

## Breaking Bad Biofilms. Innovative Analysis and Design Rules for Next-Generation Antifouling Interfaces

### PROJECT DETAILS

**Funding Programme:** Horizon 2020  
**Sub-Programme:** Marie Skłodowska-Curie Innovative Training Networks  
**Funding Scheme:** European Training Networks

**Project Reference (Grant Agreement Number):** 813439  
**Project Duration:** 48 months  
(from 2019-01-01 to 2022-12-31)

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**UniOvi Budget:** € 501.809'76

**Website:**  
<https://www.unioviedo.es/breakbiofilms/>

**CORDIS link:** <https://cordis.europa.eu/project/id/813439>

### PROJECT DESCRIPTION

Biofilms, i.e. communities of micro-organisms that attach and grow on a solid surface, cause about 80% of infections in humans and disinfectants rarely succeed in destroying them. They cost European economy billions of euro annually. The BREAK BIOFILMS Training Network aims to solve this issue by training the next generation leaders. They will understand the (bio)physicochemical mechanisms of biofilm formation, be able to produce technology for detecting and identifying biofilm formation with extreme sensitivity, and develop next generation biocides for preventing and destroying biofilms in industrial and biomedical areas. This integrated strategy from biofilm detection to destruction that builds on key innovations from the partner labs, is globally distinctive and promises significant progress. The network brings together world leaders in sensors, cell imaging, microbiology, interfacial engineering and nanoformulation from 6 universities, 9 companies, a research centre, and a Business and Innovation Centre. Thus, it is ideal to provide technical, industrial and business training to 15 ESRs and support the missions of the industry partners who will provide deep insights into the most pressing and impactful challenges. The graduates will be ideally placed to enter and support existing European industry across a number of different sectors (biomedical, food, antimicrobials). However, they will also be capable of creating new businesses thanks to a combination of in depth training in entrepreneurship and direct experience of establishing and running a virtual company as part of the training network. Beyond the trained researchers, this project will produce technologies that will enhance the productivity of European industry, create intellectual property with a strong probability of commercialization and improve the health and well-being of European citizens by minimizing infection rates and the inappropriate use of ineffective biocides that is leading to resistance.

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## PROJECT PARTNERS

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#### **Ireland**

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TheraDep

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Arla, Arla Foods