

A stylized illustration of a book cover. The book is light blue with a white outline. At the top, there are several white vertical lines of varying lengths. The title 'HANDBOOK' is in a dark blue rounded rectangle. Below it, the subtitle is in white text. An information icon is followed by a descriptive paragraph. The book is held by a hand at the bottom right. The background is a solid blue color with some white dots and lines. At the bottom left, there are some dark blue shapes representing trees or hills.

# HANDBOOK

FOR ORGANISATION OF INTERNATIONAL  
BLUE CAMPS AND INTERNATIONAL  
TECHNOLYMPICS



Practical methodological support  
tools for increasing knowledge  
transfer and straightening youth  
skills in blue economy sectors



This material is prepared in accordance with the INTERREG V-A South Baltic Programme project „SB BRIDGE – Building bridges for green-tech future“ (2019-2021).



*The contents of this document are the sole responsibility of the author and can in no way be taken to reflect the views of the European Union, the Managing Authority or the Joint Secretariat of the Interreg South Baltic Cross-border Cooperation Programme 2014-2020”.*

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# Introduction

The EU suffers from systemic weaknesses in its skills base, which limits its productivity and competitiveness in today's economy and reduce its capacity to exploit the opportunities offered by blue growth.

The adoption and dissemination of clean technologies require skills in technology application, adaptation and maintenance. Skills are also crucial for economies and businesses to rapidly adapt to changes. Skills development is a critical driver of change, triggering blue investment and technological innovation, and bringing sustainable innovations into markets at competitive prices. Small and medium-sized enterprises (SMEs) are likely to require assistance in upgrading the skills of their employees. Developing green and blue skills is part of the broader challenge faced by SMEs of increasing their strategic management capabilities.

The shift to a low-carbon economy, adoption of the Green Deal throughout the European Union, implies structural changes across sectors and occupations. Interdisciplinary skills for blue jobs are the prerequisite to make the transition to a bluer economy happen. This means that demand for new competencies and skills is arising. New skills set should be updated or even new qualifications across education and training levels should be adopted. Skills gaps are already recognized as a major bottleneck in several sectors.



## About the SB BRIDGE project

The main goal of the “South Baltic Bridge” project is to reduce the gaps between higher education and its graduates and the green and blue labour markets, as well as to increase the motivation of graduates to work in these two economic sectors.” The project includes exploring the methods and tools for increasing the knowledge and interest in the green and blue sectors among the youth and the creation of an Internet platform, which will contain training materials and appropriate tools for communication between students and employers.

Target groups in the project are students in gymnasiums and vocational schools, university students and employers of the green and blue sectors.

During the project lifetime, five International Blue and Green Camps and two International Technolympics were organized in Germany, Denmark, Lithuania, Poland and Sweden. Originally planned as physical events, some have been held digitally due to the pandemic of the coronavirus.

## About the handbook

The purpose of this handbook is to support other actors who want to increase interest in blue economy sectors among the youth, straighten skills and competences these sectors needs and help match young talents with the companies.

All methods covered in this handbook have been implemented, tested and evaluated. All recommendations in this handbook are based on project partners' experience and collected feedback from participants, teachers and SMEs who took part in the project.

## Green and Blue skills

To better understand how the labour market looks like in the blue and green economic sectors we surveyed the companies who are operating in five economic sectors: renewable energy, green building, clean transport, water management and waste management. **The survey** was conducted in 2020 and 2021 and includes companies who are operating in the 5 partners countries: Denmark, Germany, Lithuania, Poland and Sweden).

The main goal of the survey was to determine what skills and competencies are needed. The opinions of entrepreneurs are the basis for finding the gap in education and experience and trying to find a solution to prevent this from happening in the future.

### **This survey obtained information on:**

- How to improve the match between education and training systems and labour market needs, facilitate the transition from education to employment in the industry by strengthening VET systems and their quality, and create/develop internship and apprenticeship programs in the workplace.
- A compendium of knowledge necessary to assess needs and prepare a program to support students of technical schools according to real needs, suggestions, and expectations.
- Whether companies are willing to employ young people after graduation and why, as well as to find out what opportunities the companies offer to young candidates, whether they offer internships and apprenticeships for students and what young people can gain thanks to them.

### **The key qualifications for green and blue jobs identified by the companies in the survey are:**

- Strategic and leadership skills that enable political and economic decision-makers to set appropriate incentives and framework conditions for environmental protection, environmentally friendly transport, etc.
- Entrepreneurial and management competencies to be able to combine economic, ecological and social goals in holistic and interdisciplinary approaches.
- Adaptation and transfer competencies that enable workers to learn and apply new environmentally friendly technologies and processes relevant to the workplace.

- System and risk competencies to understand, implement and evaluate necessary change processes and measures.
- Innovation competence to respond adequately to green challenges.
- Communication and negotiation skills to manage conflicts of interest in complex contexts.
- Marketing skills to be able to launch environmentally friendly products and services.
- Consultancy skills to advise consumers on green solutions and disseminate green technologies.
- Entrepreneurial skills and abilities to seize the opportunities of low-carbon technologies.
- Environmental awareness and willingness to learn about sustainable development.
- Networking, ICT and language skills to be able to operate in global markets.

There are also proposals to include basic knowledge on **climate change, sustainable development and environmental issues** in all vocational education and training curricula.

Based on the responses received, the conclusion is that for employers in the green sectors, it is difficult to find good employees for key positions for companies (with appropriate experience and competencies).



However, with a relatively small scale of employment and employee turnover, most companies did not face this problem directly. In the opinion of the surveyed companies the most difficult is to find employees for specialists and qualified personnel positions - most often mentioned is the lack of candidates with practical experience and soft skills (like good communication skills, ability to network and adapt to the culture of the workplace) most valued by companies.

SME representatives specify what skills they think fresh graduates lack when they apply for a job in the company, the most frequently indicated skill was lack of technical/mechanical knowledge. Additionally, a lack of theoretical knowledge and IT skills were also indicated. The problem of young candidates is experience, independence and motivation, practical use of theoretical knowledge, including technical drawing. Knowledge of management and project management. Also, the lack of ability to work independently, problem-solving skills, critical thinking and the ability to improve existing ideas, the ability to adapt to the culture of the workplace are not conducive to employment right out of school (graduates).

The emerging conclusion is the need to combine both technical knowledge and business and management competencies in the green economy, as the green economy is based on technological innovations, which need to be understood in order to be effectively implemented and developed. Hence, an interdisciplinary approach to education is recommended, with the use of modular education. This study fully confirms these conclusions. The employers' statements indicate significant gaps in the labour market in specialized knowledge related to the new technologies used in the green economy - this applies mainly to the RES industry,

energy-efficient construction and specialized consulting. The professions are quite commonly indicated as scarce on the market, however, there is a lack of employees with specialist knowledge (e.g. STEM - science, technology, engineering, mathematics), or skills and professional experience needed in green industries.

Taking into account the requirements of employers for young candidates, the need to combine education and business is emphasized. Such an arrangement would make it easier for graduates to gain not only theoretical knowledge, but also practical knowledge and experience required in the recruitment process. Most companies would be willing to offer the possibility of internships/ internships in their company, but they indicated that university students are most preferred. A good solution would be to guarantee their students the possibility of an internship while still in school or university and to implement classes in management and soft skills at the secondary school level.

During internships, an employer would most often want to help students develop practical experience and the ability to apply theoretical knowledge, analytical and report/ project writing skills, teamwork skills, and independent decision-making skills. Foreign language skills and international schools were the least frequently indicated as part of internships. The following comes out as the main advantages of internships based on responses: the opportunity to test and/or apply theoretical knowledge in practice, to participate in the daily life of the company, to test the ability to create independent analysis, and to enter the job market without stress. The vast majority of respondents willing to offer internships indicated that there would be a possibility of employment after the internship/placement.

Survey results and more detailed report  
“Analysis of skills and competencies  
required in green & blue economy sector”  
is available on the “South Baltic Bridge -  
building bridges for the green tech future”  
projects website.

## Methodology

Through formal education students receive good theoretical knowledge that is essential for the development of the blue economy sectors, but they are often lacking knowledge on how learned concepts can be applied in companies to solve current challenges. Students are aware of the environmental issues and that there is a need to transform old industries. They are concerned about their future and want to take an active role in bringing the change. They are all taught how they can do it through their lifestyle choices, but they often don't know how they can contribute through their professional careers. The majority of students have a very limited information about the innovation in these sectors, how companies work to solve environmental challenges and how does it look to work in the field. They have very little information about what types of jobs exist and which skills and knowledge are needed to work in these sectors. Furthermore, there is a need to develop and strengthen students' project management and business skills that will help them to transform an idea into a sustainable business model.

To increase youth interest in the blue economy, their knowledge about it needs to be strengthened. Students should learn about innovations and solutions companies are developing. Learning about jobs and the future trends in the field while they are still in high school, can inspire them to make choices in their future education that would help them acquire the necessary knowledge and skills to work in these sectors.

**In the SB Project following methods were used to address these challenges:**

- **Creating educational materials** to support schools and other organisations in teaching or organisation of the International Blue Camps and International Technolympics.
- **Creating an internship platform** to help students find available internships in the South Baltic region; providing internship opportunities and opportunities for students and companies to connect.
- **Organizing International Blue Camps** and International Technolympics and documenting good practices.

## Educational material

We have created educational materials that can be used to strengthen students' knowledge about renewable energy, clean transport and water management. The materials include an introduction to the field, company-based case studies, examples of innovative technology and companies, and information about the types of jobs and skills needed to work this field.

**The materials are free to use and can be downloaded on the [SB Bridge project's website](#).** Here you can find:

- introduction to each topic using design thinking model
- introduction to each topic and interesting facts
- exercises
- model lesson scenarios
- company case studies
- information about the jobs opportunities and skills that are required to work in each sector
- trends in the South Baltic region, etc.

## Internships

To help students find an internship in the blue sectors and companies to find talented candidates we have created a platform [Internship Lithuania](#).

The platform contains information about available internship positions; knowledge database for students where they can learn how to find an internship in Denmark, Germany, Lithuania, Poland and Sweden, legal framework and what are their rights according to the labour law for each of these countries; information for the companies on how they can participate in the program and what are benefits of doing so.

During the project, we have provided paid internships for 25 students. Some students have continued to work in the company once the internship was over. For the companies, this program is an easy way to find talents at a low cost, while students get the opportunity to acquire practical skills and work experience that will increase their competitiveness in the labour market.



**Yevgeniy Shashilkin**  
PIKASOMA, UAB  
EXECUTIVE DIRECTOR

“

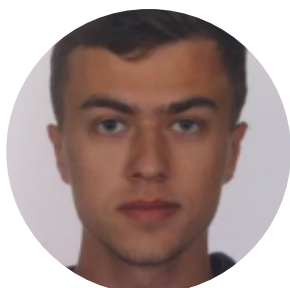
By contributing to the Internship Lithuania program, we achieve the following very important goals: the company gives young professionals the opportunity to find a job of their dream in Lithuania; the company has the opportunity to select a young, energetic and talented member of the team; how we bring the future of Lithuania together.”

#### **EMPLOYER'S OPINION ABOUT YOUNG EMPLOYEES.**

I always compare young workers to diamonds. A rough diamond is not beautiful and shiny, we have to put in the effort to work with it to make it shine in all the colours of the rainbow. So with young employees, we need to invest in them in order to have the right specialist for us who will work effectively in the company's existing environment.

#### **CORPORATE INVESTMENT IN YOUTH.**

Opportunities for employment for young people exist, especially now that the demand for professionals is very acute in the labour market. From the very beginning of my work in Picasso, I have only employed young people. I also have success stories and failures related to youth employment, but every experience is important and rewarding! Businesses should invest in youth, especially if the business wants to expand and grow. Young people bring a youthful "drive", passion and passion for work.



**Tomas Malakauskas**  
PIKASOMA, UAB  
SALES ASSISTANT

“Klaipeda has really great opportunities for young people and, I think, Internship Lithuania is a great help not only to find a job, but also to realize yourself in the work environment.”

#### **EMPLOYEE FEEDBACK ON SCIENCE AND MOTIVATION.**

Every young person should pursue education, whether higher or vocational. The most important thing while you are young is to take everything out of life and develop yourself as a personality, which is most helpful in doing self-improvement in your chosen field. In Lithuanian higher education, I not only found friends, I had a good time, but I also met specialists who gave me the motivation to one day become like them.

#### **EMPLOYEE MOOD AFTER STARTING WORK IN THE COMPANY.**

When I started working in Picasoma, everything went smoothly, the team was great. I spend most of my working day going to suppliers or to the ship, getting acquainted with the goods sold. Theoretical and practical training of employees is also provided.

#### **THE COMPANY'S APPROACH TO YOUTH THROUGH THE EYES OF AN EMPLOYEE.**

The company's approach to youth in the workplace is really very good. The company's work environment is harmonious and friendly. Colleagues answer any questions you may have. Accepted as an equal to myself and I feel part of the team.





**jagadeesh m**  
 AB "Western Ship Factory"  
 CAREER PLANNING AND  
 SELECTION COORDINATOR

“

By contributing to the Internship Lithuania program, we achieve the following very important goals: The company provides an opportunity for young professionals to find their dream job in Lithuania; the company has the opportunity to select a young, energetic and talented team member; creating the future of Lithuania together.”

#### **EMPLOYER'S OPINION ABOUT YOUNG EMPLOYEES.**

Both with and without experience in the labour market, very often the employer's decision to choose an employee is determined not only by basic knowledge and skills, but also by general competencies. Numerous international studies show that in addition to professional competencies, it is important for a modern employer that the employee is proactive, focused on efficiency, able to solve problems, plan and have communication skills.

Such a person quickly understands the specifics of the new workplace and integrates perfectly into the company's ongoing processes. So I am very keen for young people to broaden their horizons, to be curious, to take advantage of all opportunities to gain experience and social activities, which helps to acquire competencies and facilitate their integration into the labour market.

#### **CORPORATE INVESTMENT IN YOUTH.**

Socially responsible companies invest in young people. I want to share the example of KN, which in cooperation with Klaipeda University initiated and assisted in training LNG terminal engineering specialists, organizing internships, visits, sharing information, involving students in conferences and other activities. Well and one of the great examples that one of the aforementioned students is now working for my team in the LNG Commerce department.



**ganesh k**  
BALTIC PREMATOR KLAIPEDA  
CONSTRUCTION ENGINEERING  
STUDENT

“

Do not be afraid to leave your comfort zone, because as soon as you cross that threshold you will see how life is changing cardinally (I hope those changes will only be for good). Have your goals, put together step by step as you do them, and go to your career you dream of.”

#### **EMPLOYEE FEEDBACK ON EDUCATION AND MOTIVATION.**

When I started working, I got a lot of information, but I couldn't work or do jobs based on my posts because I wasn't competent, three weeks after starting work, the situation changed a little (in my opinion), started teaching how to do certain jobs, and there was still an acquaintance with the staff.

#### **THE EMPLOYEE'S MOOD AFTER STARTING WORK AT THE COMPANY.**

Everyone tried to help get involved in the team, helped to get acquainted with the work being done and set goals for what they expected of me.

#### **THE COMPANY'S ATTITUDE TOWARDS YOUNG PEOPLE IS IN THE EYES OF THE EMPLOYEE.**

The company is an integral part of shipbuilding and plays a significant role in production. Encourages students to learn, gives information about the work carried out in the company, or the preparation of certain details, sanding, painting, but the beginning is difficult because I have previously worked in the interior installation of ships, and now the hull of the ship.



**manjunath s**  
ROS ALBUS, UAB  
STOCK MANAGER

“

Never be afraid, don't ask yourself a second time about things you want deep in your heart, because with the help of effort you can make a bright path to the name of a great specialist, remember that he who does not take risks does not always reach what you want. Participate, learn, communicate and you will be truly successful! The Internship Lithuania initiative is amazing!

With her help, I was seen and invited to join a team of specialists, because it is usually difficult for a young specialist to find a place for himself after completing his studies, not even talking about those who have not yet completed their studies, but want to start their own path as a specialist.”

#### **EMPLOYEE FEEDBACK ON EDUCATION AND MOTIVATION.**

When VBLS started working, there was a great deal of happiness, but also a huge flash of motivation, trying to make the most of it, to understand the nature of the work, to reconcile studies with work, and to achieve the highest results on both side and the other, as I am still studying 😊

#### **THE EMPLOYEE'S MOOD AFTER STARTING WORK AT THE COMPANY.**

Colleagues, all people, both in the staff department and in the technical department (where I work) were friendly and sincere, colleagues friendly and always ready to help, to answer all the questions that had arisen!

#### **THE COMPANY'S ATTITUDE TOWARDS YOUNG PEOPLE IS IN THE EYES OF THE EMPLOYEE.**

The company's environment is great for young people who study and want to work in the workplace, which is related to technology, measurements and calculations, a huge workshop, a lot of new facilities and the opportunity to watch the product be born, this cooler is the ship. The attitude towards young people in all companies of the VLG group I think is the same, young and potential professionals are working, who will replace the specialists who have already built their own ships, are viewed favorably with the desire to help and improve!

## International Blue Camps and Technolympics

While International Blue Camps focus on one of the blue economy sectors at the time (for example water management, renewable energy, etc.) and provide students the more in-depth knowledge in the specific blue area, Technolympics tend to cover broader topics that can involve multiple green and blue areas such as UN sustainable development goals etc.

**International Blue Camps** main objective is to enhance students' interest in the blue economy, motivate them to impart green knowledge and help them develop their blue economy skills. Students shall learn about the different blue growth topics and get the opportunity to apply newly acquired knowledge in practice. Working together in the international teams get to exchange their knowledge and experience with their peers from other countries. They learn about the problems in foreign countries and develop ways of solutions on concrete SMEs cases. They have the opportunity to get in contact with managers from foreign countries, to build trust and learn about future changes in these companies.

**International Technolympics** main objective is to increase the motivation of young people and engage in raising the green and blue competencies in an informal way, enabling them to check knowledge and compete with each other, demonstrating preparation and activity, and gaining competencies and win in Technolympics. By the Technolympics the focused group get the chance to show all lessons learnt in the camps, to renew the relations to the participants from other regions and present

themselves to possible future employers by engaging in this concept, demonstrating practical skills and affinities to blue and green sectors. On the other hand, the involved SMEs have a good overview of possible candidates to match with for traineeships, apprenticeships and full-time employment. They will present their companies and working conditions and the attractive future possibilities for students. The students and SME-managers can get personal contacts to each other and agree upon the next steps of cooperation.

Unlike Blue Camps, Technolympics are an individual competition where candidates compete through both knowledge test and practical application of their knowledge through case-solving. Event should enable companies and participants to communicate and meet each other in an informal environment.

## Communication

Timely communication with all involved actors is one of the key steps in the successful organisation of both types of events. It helps to engage both students and companies.

### COMMUNICATION BEFORE THE EVENT

Disseminating information about the event is crucial for reaching motivated participants. The message should be spread through schools, youth organisations and social media. It is important that applicants know how the event will look, what can they expect and what is expected from them. This will help them to make a decision if the event is right for them.

Companies that participate in the event shall also be informed on the goals of the event and how the different parts of the event will look like. It will help them to plan their presentations and adjust them to the purpose of the event.

Furthermore, materials about the topic of the event should be spread to the participants before the event. This can be a short video or reading material that will introduce them to the topic. Examples can be found on the [SB Bridge project's website](#). Alternatively, participants can be given pre-challenges they can do before the event (examples can be found [here](#)). This will help create engagement and prepare participants for the competition. Materials can be sent directly via email after the registration or published on social media (for example, on the event's page).

Choice of the communication channel is very important, and our experience has shown that it is best to use both. Not all the participants will follow the event on social media and some of them don't use these platforms. Therefore, email communication is more suitable to make sure that everyone has received the necessary materials. Our experience has shown that timely and good communication is a curtail for attracting the most motivated students. The survey we conducted among the participants shows that participants were more satisfied and thought the events were more beneficial for them when the communication before the event was timely and complete. Furthermore, organizers have reported that it has helped to attract more motivated students which have significantly improved the dynamics and results of the event.



#### **TIPS:**

- **Communication is the key! Information must be complete, clear and provided on time.**
- **Use several communication channels.**
- **Use social media to create engagement.**  
This can help in promotion of future events.

## COMMUNICATION DURING AND AFTER THE EVENT

During the event, it is important to attract participants to follow your social media. This can be very helpful for spreading the information about future events, attracting students outside of schools and youth associations and spreading the message about the internship opportunities etc.

**Organizing a social media competition during the event is one way to attract students to follow you.**

**Some examples of the competition tasks are:**

- **ONE-WORD FEEDBACK POST** – Participants should in ONE-word experience what did they learn/ what is their takeaway from the event?
- **FIRST "FAMILY" PICTURE** – the winner is a person who upload a team photo first.
- **STORYTELLER** - the winner is a person who mostly makes Instagram stories from the event.
- **THE MOST CREATIVE PICTURE** – participants are asked to upload their picture using clean transportation, recycling etc. (depending on the theme of the event).

After the event, social media should be used to maintain students' engagement. This can be done by publishing interesting articles from the blue economy field, internship opportunities and information about future events.



## Participants selection

The motivation of the students to engage in group work and other activities, as well as their interest in the topic of the event, have very high importance. It has a significant influence on the outcome of the events and benefits for all participants, especially in the organisation of the blue camps where all the activities are done in groups.

Our experience shows that unmotivated students will not take part in the discussions and can have a very negative influence on group work. As the result, they often cause frustration and disappointment of the motivated students whose team don't win the competition. These students will often feel that having such students in their teams was an unfair disadvantage, and in some cases, would decide not to participate in future events.

Assessing the motivation of the applicants in the application process is a very challenging task.

Some methods that can help are:

- Asking students in the application form to write why the topic of the blue camp interest them and why should they be chosen to participate or to write a motivation letter.
- If the students have applied through a school, asking the recommendation from teachers.
- Asking for proof of previous engagement in similar activities / events.
- Creating pre-challenges or pre-tasks applicants should do (examples can be found [here](#)).

Using one of these tools or a combination of them will help you learn more about applicants, compare them and choose the most motivated ones.

# International Blue Camps program

When creating the program content, it is important to adjust it to the international audience. Differences in curriculum, theoretical knowledge and practical skills differ between the students from the different countries, as well as between students from gymnasiums and vocational schools. Therefore, lectures should address a broad audience, and solving a company's case should demand a broad range of knowledge and skills.

## KEY SEGMENTS:

### 1. Introduction to the topic

In the beginning, participants should be introduced to the topic of the camp. The lecture should provide an overview of the field, point out the major challenges and explain why addressing those challenges is important. It should give students a broader picture and indicate the benefits societies can have from the development in the specific blue economy area. The lecture should not last more than 30 - 40 minutes. We recommend that lecture is followed by a question for the audience that should encourage discussion. This will break one-way communication and maintain students focus. Involving students in the discussion early in the event is especially important in the case camp is organized online.

## 2. Company visits / company presentation

Meeting companies' representatives can bring many benefits for both companies and participants. This enables companies to meet young talents and talk about the skills and knowledge needed to work in the field. Introducing students to companies' innovative solutions and how does it look to work in the field attract students' interest in pursuing a career in the field. Furthermore, participants get the chance to have one-on-one talks with companies' representatives in formal and informal settings, create useful contacts and learn what skills and knowledge are in demand to be successful in the field.

It is strongly recommended to have both small and big companies represented. One of the advantages of big companies is that they often have developed internship programs that students can learn about, while smaller ones sometimes don't offer this opportunity. On the other hand, smaller SME's have a stronger motivational impact on participants. Students easier relate to smaller SME's and engage in discussions with them.

Meeting companies can be organized through:

- **COMPANY VISITS** – this is suitable for the larger companies such as plants, ports etc.
- **COMPANIES' PRESENTATIONS** – this is suitable for the smaller companies which are usually not able to receive group visits or if a blue camp is organized online.
- **VIDEOS** – this is suitable for online events when it is not possible to have companies' representatives present at the event.

We recommend organizing companies visits when it is possible and having their representatives present during the rest of the event.

If companies are holding presentations it is important to limit them to 10-15 minutes (depending on how many companies are participating) and to leave time for participants' questions. When inviting companies to take a part in the event it is always good to give them guidelines on what shall they talk about, so that their presentations contribute to the main goal of the event.



Videos are a good option for online events only when time is very limited, or it is not possible to have a representative of a company present at the event. Otherwise we don't recommend them as filming and production require a lot of time and skills, and students can't ask additional questions.

### **3. Introducing the problem-solving method and a workshop**

The Design Thinking method has been proven to be a very successful approach for finding innovative solutions. It can be applied in solving a broad spectrum of problems. In addition, it supports brainstorming and creativity. Most importantly, it is suitable for high school students, who can easily understand and implement it. We recommend that the introduction to the method is followed by a workshop as it will increase participants understanding of the method and they will be able to apply it in the case-solving.



Information about the Design Thinking method, teaching material and examples of application for solving the problems from the blue economy field, as well as workshop examples are available at the [SB Bridge project's website](#).

#### 4. Case-solving

The goal of the case-solving is that participants apply the knowledge and information they have acquired during the camp to solve the real business problem. They should use the Design Thinking method to find an innovative solution. If possible, companies' representatives shall be available for participants to answer questions regarding their business students might have.

Solving the case should require knowledge and skills from multiple areas. During the project, we have seen that when the cases were too specialized, demanding a very good knowledge in one area, a lot of participants felt discouraged and were prone to give up. When the case required multidisciplinary knowledge and skills, it promoted group work. Participants contributed to the

group work with the skills and knowledge from the area they were good in and learned from each other. Case examples can be found [here](#).

Participants should be given the possibility to organize their own time during the group work. They should plan their breaks provided that all member of the group agrees on the time and the duration of the breaks. We have seen that participants were more productive when they were given this option instead of the organizer planning breaks in advance.

Students shall be divided into groups and presented the case as early as possible during the event. This will give them time to meet their team members before the case-solving starts, which will help that group function better. It will also give them time to think about the assignment and ask questions during the other parts of the program that will be helpful during the case-solving.







#### TIPS:

- Groups members shall have time to meet each other before they dive into a work.
- Groups shall be given freedom to organize their time the way it suits them best.

### Idea pitching

The panel of judges are investors that students should present their idea and convince them to invest. Participants shall be informed about judging criteria before the competition. Solutions shall be judged on the pre-defined criteria. Criteria we used were innovativeness and business feasibility solution, presented knowledge, teamwork, and presentation. Students shall be informed about the criteria and pitching process at the beginning of the blue camp.

PROBLEM (1)	SOLUTION (2)	UNIQUE VALUE PROPOSITION (3)	UNFAIR ADVANTAGE (9)	CUSTOMER SEGMENTS (2)
<p>Plastic is accumulating in organisms.</p> <p><b>More than 15% of marine organisms are endangered by absorption of plastic</b></p> <p>Water sports' equipment are not stored on a bigger scale and they are a source of synthetic unrecycled material.</p> <p><b>Growth rate of 3.6% from 2020 to 2027 - from \$43,2 billions in 2019 to \$55,2 in 2027</b></p> <p>Small businesses and organizations collecting plastic from the ocean aren't noticed or supported.</p> <p><b>Currently 13 000</b></p>	<p><b>Producing surfboards / kiteboards out of the plastic from the ocean.</b></p> <p><b>Support cleaning the ocean and small businesses doing that.</b></p> <p><b>Impact on environment: Kg of plastics which polluted nr kg/m³ of water/ 1 e.g. surfboard</b></p>	<p>We allow lovers of water sports to <b>perform their hobbies</b> and simultaneously <b>save the ocean</b> so that they don't have to stop doing it.</p> <p>We take a responsibility of rising water sports' industry in the Baltic Sea.</p>	<p>A large source of materials from water cleaning organisations, which is also cheap while living up to quality criterias within the water sports equipment.</p>	<p>Water sports professional athletes, tourists, amateurs 6 to 45 years old age range, specifically for sport centres near to water resorts, water sport shops</p>
	<p><b>KEY METRICS (8)</b></p> <p>Number of plastic reused on one equipment e.g. surfboard, skateboard (kg of plastic / thing)</p> <p>Number of customers (number of customers per. month) and customers coming back (number of customers purchasing more than one thing / month)</p> <p>Number of sponsors (just number)</p>		<p><b>CHANNELS (5)</b></p> <p><a href="#">HELCOM</a>  <a href="#">The Baltic Sea Project</a>  <a href="#">Coalition Clean Baltic</a></p> <p><b>Referrals: if you buy two boards you get a discount</b></p> <p>The Baltic Sea Advisory Council  social media, posters.</p>	

KNOWLUTION IS THE KEY.  
TO STOP POLLUTING THE SEA.





## International Technolympics program

Unlike International Blue Camps which are targeting a wider audience, International Technolympics have a goal to attract the most motivated students, who have a greater knowledge and interest in the topic. This is the opportunity for them to show the knowledge and skills they have gained through participation in the Blue Camps or other activities. **The main segments of the event are:**




International Green e-camp  
"Water management"

The international green e-camp calls participants from five countries:  
Lithuania, Poland, Germany, Denmark and Sweden

Version: online  
Time: 20-22<sup>nd</sup> September, 2021 (week 26)

AGENDA	
<b>1<sup>st</sup> day</b>	14:00 – 14:25 - Introduction
	14:25 – 14:30 - Water management campus rules
	14:30 – 15:10 - Lecture – Ocean literacy
	15:10 – 15:25 - Discussion
	15:25 – 15:30 - Break
	15:30 – 15:35 - Teams integrating activities, Team building
14:00 – 17:00 CET	

### 1. Knowledge test

Questions on the knowledge test should give equal opportunity for everyone to participate and win. The international character of the event and differences in curriculums that exist between countries and different types of schools should be considered when questions are designed. This ensures that none of the participants is putted in a disadvantaged position. Therefore, we recommend providing participants with the material they can use to study for the test. This material shall be delivered to the participants in a good time so that they have time to study it. An example of the material from the 5R topic can be downloaded [here](#).

**2. Company visits / company presentation** see [Blue Camp program point 2](#).

### 3. Workshops

The purpose of the workshops is to enable students and companies to meet each other better in a more informal environment. At the online events, the objective of the workshops is to increase students' interest in the topic and initiate a discussion among participants.



Here are presented some examples.

#### Workshops:

**“Replastico”:** In our products we use 100% upcycled plastic bag and packaging waste. We currently work with HDPE and LDPE plastics.

This workshop invites to design with plastic waste and reuse it in inventive ways, giving it a new lease of life and social value. It is the circular design challenge that seeks to inspire creatives to design solutions for plastics packaging to stay in the economy, and out of the environment. During the workshop you will get to fuse your own plastic bag waste and then learn the necessary steps on how to form this material into a product.



**“Commune DIY”** is a skateboard recycling workshop and skateboarding community supporter. We collect and exchange old, broken or unused skateboard decks giving the skaters a fat discount on our fresh boards or recycled skateboard products. We design and manufacture a variety of products out of the reclaimed skate wood. Our production goes from bulk business orders to very delicate and one of a kind custom orders. While boosting the once dead board into different markets for a sustainable and useful item we support local riders and aim for a stronger skateboarding community worldwide. Workshop invites to design with skateboard waste.

**“How can you reduce the amount of rubbish / plastic in nature?”**

- Do you live near a lake, river or the ocean?
- Do you eat fish?
- Do you know how the fish is caught or is it farmed?

Innovation can be a thing, an idea or a change in attitude.

So how can you / your innovations lead to a change?

#### **4. Case-solving**

Two approaches can be used for organizing the case-solving segment. One is to give students several assignments connected to the companies' presentations which students solve individually. Assignments are structured to have only one correct answer. Solving them should not require more than one hour.

Another alternative is that each student chooses one of the several companies' cases. Students are then divided into groups based on the case they have chosen. They are given several hours to work in groups. They present their solutions to the panel of judges who are choosing the winner based on predefined criteria (like at the blue camp). All members of the winning team get extra points. Examples of cases can be found [here](#).

The benefit of the second approach is that students get to choose the assignment they like and that they find interesting. In our experience, this has had a positive impact on students' engagement and group work. The downside of students solving cases in the groups at the Technolympics is that even members of the group who didn't take an active role in the case-solving will get extra points, which other students find to be unfair.

## Online vs physical events

International Blue Camps and Technolympics were originally designed as physical events. Due to the pandemic of coronavirus 3 of 7 events were held online. Our experience has shown physical events brings much more benefits to both companies and participants. While online events enable participants from different geographical areas to participate and are more cost-efficient, social interaction among the participants as well as communication between participants and companies is much more limited. Furthermore, online events last shorter, which makes the schedule very intense, and students get tired faster after spending many hours in front of a screen. Therefore, we strongly recommend always organizing them as physical events.

## Taking-off from a Green Camp into a vocational green future

More and more young people today want to contribute through their lifestyle to a sustainable world and make a difference towards the future development of our planet. The “South Baltic Bridge” collaboration, a project initiated and implemented within the Interreg South Baltic Programme and supported by the ERDF fund with participants from five Baltic Sea states, is also committed to this trendsetting concept.

The project aims to sensitize young people to a resource-saving handling of the earth and the limited raw materials as well as to arouse their interest in professions in the green and blue economy (environmental protection and maritime economy). The project is successfully implemented through the regular organization of Green Camps and Technology Olympiads, where pupils and students not only compete and develop solutions but also exchange their views on urgent issues of environmental protection and green economy.

The thematic focus of these international gatherings is on topics such as green building, clean transportation, renewable energy or waste management. Jasmin Helms, a young woman from Schwerin, also had the opportunity to take part in such a three-day camp in Holbæk, Sjælland, and to share ideas with participants from different countries in practical group work on challenges in the field of sustainable building and green architecture.



**The insights and experiences gained during the camp strengthened Jasmin in her career aspirations.**

The insights and experiences gained during the camp strengthened Jasmin in her career aspirations. After all, the young high school graduate naturally wanted to take up a future-oriented profession in which she could also play a fulfilling role and take responsibility. Now she is working and studying with the “IPP Ingenieursgesellschaft”, an innovative company for sustainable urban development and IT competence, located in the Schwerin Technology Centre (TGZ). There, a multitude of challenging tasks and interdisciplinary projects await the 18-year-old woman, who will simultaneously complete a degree in construction engineering as part of her dual education.

So, Jasmin will certainly not be bored or under-challenged. Now the demanding day-to-day life of the future engineer revolves on professional land recycling, waste management and landfill technology as well as the conception of sustainable residential and commercial areas. In all these fields, Jasmin will be looking for suitable solutions that correspond to the current state-of-the-art in environmental technology and contribute to the preservation of ecosystems. She certainly feels well prepared for this new challenge, partly thanks to her participation in a Green Camp and the insights and knowledge she gained from it.



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**What do you think about this kind of cross-border event?**

The events are a good way for pupils and students to exchange ideas jointly on complex issues and relevant topics concerning the future. Such transnational meetings create a spirit of cooperation that can help to develop new approaches, tailor-made strategies and innovative ideas for a transformation to a green and blue economy. Especially the young generation has a fresh and unconventional view on the environmental and economic challenges of the future. We should not let this resource go to waste.



# INTERVIEW

**After participating in a Green Camp, do you think these events increase the knowledge and competencies of students in the blue and green sectors and help reduce the gap in the labour market?**

With the subject of Renewable Energy, the Green Camp dealt with a specific and up-to-date topic of the Green Transition, and the participants experienced real practical challenges during the event, as they will also occur later in their everyday working routine. Therefore, we believe that these events make a valuable contribution to broadening the competencies and skills of the students and can help prepare them for working life.

**Do you think that these events are an efficient way to help companies address the shortage of skilled workers in the future?**

The events are one - of many - ways to get in touch with potential employees or interns. A valuable benefit of these events is probably the opportunity to directly address young graduates and students in a comfortable and relaxed atmosphere. Also, the Green Camps offer an opportunity to present our own company and its fields of activity to the young generation and future employees. For both sides, this is a good decision-making aid that a job interview often cannot offer.

**Did you take anything valuable asset for you and your company out of the event?**

Our company operates unfortunately only on a regional and national level, so we recognise at these events the great potential and untapped possibilities of an international working environment and cross-border cooperation, which bundles many diverse inputs. Moreover, this event makes us realise very clearly that we have to make the best use of the planet's limited resources - even on a company level.



## LIST OF RESOURCES

INTERNATIONAL  
GREEN CAMP  
“RENEWABLE ENERGY”

Teaching material and  
Design Thinking workshop

Cases: Wemag Case

INTERNATIONAL  
GREEN CAMP “CLEAN  
TRANSPORTATION”

Teaching material and  
Design Thinking workshop

Workshop: Carbon Footprint

INTERNATIONAL  
BLUE CAMP “WATER  
MANAGEMENT”

Teaching material and  
Design Thinking workshop

Cases: Safe Baltic Sea, Clean Baltic Sea,  
Microplastic, Save Baltic Sea

INTERNATIONAL  
“TECHNOLYMPICS 5R”

Study material for students

Cases

Knowledge test

INTERNATIONAL  
“TECHNOLYMPICS  
“SUSTAINABLE  
DEVELOPMENT  
GOALS”

Cases: Bakano Design, Birthesminde,  
Hawila Project, STENLILLE GRAVEL PIT

Knowledge test

INTERNSHIP LITHUANIA

[LINK](#)

ANALYSIS OF SKILLS  
AND COMPETENCIES  
REQUIRED IN GREEN  
& BLUE ECONOMY  
SECTOR

[LINK](#)





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