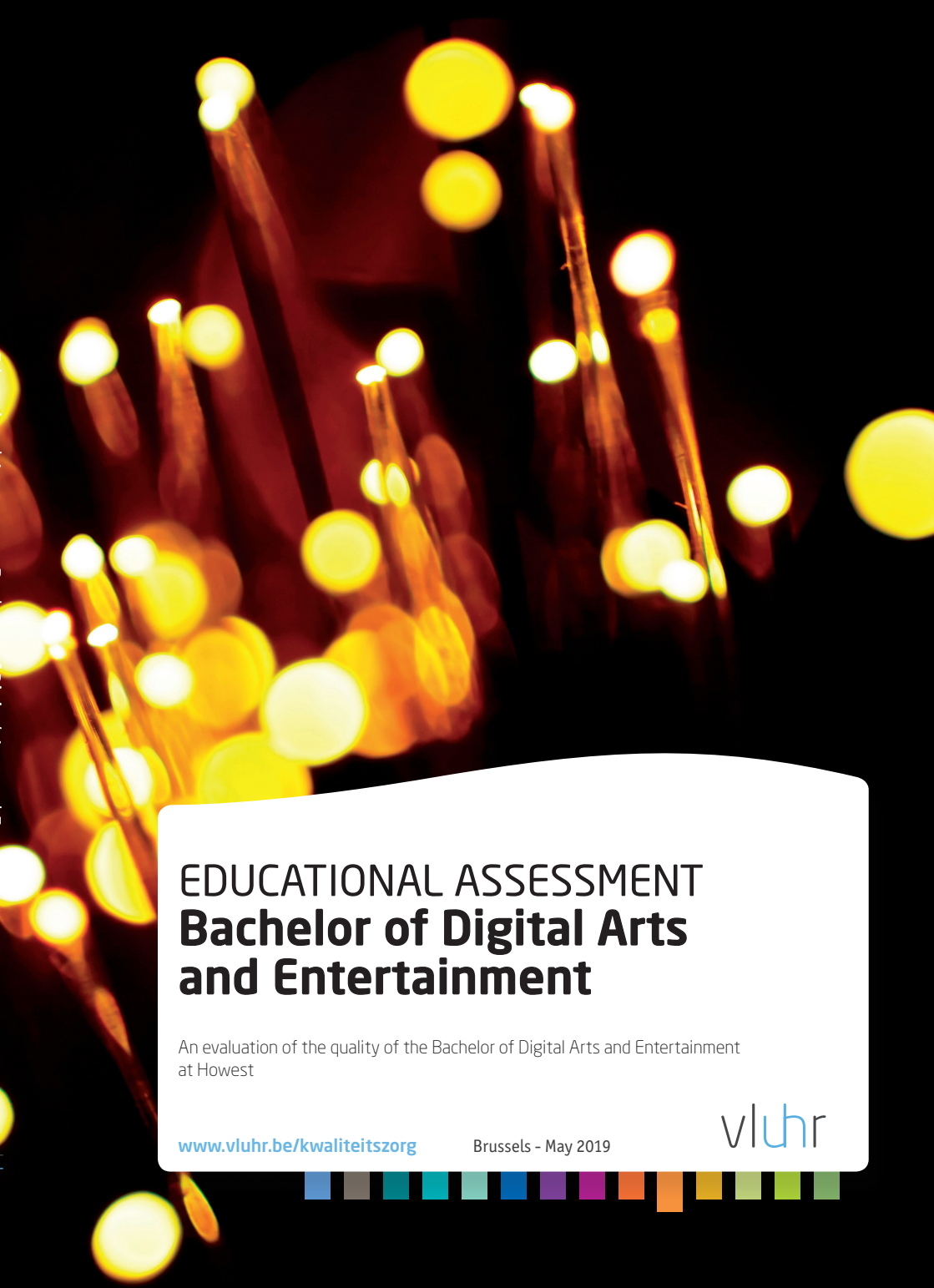

EDUCATIONAL ASSESSMENT
Bachelor of Digital Arts and Entertainment

An evaluation of the quality of the Bachelor of Digital Arts and Entertainment at Howest

www.vluhr.be/kwaliteitszorg

Brussels - May 2019

vluhr

EDUCATIONAL ASSESSMENT
BACHELOR OF DIGITAL ARTS AND ENTERTAINMENT

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PREFACE BY THE VLUHR QA BOARD

The assessment panel reports its findings on the Bachelor of Digital Arts and Entertainment. This programme is assessed in the autumn of 2018 on behalf of the Flemish Higher Education Council (VLUHR).

First of all, this report is intended for the programme involved. This assessment report provides the reader a snapshot of the quality of the programme and is only one phase in the process of the ongoing concern for educational quality. After a short period of time the study programme may already has changed and improved significantly, whether or not as an answer to the recommendations by the assessment panel. Additionally, the report intends to provide objective information to a wide audience about the quality of the evaluated programme. For this reason, the report is published on the VLUHR website.

I would like to thank the chairman and the members of the assessment panel for the time they have invested and for the high levels of expertise and dedication they showed in performing their task. This assessment is made possible thanks to the efforts of all those involved within the institution in the preparation and implementation of the assessment site visit.

I hope the positive comments formulated by the assessment panel and the recommendations for further improvement provide justification for their efforts and encouragement for the further development of the study programme.

Petter Aaslestad
Chair VLUHR QA Board

SECTION 1
General Section

PART I
Educational assessment Digital Arts and Entertainment

1 INTRODUCTION

In this report, the assessment panel Digital Arts and Entertainment announces its findings with regard to the Bachelor of Digital Arts and Entertainment at Howest. This study programme was assessed in the autumn of 2018 on behalf of the Flemish Higher Education Council (VLUHR).

This assessment procedure is part of the VLUHR activities in the area of external quality assurance in Flemish higher education which are meant to ensure that the Flemish universities, university colleges and other statutory registered higher education institutions are in compliance with the relevant regulations imposed by law.

2 THE ASSESSED STUDY PROGRAMME

In accordance with its mission, the assessment panel visited

Howest
- Bachelor of Digital Arts and Entertainment, from December 12 to 13, 2018.

3 THE ASSESSMENT PANEL

3.1 Composition of the assessment panel

The composition of the assessment panel Digital Arts and Entertainment was ratified on Februari 9, March 23 and May 8, 2018 by the VLUHR Quality Assurance Board. The NVAO sanctioned the panel composition on September 22, 2018. The assessment panel was subsequently installed by the Quality Assurance Board by its decision of September 5, 2018.

The assessment panel had the following composition:

- Chairman of the assessment panel:
  - **Prof. dr. Bieke Zaman**, Mintlab, Instituut voor Mediastudies, KU Leuven

- Panel members:
  - **Peter Verswyvelen**, Founder Strongly Typed Solutions, België
  - **Prof. dr. em. Antonia Aelterman**, ere-hoofddocent, vakgroep Onderwijskunde, UGent
  - **Paulius Gagelas**, student Bachelor Creative Technology, Universiteit Twente

Patrick Van den Bosch, Policy Advisor of the Quality Assurance Unit of the Flemish Higher Education Council, was project manager of this educational assessment and acted as secretary to the assessment panel.

The brief curricula vitae of the members of the assessment panel are listed in Appendix 1.

3.2 Task description

The assessment panel is expected:

- to express substantiated and well-founded opinions on the study programme, using the assessment framework;
- to make recommendations allowing quality improvements to be made where possible;
- to inform society at large of its findings.

3.3 Process

3.3.1 Preparation

The study programme was asked to compile an extensive self-evaluation report in preparation for the educational assessment. An assessment protocol, with a detailed description of the expectations regarding the content of the self-evaluation report, was presented by the Quality Assurance Unit of VLUHR for this purpose. The self-evaluation report reflects the accreditation framework.

The assessment panel received the self-evaluation report a number of months before the on-site assessment visit, which allowed for adequate time to carefully study the document and to thoroughly prepare for the assessment visit.

The assessment panel held its preparatory meeting on December 6, 2018. At this stage, the panel members were already in possession of the assessment protocol and the self-evaluation report. During the preparatory meeting, the panel members were given further information about the assessment process and they made specific preparations for the forthcoming on-site assessment visit. Special attention was given to the uniformity of the implementation of the accreditation framework and the assessment protocol. Also, the time schedule for the assessment visit was agreed upon (see Appendix 2) and the self-evaluation report was collectively discussed for the first time.

3.3.2 On-site visit

During the on-site visit the panel interviewed all parties directly involved with the study programme. The panel spoke with those responsible for the study programme, students, teaching staff, educational support staff, alumni, and representatives from the professional field. The conversations and interviews with all these stakeholders took place in an open atmosphere and provided the panel with helpful additions to and clarifications of the self-evaluation report.

The panel visited the programme-specific infrastructure facilities. There was also a consultation hour during which the assessment panel could invite people or during which people could come and be heard in confidence.

Furthermore, the institution was asked to prepare a wide variety of documents to be available during the on-site visit for the assessment panel to consult as a tertiary source of information. These documents included minutes of discussions in relevant governing bodies, a selection of study materials (courses, handbooks and syllabuses), indications of staff competences, testing and assessment assignments, etc. Sufficient time was scheduled throughout the assessment visit for the panel to study these documents thoroughly. Additional information was requested during the on-site visit when the assessment panel deemed that information necessary to support its findings.

Following internal panel discussions, provisional findings were presented by the chair of the assessment panel in conclusion of the on-site assessment visit.

3.3.3 Reporting

The last stage of the assessment process was the compilation of the panel's findings, conclusions, and recommendations into the present report. The panel's recommendations are separately summarised at the end of the report. The study programme was given the opportunity to reply to the draft version of this report.

PART II
Table with scores

The following table represents the assessment scores of the assessment panel on the three generic quality standards set out in the assessment framework.

For each generic quality standard (GQS) the panel expresses a considered and substantiated opinion, according to a two-point scale: satisfactory or unsatisfactory. The panel also expresses a final opinion on the quality of the programme as a whole, also according to a two-point scale: satisfactory or unsatisfactory.

In the report of the study programme the assessment panel makes clear how it has reached its opinion. The table and the scores assigned ought to be read and interpreted in connection to the text in the report. Any interpretation based solely on the scores in the table, is unjust towards the study programme and passes over the assignment of this external assessment exercise.

Explanation of the scores of the **generic quality standard**:

Satisfactory (S)	the study programme meets the generic quality standard
Unsatisfactory (U)	the generic quality standard is unsatisfactory

Rules applicable to the final **opinion**:

Satisfactory (S)	The final opinion on a programme is 'satisfactory' if the programme meets all generic quality standards.
Unsatisfactory (U)	The final opinion on a programme is 'unsatisfactory' if all generic quality standards are assessed as 'unsatisfactory'.
Satisfactory for a limited period (S')	The final opinion on a programme is 'satisfactory for a limited period' , i.e. shorter than the accreditation period, if, on a first assessment, one or two generic quality standards are assessed as 'unsatisfactory'.

	GQS 1 Targeted outcome level	GQS 2 Educational learning environment	GQS 3 Outcome level achieved	Final opinion
Bachelor of Digital Arts and Entertainment - Howest	S	S	S	S

SECTION 2

Report of the study programme

HOWEST
Bachelor of Digital Arts and Entertainment

SUMMARY OF THE ASSESSMENT REPORT
Bachelor of Digital Arts and Entertainment
Howest

From 12-13 December 2018, the Bachelor of Digital Arts and Entertainment has been evaluated in the framework of an educational assessment by a peer review panel of independent experts. In this summary which describes a snapshot, the main findings of the panel are listed.

Profile of the programme

The programme assessment of the Bachelor of Digital Arts and Entertainment includes both the Bachelor in Digital Arts en Entertainment that is taught in Dutch and its English equivalent the Bachelor of Digital Arts and Entertainment. The Dutch programme has four pathways (called majors): Game Graphics Production, Independent Game Production, 3D Production and VFX and Game Development. The English programme has three pathways (also called majors): Game Graphics Production, 3D Production and VFX, and Game Development.

At the start of the academic year 2017-2018, 920 students were enrolled in the DAE study programme, including 212 students in 3D Production & VFX, 288 in Game Development, 335 in Game Graphics Production and 85 in IGP.

The general Bachelor of Digital Arts and Entertainment (DAE) **profile** is, according to the self-evaluation report, "the profile of a "technical artist" within the international entertainment industry, being games and film. DAE is neither an artistic study programme nor an informatics study programme. Each major focuses on a hybrid mix of technical and artistic competences. The ratio of both components is determined by the major or more specifically the context in which the prospective graduate will be employed. The final objective of the study programme is to deliver alumni who can take part in the production of entertainment applications in an international context".

The targeted programme specific learning outcomes fit the domain specific outcomes and the Flemish qualification framework. The programme specific learning outcome targets also match the current programme content requirements as they are established internationally by discipline specialists and professionals.

Programme

The Bachelor of Digital Arts and Entertainment (DAE) is a 180 ECTS study programme. The **curriculum** is composed of six semesters. The first four semesters are structured per major. Each semester groups five modules. A semester has 12 course weeks, followed by an exam period of three to four weeks. In semester five, project-based work is integrated and there are no more traditional contact hours. Semester six is dedicated to an internship. The curriculum has a logic and sequential structure. Students are taken on a trajectory in which they gradually achieve the required competences. Once students obtain the basic knowledge and skills in their first year, they are gradually more challenged to integrate this knowledge and apply it to other contexts in their second and third year. Students evaluate the programme structure and content positively. They explicitly appoint the teamwork as positive and motivating. Students feel prepared for their professional life. The curriculum is appropriate to achieve both the generic and specific knowledge and competences that are needed for the envisioned professional career according the chosen major. Theoretical lessons on the basics of the learning content are typically followed by more applied sessions and specific tasks, which guarantees transfer of knowledge and facilitates an adequate understanding of the learning content.

During the **Internship** Fair students are obliged to introduce themselves to at least three companies for an interview. During this interview, students get feedback on their portfolio and they have a first job interview experience. They experience to what extent their portfolio meets the expectations of a company.

The online **platform** could benefit from more structure and coherence between the courses. This is compensated by the instructions and tasks each student gets in the classroom, but nevertheless, some students would benefit from an improved LEHO. The quality of the online course material is adequate, although in itself not sufficient for self-study. Feedback from students showed that the quality of the online video lectures varies greatly, suggesting that more uniformity is needed here. Currently, research is being carried out with regard to the efficiency and effectiveness of working with video tutorials within the different modules.

There are good learning methods in place. These can be more anchored in a DAE-wide policy. Dropout rates are still high, even though the programme management is tackling this by investing in initiatives to better inform potential and new students and set the right expectations.

Evaluation and testing

The study programme has an appropriate system of assessment, testing and examination. The programme management has to guarantee that all teaching staff assesses in function of the achievement of the learning outcomes. The assessments together with the feedback from the industry, students and graduates show that the programme achieves its targeted outcome level.

Services and student guidance

There are more than 150 international students. Although international students do not always feel connected with the Flemish students, the social activities organised by the programme stimulate social contact between students. To many students, the international community is an enormous added value. The DAE Global cell is responsible for the operation and activities of the international community.

There are plenty of **supporting facilities** that are accessible to the students and that tap into the needs of a broad variety of students. The programme is paying attention to the students in a holistic sense. It does not only

account for the learning outcomes that need to be achieved, but also for the broader educational context, including students' free time, their social connectedness and their physical and mental health. In doing so, the DAE learning environment creates a particular culture with the specific DAE DNA and a lively community.

The programme has good infrastructural facilities that help students to achieve the learning outcomes. The management staff is monitoring this and proactively searching solutions to respond to new infrastructural demands. The architectural facilities contribute positively to the atmosphere of an open, creative and transparent community. It is uncertain to which extent the infrastructure is sufficiently scalable in the case of a continued growth scenario. In order to address scalability issues, the programme invests in new facilities with a greater number of rooms and buildings. However, it must be an attention point to seek how these places can be meaningfully connected in order not to lose the feeling of a community and belongingness, which is now an important added value of the programme.

Study success and professional opportunities

The representatives of the professional field are very positive about the **achieved competences** of the students. They specifically state that the students have the relevant broad generic competencies and specific competencies depending on their major. The alumni mentioned that they are satisfied with the content of the curriculum. The main skills that were taught to the students are expected to be time-invariant: the concepts taught seem to be at an appropriate abstract level for courses such as programming.

The **employability** figures are very good. More than 90% has a job in the game industry. Graduates are highly demanded on the national and international professional job market. A significant proportion of students are offered a job at the place of their internship. Industry is eager to come and present themselves at the internship fair, which evidences that graduates obtain an adequate level that is of interest to the professional field. The strong connection between DAE and the relevant professional field contributes greatly to connecting students with the professional field.

ASSESSMENT REPORT
Bachelor of Digital Arts and Entertainment
Howest

Preface

The programme assessment of the Bachelor of Digital Arts and Entertainment includes both the Bachelor in Digital Arts en Entertainment that is taught in Dutch and its English equivalent the Bachelor of Digital Arts and Entertainment. The Dutch programme has four pathways (called majors): Game Graphics Production, Independent Game Production, 3D Production and VFX and Game Development. The English programme has three pathways (also called majors): Game Graphics Production, 3D Production and VFX, and Game Development. The assessment panel (further referred to as "the panel") visited the study programme at Howest in Kortrijk on 12 and 13 December 2018.

The panel assesses the study programme based on the three standards of the VLUHR programme assessment framework. This framework is designed to fulfil the accreditation requirements, applied by the NVAO. For each standard the panel gives a weighted and motivated judgement on a two-point scale: unsatisfactory or satisfactory. In assessing the generic quality, the concept of 'generic quality' means that the standard is in place and the programme - or a mode of study of the programme - meets the quality standards that can reasonably be expected, from an international perspective, of a programme in higher education. The score satisfactory points out that the programme meets the generic quality because it demonstrates an acceptable level for the particular standard. The score unsatisfactory indicates that the programme does not attain the generic quality for that particular standard.

The panel's opinions are supported by facts and analyses. The panel makes clear how it has reached its opinion. The opinions, judgments and recommendations relate to the programme with all the pathways / majors covered therein, unless stated otherwise. The panel also expresses a final opinion on the quality of the programme as a whole, also according to the same two-point scale.

The panel assesses the quality of the programme as it has been established at the time of the site visit. The panel has based its judgement on the self-evaluation report and the information that arose from the interviews with

the programme management, with lecturers, students, representatives of the professional field, alumni and personnel responsible at programme level for internal quality assurance, internationalisation, study guidance and student tutoring. The panel has examined course materials, test and evaluation assignments and relevant reports available. The panel has also visited the educational facilities at the programme's campus The Level. The panel assesses the quality of the programme including all pathways / majors. In case findings, judgements or recommendations differ between the pathways, the panel mentions these differences.

In addition to the judgement, the panel also formulates recommendations with respect to quality improvement. In this manner, the panel aims to contribute to the quality of the programme. The recommendations are included in the relevant sections of the respective standard. At the end of the report there is an overview of suggestions with respect to quality improvement suggestions.

Context of the study programme

The Bachelor of Digital Arts and Entertainment (DAE) started in 2006, as a major of the Bachelor of Multimedia and Communication Technology. In 2014, DAE received the recognition as autonomous professional bachelor study programme. The study programme started with 182 students and had no majors. After a few years, however, it appeared that the drop-out was high. In response to this, DAE introduced two majors: 3D Arts and Game Development. This version of the curriculum was recognised via 'Toets-Nieuwe-Opleiding' (TNO) as an autonomous bachelor study programme.

The programme was confronted with the demand for technical artist profiles within the film industry. In a response to this demand, the major 3D Arts was split up in 3D Production & VFX on the one hand, and Game Graphics Production on the other hand. A fourth major - Independent Game Production (IGP) - was launched in 2016. This fourth pathway is only taught in Dutch.

At the start of the academic year 2017-2018, 920 students were enrolled in the DAE study programme, including 212 students in 3D Production & VFX, 288 in Game Development, 335 in Game Graphics Production and 85 in IGP. Thanks to the rapid growth, DAE moved to a new campus, The Level, in 2013.

The study department team consists of 38.25 FTE (full-time equivalents) in the teaching team, two FTE staff members and a research group with 7 FTE. The study department is administered by a steering group consisting of the Study Department Coordinator, four Major Coordinators, one Head of Administration and one Research Coordinator.

The Howest study programmes are clustered in two units: Study programmes Howest Brugge and Study programmes Howest Kortrijk. A unit is managed by a Study Department Director. A study department is led by a Study Department Coordinator who takes on a four-year renewable mandate. The Study Department Coordinator reports to the Study Department Director. In addition to the coordination task, the Study Department Coordinator also takes on teaching or guidance assignments in the study department. The Study Department Coordinator regularly deliberates with his team and manages it.

Standard 1 - Targeted Outcome Level

The panel evaluates the targeted outcome level for the Bachelor of Digital Arts and Entertainment as satisfactory.

The general Bachelor of Digital Arts and Entertainment (DAE) **profile** is, according to the self-evaluation report, "the profile of a "technical artist" within the international entertainment industry, being games and film. DAE is neither an artistic study programme nor an informatics study programme. Each major focuses on a hybrid mix of technical and artistic competences. The ratio of both components is determined by the major or more specifically the context in which the prospective graduate will be employed. The final objective of the study programme is to deliver alumni who can take part in the production of entertainment applications in an international context".

It is the panel's opinion that the targeted **programme-specific learning outcomes** are appropriate to the required bachelor level and orientation as defined in the Flemish qualification framework and to the validated discipline-specific learning outcomes. The learning outcomes of the different majors are specific. The four majors focus on a mix of graphic and technical competences, whereby the ratio of those competences is determined by the major.

Alumni and professionals acknowledge the importance of the technical artist profile. Compared to other similar programmes worldwide that

are more specific and specialised, they welcome the broad skillset of DAE students. They confirm that DAE students gain relevant skills and appreciate that they have knowledge of the whole process. All stakeholders met by the panel recognise that the profile of technical artist is a unique selling point of the programme.

The programme focuses on both the technical and artistic aspects that are relevant to game development. It works towards different game genres as end product, ranging from indie games to AAA games. Moreover, it considers the use of game techniques in other sectors. Therefore, the **majors** are sufficiently diverse: they reflect a broad and relevant array of future professional trajectories. The programme is not only focused on a job linked to the production line of AAA games, but also offers a major in which students gain a broad set of competences to act in an independent game production context.

The panel supports that the teaching and management staff is **continuously reflecting on the learning outcomes** and considering changes to the programme content in order to keep up with professional (both national and international) and discipline-related evolutions. Examples include the focus on independent game production, which is especially relevant in the local game context, and the exploration of a new minor on sound.

Another commendable aspect noticed by the panel is that the programme works closely with **DAE Research** and the broader society in order to consider how the students' competences might be relevant, also for other sectors than the gaming industry. Furthermore, DAE research is already looking into potential future fields such as procedural modelling, animation, and artificial intelligence, continuously adapting to the demands of the industry. The staff is experimenting with this kind of projects as graduation works and group projects and expresses to continue to do so in the future.

The professional field is not systematically involved in the programme. The management staff may consider ways to involve **industry** more structurally, for instance as member of an advisory committee board. The discussion about the appropriateness of the programme with professionals seem to happen ad-hoc, e.g. as a side project when discussing internships or possible projects for the graduation works and group projects. When there is no systematic way of involvement of the professional field, this connection risks to decrease in the future.

Teaching staff might pay attention to **ethical and societal aspects** in the programme. This involves various aspects, ranging from topics as plagiarism, the use of pirated software to more broad topics like dark game design patterns and addiction. This suggestion does not necessarily call for a specific course on these themes, but suggests the integration of ethical and societal topics in the existing learning outcomes instead. Even though the panel acknowledges that not all graduated students will eventually become key decision makers, the panel feels it is everyone's responsibility to at least be aware of these debates. Some of these ethical topics like for instance plagiarism are relevant to all DAE students, regardless of whether they will become decision makers or not.

All in all, it is the panel's opinion that the targeted programme specific learning outcomes fit the domain specific outcomes and the Flemish qualification framework. The programme specific learning outcome targets also match the current programme content requirements as they are established internationally by discipline specialists and professionals. As a conclusion, the targeted outcome level is judged as "satisfactory" by the panel.

Standard 2: Educational Learning Environment

The panel evaluates the Educational Learning Environment for the Bachelor of Digital Arts and Entertainment as satisfactory.

The Bachelor of Digital Arts and Entertainment (DAE) is a 180 ECTS study programme. The programme has **four majors**: 3D Production & VFX, Game Development, Game Graphics Production and Independent Game Production (IGP). Except IGP that is only taught in Dutch, the three other majors are taught in Dutch and English.

The **curriculum** is composed of six semesters. The first four semesters are structured per major. Each semester groups five modules. A semester has 12 course weeks, followed by an exam period of three to four weeks. In semester five, project-based work is integrated and there are no more traditional contact hours. Semester six is dedicated to an internship. The panel is convinced that the curriculum has a logic and sequential structure. Students are taken on a trajectory in which they gradually achieve the required competences. Once students obtain the basic knowledge and skills in their first year, they are gradually more challenged to integrate this knowledge and apply it to other contexts in their second

and third year. Students evaluate the programme structure and content positively. They explicitly appoint the teamwork as positive and motivating. Students feel prepared for their professional life. It is the panel's opinion that the curriculum is appropriate to achieve both the generic and specific knowledge and competences that are needed for the envisioned professional career according the chosen major. Theoretical lessons on the basics of the learning content are typically followed by more applied sessions and specific tasks, which guarantees transfer of knowledge and facilitates an adequate understanding of the learning content. Alumni and representatives of the professional field acknowledge the added value of the programme for the students' professional life.

The **content of the programme is evolving** at lightning speed. The division of the programme in four majors was already an answer to the changing demands of the professional field. The panel noted that learning content is constantly being optimised in a response to the changing demands of the professional field. The structure of the programme is blended well and the combination of different courses is a great way to prepare the students for the real world. This was noted in the reactions of the professional field, met by the panel. They mentioned how important it is to learn to work in a fast and adaptive pace.

Some alumni were recommending to pay more attention to the business component of starting an own business. However, as from the last year, the students are purposively **prepared for their future role in industry**. The work format used and the way of guidance and coaching illustrate that approach. In the search for an internship company, the students are assisted by the internship coordinator. Students get tips concerning the drafting of their CV and efficient communication. Throughout the curriculum, emphasis is put as from the first year on the importance of a good portfolio. The extent to which the student creates a realistic image of his abilities in a portfolio is coached by the department.

During the **Internship** Fair students are obliged to introduce themselves to at least three companies for an interview. During this interview, students get feedback on their portfolio and they have a first job interview experience. For most students, this is a first confrontation with the real context. They experience to what extent their portfolio meets the expectations of a company. The panel commends this practice.

The **portfolio** is an important instrument for the student. It creates a realistic image of the students' abilities. In the search for an internship company, students are coached to seek an internship that aligns with their portfolio. But in the search for stimulating the self-directed learning, the portfolio could be used more as a learning instrument The panel noted that there is currently more focus on the output of the portfolio (i.e., as a show case, an end result) than on the portfolio creation process (i.e., as a means to reflect on how students learn). Therefore, we recommend that teachers can give more feedback during the development of the students' portfolio in order to use it as a learning instrument.

The students met by the panel mentioned that the curriculum is challenging. Although they indicate a high **workload**, this is not experienced as a problem because students explained to enjoy the efforts they put into the programme. Each semester, the programme measures the **study time**. In case the study time is high and many students fail for a specific course, the programme checks if there is something that has to be improved about the course objectives or the lecturers' teaching or assessing methods. The panel finds it a good practice that the results of this measurement are compared to the success rates.

Overall, the panel is positive about the variety of **teaching and learning methods** and considers these methods as appropriate for the learning content. The teaching staff experiments with several activating methods and shares best practices amongst each other, which is commendable. Examples of teaching methods include flipped classroom, blended learning strategies, collaborative learning, alternating ex-cathedra teaching and smaller assignments with feedback, home assignments, and co-teaching. Given the large number of students in year one, the panel understands it is challenging to use activating teaching methods without relying on ex-cathedra teaching only. The panel finds it clear and positive that the DAE pedagogical strategy relies strongly on feedback. The role and importance of feedback was acknowledged by all stakeholders, including students, teaching staff, supporting staff and professionals who are involved in the internships. Although the panel was impressed by the innovative approach on learning and teaching methods, the panel also observed that there is currently a lack of policy concerning teaching and (new) learning methods and support. The current bottom up approach allows a lot of freedom and non-uniformity that are hindering coherence. An explicit vision on teaching and (new) learning methods would be helpful.

Most **course material** consists of slides completed by lab notes, video tutorials, and references. All material is put available to the students via the electronic learning environment. Because of the scale, DAE has the opportunity to work with module teams in all its segments. This implies that for each module, the material is looked at and assessed by several persons. The major coordinators ensure the coherence and continuity requirement of the course material throughout their curriculum, which is a good practice.

The main **learning resource** for the students is their own laptop with accompanying software. Students have official access to all sector-relevant software packages. For the major VFX, there is the Greenkey Studio that is used to teach the students the principles of keying, tracking and compositing. For the game developers, development kits for Xbox and Playstation are available for students. Students who create a VR or AR project can also have this hardware at their disposal via DAE Research.

The **online platform** could benefit from more structure and coherence between the courses. This is compensated by the instructions and tasks each student gets in the classroom, but nevertheless, some students would benefit from an improved LEHO. Especially when a student is ill for a week or two, catching up is very hard for students who only have the online material at their disposal. The quality of the online course material is adequate, although in itself not sufficient for self-study. Feedback from students showed that the quality of the online video lectures varies greatly, suggesting that more uniformity is needed here. Currently, research is being carried out with regard to the efficiency and effectiveness of working with video tutorials within the different modules.

VFX students told the panel that a render-farm is needed, because rendering a movie-clip on their own laptops is inefficient and time-consuming. The panel suggests that renting a cloud-based rendering solution would be beneficial. Some cameras and motion-capture systems are not in line with the contemporary demands of the professional field. The panel encourages the programme management to continue investing in **contemporary material** that responds to the demands of the professional and technological field. The panel acknowledges the financial constraints to stay up to date with the latest technologies in all domains simultaneously, but nevertheless periodic evaluation of modern equipment should be considered.

The programme facilitates incoming and outgoing **mobility**. In semester five, the students have the possibility to follow an Erasmus trajectory but only a few students wish to do so. During the last year, the students also get the opportunity to go on an international study trip that introduces them to the international professional field for which they have been trained.

The panel noted that the programme is very attractive for **foreign students**. The panel was informed that to a great extent the *Rookies awards* have contributed to its good reputation internationally. The panel commends DAE as an **international community**. There are more than 150 international students. Although international students feel not always connected with the Flemish students, the social activities organised by the programme stimulate social contact between students. To many students, the international community is an enormous added value. The DAE Global cell is responsible for the operation and activities of the international community. The panel learned from its meetings with students and staff, that supporting staff invests heavily in making the international students feel at home. To the extent that is possible, the supporting staff seeks a personalised approach. The supporting staff accounts for the particular needs that foreign students have when living in Kortrijk amongst Flemish students.

The **drop-out** rate was and is still high. DAE is an extraordinary attractive programme. Some first-year students seem to have enrolled in the programme based on their interest in the medium of games and gaming rather than an interest in gaining the technical and artistical skills that are required to build a game, and that form the key objectives of the four majors. The programme management introduced several measures to inform potential and new students and set the right expectations, including introduction sessions, support for students, a voluntary admission test and feedback on assignments (see also standard 3). The panel acknowledges the efforts of DAE to inform students and encourages the programme management to keep on monitoring the dropout.

The current staff involved in the study programme consists of 38.75 FTE lecturers, 4 FTE staff members and 6 FTE project members. The guidance ratio is approximately 1/24 (23.7). The panel finds the ratio students/staff reasonable, even though yearly monitoring is warranted if the programme continues to grow significantly.

The panel witnessed that the staff members are extremely dedicated and motivated. They have a passion for the course topics they are teaching and care about the programme. They put a lot of emphasis on improving their own knowledge and skills. The staff members have good domain knowledge and are even expanding their expertise into a broader profile by following classes from colleagues. This is beneficial to the programme as a whole, as the teaching staff will more easily understand and be able to explain the linkages between courses. The students told the panel that the staff is very motivated and that the staff stimulates their desire to gain new knowledge and competences.

The teaching staff can be characterized by their broad mix of profiles, including lecturers who mainly have **teaching experience**, lecturers with mainly industry experience and lecturers with field-specific competences. In the first year, the programme management preferably deploys lecturers who have vast teaching experience. Gradually, specialists take over and in the last year there is a focus on lecturers with an extended industry experience who guide the students towards their internship and future job.

Lecturers who are hired for their subject speciality most often lack the necessary pedagogical knowledge and **didactic competences**. The management staff explains that on the job market, it is a rarity to find people who have such a hybrid profile. This problem is tackled by investing in on-the-job training for those lecturers who have little or no pedagogical background via the DCA (didactic competences in general) path that is offered at Howest. Before the DCA path was available, starting lecturers without teaching experience were offered a personal didactic coaching path. The panel states that based on the interviews with students, alumni and teaching staff, it is clear that all necessary competences are present amongst the staff, but not always to a sufficient extent. DAE regularly recruits among its own alumni. As a result, experience and maturity is a point of attention. Alumni are mainly employed in teaching assignments that are highly task-specific and preferably (if possible) as assistants to an experienced lecturer. The panel is convinced that the system of pairing a junior with a senior staff member works very well. Junior staff members are learning from senior colleagues. However, once the teaching staff does no longer consists of junior staff, this principle of joint reflection must be anchored in the programme. Staff members are open to follow training where needed, e.g. to obtain the language qualification, to gain pedagogical training, to improve their knowledge and skills of other

domains than their own specific expertise. The management monitors the qualification of the teaching staff and encourages the staff members to invest in training efforts where relevant. Nevertheless, the management and teaching staff acknowledges that efforts need to be made in order to improve the pedagogical competences of the (junior) lecturers. Actions on the short term are defined and being undertaken. However, it would be beneficial to implement a system to monitor the pedagogical quality of the staff and invest in that on a systematic basis in order to be future proof. This could include a more systematic approach to train the staff on a pedagogical level, share best practices, learn from each other, and discuss potential issues.

On a voluntary basis, the teaching staff is involved in **extracurricular support** of the students, such as the weekly study nights, where students can study and discuss together. These extracurricular activities are positively evaluated by both students and staff. However, the weekly evening activities might pose a burden on the lecturers, even though it is not an obligatory part of their job to be present during for instance the study nights. The question is how future-proof these study nights are for the lecturers who might find the time and energy to do that during the first years of their career but maybe not for many years in a row, especially in combination with a family life. The panel finds that supporting facilities seem to be dependent on the voluntary efforts from the lecturers, which is in this scenario good for the short term as they are doing a great job, but fragile for the future. The panel recommends to develop a future-proof policy for ongoing student support. After all, student support is crucial, given the growth of the programme and the number of junior teaching staff members. The current 0.25 FTE is only just enough to focus on a few priorities, but not sufficient to conceptualise, implement and support a more systematic pedagogical project, which the programme would benefit from in order to be future proof. The programme encourages several extracurricular activities such as the aforementioned study nights, physical exercises, and thematic workshops that eventually also help students to achieve the learning outcomes. It brings students together and provides low-barrier opportunities to bring students in contact with the staff. The panel commends the lively community at DAE that creates an inspiring working environment and a positive attitude towards the programme as a whole. It gives students an identity and lowers the barriers to contact the staff when in need of help or feedback. It even improves peer relations which eventually also fosters better collaborative learning.

There are plenty of **supporting facilities** that are accessible to the students and that tap into the needs of a broad variety of students. The programme is paying attention to the students in a holistic sense. It does not only account for the learning outcomes that need to be achieved, but also for the broader educational context, including students' free time, their social connectedness and their physical and mental health. In doing so, the DAE learning environment creates a particular culture with the specific DAE DNA and a lively community.

The programme has good infrastructural facilities that help students to achieve the learning outcomes. The management staff is monitoring this and proactively searching solutions to respond to new infrastructural demands. The architectural facilities contribute positively to the atmosphere of an open, creative and transparent community. Students are satisfied with the facilities but told the panel that they prefer to have more quiet spaces. It is uncertain to which extent the infrastructure is sufficiently scalable in the case of a continued growth scenario. In order to address scalability issues, the programme invests in new facilities with a greater number of rooms and buildings. However, it must be an attention point to seek how these places can be meaningfully connected in order not to lose the feeling of a community and belongingness, which is now an important added value of the programme. In semester five, the students work in The Hive which is the 'incubator@The Level' where they are expected to be present almost full-time. The panel is convinced that the Hive simulates a real-life work environment where the students are given a fixed work spot, have whiteboards, meeting rooms and projection possibilities.

The curriculum, the staff, the services and facilities make a coherent educational learning environment for students. The panel comes to this conclusion as the curriculum of the programme is aimed for the learning outcomes. There are good learning methods in place. These can be more anchored in a DAE-wide policy. The teaching staff has impressive content related expertise, but their didactic skills and knowledge can be improved. Dropout rates are still high, even though the programme management is tackling this by investing in initiatives to better inform potential and new students and set the right expectations. The programme is supported by adequate facilities and student guidance services that contribute to a holistic experience for students. The panel concludes that the educational learning environment complies with the required generic quality. As a conclusion, the educational learning environment is judged as "satisfactory" by the panel.

Standard 3 - Outcome Level Achieved

The panel evaluates the outcome level achieved for the Bachelor of Digital Arts and Entertainment as satisfactory.

The panel concludes that the programme has an evaluation policy that is **valid, transparent and reliable**. This policy is based on the Howest evaluation policy. The panel examined test and evaluation assignments. The panel noted that in the first year, most of the assignments are individual and module-specific. Halfway semester one, there is a global evaluation moment for the first year (the Q-week), which gives the students the possibility to assess themselves in-between. For all modules, the second examination opportunity takes place in August/September. From the second year onwards, there is a clear switch to team assignments. The context-specific competences are further deepened and supplemented with more specialised knowledge and skills, as a result of which more focus systematically comes on integration. In the fourth semester, there is a team-based integration project. In this project, the students learn to work with several roles in a project and they learn to use the relevant follow-up and reporting tools. Per module, several evaluation methods are combined most of the time. Formative and summative evaluations alternate. The ECTS files mention the evaluation methods that are in place. The panel is convinced that the variety of evaluation methods is in line with and contributes to the achievement of the learning outcomes. Students told the panel that they are well prepared for the exams.

The first six weeks of the fifth semester, the students make a graduation work on an individual basis (12 ECTS). At the end of this graduation work, students are supposed to be capable of discussing in a well-founded way why something did or did not work. In addition to the research components of this module, the students already learn on an individual basis how to draw up a planning themselves and how to reflect on their own progress. The students are also trained to report correctly. Before the site visit, the panel closely inspected 10 graduation works and 5 group projects (see infra). The panel is convinced by the relevance and quality of these graduation works, and the alignment between quality, grades and envisioned learning outcomes.

The study programme has two final tests: a **group project** and the internship. The group project is the last step students take before they leave for an internship. The group project simulates a real professional

environment and gives students the possibility to work in an open landscape office (The Hive) in groups of four to five students. Students are present at least four days a week at the workstation. The lecturers guide and support the students in working in small teams on a specific project. During the weekly sprint-plan meetings and coaching sessions, the students get formal feedback and evaluation. The students get an intermediary evaluation (30%) after five weeks and a final evaluation (70%) after 12 weeks. The level achieved in the final projects is judged by both the supervisors and mentors, to come to an agreement, which is positive for both validity and reliability. The lecturers use a rubric when giving feedback and evaluating the students. The panel noted that in the group project considerable attention is spent to the learning process and on reflection. The last step before graduation is the internship. The **internship** evaluation is mainly performed by the company, nonetheless in consultation with the programme to make sure a correct score can be given in function of the extent in which the necessary competences are acquired.

In ideal circumstances all **working formats and evaluation methods** are chosen on the basis of the learning objectives of a module. Following the available evaluation forms and the discussions with the programme management, the panel is convinced that this is true in many cases. Nevertheless, this is still a working point, partially because a large part of the teachings staff that are recruited either directly from the industry or among alumni has not received didactic training. As a result, it is a complex exercise for them to develop evaluation methods, not only for the technical, but also for the artistic and social skills. This is tackled among other things by training the teaching staff in the field of didactic competences. The panel recommends – next to the didactic training – to strengthen the didactic and pedagogically-based support. Therefore, it is important that the programme will set up an overall systematic pedagogical policy to maintain an appropriate level of assessment, testing and examination that is future proof.

A temporary increase in (supporting) staff resources is recommended in order to support the development of an overall **future-proof systematic assessment policy**, as part of an encompassing pedagogical programme. The teaching and management staff should be given sufficient time to collaborate intensively with the pedagogical staff in order to develop a systematic system of assessment, testing and examination that is tailored to the specific needs of the individual courses. Eventually, the

coordinators of the four majors can play an important role in supporting the staff with the actual implementation of it and in its evaluation. The programme management should also safeguard that the pedagogical strategies are sufficiently aligned with the overall policy. The panel was informed by the students that the programme invests heavily in formative **feedback**. Although the quality and amount of feedback depends on the individual lecturer, the teaching and supporting staff can be applauded for the numerous efforts they take in this regard. However, it is important to safeguard that the workload for the teaching and supporting staff remains doable in the long run given the increasing number of students.

For the group work, the graduation work and the internship, rubrics are developed in collaboration with the Howest teaching department. The panel recommends to formulate in these rubrics indicators for the **soft skills** that have to be achieved according to the learning outcomes. This would be beneficial for teaching staff and the coaches of the internships and the graduation works who have less experience with evaluating students.

The representatives of the professional field met by the panel, are very positive about the **achieved competences** of the students. They specifically state that the students have the relevant broad generic competencies and specific competencies depending on their major. The alumni mentioned that they are satisfied with the content of the curriculum. The main skills that were taught to the students are expected to be time-invariant: the concepts taught seem to be at an appropriate abstract level for courses such as programming.

Before students leave for an internship, they are introduced to the **alumni group** of DAE. This is a Facebook group of which only alumni and DAE staff members are a member. Via this Facebook page all job opportunities and/or sector-relevant initiatives are communicated. Each year, a BBQ and New Year's reception are organised for them. In that way, the programme keeps contact with its alumni.

The **employability** figures are very good. More than 90% has a job in the game industry. Graduates are highly demanded on the national and international professional job market. A significant proportion of students are offered a job on the place of their internship. Industry is eager to come and present themselves at the internship fair, which evidences that graduates obtain an adequate level that is of interest to the professional

field. The panel stresses that the strong connection between DAE and the relevant professional field contributes greatly to connecting students with the professional field.

To conclude, it is the panel's opinion that the study programme has an appropriate system of assessment, testing and examination. The programme management has to guarantee that all teaching staff assesses in function of the achievement of the learning outcomes. The shown assessments together with the feedback from the industry, students and graduates show that the programme achieves its targeted outcome level. On top of that, the employability of the alumni is very high. As a conclusion, the outcome level achieved is judged as "satisfactory" by the panel.
Final judgement of the assessment panel

Final judgement of the assessment panel

Generic Quality Standard 1 – Targeted outcome level	S
Generic Quality Standard 2 – Educational learning environment	S
Generic Quality Standard 3 – Outcome level achieved	S

As the Generic quality standards 1, 2 and 3 are evaluated as satisfactory, the final judgement of the assessment panel about the Bachelor of Digital Arts and Entertainment is satisfactory, such according to the decision rules.

Summary of the recommendations for further improvement of the study programme

Standard 1 – Targeted Outcome Level

- Involve the industry in a more structural way
- Make students aware of ethical and societal aspects in the domain of DAE

Standard 2 – Educational Learning Environment

- Check with alumni which elements on starting a new business can be added to the curriculum
- Use the portfolio more as an instrument for learning
- Monitor the quantity of staff as the programme keeps on growing
- Establish a policy for educational training of staff
- Develop a future-proof policy for ongoing student support
- Install more quite spaces for students
- Make the online platform a more coherent learning environment

Standard 3 – Outcome Level Achieved

- Establish a policy for educational training of staff to guarantee that all lecturers assess in line with the Howest policy and in function of the achievement of the learning outcomes.
- Consider a temporary increase of supporting staff

APPENDICES

APPENDIX I
Curricula vitae of the members of the assessment panel

Bieke Zaman is Assistant Professor and head of the Meaningful Interactions Lab (Mintlab) at the KU Leuven, Belgium. Her research is situated at the intersection of communication sciences and Human-Computer Interaction research. Bieke Zaman pursues specific research programs on Children and Digital Media, Gamification and Player-Computer Interaction. At the KU Leuven, Bieke Zaman is lecturing courses on Media and Design, Human-Computer Interaction, Qualitative Research, Media Research and Innovation, and Emerging Technologies and Applications. She is a Steering Committee Member of the Leuven Centre on Information and Communication Technology (LICT) and Associate Editor of the International Journal of Child-Computer Interaction. Bieke has an international reputation for her commitment to the organization of international conferences and networks, for instance being the Vice-Chair of the Children, Youth and Media Temporary Working Group of ECREA, the European Communication Research and Education Association and co-organizer of the yearly Interaction Design and Children conference.

Peter Verswyvelen is Software Architect at Wonder Media Productions. He studied computer science & mathematics at the University of Antwerp. In the nineties he was one of the first Belgian game developers, creating several commercial video-games for the Commodore Amiga platform, and later on for XBOX & PlayStation. He specialized in real-time 3D animation and graphics software, and was lecturer at the International Game Architecture and Design (IGAD) program at NHTV in Breda. He is also founder of Strongly Typed Solutions BVBA (STS), providing professional

graphics software services for customers like Smartphoto. At STS, he is currently creating ViKiD – a VAF GameFonds funded game for Flemish schools – to teach children the basics of modern programming and computational thinking through computer graphics and animation.

Antonia Aelterman studied at Ghent University and obtained a PhD degree in educational sciences in 1995. She was professor and president of the academical and specific teacher training at Ghent University until her retirement on 30 September 2013. Her research was focused on teachers and teacher education. She was president and member of the VLIR 'working group of teacher training' and took part in various steering committees for policy support. She was a regular member of visitation committees of VLIR, VLHORA and VLHUR. She was president of the visitations of the academical teacher training program in The Netherlands in 2014-2015. In charge of the NVAO she was one of the presidents of the institutional reviews in Flanders in 2016-2017 and the "toets nieuwe opleiding" in 2018-2019.

Paulius Gagelas had graduated as a BSc student in Creative Technology at the Faculty of Electrical Engineering, Mathematics and Computer Science, at the University of Twente. His thesis involved Virtual Reality application development for Serious Gaming. During his studies, he was part of a board of a student association organizing events, mostly LAN parties, for students. He currently works as a Unity 3D developer on projects involving Virtual, Augmented and Mixed Reality.

APPENDIX II
Time schedule of the site visit

Wednesday 12 december 2018	
13:00–15:30	Intern counseling + lunch
15:30–16:30	Programme managers
16:30–16:45	Intern counseling
16:45–17:45	Students
17:45–18:00	Intern counseling
18:00–19:00	Alumni + beroepenveld
19:00	Dinner

Thursday 13 december 2018	
9:00–9:30	Intern counseling
9:30–10:30	Teachers
10:30–10:45	Intern counseling
10:45–13:00	Facilities
13:00–14:00	lunch
15:00–15:00	Consultation hour
15:30–15:30	Intern counseling
16:00–16:00	Programme managers
16:00–17:30	Final counseling
17:30	Oral report