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| **Developing and Implementing Sustainability- Based Solutions for Bio-Based Plastic Production and Use to Preserve Land and Sea Environmental Quality in Europe**(Acronym: BIO-PLASTICS EUROPE) |
| **Title** | **Disseminating knowledge on** **circular bioeconomy: policy interventions and training offers** |
| **Objectives**The activity is part of the H2020 project BIO-PLASTICS EUROPE where the University of Bologna lead tasks on replication, dissemination, capacity-making and policy-building. Indeed, the main aim of the tasks is to develop new business models based on the use of innovative bio-materials (bio-based and compostable/biodegradable) in the packaging, toys, aquaculture and agriculture sectors. In accordance with the principles of circular economy and the need to create shared and multiple values for all the stakeholders, circular economy strategies first, and sustainable business models then, will be set up. Among the stakeholders engaged, companies, public institutions and universities play a fundamental role. While the collaboration with companies and universities is essential to create new value chains and proactive legislative environments, the involvement of universities and research centers is crucial to share knowledge on how to implement a circular economy transition process in the circular bioeconomy. This will be done by:1. Implementing innovative policies, regulatory and incentive efforts with a view to making circularity strategies replicable and scalable in different contexts, enhancing the contribution of the various players for the creation of an efficient market
2. Setting up training programs characterized by multi and trans disciplinary approaches, aimed at improving the professional skills and expertise of those working and being trained to work within the blue economy and the bio-economy
3. Contributing to the design and validation of business models
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**Description of work, task by task**

1. **Supporting the European strategy for plastics in a circular economy perspective by collaborating with policy-makers on innovative regulatory toward the New Plastic Economy**

The task is part of the policy-making work of the BIO-PLASTICS EUROPE project where different partners are involved. The contribution of the Univeristy of Bologna to the policy activities is business-oriented. The work is based on the results of the business cases development where demonstrators will be done, and business models designed and validated. The implications of command-and-control instruments, taxes and incentives (such as extended-producer-responsibility schemes, plastic and carbon tax, local circular and bio-economy strategies etc.) on the adoption of bio-materials at corporate level are the basis of the work. Policy-makers will be engaged in the development of a common vision on circular bio-economy, providing them with relevant tools, data and insights for assessing opportunities, barriers and options supporting the value preservation of the innovative materials in present and further cycles. The outcomes are guidelines and summary document for policy makers and finally, a with paper. The objective is to design and develop a policy-making process supporting EU regulations and policy makers towards the New Plastic Economy. The work will be done in coordination with other tasks and in collaboration with partners and of course, external stakeholders.

1. **Training**

A MOOC and a summer school design is one of the deliverables of Task 7.4 of the BIO-PLASTICS EUROPE project. It deals with the establishment of training activities aimed at

improving the professional skills and expertise of those working and being trained to work within the blue economy and the bio-economy. The deliverable summarizes the design of a post-graduate vocational training program with the tentative title The new plastics economy: circular business models and sustainability. It includes a Massive-Online-Open Course

# b. Improve the professional skills and competences

MOOC and summer school are part of the post-graduate vocational training program that will be implemented within the project. With the tentative title “The new plastics economy: circular business models and sustainability”, a Massive-Online-Open Course (MOOC) that will be launched in autumn 2022 and a summer school that will be set up in summer 2023. In the first edition, the MOOC is seen as a preparatory and mandatory activity to those people who will join the summer school few months later. In fact, the MOOC aims at providing the theoretical background to address the challenges of the circular bio-economy that will be discussed in a practical and interactive way during the summer school. The MOOC is composed of 20 modules structured over 4 weeks. The summer school is composed of 10 working sections over 5 days. The first is characterized by lectures, video, discussion forum and quiz while the second will deal with industrial challenges, working groups, tutoring and mentoring activities. The target audiences are students, researchers, new graduated and young entrepreneurs. The outcomes of this task aim at providing a strong knowledge basis as well as a practical experimentation of corporate strategies and business models in the field of bio-based and biodegradable plastics. The objective is to train people who will drive the transition to circular economy in the future years by considering the perspective of the business in the triple bottom line of sustainability. The work will be done in coordination with university administrative and informatic staff, project partners, and of course, external stakeholders.

# Designing and validating sustainable business models for circular bio-economy

 After testing technical performance, innovative bio-materials will be tested in converting

 industry to check technical, economic and environmental feasibility. During the demonstrators,

 business models will be designed and validated. The outcomes of the task are Exploitation and

 Business Plans (EBPs). The proposed EPB will contain an integrated framework of economic,

 environmental, health and social indicators. It will also include market-driven solutions aimed to

 overcome current barriers and replicate, upscale and make the transition towards the New Plastic

 Economy. The objective is to demonstrate the cost-benefits of the innovative value chains in the

 New Plastic Economy. The work will be done in coordination project partners, and of course,

 external stakeholders.