

One size fits most: On the emergence of differentiated regional policy in Poland

Abstract

In recent years, Poland has experienced exceptional and consistently high levels of economic growth. An important component of this growth has been the role played by regional policy. However, while Polish regions generally enjoy high levels of autonomy and have received considerable support from the EU, the changing structure and orientation of Polish regional development strategies remains an understudied area. This paper uses recent advances in the field of text mining to identify the similarity of regional strategies to identify whether Polish regions differentiate regional policy in their regional development strategies. Our results indicate that Polish regional development strategies have diverged significantly during the years covered by the two periods studied and that this degree of change appears to be strongly influenced by spatial factors. This increased divergence supports the notion of the greater use of differentiated regional policy in Poland.

Keywords

Regional policy • development strategies • Poland • Europeanisation • isomorphism • regions

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Received: 24 November 2023
Accepted: 15 June 2024

Introduction

Many regional authorities consider regional development strategies to be a practical tool for improving the economic performance of their territories (Rodríguez-Pose & Wilkie 2017). However, an effective development strategy needs to be embedded in its organisational, economic and social context (Pike et al. 2016). It is generally acknowledged that regional disparities and specificity should result in unique regional development strategies. In recent years we have seen a broader turn towards the use of place-based policy, which is increasingly important for regional development, as expressed in the work of Tödtling and Tripl (2005), who have highlighted the limited usefulness of place-blind or one-size-fits-all regional policy. More recently, the growing relevance of smart specialisation can be seen as an expression of the increased importance of acknowledging specific regional economic conditions (Foray, David & Hall 2011; Foray 2015; Kogut-Jaworska & Ociepa-Kicińska 2020; Deegan et al. 2021; Di Cataldo et al. 2022).

However, according to the earlier work of DiMaggio and Powell (1983) on the isomorphism of institutions that tend to share similar policies, structures and practices, isomorphism generally consists of a 'constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions' (DiMaggio & Powell 1983, p. 149). Chien (2008) also refers to the 'local/regional policy isomorphism' or 'isomorphism of local/regional policy', suggesting that different local or regional governments are aiming for economic growth and development through the formulation and implementation of very similar or even identical policies, leading towards an increasing convergence of regional policy. Chien (2008) proposes five different mechanisms causing isomorphism of local development policies: (1) similar pressure for local governments from the central government (or international organisations), (2)

competition for investments/funding, (3) mimetic learning (from the most successful organisations), (4) external experts giving professional advice to organisations or networking and (5) local authorities/managers/experienced personnel moving from one place to another (Chien 2008; DiMaggio & Powell 1983).

Through such an understanding of the competing approaches to regional policy, this analysis explores how regions within a single country relate to and differentiate from each other in their regional development strategies. We use the case study of Poland, a large EU member state, examining the text similarities of regional development strategies across its 16 regions for the periods 2007–2013 and 2014–2020. This analysis highlights patterns of both convergence and divergence across regional development strategies,¹ with notable spatial differences, and provides valuable insights into the evolving dynamics of regional policy-making in a country undergoing an expansive period of economic growth and development. Our empirical evidence highlights the challenge regions face between adopting a one-size-fits-all approach and the push for regional specificity in development strategies, offering a deeper understanding of how regional policies adapt and evolve over time.

The paper is structured as follows: firstly, the theoretical context focuses on Europeanisation and its role in place-based policy, followed by an insight into the growth of differentiated regional policy; secondly, the methodological and empirical strategy is outlined. A comprehensive presentation of empirical results follows this part. Finally, we discuss our findings in the

¹The implementation of regional development strategies is mainly based on the Structural Funds (SF) disbursed via Regional Operational Programmes (ROPs). ROPs are operational programmes covering periods of seven years, designed by national and regional authorities managing the EU, which are in line with the main programming principle of European Cohesion Policy.

context of the literature and provide conclusions and areas for future research based on the presented study.

Europeanisation and regional development

In the past two decades, an extensive literature has developed within the field of political science on the role of the European Union (EU), with a particular emphasis on its role in policy transfer, diffusion and convergence, which indicates that the EU serves as one of the main agents of policy transfer among member states (Radaelli 2000; Carbone & Keijzer 2016). A theoretical approach that has provided some conceptual clarity for these processes is the notion of *Europeanisation* (Börzel & Risse 2009; Radaelli 2002). Bache and Jordan (2006) define Europeanisation as the process of reorientation or reshaping of politics (and governance) in the domestic arena in ways that reflect policies advanced through the EU. However, Europeanisation can be understood both as the downloading of top-down processes and the uploading of bottom-up processes. In the case of countries in Central and Eastern Europe Europeanisation has been mainly observed in recent decades in the context of the downloading of policies due to the existence of an asymmetrical power relationship (Grabbe 2006, after Lightfoot 2010). However, more recently, Europeanisation has come to be seen increasingly as a two-way, interactive process (Schimmelfennig, & Sedelmeier 2020). An asymmetrical interdependence strongly characterised the pre-accession era, when EU principles drove many domestic changes in the candidate states to comply with membership conditions. The process of Europeanisation has actually intensified since accession, although the heightened asymmetries of the pre-accession era have begun to evaporate (Scherpereel 2010).

However, Europeanisation does not imply that there will be harmonisation and/or convergence between countries and across regions. Harmonisation implies uniformity across member states, while convergence concerns the reduction of differences between and within states (Nicolaidis 2010), and both harmonisation and convergence may be manifestations of the response to the process of Europeanisation (Ladrech 2002). However, the expectation of increasing convergence in domestic policies, politics or polities as a response to Europeanisation is less frequently formulated by scholars studying the topic (see Schneider 2001; Harcourt 2002; Knill & Lehmkuhl 1999) than the expectation of differential impact and a range of different reactions at the national level (Börzel & Risse 2009). Application of standardised rules, policy requirements or development approaches imposed by the EU does not necessarily need to be achieved through identical measures, identical strategies and identical institutional structures. Europeanisation, rather than leading to uniform patterns of domestic policymaking, results in different responses in different domestic constellations (Heritier & Knill 2000).

Towards a differentiated regional development policy

In line with the understanding of the important role of Europeanisation in motivating action within national and regional authorities, there also exists an increasing awareness that 'one size does not fit all'. The notion of one size not fitting all has come to mean that regional innovation policy and economic development more generally can best be achieved through differentiation rather than by some standardised, top-down process that is place-neutral (Tödtling & Tripl 2005). This issue of one size not fitting all is further picked up in the work of Rodríguez-Pose (2013, p. 1042), wherein the author highlights that 'mimicking "one size fits all" regional development strategies in what are widely different institutional contexts is bound to be counterproductive, as a strategy which has worked in one region may not necessarily deliver in another'. This approach aligns with

the place-based policy concept, emphasising the strong potential of place-based solutions to tackle territorial challenges.

The place-based approach assumes that territory (and geography) matters. The territory is no longer 'solely a mere space' (Canzanelli 2001) but a key development factor, a source of endogenous potential and context which we cannot ignore (Pike, Rodríguez-Pose & Tomaney 2007). Thus, local or regional development strategies should not be indifferent to local circumstances (Barca 2009; Barca, McCann & Rodríguez-Pose 2012). Instead of a 'well-rounded, tried and tested strategy' being transferred from one place to another with little regard for local institutional conditions, regional development strategies should be contingent on the context in which they operate (Rodríguez-Pose 2013). The institutional characteristics (as well as locally embedded knowledge) should serve as a point of departure for policymaking (Sotarauta 2020). This new regional development policy paradigm, according to which every region has opportunities for development through place-tailored measures, has its consequences with the reform of the European Cohesion Policy framework towards more place-based approaches (Dąbrowski & Piskorek 2018). Although the thinking about place-based policies has developed over time, the necessary changes within the institutional arrangements – whereby policies for economic development must be tailored to explicitly address the local challenges through the mobilisation of local knowledge and actors – have been highlighted by a number of scholars (Barca 2011; McCann 2023). However, as argued by Rodríguez-Pose (2013), the swing from 'one size fits all' to 'tailor-made' and context-specific policies can be particularly difficult for lagging regions, which are often lagging because of institutional failure and, as such, may lack the capacity to tailor-make particular solutions to the challenges they face. Instead, as discussed in Bellini, Lazzeri and Rovai (2021), they may opt instead for mimicry, as the initial investment is more manageable; however, the likely outcome of such processes is a poorly targeted regional development strategy which may struggle to overcome the particular challenges of lagging regions. This paradox of an increasing focus on differentiated regional development strategies, with at the same time an observable increasing isomorphism of regional policy as outlined by Chien (2008), is exemplified in the recent work of Bellini, Lazzeri and Rovai (2021). They show that while regions in Italy had the autonomy to develop a differentiated regional development strategy (in the form of a smart specialisation strategy), they instead tended towards what can be understood as the isomorphism of regional policy, posing a considerable challenge to the operationalisation of differentiated regional development policy and presenting a paradox concerning whether regions, given sufficient autonomy, will opt to differentiate themselves more from other regions or whether they will instead opt for greater convergence. This paradox manifests itself most clearly in lagging regions due to the legacy of poor institutional capacity, and in this sense, an analysis of how an emerging economy in Europe deals with this paradox may help to shed further light on the direction of regional policy more generally.

Research question

The question we address in this paper is whether increased convergence is observable in regional development strategy documents prepared at the subnational level of one of the larger member states of the EU – Poland. Using the Europeanisation framework, we wanted to identify whether the process of reorientation or reshaping of policies at the regional level of the member states results in similar development approaches and similar development discourse used by Polish regions in their regional development strategies. The regional development strategies of Polish regions (being obligatory documents

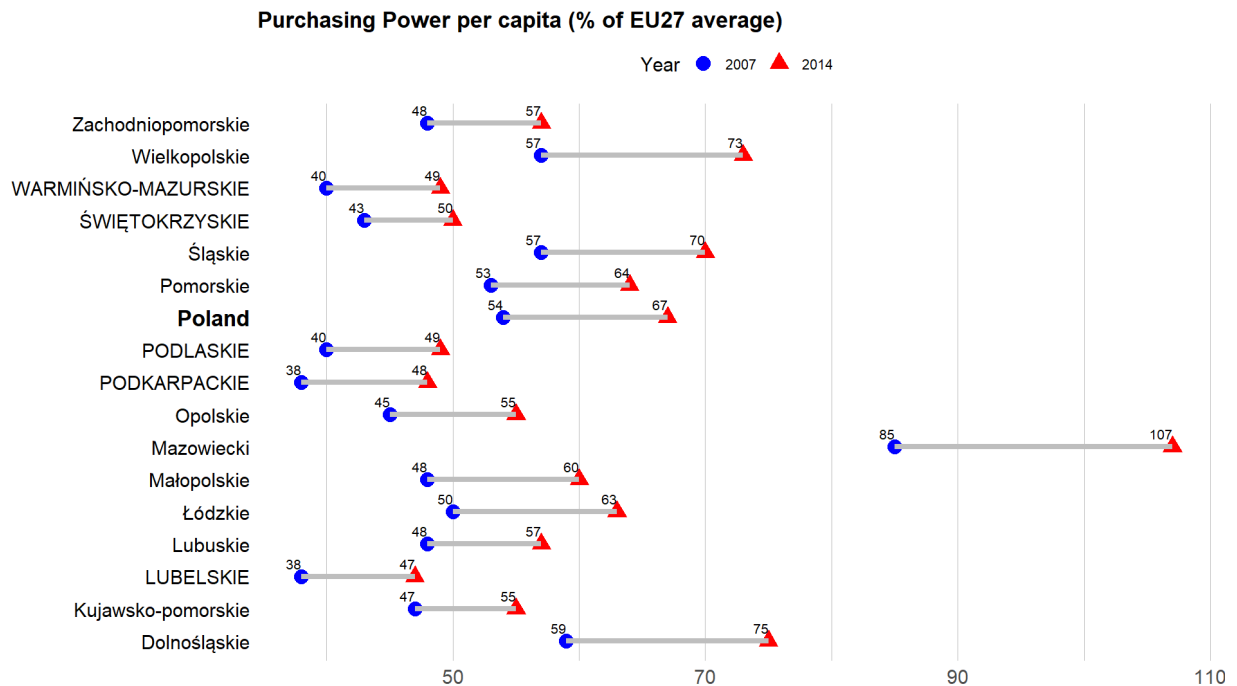


Figure 1. Purchasing Power per capita (% of EU27 average) for Polish regions in 2007 (blue) and 2014 (red). Eastern regions are in upper case, with Polish average highlighted in bold
Source: own study

required by Polish law) serve as the main strategic documents reflecting development policy in Poland's 16 regions, in particular the long-term goals and priorities of each specific region. The pursuit of regional development strategies is supported by Regional Operational Programmes financed by Structural Funds. Following the theoretical assumptions discussed above, we might expect in the case of Poland that the process of Europeanisation will have led to increased divergence of regional development strategies, in line with recent changes in European regional development policy, such as place-based policy coming increasingly to the fore. However, we may instead observe, in line with DiMaggio and Powell (1983) and Chien (2008), that Polish regions increasingly converge, in line with an understanding of a process of isomorphism of regional policy. The expectation of increasing convergence in domestic policies is less frequently formulated by scholars studying the topic, especially in recent scholarship, so we proposed the following related hypothesis which we test in this paper:

H1: In line with differentiated regional policy, Polish regions diverged in their regional development strategies during the years covered by the periods 2007–2013 and 2014–2020.

We also expected differences between the macroregion called 'Eastern Poland' and the rest of Poland. The five Polish regions belonging to this macroregion – Lubelskie, Podlaskie, Podkarpackie, Świętokrzyskie and Warmińsko-Mazurskie – are categorised as the least developed regions in Poland, but also as the least developed regions in the EU according to an EU classification. They receive additional support from European funds, which target the poorest areas in the EU, meaning that they are much more exposed than other Polish regions to isomorphic forces resulting in isomorphic mimicry. Following the assumption made by Rodríguez-Pose (2013) that the swing from 'one size fits all' to 'tailor-made' and context-specific policies can be

particularly difficult for lagging regions, we wanted to test this effect on the case of Eastern Poland and therefore set out to test the following hypothesis:

H2: Polish regional development strategies converged more in the regions of Eastern Poland than in the rest of Poland.

Data and methods

Case Selection

The research was focused on Poland's 16 regions (*voivodeships*). In this sense, Poland serves as an interesting and relevant case for three reasons:

(1) Poland is one of the 'new' EU member states, having joined the EU in 2004, and has since been one of the largest beneficiaries of European funds (67 billion EUR allocated to Poland in 2007–2013 and over 86 billion EUR in 2014–2020).²

(2) Poland is one of the EU's largest and most diversified economies and has experienced rapid and sustained economic growth since joining the EU. However, by 2018, it was evident that this growth was uneven, with Poland having the fifth-highest regional economic disparities among 30 OECD countries (OECD 2019). There is a clear polarisation between the poorly developed eastern regions (Warmińsko-Mazurskie, Podlaskie, Świętokrzyskie, Lubelskie and Podkarpackie) and the more advanced western regions. Although inequalities persist, all regions have generally converged toward the European average, with the capital region even surpassing it, as shown in Figure 1.

(3) Polish regions have a high level of autonomy in creating and implementing regional policy (Kozak 2019). In 2007–2013, almost 25% of cohesion policy funds were controlled by regional authorities, but during the period 2014–2020, this share increased to 40% (Fundusze Europejskie w Polsce 2014). Regional administrations have been very much involved in decisions concerning how funds

²European Commission 2020

are allocated and managed in their territories since 2007 (Bachtler & McMaster 2008; Ferry & McMaster 2013) and have considerable power and influence on regional economic development within their respective regions.

Method and data

In order to identify the prevalence of regional convergence or divergence in the positioning of regional development strategies, this research relied heavily on recent advances in the field of text mining (Ferreira-Mello et al. 2019). Ferreira-Mello et al. (2019) provide a helpful insight into text mining's plethora of uses across a wide variety of fields as well as into its application, which they refer to as 'the process of extracting interesting and non-trivial information and knowledge from unstructured text' (Ferreira-Mello et al. 2019, p. 2).

To evaluate the changes in Polish regional development strategies, a corpus of documents was retrieved from the websites of the 16 regional authorities in Poland for two distinct periods – 2007–2013 and 2014–2020 – both periods in which Poland, as a new member of the EU, took full advantage of EU funds. The 32 documents (16 prepared for 2007–2013 and 16 prepared for 2014–2020) were analysed together (an overview of the documents is available in Appendix 1). The documents were retrieved from the websites in the Polish language, and translation was not undertaken; this was to ensure comparability, without mistranslation or inconsistent translation adding further complications. It was similarly decided that given the peculiarities of the Polish alphabet, which has unique characteristics not found in English, the text would be tokenised³ in Polish to allow for ease of comparability across periods and to facilitate inter-regional comparisons. All 32 original PDF documents were imported into the statistical software R using the *tm* package developed by Feinerer, Hornik and Feinerer (2020). The text was 'cleaned'; this cleaning process consists of removing punctuation, reducing white space (e.g., in paragraph breaks), removing numbers (to focus solely on textual data and reduce potentially spurious correlations), ensuring all text is in lower case (to allow for comparison) and removing stop words. The stop words used to identify keywords in the regional development strategies relied on the work of Benoit, David and Watanabe (2021). Following the cleaning process, we lemmatised⁴ the documents. This was completed using the WSD tool made available by CLARIN-PL (Clarín-PL 2024).⁵ This process, while necessary to reduce noise in text data, is complicated by the rich inflectional nature of the Polish language, which can significantly influence textual analysis by increasing the diversity of word forms. Following the lemmatisation process, we identified term frequencies over the two periods across all regions. We then analysed the changes in the frequency of the lemmatised tokens and compared term frequencies by calculating their correlations to other regional policy documents using the Pearson correlation. The Pearson correlation was chosen due to its effectiveness in measuring linear relationships between term frequencies, which is crucial for understanding the degree of similarity between documents (Huang 2008). Unlike other measures, it provides a robust and straightforward method for quantifying how similar terms are used across different documents, making it particularly suitable for our analysis of regional policy document evolution. We initially experimented with a topic modelling approach, specifically testing a latent Dirichlet allocation (Blei et al. 2003),

but we found that, though useful for identifying latent themes in the documents, such a method was not particularly helpful in identifying changes in term usage across policy documents – which was closely aligned with our research objective – and this limitation hindered our ability to accurately measure the similarity and evolution of regional policy documents. Instead, we opted for term frequency analysis, which allowed us to better explore the relationships between documents and how these relationships change over time. Although text clustering in regional strategies of development is a promising area, our method focuses on analysing term correlations across documents rather than clustering them into distinct groups.

The purpose of this method was to identify one of three possible scenarios: (i) a region moving through the two periods in tandem with the national average (indicating a status quo situation between the two periods – or no change); (ii) a region moving closer to the national average of document similarity (indicating the presence of convergence and as such a form of isomorphism of regional policy); (iii) a region moving further away from the national average (indicating the presence of divergence and perhaps a development towards a more differentiated form of regional policy). Here we also explored the changing nature of national-level factors of similarity; this was used to identify whether on the whole, we could observe convergence or divergence factors at play. We further captured the changes which took place in the regional development strategies of Eastern Poland, both to capture the changes in the national context and also to investigate whether we could identify the presence of regional convergence in the development strategies of Eastern Polish regions.

Results

In general, the similarity between the analysed documents is very high, ranging between 0.689 (Wielkopolskie and Opolskie) and 0.878 (Lubelskie and Kujawsko-Pomorskie) in 2007 (Figure 2) and between 0.677 (Lubuskie and Wielkopolskie) and 0.840 (Śląskie and Podkarpackie) in 2014 (Figure 3). However, over the years covered by the two time periods the similarity drops, and increasing differentiation can be observed, which is expressed by the negative percentage change in correlation for most regions (Figure 4).

The use of correlation plots in this context is beneficial as it allows for a straightforward interpretation of regional development strategies in terms of how they correlate to one another and can be particularly useful in identifying patterns over the periods under study. To measure these similarities we used the Pearson correlation, which offers a robust measure of the linear relationship between the documents.

However, while the correlation plots help identify emerging patterns between regions, they are limited in their ability to show the bigger picture of how a region correlates to all other regions on average. To address this issue, we included the average correlation of a region's strategy document with all other regions (computed as how much a given region relates to all other regions; Figure 5).

To provide context for these similarity values, we included the national averages for 2007 and 2014 as reference points (Figure 5). The national average correlation in 2007 was 0.807, which decreased to 0.769 in 2014, indicating a general trend of differentiation.

This approach allowed us to compare an average regional correlation value to the national average, which helps to identify the degree to which regions are generally aligned towards a national average or whether spatial differences exist in how regions correlate with other regional development strategies. In this sense, the national value remains static through the plot in

³Tokenising a text refers to the process of splitting the text into individual units, such as words or phrases, called tokens. This is an important step in text processing and analysis, as it transforms a continuous stream of text into discrete elements that can be analysed separately.

⁴Lemmatisation is the process of reducing words to their base or dictionary form, known as a 'lemma'.

⁵CLARIN-PL

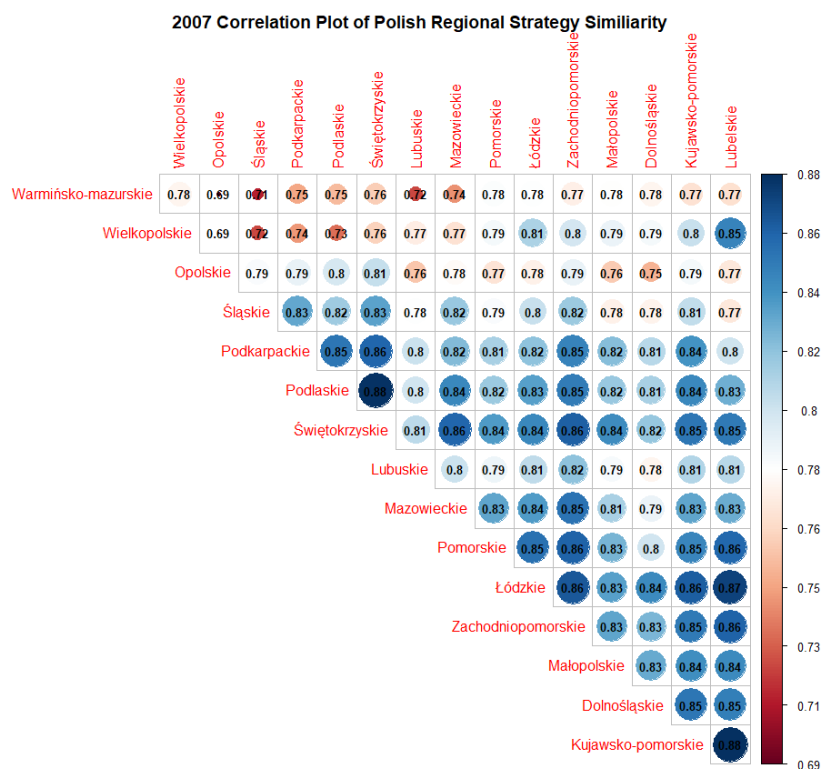


Figure 2. Correlation of regional development strategy documents in 2007

Source: own study

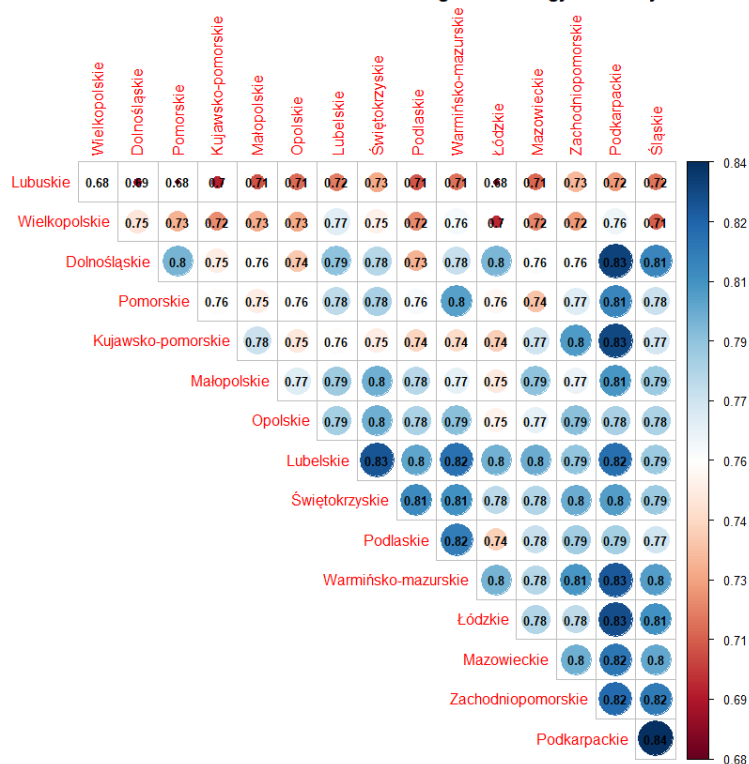
2014 Raw Values of Correlation Plot of Polish Regional Strategy Similarity

Figure 3. Correlation of regional development strategy documents in 2014

Source: own study

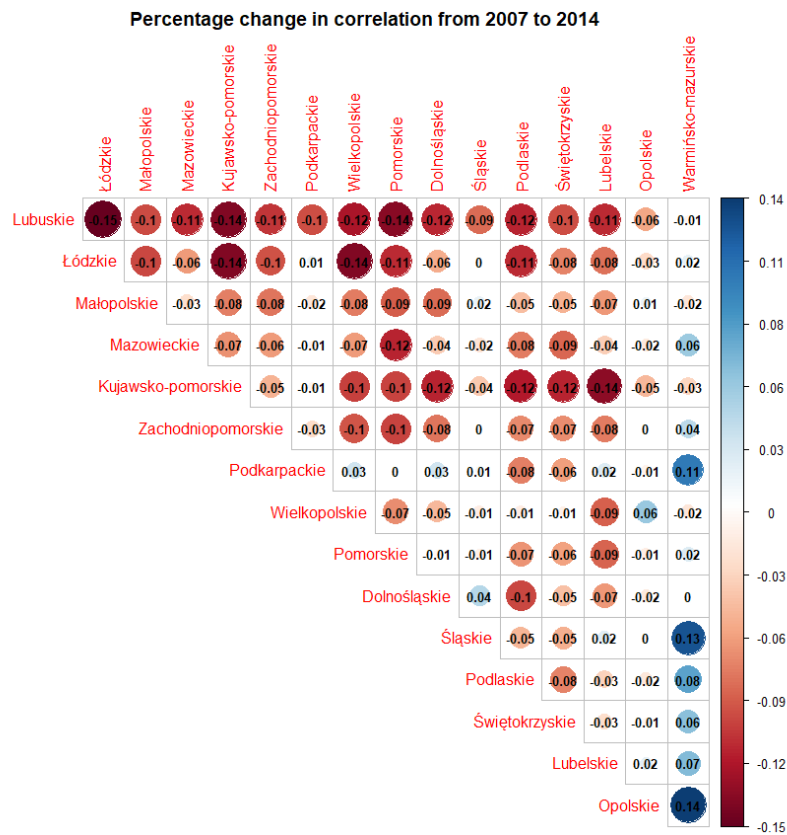


Figure 4. Changes in the correlation of regional development strategy documents between 2007 and 2014
Source: own study

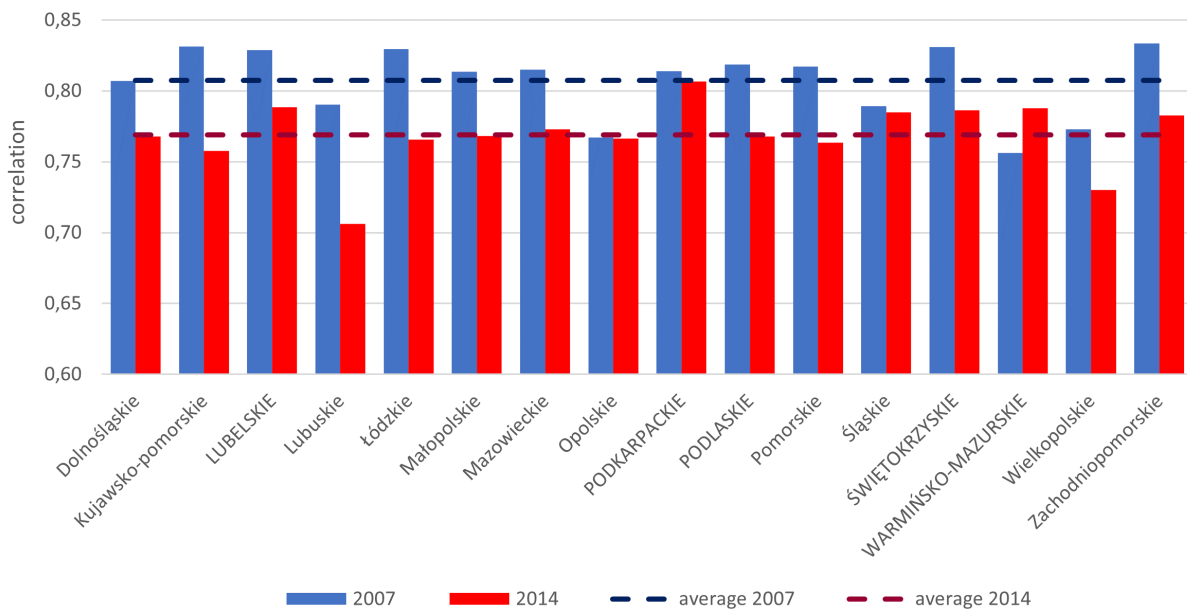


Figure 5. Average correlation of regional development strategies in 2007 and 2014 (Eastern Poland regions capitalised)
Source: own study

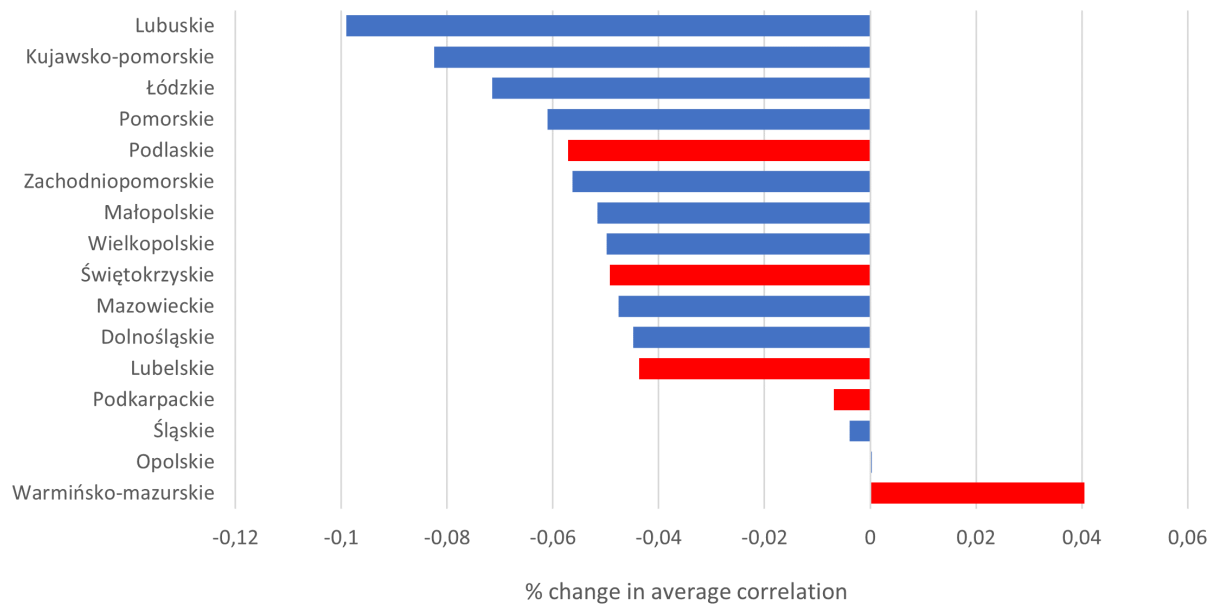


Figure 6. Average regional change in correlation (Eastern Poland Regions in red)
Source: own study

both 2007 and 2014 (Figure 5, in blue and red line, respectively), with the regional average value changing in both 2007 and 2014 (Figure 5, blue and red bars, respectively). On average, the level of similarity across all Polish regions does diverge, with the average regional correlation value dropping from 0.807 in 2007 to 0.769 in 2014 (Figure 5). There is also a greater spread between the regional average values in 2014 compared to 2007 (see Figure 6).

While there are considerable spatial differences (which we pick up in the discussion below) regarding how this drop in text correlation manifests, it is an issue of degree rather than of direction, with Warmińsko-Mazurskie being the primary region that does not experience a drop in its text correlation from 2007 to 2014 (and with Opolskie marginally increasing its text similarity; see Figure 6 and Figure 7).

Figures 2–6 illustrate how each of these regions relates to all other regions in Poland. However, in line with seeking to provide an insight into H2, which is focused on Eastern Poland, we also computed the values of correlation that exist within the Eastern Poland macroregion. In Figures 8 through 11, particular attention is paid to how these regions correlate to each other in their use of text. Here we have identified the five regions that constitute the Eastern Poland macroregion, the better to identify the dimensions between regions within this macroregion. The figures are constructed much the same way as those in Figures 2, 3, 4 and 6; however, because Figures 8-11 purely focus on Eastern Poland, the average is the macroregional average, which differs from the national average. In general, the national average regional correlation is lower than the macroregional (Eastern Poland) average correlation: in 2007 it was 0.807 compared to 0.822, while in 2014 it was 0.769 compared to 0.800.

It was also decided to analyse how eastern Polish regions relate to each other in the context of a baseline – in this case, the macroregional average value. The addition of the macroregional average value facilitates a better understanding of the degree of change that takes place over the two time periods; here, we can

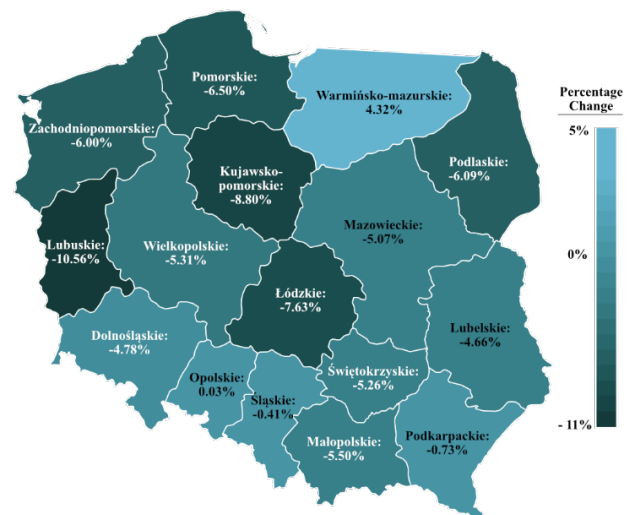


Figure 7. Average change in the similarity of regional development strategy from 2007 to 2014
Source: own study

see that while there exists considerable standardisation in most regions, the degree to which this convergence to the average takes place is greater for some regions than for others. Also, as highlighted in Figure 11, the average degree to which the documents correlate differs little between the two time periods, with the average macroregional correlation value dropping from 0.822 in 2007 to 0.800 in 2014.

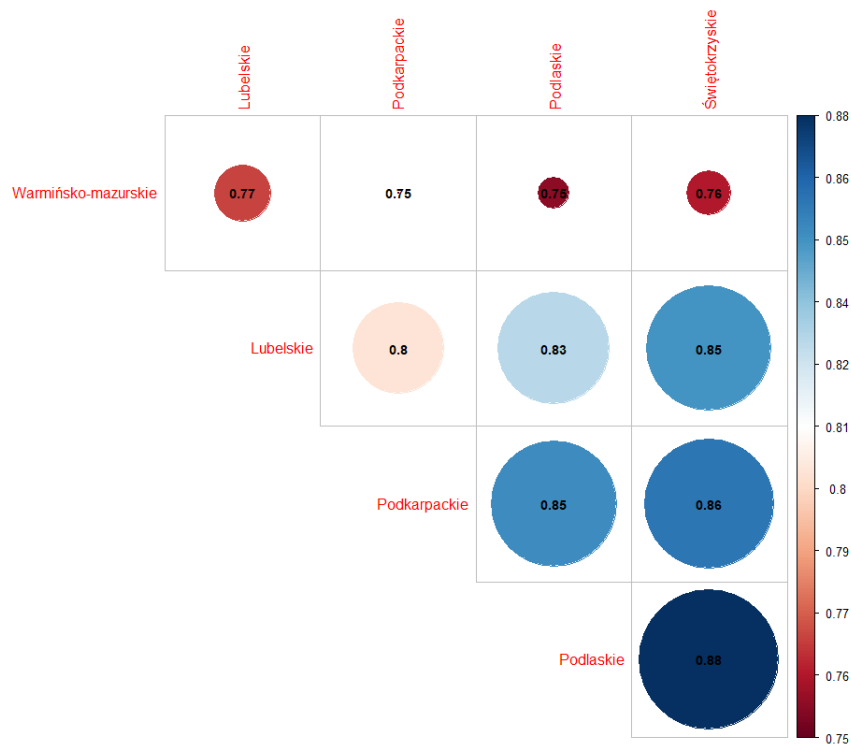


Figure 8. Correlation of regional development strategy documents in Eastern Poland in 2007
Source: own study

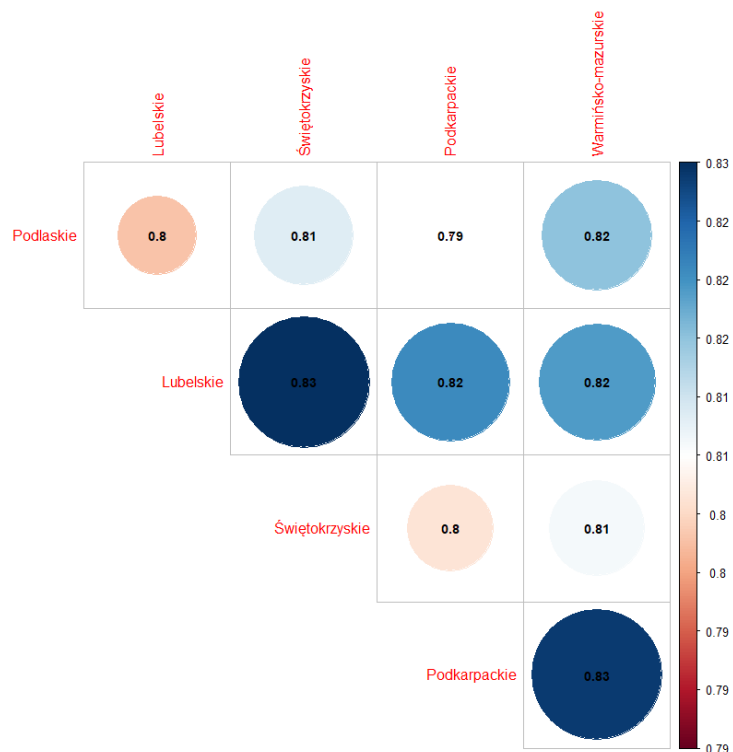


Figure 9. Correlation of regional development strategy documents in Eastern Poland in 2014
Source: own study



Figure 10. Changes in the correlation of Eastern Polish regional development strategy documents between 2007 and 2014
Source: own study

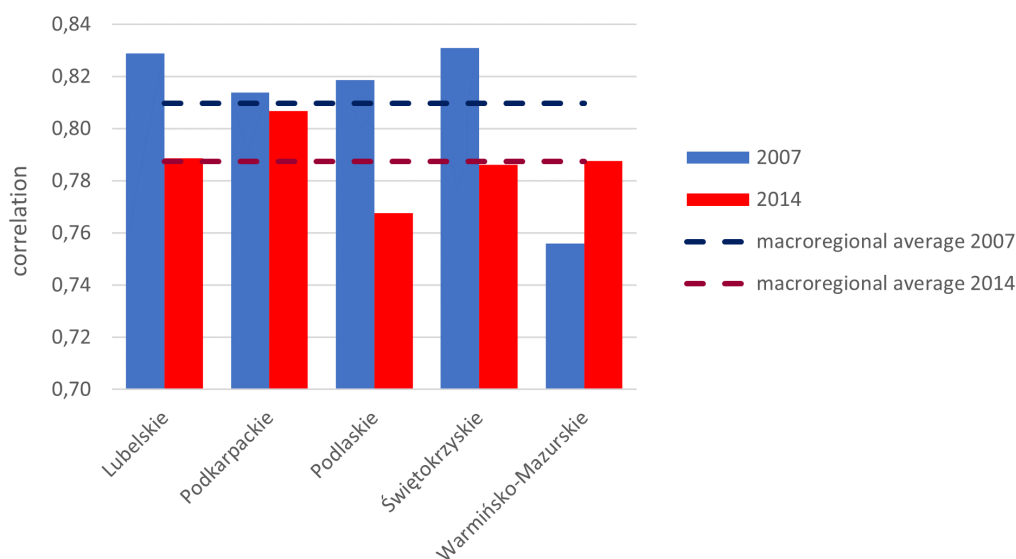


Figure 11. Average correlation of regional development strategies between Eastern Polish regions
Source: own study

Discussion

H1, which held that *in line with differentiated regional policy, Polish regions diverged in their regional development strategies during the years covered by the two periods 2007–2013 and 2014–2020*, finds considerable support in both Figures 4 and 6, wherein it can be observed that on average the level of text similarity across all Polish regions does diverge, with the average

regional correlation value dropping from 0.8072 in 2007 to 0.7689 in 2014. The fact that 14 of Poland's 16 regions (with the exception of Warmińsko-Mazurskie and Opolskie) experience a drop in the level of similarity between their regional development strategy documents does lend credence to H1.

However, the degree to which this divergence takes place is not at all consistent, with some regions, such as Lubuskie in

the far west of Poland, diverging by 10.56% between the two time periods, and other regions, such as Śląskie (-0.41%) and Podkarpackie (-0.73%), diverging only marginally between the two time periods (see Figure 7). Here it is also relevant to examine the degree of change within regions and how these changes relate to the average degree of correlation that exists among the regions. For example, in the case of Warmińsko-Mazurskie, while the increasing convergence of 4.32% constitutes a considerable buck of an otherwise widespread trend, as seen in Figure 5 and more clearly in Figure 11, the case of Warmińsko-Mazurskie is less the case of a region which is converging more than others, but rather serves as a case of convergence to a norm (specifically in the case of Warmińsko-Mazurskie, this appears to be a convergence to a macroregional norm). Convergence to the norm is particularly apparent when one looks at Eastern Poland (Figures 8–11), where Warmińsko-Mazurskie, rather than increasing from a high baseline, is instead converging to the norm from an otherwise low base. The degree to which Warmińsko-Mazurskie correlates with other regions in Eastern Poland reflects almost precisely the average value in 2014, whereas in 2007 it was a considerable outlier.

To understand and explain the obtained results, we need to look into the broader picture of the rapid evolution of the regional policy system in Poland. The starting point for regional authorities was not initially very promising after the end of communist rule, which had cultivated extended periods of centralised policy management, lack of experience in regional policy for regional authorities, low understanding of strategic thinking principles and weak institutional capacity (Ferry 2013). However, since 1999, significant changes have been introduced. Poland is often described as one of the largest laboratories for regional policy in the world (Žuber 2008) and has been involved in a continuous process of building a new model of inter- and intraregional policy. One of the results of this process is, as indicated by Ferry (2013), the strengthening of the organisational capacity of the regions, extending their policy competence and boosting their information resources. It is likely that it is these processes which have led to more individualised and differentiated regional policies instead of the 'one size fits all' approach often preferred by more centralised systems, thereby supporting the findings of this paper. The documents prepared for 2014–2020 are the third edition of development strategies since the territorial reform in 1999 and since the idea of strategic planning was introduced at the local and regional government levels (Szlachta 2013). The fact that the documents are coming into their third iteration lends further credence to an understanding that regional policymakers' capacity, experience and strategic awareness have improved during the years covered by these two periods. According to the results of a study based on an OECD questionnaire, in almost 80% of municipalities in Poland and 90% of *poviats*,⁶ local authorities prepared their development strategies with the support of external experts (OECD 2021). In the case of regional development strategies, this share is even higher, reflecting the complexity of the documents. However, the role of external experts in creating the strategy documents has changed over time – from being the leading 'creator' of strategic documents to providing professional advice used by policymakers to guide their decisions. The high dependence on professional advice given by external experts could lead (especially in a situation where policymakers have low awareness) to similar policy approaches and therefore be responsible for isomorphism of regional policy (Chien 2008). However, in the case of Poland and the analysed regional development strategies, we might expect

that the increasing divergence of development strategies is to a great extent the result of an increasing strategic awareness and professional knowledge about strategic planning among local and regional authorities (Dąbrowska, Dziemianowicz & Cybulska 2022). Previous studies conducted in Poland showed very clearly that widespread agreement about the roles of local and regional leaders as well as strategic thinking has a leading role in building the regions' potential (Dąbrowska & Szlachta 2017a; Dąbrowska & Szlachta 2017b). There has also been a broader trend in regional policy more generally (and, in Europe, oriented around smart specialisation) towards a greater degree of differentiation in regional development policies – specifically, with considerable differences being observed within one country (Jordahl et al. 2023). While not the explicit focus of this paper, this trend may well contribute towards better place-based policy having an impact on the degree to which regional development strategies differ. We can also perhaps understand the process of Europeanisation exerting an influence on the changing nature, structure and – most pertinently to this paper – the orientation of regional strategy documents more generally.

Finally, regarding H2, in the case of Eastern Poland, convergence does appear to be more of a factor than appears elsewhere, as shown in Figure 11. This could be explained to some extent by the lower institutional capacity of the eastern regions and deepening polarisation between east and west. However, the picture here is not so clear, and we can see indications of the trend of differentiation present here too, in line with the broader national trend. For example, while the average degree of correlation across the five regions has increased slightly, from 0.8095 in 2007 to 0.8117 in 2014, showing that the documents increased in similarity between these two periods and indicating increased isomorphism of regional policy, the picture is somewhat disrupted by the previously mentioned convergence of Warmińsko-Mazurskie, being an outlier. In this sense, the result for Eastern Poland as a macroregion cannot serve as a confirmation of the higher convergence of the regions of Eastern Poland than the other regions in Poland, because four of the five regions of Eastern Poland over the analysed period experienced an increasing divergence, and the overall result for Eastern Poland is only due to the individual result of Warmińsko-Mazurskie. This leads us to the rejection of H2.

Conclusion

This article identifies the similarity of regional development strategies in Poland during the periods 2007–2013 and 2014–2020. We found that regional authorities during the years covered by these two periods diverged in their use of text, and we identified the presence of a move in Polish regional development strategies towards a form of differentiated regional development policy, as expressed by document and text correlation.

These findings contribute to a broader debate on the emergence and role of differentiated regional development policy in Europe, particularly in the case of one of the EU's larger member states, Poland. They provide further insight into the dimensions that influence regional policy in the largest country within Central and Eastern Europe. They also offer insight into how concepts such as Europeanisation may provide some impetus towards integrating broader European concepts such as differentiated regional policy.

We find that while, on average, Eastern Poland has diverged slightly (in line with the rest of Poland), the rapid convergence of one region disrupts this trend in similarity. The factors driving this somewhat mixed picture in Eastern Poland are crucial for further study to identify potential macroregion coordination.

However, while this paper provides some important further evidence on the factors impacting the development of regional

⁶*Powiat* (county) is the second level of Polish administrative (territorial) division. The other two levels in the three-tier administrative division are *gminy* (municipalities) and *voivodeships* (regions); Statistic Poland 2024.

policy in Poland, it has some limitations which must be noted. While a limitation of this paper, an issue that does provide scope for further research concerns the implementation of regional development strategies. At the same time as the text of the documents provides insight into how regions position themselves vis-à-vis other regions in Poland, a central issue is whether this impacts the implementation of regional development strategies in Poland. Of particular importance here is the impact of the 1999 reform mentioned above, which provided considerable autonomy to regional authorities to devise and implement their regional development strategies, lending support to the idea that these documents are primarily rooted in the work of the regional authorities and, as such, poor implementation or the documents serving as a façade would be a somewhat redundant use of the considerable autonomy afforded to regional authorities.

Alongside the issue of implementation, another limitation of this study is that we did not explore the processes by which regions developed their strategies; we do not know whether the tendency for regions in the same country to have high levels of document similarity reflects similar conditions in regions; and nor do we know what is the role of policy learning and policy transfer in the formulation of the documents under study.

Finally, and importantly, we do not know whether the observed move towards more differentiated regional policy is a lasting trend or just a one-time change. For this purpose, the

next edition of regional development strategies (prepared for the programming period 2021–2027) should be included in future research.

This article contributes to what has been a lively debate within the academic literature in recent years on the mechanism via which regions improve their development strategies. Of particular relevance in this context is the seminal contribution of Tödtling and Tripl (2005) on whether one-size policies can fit all regions, or whether we could instead expect to see the emergence of greater divergence. However, our research indicates that while greater divergence in regional development strategies does appear to be an increasingly important factor, many regions still opt for considerable degrees of similarity in their regional development strategies.

Acknowledgements

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Declaration of conflicting interests

The authors declare that there are no conflicts of interest.

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Appendix 1

	2007		2014	
Region	Pages	Year published	Pages	Year published
Dolnośląskie	94	2005	65	2012
Kujawsko-Pomorskie	59	2005	146	2013
Łódzkie	52	2006	144	2013
Lubelskie	78	2005	119	2014
Lubuskie	117	2005	160	2012
Małopolskie	165	2006	193	2011
Mazowieckie	192	2006	115	2013
Opolskie	168	2005	163	2012
Podkarpackie	168	2006	114	2013
Podlaskie	84	2006	72	2013
Pomorskie	42	2005	70	2012
Śląskie	113	2005	133	2013
Świętokrzyskie	123	2006	77	2013
Warmińsko-Mazurskie	112	2005	90	2013
Wielkopolskie	76	2005	194	2012
Zachodniopomorskie	105	2005	179	2010