

Project idea/ Field of expertise:

HIGH DURABLE PROTECTIVE COATINGS

Organisation Name:



Adressed challenge(s)/ PPP(s):

NMBP and SPIRE

Adressed topic(s) in Work Programme:

LC-SPIRE-08-2020: Novel high performance materials and components (RIA)

CE-SPIRE-07-2020: Preserving fresh water: recycling industrial waters industry (IA)

LC-NMBP-31-2020: Materials for off shore energy (IA)

Lurederra in brief:

L'Urederra Foundation, non-profit R&D private entity created in June 1999:

- Staff: 32 Facilities: 8.630 m² (4.530 m² built)
- Involved in European projects since FP4 up to H2020 as partner and coordinator

● H2020 (8) ● CIP (3) ● FP7 (15) ● Coordinator (7)

- Lurederra participation in **TECNAN S.L.** created in 2007. *One of the few companies in Europe producing nanoparticles at ton level.*

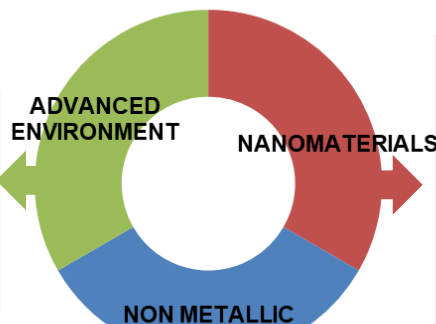


"Think Big, Act Nano"

<https://tecnan-nanomat.es/>

R&D Lines:

- Wastewater Treatment
- Revalorisation of organic wastes
- Metal decontamination and metal recycling from wastes



- Plastic processing technologies.
- Development of solutions / physical-chemical systems for recycling plastics
- Advanced materials development (functionalised)

- Advanced nanoparticle production by FSP: simple and complex oxides (mixed, doped, core-shell), phosphates, carbonates up to 5 kg/h
- Dispersion, deagglomeration and surface stabilisation up to 100 litres/hour

Simple	Complex
- Nano-Al ₂ O ₃	- Nano-ZrO ₂ /CeO ₂
- Nano-CeO ₂	- Yttrium Stabilised Zirconia, YSZ
- Nano-Fe ₂ O ₃	- Nano-Fe ₂ O ₃ /CoO
- Nano-TiO ₂	- Nano-Al ₂ O ₃ /ZnO, AZO
- Nano-ZnO	- Doped TiO ₂
- Nano-ZrO ₂	- ZnO Core-Shell
- Nano-SiO ₂	- Nano-Y ₂ O ₃ /Eu ³⁺
- Nano-HfO ₂	- Doped ZnO
- Nano-Ta ₂ O ₅	- Functionalised SiO ₂
- Nano-Ca ₃ (PO ₄) ₂	- Nano-CuO/ZnO
- Nano-CaSO ₄	- Nano-Li _{1-x} Ti _x O ₁₂ LTO



- Specific surface treatments and ready to use coatings

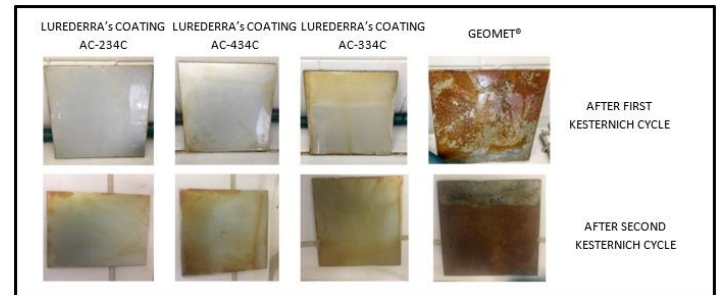
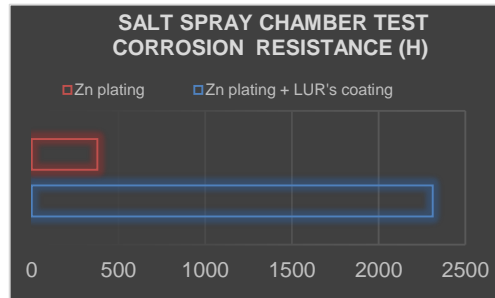


**HIGH DURABLE
NANOCOATING TECHNOLOGY
FOR PROTECTION IN HARSH
ENVIRONMENTS**

Our project idea / expertise:

ANTICORROSION TECHNOLOGIES: Improved results on **salt spray chamber** and on **kester nich test**

TREATED		NON-TREATED	
			
Initial	2312 h	Initial	378 h



WORKING IN HIGH-TEMPERATURE SECTORS: IRON CASTING, THERMOSOLAR TANKS, ALUMINIUM INJECTION



MARINE AND OFF-SHORE / WASTE WATER: Strategies for antifouling and anticorrosion



TECHNOLOGY FOR AMBIENT CURING T^a: Application on a wide range of substrates and easy repair operations



Consortium

Known partners/Competence offer

Name	Type	Country	Role in the project
Lurederra	RTD	Spain	Development of protective coatings and nanobased additives
TECNAN	SME	Spain	Upscaling and commercialisation of coatings and nanoparticles

Partner search

Profile	Type	Country	Role in the project
End users	IND		Industries with needs and capacities in off-shore wind generators and tidal stream power generators
Research	RTD		Advanced materials research (alloys, light weight) for offshore
Research	RTD		Online monitoring of structures
Research	RTD		Advanced manufacturing technologies for smart design (cost reduction, easy repair, recycling)

Contact details

Contact person	Angélica Pérez
Organisation	LUREDERRA TECHNOLOGICAL CENTRE
Adress	Area Industrial Perguita c/A nº1 31210 Los Arcos (Spain)
Phone	+34 948 64 03 18
E-mail	angelica.perez@lurederra.es
