaluate/validate/examine...
  - Specific research hypothesis: X will affect Y... / Specific research Q: How does X affect Y?
  - Strategy/Approach: We will test this hypothesis / answer this Q by [Method]...
  - Deliverable: This objective will achieve/establish/generate... [Performance measure evaluation & any alternatives]
- *Objective 2:...*
- *Objective 3:...*

Possible outcomes & impact: The study will overcome past challenges in... and will provide information on... / identify/clarify... among [group]. The results will allow/elucidate/ improve/facilitate... and inform practice/policy/service/priorities... for [population/s & setting/s].

Pathways to Impact Statement

Demonstrable contributions, beneficial effects, valuable changes or advantages that research qualitatively brings to the <u>economy, society, culture, public policy/services, health, environment, or quality of life</u> whether locally, regionally or internationally; and that are <u>beyond academia</u>.

Who will benefit in the short (1–3 years), medium (4–10 years) and long (over 10 years) term?

How will they benefit? Objective, measurable benefits beyond academia

What will be done during & after the project to achieve the identified benefits?

Research Grants Council (RGC), HK University Grants Committee (UGC)

Pathways to Impact Statement

Maximum two A4 pages

Summary:

Briefly explain the study problem, potential solution, new knowledge/insight and real-world applications.

i) Potential beneficiaries:

- **Short term** (1-3 years): e.g., local practitioners/patients

- **Medium term** (4-10 years): e.g., global practitioners/patients

- **Long term** (>10 years): e.g., local & global health departments, hospitals, populations

ii) Potential benefits:

- **Types**: e.g., cost-efficient practice, well-being, reduced hospitalisation

- **Extent**: e.g., long-term health, sustained reduced health spending, worldwide

iii) Proposed activities / consultations / collaborations:

- **Link to project objectives:** make it clear how the activities link to the anticipated impacts

- **Engage stakeholders:** if possible, incorporate their feedback

- Activities before/during project:

  - Activity: e.g., focus-group discussions for service delivery improvement

  - Group/s: e.g., practitioners & patients

  - Plan: e.g., online meetings on satisfaction & attitudes; included in ethics approval

  - Deliverable/outcome: e.g., recommendations to develop local service, self-help groups

- Activities after project:

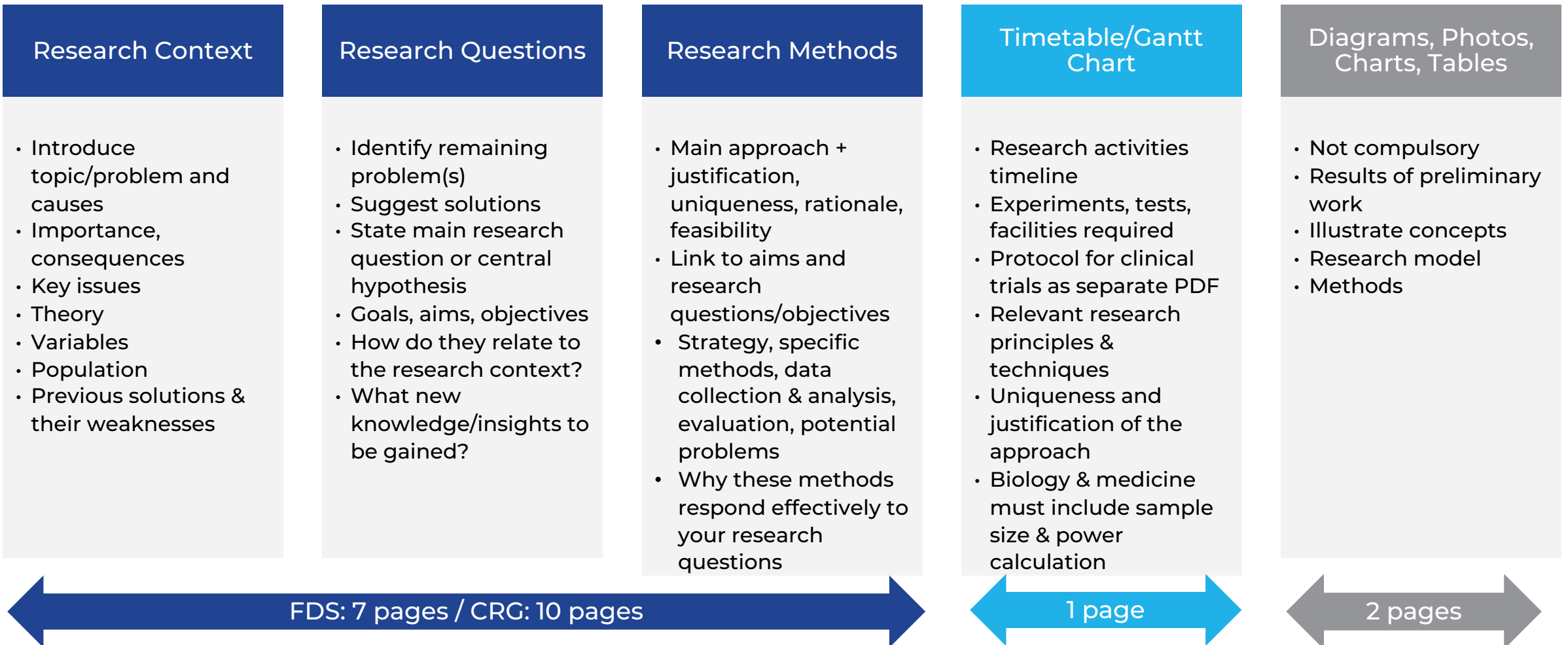 - Activity: e.g., consensus building

  - Group/s: e.g., expert practitioners

  - Plan: e.g., 5 meetings for systematic review & guideline production

  - Deliverable/outcome: e.g., new methodologies, technologies, applications, consensus guidelines, global media promotion

Pathways to Impact Statement

- **Start with the Big Picture:** Begin by outlining the overarching problem or challenge your research addresses. This sets the stage for the reader to understand the broader context.
- **Be Clear and Concise:** Avoid jargon and overly technical language. Your statement should be understandable to a broad audience.
- **Quantify When Possible:** Use numbers, statistics, or percentages to give a clearer picture of the potential impact. For example, "Our research could benefit the 30% of the population suffering from XYZ."
- **Highlight Broader Impacts:** Discuss how your research can benefit society, the environment, the economy, or other broader areas. This could include creating new technologies, informing policy decisions, improving health outcomes, etc.
- **Include Potential for Innovation:** Highlight how your research might lead to new methodologies, technologies, or novel applications. Emphasize its uniqueness and what sets it apart from existing work.
- **Engage with Stakeholders:** If possible, engage with potential beneficiaries of your research (e.g., patients, policymakers, industry leaders) and gather their insights. Incorporate their feedback or testimonials to strengthen your impact statement.
- **Link to the Project's Objectives:** Make sure there's a clear connection between the proposed research activities and the anticipated impacts. This helps reviewers see the direct line from your work to the potential outcomes.
- **Provide Evidence or Precedents:** If there are previous studies or projects that have led to significant impacts, mention them as evidence that your research can achieve similar outcomes.

Research Project Statement

Research Context

- Introduce topic/problem and causes
- Importance, consequences
- Key issues
- Theory
- Variables
- Population
- Previous solutions & their weaknesses

Research Questions

- Identify remaining problem(s)
- Suggest solutions
- State main research question or central hypothesis
- Goals, aims, objectives
- How do they relate to the research context?
- What new knowledge/insights to be gained?

Research Methods

- Main approach + justification, uniqueness, rationale, feasibility
- Link to aims and research questions/objectives
- Strategy, specific methods, data collection & analysis, evaluation, potential problems
- Why these methods respond effectively to your research questions

Timetable/Gantt Chart

- Research activities timeline
- Experiments, tests, facilities required
- Protocol for clinical trials as separate PDF
- Relevant research principles & techniques
- Uniqueness and justification of the approach
- Biology & medicine must include sample size & power calculation

Diagrams, Photos, Charts, Tables

- Not compulsory
- Results of preliminary work
- Illustrate concepts
- Research model
- Methods

FDS: 7 pages / CRG: 10 pages | **1 page** | **2 pages**

Project Plan Checklist

Define specific project

- Well-grounded, convincing & important research Q or hypothesis; funder's past topics?

- Thorough literature search; what is new?

- Project size/scope, duration, location, setting; appropriate sample selection & size?

- Sound study design & protocol, ethical considerations, diversity/inclusion aspects?

- Reproducibility, validity/reliability, controls & replicates, bias/confounders, data handling plan?

- Clear criteria for success, cut-off values; limitations, contingency plan; expected results?

- Dissemination & impact esp. outside academia?

Appropriate team/institution

- Principal investigator (PI), co-investigators (Co-Is), statisticians: specific study expertise

- Institution: well-equipped, support/approval

Ethics: conflicts of interest; no plagiarism, falsification, double-funding

Proposed timeline & budget: realistic schedule & costs (with quotes)? Costs of data management, publication, knowledge exchange?

Supporting data: proof of concept / pilot results

Supporting files: letters of collaboration, ethics approval, clinical trial protocol

References: up to 3 pages, standard formats (e.g., APA, Harvard)

Reflective Report on 2023/2024 FDS

For some weaker proposals, research objectives were not articulated clearly and specific research questions were not well-defined. There was lack of strong argument for theoretical frameworks in some proposals. Some proposals did not address limitation issues and discuss how the limitation would be addressed in the study. PIs were advised to include potential ethical considerations in the proposals, where applicable.

Some proposals were less well-developed and did not have sound research methodologies to investigate the research issues. Some proposals failed to make a niche contribution to the literature. PIs were advised to include a well-thought-out plan for dissemination of research findings.

Verb Tense

Future

A proposed study has not yet been conducted so **always** use **future tense** when referring to it
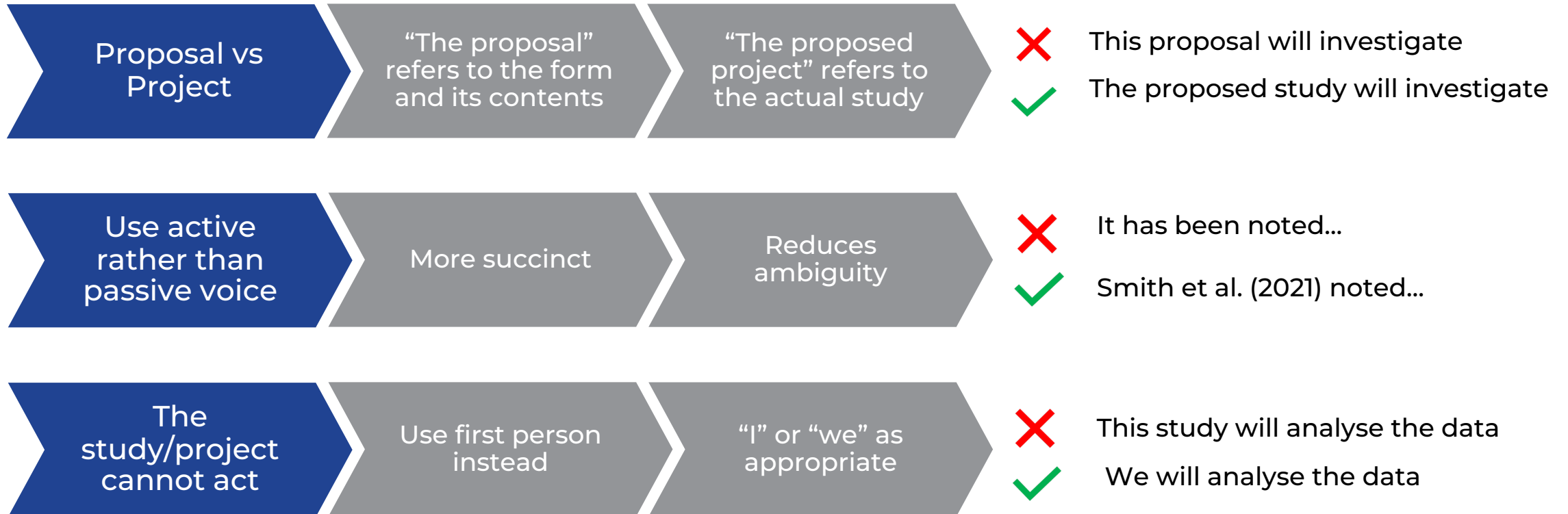
- The proposed study *will investigate*

- The aim of the study *will be* to

- Participants *will be* recruited

Past

Things that are **already done** – e.g., descriptions of previous studies by you and others – should be in **past or present perfect tense**, or follow field-specific norms

- In our pilot study, *we found*

- A previous study (Smith et al., 2021) *showed*

- Our preliminary results *indicated*

- Several studies *have investigated*

Avoid Confusing Language

Proposal vs Project	"The proposal" refers to the form and its contents	"The proposed project" refers to the actual study

❌ This proposal will investigate

✅ The proposed study will investigate

Use active rather than passive voice	More succinct	Reduces ambiguity

❌ It has been noted…

✅ Smith et al. (2021) noted…

The study/project cannot act	Use first person instead	"I" or "we" as appropriate

❌ This study will analyse the data

✅ We will analyse the data

Avoid Confusing Language

Make it understandable to non-specialists → Explain technical terms → Avoid the use of jargon

❌ Traditional item response theory (IRT) might not be applicable

✅ Item response theory (IRT), a commonly used technique for analysing questionnaire data,....

Don't use synonyms for the sake of it → consistent terminology is far clearer

❌ The performance of non-SOE firms is better than that of SOE enterprises

✅ The performance of non-SOE firms is better than that of SOE firms

Use Figures, Charts, Tables

Flowcharts: Use these to outline the steps of an experimental procedure, the stages of your research project, or the flow of participants through a study.

Graphs: Display preliminary data, expected outcomes, or important trends relevant to your research. This can include bar graphs, line graphs, scatter plots, etc.
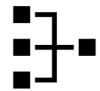
Schematics: These are especially useful for engineering or technical projects. They can show the design of a device, system, or experimental setup.

Tables: Summarize data, list experimental conditions, or compare different methods or studies side by side.
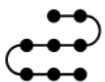
Timelines: Illustrate the projected timeline for your research, highlighting key milestones and deliverables.

Conceptual Diagrams: Use these to represent theoretical frameworks, models, or complex relationships between variables.

Photographs: Show preliminary results, especially if you've achieved something visually striking. Particularly effective for disciplines like biology (e.g., microscopy images) or archaeology.

Pie Charts: Illustrate the distribution of certain variables, such as budget allocations or participant demographics.

Molecular Structures: For chemistry or biochemistry proposals, show the structures of key compounds or proteins.
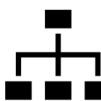
Hierarchy or Tree Diagrams: Show relationships in a structured manner, such as taxonomies in biology or system hierarchies in IT projects.

Maps: If your research involves specific locations (e.g., fieldwork, population studies, environmental research), maps can show where the work will take place or where samples/data will be collected.

Compiling the Form

Format

12 pt Times New Roman

Single spacing

2.5 cm margins

Instructions

Don't exceed the word count/number of pages

Complete *every* section – nothing should be blank (write "n/a" where necessary)

Presentation

Prepare in Word then past into form

Check for spelling, grammar, consistency of terms

Make sure it is proofread/edited by someone neutral

Final Checklist

1. **Scheme Overview:** Ensure you have understood the purpose, objectives, and types of academic research eligible for the scheme.

2. **Applicant Eligibility**: Ensure you meet the criteria for eligibility, including academic staff requirements, employment conditions, and other specific rules.

3. **Funding Thresholds and Duration**: Be aware of the lower and upper thresholds for funding and the typical duration of projects.

4. **Assessment Process**: Understand the assessment criteria, including academic quality, institutional commitment, potential for application, and availability of non-RGC funding.

5. **Complete the Application Form Correctly:** Follow the specified format, page limits, and font requirements, and ensure all sections of the application form are completed.

6. **Particulars of the Project:** Provide details such as the name of the PI, project title, duration, and total amount requested.

7. **Research Areas and Project Team:** Detail the research areas and members of the project team. Include CVs, previous relevant work, publications, awards, patents, services (e.g., referee, supervisor).

8. **Details of the Research Proposal:** Include project objectives, research statement, pathways to impact, references, output dissemination plan, and other relevant details.

- Is your project innovative, focused & timely?
- Does it use valid, reliable & feasible technologies, methods, tools?
- Is it a high-quality, ethical, and reproducible study?
- Have you clearly stated your criteria for success, evaluation plan, contingency plan?
- Is it cost-effective, efficient, and achievable within the time frame?
- Have you made a convincing case for your team's qualifications & expertise?

9. **Project Funding and Resources:** Provide a detailed breakdown of the project's funding and resources, including cost justifications and any existing facilities or equipment. Note conditions and allowable limits. Ensure all items are mentioned in the Project Plan.

10. **Ethics, Data Plan and Other Approvals:** Ensure you have the necessary research ethics and safety approvals, and provide any additional attachments as required.

11. **University's Endorsement:** Ensure the university's endorsement and declaration of research ethics and safety approval are included.

Thank You!

Any Questions?