

TOWARDS A BIO-BASED ECONOMY: SCIENCE, INNOVATION, ECONOMICS, EDUCATION

Milano Sept 4-8, 2017, room U4-08

Sept 4th: Introduction and scientific background

9.30 Welcome and presentation of the summer school (**M. Lotti**, UNIMIB)

10.00 Introduction about bioeconomy (**M. Bettiga**, Chalmers University)

11.00 Bioconversion processes: focus on microorganisms (**P. Branduardi/D. Porro**, UNIMIB)

Break

14.30 Bioconversion processes: focus on enzymes (**L. Pollegioni**, Insubria University)

15.30 Bioeconomy, green chemistry and new value chains: facts, perspectives, organization (**L. Gardossi**, Università degli Studi di Trieste, Cluster Spring)

17.00 Students presentations and poster session

19.00 Welcome cocktail (Ristorante Sottosopra)

Sept 5th: Bioeconomy in the international and local context

9.00 Bio-based industry and bioeconomy in Europe (**Nelo Emerencia**, Biconsortium EU)

11.00 Bioeconomy in Germany at the regional and national level (**Karl-Erich Jaeger**, Institute of Molecular Enzyme Technology, University of Düsseldorf; Institute of Bio-and Geosciences IBG-1, Forschungszentrum Jülich; Bioeconomy Science Center (BioSC) Northrhine-Westphalia)

Break

14.00 Bioeconomy approaches toward industrial competitiveness: the experience of SmartPilots biobased facilities (**Ilaria Bonetti**, Innovhub-Stazioni Sperimentali per l'impresa)

14.30 Raw materials for bio-based production, the concept of biorefinery (**M. Bettiga**, Chalmers University)

Exercises: assignment and start of the work

Sept, 6th : A biorefinery at work

Visit to the plant Biochemtex S.p.A, Crescentino

Sept 7th : Bio-business and sustainability issues

9.00 An introduction to life cycle thinking: Environmental Life Cycle Assessment (LCA), Life Cycle Costing and Social LCA (**M. Janssen**, Chalmers University)

11.00 From the University to the startup world: opportunities and threats for BioInnoTech (**M. Pisano, Erika Andriola**, BioInnoTech)

Break

14.00 Substitution and recycling towards sustainable materials life cycles (**A. Vedda**, UNIMIB)

Exercises: Discussion of the first ideas and preliminary results

Sept 8th : Regulatory and societal issues

9.00 Environmental LCA in practice: Methodology and biorefinery case studies" (**M. Janssen**, Chalmers University)

11.00 Protection of biological resources: The Nagoya Protocol impact on industrial and academic communities (**Valeria Prigione**, UNITO)

Lunch

14.00 Bio-based economy from a Responsible Innovation Perspective (**Jonathan Hankins**, Fondazione Bassetti)

15.00 Exercises: Presentation and discussion of the results