

CALL FOR APPLICATIONS

Improving the environmental track when building with cement and concrete

Challenge

Concrete is the most important construction material and will be for many years. Its releases relevant amounts of CO₂ and hence contributes to global warming. On the other hand, all resources for concrete are limited, even sand is not endless. Finally, after the tear-off of buildings large amounts of concrete and steel accrue, which are rarely reused or inefficiently recycled at the moment.

Therefore, construction industry and material sciences are faced with the challenge to develop new products from concrete, that are environmentally friendly and sustainable in production, application and disposal.

Funding

The *Dres. Edith und Klaus Dyckerhoff-Foundation* provides up to

€ 360.000 (€ 60.000 PER YEAR AND PROJECT)

for a maximum time period of three years. These means are meant to fund two or more scientific projects that offer ways and solutions to improve the environmental track when building with concrete.

Our foundation has committed itself to support young scientists. Each submission should therefore include the opportunity for at least one person to do his or her doctorate. Funding can cover personnel costs, but also travel, material or equipment costs. Blanket overheads are not accepted.

All means can be given for either an independent stand-alone project (note: self-applications of young scientists for their own positions are admissible) or for a particular subproject within a larger mission. In the latter case one should reveal the mission's overall goals, its structure and its overall financing scheme.

Subjects

Subjects that are worth to be funded are e.g.

- » Prolonging the life span of concretes
- » Reducing the pollutant emissions of constructions
- » Saving energy in cement production processes
- » Investigations on new admixtures or new sands
- » Optimising the compositions of cements
- » Recycling of (armoured) concrete
- » Development of new techniques for assessing the environmental balance
- » ...

Eligibility

We invite (university or extra-university) research institutes on construction engineering to apply, but also institutes from neighbouring disciplines, such as architecture, material sciences, or environmental sciences. Cooperations are welcome. Applying institutes must be tax exempt.

We explicitly ask institutes to apply which do not investigate concrete as a single matter but combine it with other materials.

Procedures

The application mustn't follow a pre-specified structure, but should not exceed a maximum of 15 pages. It must include

- » a definition of the project's overall and specific scientific goals
- » a short description of the scientific methodology, how these goals shall be attained
- » a summary of the scientific discussions on the topic
- » a short assessment how the project - if successful - will change the environmental track of concrete
- » a budget plan and a time and task schedule
- » a concept how to integrate the postgraduate in the institute's daily work

Please attach the following documents:

- » a short summary (maximum 1 page),
- » a scientific CV of the project leader
- » a scientific publication list of the project leader with all publications that are relevant for this specific project
- » a CV of the postgraduate (if he or she is already known)

Please apply in German or English.

All applications will be externally reviewed. The final decision will be made by the foundation's Board of Trustees based on these reviews.

The Board's decision is final.

Criteria

Reviewer and Board will base their decisions on the following criteria:

- » the project's innovation potential
- » its estimated contribution to the environmental track
- » the applicants' scientific profile and excellence
- » the assessment how realistic the time and task schedule is.

Deadline

Please apply until **31th August 2020** by e-mail by attaching all documents as pdf's.

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The Dres. Edith and Klaus Dyckerhoff Foundation was established in 1994 by Dr.-Ing. Edith Dyckerhoff and her husband Dr.-Ing. Klaus Dyckerhoff to support scientific research, especially in the field of construction materials. In addition, the foundation is dedicated to the social and urban development of the Amöneburg district of Wiesbaden.

