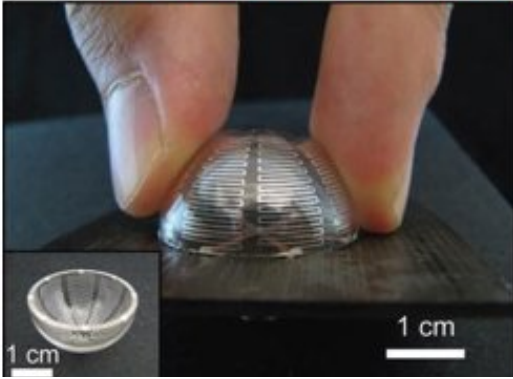


Research topic proposal for an MSCA Postdoctoral Fellowship 2025

Topic title:	Two way shape memory polymer for reconfigurable optical or electrical smart surfaces
Topic description (0.5 page max.):	<p>High attention is given nowadays to 3D electronics circuitry and optical metasurfaces. With the supervisor's help, the candidate will conceive, develop and characterize two-way shape memory polymeric materials adapted to the deposition of optical metasurfaces and silver electrodes. The final objective is to tune actively the properties of an electronic circuit or of an optical device. Access to a state of the art equipped new cleanroom is provided to develop such devices. The candidate will integrate an interdisciplinary team of physicists, chemists, optics and material scientists, electrical engineers and technologists.</p> <p>Example of 3D antenna is given in the figure below:</p> 
Keywords:	Reconfigurable surfaces, 3D electronics, optical metasurfaces, microfabrication processes, Two-way shape memory polymers, interfaces
Compétences, Expertises, Skills	Applicants are expected to have a strong background in physics, optics, polymeric materials, micro-technologies, chemical engineering, materials science, or other related field, a good knowledge of modelling approach, and a strong interest in the field of advanced functional materials.
Supervisor(s):	Alexandre Khaldi: https://www.imt-atlantique.fr/fr/personne/alexandre-khaldi