

Project carried out under the topic 'Understanding migration mobility patterns: elaborating mid and long-term migration scenarios' (MIGRATION-01-2019)

QuantMig

Quantifying Migration Scenarios for Better Policy

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List of participants:

No.	Participant organisation name	Acronym	Country
1	University of Southampton (coordinator)	UoS	United Kingdom
2	Danube University Krems	DUK	Austria
3	International Institute for Applied Systems Analysis	IIASA	Austria
4	Max Planck Society for the Advancement of Science e.V.	MPG	Germany
5	Netherlands Interdisciplinary Demographic Institute – KNAW	NIDI	Netherlands
6	Peace Research Institute Oslo	PRIO	Norway
7	University of Oslo	UiO	Norway

Why QuantMig?

- Creating comprehensive, multi-perspective and robust quantitative migration scenarios for policy
- Improving migration data and analytical methods through the strong quantitative slant of the project
- Combining methodological advancement of scenario generation with strong conceptual foundations
- Following cutting-edge advances in conceptualising, explaining, estimating and forecasting migration
- Including a special focus on mobility of third-country nationals and decision making of migrants
- Offering customised and harmonised migration estimates, data on drivers, and quality assessment
- Providing innovative methods for simulation models, scenario uncertainty, and early warnings
- Integrating the stakeholder perspective throughout all dissemination and policy activities
- Ensuring significant impact and a lasting legacy of the project through a range of outputs
- Being delivered by a unique consortium of European leaders in migration studies and social science

OBJECTIVES

Migration is complex and uncertain. To be effective, migration policies need to explicitly acknowledge these two defining features of contemporary mobility. This is especially crucial as migration remains a top policy priority area in Europe and worldwide, with many policy actions being proposed and implemented for different types of flows on the voluntary-forced migration continuum.

The overarching aim of QuantMig is to produce comprehensive, multi-perspective and robust quantitative migration scenarios to support various areas of European migration policy, based on the cutting-edge developments in conceptualising, explaining, estimating and forecasting migration.

Comprehensive quantitative scenarios offer an excellent analytical tool for exploring different migration futures, as long as they explicitly acknowledge the complexity and uncertainty of the processes they aim to represent. In particular, preparedness for various migration contingencies requires using appropriate analytical tools for addressing the challenges posed by the barely predictable nature of migration flows. Such tools need to be characterised by high levels of both conceptual and technical sophistication, and at the same time, their results need to be easy to comprehend and communicate to facilitate uptake by policy and other stakeholders. Drawing on the unique expertise of its consortium members, QuantMig will deliver such tools, providing bespoke solutions for describing, explaining and managing migration.

The project will achieve its overarching aim by advancing the methodology of scenario generation and by furthering the understanding of conceptual foundations of European migration flows. The knowledge base for scenarios will include a comprehensive review of key migration drivers in origin, destination and transit countries, with particular focus on mobility of third-country nationals, various aspects and stages of migrant decision making, and on the characteristics of prospective migrants.

Additionally, to base the scenarios on quantitative evidence on migration, which is as reliable as possible, a distinctive set of custom-made harmonised statistical estimates of migration flows will be derived, together with an assessment of their uncertainty, following earlier experimental work on Integrated Modelling of European Migration (IMEM). Such a comprehensive knowledge base on migration and its drivers, far beyond the state of the art, will form one of the unique features of QuantMig. Finally, rigorous and innovative methods for simulating migration flows, describing scenario uncertainty, and providing early warnings will be developed and applied.

The eleven specific objectives of QuantMig and the associated work packages (WPs) are as follows:

Objective 1. To review the state of the art in forward-looking analysis of the ever-evolving migration processes, and to build a unique and comprehensive framework for the conceptual foundations of quantitative scenarios; to focus on new temporalities and geographies of European migration, providing guidance for driver analysis, empirical data collection, and scenario building (**WP1**).

Objective 2. To carry out a comprehensive analysis of the drivers of European migration, providing input for scenarios from the point of view of the origin countries, with focus on the multifaceted nature of flows and their drivers, across the different analytical levels (from macro to micro); at the micro level, to analyse the migration propensities, decision-making processes, and migration decisions (**WP2**).

Objective 3. To examine migrant 'pull' factors at the countries of destination taking into account the inter-dependencies between destinations, as well as the impact of traditional economic and non-economic drivers during times of policy uncertainty and changing attitudes towards immigration in Europe on migration flows and migration selectivity (**WP3**).

- Objective 4.** To assess the drivers of migration within Europe, with a special focus on third-country nationals and their onward mobility, as well as on the temporary and transit migration; to identify the types of European regions with respect to their migration patterns and profiles (**WP4**).
- Objective 5.** To collate available data on European migration, mobility and its drivers, and provide a dedicated quality assessment, aiming to describe the patterns and dynamics over the period 1990-2020, and to identify qualitative shifts in long-term trends and their underpinning factors (**WP5**).
- Objective 6.** To develop a method for estimating European migration flows based on the available data, with uncertainty assessment, and to apply it to creating a custom-made, harmonised dataset based on reconciling secondary data from different sources, augmented by using expert opinion (**WP6**).
- Objective 7.** To develop plausible scenarios of future migration into and within Europe based on the information on drivers, to assess their probability based on expert opinions elicited via a vignette study, and to identify policy innovations needed to go from probable to desirable scenarios (**WP7**).
- Objective 8.** To build and test a dynamic microsimulation model for future European migration to guide policy response to future demographic shifts, and create a model environment for generating and analysing what-if projection scenarios, as well as generating customised model outputs (**WP8**).
- Objective 9.** To develop innovative methodology for dealing with migration uncertainty across a range of time horizons and applications, from early warning systems for the short-term and very volatile migration events, to uncertain scenarios designed for planning over longer perspectives (**WP9**).
- Objective 10.** To integrate the other results of the project by developing tools for providing specific policy and planning simulations and visualisation tools, and to prepare scenario results for online dissemination by creating a web interface to enable interactive use (**WP10**).
- Objective 11.** To effectively disseminate the findings of QuantMig through a variety of communication channels, including a dedicated app, policy events and webinars, ensuring a lasting online presence and legacy of the project. This objective will be achieved through a continuous dialogue with policy and other stakeholders, informing and involving them in various stages of the project work (**WP11**).

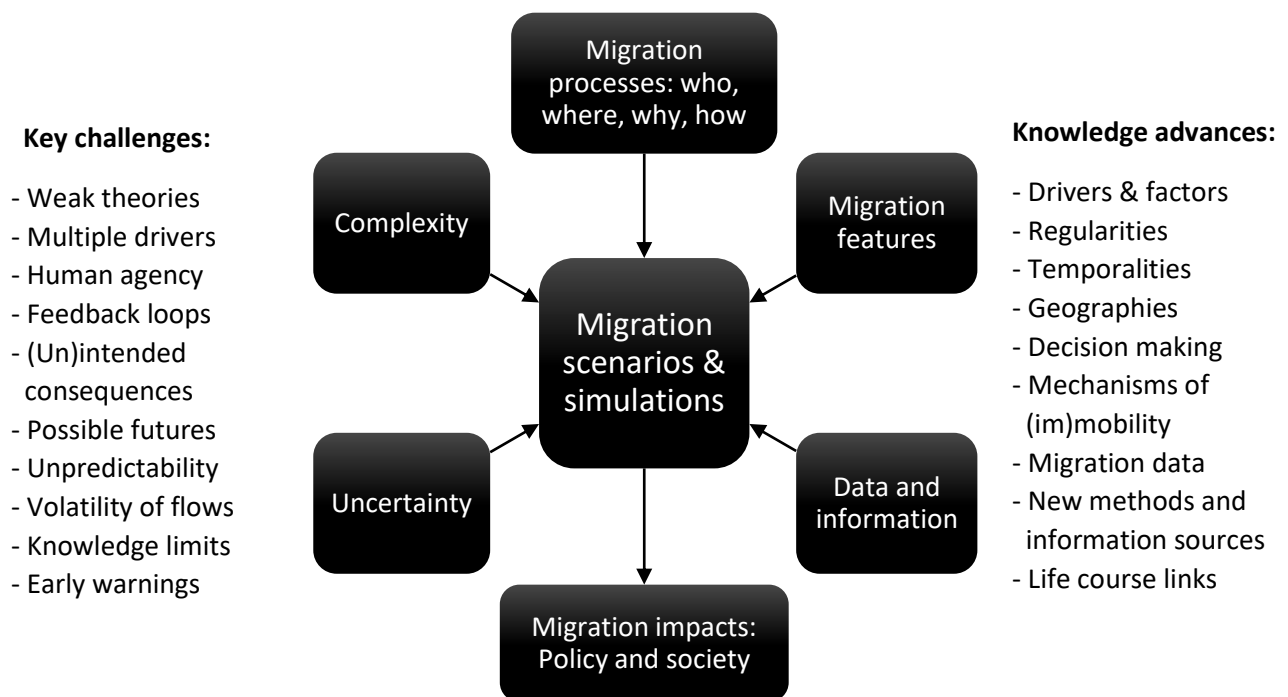
These eleven objectives, facilitated by a dedicated management and communication work package (**WP12**), will also underpin the impact and exploitation plans and specific impact generating activities. By developing the scenarios in continuous dialogue with key users and stakeholders, QuantMig will deliver a range of tools, which are directly applicable to policy support. The dissemination and policy activities will integrate the stakeholder perspective throughout the project. The outputs – open data and models, accessible interactive tools and visualisations, and a range of simulations for migration policy and planning – will ensure significant impact and a lasting project legacy.

Overall, thanks to its strong quantitative slant, the project will improve migration data and related analytical methods, and will offer an innovative assessment of data quality and migration scenario uncertainty, directly linking to the current European policy priorities. At the same time, bearing in mind the weak predictability of migration, QuantMig will offer a clear and honest acknowledgement of the limits of our knowledge on current and future European migration flows. Thanks to a unique composition of the project consortium, comprised of leading European institutions with excellence in migration studies, we will transform the epistemology and methodology of creating migration scenarios.

KEY CONCEPTS AND THE PROJECT FRAMEWORK

QuantMig will deliver a step change in constructing quantitative migration scenarios, firmly grounded in the conceptual and theoretical advances in migration studies, by integrating insights from various disciplines and analytical perspectives. The key concept of the project, and its overarching framework, is to treat migration scenario building as a **continuing process with a range of interlinked inputs** from different areas. As such, besides delivering a set of scenarios and simulations, the project will provide a blueprint for carrying out a comprehensive scenario-based analysis of complex, uncertain, and multi-dimensional social processes and phenomena, and utilising the results for policy advice and support.

The seven concepts underpinning the design of the project are as shown below. The central feature of QuantMig, **migration scenarios and simulations**, will be designed for a range of **migration processes** – inflows into and outflows out of Europe, as well as the transit flows. In constructing the scenarios and simulations, the two fundamental scientific challenges posed by contemporary migration – **complexity** and **uncertainty** – will be addressed by advancing our knowledge on the **key features** of migration flows, as well as on expanding the **knowledge base**, which will include customised and harmonised migration data and other relevant information, for example on a range of drivers. Finally, scenarios and simulations will enable studying the possible policy and societal **impacts** of migration.



Conceptual structure of QuantMig

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For more information, please get in touch:

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