Proposed topic ICTA master thesis: **LITERATURE REVIEW REGARDING BIOREFINERY VALUE-ADDED PRODUCTS**

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Abstract:

LIFE BIOREFFORMED (LIFE19 ENV/ES/000544) is an European project entitled 'Implementing a Mediterranean biorefinery to boost forest management through the production of added value products'. The main objective of the project is to boost the sustainable Mediterranean-forest management by upgrading an existing biorefinery using torrefaction and pyrolysis (TP) to produce renewable chemicals and fuels from forest biomass. This project promotes a local biorefinery concept capable of processing biomass for different end-uses producing compounds (antioxidants, sugars, aromas) and energy (solid biofuels). It will strongly contribute to the development of the bioeconomy helping to accelerate progress towards a circular and low-carbon economy in line with the EU Bioeconomy and Circular Economy strategies, by improving production of renewable biological resources and their conversion into biobased products and bioenergy. It will also contribute to enhance sustainable Mediterranean forest management, to reduce the dependence on non-renewable resources, to mitigate climate change and to create jobs and maintain the EU competitiveness.

One of the specific goals of this project is to produce value added products such as antioxidants, levoglucosan, formaldehyde resins and fertilizers, among others, from different combination of forest biomass types. These products are marketable for nutraceutical, chemical, pharmaceutical and agri-nutrient companies.

The proposed topic for this master thesis is to carry out a literature review regarding the value-added products and their marketable state-of-the-art to state the basis for a future business plan.

Students interested in this topic, please contact with Dr. Neus Puy (neus.puy@ctfc.cat) and Roser Maneja (roser.maneja@ctfc.cat).