

# NEBULA

“Roadmap for integration of VET  
program in certification/qualification  
frameworks”

**PROMEA**

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## 1 Introduction

Cloud computing representing a new model for IT engineering and management solutions, is expected to bring significant changes to European territorial public administrations, which will need to fundamentally modernise their IT infrastructures and change the way they consider IT. Furthermore, it seems to create a new demand for skills and competences on the integration, use and management of cloud computing infrastructure and relevant operations, which can be described with the term “cloud computing skills”.

The strategic objective of the NEBULA project is to form a Sector Skills Alliance that will tackle the mismatch of cloud computing skills in the sector of territorial public administrations aiming to improve employability of staff by enhancing their skills and bringing them up to speed. This ambitious goal foresees the development and delivery of a VET curriculum that will equip current or/and future public servants with the skills necessary to drive all the stages of the migration process and use of cloud services.

Work Package 7 of the Nebula project comprises a series of activities that work towards establishing an exploitation and sustainability strategy to mainstream the NEBULA VET program in national and EU qualification frameworks as such standardisation will increase interest from target groups, ensuring benefits for individual learners and employers.

This report is the outcome of the task 7.2, namely “Roadmap for integration of VET program in certification/qualification frameworks”. Based on the findings and conclusions of WP4 and the developed curriculum, this deliverable will provide a realistic roadmap for the accreditation of the NEBULA VET program on cloud computing skills. It will outline all the necessary steps that need to be carried out, identify dependencies, elaborate on potential risk factors that may delay the process and lay down a detailed time-plan for accreditation.

### Accreditation

*“A process of quality assurance through which accredited status is granted to a program of education or training, showing it has been approved by the relevant legislative or professional authorities by having met predetermined standards”*



The scope of this document is to be used internally by the consortium to facilitate partners integrate the NEBULA VET program into national accreditation/certification frameworks; however the results of the analysis can be also utilised by the wider educational community as a guide for accreditation / certification purposes.

## 2 VET program accreditation process

There are two different entities involved in the accreditation process:

- a) The VET provider, who submits the application for VET program accreditation and
- b) The accreditation / recognition body, which is responsible to award accreditation or a quality certification as a result of positive evaluation of the VET program.

The above implies that NEBULA partners should identify suitable VET providers to integrate the NEBULA VET program into their existing curricula and undertake the task to drive the process for the accreditation of the NEBULA VET program at national level. Notwithstanding, FLORIDA and UCBL, which are already offering VET training, can submit the NEBULA VET program directly to the respecting national accreditation bodies.

There are quite different approaches in VET systems accreditation / certification across EU countries. Practice shows that VET program accreditation is organised in different ways, reflecting not only the national and regional traditions & structures of VET but also the nature and the current state of the national and European quality (CEDEFOP, 2009)<sup>1</sup>.

Moreover, there are numerous sectoral accreditation schemes for VET programs still under scrutiny, although external assessment procedures have already been established. In this context, procedures such as approval, inspection and licensing have emerged and are being employed, instead of standard accreditation or certification schemes. There is however a common denominator in all aforementioned procedures, which is related to activities facilitating the monitoring of quality in VET provision. Actually, these activities contain external assessment processes against predefined criteria, and elaboration of standards and requirements for VET programs or provider institutions. Experts in the field of education and training conduct fact (and process) based analyses, and make relevant proposals to enable national accreditation bodies issue an accreditation decision regulating both VET institutions and training programs provided.

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<sup>1</sup> CEDEFOP (2015), "Accreditation and quality assurance in vocational education and training - Selected European approaches", Luxembourg: Publications Office of the European Union.

As regards the bodies responsible to accredit VET programs, in most European countries, the external recognition is carried out by the Ministry of Education or Labour. Organizations closely linked to the ministry are formally in charge for recognition of VET programs. However, nowadays, there is a new tendency with more and more external bodies (with independent status), which act in cooperation with the ministry, to undertake the role to execute accreditation and recognition tasks (for example in Germany and the UK<sup>2</sup>).

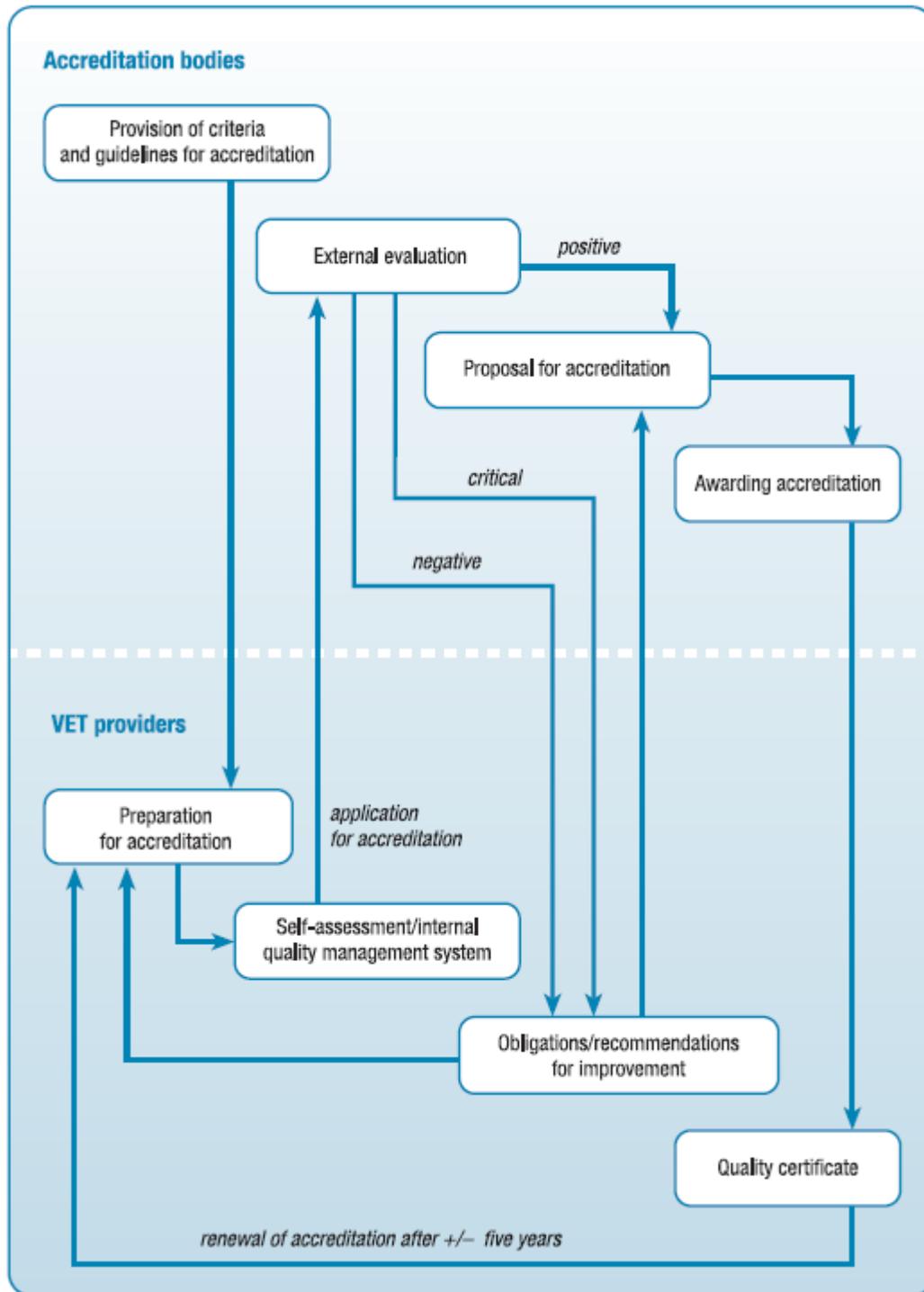
The timeline for approval of submitted VET programs varies, based on the complexity of the program, the availability of external evaluators, and the comprehensiveness of the documentation and audit materials provided by the applicant. The accreditation process typically takes 12 to 18 months to complete.

This report offers a general model for the VET program accreditation process to enable NEBULA project partners gain an insight into the different elements and tasks that they have to fulfil to apply for VET program accreditation. The following figure illustrates the different stages of the VET program accreditation process as well as the interaction grid between the VET provider, which is the body that submits a request for accreditation and the body responsible to accredit VET programs.

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<sup>2</sup> As regards the British VET system, the Office of Qualifications and Examination Regulation (Ofqual) is the body responsible for regulating VET programs (qualifications) and training institutions. Normally organisations wishing to offer accredited qualifications apply to become a regulated Awarding Organisation, which is then able to offer accredited qualifications. Ofqual regulates only the qualifications that meet the criteria for recognition and comply with accreditation rules. For more information, visit <https://www.gov.uk/government/organisations/ofqual>.

Figure 1: VET program accreditation process



Source: European Centre for the Development of Vocational Training (CEDEFOP)

### 3 Tasks for the NEBULA project partners

As has become evident up to now, VET programs should be submitted for accreditation by VET providers. Consequently, project partners should exploit their network of stakeholders to identify suitable VET providers to embed the NEBULA VET program into their educational activities. Also, these VET providers should be able to undertake the responsibility to run the process for VET program accreditation, and ideally to have the following characteristics: i) thematically related curricula, ii) adequate teaching resources; professionally active trainers and staff, iii) modern infrastructures and equipment (campus, library, laboratories, etc.), iv) significant number of enrolments in ICT related courses, v) extra-curricular activities in the ICT field, vi) established connections and relations within the labour market, and vii) financial sustainability.

At an initial stage, each project partner should use its network of contacts to identify relevant VET providers that are eager to adopt the NEBULA VET program and run the accreditation process. To facilitate this procedure, project partners should create a professional presentation to communicate the NEBULA VET program to relevant VET providers, targeting inter alia to highlight the value of the NEBULA VET program in terms of increasing the relevance of VET provision. At a later stage, an initial screening will be conducted by each project partner to define a short list of VET providers that meet the above mentioned criteria. A series of communications with the candidate VET providers will follow to explore their intentions in undertaking the task of the NEBULA VET program accreditation. Once a final selection has been made, each project partner should arrange a meeting with the board of the institution to present the core elements of the NEBULA VET program and plan the next actions for accreditation.

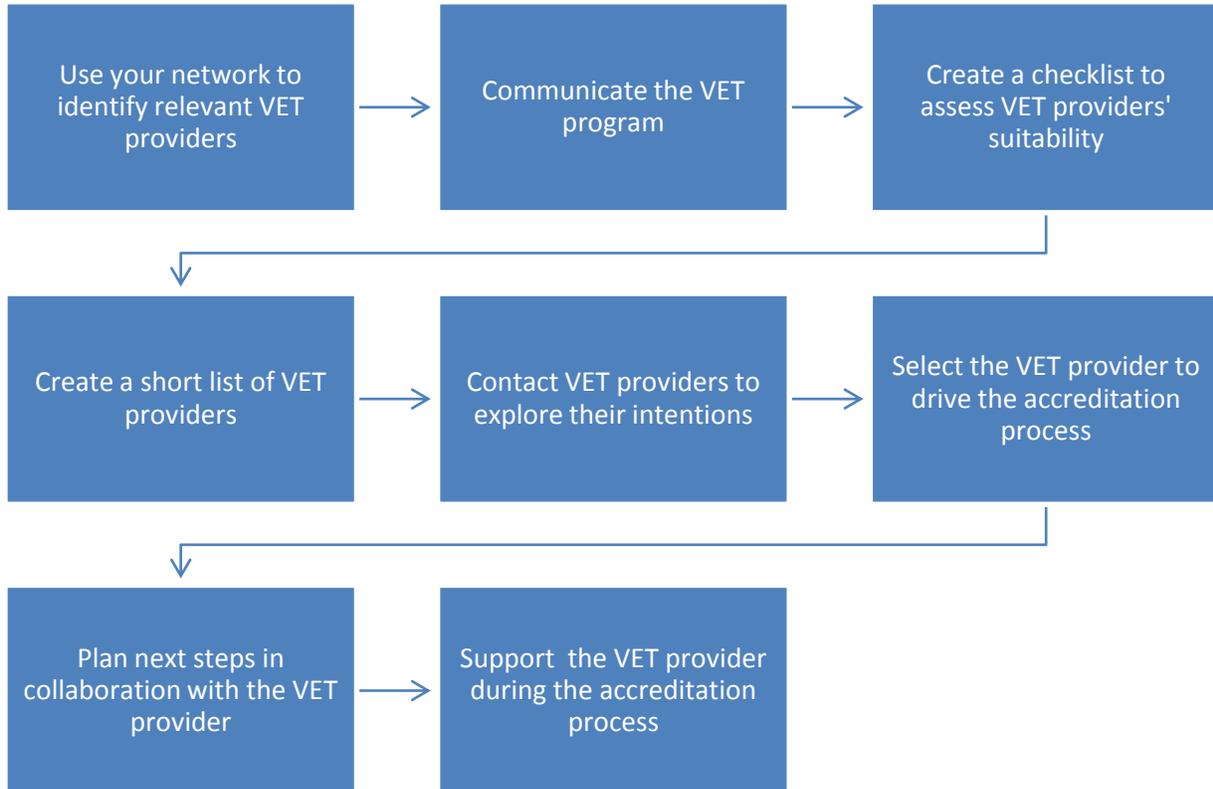
During the accreditation process, the NEBULA partners should actively support VET providers by providing a) details about the structure and content of the curriculum, b) guidelines on how to provide training based on the NEBULA training materials (e.g. the simulation game “CloudSim”) and c) instructions on how to present the effectiveness of the VET programme and demonstrate curriculum’s matching with NQFs and the EQF to the national accreditation body. Also, project partners will have to contribute in the development of an accreditation readiness checklist to support VET providers in evaluating NEBULA VET program’s compliance with accreditation standards & requirements and assist in

the implementation of the required changes and improvements according to external evaluator's recommendations and feedback.

**Table 1: Roadmap to accreditation (for NEBULA partners)**

Roadmap to accreditation (for NEBULA project partners)	
<b>Step 1</b>	Use your network of relevant stakeholders to identify suitable VET providers that would be keen to stimulate the adoption of the NEBULA VET program. Stakeholders' mapping will be a significant tool for this action (D7.1.1).
<b>Step 2</b>	Create an attractive presentation to communicate the NEBULA VET program to relevant VET providers, illustrating NEBULA VET program's core elements and structure and highlighting the value of the NEBULA VET program in terms of increasing the relevance of VET provision.
<b>Step 3</b>	Define a contact person for the provision of information to interested VET providers about the content, structure, and format of the NEBULA VET program.
<b>Step 4</b>	Create a checklist based on the above mentioned criteria to evaluate VET providers' status and appropriateness in terms of carrying out the accreditation process.
<b>Step 5</b>	Conduct an initial screening of candidate VET providers to end up with a short list of VET providers that meet the predefined criteria.
<b>Step 6</b>	Contact VET providers to explore their intentions in undertaking the task of the NEBULA VET program accreditation. Make a final choice!
<b>Step 7</b>	Arrange a meeting with the board of the VET institution to present the core elements of the NEBULA VET program and plan the next actions for accreditation. Consider inviting key institutional stakeholders to decide on follow up actions (e.g. lobbying).
<b>Step 8</b>	Actively support the VET provider during the accreditation process by a) offering valuable insights on how to provide training based on the NEBULA learning materials, b) providing instructions on how to present the effectiveness of the NEBULA VET program and demonstrate curriculum's matching with NQFs and the EQF to the national accreditation body, and c) contributing in the implementation of the required improvements and changes to increase the quality of the NEBULA VET program.

Figure 2: Sequential steps for the NEBULA project partners



## 4 Roadmap for VET program accreditation

### Stage 1: Pre – application preparation

During the pre-application preparation phase, the VET provider (supported by each NEBULA partner) should become familiar with the accreditation process and the general criteria for certification, review the applicable requirements documents, assess readiness to apply, and inform the national accreditation body for its intend to submit a request for evaluation. The primary source to explore accreditation opportunities and obtain information about the process and the credentialing programs is the official website of the national accreditation body.

At an initial stage, the VET institution should evaluate its readiness to pursue accreditation by reviewing criteria and standards, and required documents to identify weaknesses, areas of strengths and opportunities for improvement. The readiness review will assist in determining whether or not the NEBULA training program meets the requirements set forth by the accreditation body and hence is ready to submit a formal request for external evaluation.

Moreover, VET providers are encouraged to form a dedicated accreditation team, which will undertake to run the entire accreditation process, commit the resources required to move forward, and be in regular contact with the national accreditation body to retrieve valuable information on the process.

#### Steps:

- Explore web sources to gather information about the accreditation process and the tasks that interested organizations need to fulfil to award accreditation.
- Review the accreditation requirements and identify the standards which are applicable to your organisation.
- Plan NEBULA VET program's accreditation timeline (considering submission deadlines for re-accreditation), prioritise accreditation needs, and commit staff and financial resources.
- Establish an inter-disciplinary team to help prepare for the accreditation process. Appoint a staff person to be the accreditation coordinator. The role of the coordinator will be to lead the accreditation team, define roles and responsibilities, manage the gathering of documentation, monitor all accreditation related reports and be present and engaged in the site visit.

- Conduct a SWOT analysis to identify weaknesses, areas of strengths and opportunities for improvement.
- Assess the program's degree of readiness to submit a formal request for evaluation.
- Create links with the national accreditation body and other VET institutions to receive guidance, technical assistance and knowledge regarding the accreditation process.

**Time framework:** 3 months

## Stage 2: Applying for accreditation

Once you have secured accreditation pre-requisites, you are ready to submit a formal request for evaluation (application). Keep in mind that the application is the formal notification to the national accreditation body of a VET provider's official commitment to initiate the accreditation process for a training program.

The submission should clearly demonstrate how the NEBULA VET program is aligned with accreditation requirements and standards and must be accompanied with all the necessary documents to guarantee eligibility. The documentation submitted by the organisation is what the site visit team will review and use to determine both VET program's and VET provider's conformity with accreditation standards. In most cases, the application will be delegated for evaluation to a group of experts in the field of vocational training, which may include social partners, representatives from other VET providers, sector representatives and groups representing civil society.

After submission of the NEBULA VET program to each national accreditation body, VET providers should maintain regular communication with the national accreditation body to follow up on the progress of their application. They should also try to highlight the value of the NEBULA VET program in terms of improving the employability of public administration staff across EU.

### Steps:

- Submit the completed application form.
- Provide the necessary documentation. The process of identifying and delivering documents that demonstrate the VET provider's compliance with the standards set in the NEBULA VET program is a key component of the accreditation process.
- Prepare to undertake the next steps of the accreditation process (e.g. site visit).
- Follow up on the progress of the application.
- Create an attractive presentation to communicate the training program to the national accreditation body by illustrating its core elements & structure and demonstrating how accreditation of the NEBULA VET program will modernise existing VET for public administration staff in terms of relevance of VET provision to the requirements of the labour market.

**Time framework:** 1 month

### Stage 3: Internal self-assessment

An internal self-assessment of the VET program is a precondition for all accreditation procedures. VET providers should proceed with self-assessment by evaluating NEBULA VET program's conformance to the accreditation standards and requirements, developing proofs of compliance, and preparing for the on-site assessment (CEDEFOP, 2015)<sup>3</sup>.

NEBULA partners are encouraged to facilitate VET providers to develop an accreditation readiness checklist to determine whether the latter are ready to begin the application process. The checklist should reflect the criteria and standards set forth by the national accreditation body, addressing eligibility issues, completion of prerequisites, internal processes, and initial preparation tasks. The rationale for this activity is that major deficiencies, in the structure of the NEBULA VET program, could be identified in order for remedial actions to be taken prior to accreditation assessment.

#### Steps:

- Develop an accreditation readiness checklist based on the criteria and standards defined by the external accreditation body; notwithstanding VET providers are free to design their internal self-assessment checklist according to their individual needs and priorities.
- After deciding to undertake the self-assessment process, establish a dedicated self-assessment team to facilitate the process. This team will be responsible for carrying out the entire procedure, analyzing the results, and making recommendations for program improvements.
- Engage in formal self-assessment to evaluate the program's ability to meet accreditation requirements and standards.
- Analyse evaluation results to identify areas of strengths and weaknesses and plan remedial actions to address deficiencies within the structure of the program.
- Gather documents to demonstrate compliance to accreditation requirements and standards.
- Draft a comprehensive self-assessment report to be used as a starting point for the external evaluation.

**Time framework:** 5-6 months

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<sup>3</sup> CEDEFOP (2009), "Handbook for VET providers - Supporting internal quality management and quality culture", CEDEFOP Reference series 99, Luxembourg: Publications Office of the European Union.

#### **Stage 4: Preparation for site-visit**

The purpose of the site-visit assessment is to enable external evaluators gather thorough information regarding all administrative & educational aspects and evaluate NEBULA VET program's compliance with the accreditation standards and requirements. Evidence from the site-visit will verify the accuracy of the documentation submitted and complement the information contained in the self-assessment report, prepared by the VET provider. Depending on the complexity of the application and the size of the institution, accreditation site-visits are usually conducted by two reviewers and last two or three days.

During the accreditation site visit, the site reviewer will carry out a comprehensive evaluation of the NEBULA VET program that will focus on determining its compliance with accreditation requirements; this will be the result of reviewer's reflection on the educational experience offered by the program, and the learning environment in which the NEBULA VET program is being delivered.

Following the site visit, the evaluators will develop a site visit report that will describe a) how conformity with requirements and standards was demonstrated, b) what details were missing; and c) strength areas or/and outstanding educational practices.

To facilitate the procedure, the accreditation team should prepare to demonstrate how the program meets accreditation standards, answer reviewers' questions and inquiries, and justify potential deficiencies and areas of weaknesses.

#### **Steps:**

- Assign a small team to facilitate the site-visit assessment and receive site reviewers.
- Consult with the host team and key institution administrators for available dates.
- Ensure availability and access to evaluation documents (e.g. financial statements).
- Review site visitor manuals (retrieved from web sources) to gain an insight into how site reviewers approach visit and what to expect when hosting a site-visit.
- Carry out a pilot site-visit to have a clear image of the site-visit procedures, goals, and expectations.
- Prepare to respond to possible questions and inquiries and explain how the institution will address potential weaknesses and deficits.



**Time framework:** It depends on the date of the site-visit. You should begin planning and preparation months in advance (4 months).

## Stage 5: Improvement report based on evaluation results

The results of the external evaluation will usually contain specific recommendations and advice on necessary amendments and improvements to be made by the VET provider that will pave the way for a positive proposal for the accreditation of the NEBULA VET program. These requirements may be of obligatory nature when serious deficits have been identified or consist of optional recommendations for improvement. In any case, the VET provider should present in an improvement report (to be developed in collaboration with each NEBULA partner) that relevant changes and additional improvements will be made so that the body charged with conducting the external evaluation can end up with a positive proposal. Moreover, the accreditation team will have to develop a detailed and time-phased quality improvement plan on how to overcome detected failures & deficits and proceed with the necessary improvements and adaptations of the VET program, according to external evaluators' feedback.

### Steps:

- Draft an improvement report based on feedback from external evaluators that will detail the changes and improvements to be made by the institution so as to comply with accreditation requirements and standards.
- Liaise with the accreditation body to request professional support and guidance in overcoming identified deficits.
- Develop a comprehensive quality improvement plan.
- Establish a well defined communication scheme to report improvements and demonstrate progress achieved.
- Continuously address identified gaps and take actions to improve organisational structure & quality of training.

**Time framework:** 2 months

## Stage 6: Accreditation decision

The Advisory Committee, appointed by the national accreditation body, will review the site visit report, the VET provider's improvement plan and the external evaluators' comments to determine the accreditation status of the NEBULA VET program. The final accreditation decision will be based primarily on both organisations' and training program's compliance with accreditation standards and secondarily on VET provider's commitment to retain and increase the quality of training provision. If the result of the evaluation is negative, accreditation will be denied and the VET provider will need to take actions to improve the quality of the training program and its organisational structure to be able to apply again. Should the external evaluators make a positive proposal for accreditation, the VET provider will be awarded its accreditation and the training program will receive a quality certificate.

The quality certificate is valid for a definite time period (usually for five years) unless revoked by the national accreditation body, while a renewal of accreditation has to be made after the end of this period. The VET providers seeking to continue its accreditation have to undergo a re-accreditation process (although renewal is often a lighter procedure than for the initial accreditation), during which they should demonstrate training program's compliance with accreditation standards and resolve any follow-up conditions that may arise (e.g. curriculum improvement, modernisation of organisational processes, etc.).

### Steps:

- Conduct an internal review of the final accreditation decision and spread the news within the institution.
- Consult with the accreditation team and institution administrators / managers on how to take advantage of your quality achievements (i.e. accreditation) for marketing purposes.
- Develop an effective communication strategy to reach potential customers.
- Issue newsletters to inform stakeholders of the latest development concerning your accreditation status.
- Continue the efforts to improve the quality of VET provision and create a quality culture within your VET institution.

**Time framework:** VET institutions will be notified of the final accreditation decision via an official statement, 3 months after the submission of the improvement report.

Table 2: Roadmap to accreditation (for VET providers)

Roadmap to accreditation (for VET providers)	
<b>Stage 1: Pre-application period</b>	Gather information on accreditation process; Review accreditation requirements; Plan your accreditation time line; Establish a core team to help prepare for the accreditation process; Assess readiness to apply; Create links with the national body.
<b>Stage 2: Applying for accreditation</b>	Submit application form; Provide documentation; Follow up on progress; Create an attractive presentation to communicate the VET programme to the national accreditation body.
<b>Stage 3: Internal self-assessment</b>	Develop an accreditation checklist; Conduct formal assessment; Identify strengths and weaknesses; Gather documents of compliance; Draft self-assessment report.
<b>Stage 4: Preparation for site - visit</b>	Review site visitor manuals; Find available dates for site-visit; Ensure availability of evaluation documents; Conduct a pilot site-visit; Prepare to receive site reviewers.
<b>Stage 5: Improvement report</b>	Draft the improvement report based on evaluators' feedback; Liaise with the accreditation body to request professional support; Develop a quality improvement plan; Establish a communication scheme to report improvements; Address identified gaps & deficits.
<b>Stage 6: Accreditation decision</b>	Review the accreditation decision; Take advantage of your achievement for marketing purposes; Develop a communication strategy to reach customers; Update stakeholders about your accreditation status; Create a quality culture within institution.

Table 3: Time framework for VET program accreditation

Time framework for VET program accreditation																		
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18
Stage 1: Pre-application period	■	■	■															
Stage 2: Applying for accreditation				■														
Stage 3: Internal self-assessment					■	■	■	■	■									
Stage 4: Preparation for site-visit										■	■	■	■					
Stage 5: Improvement report														■	■			
Stage 6: Accreditation decision																■	■	■