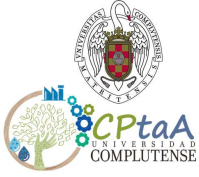


Drivers and Barriers to Implement Circular Economy in Construction Materials

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THE PROBLEM: Construction Waste Challenge



37%

Construction and demolition sector is one of the largest contributors to waste generation in Europe

OUR GOAL: Sustainable Circular Construction



Closing the gaps between stakeholders for successful and sustainable Urban CIRcular Construction Initiatives through CO-CREATION



Citizens



Industry



Policymakers

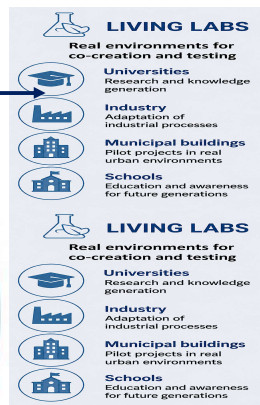


Researchers

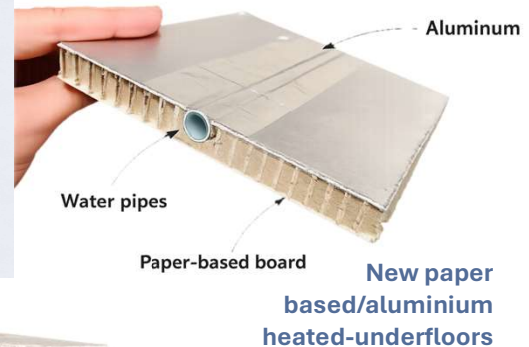


Environment

Circularity · Collaboration · Creation · Innovation

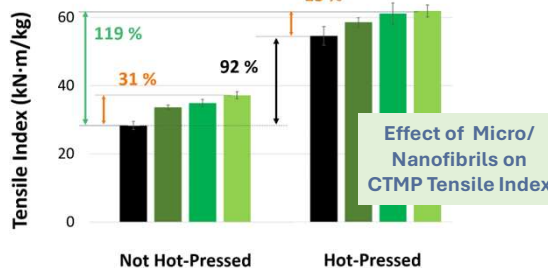
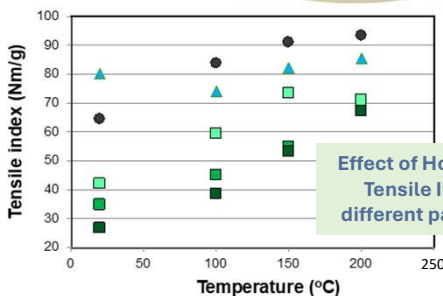


Smart Redesign:
Promoting recyclable materials
Living Labs: Increasing acceptability



Conventional underfloor heating system with expanded polystyrene foam

■ 0% CMNFs ■ 1.5% CMNFs ■ 3% CMNFs ■ 4.5% CMNFs



Wet resistance paper

Conclusions

- Construction waste can become a valuable resource through circular design
- Paper-aluminium heating underfloors are a recyclable alternative to conventional systems
- Hot-pressing and cellulose Micro/Nanofibrils significantly improve material strength and durability

Acknowledgments

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Familjen Kamprads stiftelse
The Kamprad Family Foundation for Entrepreneurship, Research & Charity



Driving Urban Transitions



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