

ERFP 5th Tranche Research Priorities

Corporate Research Office

Ministry of Education

SCOPE



1 MOE's strategies for **optimising research impact** (Slide 3)

2 **Overview** of MOE-wide Education Research Agenda (**MERA**), Gen Ed Research Agenda (**GERA**) and Early Childhood Research Agenda (**ECRA**) (Slides 4 – 11)

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MOE CRO and strategies for optimising research impact

MOE Corporate Research Office (CRO) facilitate collaboration between researchers, policy makers and practitioners. We:

- **Articulate** MOE's most pressing problems of policy and practice;
- **Support/fund** projects that address these problems (*main funding comes from the ERFP*);
- **Disseminate** key research findings to MOE divisions that need them; and
- **Translate** projects with high potential utility for implementation.

Our key strategies

A. MOE-WIDE EDUCATION RESEARCH AGENDA

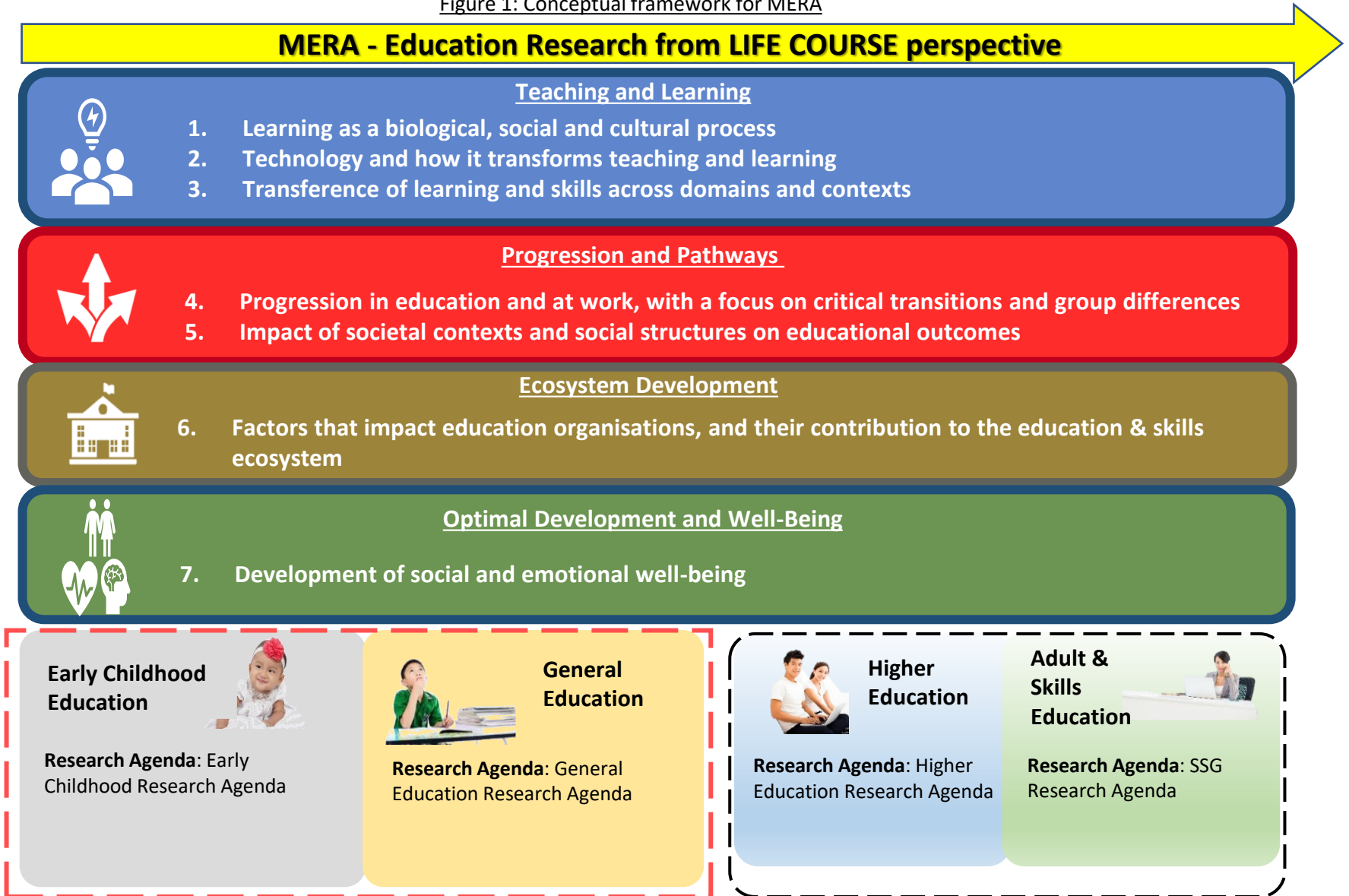
MOE-wide Education Research Agenda (MERA) articulates MOE's high level **research priorities** to direct research efforts and funding in **support of MOE's strategic priorities for each of the 4 learner groups** under MOE's purview.

B. TIGHT RESEARCH-POLICY-PRACTICE NEXUS

Systematic process for close collaboration between researchers, policy makers and practitioners to use research findings to improve education policies, programmes and practice, interventions, including translation of research findings into interventions for implementation in schools and classrooms.

Overview of MERA

Figure 1: Conceptual framework for MERA

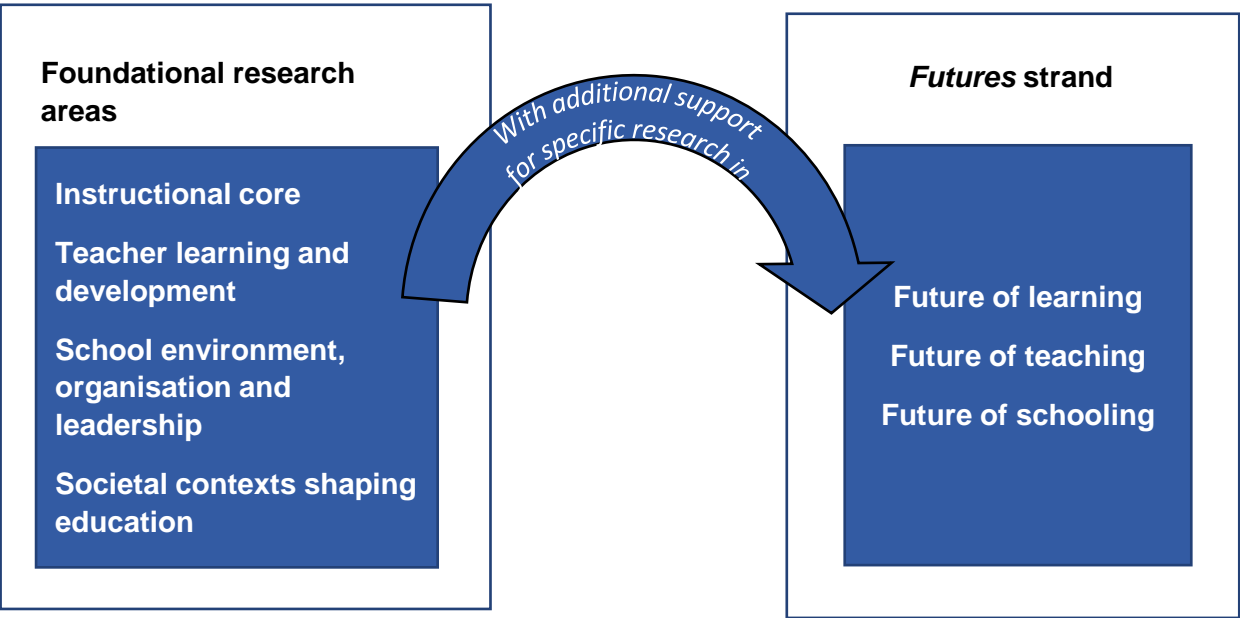


General Education Research Agenda

Overview of the General Education Research Agenda

- General Education Research Agenda (GERA) comprises (a) four foundational research areas to strengthen the core of education, and (b) a futures strand relating to critical problems of policy and practice that will support MOE’s research needs over the next 5 years as we shift towards the next bound of education.

Figure 2: Overview of GERA



The 4 foundational research areas in GERA

Research in these 4 areas add to the corpus of knowledge about Singapore's unique educational contexts needed for the continual improvement of the Singapore education system:

- Instructional core research focuses on the teaching and learning of the subject disciplines, the development of social & emotional competencies and character & citizenship dispositions in Singapore classrooms;
- Teacher learning and development research focuses on how teachers learn, efficacy of teacher professional development and how teacher well-being can be developed;
- School environment, organisation and leadership research is centred on factors and conditions that shape school effectiveness and improvement; and
- Societal contexts shaping education research can examine the broader factors beyond schools, such as cultural and family backgrounds, that impact teaching and learning, and student development.

Foundational research areas

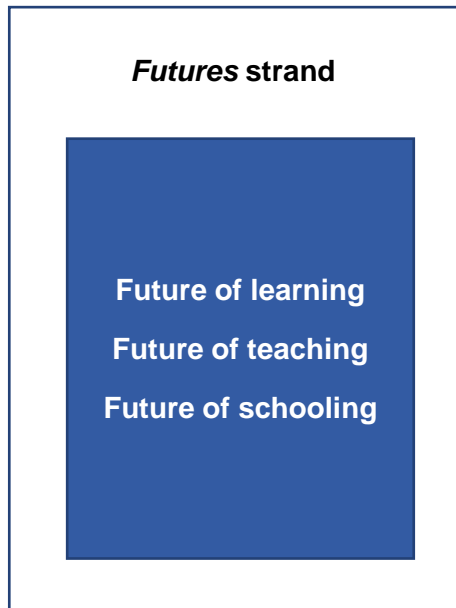
Instructional core

Teacher learning and development

School environment, organisation and leadership

Societal contexts shaping education

The *futures* strand in GERA



This strand supports research specific to critical problems of policy and practice in the future of learning, teaching and schooling, where timely findings can enable improvements in policy, programmes and practice for the next bound of education.

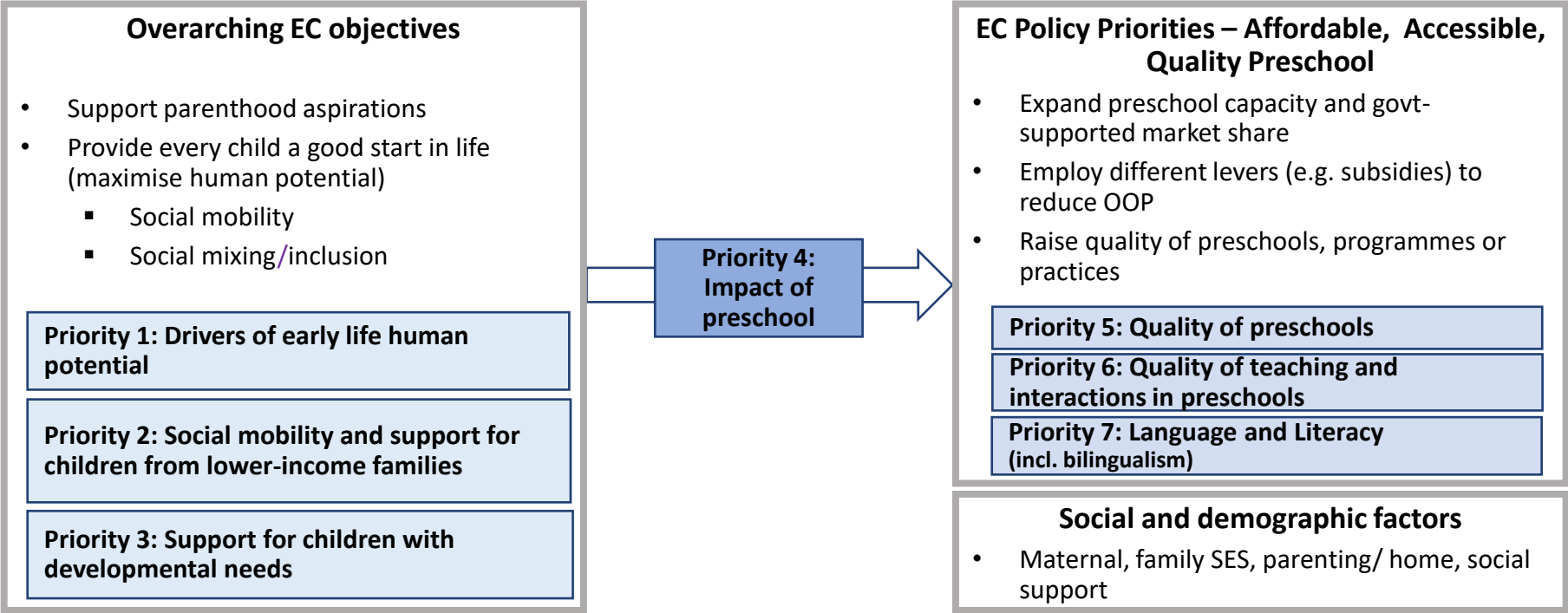
- *Future of Learning* research focuses on how to equip our students with competencies to learn for life, and qualities to thrive in the future with particular emphasis on developing 21CC and harnessing technology for learning;
- *Future of Teaching* research focuses on shifts in the roles of teachers and nature of teaching at the broad level, and how teaching and pedagogical practices can support the future of learning at the specific level; and
- *Future of Schooling* research focuses on how changes in school/class organisation and educational pathways to support the future of learning and teaching can impact student outcomes.

Early Childhood Research Agenda

Overview of Early Childhood Research Agenda (ECRA)

Research priorities in ECRA support the overarching Early Childhood (EC) objectives, inform EC policy priorities and advance the understanding of the social and demographic factors that are associated with EC outcomes.

Figure 3: Overview of ECRA



Research priorities in ECRA

ERFP will support research priorities 2-7, including research into :

- Social mobility and support for children from lower-income families focuses on drivers of social mobility, including parent knowledge and the effectiveness of EC education as a social leveler in Singapore, and to identify strategies that can enhance its effectiveness;
- Support for children with developmental needs focuses on what drives outcomes (e.g., preparing for next phase of education, longer-term societal outcomes) for children with developmental needs (DN), including beyond preschool years;
- Impact of preschool focuses on the effects of Government's investments on preschool from a child development angle;
- Quality of preschool focuses on how various preschools interpret the Nurturing Early Learners (NEL) Framework and/or Early Years Development Framework (EYDF) and translate it into practice;
- Quality of teaching and interactions in preschools focuses on measurement of teaching and learning quality, factors of EC educators that affect teaching and learning; and training and professional development; and
- Language and literacy (including bilingualism) focuses on what extent and how mother tongue language (MTL) teaching and learning in preschool classrooms supports the development of early bilingualism, and how MTL learning in the preschool setting interacts with the home language environment.

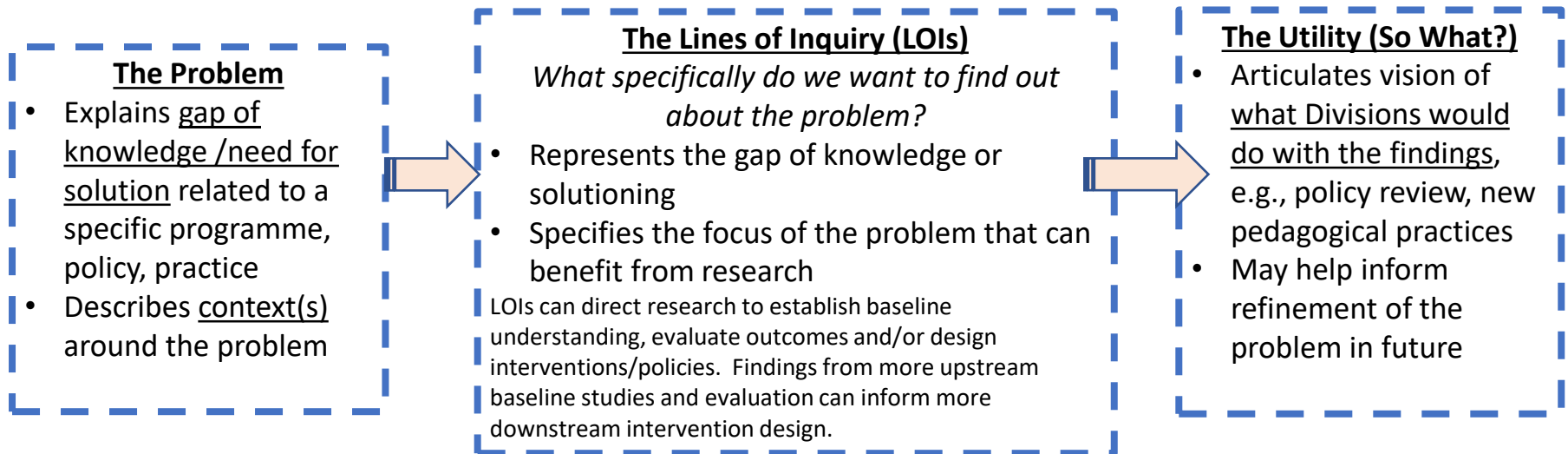
Research-Policy-Practice Nexus

Articulating MOE's research needs through problems of policy/practice

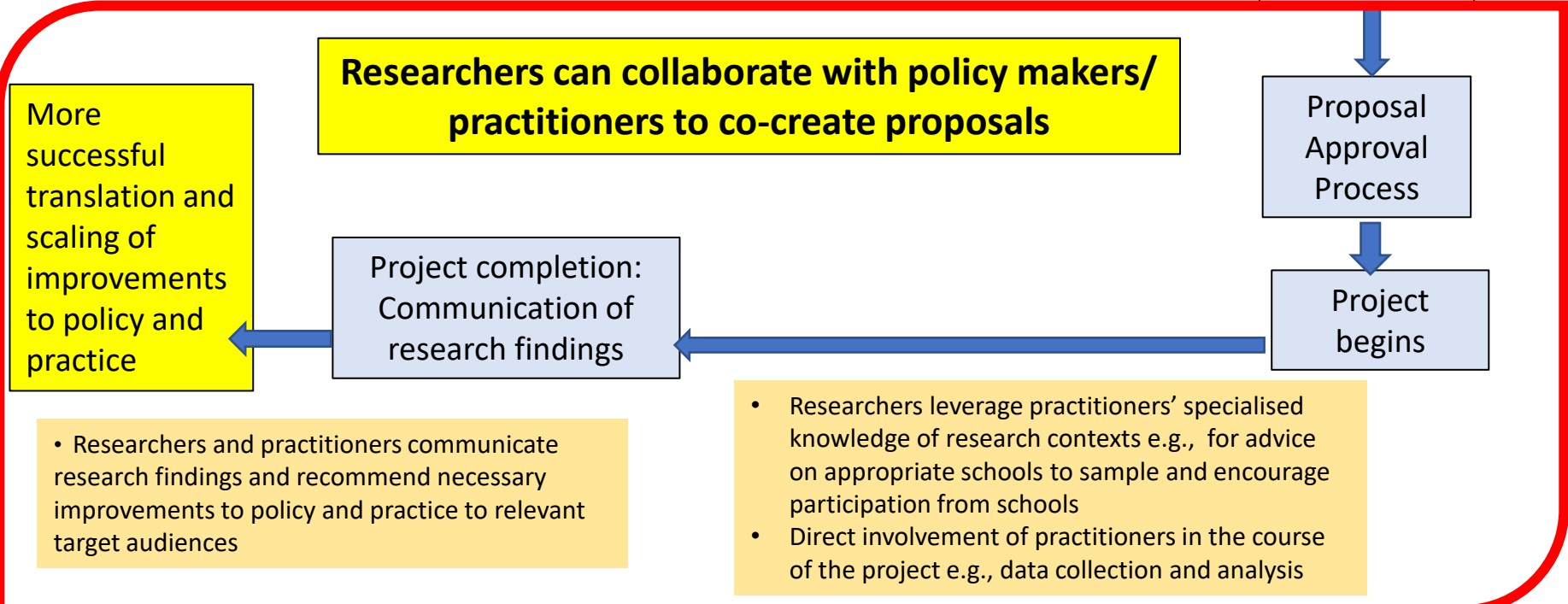
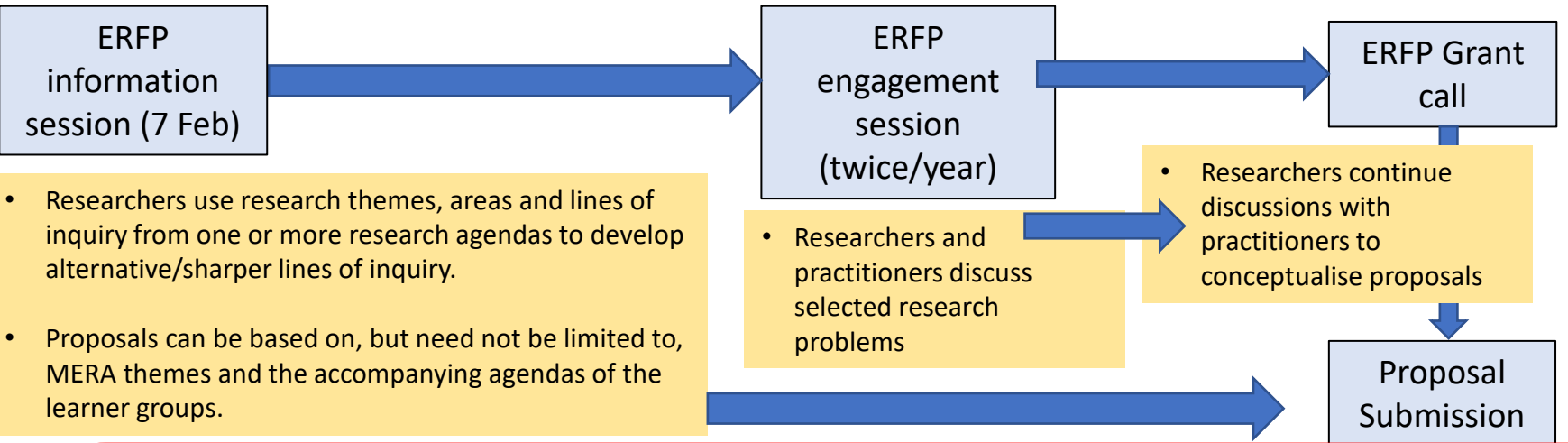
CRO uses a common frame to guide Divisions in articulating their problems of policy/practice and LOIs (see [Figure 4](#)):

- Articulate challenges/gaps that can be informed by research as problems of policy/practice, make clear the context around the problems and why pursuing the research is critical.
- Sharpen a problem into LOIs by expanding on what MOE wants the research to focus on to solve the problem, e.g. establish baseline understanding, discover relationship between factors, predict or evaluate outcomes, design interventions/policies.
- Specify what the research findings will be used for.

Figure 4: Composition of a problem of practice/policy

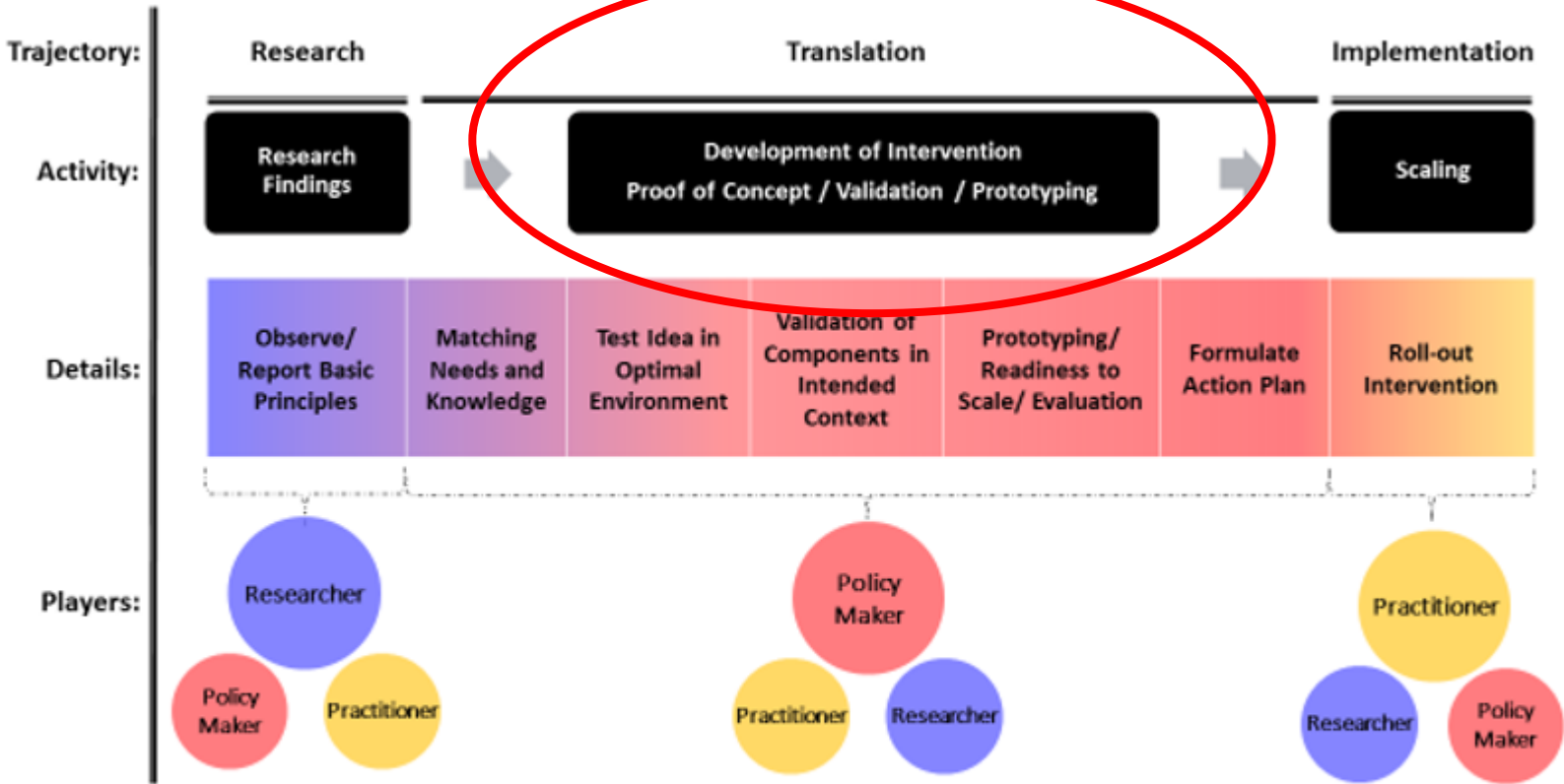


Ongoing collaborations between researchers and MOE practitioners, including co-development of research proposals, can reap downstream benefits of generating insights from research findings to enhance MOE's policies, programmes and practice



Especially in facilitating more effective translation and scaling of research findings, as effective interventions take into consideration the socialisation of knowledge in real life settings, and policy makers can better enact the intervention based on the research

Figure 5: MOE research translation trajectory



Note: Research findings could be derived from all forms of research, including critical inquiry such as action research, lesson studies, etc. By policy maker, we mean officers in MOE HQ who have oversight and influence on policies pertaining to curriculum (teaching, learning and assessment) as well as general levers that will impact the education landscape.

ERFP 5th tranche research priorities

5th Tranche ERFPP will give more support to proposals that address GERA & ECRA priorities

- Research proposals which address GERA and ECRA will be supported.
- To help researchers put together proposals that are relevant to MOE's needs, MOE has also articulated a list of problems of policy and practice which are accompanied by lines of inquiry. These problems are further organised into 6 areas.
- Each upcoming ERFPP grant call will focus on 1 or 2 GERA priority areas as well as ECRA priorities.
- These priority areas and problems will be shared with researchers and researchers are encouraged to engage MOE to discuss and co-construct research proposals.
- Researchers can also share their preliminary ideas or proposals with CRO or ERFPP Office which will facilitate further discussion with relevant MOE divisions.

GERA's Problems of Policy/Practice are organised into 6 areas

To help researchers put together proposals that are more useful to MOE, MOE Divisions have articulated problems of policy and practice, accompanied by lines of inquiry, that reflect some of the more pressing gaps for research to address. These problems fall within the following 6 areas.

1	Develop impactful curricular and pedagogical interventions (a) in the disciplinary areas, and particularly in the development of 21CC that MOE is emphasising (e.g., inventive thinking, adaptability, resilience); (b) to support student groups that are under-researched (e.g., broad middle band of students and low SES-high ability students)
2	Develop assessment literacy, cross-disciplinary learning, and sustaining effective professional development (PD) practice for teachers, with particular emphasis on competencies identified under future of teaching
3	Understand and improve pedagogical practices and environmental factors for optimal CCE and socio-emotional development, with particular emphasis on research that will support development of 21CC in these affective areas
4	Effective design and deployment of blended learning and AI to optimise learning
5	Understanding the impact of educational pathways and related policies on social interaction and mobility, and other longer term outcomes
6	Shaping environment (e.g., physical, social, cultural) within school and beyond school to better support students and optimise learning

Thank you

Please contact Dr Marilyn Lim (Marilyn_SS_LIM@moe.gov.sg)
or Ms Wong Yong Li (Wong_yong_li@moe.gov.sg)