

1st Conference on Green Chemistry and Sustainable Coatings



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Abstract Title - Industrial demonstrators of packages developed with the bio-waste derived compounds from AGRIMAX and its online stakeholder platform

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The project has provided increased knowledge on scale-up relevant processes for valorizing waste from the food industry, particularly for tomatoes and olives. Different products such as food ingredients, soil improver, packaging materials are produced from under-utilized food processing residues. By the cascading approach, the project was able to convert >40% of the agricultural and food processing waste into compounds of higher value. Certainly, process developers dealing with coatings based on cutin, fibers for biocomposites, and phenolic compounds as well as carotenoids as food additives can benefit from the project.

The use of innovative processing methods and cascading approach could contribute to the valorization of agricultural and food processing waste and CO₂ emission reductions. It was demonstrated that extracted bio-molecules can lead to the development of new products for packaging, food processing and agriculture. The project has increased the knowledge on scale-up relevant processes for valorizing waste from the food industry, particularly for tomatoes and olives. It was possible to produce a number of products in different application fields: a) food ingredients and edible coatings based on tomato cutin; b) agricultural products (compost and hydro-compost); c) bio-based films and bio-polymer pots, and d) secondary packaging materials (bio-composites different fibres and mycelium).



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The most promising industrial demonstrators of packages developed with the bio-waste derived compounds are shown in the presentation, as well as an online stakeholder platform to access the facilities and test the resulting products, thereby engaging relevant stakeholders.

Experimental

Results and Discussion

Conclusions

Acknowledgments:

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References

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