

Please, use the slide n°3 for PhD students in first year, the slide n°4 for PhD students in 2nd or 3rd year and the slide n°5 for the post-doctoral fellows.

Do not modify fonts, bullets... as well as the general organization of the document.

For those who have to handle confidentiality issues, please try to fine-tune your content in order to be in accordance with your PhD team requirements (company, consortium, etc). A “Confidential” logo can be added above the non-filled part of the form if required. *We would like as far as possible to have a form for each PhD / Post-Doc position.*

If you are not sure of your funding institution, please contact the lab direction.

The content of the document must be discussed and validated by your supervisor(s)

To be able to launch an edition at the end of February, we ask you to return your sheets validated by your supervisors by **Monday 19 February 2024 at the latest. To meet layout requirements, this year we also ask you to provide the source files of the photos/illustrations inserted in your form.**

Thank you very much to take into account these rules and if you have ideas to improve the Yearbook, do not hesitate to inform the lab direction.



Suzy Ruano

Ph.D. thesis (2024-2027)
LGP2 (J. Bras ; N. Belgacem)
Gascogne Paper (J. Desmaisons ;
A. Pinsolle)

Thèse confidentielle

Development of new biobased barrier solutions for flexible packaging

Développement de nouvelles solutions barrières biosourcées pour emballages flexibles

Context

Regulations

SUP directive – AGEC law

- Imminent need to find plastic-free solutions
- Solutions such as petro-based coatings or laminated papers are emerging, but at the expense of end-of-life issues

Cellulosed based materials and especially coated paper appear promising

- Their use is still limited due to their low barrier properties
- Force to use petro-based and controversial products (PVDC, BPA, PFAS...)

Funded by:



Gascogne



ASSOCIATION NATIONALE
RECHERCHE TECHNOLOGIE

Objectives

Formulation

- Functionalized biomaterials
- Nanocellulose
- Nanolignin



Coating

- Process optimization
- Multilayers



Characterization

- Barrier methods of characterization

Industrialization

- Upscaling
- Industrial adaptability



End of life

- Recyclability
- LCA

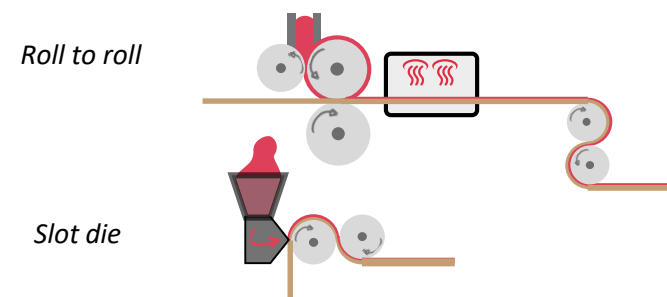


Methods

Extrusion



Coating process



Barrier characterization

