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Report: Regional development indicators

Creating a database on regional development indicators at Nuts 2
and Nuts 3 levels - work in progress.

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Introduction

PREMIUM-EU

Migration, more precisely international migration, is a 'hot topic' especially for policymakers and politicians in EU member states. As mentioned by the European Commission in its New Pact on Migration and Asylum:

'Migration is a complex issue, with many facets that need to be weighed together'
(EC, 2020).

In EU's search for solutions or approaches this New Pact of Migration and Asylum was presented in 2020. One of the main challenges mentioned, is solidarity among and responsibility taken up by EU states. Another important theme in the European Union is regional development (Van Vulpen, 2022). Regional policy is the EU's main investment policy.

'It supports job creation, competitiveness, economic growth, improved quality of life and sustainable development, leaving no one and no region behind' (EC, 2023).

Both themes get attention from different perspectives, and research- and policy fields. In our Horizon Europe project PREMIUM-EU we attempt to combine migration and regional development into one research frame searching for the interactions between them. We argue that migration is an intrinsic part of global change and development (De Haas, 2024).

Our ultimate aim is to develop a Regional Policy Dashboard (RPD) that supports policymakers to formulate policies to enhance regional development by migration.

In our presentation we will focus on the role of mobility in regional development, relevant indicators and (un)available data sources.

Regional Development Effects Module (RDEM)

Within PREMIUM_EU we have co-responsibility for developing the Regional Development Effects Module (RDEM). This module will map the impact of migration on regional development seen on different variables. To construct the RDEM we have to:

1. develop a typology of regions, based on the impact that mobility has on its economic, social and cultural development; and
2. detect the causal linkages between regional mobility on the one hand and regional development on the other.

In our presentation we will focus on the process to determine relevant regional development indicators that will help in the collection and analysis of relevant data for the period 2010-2022 on NUTS 2 and 3 level. Partners in our project will additionally focus on:

1. Analysis of regional networks estimated from Facebook
2. Building typology regional development
3. Longitudinal causal analysis of mobility
4. Integration of case studies

Finally, this will result in:

- Online atlas of mobility & development typologies
- Report Causal Analysis of mobility development

The process of determining regional development indicators

In our presentation we will reflect on the basic considerations and challenges underlying the development of this RDEM. We will shortly focus on the work done by Andy Pike and others for their second edition in 2017 *Local and regional development*. We will discuss the theoretical background and methodology of our own search. Furthermore, we will shortly discuss some our indicators and the availability of data sources.

1

Theoretical background

To develop a database and select the appropriate Indicators, we started by examining existing literature on the relationship between migration and regional development. Along the lines of our three themes we will discuss different theoretical approaches. We start with migration, followed by regional development and last but not least migration and regional development with special attention for rural or left-behind regions.

Migration

Migration is a 'hot topic,' and almost everyone has an opinion about it. It's no surprise that the topic is high on political agendas, both in the European Union and its member states. The subject is highly politicized and has been on political agendas for a long time.

The International Organization for Migration (IOM) defines migration as follows:

'Movement of a person or a group of persons, either across an international border (international migration) or within a state (internal migration), encompassing any kind of movement of people, whatever its length, composition and causes' (European Commission, n.d.).

Reasons to migrate can differ per person. In classic migration theory, a distinction is made between push and pull factors. Push factors are the factors that drive a person away from their place of origin. These can include war or poverty. Pull factors are positive conditions and opportunities that attract people to migrate to a particular destination. However, this is a rather passive and 'cause-and-effect' approach. As De Haas (2021) discusses, people have the freedom (capability) to choose where they want to live. So even if conditions are very bad a person can choose to stay. This can be called migration agency, meaning persons do have their own reasons to migrate or to stay.

Furthermore, there are different types of migration. In relation to rural regions Michael Woods (2016) mentions for example labor migrants, lifestyle migrants, return migrants, cross-border commuters and refugees. Furthermore, these migrant-types can be divided into several sub-categories. For example, labor migrants are low skilled European migrants, but also high skilled migrants traveling from Asia to Europe.

Nevertheless, it is also observed that migrants move along spatially clustered pathways. They move to so called 'hot spots' of migration (De Haas, 2021). Geographical proximity is less important in explaining these migration flows. It is cultural proximity, including language and (post-)colonial histories that guides these migrants in most cases (Woods, 2016). However, the OECD (2022) showed that more than half of the foreign-born population (53%) lives in large metropolitan regions, compared to only 40% of the native-born population (OECD, 2022).

This brings us to gaps and research challenges in migration research. When looking at research on explaining migration flows, we see a focus on economic approaches (Dufeu, et al., 2024). De Haas (2021) mentions several gaps and challenges which influence migration studies. Relevant for our research are, the dominance of government perspectives, disciplinary and methodological divides, especially between quantitative and qualitative approaches. And whereas at the personal level the potential benefits of migrations are clear, at an integrated societal level this is not the case. According to Woods (2016, p 571) migration is a key driver of change in rural areas, but up to now we do not know exactly what this transformative capacity of migration is and how it is related to regional development.

Regional development

Regional development is a broad term but a gradual shift away from traditional economic measures like income and GDP (neo-classical growth theory) only, towards the inclusion of more 'softer' indicators is noticeable. Pike et al. see this as an important development, necessary to do justice to the variety in regions. Therefore they undertook an attempt to provide a means of integrating analysis of the intangible or 'softer' factors in explanations of local and regional growth and development (Pike et al., 2017).

Pike et al. highlight for example the importance of 'institutional thickness' a concept developed by Amin and Thrift (1995), meaning that the presence of institutions in a region influences its potential to develop. Additionally, aspects like innovation and the region's capacity to 'learn' are emphasized. Furthermore, Pike et al. argues, the focus should also be on the quality of life. For this indicators concerning the change of people having a healthy life, have good access to education, social support and good environmental surroundings should all be taken into consideration when talking about regional development (Pike et al. 2017). We follow this line of thinking and approach regional development from this broader perspective. To develop a broader perspective and be moving away from the traditional approach, new ideas and metrics of local and regional development are required.

Related to the quality of life, Pike et al. refer to the Capabilities Approach of Nussbaum and Sen. In this approach it is assumed people have capabilities in their environment to do or to achieve the functions they wanted to. So, if your place of living offers everything you need to develop the way you want or to do the things you want, that means that you have a good quality of life. However, if you live in a place where you can't fulfill your wishes and there is a lack of opportunities, you can choose to migrate to a place where there are options.

In addition, Pike et al. emphasize that it is important to keep in mind that local and regional quality of life can vary substantially even if the GDP per capita is the same.

The above ideas are embraced by the OECD (2023). They put well-being, quality of life and living standards at the core of their place-based approach to policy and economic activity.

Migration and regional development: Where do the two meet?

In general, it is recognized that there is a relationship between migration and (regional) development. At the macro level, a relation between migration and long-term regularities between demographic, economic and social transitions are observed (De Haas, 2021). Therefore, De Haas mentions, migration should not be treated as an exogenous variable, but as an integral part of wider social and developmental processes (De Haas, 2010). However, it still is one of the most controversial areas in migration research and policies (Wihtol de Wenden, 2023).

When focusing on theories on migration and its impact on sending and receiving countries traditionally 'optimistic' and 'pessimistic' views can be distinguished. At this moment, we see a trend towards more pessimistic views on migration. However, there are also more 'pluralist' views (De Haas, 2010). The more pessimistic views focus on the negative impact of migration, such as changing culture, job displacement, and increases in violence and criminality in receiving countries or regions. Therefore, they focus on immigration control. The more optimistic views focus on positive developments, like a new labor force, opportunities for everyone in the world, and providing shelter to those in need (De Haas et al., 2019).

From a regional and territorial point of view, only a limited number of localities and regions seem to be reaping the benefits from the new opportunities provided by the process of globalization (Pike, 2006). The development fortunes of these localities and regions are crucially dependent on their ability to attract and embed exogenous resources. This is done by for example attracting particular occupational groups, like the 'creative class' (Pike et al., 2017). These are the 'winning regions,' and they attract migrants because of their pull factors. In doing so these localities and regions stimulate a process in which mobile people facilitate the mobility of things, ideas and practices, and accordingly are agents of hybridization: unavoidably changing the places that they live in (Woods, 2016).

However, if there are 'winning regions,' it means there are also regions that are 'losing.' These 'losing' or 'left behind' regions, in general, deal with a population that has a structurally disadvantaged position

(Rodriguez-Pose, 2018; Martin et al., 2021, In Pon&Telos, 2022, p. 5). In these regions there are many push factors to stimulate out-migration. The internal and external migration processes highly influence regional differences (Ernst et al., 2023) and can create gaps between regions (Withol de Wenden, 2023).

Starting from the distinction mentioned above, between 'winning' and 'losing' regions Pike et al. concluded that 'losing' regions are the more traditional, industrial regions, agricultural areas and regions without a clear comparative advantage (Pike et al., 2006). This is also suggested by the findings of the OECD mentioned earlier that a majority of migrants settle in urban areas (OECD, 2022)

Nevertheless, migration is not rigid and linear (Woods, 2016). this also means that there is no strict gap between 'winning' and 'losing' regions. Also regions that must deal with out-migration can benefit. For example, migrants can send money to their relatives in their region of origine developing an transnational economic network (Withol de Wenden, 2023). As such, mobile people are facilitators for the mobility of things, ideas and practices, and accordingly are agents of hybridization: unavoidably changing the places that they live In (Woods, 2016).

As Woods (2016) states: 'we need to adopt a relational understanding of how flows of international mobility are temporarily fixed in specific rural localities with social, cultural and economic affects'. Because of the earlier mentioned variation in personal migration motivations, experiences and aspirations the impact of (international) migration can vary in particular places (Woods, 2016).

2

Methodology

Our main goal in our project is to determine relevant regional development indicators that will help in the collection and analysis of relevant data for the period 2010-2022 on NUTS 2 and 3 level.

On forehand some basic assumptions were fixed:

- Definition of region - the precise meaning of a region can be different due to socio-political constructions. In our research we use the NUTS levels to define a region.¹ This means we have different scales of regions; NUTS 1, 2 and 3. The NUTS regions included in the database are the NUTS regions of 2021. This is done despite the fact that quite a lot of NUTS changes have taken place during the period before 2021.
- We take all regions of the EU into account (including Turkey).
- Time period: roughly ten year period (2010-2022).

In order to create a theoretical basis for data collection and analysis, we went through different steps:

- An preferred overview - theory driven approach

A first step was based on the work of Pike et al. (2017). Five different domains of regional development were distinguished: economic, living environment, social and political. Based on a literature search we selected indicators that we ideally wanted to include for every domain. We made a distinction between push and pull factors. This resulted in an overview of preferred indicators.

- Pragmatic and realistic overview - data driven approach.

With the above concept overview of indicators, the next step was to check if the indicators are available on NUTS 3 or 2 level. To do so, our partners used a data driven approach and searched in Eurostat and OECD for indicators and related data. The two data sources were chosen because they hold data from different countries while separate national statistical agencies use different definitions and/or measurements of an indicator.

Based on the availability of data, we sometimes had to adapt our list of preferred indicators, staying as close to the original one as possible.

- Critical look at realistic overview of indicators and its gaps

The next step for our partners was to check the overview of indicators on a few criteria:

- geographical distribution; are the data available in all European regions (NUTS 3 or NUTS 2)?
- data availability: is the data available in the time period 2010- 2022 at the different NUTS levels?

The above steps were done in an iterative manner. This involved working in close consultation with Arnold and Van Wissen (see their paper and presentation).

3

Dimensions of regional development

As stated, relations between migration and regional development are complex and multifaced. However, we tried to deepen the understanding of this complex and multifaced relation holistically and to do so we divided, based on Pike et al., 2017, regional development in five domains.

'Powerful economic, social and environmental as well as cultural and political forces are at work in the remaking of localities and regions' (Pike et al., 2017). From a territorial and geographical point of view this is comparable with territorial capitals; or what kind of tangible and intangible assets does have a regio, such as human capital, social and cultural capital and natural capital (Dufeu et al. 2024)? The territory is a point of view because: 'the extent of migration has a strong geographic nature, with the share of migrants varying widely across regions in the same country' (OECD 2022).

Below the five domains will be discussed and result in a preferred overview of indicators.

- Demographic

The demographic domain focuses on the population development of a region. Pike et al. (2017) do focus on regional development, but they do mention demographic characteristics while discussing regional development. They for example link demographic developments to economic developments. To be precise, the rate of ageing can vary significantly between regions and had important consequences for the labour force supply or public services provision. No surprise that many discussions about rural development mention ageing as an important component of a changing region. On the other hand is population growth a key challenge for localities, regions and cities (Pike et al., 2017).

- Economic

As mentioned before, economy has long been the main focus in regional development literature. And of course, it is still an important domain, because for many migrants economic reasons are important pull and push factors. For many labor migrants the economic benefits or the presumed economic benefits in a new region are the main raison to migrate.

Geographically a pattern can be distinguished, because especially city-regions prove to be attractive for highly qualified, skilled and mobile migrants. But to maintain a service level in these cities, lower skilled migrants, asylum seekers and refugees are also needed to work in the service industries (Pike et al., 2017). However, as Woods (2016) shows migrants can stimulate an economic regeneration in rural areas as well.

- Social

A social-cultural perspective on regional development also needs to be developed because a focus on economic concerns does not adequately included or capture the meaningful and valuable aspects of individual and social existence (Pike et al., 2017). It should also be reckoned with that migration is embedded in processes of social transformation (Raunio, 2022; Woods, 2016). Woods (2016) shows for example how rural communities can transform because of new cultural tastes, consumer goods, traditions and festivals.

From a regional development perspective, it can be noticed that communities lacking social capital, not being part of the right networks, may not have the capacity to handle decline and will be 'losing' (Meijer, 2022; Bock, 2016). It is also know that there are gender and ethic dimensions to patterns of inequality (Pike et al., 2017)

- Living environment

Pike et al. broadened their approach of development in their second edition. An important addition was the inclusion of the living environment as important for regional development,

especially the need for sustainable standards. The changing ecological environment all over the world due to climate change has put this domain into the picture. Migration because of sea level rising or increasing droughts in sub-Sahara Africa is relatively new but probably increasing in importance. In general, this means the appreciation of and attachment to the living environment need to get more attention (Bulder, 2017; Dufeu et al, 2024). Furthermore, the geographical location of a region is assumed to have influence on the possibilities for regional development. Although this also can be discussed (see Bock, 2016).

- Political

The last domain we distinguished is the political. However, this one is not on a regional level but on a national level. As said before regional development is a political subject, both on European and on national level. National governments are increasingly dealing with problems of regional development, ranging from political discontent to sustainability transitions (Van Vulpen, 2022). As a result many national governments are revising regional redistribution and are puzzling with designing the 'right' policy for regional development (Van Vulpen, 2022). As an example, fiscal policies can have different impact on the region (Pike et al., 2017).

If we have a closer look at the relationship between development and migration it is in general approached as a question of international relations. This because development (of the region of origin) is a tool of international migration policy. The assumption is that it reduces migration. (OECD, 2022)

So the preferred indicators are recorded at the national level, as migrant policies and rights do not fall under the purview of regional policy makers.

The above resulted in the following preferred overview of indicators.

Domain	Indicators
Demographic	growth
	increase in young population
	ageing
	Diaspora
Economic	Structure of the economy (primary, secondary, tertiary)
	(un)employment
	Financial stability
	Distribution of prosperity
	Resilience of the economy
	Educational system
Social	Intolerance (political and gender)
	Welfare or quality of life
	Social economic structure
Living environment	Closeness to the city and rurality of the region
	Infrastructure and accessibility
	(Quality of) the health system
	Climate related indicators like heat, draught and availability of food

Political	Political system
	Governance and accountability
	Democracy, transparency and legitimacy

Because the indicators do have a slightly different levels, the following model gives an idea of the structure of the domains.

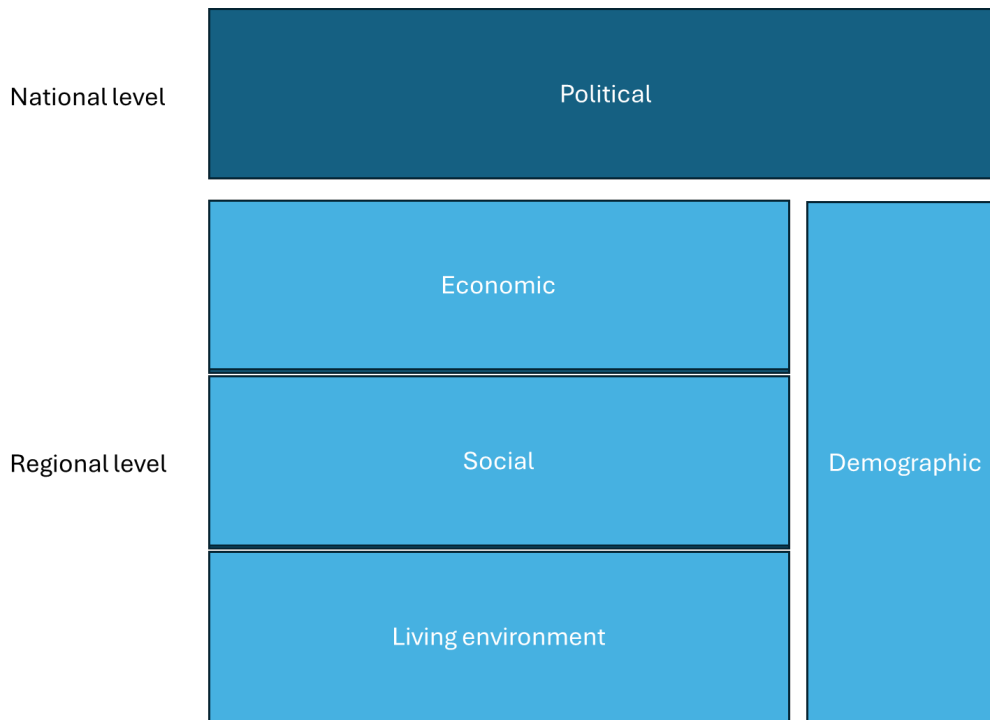


Figure 1: Model of the five domains

For a further explanation of our indices and, the data and the data sources, the paper and presentation of Arnold and Van Wissen will elaborate more on this.

4

Discussion

During our research we encountered several issues. Below we present some of the methodological issues, ending up with the sensitivity of the political use of the indicators chosen.

Methodological issues and further research

We started with a theory driven approach and created a preferred overview of indicators. However, the next step towards a realistic overview of indicators based on what is available in Eurostat and OECD showed some methodological difficulties. Especially the operationalization of indicators was challenging. No surprise, the more economic indicators are not hard to find. But indicators in the social domain are harder to quantify and because of that difficult to find for (all) regions. We handled this with a pragmatic approach, what is available while realizing this approach has its limitations. One of the questions remaining is how can we include 'softer' Indicators in our regional development approach?

The overall goal of our project is to create a typology of regions of Europe. Therefore, we need as complete as possible data on NUTS 2 and preferable 3 levels. The paper of Arnold and Van Wissen will focus on this. Also is further research needed on converting the indicators into indices per dimension and in weighing the dimensions. Related are the many relations among the different indicators. Like, consequences of shrinkage (population decline), are declining economies, downsizing social infrastructures, failing (growth) policies, health risks and high living costs (Meijer, 2022). But how are the related on how do the influence each other? To put it on other words: how is the complex and multifaced regional development working?

Furthermore, can we speak of 'good' regional development and 'bad' regional development and if so, what does it mean? We already mentioned the distinction between 'winning' and 'losing' regions. As Bock (2016) argues it is not geographical remoteness, but more a relational 'remoteness' which defines winning and losing. But the question remains how to put numbers to that and what norms do we use? Because conceptions of development are socially determined by interest of specific social groups in geographical contexts at certain times (Pike et al., 2016).

Another theme what needs attention is the relation between different dimensions and different groups of migrants. We do know that migrants have different reasons to migrate (Woods, 2016). For example, labor migrants are mainly pulled in by the opportunity to earn (more) money. However, lifestyle migrants do migrate because of nicer weather. How do we take this into account? In our overall Premium_EU project we do make use of quantitative and qualitative data, and want to combine the results.

Political use of this database

The aim of the Regional Development Effects Module is to provide relevant data for policymakers. However, we are aware of the narratives which dominate the political and public debate. De Haas (2024) distinguishes four dominant ones: the (1) Mass Migration Narrative, the (2) Migration Threat Narrative, the (3) Migrant Victim Narrative and the (4) Migration Celebration Narrative. Because of these dominant narratives and their one-sided, misrepresenting of the nature of migration we do understand that our instrument in itself does not guarantee proper use. We need to deal with this extremely important challenge.

6

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