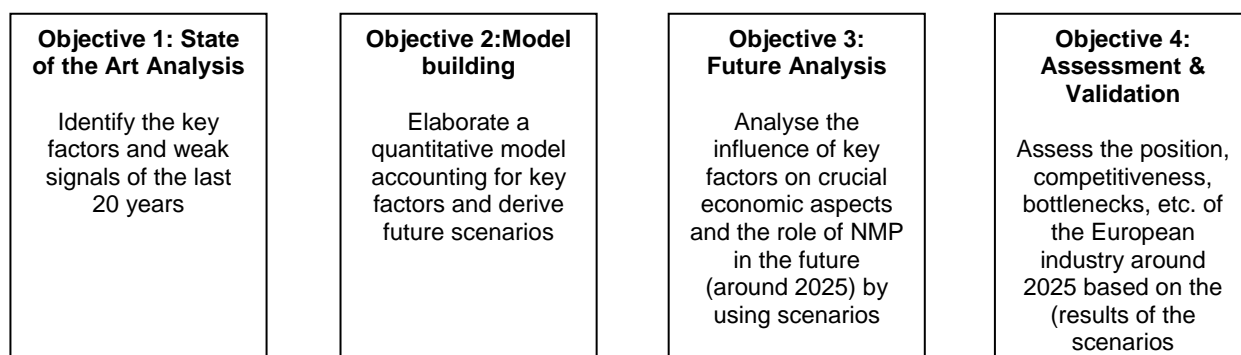


ECONOMIC FORESIGHT STUDY ON INDUSTRIAL TRENDS AND THE RESEARCH NEEDED TO SUPPORT THE COMPETITIVENESS OF EUROPEAN INDUSTRY AROUND 2025

NMP technologies have the potential to contribute significantly to the move of Europe from a resource-intensive economy to a knowledge-intensive economy in the future. They will lead to new applications, new business models, new products, new production patterns, new services, new processes and other outcomes.

Against this background the study aims at elaborating and presenting qualitative and quantitative prospective scenarios considering the expected positioning and potential of the European industry in the field relevant for research in nanotechnologies, materials and production technologies (NMP).

The major aims are:



In order to address the four central objectives of the study we have designed 9 discrete, but interconnected Work Packages (WP).

In WP1 NMP specific developments over the past 15-20 years as well as emerging (weak) or future signals and future trends will be identified, based on desk research. WP2 complements WP1 with general (economic) developments on a “macro-level”. In WP3, key variables and correlations between them will be identified and hypotheses to be tested in an econometric model will be derived. A detailed analysis of NMP-specific developments and trends follows in WP4. WP5 concerns as a counterpart to WP4 the detailed analysis of general economic and industrial developments and statistics. WP6 comprises the elaboration, adaption and testing of the econometric model. WP7 concerns the description, simulation and assessment of three scenarios mainly based on the model results from WP6. In WP8 recommendations to the EC will be prepared based on the previous work packages and analysis of the study, including desk research, model and scenario outcomes and workshops with experts. WP9 is concerned with project management.

The main challenge of the project will be to bring together qualitative and quantitative work on the NMP-level and (macro)economic-level, respectively, and to translate NMP-specificities into a quantitative model as well as derive well-founded qualitative recommendations from the scenarios.

Research Team

Prof. Dr. Andre Jungmittag, subcontractor and expert in econometrics, FH Frankfurt am Main
Fraunhofer Institutes (Fraunhofer ISI and Fraunhofer ISC)

Project Management Committee (PMC)

European Commission (EC)