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Sustainable development of Blue economies through higher education and innovation in Western Balkan Countries – BLUEWBC

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1 *Innovation and Entrepreneurship in Norway and EU*

1.1 Government initiatives

In 2009 the Norwegian government established an official policy to strengthen entrepreneurship in educational programs at all levels from basic education to higher University levels. It was launched through an action plan where the field was reviewed and further action was advised as how to advance the field. Since then a number of Universities and Colleges have established study programs and subjects coveringthe field of innovation and entrepreneurship.

Very few study programs are targeting specifically the maritime domain, this does not however imply that the programs do not cover maritime. On the contrary, a study program at a HEI located on the coast and targeting business in general will very much cover blue economies.

The action plan specifically addressed different I&E areas:

Young Entrepreneurship **-** A European organization: Junior Achievement – Young Enterprise, Europe (JA-YE Europe) was established in 1997 as a cooperation between 40 European countries. Albania is member, Montenegro is not a member.

In Norway the organization has established a number of educational programs available to different educational levels. Some key programs are:

- At the secondary level it has programs for *"Establishing a learner company"* where students learn collaboration, creativity and initiative through establishing a student business.
- At the upper secondary level a program named "*Youth Business*" teachers advices the students onhow to establish, develop and run their own businesses.
- At university level students participate in a program where they establish a "*Student Business*" where they establishes, operates and closes down a business.
- At all levels the innovation camp training program is made available to nurture the features of I&Esuch as creativity, innovative thinking, fulfilling market needs and more.

The JA-YE Europe network- JA-YE is available at http://www.jaeurope.org and offers similar programs on a European level:

- Company Programme has been teaching students how to take a business idea from concept to reality.
- The Start Up Programme gives post-secondary students (aged 19 to 30) the opportunity to experience running their own company, giving them an insight into how their talents could be used

to set up in business for themselves.

JA-YE Europe also participates in some important projects:

1. The European Entrepreneurship Education Network. Initiated by JA Europe, the EE-HUB is a specialized international network bringing together European and national governments, businesses, NGOs, researchers and educators to collaborate and share knowledge.
2. The "Innovation Cluster for Entrepreneurship Education" (ICEE) is the new Erasmus + funded project lead by JA Europe in collaboration with four Ministries of Education (Estonia, Finland, Italy and Latvia) and Enterprise Flanders (representing the Ministry in Flanders, Belgium); three research institutes (Eastern Norway Research Institute, The Foundation for Entrepreneurship. - Young Enterprise Denmark and the Faculty of Economics in Osijek, J.J. Strossmayer University); five national JA organizations (Belgium, Finland, Italy, Estonia, and Latvia).

1.2 Study programs in Norway

As of 2019, around 20 Norwegian universities and colleges reported to have established study programscovering entrepreneurship. The key study programs available in Norway are listed below:

NTNU = Norwegian University of Science and Technology
UIO = University of Oslo
USN = University of Southern Norway
UiT = Norwegian Arctic University

Study Program	Field	Level	STPs
NTNU Entrepreneurship school	Technology	Master, 2-yr	120
NTNU Entrepreneurship (Master's Programme)	Finance and administration	Master, 2-yr	120
NTNU Entrepreneurship, innovation and society	Social Sciences	Master, 2-yr	120
NTNU BioMarin innovation	Marine Biology	BSc, 3-yr	180
NTNU Marketing, Innovation and Management	Finance and administration	BSc, 3-yr	180
UIO Entrepreneurship	STEM	Master, 2-yr	120
UIO Technology, innovation and knowledge	Social Sciences	Master, 2-yr	120
USN Innovation & Entrepreneurship	Social Sciences	BSc, 3-yr	180
USN Innovation and leadership	Finance and administration	Master, 2-yr	120
UiT Business Creation and Entrepreneurship	Social Sciences	Master, 2-yr	120
UiT Governance and Entrepreneurship in Northern Areas	Social Sciences	Master, 2-yr	120

In addition to the complete study programs there are also a number of E&I subjects available ranging from 7.5 to 30 study points that can be combined with other study programs as optional subjects or additional subjects.

1.3 Cooperation between education and industry

Direct involvement

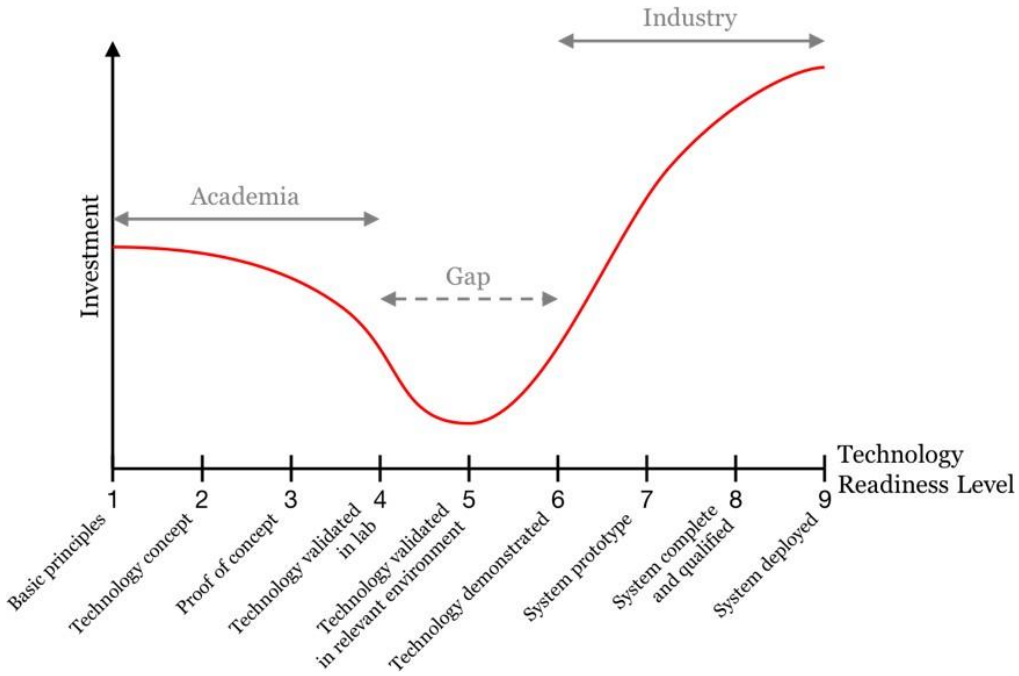
At NTNU and other Norwegian HEIs the active involvement of industry in education and research is an established goal. To achieve this, various arenas are supported to facilitate industry-university cooperation, such as joint research projects, use of industry employees as lecturers, use of industry professionals as course instructors and joint conferences on technology and innovations.

Katapult program

In 2018 a number of government supported Katapult centres was established to support commercialization of innovations. In Aalesund, funding was awarded to the DigiCat centre.

A Katapult is essentially infrastructure to assist in moving an innovation through stages of development from promising technological solutions to nearly market ready product. This is defined in Technology Readiness Levels (TRL) from 1 through 10. The catapult role is to close the void between TRL 4 and TRL 7,as often funding is very difficult for this stage of development. Along with the fact that this stage do not generate revenue one is often dependent on investor financing or own financing, which very often donot exist and the promising innovation is left un-developed, and thus the I&E cycle stops.

The Katapult centre supports innovators in overcoming this gap and enable them to move their product idea to commercialization.



Academia tends to focus on TRLs 1–4, whereas industry prefers to work with TRLs 7–9, rarely 6. Therefore, TRLs 4–6 represent a gap between academic research and industrial commercialization. Thisgap is colloquially referred to as the technological "valley of death" to emphasize that many new technologies reach TRLs 4–6 and die there.

2 Innovation and Entrepreneurship in Lithuania

2.1 Policy Framework in Lithuania

Lithuania is one of the first EU countries to develop entrepreneurship education strategies at the school level (OECD, 2015).

Entrepreneurship Action Plan of Lithuania for 2014–2020 is to define actions the implementation ofwhich would ensure consistent growth of the level of entrepreneurship in Lithuania through the development of consistent and continuous entrepreneurship education system, favorable environment for business start-up and development by improving accessibility of public services to business, the image of the entrepreneur in the society and promoting entrepreneurship of target groups and social entrepreneurship with special focus on regions. The objective of the Entrepreneurship Action Plan is to raise the level of entrepreneurship.

In order to achieve this objective three tasks were set:
1) to establish a consistent and continuous system of entrepreneurship education;
2) to create favorable environment for the start-up and development of business;
3) to promote entrepreneurship by ensuring accessibility of public services to business, distinguishing entrepreneurship of target groups (youth, women) and start-ups as well as social and regional entrepreneurship and developing a positive public image of the entrepreneur. Entrepreneurship and innovation training outside of formal education is under the responsibility ofthe Ministry of Social Security and Labor. Junior Achievement is the most important organization inproviding entrepreneurship and innovation training outside of formal education in Lithuania. It adapts international practices to the Lithuanian context, stimulating innovations andentrepreneurship culture through initiatives such as company programmes where students managetheir own firms for one year, assuming risks but with lower requirements than normal companies.

INVEGA, a public loan guarantees institution established under the the Ministry of Economy, operates one of the most important innovation and entrepreneurship supports in Lithuania, the **Entrepreneurship Promotion Fund**, which provides micro-credit that includes a training offer to financing recipients.

2.2 Innovation and Entrepreneurship in VGTU

Knowledge and Technology Transfer Centre was created in 2014. The main competencies of Centre are the promotion of commercialization of R&D results, knowledge and technology a transfer, science and business partnerships, international cooperation in R&D and innovation, development of new innovative business at University.

The vision of Knowledge and Technology Transfer Centre is to become a one-stop services Centre of commercialization of R&D results and facilitation of the development of new innovative business,by:

- promoting commercialization of R&D results, knowledge and technology transfer;
- initiating new science and business partnerships, international cooperation opportunities in R&Dand innovation;
- promoting entrepreneurship culture and new innovative business development at University;
- developing of creative, innovative society in/outside the University.

2.3 Entrepreneurship Promotion Events and programs together with partners

HakatonHack4Vilnius - In 2018 and in 2019 together with partners, Knowledge and Technology transfer Centre organized HakatonHack4Vilnius. “Hack4Vilnius” is three days hackathon intended topromote innovations for Vilnius city.

The aim of hackathon is to find new solutions and create innovations for Vilnius to become smarter, healthier, more active and cleaner city. Participants had to generate ideas on how to solve problems of Vilnius and offer alternative and innovative solutions.

The first Hack4Vilnius event, which took place in 2018, was very popular as over 100 software developers, designers, business developers and students of various study areas participated in the hackathon. Then, 20 mentors, experienced professionals from different companies were working with participants to help them to develop their ideas and prepare for the final competition.

The organizers of Hack4Vilnius expect this event to become an annual tradition and strive to ensure that ideas proposed during the event are developed further.

ClimateLaunchpad – ClimateLaunchpad is the world’s largest green business ideas competition with a mission to unlock the world’s cleantech potential that addresses climate change, hosted by our “Sunrise Valley Science and Technology Park”

The competition is part of the Entrepreneurship offerings of EIT Climate-KIC. Sunrise Valley science and technology park runs national competition of ClimateLaunchpad in Lithuania since 2015.

There are three rounds to the competition:

- Boot Camp – ClimateLaunchpad kicks off with a 2-day Boot Camp with a trainers coming

from abroad to teach participants all they need to know about jump-starting their business.

- Intensive coaching and National Finals – the Boot Camp is followed by a period of intensive coaching. Teams perfect their pitch, value proposition and business model. After that, they pitch their idea in the National Final in front of the National Jury. Winning teams of National Finals get to compete in the Global Grand Final.
- Global Grand Final – the best competitors in the Global Grand Final may be offered access to theClimate-KIC Accelerator and win monetary prizes.

Maker Fest - From 2017, once a year together with partners, VGTU Creativity and innovation centre "LinkMenų fabrikas" organized hardware hackathon **Maker Fest**. The 3-day event bring together inventors, artists, hardware lovers and budding entrepreneurs, who will all try their hand at creating an innovative hardware product. Along the way they'll be mentored in how to successfully prototype and market their inventions.

All the necessary equipment and materials supplied by partners and sponsors of the event.

Each team received a voucher worth up to €100 to purchase the necessary equipment for their prototype.

Best of all, participants can win prizes of €700 in four different categories:

- Best idea;
- Best product prototype;
- Best product related to social responsibility;
- Best product related to Deeper's business focus (smart devices for active leisure activities

Demola Vilnius. Hosted by our partners "Visoriai Information Technology Park"

Demola/Vilnius projects are designed for students from various disciplines (engineering, business, marketing, social science, design / art) who are an interested in solving practical problems of product prototypes / demo creation. Participation in team is based primarily on the motivation and inspiration rather than professional knowledge and skills rather than professional knowledge and skills.

Since 2013 About 40 students from our university join this project each year and have the opportunity to gain internships through the project. In 2019 they change project name to ***Innovation Workshops*** but activities still the same.

Futurepreneurs - Futurepreneurs is a concentrated sustainability pre-acceleration program for people willing to become entrepreneurs. This business development training package outlines 5 training sessions (workshops) for building a startup from an idea to a viable solution that can be

presented to potential investors.

Every session is led by business experts, while participants get insights from mentors in between the sessions. In order to create and develop their (future) start-ups, participants have to focus on Sustainable Development Goals and find an innovative solution to worldwide problems. Participants will not only be trained to become an entrepreneur, but also to build an impact driven business that is good for the environment, society and economy.

Benefits of the program:

- Participating is free and no equity is taken
- Real time experience: real problems, interactive process, learning by doing
- A lot of teamwork and international support
- Exclusive network of dedicated mentors
- Development of personal skills and expertise
- Certificates & Awards

Futurepreneurs pre-acceleration program was launched in 2017 and became the first sustainability pre-acceleration program in Lithuania.

VGTU Start-ups- From 2013 year we have about 30 startups in different fields like environmental engineering, information technology, business management, electronics, mechanical and aeronautical engineering.

One of the most successful examples is “WorkSober”.

Worksober.com is a biometric sobriety test solution that allows to identify employees with a face recognition technology and check their sobriety before they enter their workplace and after completing work. We offer both stationary and mobile worksober.com solutions that allow to manage employee sobriety data smartly, as well as ensure accurate work time accounting, work safety, and increase efficiency.

In Sunrise Valley Science and Technology Park our Startups have access to a free company registration address, workplace and at least 2 years’ service pack.

Commercialization of the University IP - The University's policy is to promote IP commercialization, prototyping ideas and innovations. Researchers who carry out such activities are awarded special marks, which are included in their salary.

Transferring the rights to an IP object to other parties: non-remuneration, sales or licensing:

- Recommended license fee is 5-15% of the sales value of the product, based on the licensed IP.Final price is determined during negotiations;
- License can be exceptional or non-exceptional.

Commercialization of IP by establishing a spin-off company:

- The University shall not have more than 20% of the shares, unless stated else;
- The contribution of capital of the University can be non-monetary – licensing the usage of the IP;
- If the University decides not to have shares of the company, it is considered to be a start-up.University licenses the startup with the IP.

2.4 Business Partnership with VGTU

- Clients for students' services and R&D (Creativity and Innovation Centre "Linkmenų fabrikas");
- Clients for training courses (BIM, Aviation, Digital post production, IT);
- Industrial PhD programmes and research;
- Clients for R&D services from VGTU research centres and labs;
- Patents, management of Intellectual property rights;
- Partners in R&D& innovation projects;
- Partners in international R&D and innovation projects (H2020, BSR programmes, etc.);
- Complex R&D and education cooperation (Bentley Inc).

VGTU Creativity and Innovation Centre "LinkMenų fabrikas" - VGTU "Creativity and Innovation centre "LinkMenų fabrikas" activities are focused on:

Innovation and research – scientific knowledge to make use of real market problem-solving, innovation and implementation.

Young creators' practical education – the centre gives every opportunity to develop interdisciplinary teamwork between different specialists and allows young people to adapt university or schoolknowledge in the implementation of real technical and artistic creation projects [1].

VGTU Creativity and Innovation Centre "LinkMenų fabrikas" Services for business

By combining creativity and expertise we help to solve relevant problems:

- evaluate the perspective of a product or technology from a business point of view;
- create prototypes, using the latest technological solutions;

- analyze the possibilities for commercialization and create advertising for products.

VGTU "Creativity and Innovation Centre "LinkMenų fabrikas" EQUIPMENT:

- *3D workshop equipment* (lasers, scanners);
- *Advertising workshop equipment* (color printers, laser printers, Cutting plotter);
- *Sound recording equipment* (the Audio shop consists of two rooms and is fully customized for audio recording and processing. This workshop contains not only the recording technique and equipment, but also various musical instruments);
- *Painting workshop equipment* (extraction screen, paint spraying equipment);
- *Electrics workshop equipment* (Digital Oscilloscope, Soldering and reworking station);
- *Wood workshop equipment;*
- *Metal workshop equipment;*
- *Photo/video/Montage workshop equipment.*

Sunrise Valley Science and Technology Park- Sunrise Valley Science and Technology Park is a non-profit organization, founded in 2003. VGTU is one of the founders and owners of Sunrise Valley as well as Vilnius university (the biggest one in LT), Vilnius city, business companies). The Park features long-standing traditions in development of entrepreneurship, promotion of business and science collaboration, provision of infrastructure and other innovation support services to young, innovative enterprises as well as to other knowledge-intensive business. Sunrise valley is allocated next to the VGTU – therefore it is very convenient for VGTU students and scientists to develop new business.

The Park is a perfect place for innovative technological enterprises, enterprising members of universitiescommunity and R&D environment, who aim to commercialize their knowledge, establish and develop businesses and expand innovative activity [2].

Areas of activity

- Infrastructure services for knowledge-intensive business;
- Promotion of business and science collaboration, knowledge and technology transfer.'
- Rendering of entrepreneurship promotion, incubation services to small and medium-sized enterprises.;
- Promotion of local and foreign investment and enhancement of international awareness.

Environment

The Park operates in a unique environment – in the biggest knowledge – study, research and business – triangle in the Baltic States – Sunrise Valley.

- The most powerful and greatest Lithuanian universities, such as Vilnius University and VilniusGediminas Technical University operate in the Valley;
- 5,000 researchers operate in the Valley;
- The biotechnology business incubator is run in the Valley;
- Over 20,000 students study in the Valley;

The following open-access centres are established in the Valley (VGTU and Vilniusuniversity R&D infrastructure):

- Laser Research Centre Naglis;
- Life Sciences Centre;
- The National Center for Physical Sciences and Technology;
- Civil Engineering Research Centre.

2.5 Entrepreneurship in Business Management Faculty

Entrepreneurship – is the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit. The most obvious example of entrepreneurship is the starting of new businesses.

Business Management Faculty promotes and develops competent and productive initiatives in the area of small enterprises. The main objective is to create a new breed of young entrepreneurs that will become net-contributors to the national economy. To provide training, strategies and consultation that assist VGTU students and researches to embrace micro, small, and medium scale enterprises as an alternative employment option.

In order to strengthen the entrepreneurship competencies of the students, in the faculty are being taught fundamental and specialized subjects, like Business Fundamentals, Entrepreneurship (with course work), Business Communication, E-business, Business Finance, Budget Planning and Administration and etc.

There are two specific courses for the students, in order to help them to strengthen “start-up” creation abilities, get the knowledge of basic principles for “start-up” creation from idea generationuntil preparation of business project:

- ***Design Thinking for Start-ups;***
- ***Commercialization of Start-ups.***

The aim of the course of Design Thinking for Start-up is to provide students applied knowledge of idea generation, business and business project creation, development business project (plan) preparation, abilities of business commercialization and proper presentation of the business idea for investor. During study process students, get the knowledge of basic principles for “start-up”

creation from idea generation until preparation of business project. Also, students get the knowledge about business project preparation principles, business forms, analyse good practical examples, the basisof leadership, its strategies. Every business project part of is being presented; students become familiar with project activities and budget planning, ROI (return on investment) evaluation, risk management and effective presentation of the business idea for investor.

Regarding the Commercialization of Start-ups – this is the course to teach students properly and professionally present their idea for investor practically, search for the relevant business commercialization (funding) sources. During study process of this subject, students become familiar with the basic financial sources, commercialization methods, introducing such investors as venture capital funds, business angels, entrepreneurs, banks and other, shortly presenting the history facts. Also, students are being introduced with classification of young companies (start-ups), success stories. The course incorporates practical techniques to evaluate and present the idea, project or business for investor. Study subject also includes review of commercialization methods of business (idea), understanding of the entrepreneurship, and helps to strengthen abilities of idea presentation for investor, introduce successful presentation techniques.
One more initiative called “INOVEKS” for fostering entrepreneurship in the faculty – had been implemented together with the North Town Technology Park, aiming to encourage students, young scientists and researchers to implement their innovative ideas, to assist in developing them from their initial stage to the creation of a technological prototype and to facilitate enterprise establishment processes. The main support for the development and implementation of their ideas was consultations and mentoring on business development, foundation of start-ups, the Knowledge and technology centre provides manifold support: expert advice and trainings in various fields, assistance for business development, free events, workspace, support in commercialization of a product or service, attracting investors, etc.
Currently, VGTU students, established their own technological ventures and have an opportunity to take advantage of the new business centre’s services – they got in touch with the management and commercialization of their products. VGTU students, doctoral students and young researchers might generate, refine business ideas and establish new high added value technology start-ups, get advice in creating a model and (or) a prototype and get preferential conditions for businesses development. VGTU starters are creating technological prototypes in nanobioengineering, energy, electronics, computer engineering and software fields. Four groups of students are working on different issues: extracting cellulose nanocrystals from hemp fibre and trying to use them in aviation, construction, machinery manufacturing and other industries, looking for two and three dimensional augmented reality solutions, creating remote door lock monitoring system.

3 Innovations and Entrepreneurship in Croatia

3.1 Strategic Framework for Blue Economy in Croatia

The list of strategic frameworks/policies affecting the Blue Economy, Innovations and Entrepreneurship

in the Republic of Croatia:

The Strategy of Maritime Development and Integral Maritime Policy of the Republic of Croatia for the period 2014-2020. The strategy represents the basis for defining the direction of maritime development as one of the most important areas of the economy of the Republic of Croatia, with the mission of increasing gross domestic product, defining development on the principles of sustainability, culture promotion, and the promotion of the safety and the protection of the marine environment. One of the strategic goals is the safe and environmentally sustainable maritime transport, maritime infrastructure, and the maritime space of the Republic of Croatia. In this context, the Strategy pays attention to protecting the environment, preserving and enabling the recovery of marine and coastal environmental systems, and protecting biodiversity and sustainable use of the sea and the coastal area [3].

Tourism Development Strategy of the Republic of Croatia until 2020. The strategy was adopted by the Ministry Of Tourism in 2017. The strategy both answers the question what type of tourism does Croatia wish and need to develop, and determines key activities of tourism policy aimed at ensuring production, institutional, organizational and human preconditions for the improvement of competitive capacities of Croatian tourism, while using resources based on the principles of responsible and sustainable development [3].

Nautical Tourism Development Strategy of the Republic of Croatia for the Period 2009 - 2019 (2008). The greatest threat to the long-term development of nautical tourism is the uncontrolled use of the naturally shaped area and natural goods. Therefore, the responsible management of natural resources and goodwill, i.e., protection of nature and environment for their conservation, contained in the principle of sustainable development, represents an imperative for the creators of economic growth andthe planning of the use of space at all levels [3].

The Transport Development Strategy of the Republic of Croatia for the period 2014-2030. Since joining the European Union on 1 July, 2013, determining the development of transport infrastructure in the Republic of Croatia, primarily following the framework of the European Union's transport policy, is of crucial importance.

Strategic Environmental Impact Study of the Transport Development Strategy of the Republic of Croatia 2017-2030.

National Innovation Strategies. The Strategy for Innovation Encouragement of Croatia 2014-2020 and **Croatian Smart Specialization Strategy (S3) 2016 – 2020,** i.e. their overall strategic framework serves to encourage and synergy use of public and private resources for research, technological development and innovation, which should result in improved efficiency of the national innovation system of the Republic of Croatia.

The Strategy for Innovation Encouragement of Croatia 2014-2020 was adopted by the Government of the Republic of Croatia in 2014. The strategy focuses on long-term development and systematic promotion of innovation as a fundamental value of the success of the economy, but also of society as a whole. One of the two priorities defined under this pillar is to deploy innovation to solve social challenges through three specific activities: providing grants to support innovative projects addressing

societal challenges, based on triple or quadruple-helix principles; promoting international collaboration for innovation, through joint military-private sector collaboration projects; and applying innovation to the public sector and public services [4].

Croatian Smart Specialization Strategy 2016 – 2020 (S3) was adopted by the Government of the Republic of Croatia in 2016. The strategy promotes priority measures in Croatia and highlights the importance of including knowledge and skills in technological, organizational, marketing and social innovations. The Strategy lays out the terms and definitions, measures and activities of social entrepreneurship, as well as the methodology for developing and monitoring the process. It aims to establish and improve the legislative and institutional framework for social entrepreneurship. It sets out a number of measures to establish a financial framework, increase awareness, and promote formal and informal education [4] [5].

Social Innovation Policy Framework for Croatia, Global Relations Policy Handbook. The designer of the Social Innovation Policy Framework for Croatia is the Organization for Economic Co-Operation And Development - OECD (2016). The European Union 2020 strategy, through the Innovation Union initiative, clearly commits to smart sustainable and inclusive growth, all relevant to social innovation. The Croatian government has requested OECD support in designing policies on social innovation and social entrepreneurship that can respond to its specific needs and context. Social innovation seeks to find new solutions to these challenges by engaging all of society's stakeholders – government, academia, industry, civil society, and private citizens – to transform the way public services are delivered. It covers a wide variety of sectors and brings about new products, processes, actors, and models.

The National Strategy for the Creation of an Enabling Environment for Civil Society Development (2012-2016) states that social innovation is not sufficiently developed in Croatia (Government of the Republic of Croatia, 2012). It points to social innovation as one of the ways in which civil society organizations can contribute to social and economic development. It emphasizes supporting and enhancing the impact of social innovations on social and economic development. It also advocates developing training programmes on social innovation and social entrepreneurship in schools and universities [4].

Strategy for the Development of Social Entrepreneurship in the Republic of Croatia for the period 2015-2020. The strategy was adopted by the Croatian Government in 2015, with the aim to establish an enabling and coherent policy framework for social-enterprise development in Croatia. The Strategy lays out the terms and definitions, measures and activities of social entrepreneurship, as well as the methodology for developing and monitoring the process. It aims to establish and improve the legislative and institutional framework for social entrepreneurship. It sets out a number of measures to establish a financial framework, increase awareness, and promote formal and informal education [4].

3.2 List of Universities and Faculties Related to Blue Economy, Innovations andEntrepreneurship in Croatia

PUBLIC:

University of Zagreb:

- Faculty of Economics and Business
- Faculty of Agriculture – Bachelor/Master degree in Environment, Agriculture and Resource Management
- Faculty of Chemical Engineering and Technology - Environmental Engineering
- Faculty of Mechanical Engineering and Naval Architecture

University of Osijek:

- Faculty of Economics - Bachelor/Master program in Entrepreneurial Management and Entrepreneurship

University of Rijeka:

- Faculty of Economics and Business
- Faculty of Engineering (Naval Architecture)
- Faculty of Maritime Studies
- Department for Biotechnology

University of Zadar:

- Department of Ecology, Agronomy and Aquaculture:
    - - Study program B: Underwater science and technologies
    - Study program M: Sustainable management of aquatic ecosystems
- Department of Economics
- Department of Tourism and Communication Sciences
- Maritime Department:
    - Study program Marine engineering and maritime transport technology B and M
    - Study programs Nautical studies and maritime transport technology B and M
    - Division of Nautical Studies
    - Division of Maritime Engineering

University of Dubrovnik – Department/Studies:

Undergraduate Studies:

- Aquaculture
- Economics and Business Economics
- Studies of Applied/Business Computing
- The Study of Marine Electrical Engineering and Communication Technologies
- Nautical Studies
- Yacht and Marina Technologies
- Marine Engineering

Graduate studies:

- Business Computing
- Economics and Business Economics
- Economics and Tourism
- Maritime Studies

- Marine Electrical Engineering and Communication Technologies
- Mariculture

Faculty of Tourism and Hospitality Management Opatija:
Undergraduate Studies:

- Business Economics in Tourism and Hospitality
- Management of Sustainable DevelopmentGraduate Studies:
- Sustainable Tourism Development

UNIVERSITY OF SPLIT

At the **University of Split**, the following faculties were found to offer studies in which Blue Economy sectors were present:

Faculty of Maritime Studies
Faculty of Economics, Business and Tourism
Faculty of Electrical Engineering, Mechanical Engineering and Naval ArchitectureFaculty of Chemistry and Technology
Faculty of Law
Faculty of Science

and the following departments:

University Department of Professional Studies
University Department of Marine Studies
Naval Studies

The studies related to Innovations and Entrepreneurship can be found only at:

Faculty of Economics, University Department of Professional Studies.

Innovation and Entrepreneurship (I&E) at the University of Split (UNIST)

At the University of Split, there are several existing institutional initiatives that support I&E, either asinformal learning or institutional support.
Student Business E-Academy (SBeA) - is a free, open, online programme developed within Erasmus+, KA203 project for university students which introduces young people to the business world and teaches them how to make a successful business model through entrepreneurship education, practical work on ideas and development of business ideas up to the start-up phase of the enterprise. Approximately, it takes six weeks to follow the programme which comprises of the following modules: Innovation, Venture Development, Marketing Innovative Products and Services, Entrepreneurial Finances, Business Start-ups and Business Model Development. SBeA also offers a guidebook and a library. In its full implementation, programme requires a mentorship from a teacher/entrepreneur. Programme is available in Croatian, English and Spanish at http://e-learning.efst.unist.hr/
Student Business Incubator (SPI) operates at the Faculty of Economics in Split in order to support all

pro-active and enterprising students of the UNIST. SPI's aim is to promote youth entrepreneurship by providing significant support in the preparation of business ventures. The initiative to start a SPI was primarily born out of the need for new programs to encourage entrepreneurial activity of students and those who recently acquired the appropriate level of formal education. Launching of SPI in 2015 was co- financed by the EU from the European Social Fund under the Operational Programme Human Resources Development.

For its members, SPI offers: technically equipped co-working space, mentoring support in developing business models and projects, training and workshops, networking events, business advisory services, SBeA programme, support and preparation for national and international start-up competitions, participation in the international entrepreneurial camp Summer Jam Croatia (SJC) that is successfully organized for several years in a row.

UNIST Technology Park Ltd is a company established by the UNIST with the aim of development and enhancement of entrepreneurial infrastructure for the university graduates as well as other enthusiasts in their independent ventures in the field of high technologies and general ones. It particularly emphasizes mentorship and assistance to entrepreneurs in the early development of their ventures followed by fast and sustainable development, through incubation and acceleration programmes and use of professional services.

As an infrastructure, UNIST Technology park offers: modular offices, co-working space, conference rooms, hardware laboratory, accelerator office, entrepreneurial centre, meeting room, etc.

Technology Transfer Office (TTO) is a university department established with the scope to increase commercialization of the intellectual property at the university and to strengthen link between university and economy. Office promotes entrepreneurial spirit among students and scientists, encourages and supports transfer of the knowledge and research results from the university to the economy.

TTO is a part of Enterprise Europe Network (EEN). Through EEN, TTO provides free of charge services to entrepreneurs including: information on technology supply and demand, publishing technological profile in the network technology database, organization of brokerage events and trainings about innovation management, support in finding partners for European research and development programs.

Events organised at UNIST related to I&E:

- Global Entrepreneurship Week https://www.genglobal.org/croatia/global-entrepreneurship-week-split-2019
- Summer Jam Croatia – international entrepreneurship conference
- Global Opportunities Beyond Borders https://www.gobb2017.com/
- SHIFT conference https://dev.shiftconf.co/#about

The studies (3 years Bachelor and 2 years Master) related to **Blue Economy** sectors, as well as I&E, and the lists subjects related to Blue Ecomonies, can be found in the following sections, classified by Faculties/departments:

Faculty of Maritime Studies

This faculty offers 5 bachelor studies (undergraduate), and 4 master (graduate) studies. All the studies refer to Blue Economy and practically all the subjects are related to it.

Bachelor studies

Nautical Studies

The basic objectives and purpose of the study programme of Nautical engineering are: regular educationfor highest officer ranks (1st deck officer and master on board ships with propulsion power of more than3000 GT) for Croatian shipping companies and international market. Having completed this study the students acquire competences of managing, controlling and maintaining ship's and navigational systems as well as competences for ranks and authorisations in the Croatian and world merchant fleet.

Marine Engineering

Students acquire competences of managing, controlling and maintaining ship's engine systems. The basic objectives of the undergraduate study are: regular education of students for highest marine engineer ranks with diesel engine, steam and electrical propulsion plants irrespective of propulsion power, maintenance and control of port-transport engine systems and industrial plants.

Marine Electrical Engineering and Information Technologies

The study has been organised so that students study topics from the field of electrical engineering, computer, communication and navigation technologies applied to modern ships and on shore, in ports, shipping companies and maritime economy as a whole.

Maritime Management

The study educates and trains highly professional personnel in the field of maritime affairs for application of the skills of manging maritime organisational business systems and processes, especially in economic activities such as shipping, port, transport, shipbuilding or fishing companies.

Maritime Yacht and Marina Technologies

The study aims at making students competent for application of basic and specialist knowledge of managing, recognising, modelling and solving practical problems, application of other knowledge acquired by using up-to-date engineering tools, understanding of team work and effective communication, understanding ethics and ethical responsibility as well as understanding influences of engineering solutions on society and environment. After completing graduate PTJM study the students are offered the possibility of employment at appropriate professional work positions in the public administration, on jobs of marina management, management of charter companies, yachts, mega yachts, yacht fleets, etc.

Master studies

Nautical Studies

Competences acquired after finishing graduate study are: managing, controlling and maintaining of

ship's and navigation systems; scientific research work in the fields of maritime sciences; active participation in economic activities and management of companies and services in the field of economic and public activities, primarily maritime economy.

Marine Engineering
The graduate study programme allows students to take a larger number of courses orienting them towards certain areas of scientific research. In marine engineering topics of special interest are: investigation of intelligent ship systems, computer control of technical systems, simulation of power engineering processes.

Marine Electrical Engineering and Information Technologies
Graduate level of Marine Electrical Engineering and Information Technologies study is intended for students wishing to acquire competence for work on the development, installation and maintenance of complex electrical engineering systems on board ships (cruise ships, hydrographic research vessels, etc.), underwater research plants and similar systems in maritime economy. The study allows employment on board ships of international fleet, in companies dealing with maritime transport technology, coastguard, ports, as well as in companies (shipbuilding, shipping companies, marinas, etc.) dealing with the development, design, installation and maintenance of computer, electronic, communication and navigation systems as well as systems of automatic process control in shipping.

Maritime Management
Students are educated and trained to become highly professional staff within the field of maritime affairs in the application of scientific disciplines allowing acquisition of recent knowledge on modern transport technologies, ship management based on application of quality management (TQM) irrespective of whether it is the case of ships as organisational subsystems, or shipping companies representing units of joint subsystems. Students investigate the dynamics of behaviour of technical, technological, organisational, economic, information and ecological subsystems of maritime transport.

Faculty of Economics, Business and Tourism

The Faculty of Economics, Business and Tourism offers three undergraduate university study programmes: Economics, Business studies and Tourism, with apropriate fields. The Faculty of Economics, Business and Tourism offers three graduate university study programmes: Economics, Business studies (with apropriate fields) and Tourism and Hotel Management.

Bachelor studies

Economics
The undergraduate university programme in Economics is designed for students who want to build their career in corporations, financial institutions, research institutions, the higher education sector, trade unions, and other professional non-governmental organizations, state bodies at all levels (ministries, counties, cities and municipalities), and international institutions.

Business studies

This study programme aims to equip students with the skills to make competent decisions in appropriate orgnaizations. With regard to the professional affinity of the students, the university study programme Business Studies, through its six concentrations, offers either the attainment of specialized functional knowledge and skills from different areas of business (Financial Management, IT Management, Marketing, General Management, and Accounting and Auditing) or the horizontal entrepreneurial competencies necessary for creating a start-up venture (**Entrepreneurship**).

Tourism

The undergraduate university programme in Tourism enables students to acquire the knowledge and skills that will contribute to their effective employment in numerous organizations that are constituents of the tourism sector, whether destination management organizations, hotel chains, tour operators, or tourist agencies.

Master studies

Economics

The graduate programme in Economics comprises two concentrations: 1) International Economics and European Integration and 2) Economic Policy and Financial Markets. By examining the career advancement of students who have completed this graduate programme, employment opportunities include working in banks and other financial institutions, advisory agencies for EU funding, domestic (the Croatian National Bank) and international institutions (European Commission, European Parliament, World Bank), ministries, local and regional governments, etc.

Tourism and Hotel Management

In order to guide the development of tourism along principles of social responsibility and sustainability, specialists with specific skills and knowledge will be needed to successfully deal with developmental challenges, both at the micro level (i.e. tourism-related businesses) and macro level (i.e. destination management). Students who complete the graduate programme in Tourism and Hotel Management are able to perform complex managerial roles in various tourism and hospitality organizations and deal with challenges in the global tourism marketplace.

Business studies

The programme is a direct continuation of the undergraduate university study programme Business Studies and it provides advanced theoretical and methodological knowledge for practical application in today's changing business environment.

Faculty of Electrical Engineering, Mechanical Engineering and Naval

ArchitectureBachelor studies

Naval Architecture

Goal of the proposed study in Naval Architecture is education of the staff in the fields of design, construction, equipment, management, building, repair and maintenance of the ship, but also to meet

the demands of the economy, higher education institutions, governmental and other public institutions.

Master studies

Naval Architecture
The proposed study aims to educate engineers for the shipbuilding industry, maritime industry as well as for state and public institutions. Advanced concepts, methods and technologies, such as finite element method, computational fluid dynamics, 3D geometry modeling, structural reliability, advanced materials and technologies, which until recently had only been in development, have just become part of common engineering practice, primarily due to the rapid development and the increased application of computers.

Faculty of Chemistry and Technology

Bachelor study Chemical Technology; Orientation: Environmental Protection

Master studies

Chemistry; Orientation: Environmental Chemistry Chemistry; Orientation: Organic Chemistry and BiochemistryChemical Technology; Orientation: Materials
Chemical Technology; Orientation: Environmental Protection

University Department of Professional Studies

Bachelor studies

Business Administration and Tourism (Study program Management of Trade and Tourism)
The subjects related to Blue Economy, I &E are the following

- Ecology and sustainable development
- Market research
- Entrepreneurship
- Entrepreneurial infrastructure
- Familiy entrepreneurship
- Entrepreneurship in trade
- Entrepreneurial projects
- New product design and development

University Department of Marine StudiesBachelor

studies

Marine biology and technology
Main purpose of Marine biology and ecology (MBE) study is a systematic education of personnel for work in area of marine biology and ecology, which includes a wide range of biological investigations from diversity of marine organisms to their distribution, characteristics, mutual relations and

interactions with marine environment. Undergraduate Marine biology and ecology study is a highly multidisciplinary, with a dominance of natural history sciences (especially biology, chemistry, physics and geology).

Master studies

Marine biology and ecology
Marine biology and ecology graduate study is a highly multidisciplinary. At this level, knowledge from specific areas related to biology, ecology and marine protection are added to fundamental knowledge in natural history gained in previous years of study.

Marine Fishery
Main purpose of Marine Fishery study is a systematic education of personnel for work in area of fishery, which includes a wide range of biological investigations from diversity of marine organisms to their distribution, characteristics, mutual relations and interactions with marine environment. Further on, special attention is paid to fishery problematic issues such as fishery biology, exploitation, and protection of renewable marine resources, use of fishing gears, vessels, fishery ports, fish and other organisms' farming, technology of fish processing, fish market and commercial organisation of marine fishery.

4 Innovations and Entrepreneurship in Montenegro

4.1 Strategic Framework for Blue Economy in Montenegro

The list of strategic frameworks/policies in Montenegro dealing with the Blue economy (sorted by relevance):

Strategy for the development of maritime industry for the period 2020-2030 (Ministry of Transport and Maritime Affairs, 2020). [6] It comprehends state-of-the-art analysis and relevant documents related to the integrated EU maritime policy, White Paper initiatives for unique European transport network, economic reforms of Montenegro from 2019 to 2021, institutional framework analysis, overview of Blue economy and maritime environment, Montenegrin maritime cluster, competitiveness, strategic and operational goals of integrated maritime policy (No. 4.4), etc. This is the first Strategy referred to the maritime industry in Montenegro that is associated to the other relevant policies and laws with a strong emphasis to the Blue economy concept. The specific goals of the Strategy are:

- Revitalizing of liner ferry service between Port of Bar (Montenegro) and Port of Bari (Italy);
- Increasing the competitiveness of the Port of Bar;
- Reconstruction of maritime infrastructure and seaside connections;
- Development of port sectors in Bar;
- Encouraging intermodality and combined transport;
- Application of ITS technologies in transport.

Transport Development Strategy - Montenegro 2019-2035 (Ministry of Transport and Maritime Affairs, 2019). [7] The Strategy determines current state in the field of transport and maritime economy,

defines infrastructural, organizational and operative development targets of the transport system, whichshall be realized through timed and long-term implementation plans. The Strategy has been made with respect to the following principles: compatibility of document of this type with public policy priorities and targets, cooperation between relevant authorities, transparency, continuity, economical and rational planning of human, organizational, financial and material resources.

National Strategy for Sustainable Development until 2030 (Ministry of Sustainable Development and Tourism, 2016). It improves the sustainable development policy of Montenegro establishing a comprehensive framework of the national response to the current challenges. It constitutes a platform for adopting global goals and objectives into national frameworks. This document represents a horizontal and long-term development strategy of Montenegro, which is oriented not only to the environment and economy, but also to irreplaceable human resources and valuable social capital. For instance, Section 4.4.4 considers sustainable coastal resource management and incentives. It includes: preservation of the attractiveness of the coastal area for the development of sustainable tourism - SDG 12 (12.2, 12.b), 14 (14.2), 17 (17.4); renovation and preservation of valuable rural areas - SDG 8 (8.2), 10(10.2, 10.7), 12 (12.2), 14 (14.5) and support of sustainable valorization and conservation of marine resources - SDG 12 (12.2), 14 (14.1, 14.2, 14.4, 14.5, 14.6, 14.c), 17 (17.4). Moreover, the strategic goal of Section 4.6 *Financing of sustainable development* describes the support for Blue economy principles through strengthening the local entrepreneurial infrastructure, providing stimulating funding programs and increasing the quality of products.

National Strategy for Integrated Coastal Zone Management (Ministry of Sustainable Development andTourism, 2014). [12] The Strategy is developed to reduce the negative externalities on coastal environment and represents another relevant document in the Mediterranean area. Through Section 5.4, it is proposed a direction for enhancement of Blue economy performances. With appropriate support, the entrepreneurial sector is able to recognize and seize opportunities for green and blue industry innovation and related investments.

The list of strategic frameworks/policies/laws/programs in Montenegro dealing with Innovations and Entrepreneurship - I&E (sorted by relevance):

Strategy of innovative activities 2016-2020 with Action Plan (Ministry of Science, 2016). [13] This strategy is adopted for the purpose of setting up priorities, encouraging and monitoring the development of innovative activity. The Strategy represents the unique strategic framework for innovations in Montenegro.

Program for encouraging innovative start-ups in Montenegro with the Action Plan (Ministry of Science, 2016). This program aims to increase innovations in Montenegro through creation of conditionsand incentives (supporting innovative start-ups) that will affect the Montenegrin industry. This document aims to establish attractive framework conditions for Montenegrin innovative ecosystem,with a focus on start-ups. This means removing legal barriers, developing advanced financial

schemes, fostering and attracting talents - to intensify the knowledge creation and new added values, entrepreneurial culture and access to the markets of I&E projects.

Scientific Research Strategy 2017-2021 (Ministry of Science, 2017). [11] The Strategy covers three strategic goals: Development of scientific research society; Strengthening the international relations; and Intensification of cooperation between science and economy. It proposes investment in the development of a scientific, technological and innovative system that are prerequisite for a stable future and sustainable economic growth of the country. The document includes a legal framework for science, research and innovation.

Smart Specialization Strategy of Montenegro 2019-2024 (Ministry of Science, 2019). [9] It encompasses a new model of economic development at the national or regional level based on targeted support to scientific research activities and innovations. The smart specialization strategy (s3) representsa national innovation strategy setting development priorities in order to build competitive advantage by developing and connecting own capacities in research and innovation with the needs of the economy, while responding coherently to growing opportunities and market development, which helps to avoid duplication and fragmentation of policies. As a key element of economic development policy, smart specialization increases the competitiveness of the economy by concentrating and linking research and innovation resources to a limited number of determined priority economic areas.

Strategy for Lifelong Entrepreneurial Learning 2020-2024 (Ministry of Economy, 2019). [8] The Strategyprovides the list of various activities regarding entrepreneurial learning policies developed at different education levels. The priorities of strategic development as well as the indicators of general goals are presented in the document.

Strategy for the development of micro, small and medium-sized enterprises 2018-2022 (Ministry of Economy, 2018). The document focuses on macroeconomic environment (strategic level) in Montenegro, institutional support (operational level), establishing of a company (micro level) and proposes the implementation of Action plan until 2022. It comprehends the definition of micro, small and medium-sized enterprises (SME). The development of entrepreneurial knowledge, skills and competences that are in accordance with the labor market is provided.

Regional Development Strategy of Montenegro 2014-2020 (Ministry of Economy, 2014). The Strategy focuses primarily on balanced regional development through investment in infrastructure, and secondly on the improvement of human resources, competitiveness and innovation. The implementation of this document contributed to increasing the level of development and competitiveness in several municipalities in the northern part of Montenegro, which is additionally reflected in the increase in the number of SMEs and entrepreneurs. The main aim is to achieve the strategic goal of regional development of Montenegro based on more balanced socio-economic development, competitiveness, innovation and employment.

Law on innovation activities (2016). [14] This law was published in the Official Gazette of Montenegro, No. 42/16. It regulates the organization, conditions and the manner of financing innovation activities,

as well as other issues of importance for the innovation activities. The basic provisions as well as definitions of product innovation, process innovation, organizational innovation, marketing innovation, start-up,
spin-off, consultancy services and risk (venture) capital are incorporated in the document. The second part includes innovation activities while the third part covers innovation organizations with detail explanations of their characteristics (e.g. scientific-research institutions, centers of excellence and Higher Education Institutions with special organization units such as: Centers for Technology Transfer, Science and Technology Parks, Centre for Innovation and Entrepreneurship, Business Incubators and others).

4.2 Faculties at University of Montenegro related to Blue economy

Noteworthy, we present only courses that are directly connected to Blue economy. However, a significant percentage of the courses also tackle these important issues.

Faculty of Maritime Studies Kotor

Faculty of Maritime Studies Kotor: Academic bachelor studies (www.ucg.ac.me) [18]
Academic bachelor studies: total of 180 ECTS and with a duration of three years. Study program:

Navigation and sea transport.

No.	Subject	Semester	ECTS
1.	Marine meteorology and oceanography	I	4
	Learning outcomes After completing the course, students will be able to: analyze meteorological and oceanographic elements and phenomena significant for safe and economical navigation; observe,cypher and decipher marine meteorological and oceanographic elements and phenomena; use navigational publications in planning, performing navigation and afterwards; distinguish and interpret weather and oceanographic conditions, know forecast situations, including local conditions; apply weather forecast during passage planning, follow real conditions in the course of voyage, andbe able to analyze their influence on safety, timely arrival and economics of voyage.		

No.	Subject	Semester	ECTS
2.	Maritime transport technologies and logistics		

	Learning outcomes After completing the course, students will be able to: describe modern transportation and cargo handling technologies in maritime transport; describe trends, volume and structure of cargo; analyze modern transportation and transshipment technologies for liquid cargoes, bulk cargoes, general cargoes, containers, etc.; describe and define operational processes of maritime transport logistics in relation to existing and future development trends, etc.	III	4

No.	Subject	Semester	ECTS
3.	Information technologies in maritime transport	III	3
	Learning outcomes After completing the course, students will be able to: get familiar with the information functions of ECDIS, concepts of e- Navigation and Maritime Cloud that are in their phase of development. Students will enlarge the previous knowledge of information domain, electronic systems of support systems in ship navigation and mainland, S-AIS, GPS, VTMIS, MSW(E) etc., in the sense of EU SafeSeaNet and global system of safe and efficient navigation.		

No.	Subject	Semester	ECTS
4.	New transport technologies	V	5
	Learning outcomes After completing the course, students will be able to: describe new transport technologies in the maritime liner service; describe and define maritime trans-containerization and capacity of container terminals; describe and define maritime transport and logistics services and do the port classification; describe and define vessels with special reference to Ro-Ro technology vessels and LASH vessels; describe and define Motorways of the Sea concept; apply a methodology to determine the relationship between economies of scale and size of ships on the routes.		

No.	Subject	Semester	ECTS
5.	Technologies of yachts and marinas	V	5
	Learning outcomes After completing the course, students will be able to: compare national and international legislative in yacht management; define the construction technology and yacht management from the perspective of safety and security; affirm the importance of yachts in the concept of nautical tourism; define more marinas and the type of constructions in marinas;analyze the technical work of marinas' management and the influence of external factors on it; define important marinas in the country and make a comparison as well as define their importance at international level.		

Faculty of Maritime Studies Kotor: Academic bachelor studies (www.ucg.ac.me)

Academic bachelor studies: total of 180 ECTS and with a duration of three years.

Study programs:

Navigation and sea transport, Marine engineering and Marine electrical engineering.

No.	Subject	Semester	ECTS
1.	Marine and coastal environmental protection	V	5
	Learning outcomes After completing the course, students will be able to: identify and classify the types and properties of noxious substances and provide environmental impact assessment; classify the most common causes of pollution from ships and describe prevention measures to prevent the pollution of sea and marine environment; interpret the basics of International Convention on the Prevention of Marine Pollution 73/78 and its Annexes (MARPOL, Annex I - VI), and the most important international regulations for the prevention of pollution from ships; relate antipollution measures to relevant equipment; interpret the Ship Oil Pollution Emergency Plan (SOPEP).		

No.	Subject	Semester	ECTS
2.	Economics of ship exploitation		

	Learning outcomes After completing the course, students will be able to: identify all factors of supply and demand in shipping; analyze the role of shipping in transport and the economic system; explain the essential aspects of economical exploitation of a ship; define the distinction of costs and the structure of individual categories of costs in shipping; differentiate concepts of effective commercial, personnel and technical ship management.	VI	6

No.	Subject	Semester	ECTS
3.	Maritime – transport logistics and automation		
	Learning outcomes After completing the course, students will be able to: describe and analyze logistical processes and activities in maritime transport systems; define and make difference in ports and ships loading/unloading mechanization, means andequipment; define and describe automation of subsystems of port transport and shiploading/unloading means; make, describe and particularly present logistics processes and activities in maritime transport; solve simplified and practical tasks.	VI	6

No.	Subject	Semester	ECTS
4.	Technologies of yachts and marinas		
	Learning outcomes After completing the course, students will be able to: compare national and international legislative in yacht management; define the construction technology and yacht management from the perspective of safety and security; affirm the importance of yachts in the concept of nautical tourism; define more marinas and the type of constructions in marinas; analyze the technical work of marinas' management and the influence of external factors on it; define important marinas in the country and make a comparison as well as define their importance at international level.	VI	6

Faculty of Maritime Studies Kotor: Academic bachelor studies (www.ucg.ac.me)

Academic bachelor studies: total of 180 ECTS and with a duration of three years. Study program: Maritime management and logistics.

No.	Subject	Semester	ECTS

1.	Organization of maritime companies	II	7
	Learning outcomes After completing the course, students will be able to: define business organization; describe the development of enterprises; describe the organizational process in the company; describe the concepts and principles of modern enterprises; define contemporary forms of organizational structures in maritime companies; describe the impact of global trends on the organization of maritime businesses with particular reference to the logistics of seaports; describe the application of modern organizational models in ports and shipping companies.		

No.	**Subject**	**Semester**	**ECTS**
2.	Maritime management	III	7
	Learning outcomes After completing the course, students will be able to: define the concept of management from the aspect of maritime economy; describe the specifics of maritime management; describe the process of application of management in maritime companies; describe modern concepts, methods and techniques of maritime management; defineentrepreneurship as a factor of maritime management; describe the importance of competitiveness in maritime management; describe ways to gain competitive advantage byapplying modern management knowledge and skills in themaritime economy; describe the possibilities of applying modern logistics concepts in seaports.		

No.	**Subject**	**Semester**	**ECTS**
3.	Safety and security in maritime industry	III	5
	Learning outcomes After completing the course, students will be able to: recognize the economic importance of maritime affairs; distinguish maritime economic activities from non-economic activities; define seaports and port security; recognize the technical and technological characteristics of ships and their division; explain the safety and security aspect of navigation; interpret the general concepts of international maritime regulation on navigation safety and environmental protection; understand the importance and role of international conventions and codes; define risk and quality in shipping; identify the role and importance of individuals in ensuring		

	maritime safety and security.		

No.	Subject	Semester	ECTS
4.	Strategic management in maritime shipping	IV	7
	Learning outcomes After completing the course, students will be able to: define and explain all categorical terms of strategic management; describe, analyze and put into practice the vision, mission, strategy and policies of the organization; apply a strategic mindset in analyzing all types of environments and defining organizational philosophy and organizational culture; use economic terminology and interprets graphics; apply modern scientific methodology to formulate strategy; analyze strategic changes in organization and environment; model the process of strategic management; make concrete examples of business plan and investment project; use various strategic management techniques in practice; describes and analyzes contemporary global strategies.		

No.	Subject	Semester	ECTS
5.	Maritime transport technologies	IV	6
	Learning outcomes After completing the course, students will be able to: describe modern transportation and cargo handling technologies in maritime transport; describe trends, volume and structure of cargo; analyze modern transportation and transshipment technologies for liquid cargoes, bulk cargoes, general cargoes, containers, etc.; describe and define operational processes of maritime transport logistics in relation to existing and future development trends, etc.		

No.	Subject	Semester	ECTS
6.	Basics of seaborne logistics		

	Learning outcomes After completing the course, students will be able to: define the concept of logistics; describe the specifics of seaport logistics; define the purpose, task and importance of seaport logistics; describe modern concepts of seaport logistics; describe the possibilities for applying logistics in maritime transport; describe the importance of information in seaport logistics; describe contemporary logistics strategies in seaports; describe the possibilities of applying modern logistics concepts in seaports; define the basic problems in the application of logistics in seaports.	IV	3

No.	Subject	Semester	ECTS
7.	Environmental management		
	Learning outcomes After completing the course, students will be able to: define concepts related to environmental protection and sustainable development; identify and classify types of energy; identify and classify types and properties of pollutants, and provide environmental impact assessment; classify the most common sources of pollution from ships; interpret the basic content of the International Convention for the Pollution of the Sea 73/78 and its annexes (MARPOL Annexes I - VI) and the most important international regulations for the prevention of pollution from ships.	V	4

No.	Subject	Semester	ECTS
8.	Economics of ship exploitation		
	Learning outcomes After completing the course, students will be able to: identify all factors of supply and demand in shipping; analyze the role of shipping in transport and the economic system; explain the essential aspects of economical exploitation of a ship; define the distinction of costs and the structure of individual categories of costs in shipping; differentiate concepts of effective commercial, personnel and technical ship management.	VI	6

Faculty of Maritime Studies Kotor: Academic master studies (ongoing from 2020/21)

Academic master studies: total of 120 ECTS and with a duration of two years.

Study program: Marine sciences

1. *Maritime business information systems, semester I, 6 ECTS*
2. *Nautical tourism ports management, semester I, 6 ECTS*
3. *Planning and development of maritime transport, semester I, 6 ECTS*
4. *Sustainable development technology, semester II, 6 ECTS*
5. *Modeling and optimization of maritime transport, semester II, 6 ECTS*

Study program: Maritime management and logistics

1. *Strategy of port marketing logistics, semester I, 6 ECTS*
2. *Project management in maritime shipping, semester I, 6 ECTS*
3. *Maritime English, semester II, 6 ECTS*
4. *Economy of knowledge and entrepreneurship, semester II, 6 ECTS*
5. *Planning and development of maritime transport, semester II, 6 ECTS*

Faculty of Maritime Studies Kotor: Academic PhD studies

Academic PhD studies: total of 180 ECTS and with a duration of three years.

Study program: Marine sciences

1. *Application of alternative propulsion and fuels, semester I, 8 ECTS*
2. *Ports and terminal planning and designing, semester I, 8 ECTS*
3. *Multimodal transport networks, semester I, 8 ECTS*
4. *Nautical tourism ports planning and designing, semester I, 8 ECTS*

Study program: Maritime management and logistics

1. *Marketing logistics of advanced seaports, semester I, 8 ECTS*
2. *Maritime competitiveness strategy, semester I, 8 ECTS*
3. *Organization of logistics in seaports, semester I, 8 ECTS*
4. *Institutional economy in maritime affairs, semester I, 8 ECTS*

4.3 Institute for Marine Biology

Specific research units at the Institute of Marine Biology Kotor (www.ucg.ac.me):

- Laboratory of Marine Chemistry and Oceanography,
- Laboratory of Ichthyology and Marine Fisheries,
- Laboratory of Plankton and Sea Water Quality,
- Laboratory for Benthos and Conservation,
- Laboratory of Developmental Research and Mariculture,

- Studia Marina Journal.

Noteworthy, we present only courses that are directly connected to entrepreneurial and innovation. However, a significant percentage of the courses also tackle these important issues.

Faculty of Tourism and Hotel Management

Faculty of Tourism and Hotel Management: Academic bachelor studies (www.ucg.ac.me)
Academic bachelor studies: total of 180 ECTS and with a duration of three years. Study program: **Tourism and hotel management**.

No.	Subject	Semester	ECTS
1.	Innovations in tourism	III	5
	Learning outcomes After completing the course, students will be able to: define the basic terms of innovations; identify and understand the process of innovation development; recognize different types of innovations; recognize the importance of innovations in succeeding the competitiveness.		

Faculty of Economics

Faculty of Economics: Academic bachelor studies (www.ucg.ac.me)
Academic bachelor studies: total of 180 ECTS and with a duration of three years. Study program: Economy.

No.	Subject	Semester	ECTS
1.	Business		

	Learning outcomes After completing the course, students will be able to: describe the basic categories of business (endeavor), through the ability to spot opportunities, and to critically develop awareness and personal enthusiasm; analyze the business environment through the dimensions of national, regional and global business and cross-cultural specifics; discuss about the nature of business opportunities, sources of business ideas, methods for identifying opportunities and how to make business decisions; explain innovation as a determinant of business and analyze the resources necessary for business realization; simulate the model of business plan development (form and content for a specific idea in the company); classify general and specific business financing models, as well as possiblevariants in business creation, through global and national practices.	II	5

No.	Subject	Semester	ECTS
2.	Entrepreneurship	VI	6
	Learning outcomes After completing the course, students will be able to: create and share the set of entrepreneurial ideas; improve the successful entrepreneurial strategies; estimate and use innovative chances for launching and developing new successful business.		

Faculty of Economics: Applied bachelor studies (www.ucg.ac.me)

Applied bachelor studies: total of 180 ECTS and with a duration of three years. Study program: Management.

No.	Subject	Semester	ECTS
1.	Business	II	6
	Learning outcomes After completing the course, students will be able to: describe the basic categories of business (endeavor), through the ability to spot opportunities, and to critically develop awareness and personal enthusiasm; analyze the business environment through the dimensions of national, regional and global business and cross-cultural specifics; discuss about the nature of business opportunities, sources of business ideas, methods for identifying opportunities and how to make		

	business decisions; explain innovation as a determinant of business and analyze the resources necessary for business realization; simulate the model of business plan development (form and content for a specific idea in the company); classify general and specific business financing models, as well as possible variants in business creation, through global and national practices.		

No.	Subject	Semester	ECTS
2.	Management of SME	V	6
	Learning outcomes After completing the course, students will be able to: understand the basics of entrepreneurship; understand the role of SME in the national economy; describe different approaches for defining SE; get familiar with funding opportunities of SME; understand the concept of innovation within the entrepreneurial process, etc.		

Faculty of Economics: Academic master studies (www.ucg.ac.me)

Academic master studies: total of 120 ECTS and with a duration of two years. Study program: **Business economy**.

No.	Subject	Semester	ECTS
1.	Technology and innovations	II	5
	Learning outcomes After completing the course, students will be able to: interpret the functional areas of technology management and development within the company; design and manage all phases of innovation processes and innovation portfolio; implement innovation strategies in organizations in order to differentiate competitive sources advantages for evaluating and selecting R&D proposals.		

Faculty of Economics: Applied master studies (www.ucg.ac.me)

Applied master studies: total of 120 ECTS and with a duration of two years. Module:

Marketing andmanagement.

No.	Subject	Semester	ECTS

1.	Entrepreneurial leadership	VIII	6
	Learning outcomes After completing the course, students will be able to: understand the specifics of leadership function; identify the sources of leadership skills; analyze models and different leadership styles; develop entrepreneurial leadership in the organization.		

New master subjects (courses) that will be developed during the implementation of BLUEWBC project:

- Faculty of Maritime Studies Kotor, University of Montenegro

No.	Subject	ECTS
1.	Maritime innovation at study program Maritime Sciences	5
2.	Maritime offshore technologies at study program Maritime Sciences	5
3.	Maritime entrepreneurial at study program Maritime Management and Logistics and Maritime Sciences	5
4.	Maritime English at study program Maritime Management and Logistics	6

- Faculty of Tourism and Hotel Management, University of Montenegro

No.	Subject	ECTS
1.	Design of tourists experience at study program Tourism and Hotel Management	6

Subjects (courses) at bachelor level that will be updated during the implementation of BLUEWBC project:

- Faculty of Maritime Studies Kotor, University of Montenegro

No.	Subject	ECTS
1.	Technology of yachts and marinas at study program Navigation and Sea Transport	5
2.	Safety and security in maritime industry at study program Maritime Management and Logistics	5
3.	Basics of seaborne logistics at study program Maritime Management and Logistics	3
4.	Environmental management at study program Maritime Management and Logistics	4
5.	English language I at study program: Maritime Management and Logistics	5

- Faculty of Tourism and Hotel Management, University of Montenegro

No.	Subject	ECTS
1.	Innovation in tourism at study program: Tourism and Hotel Management	6

5 Innovation and Entrepreneurship Initiatives in Albania

5.1 Strategic Framework for Blue Economy in Albania

The Albanian Government is focused on establishing the policies and legal framework on Blue- Economy. Two Prime Minister Orders for setting up inter-institutional working groups to analyze the regulatory and incentive framework for "Blue Tourism" and "Blue Economy are prepared.

The Albanian Government and the International development partners have been engaged on the matter as following respectively:

- UNDP (Norwegian Gov.) - regulatory framework, clusters, program framework, etc.
- Italian Cooperation (EU) –regulatory framework for marinas, fishing, etc.
- World Bank (WB) - Program scope, marina development plan, etc.
- GIZ (studies in the field of marina, maritime)
- WB -Integrated Urban and Tourism Development Project (Since 2017): Objective is to improve urban infrastructure, enhance tourism assets, and strengthen institutional capacity to support tourism-related local economic development in the south of Albania
- WB - Albania Butrint Global Biodiversity and Heritage Conservation (2007 – 2015): Protected areas management plan and strengthened park administration
- WB - Coastal Zone Management and Cleanup Project (2005-2015): Saranda terminal built Balkan regional landfill, wastewater treatment and water supply for Saranda, coastal village infrastructure investments and cleanup of Porto Romani contaminated site.

The table below presents the sectors with strongest potential- The score is a combination of assessment for innovation.

Ranking order of the 4 marine and maritime activities with most future potential in Albania

Rank	Marine and maritime activities	Score
1.	2.3 Marine aquaculture	++++++
2.	4.1 Coastal tourism	+++++
3.	1.3 Passenger ferry services	+++++
4.	2.1 Fishing for human consumption	+++

Source: Studies to support the development of sea basin cooperation in the Mediterranean, Atlantic and Ionian, and Black Sea.

The Goverment of Albania is involved in preparation of a Draft – Order: Establishment of the inter institutional working group to develop the "blue economy" program. The main tasks will be focused on:

- Analyze the potentials of the constituent sectors of the "Blue Economy" such as tourism, fishing, aquaculture, shipbuilding, etc. and identify the infrastructural as well as soft measures needed to

foster industries and related services.

- develop the "Blue Economy" Program, a document that will serve as a strategic guide, including stakeholder mapping, measures and activities disaggregated by responsible institutions and a resource mobilization strategy for the sustainable development of the maritime economy
- to consider the legal framework in force or in the drafting process in order to provide a sustainable proposal for the harmonization of cross-sectorial interventions
- coordinate work in the event of complex processes affecting the area of responsibility of some ministries
- design and approve the Program Mechanism Scheme as per the format proposed in the Annex to this Order

5.2 Government initiatives

Policymaking and implementation: Currently, in Albania several national policies do exist and arerelevant to innovation (Digital Agenda 2015-2020, National Strategy for Science and Technology and Innovation 2017-2022, Business and Investment Development Strategy 2014-2020, etc.). Topics, science and technology as well as economic promotion are part of two large Albanian ministries, namely the Ministry of Education, Sports and Youth and the Ministry of Finance and Economy, and both topics, despite being essential for an economy to prosper, have low resources in terms of budget and staff.

To implement national strategies, agencies such as the National Agency of Scientific Research and Innovation (NASRI) entrusted with the implementation of the National Science and Innovation Strategy and AIDA responsible for start-up and innovation promotions as well as the distribution of several grants was established.

A very positive approach is currently taking place with the formulation of the *Smart Specializations Strategy* for Albania "Entrepreneurial Discovery Process", a policy formulation process initiated and supported by the European Union. This entrepreneurial process requires extensive stakeholder engagement to discover existing activities and identify regional strengths. The government´s role is to make choices on empowering actors in realizing their potential and to decide on investments into innovation, both technological and practice based. Integration into a Blue Economy strategy, based on all the economic activities that take place in the natural asset of Albania, the Ionian and Adriatic Sea, is atask that requires the collaboration of the Albanian Government but also of other actors such aseducational institutions, the private sector and civil society, which should initiate the projection process to identify the challenges, projects and actions to be carried out, and the models of EU countries for the strategies of the concept in question.

5.3 Universities in Albania

Albania has a high ratio of university educated people with approximately 10,000 graduates every year. At the same time there are currently only 4,000 jobs created annually, leading to a high percentage of young people looking for self-employment.[8] Moreover, the Albanian youth is multi-lingual educated. Besides English, a majority speaks Italian and other European languages due to the high number of

graduates educated abroad.

Most universities are faced with tight budgets (especially Public Universities) and lack the capacity to implement innovative and entrepreneurial programs. This way, the universities often depend on international funds as (mostly from Instrument for Pre-Accession Assistance (IPA) and Erasmus Plus programs) to develop entrepreneurship structures in universities.

A few universities such as the "Aleksandër Moisiu" University of Durrës, "Ismail Qemali" University of Vlora and the "Fan S. Noli" University of Korça are increasingly recognizing the opportunities entrepreneurship promotion entails for their students and are offering ad hoc programs for aspiring entrepreneurs based on their limited availability of funds. Most public universities offer entrepreneurship as part of their curricula.
The following Universities/Faculties are offering curricula on Entrepreneurship/ Innovation and or Business and financial subjects. However Curricula on Blue Economy are rarely discussed.

University of Tirana, Faculty of Economics:

- Business Informatics
- Finance and accounting
- Economics
- Business Administration
- Marketing and Tourism

University of Tirana, Faculty of Natural Sciences – the following Departments has introduces courses project based with Entrepreneurship and Innovation approach

- Department of Biology
- Department of Informatics
- Department of Applied Mathematics
- Research Center of Flora and Fauna

Epoka University, Faculty Of Economics And Administrative Sciences (private university)

- Economics
- Business Administration
- Business Informatics
- Banking and Finance
- Banking and Finance (Albanian)
- International Marketing and Logistics Management

Marin Barleti University (private university)

- Finance/ Accounting
- Finance/ Bank /

- Business Informatics and Financial Services
- Business Administration
- Management in Tourism , Recreation and Events
- Marketing
- Applied Informatics
- Computer Sciences and Electronics

Polis University (private university)

- Bachelor in Environmental Studies
- Master Degree in Entrepreneurship and Innovation
- Master Degree in Marketing

European University (private university)

Faculty of Economics and Information Technology/ Bachelor and Master's degree in

- Department of Finance Banking
- Department of Business Management
- Department of Information Economics (Business Management)
- Department of Information Economics (Finance Banking

Master's Degree

- Finance
- Corporate Governing
- Marketing
- Business Management
- Applied Informatics

Tirana Business University & Luarasi University (private universities)

- Finance
- Corporate Governing
- Marketing
- Business Management
- Applied Informatics

"Luigj Gurakuqi" University of Shkodra

The faculty of Economics has three branches: Administration- Business, Finance Accounting andTourism.

- "Bachelor degree in Administration- Business",
- "Bachelor degree in Finance- Accounting",

- "Bachelor degree in Tourism".

Diploma of the second level (Master of Science)

- Sustainable Tourism
- Business Administration
- Finance

University of Durrës, - Aleksander Moisiu

Bachelor:

- Economic Sciences
- Finance and Accounting
- Banking and Finance
- Marketing-Management
- Business Administration
- Hotel and Restaurant Management
- Management of Cultural Tourism
- Life (Nonlife) Insurance And Marine Insurance
- Marketing-Management
- SME Management
- Business Management

- Masters
  - Business Economics
  - Banking and Finance
  - Marketing-Management
  - Business Management

"Ismail Qemali" University of Vlora"

- Department of Business:
  - BSc in Business Administration
  - BSc in Tourism Management
  - BSc in Marketing
  - MP Entrepreneurship in Tourism
  - MP in Marketing/ Business Administration
- Department of Finance;
  - BSc in Finance/ Accounting
  - MP in Finance/ Accounting
  - MSc in Finance
- Department of Economics:
  - BSc in Economics
  - MP Economics in Entrepreneurship

University of Vlora

The University of Vlore offers several diplomas, both in Bachelor and Master Degree Level, in fields related to these industries, such as, Navigation, Naval and Mechanical Engineering, Computer Sciences, Tourism Management. etc. In recent years effort have been made through various projects (MArED, AMICI) to increase the professional skills and the quality of research in marine sciences, governance and environmental protection, with the aim to create stable and attractive career pathways as well as skilled talents needed to support the expansion of marine and maritime sectors.

Actually, the University of Vlora does not offer a diploma fully or relatively based on the principles of the Blue Economy, and Blue Economy relates issues are not widely addressed in specific classes. Of course there are some classes, which integrate aspects of sustainable use of maritime resources, such as sustainable shipping and maritime transport discussed in the class of Maritime Pollution or sustainable port management and operations discussed in the class of Port Management and Operations. However, a detailed class in Blue Economy does not exist at the University of Vlore. Issues related to the importance to sustainably manage the marine resources, the economic benefits of the Blue Economy, the relationship between the Blue Economy and sustainable development, and how entrepreneurs can create innovative business opportunities are not largely addressed. Blue Economy already plays a fundamental role today and we will have a growing need for professional figures capable of working in this field. At the same time, we need to train those who are already working in this sector so they are prepared to promote sustainable blue growth.

University of Tirana, Faculty of Economy

The University of Tirana has approved the Strategic Plan of Research based its strategy of research on the principles of The European Charter for Researchers and Code of Conduct for the recruitment of researchers. University of Tirana has prepared a strategy on the continual training of researchers and HRS4R strategy. Also University of Tirana has recently growth its capabilities in projects related to innovation, technology transfer ad entrepreneurship, for example UT is lead partner in Erasmus 2019 project related to INTERBA – INTERnationalization at Home: Embedding Approaches and Structures to Foster Internationalization at Western Balkans.

An example of Higher Education being focused on innovation and creating value from it, is Switzerland, with an economy where 75% of the businesses are small and medium; Universities have a high degree of autonomy and a strong relationship with industry, by making R&D to play an important role in the Swiss economy, when the country has very few natural resources available (Higher education and research in Switzerland; p11). Switzerland is considered as a country with innovative economy; the budget for education is at the extent of 6% of the GDP, and for R&D 3% of GDP.

Since the main aim and general objectives of this BLUEWC project are directed related with entrepreneurial and innovation capabilities in higher education institute as Albanian and Montenegro, it is normal to admit that there is a huge gap which mainly flow from the formal and traditional experience

that our countries has had in the future. But anyway, recently there are a lot of efforts from even FEU but also University of Tirana in general in improving entrepreneurship and innovation capabilities in different sectors.

Faculty of Economy, University of Tirana (FEUT) is currently the most internationalized higher education institution in Albania within UT. In this framework, FE places a high importance to the fostering of the institutional participation on several EU programs, networks and initiatives on internationalization of higher education and development cooperation. Recently, FE has participated in various and numerous international projects, and has a strategic importance for the Albanian economy and government,because it often undertakes market research for different agencies or ministries; is committed to prepare strategic plans, to undertake sector and industry analysis, etc.

Faculty of Economy, University of Tirana (FEUT) has an established reputation because it often undertakes to develop studies, undertake market research for different agencies or ministries, build strategic plans, propose concrete strategies and plans advanced education and research in the tourism field, entrepreneurial economy, etc., which gives the faculty FE (three departments) strong expertise in these fields: tourism, sustainable development, innovation, entrepreneurial economy, financing activities and services, public and private investment in tourism, alternative tourism form as maritime, etc.

Faculty of Economy has made different efforts towards challenges that Albanian economy is facing getting involved in European development. As a very important higher education in Albania, FEUT has make significant efforts in sustaining Albanian economy, as well as:

1. In assisting different sectors with exhibitions of business, sustaining with different studies (masters and PhD levels) different sectors as tourism, entrepreneurship, start up, etc.;
2. Creating within faculty networks of students in different levels as bachelor and masters and promoting between them the development of debate on several issues, creating and sustaining your generation in startup creation, new venture etc.;
3. Promoting students efforts in their entrepreneurial skills and capabilities through their annual conference, and/or even in annual academic conference that Faculty of Economy launch twice a year: a general conference and a specific relate to innovation and technology that one department develop since more than 10 years;
4. Some projects that are developing actually in different department within the faculty are related directly with this gap.

Regard to the presence of I&E in FEUT, the selection of courses (courses) that will be improved during the project is selected depending on the key terms and impact of the project. The key terms are maritime tourism, innovation and entrepreneurship. In this regard, subjects such as Entrepreneurship (Bachelor) and Entrepreneurial Marketing (Master level) cover the project's needs for this subject, as well as sustainable Tourism Management and includes sustainable management of all alternative forms including maritime tourism, while courses such as Strategic Planning and Strategy Tourism is directly linked to the strategic orientations that need to be made to public and private policies in order to have a more

entrepreneurial, innovative economy and a tourism development (especially maritime tourism) oriented towards sustainable development. While the selection of courses in Innovation and Brand Management (selection courses in the third year of bachelor in business administration), has been done without intent at the bachelor level in order to extend the selection of subjects at all levels of education,spread between departments and education cycles. The selection of financial courses, namely: financial services in tourism, investment and financial management will focus on improving financial decision- making in vital sectors of the Albanian economy, in order to bring more focus from the most important sectors of the Albanian economy, but oriented to international politics, as well as the improvements in investment and financial management in the tourism sector, so as to have a direct impact on the economy. But other subjects can be include in this process as digital marketing, customer relatedmarketing, etc.

So, a summary of courses that are related to I@E and maritime tourism in blue economy in FEUT, which also are directly include as target subject of BLUEWC Project are as follows:

Nr	Level of Study	Subjects	Number of credits
1	BSC in Business	Innovation	5 ECTS
2	BSC in Business	Brand Management	5 ECTS
3	Master in Marketing (scientific and professional)	Entrepreneurial Marketing	6 ECTS
4	MP (Professional Master) – Professional Master in Public Administration and in Business Administration	Leadership	6 ECTS
5	MP (Professional Master) – Professional Master in Public Administration and in Business Administration	Entrepreneurship	6 ECTS

So, all the above courses are include and are target subjects of this projects. While the other subjects that are target of improvement of this projects are relating to finance and management and directly related to blue economy (tourism in our case).

There are some academic efforts to analyze how entrepreneurial are public higher institutions in Albania, and those studies has analyzed based on the marketing strategy that HEIs in Albania should further develop in order to growth their capabilities and skills. Dimensions with the largest weight among academics still at work in the Public Institutions of Higher Education in Albania, are Proactivity and Value Creation. While the lowest weight of the weights are found to be Focus on Opportunities and Innovation. The marketing applied to public institutions of higher education in Albania is traditional marketing, which focuses more on the relationship of transaction, while the application of an entrepreneurial marketing plan would have focused on Innovation, it self-oriented towards the creation value.

5.4 Organization supporting Entrepreneurial Skills in Albania

Junior Achievement Albania - The mission of Junior Achievement of Albania is to promote and support

economic education and entrepreneurship among young Albanians. The JA program in Albania is a strategic investment of the Albanian American Development Foundation (AADF) with institutional support from the Ministry of Education, Sports and Youth. Junior Achievement modules are now part of the core and optional curriculum in all secondary and primary education (k-9 system). As a unique example among the 122 countries that implement the JA curriculum in schools, support provides a quality inclusion of the JA curriculum in the educational curriculum, capacity building of the teaching staff, and continuous involvement of the business community in school life.

UNIque Junior Enterprise - Actively operating since October 2009, based in Tirana, Albania, being the first Junior Enterprise in Albania the organization mainly aims is offering students and youngsters a chance to reduce the gap between the theoretical and practical approach and grow professionally into the post-graduate life. The organization is managed by youngsters and involves them in short run and long run projects while keeping an enlargement perspective at the national level. The key activities of the organization are mainly focused on promoting youth entrepreneurship and innovation as a tool on increasing employability and local development.

Startup Live is the starting point of any new aspiring - Here are including the entrepreneur, who seeks to find a team and transform an idea into a solid business concept. During our weekend events we connect you with your start-up ecosystem and help you kick starting your business. Over the years the organization has hosted more than 70 unique events in 40 cities with over 7.000 participants.

6 Innovation and Entrepreneurship in Europe

A key recourse in Europe is the European Institute of Innovation and Technology – EIT.
https://eit.europa.eu

Its focus areas are Education, Entrepreneurship and Innovation:

The EIT powers entrepreneurs and innovators to turn their best ideas into products, services and jobs for Europe. Indeed, creating more innovation and more jobs through fast-growing, innovative firms is one of the EU's key innovation objectives. As such, a cornerstone of the EIT's activities is to support innovation in existing companies and also the creation of new business opportunities. The vital ingredients in fostering entrepreneurial activities are ensuring access to finance, access to new customers and new markets as well as support for enhancing business skills.

The EIT is primarily for EU member states and has established EIT Community centres across EU. In addition it has a programme - EIT Regional Innovation Scheme (EIT RIS) which incorporates a wider reach:

The **EIT Regional Innovation Scheme (EIT RIS)** is designed for EU Member States and Horizon 2020 Associated Countries in Europe who are modest and moderate innovators (according to the European Innovation Scoreboard), and where Innovation Communities have few or no partners. Strategically, the scheme is an additional offer to these countries to facilitate their engagement with the EIT Innovation

Communities.

Countries eligible to take part in the EIT RIS are:

- EU Member States: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia, Slovenia, Spain.
- H2020 Associated Countries**: Albania**, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Moldova, **Montenegro**, Republic of North Macedonia, Serbia, Turkey, Ukraine.

There seems to be an opportunity here to connect with the **EIT Regional Innovation Scheme** in conjunction with establishing I&E Centers in M&A.

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