

# RGC Town Hall Meeting on Collaborative Research

(Engineering and Physical Sciences)

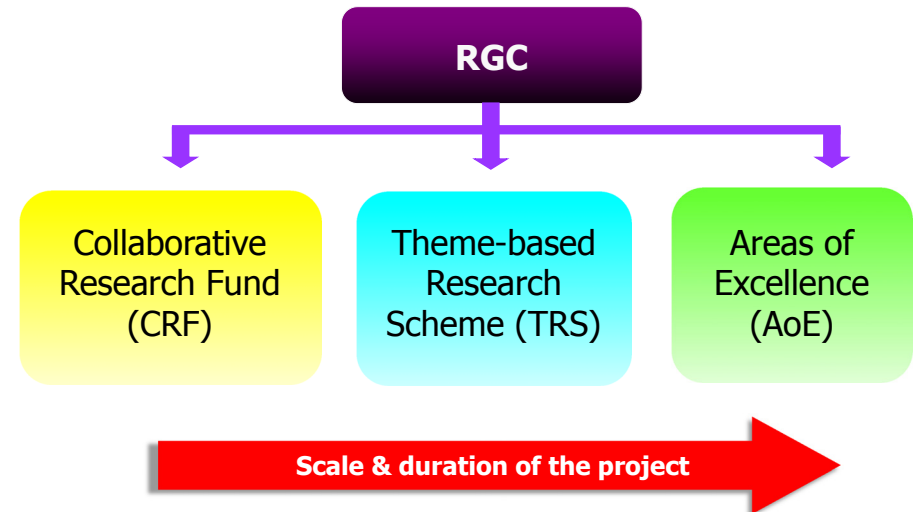
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**The University of Hong Kong**

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## Major Programmes of Collaborative Research



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	<b>CRF</b>	<b>TRS</b>	<b>AoE</b>
Call for application	Every year	Every year	Every two years
Funding amount	HK\$ 2-10M	HK\$ 75M max	HK\$ 60M max
Project duration	≤ 3 years	5 years	8 years
Preliminary proposal requirement	800 words summary + 4-page proposal description	1-page summary + 5-page proposal description	1-page summary + 5-page proposal description

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## Major Programmes of Collaborative Research

	<b>CRF</b>	<b>TRS</b>	<b>AoE</b>
Full proposal requirement	13-page proposal description	23-page proposal description	23-page proposal description
Major review report	--	After 2 <sup>nd</sup> & 4 <sup>th</sup> years	After 4 <sup>th</sup> year
On-site visit	--	After submission of major review report	After submission of major review report

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## Background of Collaborative Research Fund (CRF)

- Equipment Grant
  - To enable the acquisition of major research facilities or equipment
  - To assist institutions in “leveraging” support from equipment suppliers
- Group Research Grant
  - To encourage research groups for collaborative research across disciplines and/or across institutions
  - To enhance the research output of institutions in terms of the level of attainment, quantity, dimensions and/or speed

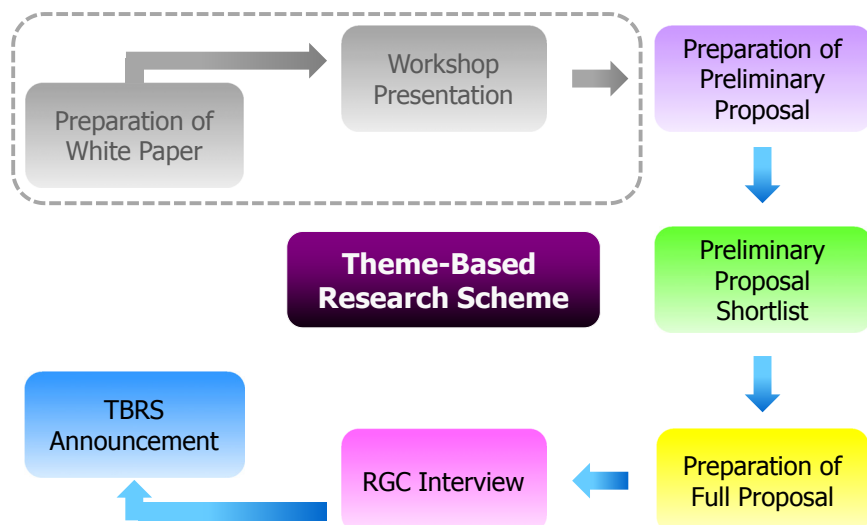
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## Background of Theme-based Research Scheme (TRS)

- Initiated from HK\$ 18 billion Research Endowment Fund in 2009
- Investment income about HK\$ 200 M per year
- Objective - To focus academic research efforts on themes of a more long-term nature and of strategic benefit to the development of Hong Kong
- 3 Themes
  - Promoting good health
  - **Developing a sustainable environment**
  - Enhancing Hong Kong’s strategic position as a regional and international business centre

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## Timeline of 1<sup>st</sup> Round of Theme-based Research Scheme



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## Background of Areas of Excellence (AoE) Scheme

- Objectives
  - To provide a platform to nurture areas of international excellence through high quality research and inter-institutional collaboration
  - To support large-scale, broad and long-term research projects
  - No pre-determined AoE themes or topics
  - **May transfer to TRS if the proposals fall within the scope of the topics of TRS**

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## Important Considerations in Proposal Preparation

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## Important Considerations in Proposal Preparation

- Choice of title and abstract
- Well-defined and achievable scope & objectives
- Existence of a clear strategy
  - Up-to-date knowledge of the area with good literature survey and solid background  
(recent developments in the field; key persons in the field – very likely to be your reviewers)
  - **Key issues and challenges to be addressed**  
(originality and scientific merit)
  - **Reasonable and achievable milestones and deliverables**
  - Clear and logical presentation

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- **Reasonable budget** with strong justification  
(Standard equipment unlikely to be supported; quotation needed for equipment of over HK\$ 200,000)
- Multi-disciplinary in nature?
- Credentials of the Project Team
  - Have necessary stature by the peers in the field?
  - **Sound track record of PIs and Co-Is?**  
(short CV, progress reports, work done by PI in the area)
  - Do team members reinforce and/or complement each other?  
**Clear roles** of team members?
- **Clear collaboration plan**
- References cited
  - PI's seminal work and knowledge in the area reflected; reviewers hinted

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## Important Considerations

### Theme-based Research Scheme (TRS) & Areas of Excellence (AoE)

- Qualification as world-leading by international standards
  - Address intellectually challenging problem?
  - **Significant academic impact** within the grand challenge topic?
- Impact to Hong Kong
  - Future social or economic development of Hong Kong?
  - **Unique to Hong Kong?**
- Sound structure for an excellent research project
  - **Sound system of governance?**
  - **Multi-disciplinary collaboration?**
  - **Clear roles and responsibilities** of each PIs
- Track records and experience of PC and Co-PIs
  - Coordinating large-scale research projects?

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## Theme-based Research Scheme (TRS)

- Involve **stakeholders**, e.g. general public, relevant industrial sectors, policy makers, to provide advice & transfer results to impact the target sector of the society
- Provide a **knowledge dissemination plan** for communicating the project outcomes to research community and stakeholders
- Provide a **plan for transferring technological know-how** to industry, if appropriate
- Provide a **plan for the training** of future research talents
- Provide a **plan to transfer relevant research results** to benefit education and industry
- Provide a technology transfer plan for ITC if applicants who contemplate applying for funding support from ITF

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## Areas of Excellence (AoE)

- Excellence – uniqueness of the project team and the project
- Addressing grand challenges beyond existing strengths and excellence – value-addedness and synergy
- Research collaboration – core requirements
- Inter-institutional and/or inter-disciplinary projects within the same institutions
- **Sufficiently focused**
- Good prospects of sustainability beyond the funding period
- **No mandatory requirement for matching funding**

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## Other Important Considerations in Proposal Preparation

- Avoid very similar projects (overlap with previous applications)
  - RGC may transfer AoE proposal to TRS if it falls within the scope of the topics of TRS
- Exceptionally novel ideas or concepts (controversial or non-controversial)
  - Supported by some preliminary findings
- Make full use of space allowed
- Do not copy and paste between sections
- Non-disclosure of professional relationships and previous associations with nominated reviewers – automatic disqualification

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## Important Considerations in RGC Interview

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## Important Considerations in RGC Interview

- Provide
  - background/motivation (why)
  - objectives (what you want to achieve and why will the results be important)
  - approach/research plan (how)
  - potential impacts of the proposed research
- Avoid to use jargons or undefined acronyms
- Avoid to have slides with ultrahigh information density that convey little useful information
- Appropriate font size, easily readable
- No undecipherable or crowded plots or images with invisible labels

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## Important Considerations in RGC Interview

- Enough time to explain the figures
- No need to read verbatim the slides
- Demonstrate strong track records of investigators (awards,  $h$  indices, impact factors) but overdoing it can be a turn-off
- Provide a credible plan of collaboration and management
- Prepare **dissemination plan** (including intellectual merit and impact to Hong Kong, knowledge transfer plan), if necessary
- Good time management
  - Plan the content and timing of the last slide for a strong and memorable finish
- Speak clearly and project your voice to the back of the room
- Avoid being monotonous

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## Important Considerations in RGC Interview

- Demonstrate strong leadership of PC
- Good coordination among team members
  - Clear roles of each team member
  - Identify responsibilities of each team member (who should be responsible for the questions in the specific field)
  - Be well prepared for common interview questions and answers
- Address feedback comments by panel
- Prepare presentation printouts
- Composition of panel members

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## Theme-Based Research Scheme Project

Theme: **Developing a Sustainable Environment**

Grand challenge topic: **Organic Photo-Voltaic and Light Emitting Diodes**

Project Title: **Challenges in Organic Photo-Voltaics and Light-Emitting Diodes – A Concerted Multi-Disciplinary and Multi-Institutional Effort**

Project Coordinator: **Prof. Vivian W.W. Yam (Chemistry, HKU)**

Co-Principal Investigators:

**Prof. Vivian Wing Wah Yam (HKU) (Coordinator)**

**Prof. Chi Ming Che (HKU)**

**Prof. Hoi Sing Kwok (HKUST)**

**Prof. Chun Sing Lee (CityU)**

**Prof. Ka Ming Ng (HKUST)**

**Prof. Charles Surya (PolyU)**

**Prof. Furong Zhu (HKBU)**

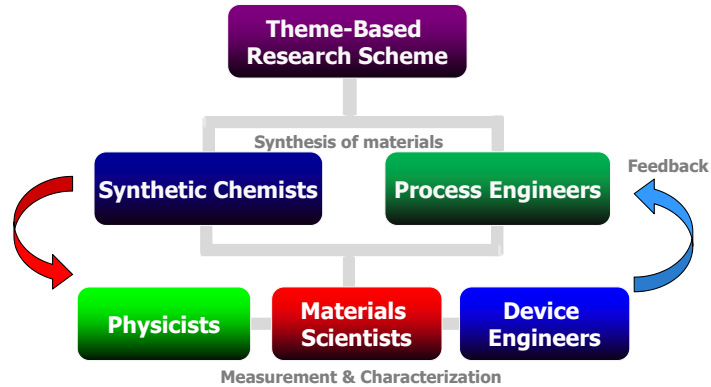


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## Critical Success Factors

- Built upon the recognized strengths of the team
- Multi-institutional involvement, with 5 participating institutions (HKU, HKUST, HKBU, HKPolyU, CityU)
- Interdisciplinarity, with expertise from chemists, physicists, materials scientists and device engineers

### Clear roles of team members



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## Critical Success Factors

- Required critical mass of research excellence and infrastructures in place
- Address grand challenges related to energy and sustainable environment
- Collaborative links and efforts through AoE on Institute of Molecular Functional Materials and State Key Laboratory on Synthetic Chemistry
- Strong industrial links for collaboration/technology transfer
- **Clear mission, goals, deliverables, detailed strategic plan and implementation methods**
- **Well-defined management structure**
- Institutional support (e.g. **SRT on Molecular Materials** - Provide a platform for interdisciplinary research between the fields of chemistry, physics and engineering)

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**Thank You and Good Luck!**

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