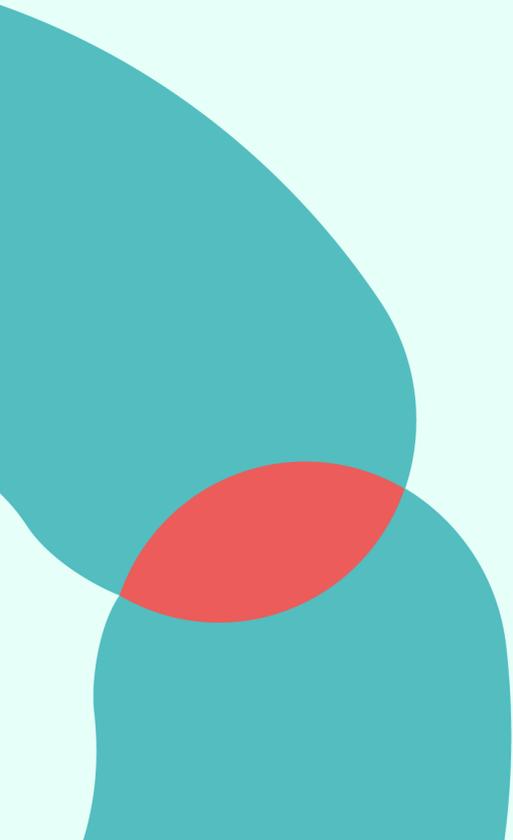




PROGRAMME ASSESSMENT

**LYCEE DES ARTS ET METIERS LUXEMBOURG  
BTS INFORMATIQUE**

Final report submitted to the Ministry of Research and Higher  
Education on 28 November 2025



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# 1 Executive Summary

This document reports on the programme assessment of the 'BTS Informatique' at the Lycée des Arts et Métiers Luxembourg by an international expert panel convened by NVAO on behalf of the Ministry of Research and Higher Education of Luxembourg.

The programme was last accredited by the Luxembourg authorities following an assessment in 2021. The current panel studied the self-evaluation report submitted by the Lycée des Arts et Métiers Luxembourg and discussed the state of play of the programme with a variety of stakeholders on October 8<sup>th</sup>, 2025.

The panel was convinced of the relevance and quality of the programme. Employers expressed appreciation for the programme's broad scope and confirmed that its graduate profiles match their needs. Students are readily employable and find jobs quickly. The programme has a coherent curriculum with high-quality courses, which are defined in ECTS credits and which are updated regularly. The students and alumni are ambassadors of the programme. They emphasised the approachability of their teachers and the high level of support they provide. The panel observed the staff's openness to the feedback they receive from students and the professional field, and valued their reflexive approach in the self-assessment report and during the discussions.

The panel encourages the programme to take the following **recommendations** into consideration:

## Area 2

- The panel recommends that the effectiveness of promotional activities be evaluated and advises that a coherent strategy be developed to enhance the programme's visibility through the most efficient channels. Collaboration with other lycées, the Ministry, and higher education institutions – including the university's orientation services for students who have dropped out – could be strengthened to promote the BTS as a valuable higher education choice.
- The panel recommends completing the existing rubrics for the evaluation of the internship with the other competences to clearly demonstrate that graduates have met all intended learning outcomes at level 5, and to share these rubrics with students, thus improving the validity and transparency of the final evaluations.

## Area 3

- The panel recommends that the programme explore ways to make the tutoring programme more proactive and substantive.

## Area 4

- As the website does not make its QA system publicly available through its website, the panel recommends including the exact accreditation period and a link to the accreditation documentation specific information.
- The panel recommends that the programme formalise the collection and follow-up of feedback more systematically, for instance, by creating a yearly action plan or

improvement roadmap, outlining SMART objectives, responsibilities, and timeframes.

- The panel recommends establishing a formal employer advisory committee, meeting at least once a year, to discuss programme-related matters – such as further calibrating the programme at level 5 – and, given the fast developments, ensure continuous alignment between the professional field and the programme.

Consequently, the panel recommends a positive re-accreditation.

Assessment area		Judgement
1	Aims and objectives of the study programme	MET
2	Admission, evaluation, certification	MET
3	Implementation of the programme	MET
4	Quality assurance measures	MET
<b>Overall judgement</b>		<b>Positive re-accreditation advice</b>

The Hague, 28 October 2025

On behalf of the international expert panel charged with the programme assessment of the Lycée des Arts et Métiers Luxembourg BTS Informatique,

Nicolas Navet  
Chair

Inge Verbeeck  
Secretary



## 2 Introduction

The Ministry of Research and Higher Education of Luxembourg (MESR) requested the Accreditation Organisation of the Netherlands and Flanders (NVAO) to carry out a programme assessment of the BTS Informatique of the Lycée des Arts et Métiers Luxembourg (LAM). The programme was last accredited 2021. The underlying assessment report has the status of an advice to MESR, which will eventually decide on the reaccreditation of the BTS Informatique the LAM is offering.

Given the particular features of this request, the NVAO convened an international panel of experts consisting of:

- Dr. Nicolas Navet, Luxembourg, chair
- Joeri Gerrits, Belgium, member;
- Eric Maillet, Luxembourg, member;
- Koen De Bruyne, Belgium, student member.

The composition of the panel reflects the expertise deemed necessary by NVAO for this accreditation exercise. Short CVs of the panel members are provided in annex 1 (5.1). On behalf of NVAO, Mr. David Corradi was responsible for the coordination of the assessment process. The external secretary, Ms. Inge Verbeeck, drafted this report in close cooperation with all panel members and in agreement with the chair. All panel members and the secretary signed a statement of independence and confidentiality.

The panel carried out the assessment after which the Board of NVAO made a recommendation to the Ministry. The Ministry takes the final accreditation decision. The framework for assessment comprises the criteria under the Higher Education Law of 21 July 2023, which creates the legal basis for the short-cycle programmes leading to the Brevet de Technicien Supérieur (BTS), offered by the Lycées.

The panel members studied the self-evaluation report and submitted their first impressions on the materials prior to the preparatory panel meeting, which was held online on October 3<sup>rd</sup>, 2025. The site visit took place on October 8<sup>th</sup>, 2025. The panel talked to the programme coordinators, as well as to teaching staff, students, alumni and representatives of the professional field. The schedule of the visit is presented in annex 2. Annex 3 lists the materials made available by the programme before the site visit.

Immediately after the discussion, the panel formulated its considerations and preliminary conclusions. These are based on the findings of the site visit and build on the assessment of the documents. The external secretary then drafted the advisory report and circulated it to all panel members for review and feedback. The comments of the panel were incorporated in a second version, which was validated by the chair and submitted to the Lycée des Arts et Métiers Luxembourg for comments on factual errors. The Ministry of Research and Higher Education in Luxembourg also received the report for a factual error check. Following this review, a final draft was prepared and submitted on behalf of the panel to NVAO, which in turn will send the report to the Ministry of Research and Higher Education in Luxembourg.

## 3 Programme Assessment BTS Informatique

### 3.1 Assessment Area 1: Aims and Objectives of the Programme

Assessment area 1 is detailed in the following assessment criteria:

- a) The programme complies with the provisions relating to programmes leading to the BTS, as defined in Title II<sup>1</sup>.
- b) The programme has a **coherent curriculum** which reflects the programme's intended **learning objectives** and the **learning outcomes** to be achieved by the student. It is broken down into **knowledge, specific skills, and transversal skills**.
- c) The programme is defined in accordance with **European standards** and the Bologna Process. It is defined in terms of **ECTS credits**.
- d) The programme is **divided into modules**, each of which is awarded a certain number of ECTS credits. Each module is made up of one or more theoretical or practical units, known as "**courses**". Each course carries a minimum of one ECTS credit and a maximum of 20 ECTS credits. The objectives and learning outcomes of each module and course are clearly defined.
- e) The **workload** is appropriate and balanced between semesters.
- f) The **ratio of theoretical to practical teaching** is consistent with the programme's objectives.
- g) **For each module** of the programme, the appropriateness of the **workload**, the types and methods of **assessment** and the intended **learning outcomes** are determined and documented in relation to the **level 5** descriptors of the Luxembourg Qualifications Framework, in accordance with the amended Law of 28 October 2016 on the recognition of professional qualifications<sup>2 3</sup>, and in relation to the number of ECTS credits allocated to each module of the programme.
- h) Programmes preparing for **regulated professions** within the meaning of the amended Act of 28 October 2016<sup>4</sup> on the recognition of professional qualifications **comply with the legislative and regulatory requirements governing the regulated profession concerned**. This compliance is established by means of a detailed **report drawn up by the competent minister responsible** for the profession concerned. This report is a **mandatory part** of the accreditation file.

a)

The **BTS Informatique** at the Lycée des Arts et Métiers Luxembourg (LAM, Site Congrégation, Luxembourg) is a full-time, two-year BTS programme (120 ECTS) in the field of informatics. It is designed to equip students with the professional competencies required for employment as IT specialists – such as developers, system administrators, webmasters, network designers, or database managers – in a wide range of companies. As the first BTS in informatics established in Luxembourg, the programme has, since its inception, pursued the broad objective of preparing students for the development and management of computer systems across five main areas of computing: operating systems, computer networks, databases, and application

<sup>1</sup> [https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#title\\_2](https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#title_2)

<sup>2</sup> <https://legilux.public.lu/eli/etat/leg/loi/2016/10/28/n2/jo>

<sup>3</sup> [https://legilux.public.lu/eli/etat/leg/loi/2016/10/28/n2/jo#art\\_69](https://legilux.public.lu/eli/etat/leg/loi/2016/10/28/n2/jo#art_69)

<sup>4</sup> <https://legilux.public.lu/eli/etat/leg/loi/2016/10/28/n2/jo>

programming (desktop, web, and mobile). While most graduates choose to enter the labour market immediately, those wishing to continue their studies may access programmes requiring a BAC +2 qualification. The programme recently established a partnership with an Irish university where students can obtain a bachelor's degree in one year time.

During the site visit, the programme coordinators explained that several other BTS programmes at LAM have been initiated in the past years which focus on specific IT domains (e.g. Game Programming, Internet of Things and recently Artificial Intelligence). However, the **generalist orientation** of the BTS Informatique was a deliberate and enduring choice, made in alignment with the requirements of the professional field. Although the coordinators acknowledged that the breadth of the programme might lead to insufficient depth in knowledge in some domains or for certain jobs, they emphasised that students are consistently being trained to solve problems, find information, and transfer knowledge. The discussions with the representatives of the professional field confirmed that BTS graduates have a realistic understanding of the professional environment and are able to integrate rapidly into the workplace. They possess a solid foundational knowledge, can work with various software environments, assess and resolve problems efficiently, and demonstrate adaptability and agility.

b)

In addition to theoretical knowledge and domain-specific IT skills, the programme places strong emphasis on the development of **transversal skills**, which include written and oral communication in French and English, teamwork, time and priority management, critical thinking and problem-solving, autonomy, responsibility, and adaptability. These are assessed through presentations, group work, reports, portfolios, and internship evaluations. During the site visit, employers strongly emphasised the importance of these skills, and called them essential skills for developers, who must be able to interact effectively with clients. While the alumni who graduated ten years ago indicated that these skills were not so much addressed in their time, current students reported receiving explicit training in applying for jobs in French, German, and English, and in giving presentations. Individual accommodations are made for those students facing particular difficulties with public speaking.

The **curriculum** is structured into eight branches:

1. Network and telecommunication (sem 1-3, 15 ECTS)
2. Object oriented programming (sem 1-3, 12 ECTS)
3. Web and mobile programming (sem 1-3, 13 ECTS)
4. Databases (sem 1-3, 15 ECTS)
5. Operating systems (sem 1-3, 14 ECTS)
6. Business communication (sem 1-2, 10 ECTS)
7. Project (sem 3-4, 14 ECTS)
8. Internship and events (sem 4, 21 ECTS)

c), d)

Each branch consists of (one to three) **modules**, which are divided into one or two **courses** ranging from 1 to 20 ECTS credits. Branches 1-5 run throughout the first three semesters, the branch 'Business communication' during the first two semesters and the branch 'Project' during the third and fourth semester. The branch 'Internship and events' is organised during

the fourth semester and comprises a 12-week internship, which may be independent of or related to the final year project. The latter is organised right before the internship.

As IT is a constantly evolving domain, the programme explained how it decides on **course adaptations**. It tries to remain closely aligned with market developments by gathering feedback from the professional field (e.g. through contact with internship companies), but it also wants to safeguard both its generalist character and curricular stability. Consequently, it avoids transient trends. Teachers indicated that they make yearly minor adjustments when necessary, without compromising the learning objectives of their courses. When asked about the introduction of electives to allow students to specialise or develop specific interests, teachers expressed openness to the idea but noted that current workload levels, small student cohorts, and limited teaching staff (see Assessment Area 3) make such differentiation impractical at present.

Of course, **Artificial Intelligence (AI)** was addressed during the discussions. The programme does not plan to introduce a standalone AI course but instead considers AI as a tool that students can and should learn to use effectively and responsibly. Students are asked to document their use of AI tools when making assignments. Teachers verify the degree of ownership by having students explain their code or comment on their texts. It was acknowledged that perspectives on AI use may vary between teachers, but that this is perceived as educational for students. The programme looks forward to being inspired by the national guidelines regarding the use of AI, which are under development.

e)

Each semester consists of courses totalling 30 ECTS credits, which corresponds to an approximate **workload** of 750 hours. This workload comprises in-person education at the school and autonomous work time (self-directed study). According to the documentation the workload is distributed evenly across the four semesters. During the site visit, students reported that the workload is demanding and that they initially needed time to adjust, particularly because project work is intensive. Some students mentioned that one teacher recently reviewed and adjusted the course pace in response to their feedback, which they greatly appreciated.

f)

The BTS Informatique is a highly **practice-oriented** programme. Around 75% of the modules have a practical focus, while 25% are more theoretical. Teaching methods include lectures, tutorials, independent study, and individual and group projects.

The **internship** is an important capstone of the programme. Companies can propose internship opportunities via email, but students may also suggest placements themselves. There is no formal meet-and-greet event, but according to the students, securing internship placements goes smoothly. Several start-ups based on campus (in the TalentHub) regularly host interns. Students apply directly to companies and once hired, the students work under the supervision of a tutor at the company and of a tutor at the LAM. The internship report serves as a written record of the tasks a student has completed, the methods he has used, and the solutions he has implemented. After the internship, most students receive job offers from their internship employers.

When the panel asked whether the representatives of the professional field would be interested in this BTS organised *en alternance*, they reacted with great enthusiasm. They were convinced that having these students involved for a longer period of time would enhance the learning experience for students and would be of added value to the company.

g)

According to the documentation, the programme's intended learning outcomes correspond to **level 5** of the European Qualifications Framework (EQF) and encompass broad ICT-related knowledge, practical skills, and professional competencies, including effective and consistent communication, project planning and documentation, and autonomous acquisition of new knowledge.

Clear rubrics exist for the evaluation of most, but not all, of the learning outcomes at the end of the internship. While for the evaluation of the professional competences the programme works with a detailed rubric, the evaluation of the presentation and the report are less transparent. The coordinators explained that these are not returned to the students.

Students reported that teaching methods differ from those used in secondary education: after introducing key concepts, teachers encourage students to work independently on individual and group projects, providing supervision and support throughout the process. According to the students, the project content is more advanced than in secondary school, and teaching materials are updated more frequently. Students who had previously attended a university programme observed that the BTS level lies between that of secondary and university education.

When asked how their teaching aligns with EQF level 5, the teachers – who also teach in secondary school – explained that the cognitive level expected of students is higher and the students are more challenging. They added that they regularly discuss employers' expectations regarding graduate competencies and take these into account when shaping their courses. In addition, professional certifications (e.g. Cisco, Microsoft) serve as benchmarks for determining the required entry-level skills.

h)

The BTS Informatique does not prepare students for a **regulated profession**.

### *Conclusion*

The panel was convinced of the relevance and quality of the programme and of its graduates' strong employability. Students indicated that the programme's practical and generalist character was a decisive factor in their choice. Also, employers expressed appreciation for the programme's broad scope and confirmed that its graduate profiles match their needs. Students are readily employable and find jobs quickly.

The programme has a coherent curriculum, which reflects its learning outcomes, which are broken down into knowledge, specific and transversal skills. All stakeholders underlined the importance of the latter, which are appropriately trained.

The panel was also convinced of the quality of the courses, which are defined in ECTS credits and commends the programme's efforts to maintain them up-to-date. The panel noted that

for a generalist programme, it explores networking in considerable depth and suggests reconsidering the level of detail. It also observed that dependencies between programming courses are visually represented in the documentation, but not for other courses. The panel suggests visualising these interdependencies across all courses.

The panel observed that the programme is responsive to student feedback concerning workload, but encourages continued vigilance to ensure that tasks remain well distributed and workload manageable.

For each module of the programme, the appropriateness of the workload, the types and methods of assessment and the intended learning outcomes are determined and documented in relation to the level 5 descriptors.

Finally, the panel noted strong enthusiasm from employers regarding the potential introduction of an alternance model, and it encourages the programme to explore this opportunity collaboratively with industry partners (see also Assessment Area 4).

The panel found that the programme meets the underlying assessment criteria of this assessment area. The panel therefore concludes that for this assessment area the quality of the programme has been demonstrated in a verifiable manner. The panel judges that the programme **meets** criterion 1.

### 3.2 Assessment Area 2: Admission, Evaluation, Certification

Assessment area 2 is detailed in the following assessment criteria:

- a) **The Lycée publishes**, in a clear, precise, and up-to-date manner, **information on its BTS programmes**, the **respective status** of its programmes with regard to accreditation, the **admission requirements** for the various programmes, **the enrolment fees**, the **total cost** to be expected per programme, **the curriculum** for the programmes offered, the **intended learning outcomes** and the **qualifications** leading to said programmes.
- b) The **admission requirements** for the programme of study are clearly defined and published. The modalities of potential **entry examinations** must be published 3 months in advance.
- c) The procedure for the **validation of prior learning or experience** are clearly defined, in accordance with the provisions of Article 11<sup>5</sup>.
- d) **Assessment methods** are defined in relation to the learning objectives and are designed to verify the achievement of the programme's intended learning outcomes.
- e) **The assessment methods** applied in the various modules and courses are clearly **communicated** to the students.
- f) **The degree shall comply with the provisions** of Article 26(2)<sup>6</sup>, and shall be **accompanied by a supplement** complying with the provisions of Article 26(3)<sup>7</sup>.

#### Admission

<sup>5</sup> [https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#art\\_11](https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#art_11)

<sup>6</sup> [https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#art\\_26](https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#art_26)

<sup>7</sup> [https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#art\\_26](https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#art_26)

a)

The LAM disseminates comprehensive **information** to potential students and companies through its website (<https://btshub.lu/>). The formal diploma requirements for candidates wishing to enrol in this programme are outlined. Each BTS has its own webpage accessible via the main site. The BTS Informatique website (<https://in.btshub.lu>) presents the programme overview, curriculum, course contents, important dates, and specific information on the entrance examination. The cost per semester is 150 euros, with additional fees for necessary materials, such as renting a lease laptop.

b)

**Admission criteria** are published on the website and include fluency in English and ranking among the top twelve candidates in the **entrance examination**. This examination is organised jointly with the other related BTS programmes offered at LAM. It comprises a basic programming test, a written problem-solving test, and a motivational interview. As applicants often apply for several programmes, the BTSs have decided to hold the entrance examination in June rather than in September. Decisions and results are communicated to candidates by email.

During the site visit, it was explained that the ‘basic programming test’ does not assume prior programming knowledge. The entrance exam is rather designed to assess logical reasoning skills. Candidates may choose to respond by writing a short narrative, drawing a diagram, or writing code. A questionnaire of increasing difficulty enables ranking of the candidates, and the oral component allows the assessing English fluency. The entrance examination is also used to evaluate the candidates’ entrance level, to get to know them and to guide them towards the most appropriate BTS. It is also organised in years when there are fewer applicants than available places (twelve).

In the current academic year, sixty-five candidates applied for one of the four BTS programmes in computer science organised at the LAM. Of these sixty-five, twenty-five submitted all required documents, including diplomas and residence permits (international students). Eleven of them enrolled in the first year of the BTS Informatique. Four students are currently enrolled in the second year.

The panel expressed concern regarding the **small cohort sizes** and the sustainability of the programme. The coordinators explained that, despite considerable efforts – such as participation in student fairs, information sessions in secondary schools, online campaigns, cross-referrals among BTSs, and the annual BTS fair – enrolments across all technical BTS programmes have been declining.

Students reported that BTS studies are still socially perceived as a lesser choice compared to university bachelor programmes. Parents, according to the students, often regard BTS studies as a second option. The panel found it noteworthy that some secondary school teachers reportedly discourage students from pursuing a BTS, claiming that employment prospects are limited, while the opposite seems to be the case as all students find jobs within six months after graduation. Furthermore, students observed that the lack of a student life and the secondary-school-like atmosphere detract somewhat from the attractiveness of the BTS.

Programme coordinators emphasised that broader governmental support would be required to launch large-scale awareness campaigns and to shift public perception of the BTS's value and relevance.

c)

Each year, LAM organises the procedure for the validation of **previously acquired experience** (validation des acquis de l'expérience, VAE). Practical information is made available on the website. Candidates are invited to an obligatory information session where they can discuss their application with the coordinators of the various BTS programmes offered at LAM. The procedure is open to potential students with at least three years of professional experience in informatics. Last year, of the nine candidates, two submitted their portfolios, one of whom withdrew shortly thereafter. According to the programme management, a major obstacle for VAE candidates is the LAM requirement of 80% class attendance, which poses a challenge since most employers do not allow their employees to attend such a high proportion of classes.

### Evaluation

d)

According to the documentation, **assessment methods** are diverse – including summative written examinations, presentations, practical assignments and tests – and are appropriately aligned with the learning objectives of each course. During the site visit, the panel learned that the programme had introduced intermediate deadlines for projects after experience showed that students tended to postpone their work for too long. The students explained that, for one of their projects, they had to design a website for a cinema. They described working for a real client as a particularly enriching experience.

During the discussions, the **use of AI tools in assessment** was addressed. For modules requiring coding – such as the Java 1 course – examinations are conducted offline using school computers to prevent internet or AI access. Teachers of programming courses have included oral examinations or presentations in their assessments to verify students' understanding and ownership of the code they submit. The programme focuses less on syntactic accuracy and more on sound reasoning and the ability to produce solutions that meet client needs. The programme ensures that students who feel less confident in oral presentations are not disadvantaged by offering individual arrangements (for example, presenting to the teacher alone or via a screen from an adjacent room). Also for courses that are examined with written papers and projects, the programme adopts a pragmatic approach: students are allowed to use AI tools, provided they are transparent about their use and can demonstrate understanding of the submitted work. Some teachers have reduced the weight of written assignments in assessment, as these are more easily produced with AI. The programme observed that, due to the use of AI and the overall improved quality of student reports, more time is available for engaging in content-focused discussions.

The **final-year project** (*travail de fin d'études*) is undertaken in the fourth semester, immediately preceding the internship. Each student must complete a substantial project incorporating at least one technology not covered in the first three semesters, thereby demonstrating innovation, independent learning and professional competence. A supervisor (*promoteur*) monitors progress and provides guidance. Before submission, the project is defended before a jury comprising the supervisor and at least one additional assessor.

The **internship** is assessed by the company tutor and the LAM tutor, who both complete an evaluation form. The final mark is based on the work undertaken during the internship as described in the internship report, and the presentation. The panel found the internship evaluation rubric is well-structured, with clear assessment scales. However, it noted that the presentation is assessed on a scale of 0 to 3, while the report receives only descriptive feedback. The programme explained that it could formalise these two elements into rubrics but it has traditionally worked in this way. Consistency of evaluation across internships is ensured by the coordinator's participation in all oral defences.

e)

**Information about assessment** is communicated to students through the Learning Management System (Moodle). At the beginning of the academic year, students are encouraged to download the *Catalogue des cours*, which details the assessment methods for each course.

### Certification

f)

The diploma and supplement are compliant with Luxembourgish law.

### Conclusion

LAM provides comprehensive and transparent information to current and prospective students through its dedicated website. Admission requirements and procedures are clearly communicated, and the institution offers a well-structured process for the recognition of prior learning (VAE), in accordance with legal standards. The digital learning platform (Moodle) provides students with access to module information and assessment details.

Overall, the panel observed that the programme is often perceived as a 'second choice' for students who have not succeeded in university-level studies. Despite the efforts of the coordinators, enrolment numbers remain low. The panel **recommends** that the effectiveness of promotional activities be evaluated and advises that a coherent strategy be developed to enhance the programme's visibility through the most efficient channels. Collaboration with other lycées, the Ministry, and higher education institutions – including the university's orientation services for students who have dropped out – could be strengthened to promote the BTS as a valuable higher education choice. The panel also considers that exploring a modest increase in cohort size, if resources allow, could be beneficial in light of the programme's quality and the strong demand for IT professionals in Luxembourg.

The panel is convinced that the programme has a clear understanding of the student profile it aims to recruit and that it selects candidates with a strong likelihood of success. However, the terminology used for the entrance examination ('programming test') may inadvertently create the impression that prior programming experience is required. The panel therefore **recommends** renaming the entrance examination to better reflect its intended purpose, namely testing logical thinking and reasoning competences.

While the evaluation forms were found to meet the required standards, they could benefit from further refinement. The panel **recommends** completing the existing rubrics for the evaluation of the internship with the other competences to clearly demonstrate that

graduates have met all intended learning outcomes at level 5, and to share these rubrics with students, thus improving the validity and transparency of the final evaluations.

The panel found that the programme meets the underlying assessment criteria of this assessment area. The panel therefore concludes that for this assessment area the quality of the programme has been demonstrated in a verifiable manner. The panel judges that the programme **meets** criterion 2.

### 3.3 Assessment Area 3: Implementation of the Programme

Assessment area 3 is detailed in the following assessment criteria:

- a) The programme **has sufficient resources in terms of teaching staff and financial and material means** to meet its specific needs and achieve its objectives. These resources are available throughout the entire duration of the programme.
- b) The Lycée has **appropriate infrastructure** to offer the proposed programme and enable its students to achieve the intended learning outcomes.
- c) Teaching is provided by a **teaching staff that is competent** from a didactic and pedagogical point of view and capable of relating teaching to professional practice in the field concerned and to current research. Teaching is student-centred and encourages active student participation. The suitability of each of the professional profiles of the available and planned teaching staff is clearly demonstrated in relation to the programme's objectives and its intended learning outcomes.
- d) The **proportion between teachers appointed in the Lycée and external contractors** is appropriate to the objectives of the curriculum, it being understood that the **proportion of lessons provided by external contractors may not exceed the threshold of 40% set in Article 9(2)<sup>8</sup>**.
- e) **Continuing training programmes** are provided for teaching staff.
- f) In the case of alternate programmes, the school has a specific and compulsory **training programme for the trainers who deliver the practical teaching modules in the workplace**.
- g) Students benefit from appropriate supervision and full information. A **tutoring programme** is offered to students.

a), c)

The **teaching staff** involved in the BTS Informatique consist primarily of LAM teachers. Due to the shortage of staff, teachers work overtime. Despite the high workload and additional hours, the teachers whom the panel met, were highly motivated and deeply committed to the quality of the programme and the well-being of their students. It was evident that they form a cohesive and supportive team that communicates and collaborates frequently.

b)

In terms of **infrastructure**, LAM provides two dedicated and fully equipped classrooms for this programme (one for each year of study), located on the BTS campus Site Congrégation. All necessary equipment – computers, printers, network infrastructure, central servers, and projectors – is made available to students. Laptops can be leased for 57 euros per semester.

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<sup>8</sup> [https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#art\\_9](https://legilux.public.lu/eli/etat/leg/loi/2023/07/21/a470/jo#art_9)

As all teachers also teach in secondary education offered at LAM and/or in another BTS, it is important that they are housed on the same campus. It is considered beneficial that all BTS programmes are housed on the same site, both for practical reasons and to foster a sense of community.

Equipment is also shared between the BTS programmes: for example, Mac M1 computers that are no longer sufficiently current for another BTS can still serve this programme well and are passed on. The programme manages to meet material needs in creative ways, such as through partnerships with companies and by sourcing second-hand components.

d)

At the time of the site visit, only one external teacher was involved in the programme. The involvement of **external contributors** therefore remains below the legal maximum of 40% of total teaching hours. Direct contact between students and the professional field is facilitated through the TalentHub: five start-ups have offices on the LAM campus, which encourages exchange and enables the organisation of collaborative projects, conferences, and workshops. Additionally, entrepreneurs are invited to give guest lectures in order to stimulate students' enthusiasm for entrepreneurship and people from the professional field play a role in supervising and assessing internships.

e)

**Continuous professional development** for teachers is essential, especially in a rapidly evolving field such as informatics. Supported by the Institut de Formation de l'Éducation Nationale (IFEN), LAM's internal training team (SCHILW) responds to staff requests and helps organise continuing professional development activities. Teachers reported that each of them has a specific field of expertise in which they remain up to date.

g)

At the start of the academic year, every student is assigned a teacher from the programme as a **tutor**. To enhance visibility and lower the threshold for contact, the tutor is always a member of staff teaching in the first year. The allocation takes place a few weeks after the beginning of the academic year, allowing staff to become acquainted with the new cohort beforehand. The tutor's role is to monitor the student's progress and provide programme-related support throughout their studies. Although there is no fixed schedule for meetings, tutors are expected to check in regularly with their assigned students.

Students appreciated the idea of having a tutor to contact if needed; second-year students recalled having received an introductory email from their tutors the previous year, but none had felt the need to contact them. They tend to approach the course teachers directly when they need assistance. Students feel all teachers are approachable and willing to help. Several alumni mentioned that they had gone through a difficult period during their studies and had considered dropping out. During these challenging times, they felt strongly supported by their teachers, whose encouragement helped them to persevere.

### *Conclusion*

The programme benefits from a motivated and competent teaching staff with diverse experience and backgrounds. Some teachers bring prior industry experience to the classroom.

The panel observed a positive dynamic and a cooperative atmosphere among the teaching staff. Teachers are prepared to work additional hours in their commitment to professional development.

There is sufficient equipment and resources to deliver the programme effectively. Teachers and coordinators are creative in finding the necessary materials and make good use of their professional networks to obtain resources advantageously.

The TalentHub concept fosters close cooperation with industry and provides students with authentic exposure to professional environments.

Students feel supported and coached. Teachers are readily accessible and students feel that they are taken seriously. The panel understands the programme's intention to promote student autonomy but believes the tutoring system could be strengthened. The panel therefore **recommends** that the programme explore ways to make the tutoring programme more proactive and substantive.

The panel found that the programme meets the underlying assessment criteria of this assessment area. The panel therefore concludes that for this assessment area the quality of the programme has been demonstrated in a verifiable manner. The panel judges that the programme **meets** criterion 3.

### 3.4 Assessment Area 4: Quality Assurance Measures

Assessment area 4 is detailed in the following assessment criteria:

- a) **The Lycée ensures the collection, analysis, and use of relevant information for the effective management and continuous improvement of its BTS programmes.**
- b) The Lycée has a **quality assurance system** for its BTS programmes, which it makes **publicly available**. The quality assurance procedures applied by the Lycée **comply with** the requirements of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).
- c) **The programmes are regularly subjected to internal evaluation to ensure that they take into account the latest research and didactic developments in the relevant field**, achieve the intended learning outcomes, and **meet the constantly evolving needs of students and society**.
- d) The Lycée maintains regular and formalised **exchanges with professional circles in the Grand Duchy of Luxembourg** related to its BTS programmes.
- e) **Responsibilities, competencies, and decision-making processes related to the BTS programme are defined clearly and transparently.**
- f) **Teachers and students** have sufficient means to express their positions and **participate** in decision-making through representation in various bodies and committees.
- g) In the case of an application for the **reaccreditation** of a programme, it is demonstrated to what extent, and through which means, actions, and decisions **the Lycée has taken into account the recommendations outlined** in the evaluation report and the accreditation decision of the previous period.

b)

Publicly available information about the QA system of the programme on the website reads: *“The training has undergone an accreditation procedure by an external accreditation committee and based on the positive opinion issued, the Minister of Higher Education and Research has authorized the BTSi training for a period of five years. The training will then be subject to an evaluation and renewal for a further period of five years may be decided.”* However, the website does not specify the exact accreditation period or provide a link to the accreditation documentation.

a), c), e)

The **quality assurance document** defines the responsible committees and the procedures for continuous quality assurance. The QA document is shared across the ten BTS's of the LAM and outlines, among other aspects, the QA responsibilities and procedures carried out by the **curricular group**. This committee is composed of one member of the school management, the programme coordinator, three members of the teaching staff, and two experts from the professional field. The curricular group gathers feedback from its different stakeholders: students, teachers and companies.

d)

Although there are no formal meetings with **employers** to collect feedback on the curriculum, insights from the professional field are gathered during company visits by LAM tutors and at the end-of-year internship defences, which are attended by company tutors. During the meeting with the panel, the employers engaged in a constructive discussion about the inclusion of UI/UX and cloud-based applications in the curriculum, topics of which the programme management was already aware.

The panel observed that the programme maintains close daily contact with students and has a good understanding of the needs of the professional field. However, it was less clear how the various forms of feedback are systematically used to improve the programme. The programme explained that, given the small size of the teaching team, many issues are addressed informally and immediately, while matters requiring the involvement of coordinators or ministerial approval are formally documented.

f)

At the end of each semester, every **student** completes an anonymous evaluation survey on course content and delivery. The curricular group analyses the results and discusses them with the relevant teachers where necessary. Teachers indicated that the anonymous format give some students an additional means to express their opinions. However, as contact between teachers and students is close, feedback is often shared directly. For example, students had raised concerns about overlapping project deadlines that created peak workload periods – an issue that has since been resolved. Following the analysis of survey results, any adjustments are communicated directly to students in class. Students expressed high satisfaction with the programme content, the support provided by their teachers and the opportunities to give feedback.

In addition to these surveys and informal feedback opportunities, an overarching **student committee** with student representatives from all BTS programmes, exists. It addresses cross-

programme issues, such as the organisation of Power Week or improvements to campus facilities.

In response to previous recommendations, an **alumni association** has been established, and several events – such as an end-of-year barbecue – are organised annually. The programme also maintains informal contact with alumni through the internships of current students. Alumni interviewed by the panel confirmed that the programme had prepared them well for professional life and stated that they would recommend it to others.

**Teachers** are consulted during the second semester to prepare for the upcoming academic year and can propose course modifications. Adjustments are based on student feedback or IT developments. Programme coordinators maintain an overview of course content via Moodle and use the platform to ensure that all courses meet programme expectations.

g)

LAM has acted on the **recommendations from the previous BTS accreditation committee and the MESR**. A partnership has been established with an Irish university to enable students to obtain a bachelor's degree after one additional year of study. Furthermore, an alumni network and a Student Committee have been created to strengthen student representation. Regular meetings are held between the coordinators of the BTS Informatique, IoT, AI, and Game Programming programmes to improve coordination. However, the panel could not clearly establish to what extent each recommendation has been implemented or which may have been difficult to realise.

#### *Conclusion*

As the website does not make its QA system publicly available through its website, the panel **recommends** including the exact accreditation period and a link to the accreditation documentation specific information.

A structured and well-documented QA process is in place. Internal evaluations are conducted through student surveys, staff consultations, and feedback from internship companies. During the site visit, it was evident that the programme team is open to feedback and demonstrates a reflective attitude focused on continuous improvement. Given the small size of the team and student cohorts and a student-centered school culture, much of the quality assurance takes place informally, and decision-making cycles are short. This allows the programme to respond flexibly to feedback. Both students and alumni expressed satisfaction with the programme's content and the guidance provided by their teachers. Representatives of the professional field confirmed that graduates are well trained and ready to enter the workforce.

However, as many quality-related exchanges occur informally in day-to-day interactions, improvement plans and progress are not consistently documented. The panel therefore **recommends** that the programme formalise the collection and follow-up of feedback more systematically, for instance, by creating a yearly action plan or improvement roadmap, outlining SMART objectives, responsibilities, and timeframes. Such a document could serve as a practical working tool shared with all stakeholders within and beyond the programme.

The panel also **recommends** establishing a formal employer advisory committee, meeting at least once a year, to discuss programme-related matters – such as further calibrating the

programme at level 5 – and, given the fast developments, ensure continuous alignment between the professional field and the programme. This forum could also provide a structured space for discussing and deciding whether or not to implement suggestions from employers.

The panel found that the programme meets the underlying assessment criteria of this assessment area. The panel therefore concludes that for this assessment area the quality of the programme has been demonstrated in a verifiable manner. The panel judges that the programme **meets** criterion 4.



## 4 Judgement

Following the comprehensive investigation into the quality of the BTS Informatique, the panel concludes that the quality of the programme has been demonstrated in a verifiable manner for all assessment areas.

The panel was convinced of the relevance and quality of the programme. Employers expressed appreciation for the programme's broad scope and confirmed that its graduate profiles match their needs. Students are readily employable and find jobs quickly. The programme has a coherent curriculum with high-quality courses, which are defined in ECTS credits and which are updated regularly. The students and alumni are ambassadors of the programme. They emphasised the approachability of their teachers and the high level of support they provide. The panel observed the staff's openness to the feedback they receive from students and the professional field, and valued their reflexive approach in the self-assessment report and during the discussions.

The panel encourages the programme to take the following **recommendations** into consideration:

### Area 2

- The panel recommends that the effectiveness of promotional activities be evaluated and advises that a coherent strategy be developed to enhance the programme's visibility through the most efficient channels. Collaboration with other lycées, the Ministry, and higher education institutions – including the university's orientation services for students who have dropped out – could be strengthened to promote the BTS as a valuable higher education choice.
- The panel recommends completing the existing rubrics for the evaluation of the internship with the other competences to clearly demonstrate that graduates have met all intended learning outcomes at level 5, and to share these rubrics with students, thus improving the validity and transparency of the final evaluations.

### Area 3

- The panel recommends that the programme explore ways to make the tutoring programme more proactive and substantive.

### Area 4

- As the website does not make its QA system publicly available through its website, the panel recommends including the exact accreditation period and a link to the accreditation documentation specific information.
- The panel recommends that the programme formalise the collection and follow-up of feedback more systematically, for instance, by creating a yearly action plan or improvement roadmap, outlining SMART objectives, responsibilities, and timeframes.
- The panel recommends establishing a formal employer advisory committee, meeting at least once a year, to discuss programme-related matters – such as further calibrating the programme at level 5 – and, given the fast developments, ensure continuous alignment between the professional field and the programme.

Consequently, the panel recommends a positive re-accreditation.

<b>Assessment area</b>		<b>Judgement</b>
1	Aims and objectives of the study programme	MET
2	Admission, evaluation, certification	MET
3	Implementation of the programme	MET
4	Quality assurance measures	MET
<b>Overall judgement</b>		<b>Positive re-accreditation advice</b>



## 5 Annexes

### 5.1 Annex 1 – Composition of the Panel

- Dr. Nicolas Navet (chair), Professor in Computer Science, University of Luxembourg;
- Joeri Gerrits (panel member), Head of the Information Technology Cluster at PXL University of Applied Sciences and Arts;
- Dr. Eric Maillet (panel member), Head of Quality, Process and Transition Unit, POST Technologies, Luxembourg;
- Koen De Bruyne (student panel member), currently bachelor of Cybersecurity, Howest University College, alumnus of associate degree in System and Network Administration.

The panel was supported by:

- David Corradi, NVAO process coordinator;
- Inge Verbeeck, secretary trained and certified by NVAO.

All panel members and the secretary have signed a declaration of independence.



## 5.2 Annex 2 – Schedule of the Site Visit

- 08:30 – 09:45: Meeting with the headmaster and the coordinators
- 09:45 – 10:00: Coffee break
- 10:00 – 11:00: Meeting with employers
- 11:00 – 11:15: Short break
- 11:15 – 11:30: Meeting with Alumni
- 11:30 – 12:30: BTS Informatique teachers
- 12:30 – 13:15: Lunch break
- 13:15 – 14:00: Meeting with students and alumni
- 14:00 – 14:30: Additional meeting teachers
- 14u30 –15u00: Additional meeting coordinators
- 15u00 – 15u10: Tour of facilities
- 15u10 – 16u00: Closed panel meeting
- 16u00 – 16u45: Closing meeting with representatives of the program



### 5.3 Annex 3 – Documents Reviewed

#### Required information

- Accreditation file
- Annexes to the request for accreditation
  - Course learning outcomes (01\_IN\_Modules – Promo 15 – pour 24-25)
  - Quality Assurance (02\_Document\_assurance\_qualité\_BTS Informatique)
  - Course catalogue (03\_Catalogue\_des\_cours\_BTS Informatique)
  - Vademecum Internship (04\_Vademecum\_stage\_BTS Informatique)

#### Additional information sent by the LAM (06/10/2025)

- Répartitions des enseignants 2025/2026
- Access to Moodle courses



## 5.4 Annex 4 – Abbreviations Used

BTS	Brevet de Technicien Supérieur
ECTS	European Credits Transfer System
EQF	European Qualifications Framework (EQF)
LAM	Lycée des Arts et Métiers Luxembourg
VAE	Validation des acquis de l'expérience

## **Colophon**

QUALITY ASSURANCE SYSTEM LUXEMBOURG  
Assessment framework LU Programme Accreditation BTS  
Lycée des Arts et Métiers Luxembourg  
BTS Informatique (LU09A-25)  
Programme Assessment

*28 November 2025*

Compilation: NVAO • FLANDERS



**Nederlands-Vlaamse Accreditatieorganisatie**