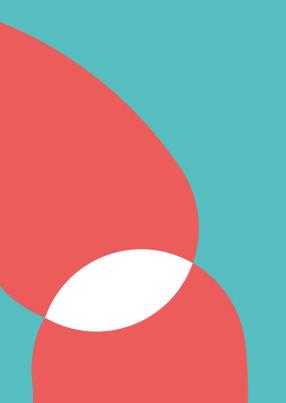# ASSESSMENT CONDITIONS
WO-BACHELOR
DATA SCIENCE AND SOCIETY
University of Groningen

REPORT

14July 2022

1 NVAO Procedure

NVAO takes a decision on the accreditation of a programme on the basis of a panel report. If the accreditation decision is conditionally positive NVAO sets a time limit of maximum two years for the programme to meet the conditions.

At the request of the institution of higher education a panel of independent experts will assess whether the conditions are met. The institution sends the advisory report to NVAO before the end of the term. The assessment should make clear that the programme meets the NVAO quality criteria.

The NVAO decision and the panel report are published on the agency's website.[1] There you can also find more information on NVAO and the assessment of conditions.

2 Panel

Peer experts
- Prof. dr. Peter van der Sijde (*chair*), Professor Organisation, Entrepreneurship& Technology at Vrije Universiteit Amsterdam
- Prof. dr. Paul de Hert, Full Professor in criminal and privacy law at VrijeUniversiteit Brussel, Associated Professor at Tilburg University;
- Prof. dr. Tamar Sharon, Professor of Philosophy, Digitalization and Society at Radboud University;
- Drs. Bart Wezeman, Applied statistician and project leader at CBS[2];
- RuwardKarper (*student*) BSc., Student Joint Master Data Science & Entrepreneurship, Tilburg University & TU/e.

Assisting staff
- Ikrame Faris MSc, secretary
- Reina Louw MA, NVAO policy advisor and process coordinator

Panel meeting (online)
The discussion regarding the assessment of the conditions took place on 12 July 2022. Present were the panel members Prof. dr. Peter van der Sijde, Prof. dr. Tamar Sharon and the student member Ruward Karper. Prof. dr. Paul de Hert and Drs. Bart Wezeman were not able to attend, but have shared their findings and considerations by e-mail.

3 Programme

3.1 General Data

Institution	University of Groningen
Programme	BSc[3] Data Science and Society
Variants	Fulltime
Degree	Bachelor of Science
Tracks	Cognitive Technology and Regulation, Governance and Innovation
Locations	Leeuwarden
Study load	180EC[4]
Field of study	Nature

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[1]https://www.nvao.net/nl/besluiten

[2] Central Bureau for Statistics

[3]In Dutch: wo-bachelor

[4] European Credits

3.2   NVAO Conditional Accreditation Decision

Report	Positive under conditions
Decision	16 November 2021
Term	26 May2022

4   Assessment of Conditions

4.1   Condition 1

Explain the rationale behind the choice for the two specialisations and the way they contribute to the achievement of the intended graduate profile.

Judgement

The condition is met.

Findings, analysis and considerations

The University of Groningen has submitted a file that explains the measures that have been implemented by the programme to meet the conditions of the panel. The management team argues that the choice for the specialisations (1) Cognitive Technology and (2) Governance and Regulation of Innovation is mainly guided by the available expertise and research lines within the faculty as well as existing master programmes offered by the faculty and university. For the specialisation Governance and Regulation of Innovation the following three adjustments have been made: (1) the removal of the course *Collection and Use of Biometric Data* from the core curriculum, per recommendation of the panel, (2) additional attention for social sciences and humanities by the integration of the course *Data Exploits? Participatory Approaches to Digital Autonomy* and (3) further integration of courses with a focus on quantitative research methods as manifested in the course *Data-driven analysis of political sentiment and decision-making*.

The panel is positive about the measures that have been implemented to satisfy the condition, especially for the specialisation Governance and Regulation of Innovation. It understands the choice to align the specialisations with existing programmes and expertise within the faculty and university, but believes the focus of the specialisation Cognitive Technology to be a bit narrow considering the objective to train technical data scientists who are broadly oriented. In order to manage expectations the panel therefore advises to be attentive to the way this specialisation is marketed and communicated towards prospective students. Regarding the specialisation Governance and Regulation of Innovation, the panel finds that the rationale is clear and that the points of attention raised by the panel during the visit have been properly addressed.

Condition 2

Create a more even balance between technical courses and courses on ethical, legal and societal aspects (ELSA) in the core curriculum, in particular in the first year, and specifically tailor ELSA-courses to data science.

Judgement

The condition is met.

Findings, analysis and considerations

The programme management has provided the panel with an adjusted programme schedule and an overview of all course descriptions. In the new set-up the technical courses and courses on ethical, legal and societal aspects (ELSA) are equally divided over the first year, ensuring a balance between the two domains. Also, changes have been made to tailor some of the ELSA-courses more specifically to data science, for example in the course *Big Data Analytics and Distributed Systems.*

The panel is pleased with these adjustments, but nonetheless wants to stress the importance of fine-tuning this new programme while executing it in accordance with experiences of the lecturers and the student population. In

this respect continuous attention for a clear communication policy towards students and (interim) evaluations are necessary. The panel is confident that the programme management will act appropriately upon this recommendation. The panel imagines that involvement of data scientistist, policy makers and /or descision makers in the used cases can enrich and deepen the contextual environment.

Condition 3
Clarify the exact role of the three learning lines in the programme.

Judgement
The condition is met.

Findings, analysis and considerations
The programme has defined three learning lines that serve as a red thread to cluster the programme learning outcomes. The learning lines were developed in consultation with the Advisory Council to reflect the needs and demands of the professional field. The relation between the learning lines, individual courses and programme learning outcomes are visualized in a matrix. The following three learning lines can be distinguished:
1. Graduates have the skills to successfully define problems and reduce information overload ('ask the right questions').
2. Graduates are able to work with data taking responsibility, fairness and sustainability into account while producing data-driven insights and actions.
3. Graduates are aware of the diversity of audiences in communicating data-driven findings and are able to communicate effectively with essential stakeholders.

The panel values the function of the learning lines as a converging element within the programme. The panel recommends to connect the learning lines to overarching themes in the curriculum, such as governance and statistics instead of skills (as it is now). By formulating learning lines that consist of clusters of courses based on their content (programming, statistics, governance) the panel believes that it will become easier to manage the programme, since it is easier to see which courses build on each other and it becomes clear how they contribute to the learning outcomes of the programme.

4.2 Final judgement
The panel concludes that the programme meets the conditions. The programme has properly addressed the shortcomings which were identified in the previous peer review. Therefore, the panel reaches a positive conclusion regarding the quality of the programme.