

COORDINATION OF THE EUROPEAN RESEARCH COMMUNITY ON NUCLEAR MATERIALS FOR ENERGY INNOVATION: THE RESEARCH AGENDA OF THE CONNECT-NM CO-FUNDED EUROPEAN PARTNERSHIP

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CONNECT-NM is a recently launched co-funded European partnership that deals specifically with boosting innovation in the field of nuclear materials. It pursues five research lines, dedicated to: (1) knowledge and data management; (2) advanced materials development and manufacturing; (3) materials and component qualification (testing, standardization and design rules); (4) non-destructive examination and materials health monitoring; (5) advanced materials modelling and characterization. We will detail the methodology and the scientific and technical expected results for each of these research lines, in pursuit of the corresponding five nuclear materials-dedicated end-products, respectively: knowledge organisation system, materials acceleration platforms and advanced manufacturing processes, qualification test-beds and accelerated qualification paths, intelligent materials health monitoring and advanced predictive methodologies. The work to be performed in connection with prioritization of research activities, education and training, access to infrastructures, communication, dissemination and results exploitation will also be discussed, together with the expected impact.

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