NANO-NOCMAT - Nanotechnology principles applied to agro-industrial wastes and by-products for improved performance of nonconventional materials and sustainable housing

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Materiais Para Biossistemas

Objectives and Partners

- The introduction of Nanotechnology basic principles in association to local resources and available agro-industry waste.
- Lead to high performance, more sustainable and durable constructive solutions.
- **Filtering membranes** for the air and water purification.
- Technologies of microencapsulation associated to supercritical treatment for curing will open the utilization of those agro-based materials to different fields in the civil construction.
- **Durability and life cycle assessment** will certificate the sustainability of the technologies.

• Partners

- Academic institutions: USP, UNESP, UFLA, UFAM, U Antilles, U Extremadura, UPV, UP Bucharest, EGE Uni, Marmara Uni, U Copenhagen
- Research institutes: INPA Brazil, INCDTP Romania
- Industry partners: TNS, IECA, ENCE, KLABIN, EMPA, DIELLE Shoes

Relevant projects and mobility schemes

- AWAPUMAT FAPESP & ANR Blanc International
- FAPESP PITE
- CAPES PVE
- FINEP/FUNDEP/MCTI FEESC
- INNOBITE EU FP7-ENVIRONMENT
- NanoTextSurf EU Horizon 2020
- INNOVA-LEATHER POSCCE-A2/Operation 2.1.2. ID 638
- Green Tannery UEFISCDI
- IND-ECO- INDustry CIP- IEE Programme
- TEXBIOCOLL UEFISCDI
- AGRO-SMARTGEL IncomERA program
- Natural wool MCI
- Biocomp ANCS

- Mobility Schemes
 - EBW
 - CAPES Studies Abroad
 - PVE
 - Erasmus Mundus
- Ongoing activities
 - Chaires Franco-Brasiliennes "Adding value to tropical products and agro-industrial wastes for the achievement of nonconventional materials and sustainable technologies"
 - CSIC PROGRAM OF SCIENTIFIC COOPERATION FOR DEVELOPMENT. ICOOPA2015
- Under preparation
 - FAPESP BMBF

Plan of Activities – Workshops

- The first location in Brazil
 - Emphases on the participation of the Brazilian partners (UNESP, UFLA, INPA, UFAM, INFIBRA, KLABIN, TNS)
 - Attraction of other partners and young researchers.
- The second Conference in Madrid
 - Emphases on the participation of European partners

- Simultaneous work and coordination missions
 - Intensive courses, preparation of multi-year projects.
 - Preparation of competitive research proposal
- Agrowaste Noc-Mat contributes to the Circular Economy
- Nanotechnology basic principles
 - Lead to high performance, more sustainable and durable constructive solutions and filtrating membranes

Thank you!! holmersj@usp.br

