IEA Research and Development Funds

64th General Assembly
Versailles, France
26 September 2023

Thierry Rocher, IEA Chair
Fostering research and innovation

• Contributes to IEA’s mission to provide a model for research in education and innovative approaches
• Funding is drawn from a 3% overhead on participation fees across IEA studies
• Two Tiers: <50K euros, <100K euros
• Three calls released to date:
  – Early 2021 (computer-based assessment theme)
  – Early 2022 (thematically open)
  – June 2023 (thematically open)
• Call 4 projected for mid-2024
<table>
<thead>
<tr>
<th>Call</th>
<th>Project Title</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Using Neural Network Classification for the Automated Scoring of Image Responses in TIMSS 2023</td>
<td>Completed, available via IEA website</td>
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<tr>
<td></td>
<td>Understanding Students’ Computational Thinking Strategies and Test Taking Behaviors Across Countries Using Process Data in ICILS 2018 with Analytical Approach</td>
<td>Reviewed, with authors for final revisions</td>
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<tr>
<td></td>
<td>Validity and Measurement Properties in Technology-enhanced Test Items: A Balancing Act</td>
<td>Reviewed, with authors for final revisions</td>
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<tr>
<td>2</td>
<td>Credible Assumptions for Bound Estimation (CABE): Studying School-level Nonresponse within a Partial Identification Framework</td>
<td>Completed, report dissemination pending</td>
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<td></td>
<td>Interpretable and Accurate Scaling in Large-Scale Assessment: A Variable Selection Approach to Latent Regression</td>
<td>Completed, available via IEA website</td>
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<td></td>
<td>Improving Data in Electronic Surveys (IDES)</td>
<td>Submitted for review</td>
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<td></td>
<td>Challenging the Design Principle of Mixed-Worded Questionnaire Scales</td>
<td>In progress</td>
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<td></td>
<td>Improving Parental Occupation Coding Procedures with AI</td>
<td>In progress</td>
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<tr>
<td></td>
<td>Automatic Scoring of Text Responses in Multilingual Assessment Data</td>
<td>In progress</td>
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</tbody>
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Alignment with the IRC

- The IEA International Research Conference (IRC) in Dublin offered a unique opportunity to highlight R&D work and encourage interest in subsequent calls.
- To better align with the IRC, the release of Call 3 for R&D proposals was shifted from February to June 2023:
  - More time for reflecting on previous calls and collating feedback to make it more successful and streamlined.
  - Greater opportunity to drum up interest at the IRC.
  - Manage workload during an exceptionally busy start of the year for IEA.
Alignment with the IRC (cont’d)

- 7 of the 9 current awardees presented their research at the IRC as part of a thematically matching session or in the organized symposium on the R&D fund
- Good interaction and interest from conference attendees
- Alignment with future IRCs planned to the extent possible given its biannual schedule
  - Increase sharing of results and debate, including with study centers
  - Solicit interest from researchers invested in the work of IEA
Call 3: Open call

• Call 3 was released as thematically open in June 2023
• As in the previous calls, applicants were informed that proposals should relate to one or more of the following:
  – Designing, managing, and implementing IEA studies
  – Developing data collection instruments
  – Data collection and processing
  – Analyzing data and reporting results
• Additional references to recently published handbooks and literature were included
• Deadline for submission was 18 September 2023
Call 3: Changes and improvements

• Continued successful changes from Call 2:
  – Good Grants online platform used for submission and review
  – Informational webinar with interested applicants at the end of August

• Improved reviewing criteria
  – New criterion “Innovation and creativity” to strengthen alignment with strategic mission
  – Better explanation / vignette of what each criterion implies
  – Expanded rating scheme with additional guidance (from 0 to 5)

• Additional clarity with respect to the expected outputs
  – Peer-reviewed journal article submission (open source strongly encouraged and partially eligible for funding)
  – Research report to IEA
  – An internal research report that remains confidential to IEA

• Cross-location team expanded and working well (Lauren Musu, Ralph Carstens, Raegen Jackson)
16 proposals received in total
- 12 Tier 1 proposals (6-month duration, € 50,000 limit)
- 1 Tier 2 proposals (12-month duration, € 100,000 limit)
- 3 rejected during initial screening (out of scope or incomplete)

The 13 proposals cover a nice range of areas

The R&D team is currently identifying expert reviewers for each proposal and will reach out to request reviews in early October

The Standing Committee is scheduled to review top-rated proposals in December

Award or rejection planned to be communicated prior the holidays, agreements to be developed in January
The following funds were estimated to be available by year based on anticipated study enrollment:

<table>
<thead>
<tr>
<th>Period</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
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<tr>
<td>TIMSS 2023</td>
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<td>TIMSS 2027</td>
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<td>PIRLS 2026</td>
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<tr>
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<tr>
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</table>
The Call 1 awardees completed their work in 2022-23 and work by Call 2 awardees mostly took place in 2023.

Out of the EUR 700,000 allocated for 2021 to 2023, about EUR 600,000 has been paid/allocated to awardees from Call 1 and Call 2 (one commitment reduced given a lead researcher’s move).

Call 3 awardees will not begin work until early 2024, this leaves a balance of EUR 100,000 plus the EUR 350,000 already allocated to 2024 to potentially be awarded (i.e., a total of EUR 450,000).

Financial allocations will need to be updated once study enrollment is finalized for subsequent cycles.

Overall, finances are healthy.
Call 4: Ideas for Thematic Call

- During IRC and other recent IEA meetings, some ideas for future themes were solicited
- SC recommended:
  - Artificial intelligence (AI) and Large Language Models (LLMs) (e.g. test development, scoring/coding, data management and processing, analysis, reporting, and dissemination)
Thank you!

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