E-learning master in biosafety in plant biotechnology: A unique biosafety training network

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Biotechnology makes up an integral part of the knowledge-based bio-economy, and is transforming and revitalizing industries. Numerous new commercial products are emerging from the use of modern biotechnology, including:

- Life-saving medicines and vaccines
- Improved crops and new biofortified foods
- Biofuels and high-added value chemicals
- New products to replace fossil fuel derivatives as inputs for industry.

By applying modern biotechnology, new opportunities also arise in processing industries (e.g. food, paper and pulp, textiles and leather, mining) as well as environmental clean-up (bio- and phytoremediation). For the developing world, biotechnology promises better health, food security and wealth creation through increased industrial productivity. However, capturing the benefits of biotechnology ultimately depends not only on the presence of technological capacities but also adequate safety systems as well as institutions and professionals that preserve public health and the environment by exercising regulatory oversight. It is widely recognised that the lack of expertise in regulation is a major bottleneck for these countries to reap the benefits of biotechnology at the research, industry and government level. The need to strengthen professional expertise in biosafety has thus become a priority of national and international efforts.

The UNIDO e-Biosafety training network is intended to meet this need by delivering a solid basis to set up and implement regulatory biosafety frameworks related to plant biotechnology, and to assist in the interpretation of biosafety risk assessment, risk management and communication to policymakers or the public. International experts with decades long experience in modern biotechnology have developed the curriculum, which is delivered in modular format by means of on-campus face-to-face sessions and a state-of-the-art e-Learning platform. Ghent University (BE) and the Marche Polytechnic University, Ancona (IT) are participating in this network as the institutions that are responsible for the academic accreditation of diplomas in Biosafety in Plant Biotechnology.

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