Kinsella Challenge-based E3 Multi-disciplinary Project Awards

Overview:

Global challenges are by their nature complex, and driven by multiple and often overlapping phenomena that can only be addressed effectively using cross-disciplinary approaches. This new Trinity funding initiative strives to foster excellent and innovative cross-disciplinary research that is inspired by the E3 global challenges or perspectives. It will do this by fostering teams of academic staff, working on the same global challenge, and supporting them to deliver balanced and cross-disciplinary solutions that are centred around the development of PhD talent. Further information on the E3 perspectives can be found in the E3RI vision and future development document approved by Board in June 2020\textsuperscript{1}.

These E3 Awards are made possible through the philanthropic support of Eric & Barbara Kinsella. Mr Kinsella is the Chairman of Jones Engineering Group and a Trinity engineering graduate. E3 is one of the flagship projects of Trinity’s Inspiring Generations Campaign.

Funding Objectives:

- To create cross-disciplinary collaborative teams of Trinity academic staff (Professors, Associate Professors, and Assistant Professors) to address some of the immediate and most significant global challenges of our time.
- To grow Trinity’s capacity to deliver ‘balanced-solutions for a better world’.
- To promote multi-disciplinary and cross-cutting balanced research partnerships across the E3 schools.
- To enable interdisciplinary problem solving of global challenges by linking with expertise in other areas e.g., the arts, humanities, social sciences, and/or health sciences.
- To deliver on the E3 Vision\textsuperscript{1}.
- To strengthen Trinity’s capability, experience and reputation in conducting interdisciplinary challenge-based research.
- To support the funding of PhD candidates.
- To facilitate Trinity academic staff to learn about challenge-based research and participate in consortia to win further externally secured funding of scale, such as Horizon Europe\textsuperscript{2}.
- To develop and support cohorts of PhD students undertaking research that is interconnected and focussed on addressing the same global challenge.
- To communicate the progress and impact of the research both internally and externally.

\textsuperscript{1} Mission & Values - E3 - Engineering, Environment and Emerging Technologies - Trinity College Dublin (tcd.ie)
\textsuperscript{2} Horizon Europe - The EU Framework Programme funding Research and Innovation from 2021 - Trinity Research & Innovation - Trinity College Dublin (tcd.ie)
Horizon Europe - Publications Office of the EU (europa.eu)
A European Green Deal | European Commission (europa.eu)
Balanced solutions require multi-disciplinary and solution-oriented thinking. The PhD students funded under this call should be part of a multi-disciplinary team in performing their research. Balance will be considered in all aspects of the successful projects: in terms of the research topic addressed, the methodological approaches proposed, the composition of the PI and Co-PIs within the team (considering inter alia discipline, career-stage, and gender balance), the proposed recruitment, supervision and training of the PhD candidates and the mechanism for and level of engagement of the team with E3 and wider College communities.

Call details

- The call will fund three collaborative challenge-based interdisciplinary research projects with a maximum of €500k each.
- The project must start on or before 1 September 2021 and be completed within a period of 5 years.
- Each project must be led by an experienced PI from one of the E3 schools (Engineering, Computer Science and Statistics, Natural Sciences).
- In addition to the lead-PI at least four co-PIs should be named on each proposal.
- All named PIs and Co-PIs must be permanent or tenure track Trinity Professors, Associate Professors, or Assistant Professors. Collaborators, where they are identified may be from outside TCD.
- Including the lead, the multi-disciplinary PI/Co-PI team (five or more) must represent at least two E3 schools and at least one School from the Faculty of Arts, Humanities, and Social Sciences.
- The PI/Co-PI team must be constructed so as to offer a balanced, solution-oriented approach to the global challenge identified.
- Proposals that include more than one co-PI from non-STEM disciplines are strongly encouraged.
- Challenges should align to one or more of the E3 research perspectives as described in the document approved by Board on June 16th 2020 “E3RI Balanced Solutions for a Better World. Vision & Future Development”. The research perspectives are Environment, Resources, Production, Data, Wellbeing, Communities.
- Joint-supervision of the PhD students is encouraged.

Financial considerations:

- The funding is primarily intended to support 4 year PhD studentships.
- The expected number of PhD students should be provided in the proposal.
- PI/co-PI teams should be aware that the full fee (EU or non-EU) and a stipend of €17,316 euro per annum per graduate must be covered by the award.
- Funding may cover additional activities for students (training, equipment and consumables, travel etc), however this must not constitute more than 20% of the total award.
• A detailed budget expenditure plan is not required at application stage but will be sought from shortlisted/successful proposals.
• No overhead will be applied to these grants.

Instructions for applicants:

(i) All lead-PIs are advised to submit a Declaration of Intent Form in advance of submitting a full proposal. The purpose of the declaration of intent is to provide summary information which can be used to inform the composition and selection of the assessment panel. It will not form part of the final assessment scores and the information provided may be subject to revision.

Declarations of Intent forms can be found at www.tcd.ie/e3/research/e3-phd-programmes/. They should be submitted by email to E3.Team@tcd.ie with Kinsella Challenge-based E3 Multi-disciplinary Project Awards in the subject line on or before 15th March 2021.

(ii) Full proposals should be a maximum of 2500 words (excluding figures, schemes and captions). They should be appended by a cover letter and CVs from all the team members (PI and co-PIs, a maximum of 2 pages each).

The cover letter, full proposal and CVs should be submitted by the PI to E3.Team@tcd.ie as one combined .pdf, with the co-PIs and relevant Heads of School in copy.

Submission forms and cover letter templates can be found at www.tcd.ie/e3/research/e3-phd-programmes/ and the submission should reach E3.Team@tcd.ie by 12 noon on 31st March 2021 and have Kinsella Challenge-based E3 Multi-disciplinary Project Awards in the subject line.

Format of Full Proposals:

The proposal should be written under the following headings. [% Indicative weighting]

- **The Challenge**: the nature of the challenge and its alignment with E3 perspectives. [20%]
- **The Team**: The ability and track-record of the PI/Co-PI team to address the challenge as presented. [20%]
- **The Multidisciplinary Approaches**: the inherent multi-disciplinary approaches within the research proposal and how these will interact in addressing the identified challenge. [20%]
- **The Impacts**: these might include educational, societal, economic, environmental and/or highlight the innovation potential of any emergent ‘balanced solution’. [10%]
- **The Students**: A student development plan that showcases elements of innovation within the doctoral training of the PhD cohort. This might include items such as
a description of the proposed PhD recruitment/joint-supervisory mechanisms and a rationale for suggested supervisory pairings. [10%]

- **Engagement:** a considered communication and dissemination strategy (internal and external to TCD). [10%]
- **Future Funding:** a statement outlining clear alignment with the strategic priorities of external research funders and a defined commitment to make future collaborative and large-scale funding applications. [10%]

**Assessment:**

- Proposals will be reviewed by an assessment panel chaired by the Dean of the STEM Faculty. The panel will be chosen so as to represent a balanced portfolio of internal and external expertise, pertinent to the ‘declaration of intents’ received.

- Panel members will include the Dean of Graduate Studies, the Dean of Arts, Humanities and Social Sciences, the Associate Deans of Research, the Associate Director of European Engagement, and three external international experts appointed by the Provost on the nomination of the Dean of STEM. The process will be managed by the E3 project manager.

- Lead-PIs will be expected to report annually on the progress and outcomes of the research. This may take the form of a presentation.

- Additional information (e.g., budgetary details/recruitment timelines) will be requested prior to making the funding available to successful, shortlisted/successful proposals.

- Successful proposals will be subject to a “Terms of Agreement” that will (i) set-out budgetary and operational matters and (ii) outline any requirements in terms of future PI/co-PI participation or commitment to the E3 programme and/or governance.

- Ineligible applications will not qualify for assessment.

- Feedback will be provided to all proposals that have been assessed.

**Results and feedback of the call:** Lead-PIs should expect to be notified of the outcome of their applications by 14th May 2021. Decisions arising from the assessments will be final. Summary feedback will be provided to the Lead-PI on all eligible applications in writing.

**Queries:** Queries on the call from potential applicants can be sent to Patrick Lansley E3 Research Programme Office, LANSLEYP@tcd.ie in advance of the submission deadline.