

# Besluit

**Besluit strekkende tot een positieve beoordeling van een aanvraag toets nieuwe opleiding van de opleiding wo-master Biobased Materials van de Universiteit Maastricht**

<b>Gegevens</b>	
31 juli 2015	Instelling
onderwerp	Opleiding
Definitief besluit	Variant
Toets nieuwe opleiding	Locatie
wo-master	Studieomvang (EC)
Biobased Materials	Datum macrodoelmatigheidsbesluit
Universiteit Maastricht	Datum aanvraag
(003695)	
uw kenmerk	Datum locatiebezoeken
2015.10.0040.NG	
ons kenmerk	Datum paneladvies
	Instellingstoets kwaliteitszorg

NVAO/20152091/ND

**bijlage      Beoordelingskaders**

- 2 Beoordelingskader voor de beperkte toets nieuwe opleiding van de NVAO (2014, Nr. 36791).  
Protocol cursusduur masters, NVAO 8 oktober 2003.

## Bevindingen

De NVAO stelt vast dat in het paneladvies deugdelijk en kenbaar is gemotiveerd op welke gronden het panel de kwaliteit van de opleiding voldoende heeft bevonden en heeft geadviseerd tot een cursusduur van 120 EC.

## Advies panel

Samenvatting bevindingen en overwegingen van het panel.

The master programme Biobased Materials is offered by the Faculty of Humanities and Sciences of Maastricht University on the premises of the Brightlands Chemelot Campus in Sittard-Geleen, the Netherlands.

### *Standard 1. Intended learning outcomes*

The master programme Biobased Materials aims to deliver graduates who are able to participate in the development and production of materials from biological renewable feedstock with new and advanced properties for various kinds of applications. The intended learning outcomes of the programme include the necessary knowledge, competences and skills in the fields of biology, chemistry, materials science and application, the competences and skills to

#### Inlichtingen

Parkstraat 28 | 2514 JK | Postbus 85498 | 2508 CD Den Haag  
Parkstraat 28 | 2514 JK | Postbus 85498 | 2508 CD Den Haag  
P.O. Box 85498 | 2508 CD The Hague | The Netherlands  
P.O. Box 85498 | 2508 CD The Hague | The Netherlands

+31 (0)70 312 23 31

m.wera@nvaо.net

T +31 (0)70 312 2300

info@nvaо.net | www.nvaо.net

Pagina 2 van 6 work in a multidisciplinary research environment and to contribute in a creative, innovative and responsible way to the production and application of biobased materials. The relevance of the subject and the multidisciplinary approach lead to an ambitious programme. The panel advises to include an explicit reference to the importance and implementation of green chemistry and green engineering in the intended learning outcomes.

The panel concludes that the intended learning outcomes of the programme meet the international requirements of comparable programmes. They are clearly described, linked to the Dublin descriptors and appropriate for an academic master programme. They also meet the requirements set by the professional field, as represented by the partner institutions at the Brightlands Chemelot Campus.

The panel assesses standard 1 'Intended learning outcomes' as satisfactory.

*Standard 2. Teaching-learning environment*

The panel has studied the curriculum and course descriptions and concludes that the structure of the curriculum is well thought out and that the contents enable the student to achieve the intended learning outcomes. The mandatory core courses provide a basis in the relevant domains, while the elective courses and projects allow for flexibility and enable the students to define their own profile. The programme thus strikes an important balance between educating generalists and specialists. A personal coach helps the students to make their choices. The course contents are still partially under development, but, based on the explanation provided by the programme staff, the panel is confident that they will fit the intended learning outcomes and be ready at the start of the programme. The didactic approach of Problem Based Learning (PBL) stimulates students to develop into independent and critical researchers with an open eye to practical and ethical issues. The link with academic research has been established, but should be further strengthened to ensure the contents, relevance and success of the programme. The companies at the Campus appreciate that academia can connect directly to industry through the recently established research group Biobased Materials. The admission criteria and procedures are clear and in line with the aim of the programme. The panel advises the programme to closely monitor the progress of the students and to organise a mid-term review after graduation of the first two cohorts in order to fine-tune the programme and admission criteria, if necessary.

The programme can draw on capable and enthusiastic staff members, bringing relevant networks with them. A few part-time professors have been hired and relationships with other universities and research organisations have been established. This has obviously strengthened the knowledge base of the programme. For the sustainability of the programme, it is essential to continue these efforts, to further invest in full professors and to ensure a healthy balance between research and teaching for each staff member, including the programme management.

The facilities of the Brightland Chemelot Campus are currently sufficient and are expected to further improve when the new Center Court building will be available from September 2016. A strong point is the closeness of relevant industrial companies that will in various ways contribute to the programme. The combination of staff, students, research, industry and the location leads to an international and interesting setting for the programme. Nevertheless, the committee still has some doubt as to whether the programme will be able to attract the intended number of qualified students, as the campus is far from Maastricht, i.e. the students have to commute. The bus service provided for the BSc students will certainly be helpful for the MSc students as well.

Pagina 3 van 6 The panel concludes that the curriculum, staff and programme-specific facilities constitute a coherent, attractive and innovative teaching-learning environment for the students. This enables the students to achieve the intended learning outcomes.

The panel assesses standard 2 'Teaching-learning environment' as satisfactory.

*Standard 3. Assessment*

The panel has checked the Education and Examination Regulations 2015-2016, and found these to be in order. The panel has seen a draft of the master thesis guidelines. It is important that these will be finalised and available before the start of the programme. The panel has studied the assessment system and met with the examination board during the site visit. The panel concludes that the examination board is independent and well aware of its responsibilities, and has developed effective procedures to be in control of the quality of assessment of the programme.

The panel assesses standard 3 'Assessment' as satisfactory.

*Standard 4. Graduation guarantee and financial provisions*

The panel has ascertained from the information dossier and the interviews during the site visit that Maastricht University and a combination of public and private organisations have significantly invested in the master programme Biobased Materials and that Maastricht University will guarantee sufficient financial provisions in the case of start-up losses. The panel is, therefore, convinced of the viability of the programme.

The panel assesses standard 4 'Graduation guarantee and financial provisions' as satisfactory.

Given these considerations, the panel advises NVAO to take a positive decision regarding the quality of the new master programme Biobased Materials offered by Maastricht University.

Maastricht University proposes that the master programme Biobased Materials has a duration of two years (120 EC). The programme management's arguments regard the international requirements of the programme, based on a comparison of similar programmes internationally, and the level of complexity of the programme, reflecting the requirements of the multidisciplinary domain of biobased materials. The panel is convinced that the qualifications the graduates should have in order for them to be competitive in the international academic job market, cannot be achieved in a programme of less than two years. The panel, therefore, advises to grant the programme the right to offer a two-year master's programme (120 EC).

The panel confirms the allocation of sector as suggested by the applicant: Nature.

De NVAO onderschrijft de aanbevelingen van het panel.

**Besluit**

Ingevolge het bepaalde in artikel 5a.10, derde lid, in verbinding met artikel 5a.11, zesde lid, van de WHW heeft de NVAO het college van bestuur van de Universiteit Maastricht te Maastricht in de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit d.d.

22 juni 2015 naar voren te brengen. Bij e-mail van 24 juni 2015 heeft dr. J.Dijkstra, senior Policy Officer, namens het bestuur ingestemd met het voornemen tot besluit.

De NVAO besluit de aanvraag Toets nieuwe opleiding wo-master Biobased Materials (120 EC; variant: voltijd; locatie: Sittard-Geleen) van de Universiteit Maastricht te Maastricht positief te beoordelen.

Graad: Master of Science

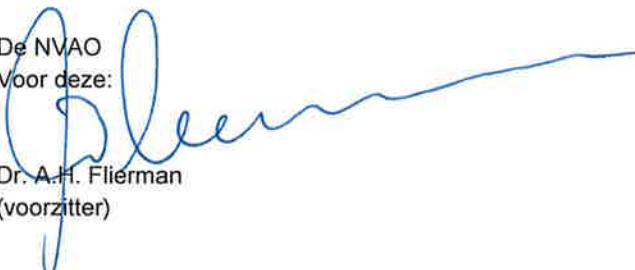
Advies Croho-onderdeel: natuur.

Advies: cursusduur 120 EC.

Visitatiegroep: nader te bepalen<sup>1</sup>.

Van kracht tot en met 30 juli 2021

Den Haag, 31 juli 2015

De NVAO  
Voor deze:  
  
Dr. A.H. Flierman  
(voorzitter)

Tegen dit besluit kan op grond van het bepaalde in de Algemene wet bestuursrecht door een belanghebbende bezwaar worden gemaakt bij de NVAO. De termijn voor het indienen van bezwaar bedraagt zes weken.

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<sup>1</sup> De opleiding dient ten minste twee jaar voor de vervaldatum gebruik te maken van de zogenoemde aprilronde om zelf zorg te dragen voor een indeling in een visitatiegroep. Daarna neemt de NVAO het besluit over de indeling in een visitatiegroep.

Pagina 5 van 6 **Bijlage 1 – Schematisch overzicht oordelen panel**

Onderwerp	Standaarden	Ordeel
<b>1 Beoogde eindkwalificaties</b>	De beoogde eindkwalificaties van de opleiding zijn wat betreft inhoud, niveau en oriëntatie geconcretiseerd en voldoen aan internationale eisen.	Voldoende
<b>2 Onderwijsleeromgeving</b>	Het programma, het personeel en de opleidingsspecifieke voorzieningen maken het voor de instromende studenten mogelijk de beoogde eindkwalificaties te realiseren.	Voldoende
<b>3 Toetsing</b>	De opleiding beschikt over een adequaat systeem van toetsing.	Voldoende
<b>4 Afstudeergarantie en financiële voorzieningen</b>	De instelling geeft aan studenten de garantie dat het programma volledig kan worden doorlopen en stelt toereikende financiële voorzieningen beschikbaar.	Voldoende
<b>Algemene conclusie</b>		Positief

Pagina 6 van 6 **Bijlage 2 – Samenstelling panel**

1. Prof. dr. Han de Winde, Professor of Industrial Biotechnology and Vice-Dean at the Faculty of Science, Leiden University (*voorzitter*);
2. Prof. dr. Bert Müller, Thomas Straumann-Professor of Material Sciences in Medicine, Head of the Biomaterials Science Center, University of Basel, Switzerland;
3. Prof. dr. Alexander Bismarck, Professor of Polymer Materials, Department of Chemical Engineering, Imperial College London, UK and Professor of Materials Chemistry, Faculty of Chemistry, University of Vienna, Austria;
4. Renée Verhoeven MSc, PhD student Department of Surgery, Liver Transplantation, Erasmus Medical Center Rotterdam (*student-lid*).

Het panel is bijgestaan door dr. Marianne van der Weiden, secretaris (gecertificeerd) en Michèle Wera MA, beleidsmedewerker NVAO en procescoördinator.