

Search for a Spanish Partner for a Bilateral R&D Project

Organization	
Date of Request:	13 April 2026
Company name:	University of Wollongong in Dubai (UOWD) — School of Engineering
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SECTION 1: Entity launching the partner search

(Please give brief / to the point explanations. For more explanation on any point below, you may add a short paragraph as an annexure, with this document.)

Sector	Higher education and applied research — sustainable construction materials, engineered timber, and tropical hardwood structural products for the built environment.
Entity mission or core functions	UOWD is the Dubai campus of the University of Wollongong (Australia). The School of Engineering delivers accredited engineering degrees and conducts applied research aligned with UAE national priorities in sustainability, resilience, and advanced materials. The PI brings long-standing expertise in engineered timber, cross-laminated timber (CLT), glulam, and tropical hardwood structural products. This partner search concerns a new, stand-alone bilateral R&D project focused on hybrid CLT from Southeast Asian hardwoods.
Date of establishment	UOWD established 1993; School of Engineering established 2004.
Ownership (if public and traded, add stock exchange and ticker symbol)	Private, not-for-profit; wholly owned subsidiary of the University of Wollongong, Australia.
Total number of employees	Approximately 350 staff across the university.
Number of employees in R&D	Approximately 40 research-active academics across the institution; a dedicated team will be assembled for the proposed bilateral R&D

	project.
Key products sold or services provided	Undergraduate and postgraduate engineering programmes (Civil, Mechanical, Electrical, Computer, Telecommunications); applied research and consultancy in sustainable materials and structures.
Entity core technical competences	Engineered timber (CLT, glulam, hybrid hardwood lay-ups); tropical hardwood structural products; structural adhesives and bonding science for high-density species; durability of engineered timber; structural design and numerical modelling; life-cycle assessment of low-carbon construction materials.
Key R&D programs and activities	Active research programmes on tropical hardwood CLT and glulam, bonding science for high-density species, and structural performance of hybrid hardwood lay-ups. The PI has delivered funded research across Europe, the Middle East, and Southeast Asia, spanning timber-cementitious composites, tropical hardwood structural products, and engineered timber durability.
Examples of accomplishments	PI publication record: 100+ peer-reviewed publications; h-index 23. Recipient of the UAE Research & Innovation Award 2023. Active in European research networks (former COST Action FP1402 on bio-based materials). Fellow of the Institution of Civil Engineers (FICE). Successful delivery of competitively funded research at national and EU level.
Company strategic orientation	To position UOWD as a regional centre of excellence for engineered tropical hardwood products, and to contribute to the development of a Southeast Asian hardwood mass-timber value chain linking ASEAN producers with European engineered wood know-how and GCC markets.

SECTION 2: Spanish Company Profile

(Please provide a brief summary of the prospective partner company or organization. This summary may address some or all of the points below)

Profile of ideal technology partner	A Spanish private-sector company active in engineered wood products, structural adhesives, prefabricated timber construction, or related advanced materials, with an in-house R&D function and the capacity to lead industrial research within a CDTI bilateral framework. The partner is expected to bring genuine technological risk-taking to the consortium — for example, developing new
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	<p>adhesive chemistries for dense tropical hardwoods, novel hybrid CLT architectures mixing Southeast Asian species, process innovations, or predictive digital tools — and may subcontract accredited research organisations for specialised characterisation work where required.</p>
<p>Core technological competencies and expertise</p>	<p>Industrial R&D in one or more of the following: structural adhesive formulation and bonding technology for high-density, oily, and extractive-rich tropical hardwoods; press, curing, and process technology for hybrid CLT lay-ups combining different Southeast Asian hardwood species with contrasting densities and mechanical properties; design and prototyping of engineered wood products (CLT, glulam, hybrid panels) based on non-standard hardwoods; fire-retardant and protective coating systems for hardwood CLT; numerical modelling and digital twins for non-standard species combinations; non-destructive evaluation and in-line quality control of hardwood mass timber. The partner should have demonstrated innovation capacity (patents, prior funded R&D, new product launches) rather than purely service-based testing capabilities.</p>
<p>Other essential qualifications (e.g.: ownership, track records etc.)</p>	<p>Spanish private company eligible for CDTI funding; established R&D track record (ideally with prior CDTI, CIEN, or Horizon Europe participation); willingness to engage in international bilateral collaboration; existing or planned commercial activity in engineered timber, structural adhesives, or related construction technologies; interest in non-standard hardwood feedstocks as a route to diversifying mass-timber supply chains away from European softwoods.</p>
<p>If you have a list of companies with whom you are in contact or interested in contacting, please provide contact details</p>	<p>Open to suggestions. Preference for Spanish companies with existing hardwood processing know-how or strong adhesive and process R&D capability; open to both SMEs with focused technical capability and larger groups with broader CDTI experience.</p>
<p>If you are interested in collaboration: please specify details and other important information you want to share with a potential company</p>	<p>PROJECT FOCUS: Development of hybrid cross-laminated timber (CLT) from Southeast Asian hardwoods — combining different tropical</p>



	<p>hardwood species (such as rubberwood, acacia mangium, sengon, and other fast-growing or plantation-sourced hardwoods) in optimised lay-ups to achieve target structural, durability, and sustainability performance, and to enable European certification and market entry for non-standard hardwood CLT products.</p> <p>COMMERCIAL PATHWAY: The project targets a credible commercial exploitation pathway: the Spanish partner is well positioned for European market entry of certified hardwood CLT products, while UOWD supports ASEAN and GCC market access through its regional network and industry contacts.</p> <p>PROPOSED COLLABORATION: The consortium would build a joint CDTI bilateral R&D proposal around genuine industrial research challenges in hardwood CLT, where the Spanish partner takes technological risk and UOWD contributes complementary academic R&D from Dubai.</p>
<p>Interested areas of collaboration</p>	<ol style="list-style-type: none"> 1. Development of novel adhesive systems and bonding strategies suited to high-density, oily, and extractive-rich Southeast Asian hardwoods, where conventional CLT adhesives developed for European softwoods perform poorly. 2. Process and product innovation for hybrid CLT lay-ups combining different tropical hardwood species with contrasting densities and mechanical properties, including pressing, curing, and lay-up optimisation. 3. Predictive numerical modelling (FEM, multi-scale, machine-learning-assisted) of hybrid hardwood CLT with non-standard species, reducing the empirical testing burden required for future certification and European Technical Assessment (ETA) submissions. 4. Fire-retardant and durability-enhancing treatments for hardwood CLT in hot-humid tropical and hot-arid service conditions. 5. Digital quality control and non-destructive evaluation methods for industrial production of hybrid hardwood mass-timber elements.

	<p>6. Circular and low-carbon value-chain integration linking Southeast Asian plantation hardwood resources with European engineered wood manufacturing know-how and certification pathways.</p>
<p>Specific R&D contribution you are seeking/offering</p>	<p>Seeking from the Spanish partner (industrial R&D with technological risk):</p> <ul style="list-style-type: none"> • Development of new adhesive formulations or bonding processes specifically for Southeast Asian tropical hardwoods. • Innovation in pressing and curing technology for hybrid CLT lay-ups combining species of contrasting densities. • Predictive modelling and digital tools to reduce reliance on full empirical testing of non-standard species combinations. • Prototype development of new hybrid hardwood CLT product variants for joint demonstration within the CDTI project. <p>Specialised characterisation work (e.g. mechanical and bond-line testing per EN 408, EN 16351, EN 14080) would be subcontracted by the Spanish partner to accredited research organisations such as Tecnalia, as supporting activity rather than the core R&D content.</p> <p>Offering from UOWD:</p> <ul style="list-style-type: none"> • Complementary academic R&D input: structural design, numerical modelling, and analytical support. • Sourcing of Southeast Asian hardwood feedstocks (rubberwood, acacia mangium, sengon, and other candidate species) for project specimens and prototypes. • Fabrication of bespoke hybrid hardwood CLT and glulam prototypes. • Access to GCC and ASEAN stakeholders, industry networks, and market insight. • Joint IP and co-authorship of publications arising from the project. <p>Prior know-how from the PI's earlier research programmes will be contributed as Background IP under terms to be defined in the consortium agreement.</p>

Signature 
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