

# D 2.1: Assessment methodology for the new hybrid specialist lecturers

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## 1. Background

This report has been drawn up in the context of the 'Cooperation in Education and Training for Blue Careers' (CETBC) project, co-financed by the European Union. CETBC wants to tackle three problems:

- The shortage of technically qualified subject lecturers at MBO institutions in the 'blue economy'<sup>1</sup>. By increasing the number of subject lecturers in the MBO<sup>2</sup>, young people will be offered the most relevant and up-to-date skills for working in the 'blue economy'. This will lead to the further modernisation of the educational system and the realisation of a fundamental cooperation between education and industry.
- Many companies are facing difficult times as a consequence of the economic situation and oil prices. As a consequence, well-trained employees with a lot of professional knowledge may have to leave their company. The introduction of the concept of hybrid employment means that these employees can be retained for the maritime sectors if they are trained with up-to-date skills (life-long learning, didactic skills, labour mobility) and provide added value to the blue economy. The companies involved in the project have had prosperous years, and they are using the hybrid employment concept for career development.
- Intensive cooperation between educational institutes and industry in the blue economy will be strengthened by the establishment of a digital internship desk. This desk will facilitate contact between companies offering internship positions and students looking for such positions. As a result, these students will have the opportunity of successfully completing their compulsory internship period. The internship desk will also be expanded in order to promote employment in the maritime sector and to provide the business community in this sector with the opportunity to post vacancies.

### 1.1 Partnership

The CETBC project is a partnership between an educational institution, industry, the Dutch maritime cluster, the Rotterdam port authority and the trade union for maritime professionals from the United Kingdom, the Netherlands and Switzerland. This partnership focuses on sectors including offshore, maritime technology, ship and yacht-building, hydraulic engineering, shipping, inland shipping and fisheries. The partners involved in CETBC are:

- Stichting STC Group;
- Nautilus International;
- Stichting Nederland Maritiem Land;
- Havenbedrijf Rotterdam NV;
- Van Oord Dredging and Marine Contractors BV.

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<sup>1</sup>More information about the blue economy: [https://ec.europa.eu/maritimeaffairs/policy/blue\\_growth\\_en](https://ec.europa.eu/maritimeaffairs/policy/blue_growth_en)

<sup>2</sup>MBO (Middelbaar Beroeps Onderwijs): Intermediate vocational education: prepares trainees for jobs that are based on manual or practical activities, traditionally non-academic, and totally related to a specific trade, occupation, or vocation.



## 1.2 Support

Three organisations are providing support in the implementation of the project by looking for potential hybrid employment candidates within their own companies. These organisations are:

- Damen Shipyards Group;
- Royal IHC;
- Koninklijke de Vries Scheepsbouw/Feadship.

## 1.3 Pilot

Prior to the introduction and implementation of hybrid employment, CETBC has started a pilot. During this pilot, CETBC aims to introduce at least 10 hybrid specialist lecturers into the MBO education system. There are two reasons for choosing MBO education only. First of all, MBO education has the largest teacher shortage at the moment. Secondly, working with just one educational level will make the introduction of hybrid employment simpler and faster. The hybrid candidates will initially be recruited from among the cooperating and supporting organisations that make up CETBC. Hybrid candidates will also be recruited through the placement of a general advertisement.

## 1.4 Duration

The CETBC project started on 1 January 2017 and will end on 31 December 2018.





## 2. Introduction

This report is the first deliverable (D2.1) of the four related to Work Package 2 (WP2) of the CETBC project. Work Package 2 encompasses all activities concerning the introduction and implementation of hybrid employment.

The second deliverable (D2.2) describes the reason that hybrid specialist lecturers should undergo the PDC (Pedagogical Didactic Certificate) training programme. The current and desired situation of the PDC programme will be discussed. In addition, a detailed overview of the planning and implementation of the amended PDC programme will be discussed, as will a final conclusion with recommendations.

The third deliverable (D2.3) is a handbook for HR departments covering legal, financial and all other aspects relating to the introduction of the hybrid employment concept. This handbook will help employers and educational institutions in the blue economy to make an efficient start with the concept of hybrid employment.

The final deliverable (D2.4) offers guidelines for the introduction of hybrid work at the European level; a handbook for educational institutions or companies starting up with hybrid employment.

This report describes the method of assessment for the new hybrid specialist lecturers. To this end, the first chapter first describes the requirements that a regular MBO teacher must satisfy on the basis of the profile. It then looks at which additional capacities a hybrid specialist teacher should possess. Attention is also paid to the process of recruiting hybrid specialist lecturers, which is different to the recruitment process for regular lecturers. The method of assessment of the hybrid specialist teacher is then described. Finally, the evaluation of the activities and the conclusions are discussed, and recommendations are made for the future.

For the sake of readability, 'he' will be used throughout the text when the hybrid specialist teacher is being discussed. Naturally, wherever 'he' appears, this can also be read to mean 'she'.



### 3. Profile: MBO teacher

Hybrid specialist lecturers will be assessed by the STC Group before they can start. This assessment aims to determine whether a candidate hybrid specialist teacher has sufficient capacities to be successful, both in teaching and in combining teaching with their other job and taking the PDC training. This assessment is different from those used for lecturers. This is discussed in more detail in Chapter 5. In order to arrive at an adapted assessment, a hybrid specialist teacher profile must first be drawn up. In turn, in order to arrive at this profile, it is first necessary to look at the requirements that an MBO teacher must meet. These requirements underpin the development of the profile of the hybrid specialist teacher in the MBO education system.

#### 3.1 Profile: MBO teacher, Education Professions Act (Wet BIO)

On 1 August 2006, the Education Professions Act (*Wet op de beroepen in het onderwijs*, or **WBO**) entered into power. Every teacher must be competent with regard to the following points:

##### 1. Subject-specific competence:

- has command over the content of his education;
- knows the educational material well;
- is able to compose, choose or adjust the educational material in such a way that his pupils can learn it;
- based on his professional expertise, is able to make connections with daily life, work and science;
- can contribute to the general education of his pupils;
- keeps his professional knowledge and expertise up to date.

##### 2. Didactic competence:

- makes the subject content accessible to his pupils, in consultation with his colleagues and in keeping with the educational policy of his school;
- is able to translate the subject content into curricula or learning tracks;
- performs this translation using a professional, development-oriented approach.

##### 3. Pedagogical competence:

- can realise a safe, supportive and stimulating learning environment for his pupils through his professional, development-oriented approach and in consultation with his colleagues;
- follows the development of his pupils' learning and behaviour and adjusts his actions accordingly;
- contributes to the social-emotional and moral development of his pupils;
- is able to coordinate his pedagogical activities with his colleagues and with others responsible for the development of the pupils;
- contributes to citizenship education and the development of the pupils into independent and responsible adults;
- continues to adapt his approach to education in pedagogical terms in line with the times.



In order to make the **WBIO** measurable, people from the field have drawn up the following seven competencies. These core competencies include behavioural indicators, which in turn determine the minimum competence requirements for the job.

1. Interpersonal competence: managing and ensuring a good interaction with and between pupils;
2. Pedagogical competence: ensuring a safe learning environment and promoting personal, social and moral development. Also: promoting development into an independent and responsible adult;
3. Subject-specific and didactic competence: ensuring a powerful learning environment and promoting learning;
4. Organisational competence: ensuring a clear, orderly and task-oriented atmosphere and structure in the learning environment;
5. Competent in working together in a team: ensuring that the work is aligned with that of colleagues; contributing to the proper functioning of the school organisation;
6. Competent in working together with the environment: maintaining a relationship with parents, neighbourhood, companies and institutions in the interests of the pupils;
7. Competent in reflection and development: ensuring their own professional development and the professional quality of their professional practice.

### 3.2 Profile: STC Group MBO teacher

Based on the above, the competence profile for the STC teacher has been drawn up. All STC Group teaching candidates will be screened for these competencies during the recruitment process.

#### **1. Customer focus**

Recognises and responds to the wishes and needs of customers, within the framework of quality criteria. 'Customer' refers to students, parents/guardians, clients and industry.

#### **2. Communication:**

Has effective written and verbal communication skills.

#### **3. Professional management of professional practice:**

Has an affinity with and knowledge of shipping, transport and the port industrial complex, and develops teaching material.

#### **4. Pedagogically competent:**

Supports students in their learning and development process.

#### **5. Didactically competent:**

Supervises the educational process and takes responsibility for the end result, to this end adjusts didactics to suit the target group and adequately deploys working methods and resources.

#### **6. Working in a team:**

Engages with others to achieve goals.

#### **7. Planning and organising:**



Determines goals and priorities and indicates the actions, time and resources necessary to achieve the learning goals.

**8. Professional action:**

Critically evaluates his competence and develops and professionalises himself based on this.

**9. Leadership:**

Gives direction and guidance to employees and creates partnerships in order to achieve an intended goal.



## 4. Profile: hybrid MBO teacher

In order to arrive a profile for the hybrid specialist teacher, it is necessary to consider which extra qualities the hybrid specialist teacher must possess. The hybrid specialist teacher structurally combines multiple worlds in his work. He is inspired by things around him. Hybrid specialist lecturers are people who look beyond their own boundaries. They want to become richer human beings. They choose meaning. Nowadays, people no longer enter a profession in order to do the same thing for forty years. Variety, broad development and sustainable employability are important. Hybrid specialist lecturers are motivated, want to share their knowledge and see the importance of interweaving and integrating education and business.

In order to be a successful MBO teacher, a hybrid specialist teacher must satisfy the competencies listed in Chapter 3. He will also need to relate to the qualities described above, in order to be able to realise the combination. Together this yields the following profile:

The hybrid specialist teacher must be able to derive energy from working with young people. The hybrid specialist teacher usually comes from the technical industry and probably has little to do with young people there. This quality will therefore need to emerge in another way (such as through coaching a youth football team, volunteering at scouting, etc.). In addition, the hybrid specialist teacher must be capable of communicating his enthusiasm for his profession to these young people, and doing so convincingly. The hybrid specialist teacher must be keen on variety. As mentioned earlier, the hybrid specialist teacher will encounter many different activities and environments: working at a company, teaching at school, studying for the PDC, all in addition to his private life. The hybrid specialist teacher is capable of self-reflection. In a new, unknown world, you will face challenges for which an analytical capacity will be extremely helpful. Other important qualities for a hybrid specialist teacher are the ability to work with a variety of colleagues in different departments, and to be able to establish connections and networks. The hybrid specialist teacher must be prepared to work for a minimum of two years in this capacity. Naturally, the hybrid specialist teacher should have achieved at least an HBO-level education. If the hybrid specialist teacher does not hold an HBO diploma, then he must be prepared to undergo assessment in order to establish that he is capable of working at an HBO level.

This profile has been incorporated into three types of leaflets for the recruitment of hybrid specialist lecturers. Firstly, leaflets have been designed specifically for internal use by the industry project partners. In addition to the STC Group logo, these leaflets also have the particular company's logo printed on them. Furthermore, the HR consultant for the company in question is named as the contact person.

There is also a general leaflet, in which the STC Group project manager is named as the contact person. There is no extra company logo. This leaflet is intended for general recruitment and as a hand-out for dissemination purposes.

The following two pages show the general STC Group leaflet:



STC-GROUP



Best of both worlds:

## Hybrid specialist teacher at the Shipping and Transport College

You know your field well and go to work every day with a smile on your face. But sometimes you can get a bit restless. Especially when you see those young boys and girls fresh out of school. You know that they could learn a thing or two from your knowledge and experience. Unfortunately, there's hardly ever the time to do so. Spending five days a week in the classroom isn't for you. What about a week in which you spend half your time working for your current employer, and the other half teaching at the Shipping and Transport College? **Are you ready to be a hybrid specialist teacher?**

### Hybrid specialist teacher

As a hybrid specialist teacher, you will literally have one foot in the world of teaching and the other in the world of business. You will spend a few days a week working at the Shipping and Transport College, teaching MBO students in technical / maritime study programmes, sharing your expert knowledge with colleagues and investigating innovations. You spend the rest of the week working for your current employer. You will be a true connector between MBO education on the one hand, and your company and industry on the other. Of course you will receive thorough preparation for your new role, and (during your time at the STC) you will receive education to help you obtain your teaching qualification (PDG). You will also have a personal tutor who can help you with and advise you on any issues that might arise. As a hybrid teacher, you will keep working for your current employer and be seconded to the STC-Group for a minimum of two years.

[WWW.STC-GROUP.NL](http://WWW.STC-GROUP.NL)



## Hybrid specialist teacher

### About the STC

The Shipping and Transport College (STC) is a concept name for young people dreaming of a career at sea, in ports, on shipyards and in logistics. A major factor for their future success will be how closely their education matches recent developments and trends in the industry. Specific practical know-how and skills taught by specialist teachers can be of vital importance. The STC is a member of the STC-Group. Over 700 colleagues work hard every day in order to realize attractive, practical education and training sessions. Learning through experience is a key component of every programme.

### More information?

Would you like to know more about this position? Please contact Lucie Saxton - van Dam van Isselt, project manager at the STC-Group. You can reach her at +31 (0)10 44 86 000. Are you interested in applying for this position? Please send your application letter and CV to the STC-Group, HRM department, PO Box 63140, 3002 JC ROTTERDAM. An assessment may be part of the application process.

*Please do not make use of this vacancy as an acquisition opportunity.*

### Hybrid specialist teacher profile

- > Working with young people gives you energy and you like the variety of working in a school and in the corporate world.
- > You are able to transfer your enthusiasm to your students.
- > You have preferably completed a maritime or technical (HBO) study and have obtained at least three years professional experience in a technical position.
- > Fluent oral and written Dutch language skills are required and you must be willing to obtain a Teaching Qualification.
- > Key words: reflecting, analysing, cooperating, convincing, networking and connecting.
- > You are willing to spend at least 2 days a week teaching for a period of at least 2 years.

### BlueCareers Hybrid Specialist Teacher

Hybrid specialist teachers are an initiative of the Shipping and Transport College, The Port of Rotterdam, Van Oord Dredging and Marine Contractors B.V., Nautilus International and Stichting Nederland Maritiem Land. United under the Blue Careers EU-project, these parties have agreed to work together to recruit and train at least 10 hybrid specialist teachers.



This project has received funding from the European Union





## 5. Hybrid specialist teacher recruitment process

The recruitment process for a hybrid specialist teacher is broader than for a normal lateral entry teacher.<sup>3</sup> As indicated in the previous chapters, a hybrid specialist teacher must possess a reasonable set of qualities in order to successfully fulfil the role. With this in mind, the recruitment process has been adapted and extended in a number of places, compared to the recruitment process for other lateral entry lecturers. All of these adaptations and extensions within the recruitment process can be seen as additional assessment opportunities.

The normal process is as follows:

1. Define, draft and advertise vacancy;
2. Resume screening;
3. Interview with candidate and education manager;
4. Possible assessment if candidate has no HBO diploma;
5. Employment terms and conditions discussion;
6. Intake for the PDC.

There are two routes for the selection of hybrid specialist lecturers. First of all, there is targeted recruitment from companies in the industry; employers who intend to give employees the opportunity to work as hybrid specialist lecturers. At the moment, only the project partners come under this category. The other route is that of candidates who, on their own initiative, intend to work as hybrid specialist lecturers. These are mainly candidates who are either self-employed or have their own company.

In the case of targeted recruitment through employers, the first step is discussions between the employer and employee. They must reach a mutual agreement about the candidate receiving the opportunity to work as a hybrid specialist teacher. In most cases, the employee will need to scale down his current duties, will probably be given a little less responsibility, and so on.

Following the resume screening process at the STC Group, a discussion takes place at the educational institution with the education manager involved, possibly together with a fellow teacher. During this discussion, one of the most important things is to determine whether the candidate has a clear idea of what it means to work as a hybrid specialist teacher.

Following a positive discussion with the education manager, an STC Group job-shadowing programme is set up for the candidate. This programme is put together by the education manager and the teacher from the department involved. This programme will be for a minimum period of one day, and gives the candidate the opportunity to accompany a teacher during their work, give a lesson (or part of one), talk to lecturers, get acquainted with the simulators, tour the facilities, and so on. The aim of the programme is to introduce the candidate to different aspects of the educational system, including:

- Organisation and culture;
- Colleague lecturers;
- Students;
- Teaching material.

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<sup>3</sup> Lateral entry teacher: Someone who transfers from another profession to become a teacher.



After the completion of the job-shadowing programme, if all of the parties involved are still enthusiastic about continuing the process, a more detailed discussion will take place. The candidate now has a better idea of what's expected of him as a teacher. It's now important to get the entire picture clear and to evaluate whether the candidate has this in mind and agrees with it. This detailed discussion takes place with the Director of the college involved and the STC Group's HRM consultant.

If the hybrid specialist teacher does not hold an HBO diploma, then he is legally required to undergo assessment in order to establish that he is capable of working at HBO level. The STC Group uses Connector Ability to take care of this for all of its lateral entry lecturers. Chapter 6 will go into more detail on this.

A reference check will also be made during the selection process. Ideally, a previous employer will be approached for this. Naturally, this will be done in consultation with the candidate. This reference check may be done at any point during the selection process.

If all of the above leads to a positive outcome, a final interview will follow. This may be done in two ways. If the candidate in question starts as a hybrid specialist teacher coming from an industry employer, then he will receive a secondment contract. The candidate will remain with the company as an employee, but will be seconded for a couple of days a week to the STC Group. The final interview will then be between the employer and the STC Group, and will cover the secondment terms and conditions. If the candidate is self-employed, then he will be offered a part-time employment contract. In that case, the interview will involve the candidate and the STC Group's HRM department, and will cover the conditions of employment.





## 6. The assessment: Connector Ability

Connector Ability is an online intelligence test that measures the G factor – the general intelligence factor. Intelligence predicts the ease with which someone can solve new problems and learn new information. This therefore gives a good idea of how someone in a position will deal with certain problems. Connector Ability is usually used to make a preselection of candidates who meet the desired intellectual level for a particular function/question, and who will be invited to take the next step in the organisation's selection procedure.



Connector Ability is developed by PiCompany and consists of three parts:

- Figure series;
- Matrices;
- Number series.

For each component, the hybrid specialist teacher first receives an explanation of the task and sample questions for practice. The candidate can read the explanation and do the sample questions at his own pace, without time pressure.

The real questions for that section begin after the explanation and sample questions. After that, the hybrid specialist teacher receives the explanation and sample questions for the following section, and so on until all three sections have been completed.

The results of this test are sent to the STC Group, after which the hybrid specialist teacher is contacted about the subsequent steps.

**VRAAG**

Wat is het meest logische figuur dat op de plaats van het vraagteken moet komen te staan?

		<b>?</b>

**A**

**B**

**C**

**D**

**QUESTION**

Which number has to replace the question mark?

13	29	37	41	43	<b>?</b>
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### 6.1 What do the results in the practice test report mean?

In the report, the hybrid specialist teacher's results are compared with the results of other people at an HBO level. The results are divided into five categories. If the score falls into the leftmost box, the hybrid specialist teacher will have to expend much more time and effort to solve the type of problems in the test than most people with a specific level of education. The further to the right that the score falls, the less time and effort is required by most people with whom the hybrid specialist teacher is being compared. The place where the score falls within these five categories is indicated; it is not possible to conclude anything else on the basis of this test than what is shown in the report. The practice test is not designed to allow more detailed statements than what is stated in the report.

### 6.2 G factor instead of IQ test

An IQ score is nothing more than a particular way of measuring intelligence. In this case, the test subject is compared with the entire population of the world. When organisations use tests, they rarely use an IQ test, choosing instead a test that measures general intelligence (the G factor, as in the case of this test) or a test that measures intelligence in a more specific field (for example, arithmetic or verbal reasoning). These tests never report in IQ scores, but in so-called standardised scores. Standardised scores say something about how a person scores in relation to a standard group, a comparison group. This is often a group of people with a certain level of education, enabling organisations to see on the basis of a test whether someone scores below average/average/above average compared to other people with an MBO or BA education. This is the reason that this test does not report in terms of IQ scores.



## 7. Evaluation, conclusion and recommendation

### 7.1 Evaluation

The successful deployment of hybrid specialist lecturers starts with a thorough selection process. Not everyone is capable of juggling many priorities, withstanding a great deal of pressure, being very flexible and showing a lot of perseverance. The hybrid specialist teacher selection process therefore requires adjustments and extensions to the normal recruitment process. All of these extensions (discussed in Chapter 5) can be seen as additional assessment opportunities. These extra assessment opportunities have been evaluated over the past year.

The first extra assessment opportunity occurs immediately at the start of the recruitment process, that is, during the discussion between a candidate hybrid specialist teacher and his employer. Based on the leaflet, this interview is brought about and conducted by the candidate hybrid specialist teacher and (generally) the HR adviser. These moments were regularly evaluated during meetings of the CETBC project partners. It appears that this initial conversation between the candidate and HR adviser is mainly informative, covering things such as what a hybrid specialist teacher is, what this means for the candidate's current work, what subjects could the candidate teach, etc. A concrete examination of whether the candidate hybrid specialist teacher is suitable for this task is difficult.

A subsequent assessment opportunity arises when the candidate hybrid specialist teacher undertakes job-shadowing with other STC Group lecturers. This is then evaluated during a number of discussions with education managers. Accompanying other lecturers while they go about their work is an excellent tool for assessing whether a candidate likes the work and to give him an idea of what will be expected of him. The lecturers also get a picture of the candidate and can make an assessment of whether he is suitable for teaching. It appears to be essential to plan these job-shadowing days early in the process. A number of candidates were unable to take part due to a lack of time.

The PiCompany assessment is the concrete means of demonstrating whether hybrid candidates are at an HBO level. Incidentally, this assessment is used for all lateral entry lecturers and is regularly evaluated by the HRM department. So far, the experiences with this assessment tool have been positive. It is a rapid way of getting a good idea of a candidate's level.

### 7.2 Conclusion

The recruitment campaign in the spring of 2017 went well. Many candidates responded, and eight hybrid specialist lecturers ultimately started in various STC Group sectors. Of these lecturers, one stopped early. In retrospect, it can be concluded that he took on too much work and overestimated his own capabilities. The other seven hybrid specialist lecturers have been successful in their work to date.

The assessment of candidates was sufficient for the recruitment process. The PiCompany's digital tool gives a clear picture of the candidate's level. However, it must be concluded that the entire recruitment process, with all of its selection points, was chaotic from time to time. Not everyone involved was aware of the procedure to be followed, and lack of time was frequently a stumbling block. Also, the companies themselves were not always clear about the exact intention of the process, and the communication between companies and the STC Group was not entirely flawless.



### 7.3 Recommendations for both industry and educational institutions

The entire process of recruiting and selecting candidates for the hybrid specialist teacher position must start in good time (at least three months before the teacher is due to start work, not including school holidays).

In addition, it is advisable that all those involved be thoroughly informed about the process. For example, it is a good idea to organise an information session beforehand to discuss the entire process. It is also advisable to pay close attention to the provision of information to the employees' HR advisers about the recruitment process and the content of the hybrid specialist teacher's work at school.

For educational institutions, the candidate hybrid specialist lecturers must be organised in a structured way. The job-shadowing days must also be scheduled well in advance. It appears that the job-shadowing is very enlightening for the candidates.