

***Project no. 2019-1-RO01-KA203-063059***  
***Stepping-up and promoting Education & Innovation toward  
Sustainable Development Goals (SDGs) through Educational Laboratory for  
Accelerating civic Skills and sustainable Businesses - EduLab4Future -***

***2<sup>d</sup> Multiplier event:***

***E2. Stepping-up Responsible Education through  
Innovative Curricula on Citizenship and Sustainable  
Business Development***

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## *Section II. Working Session with thematic focus:*

- a) the strategic role of the education system to develop the knowledge, skills, values and attitudes needed to secure inclusive society and sustainable growth;
- b) cross-disciplinary map with specific learning objectives for SDGs linked to social civic competences/per TG types;
- c) pedagogical approaches for blended learning and educational components on SDGs.

<http://www.openedubg.com/images/sampledatabg/resursi/12.pdf>

## *A. The strategic role of the education system to develop the knowledge, skills, values and attitudes needed to secure inclusive society and sustainable growth*

### *Priority areas:*

1. National strategy for civic education with formulated future development and the place of civic education in the system of lifelong learning, its place in school, relations with the public environment, the role of society.

[https://eacea.ec.europa.eu/national-policies/eurydice/bulgaria/bibliography\\_bg](https://eacea.ec.europa.eu/national-policies/eurydice/bulgaria/bibliography_bg)

2. State educational requirements - normative basis for civic education through the establishment of disciplines for civic education in the three school levels for equating young people and structuring the expectations and behavior of educational actors.

<https://www.mon.bg/bg/100105>

3. Normative establishment of the educational structure as a specific system for development of civic education by combining local approaches with the establishment of common democratic norms and development of a specific policy of participation and empowerment of young people, creation of specific forms of participation; involvement of the local community, business, parents (schools for parents).

[https://www.mon.bg/programa\\_obrazovanie](https://www.mon.bg/programa_obrazovanie)

4. Regulation of the system of extracurricular activities, without which the civil education remains only an unrealized educational opportunity of the principles of partnership between educational actors, of inter culturalism, but also of priority funding; supporting the development of a system of teacher qualification and initial training, which should also develop standards and models for teaching, taking into account the autonomy of higher education institutions, the chaos in the supply and the differences in the quality of educational services in this field area; creating a real market for textbooks and catching up in this area compared to developed education systems.

<https://www.mon.bg> >upload

5. Strengthening, structuring and planning international cooperation -such as interaction between researchers, coordination of national programs, exchange of teachers and trainees.

6. Coordinating efforts in civic education with non-governmental ones organizations and civil society.

## *Expectations and Attitudes*

Civic education can still become the engine of transformation in education.

It is still a real opportunity to open an isolated education system to the public, to the local community, to Europe and the world, like no other subject area.

The introduction of civic education is an opportunity to modernize the system of formal education - with the new methodologies, with the practical element, with the dialogue, with the specific focus, with the requirements for teachers and other stakeholders.

Civic education is an open opportunity to unite the potential for educational change in the country - for a link between universities and civil society organizations, as well as an opportunity for synergy between political and civil society.

## *B. Cross-disciplinary map with specific learning objectives for SDGs linked to social civic competences/per TG types*

### **Educational standards in education for democratic citizenship in upper school degree and university education**

The need for state educational requirements in the field of civil education after the decision of the National Assembly of the Republic of Bulgaria for the matriculation exam is obvious. In the exposition we list only the basic standards for educational content, on which the education in civil society is based.

The next step is to specify each standard, as well as to determine what achievements the learner should have in order to receive a *satisfactory, good, very good and excellent grade*.

The aim is to show how much and diverse the necessary knowledge in this new subject area is and how much effort is needed to really develop all the elements of civic education as a discipline.

The necessary knowledge in civic education is conditionally divided into several cores. At the beginning of each section are listed the keywords, and then the basic requirements for achieving knowledge.

## *Section 1. Personality. Identity. Building a social space*

- *analysis of the development of one's own personality*
- *motives for action*
- *strengths and uniqueness*
- *civic dimensions of the personality*
- *personal world and accumulation of social experience*
- *similarities and differences between people*
- *points of view and differences*
- *interpersonal dependencies*
- *authorities and personality building*
- *rules for building one's own social space*
- *responsibility for one's own social space and behavior*
- *strategies for behavior in interpersonal relationships*

Analyzes and evaluates the development of one's own personality.

Analyzes and explains one's own motives for action. Explores its strengths and uniqueness.

He researches the expansion of his personal world and analyzes and evaluates the processes of gaining personal experience.

Describes, explores and expresses its connections with the social and cultural environment. Distinguishes and explains the civic dimensions of one's own personality.

Analyzes, evaluates and compares his personal characteristics with those of his peers you are. Evaluates and distinguishes the main similarities between people and the secondary differences between them.

Justifies the naturalness of individual personality differences. Analyzes and evaluates and perceives different points of view and differences.

Identifies, researches and evaluates the influences on his personality on the part of the immediate environment.

Explores interpersonal relationships and dependencies in your immediate environment.

Researches and evaluates the influence of authorities and adults on the construction of own personality.

Recognizes and explores the processes of identification with significant for the young person identity.

Identifies and explains the rules on which the social space of close people is built.

Researches and compares attitudes and actions for strengthening the social space. Explores the dimensions of responsibility for one's own space. Identifies and discusses effective behavioral strategies in interpersonal relationships.



## *Section 2. Interpersonal relationships. Communication and public relations*

- *own style of communication*
- *effective communication and human rights*
- *communication and principles of a democratic society*
- *communication and civic interactions*
- *personal responsibility and effective public life*
- *dialogue and one-sided communication*
- *effective expression and openness*
- *personal dignity and communication*
- *understanding and communication*
- *providing support in personal and public life*
- *constructive opposition and assertive behavior*
- *barriers to communication*
- *problem solving*
- *emergence and resolution of conflicts*
- *effective actions in a small group*
- *group decision making*

Identifies and explores the main characteristics of one's own style of communication and then compares with those of his peers. Explores and shares his own idea of effective communication. Explains the relationship between the rules of effective communication and the fundamental rights of man. Explains the relationship and compares the principles of effective communication and the principles of democratic society.

Evaluates the elements of effective communication through the prism of civic interactions in our society. Explains the relationship between personal responsibility and effective public life.

Researches and evaluates the characteristics of dialogue and one-sided communication and substantiates the advantages of dialogic communication in interpersonal and social relations. Evaluates the dialogicity of communication in the group and in a public context with the help of feedback quality analysis. Characterizes, analyzes the meaning and evaluates the use of techniques for effective listening and expression in certain conditions.

Researches and evaluates openness as an element in interpersonal relationships. Analyzes openness as an expression of the right to freedom of expression and respect for the dignity of the other party in communication. Researches and explains the need for understanding and empathy in the process of interpersonal and social communication. Describes and explains constructive ways to help and support in difficult situations in personal and public life. Discusses and evaluates skills for constructive opposition in problematic situations.

Characterizes, discusses and interprets **the principles of assertive behavior**.



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*Evaluates the principles of assertive behavior as an expression of respect for the fundamental rights and responsibilities of the individual*

Distinguishes and analyzes the main barriers in the communication process based on examples from the citizenship group and from public and political life.

Evaluates the elements of communication through the prism of civic interactions in our society.

Distinguishes and justifies the main elements and steps in the process of solving problems.

Recognizes and identifies the causes of conflicts, analyzes the conflict situation and identifies strategies for resolving it.

Lists and explains the logic of the steps for research and conflict resolution situation.

Analyzes the structure, role distribution and relationships in a small group.

Distinguishes the elements of an effective group.

Identifies the different ways of making group decisions and evaluates appropriate ways of making decisions in a given situation.

### *Section 3. Human rights and legal norms*

- *essence of the laws and principles of their creation*
- *universal nature of the laws*
- *basic documents in the field of human rights*
- *Universal Declaration of Human Rights*
- *universality and indivisibility of fundamental human rights*
- *generations of human rights and the relationship between them*
- *rights and responsibilities of the citizen, of the young person*
- *The Constitution - a basic law of Bulgaria*
- *main elements of the Bulgarian Constitution*
- *character of the three Bulgarian constitutions*
- *rights and obligations of the citizen in the Bulgarian Constitution*
- *European Convention for the Protection of Human Rights*
- *the essence of European citizenship*
- *rule of law*
- *ethnic and religious minorities*

Explains the nature of laws as rules for the structure of our society, lists the principles on which the laws are based. Justifies the universal nature of the laws. Characterizes and analyzes the main documents in the history of the development of the legal framework for human rights - **Magna Carta, the American Constitution, the Declaration of Human and Civil Rights.**

Knows the history of the creation and analyzes the nature of the Universal Declaration on Human rights. It substantiates the idea of the universality and indivisibility of fundamental human rights. Distinguishes and analyzes the development and the relationship between the three generations of rights. Lists and justifies the basic social and economic rights. Lists, justifies and compares the main categories of collective rights. Knows the Convention on the Rights of the Child and clarifies the specifics of the young person's legal protection. Analyzes and evaluates the relationship between the rights and responsibilities of the young person citizen.

Justifies the essence of the Constitution as a basic law of the country. Distinguishes the main elements of the Constitution of the Republic of Bulgaria. He knows the character and compares the characteristics of the Tarnovo Constitution 1946 and the modern Bulgarian constitution. Characterizes the most important rights and obligations of man and citizen, enshrined in the Bulgarian Constitution. Knows and identifies the main elements of **the European Convention on Human Rights of man.**

Explains the basic elements of European citizenship and the relationship between national and European citizenship. Distinguishes and explains the main elements of the idea of the rule of law. It clarifies what ethnic and religious minorities are and determines which one have special rights by describing and analyzing the situation of these minorities in the country. Explains why non-fulfillment of obligations does not deprive the citizen of his rights.

## *Section 4. Government and democracy*

- *essence of democracy*
- *forms of political structure*
- *the transition period between communism and democracy*
- *public good and democracy*
- *immediate and representative democracy*
- *characteristics of the modern Bulgarian democracy*
- *young people and democracy*
- *power and management*
- *basic forms of social control*
- *sources of legitimacy of management*
- *management functions*
- *the role of experts, politicians and spiritual leaders in modern society*
- *governance in a totalitarian and democratic state*
- *character of the Bulgarian state in the transition period*
- *characteristics of the communist society and their influence on the emerging Bulgarian democracy*
- *balance between the authorities in a democratic state*
- *the bureaucracy in the modern state*
- *effective participation in a democracy*
- *role and nature of the policy*
- *policy activity and functions- role of the judiciary and characteristics of the trial*
- *interactions between central and local government*
- *electoral process and democracy*
- *characteristics of the Bulgarian electoral system*
- *majority, proportional and mixed electoral system*
- *civic participation and elections*
- *styles of political leadership*
- *characteristics of civil society*
- *civil society and young people*
- *the citizen in a democracy*
- *the role of the media*
- *promoting democracy worldwide*
- *advantages of democracy over totalitarianism*
- *threats to democracy*

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## *Section 4. Continiue*

Distinguishes, compares and evaluates different forms of political organization. Analyzes the transition period and its features as a mixed political system.

Formulates and explains the basic principles of democracy. Explains democracy as a social system that requires a certain interaction between people based on the rule of law. Explains why civic action aimed at the public good is essential for democracy. Explains the differences between direct and representative democracy.

Researches and compares the main characteristics of modern Bulgarian democracy. Appreciates the chances that modern Bulgarian democracy gives to young people. Recognizes, distinguishes and compares power and governance as basic forms of social control and justifies their characteristics. Recognizes and explains the sources of legitimacy of government.

Distinguishes and explains the different functions of government in modern society. Justifies and compares the role of experts, politicians and spiritual leaders in the management of modern society. Analyzes and compares the peculiarities of governance in democratic societies and in the totalitarian state. Analyzes and substantiates the peculiarities of the character of the Bulgarian state in the transitional period. Lists the characteristics of communist society and explains their influence on the establishing democratic society in Bulgaria. Analyzes the relationship and the search for balance between different authorities, such as gives specific examples.

Determines the benefits of the separation of powers and lists the main branches of government and their competencies - executive, legislative and judicial. Gives examples and characterizes the role of bureaucracy in the modern state, substantiates norms for behavior of its employees. Lists the characteristics of effective governance in a democracy.

Distinguishes and explains the main functions of politics and its place in different types of political devices. Describes and analyzes the role of political parties as a means of implementation of politics.

Lists and lists the main characteristics of the main political parties and coalitions in Bulgaria. Analyzes the activity and functions of politics in modern society. Gives examples from the activities of Bulgarian politicians - representatives of various currents in political life in the last century. Researches and explains the role of the judiciary and law enforcement agencies for the functioning of Bulgarian democracy. Distinguishes the elements and logic of the trial and analyzes and evaluates the place of the various parties in the trial based on the actions of the parties in the process.

## *Section 5. The individual in the local community. Nature and principles of local self.*

- *institutions of local self*
- *government*
- *interaction between central and local government, subsidiarity*
- *social problems of the community and the region*
- *municipal budget - method of use*
- *development of the local community*
- *opportunities for civic activity in the local community*
- *popular opinion*
- *civil actions*
- *local non-governmental organizations*

Clarifies the nature of local government. Formulates and explains the basic principles of self-government in a democratic society. Knows the institutions of local self-government and their functions. Analyzes the main problems of the interactions between the municipality and the local government. Clarifies the essence of the principle of subsidiarity and gives examples of its application. Characterizes the essential directions of development of the forms of self-government during the years of transition.

Formulates, analyzes and evaluates the main social problems of the community and the region to which it belongs. Describes and explains the ways and forms in which people organize their space to suit their needs. Explains the connections between the natural environment, the local economy, the demographic and social problems that determine the quality of life in the local community and region.

Clarifies what the municipal budget is and gives examples of revenues and expenditures. Locates the municipal institutions and lists the problems that can be resolved in each of them. Outlines, analyzes and envisages the development of the local community. Analyzes and evaluates social and political concepts for local development. Lists the opportunities for social and individual action in the context of local self-government and "to influence the solution of local problems" and decides on participation in these actions within the limits allowed by law. Knows the traditions of the local community in the field of self-government.

Discusses and analyzes the sense of belonging to the local community and analyzes his life plans in the context of local development. He studies the development of the social problems of his community. Explores the linking of your free time with opportunities for action on behalf of the good of the community to which it belongs. Knows and explains the criteria for sustainable development of one's own community. Knows the normative Bulgarian and European documents for the development of local self-government and one's own community.

Analyzes the context and opportunities for involving young people in the processes of local self-government and the development of the local community. Defines the tasks of the municipal authorities in terms of education. Analyzes the degree of influence of public opinion on the implemented local policy and on the decision-making processes.

## *Section 6. The citizen in the market economy*

- *Constitution and economic structure*
- *economic laws*
- *characteristics of the market economy*
- *economic and political ways to deal with the problems*
- *economic and political freedoms*
- *economic situation, political development and democracy*
- *economic resources and development of society*
- *economic interests of the main participants in the market economy*
- *the role of the entrepreneur for the development of a democratic society*
- *entrepreneur and civil servant- public and private intervention in the economy*
- *economic role of the state*
- *distribution and its influence on public relations*
- *state budget - an expression of the social role of the state*
- *taxes and civil liability*
- *consumption and limited resources*
- *factors influencing the quality of life*

Identifies the influence of the Constitution on the development of the country's economy. Identifies and explains the meaning of the basic economic rights of the citizen in the Constitution of the country. Explains and analyzes the main characteristics of the market economy and their impact on the development of a democratic society.

Explains the differences and connections between economic and political ways of solving problems. Explores and explains the relationship between economic and political freedoms. Explains how the economic situation affects the development of political processes in Bulgarian society, the impact of employment, inflation, economic growth on elections and democratic processes in society. Identifies the economic resources of the country and the region as the basis of the market economy and social relations of the state. Identifies, explains and compares the main interests of actors in a market economy.

Lists and examines the characteristics of the entrepreneur as an engine of the market economy. Distinguishes and compares the characteristics and activities of the entrepreneur from those of the civil servant. Distinguishes, explains and compares the features of public and private intervention in the economy. Identifies and explains the importance of the economic role of the state. Identifies the ways of distribution in the market economy and their influence on social relations.

Examines the state budget as a basis for realizing the social role of the state. It examines the nature of taxation and the payment of taxes as civil liability. Investigates the civic dimensions of consumption in the face of existing resource constraints. Researches and explains the parameters of quality of life in a given community.



## *Section 7. The practical informed citizen*

- *name and name change*
- *parents, adoption, guardianship, trusteeship*
- *passport and ID card; citizenship; marriage and family*
- *renting and letting accommodation*
- *starting work and employment contract*
- *rights and obligations, responsibilities and sanctions in the workplace*
- *labor insurance and unemployment*
- *membership in trade unions*
- *right to property; heritage*
- *contracts and transactions*
- *banks and banking services (obtaining a loan); insurance*
- *trade and consumer rights*
- *taxation, taxes, fees, tax returns*
- *intellectual property, copyright, piracy*
- *law enforcement agencies*
- *military service, armed forces of the Republic of Bulgaria*
- *crimes and anti-social acts*
- *travel abroad, personal documents, visa regime, customs and duties*
- *education abroad*

Knows the basic legal norms governing the receipt and change of name. Knows the rules and conditions for obtaining a passport and ID card. Presents and explains the definition of Bulgarian citizenship and lists the conditions for acquiring citizenship. Characterizes, analyzes the main forms of the modern family, lists and explains the norms of family cohabitation, the rights and responsibilities of spouses in the family. Lists the conditions for entering into a civil marriage and for obtaining a divorce. Characterizes the conditions and the main elements of the contract for rent and lease of accommodation. Lists and explains the conditions for starting work and analyzes the content of the employment contract. Knows and explains the rights and obligations of the workplace and the sanctions related to non-performance of the lease. Identifies and analyzes cases of labor discrimination. Characterizes the main elements and explains the essence of labor insurance. Knows the necessary steps to be taken in case of unemployment. Describes the structure of the employment office and lists the services that can be received in it. Knows and analyzes the basic principles of insurance and the main types of insurance in Bulgaria. Lists and analyzes the basic rights and obligations of the consumer. Justifies the principles of taxation, deadlines and knows how to fill out tax returns. Lists and analyzes the basic principles of copyright and intellectual property and identifies cases of intellectual piracy. Recognizes the elements of crimes and anti-social acts and analyzes acts of violation of the laws of the country. Characterizes and substantiates the main functions and actions of law enforcement agencies. Lists and analyzes the principles of structuring and operation of the Armed Forces of the Republic of Bulgaria. Lists the necessary conditions and documents for travel and study abroad. Lists the principles of the visa regime and the basic norms of customs duty.



## *Section 8. Moral challenges*

- *personal life*
- *civil dignity*
- *discrimination*
- *public participation, responsibility*
- *justice*
- *intergenerational relations*
- *love and relationship between the sexes*

Formulates and explains the principles, the right to privacy and their consequences for interpersonal relationships. Analyzes and substantiates the essence of civic dignity in a democratic society, cites and analyzes cases of dignified civic behavior of their peers and representatives of various professional and social categories, of specific people.

Shows and justifies the value of cultural diversity in a democratic society, as well as the obstacles to intercultural understanding. Lists and analyzes the social programs of the dominant religions in the country. Recognizes and analyzes the main sects, recognizes the elements of religious intolerance and the elements that violate fundamental human rights.

Distinguishes and analyzes the manifestations of social and political violence in public life. Recognizes the manifestations of intolerance and discrimination within the group and in public life. Formulates and analyzes moral problems from the point of view of public interests. Takes into account group interests in the process of making group and individual decisions.

Recognizes and analyzes the interests of generations in modern democratic Bulgarian society. Formulates the social context of the problems of different generations, explains the conflict of interests, analyzes the possibilities for finding common solutions. Explains the dimensions of love as socially (civic) responsible behavior.

## *Section 9. Global challenges*

- *technological challenges and democratic values*
- *information space*
- *entertainment society and democracy*
- *biotechnology and genetic engineering*
- *ecosystems and sustainable development*
- *poverty and poor-rich countries*
- *military conflicts and democratic development*
- *human rights violations, limited sovereignty and interference by the international community*

Recognizes the main technological challenges facing modern civilization and analyzes their impact on the development of our society and global society.

Describes and analyzes the impact of technology on the basic democratic values - civic participation, free elections, as well as on our understanding of the interaction between society and the environment. Describes the main dimensions of the emerging information space and analyzes the emerging difficulties in the functioning of democracy - loss of direct contact and communication, social passivity, replacement of effective actions in society with virtual reality, subordination to the power of information monopolies. Describes the main influences on the development of modern society of the achievements of biotechnology and genetic engineering.

Analyzes the achievements of biotechnology and genetic engineering on solving the problems of humanity (hunger, health) and on democracy. Describes and analyzes the main characteristics of the entertainment industry in modern democratic societies and assesses their impact on the individual citizen and democratic processes.

Describes the main characteristics of ecosystems and their impact on the local community and national societies. It lists the main characteristics of poverty as a social phenomenon in the world, analyzes the relations between rich and poor countries and justifies the need for a new world order. Lists the military conflicts in our part of the world and analyzes their impact on the democratic development of individual societies and democracy around the world.

Analyzes and evaluates the arms race for the development of democracy in the world. Describes, analyzes and evaluates the role of international, multinational political and economic organizations on the allocation of resources and on the new world order.

## *Justifies the idea of limited sovereignty in violation of fundamental human rights and the right of the international community to intervene in such cases*

*Bulgaria and the world. National identity:*

- *national priorities*
- *national identity and European citizenship*
- *sovereignty and integration processes*
- *objectives, mechanisms and bodies of European integration*
- *stages for integration into the European Union for Bulgaria*
- *own goals and plans in the opening European space*
- *Bulgaria and the Balkans*

Indicates, analyzes and substantiates the national priorities of Bulgaria.

Formulates the main features of the national identity of the Bulgarians and analyzes their manifestation in the conditions of the transition to a democratic society. It examines the contradictions between the pursuit of sovereignty and the processes of European and global integration.

He compares national identity with the emerging idea of European citizenship. Lists and explains the goals and opportunities of regional integration. Characterizes the mechanisms and bodies of European integration.

It identifies the main steps the country needs to take as a leader in EU accession talks.

Explains and analyzes Bulgaria's place in the Balkan region and Southeast Europe, as well as compares the basic principles of Bulgarian foreign policy with those of neighboring countries.

Analyzes and evaluates the contribution of democratic Bulgaria as a factor for stability in the region. He formulates his own goals and plans in the opening European space.

## *Section 10. Own future*

- *analysis and forecasting of one's own future*
- *political orientation- morality*
- *career development*
- *readiness for social civic actions*
- *quality of one's own life*
- *rights of future generations*

Distinguishes and analyzes the challenges to one's own development in personal, social and professional terms.

Analyzes the factors influencing one's own development and plans steps for your future.

Distinguishes the elements and justifies the need for a democratic political orientation.

He researches and compares the possibilities for choosing a profession or for continuing his education in accordance with his personal data and the characteristics of his social position.

Recognizes the elements that determine the quality of one's own life and plans their change.

Recognizes the elements of one's own value system and that of one's peers and analyzes its correspondence to the democratic character of society.

Analyzes the state of its immediate environment and plans measures for public action or for inclusion in public action for its development in the direction of democratization.

Analyzes the consequences of the actions of modern society on the life of future generations.

### *C. Pedagogical approaches for blended learning and educational components on SDGs*

**Result 1. Seminar for testing the educational materials for the development of the dairy industry in Bulgaria and related industries - agriculture, animal husbandry, transport and logistics, trade and retail chains and sustainability on March 5, 2021 in the Siemens Hall of the University of Ruse . Participants - business representatives, teachers, university lecturers, NGOs, students**

An all-day event was organized to test presentations, quizzes and games with an audience (see Appendix with the seminar program). The event had 67 different participants (with primary, secondary and university education and aged 17-58) who listened to the presentations and were invited to answer jury questions, participate in quizzes and games. After each 1.5-hour session, while the material was still fresh in people's minds, participants were asked to provide detailed feedback on the material. According to the ethical procedure of *EduLab4Future*, all participants filled in a consent form and were guaranteed anonymity. The feedback received from those present at this seminar was used to improve the educational materials presented in this report.

#### **Result 2. Review of 100 free online educational resources**

One hundred free online educational resources were selected for inclusion in this seminar. The selection process took into account the importance of the resource and how useful, clear and fun it was (aided by the fact that students were involved in finding and choosing these resources). This shows the wealth of resources already available and provides learners with a systematic database (available in the E-learning Shell-2) that they would choose to use in their teaching. The database is systematized, but not exhaustive and with open public access. There are many other free resources online. In addition, searches are conducted in Bulgarian and English, so many other resources can be available in other languages.

## Result 2. Review of 100 free online educational resources (Sequel)

The resources are organized into three main themes: "Dairy Industry and Related Industries", "Circular Economy" and "Sustainable Development Goals / Sustainability / Sustainable Development and CSR". Although many of the concepts presented are virtually eternal, a date is included for each resource. All of them are from the last 10 years - 77 created or updated between 2015 and 2021 and 23 between 2010 and 2014. For each resource the type of online resource is indicated (e.g. video, test, pdf download document, game, application ) and, if possible, the time required to read or use. To help trainers decide if any of these resources would be of interest for their teaching, a summary of information and an overview is included for each document, indicating content, level of interest, clarity and attractiveness.

It is important that each resource includes ideas on how they can be used in the classroom, sometimes with a lesson plan. A level of difficulty or complexity is suggested and is color coded: for beginners; with average skills; for advanced. In some cases, more than one level of difficulty is offered, as some resources have different components of different complexity, plus it is possible to use the same resource in a simplified or more complex way. A key target audience is offered. Although the educational resources included are mainly for 11th and 12th grade students and undergraduate students, they are not exclusively for them. In the interest of flexibility and wider applicability, some of the resources are also recommended for primary and master's students. Another part of the resources is recommended for teachers, lecturers, business and industry, government and non-governmental organizations, participants of which may even be interested in obtaining a certificate for attending a course - e.g. "Circular Economy - Sustainable Materials Management" (45 hours for 10 weeks). Of the resources included, 53% are or include videos. This is an effective teaching resource because it allows learners to visualize concepts. Often a video is more interesting, engaging, and easier to understand than if the controversy is presented as a report. They can also help generate discussions and debates that improve student learning. However, video lessons may miss the necessary depth and should therefore be used in conjunction with other resources with more in-depth description and analysis as part of an overall blended learning approach. Some educational resources should be highlighted as particularly important. The E-learning shell platform of the University of Ruse and the EduLearn4Future Project Platform are a collection of educational resources related to the SDGs and CSR that teachers can use to introduce the concept in their classrooms. These educational resources have innovative learning scenarios already tested in FBM's CSR student laboratory (e.g. "Brown Gas Technology and Minerals Rich in Seawater Polymetals", "Datapark" or "Milk Odyssey 2000 or Guilty is Danone for the chaos of the Bulgarian market ") available through the websites E-learning Shell and EduLab4Future.



## Result 3. New seminars, quizzes and games

Learners become more involved in their learning when they play games; the memorization of the content is enhanced and the positivity of the group is increased. So in addition to the lecture slides, these teaching materials include sustainability games, the UN Sustainable Development Goals (SDGs) and the circular economy. They join other already available games related to sustainability and the circular economy (e.g. *Games4Sustainability*, 2020 and *The Agency of Design*, 2020). The games are flexible and should be open to anyone over the age of 12 (including adults) without prior knowledge of the SDGs. More sophisticated learning is achieved by adding discussion time after each game. They can also be played as part of extracurricular or club activities. Simplifying some of the games (e.g. word search puzzles with dairy products) would also make them suitable for children.

### Games, quizzes and puzzles with strong links to bio- and circular economy, sustainability, SDGs

#### I. Business Matching Workshop and Card Game

The module is designed to inspire participants to innovate emerging circular business models and the opportunities created by circular economy concepts. Its aim is to acquaint the participants with five circular business models and to allow them to recognize them in everyday life, using 5 surveys of companies. The aim of the game is to adapt each company to one of the five circular business models. Each case study card with a company includes an image, description and key links for the SDGs. The game can be played in three different ways individually, as a team or in groups. It takes 15-30 minutes depending on the form of the game and the volume of the discussion. Before starting the game, the workshop leader can briefly introduce and explain the circular business models.



## II. Sustainability and SDG Hot Wave Game

This is a game where players answer sustainability and SDG questions and gain and lose points in the process. Six players compete against each other using a single board. The game takes about 20-25 minutes.

## III. "BE-Match" and "SDG-Link" games

It is a set of cards for two games using the same cards to inspire participants to design innovative products made from bio resources. These workshops or classroom activities are designed to introduce 35 organic products that can replace traditional products of our daily lives and inspire the potential of the bio economy industry. The activities also encourage discussion on the links between these 35 organic products and the SDGs. Participants can play the BE-Match game first, followed by the SDG-Link game, either on the same day or on different days. Both games take between 15 and 30 minutes.

## IV. Puzzles for searching words with CSR

Puzzles for searching words are a simple, fun and innovative idea that helps to remember the technical terms explained in the classroom. They can be played by people of all ages, can be made with different levels of complexity to suit the relevant audience (individually, as a team or in groups).

## Result 4. New activities for student (school) professional clubs/societies

Outside of classroom activities, they provide a unique opportunity to introduce new or additional content in terms of SDGs and sustainability. In a situation where teachers are limited by the curriculum they have to implement and may not have room to add additional content during classes, outside of classroom activities they can provide an opportunity for learners to be involved in these topics. In addition, students can take the lead. Extra curricular activities are associated with both attractive presentation of theoretical material and cognitive process and have great potential for built-in learning. They can be crucial for students with special needs. Some of the mentioned ideas come from discussions in the Ministry of Education and Science about the role of school (student) professional clubs / societies. Each activity can be from a 1-week to a 9-week topic, which changes each time, depending on the staff and resources in the training organization.

Alternatively, each of the activities can be used to form an independent club. For example, the club could be just a sustainable cooking club that highlights ways to reduce food waste and use seasonal local produce. This teaches valuable life skills and highlights the messages of reducing energy consumption through food imports. As not every educational institution has cooking facilities, such activities are provided as a framework to be formed and adapted by individual educational institutions according to their resources and needs. The presented sample practical activities can work together with the lecture material presented to consolidate the training and to transform the abstract concepts into tangible actions. Ultimately, we hope that the inclusion of at least some of these activities in school clubs will encourage greater engagement with bio-economic issues and inspire learners to transfer knowledge and sustainable practices to their homes. These activities also show that social innovation and sufficiency are no less important than technological innovation in the transformation to a more sustainable bio-economy.

## *New ideas for activities of student (school) professional clubs/societies related to SDGs/CSR*

<p><b>Welcome to the club "Garbage is gold"</b></p> <p>First meeting - students can see three short videos: one for the bio-economy, one for the circular economy and one for the SDGs and CSR. Students can decide on the name of the club and agree on activities to be carried out during the year.</p>	<p><b>Quiz games</b></p> <p>A game with a wide range of questions and quizzes on bio economics, circular economics and SDGs / CSR. They can compete individually, as a team or in groups. You can vote for the best quiz and game. New games and tests can be created. Prizes and certificates of participation are received.</p>	<p><b>Green Oscars</b></p> <p>Many organizations win awards for sustainability and CSR, bio economy or circular economy. Students select organizations nominated or awarded prizes and present to the club what this company does and why they have won an award.</p>	<p><b>Eco Arts</b></p> <p>Students engage in arts and crafts using organic products and other recyclable materials. Companies may be asked to donate leftovers products. An art exhibition can be organized and a prize awarded.</p>
<p><b>Make me circular</b></p> <p>Every member of the club to think about how he can become more circular and more resilient at home and in the things he does. Then ideas and successes are shared with the club.</p>	<p><b>Ethical fashion</b></p> <p>Think about the environmental and social impacts of the fashion industry and what can be done about it. Can clothes be created from recycled materials? Can you develop products from obsolete vinyl posters, car tires, old t-shirts or plastic bags, for example?</p>	<p><b>Sustainable cooking</b></p> <p>To be presented by leading master chef techniques for cooking without waste and creating dishes in batches so as not to lose food. The topic can be related to the use of seafood, local or seasonal products. For example, entrepreneurial ideas related to edible food waste.</p>	<p><b>Swap Fair "Fast fashion"</b></p> <p>Meeting an exchange community is a great way to give something you don't need to one person and get something you need in return. For example, exchanging books, clothes, electrical appliances, etc. household accessories. "Fast fashion" is an alternative to exchanging clothes.</p>
<p><b>Growing food from leftovers</b></p> <p>Some fruits and vegetables that can be replanted and grown from leftovers. Lettuce, celery, ginger, pineapple, green garlic and onion, basil, apples. Vertical greenhouses for small balcony spaces.</p>	<p><b>Themed evening with a business guest at the club or a visit to a company</b></p> <p>An invitation to a spokesperson from the bio economics industry to come and talk to the club or a site visit to a working company. Presentation of the club's activities. A proposal to the guest from the branch to help realize club ideas.</p>	<p><b>Repair fair</b></p> <p>Organizing an event for people to carry broken items that need repair, and for them to be trained to repair them by specialists - good wolves - repairing damage to bicycles, clothes. Reduce waste and increase repair skills.</p>	<p><b>Achievements of SDG - Innovative Youth EXPO</b></p> <p>What can university / school alumni do to achieve some or all of the SDGs? Which goal would be a club champion. Presentation of the annual results of the club activity and the created new products and services at the Youth EXPO exhibition.</p>

## Result 5. New power point presentations with notes for teachers

Two topics have been developed on sustainability and SDGs/ CSR, which illustrate the key links between the bio economy and sustainability (SDGs). The trainer can choose as many slides from the sets as needed. The slides are rich in images and include links to videos and in some cases use the *Mentimeter tool*.

*Mentimeter* is an interactive software platform for presentations that allows the presenter to receive real-time information from participants with live surveys, tests and word clouds. Participants need their mobile phones to participate and *Wi-Fi* or mobile data to be able to connect online and send their answers. The centimeter can be used in presentations or seminars to engage and interact with participants, but can also be used to collect data or opinions from the trained audience.



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