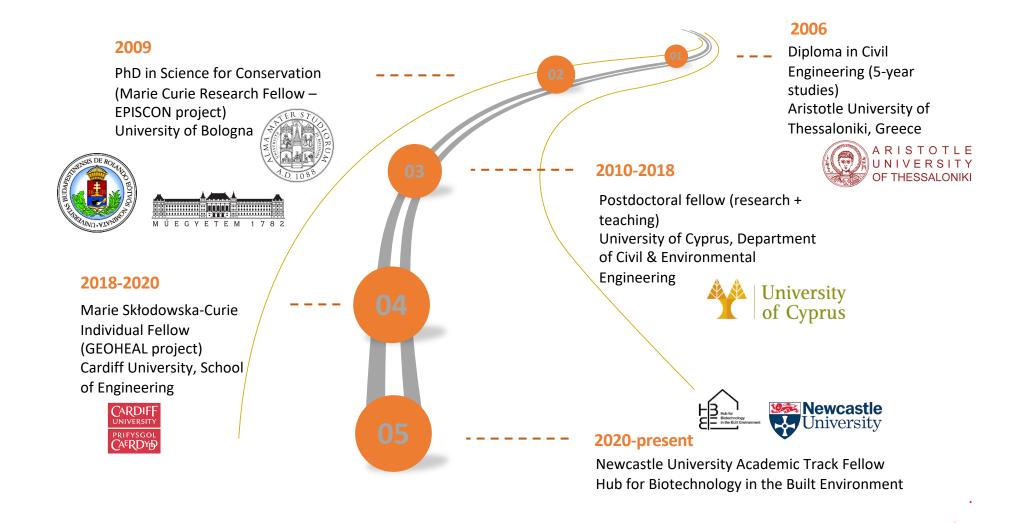


Career Path



wide traditional and modern technologies for sustainable conservation and new constructs.

Energy efficiency

Sustainability

Construction Materials Technology

Biotechnology in the built environment

Laboratory and In-situ testing

Architectural Heritage

Civil Engineering

Conservation Science

wide traditional and modern technologies for sustainable conservation and new construction an

Design and Development of novel construction materials -> contemporary and historic architecture

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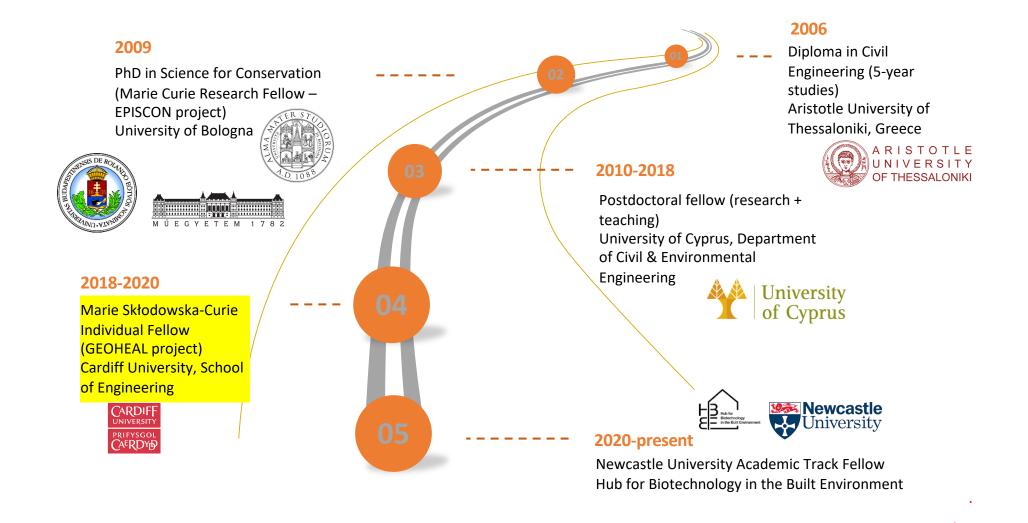
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Innovative application of non / micro-destructive techniques for the characterisation of building

Self-healing geological

structures

construction materials &

Energy efficiency

Conservation Science

Sustainability

Construction Materials Technology

Architectural Heritage

materials

Biotechnology in the built environment

Laboratory and In-situ testing

Civil Engineering

the GEOHEAL project

Self-healing geological construction materials & structures





Individual Fellow: Dr Magdalini Theodoridou



Host Institution: Cardiff University School of Engineering



Supervisor: Dr Michael Harbottle



Secondment: CNR Florence, University of Florence



the RM4L project

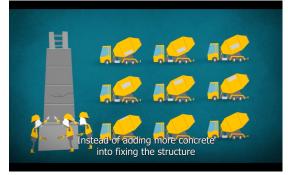


Innovative construction materials: sustainable and resilient - self-healing, self-sensing technologies

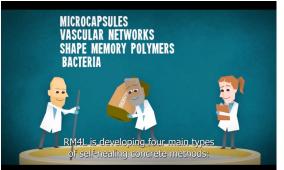
50+ staff and students £6M+ total funding over 5 years 20+ industrial partners















https://www.youtube.com/watch?v=uFs4KI_XvDw













Key points

 diversify the researchers' individual competence: skill acquisition through advanced training, international and intersectoral mobility

Career Development Plan: tailored to match career needs (training opportunities at host institution or other established accessible networks → collaboration opportunities

- training through research (e.g., microbiology, biomineralisation, self-healing for geological materials, LCA)
- new methodologies, techniques, approaches, equipment, instrumentation, experiences
- transferable skills / soft skills (e.g. leadership, Welsh Crucible/Future Leaders for Wales, communication skills, project management, mentoring, grant writing, scientific writing, entrepreneurship, team leading and management, open access, teaching and supervision, lecturing etc.)

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- secondment (focusing on skills acquisition)
- intersectoral collaborations
- engagement, social responsibility (media, EDI in R&I)

Secondment – Intersectoral collaborations

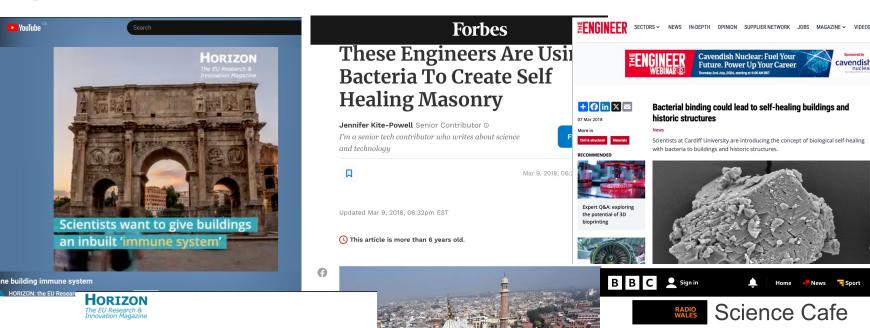






Visibility/engagement







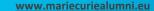
Buildings, tunnels and bridges could soon repair themselves



Young European Biotech Network

Interview with Magdalini Theodoridou, Civil Engineer and PhD in Conservation Science

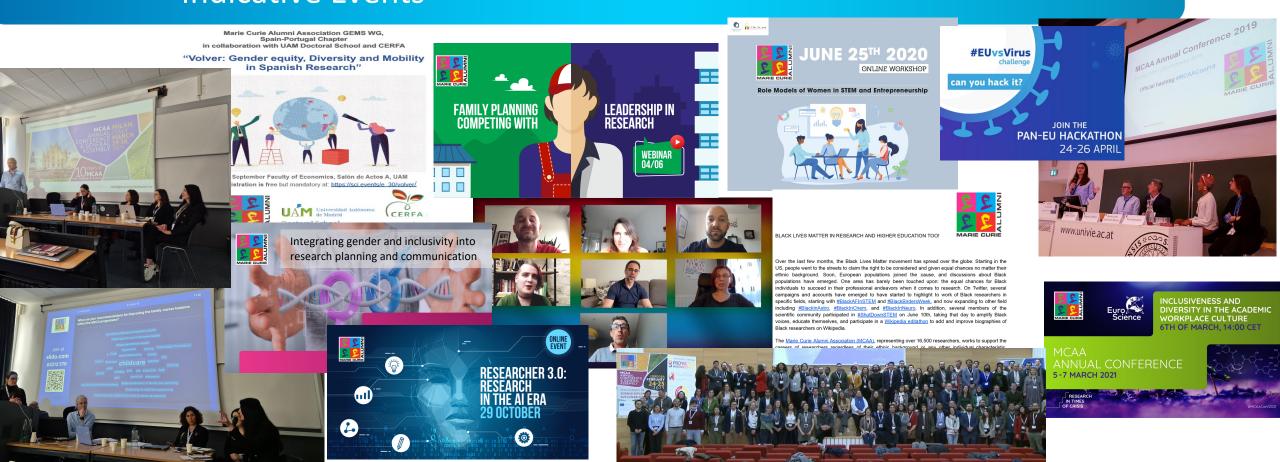








Genders, Equity, Diversity and Inclusion Working Group, MCAA Indicative Events



Key points

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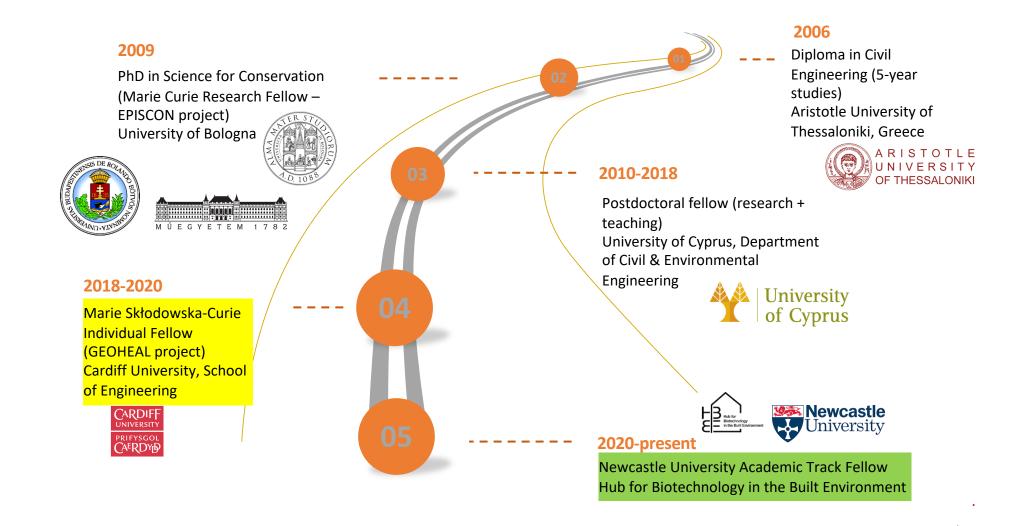
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- secondment (focusing on skills acquisition)
- intersectoral collaborations
- engagement, social responsibility (media, EDI in R&I)
- two way transfer of knowledge between the researcher and the host

To the host:

- +specific skills, contacts and network
- +expanded knowledge (e.g., experience design and development of novel construction materials, new testing protocols, conservation science/heritage-inspired materials, European funding)

Career Path



The Newcastle University Academic Track (NUAcT) Fellowship:

- -prestigious and competitive fellowship designed to attract and retain the research leaders of the future.
- -selection process highly rigorous, involving comprehensive review of academic achievements, research funding, potential for future impact as well as contributions to a positive research culture 10% success rate / >£550K (ca. £900K incl. overheads)



https://www.ncl.ac.uk/nuact/
T: @nuact_NCL

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The world's first research **Hub for Biotechnology in the Built Environment (HBBE)**-make the UK a leader in this new transdisciplinary field by creating a research hub capable of creatively designing and building biotechnology at multiple scales from molecular interactions to whole buildings while addressing sustainability and the human context of their deployment.

- over 60 researchers, academics, students / £8M
- -strategic funds, new lab facilities / experimental house, collaborations, interdisciplinary / intersectoral research



https://www.ncl.ac.uk/nuact/
T: @nuact_NCL



bbe.ac.uk ⊤: @Bio_Buildings Research England

The **Geotechnical and Structural Engineering Research group**, School of Engineering, SAgE Faculty, Newcastle University

The Newcastle University Centre of Excellence - Heritage

The Newcastle University Policy Academy

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Would I participate again?

Would I participate again? Absolutely!



Thank you! Any questions? Email: magdalini.theodoridou@newcastle.ac.uk

T: @MTheodoridou1