

SC2 and KET-B Brokerage Event

Food Security | Sustainable Agriculture and Forestry | Marine, Maritime
and Inland Water Research | Bioeconomy | KET-Biotechnology |

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**POLITECNICO
DI TORINO**

RURAL RENAISSANCE

Digital platform for circular bio-economy business models

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#BioBrokerage

Design, development and implementation of circular bio-economy models via a digital platform (APP) accessible by different kinds of users of the agro-food chain (from farm to fork) by smartphone/laptop.

The operation of virtual chains (through Cloud/Fog computing + Blockchain Platforms) across the complex network of the bio-chemistry-physical chains will be one of the main technological innovations of the platform.

CE-RUR-10-2019: Circular bio-based business models for rural communities (IA)





Xfarm (Management Layer)

Functionality: Fields, land registry, maps, crops, tasks, notes, stock, crops, equipment and safety; track and record all activities such as planting, fertilizing, harvests and more; integrate all the data; map competences, identify new key players and stakeholders, providing internal and public reports and feedback from the different users;

Xsense (IOT Sensing Layer)

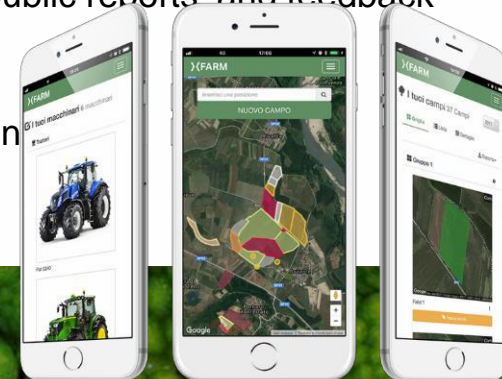
Atmosphere (Temperature, Humidity, Pressure, wind speed, Rain Gauge, luxmeter, 5mpx Room)
Ground (Humidity, Temperature, Foliar Humidity)



RETRACE
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A Systemic Approach for Regions Transitioning towards a Circular Economy

Examples of Circular Processes that might be integrated in the digitally operated circular supplychain

Reuse of spent coffee grounds to produce different new products (extraction of oil, production of edible mushrooms, paper, ink) <http://www.lavazza.it/>

Reuse of agricultural waste (cob corn and nut shell) to produce different new products (litter, fillers for polymers, abrasive) <http://www.agrind.it/>

Reuse of wasted fruits from Rotterdam market to produce organic leather
<http://fruitleather.nl/>

Reuse of spent coffee grounds to produce edible mushrooms (Pleurotus)
<http://www.rotterzwam.com/>

Reuse of cheese way to produce high protein cream <http://www.quesosgoine.com/>

Reuse of wasted biscuits during the production process to increase local activities
in food sector