



## **Year in review 2018-2019**

**Eindhoven Young Academy of  
Engineering**



## **Preface**

Eindhoven, September 2019

In the fall of 2017, the rector of TU/e, Frank Baaijens initiated the Eindhoven Young Academy of Engineering. Inspired by the national *Jonge Akademie* and other local young academies, we formed an interdisciplinary group of young scientists, engineers and designers that represents all disciplines at Eindhoven University of Technology. In our first year we gave shape to the initial idea of a young academy, worked out statutes and regulations and got to know each other and our research. We had many lively discussions within EYAE and within TU/e, organized our first event, contributed to ameliorations of Plan S and the implementation of open science, invented new traditions such as our weekend away and are working on advice regarding diversity and teaching excellence. It has been an exciting and busy first year. We look forward to the next and hope to welcome several new members this fall.

Patricia Dankers, chair of EYAE

Job Beckers, member of the board

Jan Philipp Hofmann, member of the board

Sandra Hofmann, member of the board

Rozemarijn Schalkx, secretary to EYAE

## 1. Start

In the fall of 2017 Frank Baaijens asked two members of the national *Jonge Akademie*, Patricia Dankers and Johan van Leeuwen to set up a local young academy of engineering.<sup>1</sup> Supported by secretary Rozemarijn Schalkx they made a proposal for a first call. In December 2017 Frank Baaijens asked the deans of the departments to nominate 2-3 talented young scientists per department who met the following criteria:

### *Eligibility*

- *The applicant has received his/her PhD degree less than 10 years before applying for Young Academy membership. This period may be extended in case of pregnancy (18 months per child), illness or childcare (formal reduction in working hours), or training in a clinical specialism (total aggregated time spent on training).*
- *The applicant exhibits academic excellence but also has a broad and inquisitive view on academia in general.*
- *The applicant is an independent researcher, designer or engineer pursuing his/her own research topic working at TU/e.*
- *The applicant is an ambassador for TU/e and for science.*
- *The applicant has a proven track record in one of the following areas: science policy, societal challenges and knowledge transfer, outreach initiatives, interdisciplinarity.*
- *Members have the ambition to think about science policy and advise the Executive Board.*

The deans nominated 1-4 possible candidates per department. These individuals were asked if they were interested in joining the EYAE. If so, they were to write a motivation and send in their CV. Finally, 23 inauguration members were nominated. Initially the academy was to start small, but after contact with other local academies and with a view to the great quality of the nominees, all candidates who met the formal requirements and made the deadlines were accepted.

### **a. Members and board**

On Monday May 7<sup>th</sup> 2018 Frank Baaijens held an inaugural dinner to welcome the following group of scientists, engineers and designers as the first EYAE.

- Mathias Funk (Industrial Design)
- Maarten Hornikx (Built Environment)
- Emanuela Bosco (Built Environment)
- Jim Portegies (Mathematics & Computer Science)
- Kevin Verbeek (Mathematics & Computer Science)
- Decebal Mocanu (Mathematics & Computer Science)
- Patty Stabile (Electrical Engineering)
- Alex Alvarado (Electrical Engineering)
- Tom de Greef (Biomedical Engineering)
- Sandra Hofmann (Biomedical Engineering)
- Rong-Hao Liang (Industrial Design)
- Job Beckers (Applied Physics)
- Hanneke Gelderblom (Applied Physics)
- Timothy Noël (Chemical Engineering & Chemistry)
- Jan Philipp Hofmann (Chemical Engineering & Chemistry)

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<sup>1</sup> Because of other obligations Johan van Leeuwen was only available in the first stage of setting up the academy.

- Ilja Voets (Chemical Engineering & Chemistry)
- Tom Oomen (Mechanical Engineering)
- Daniël Lakens (Industrial Engineering & Innovation Sciences)
- Krist Vaesen (Industrial Engineering & Innovation Sciences)
- Patricia Dankers (Biomedical Engineering, chair)

The members of EYAE elected 3 members to be part of the board, Jan Philipp Hofmann, Job Beckers and Sandra Hofmann, with Patricia Dankers as chair. They meet before most regular meetings to discuss the agenda.

#### **b. Aims and regulations**

The Dutch local academies have different missions and aims. We discussed a selection of these different missions during a series of meetings and chose our own priorities. A final version of [our aims and regulations](#) was adopted in May 2019. We decided on the following mission and aims:

*TU Eindhoven Young Academy of Engineering (EYAE) is a network of enthusiastic, ambitious and outstanding early career scientists, designers and engineers with a broad interest and view on science and engineering in general.*

*The aims of the EYAE are:*

1. *Being a platform for young academics for open discussion*
2. *Providing support for early career researchers at TU/e*
3. *Fostering interdisciplinary cooperation and research*
4. *Fostering excellence in education*
5. *Contributing to valorization (knowledge transfer) and outreach*
6. *Advising on policies regarding scientific research, education, valorization, outreach and impact both inside and outside TU/e*

This report has been set up to look back and report on the contributions we have made with regard to these aims.

## 2. Contributions to our aims in 2018/2019

### 2.1 Being a platform for young academics for open discussion

In 2018/2019 we had 8 regular meetings plus a weekend away. Regular meetings were usually 2 hours. We also discussed a variety of, often current, topics such as Plan S. Because some subjects deserved in-depth discussion, a weekend away was organized. On April 12 and 13 2019 we extensively spoke about what excellence in science means. We invited an expert from the Rathenau Institute to discuss this. Other topics we discussed include Plan S, different requirements for tenure and the Irene Curie program. These discussions sometimes led to a written advice (see 6.). The open discussion function of EYAE is greatly appreciated. Members are able to speak freely, ask for advice and there is time for reflection on (local) practices.



Discussion about excellence at the weekend away

### 2.2 Providing support for early career researchers at TU/e

The early stage of a scientific career at any university is often the most stressful. Young scientists are under a lot of stress to combine research with teaching and accommodating other requirements, such as successfully applying for grants. EYAE feels a special responsibility for this group of talented people. A workgroup consisting of Tom de Greef, Hanneke Gelderblom, Tom Oomen recently wrote a specific advice 'Strengthening the position of early-career researchers in a changing funding landscape'. This advice will be discussed with the deans and the executive board. Also, with other topics and advice, EYAE has a strong focus on the implications of policy for early career researchers. For instance, EYAE voiced its concern about the impact of Plan S for this group of researchers specifically by producing a document to fuel discussion on Plan S.

## 2.3 Fostering interdisciplinary cooperation and research

EYAE was also set up as a meeting place across disciplines. During regular meetings, one or two members introduced their research topic. There was also opportunity for questions and discussions afterwards. As a result, the idea came up to organize an interdisciplinary event on *unconventional computing*. Main organizers were Rong-Hao Liang, Patty Stabile, Tom de Greef and Emanuela Bosco. On January 29 2019 this event took place and was a great success. The event was fully-booked and attendants were very enthusiastic about it.



Poster of the Unconventional Computing Symposium

## 2.4 Fostering excellence in teaching/education

EYAE has discussed how excellence in teaching/education may be recognized and rewarded. A delegation of EYAE was present at the Lanaken strategy days of the deans and the Executive Board of TU/e in spring 2019. The Executive Board made a request to EYAE to think about what excellence in teaching/education means. Jim Portegies, Job Beckers, Alex Alvarado and Daniel Lakens are currently working on an advice on this topic, which is expected in 2019.

## 2.5 Contributing to valorization (knowledge transfer) and outreach

EYAE was asked to take part in the jury of [Famelab](#), a local contest on science communication. EYAE-member Daniel Lakens took part in the jury. In July 2019, Barry van der Meer and Pascal Appel (CEC) gave an introduction to EYAE 'How to become active in the public debate'. EYAE also has its own [website](#) and twitter account (@EindhovenYA), that may be used by all members. The account has 73 followers (on September 4) and is mostly used to communicate about events and news about our members.

## 2.6 Advising on policies regarding scientific research, education, valorization, outreach and impact both inside and outside TU/e

EYAE wrote written advice on:

- Plan S, submitted to Coalition S, which, for a period of time was published on the TU/e-website as well.

- 'Strengthening the position of early-career researchers in a changing funding landscape', to be discussed with the deans and executive board

EYAE is working on a requested advice on excellence in teaching and also discussing an advice on diversity in recruitment.

EYAE has also been invited to the Lanaken strategy days in spring 2019, where a delegation of Patricia Dankers, Jan Philipp Hofmann, Tom de Greef and Daniel Lakens discussed various topics and advice in the making. Members were also actively involved in the professor's dinner in July 2019 where the new policy for rewards and recognition was discussed.

### **3. Finance**

EYAE is supported by the Executive Board who provides a secretary (in-kind) and funds for organizing events and meetings. Total expenses for the period April 2018 until June 2019 amounted to 10.500 €.