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## The Practice of Sustainable Spatial Planning Between an Essentialist and Relational Conceptions

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### Abstract

The research deals with the concept of sustainable spatial planning implementation and transformation in practice. To achieve this, the research uses the case study of the North-West England Regional Spatial Strategy (RSS) 2021. The research aims to understand the effectiveness of sustainable spatial planning transformation from the traditional essentialist conception/model based on rigid boundaries and hierarchal framework to the new relation conception/model with fuzzy boundaries and multi-layers framework. This issue represents a major challenge for planning authorities worldwide as it causes spatial plan misalignment especially during implantation. The research starts by briefly introducing spatial planning in the larger worldwide and European context to understand its main advantages and the challenge of sustainable transformation. The research then provides background information about the North-West England RSS 2021 within the larger spatial planning framework of the United Kingdom and England. The research used the six-segment criteria spatial plan evaluation system developed by 'Patsy Healey' in 2004 to assess the North-West of England Spatial Planning Strategy 2021 alignment. The research found that, although the North-West England RSS 2021 represents a very good initiative towards relational spatial planning implementation in the UK, the plan struggled to achieve the full transformation towards the relational conception in some parts due to a number of reasons specifically political and legal.

**Keywords:** Practice, Sustainable, Spatial Planning, Housing, Essentialist Conception, Relational Conception

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## 1. Introduction

The concept of spatial planning goes back to the 1980s. Spatial planning was considered a new approach of territorial planning in Europe. The emphasis of spatial planning, nevertheless, was on large renewal, urban transformation and landscape projects using traditional methods [1], [2]. The continuous development and the increasing pollution across many cities around the world pushed towards a better suited spatial planning [3]. By the beginning of the third millennium, strategic spatial planning as a concept of planning resurged worldwide and was considered one of the key elements for future development [4],[5]. In their report, the United Nation defined spatial planning as “*a key instrument for establishing long-term, sustainable frameworks for social, territorial and economic development both within and between countries*” [4]. The United Nations specifies the following as the main benefits of implementing spatial planning strategies:

- 1- Limiting natural disasters’ impact.
- 2- Promoting sustainable high-quality tourism.
- 3- Developing safe energy resources and provision.
- 4- Protect and enhance natural heritage and resources.
- 5- Environmental damage reduction.
- 6- Cultural Heritage enhancement as an important factor for development.
- 7- Promoting information and knowledge accessibility.
- 8- Balancing accessibility for all.
- 9- Improve urban functions and rural-urban relationship, therefore enhancing development activities.
- 10- Achieve better territorial cohesion in an improved competitiveness social and economic environment.

Spatial planning is much easier in theory compared to practice. This due the large number of variables and factors influencing the implementation, plus, the long duration of the implementation causing mismatch.

This research aims to analyze the practice of spatial planning through a case study of the RSS 2021 of the North-West England firstly introduced in 2008.

This research is organized into three main parts:

In part one, the research discusses the academic literature, the selected case study of the North-West England RSS 2021, and its main planned benefits.

In part two, the research will briefly describe the six-segment criterion, developed by Patsy Healey in 2004, for evaluating strategic spatial plans concepts of space and place, analytically assess then discuss the North-West England RSS against each of the six-criterion separately with regard to its tendency towards a relational or essentialist conception. This part will include an analytical discussion the findings where appropriate with supporting evidence from the casestudy.

In the last part of this research, part 3, the final results and a conclusion will be drawn from the research highlighting the main findings.

## 2. Part 1: Literature Survey

Following the rising interest in implementing spatial planning and its advantages in European countries and non-European developed countries around the world, the Regional Spatial Strategy (RSS) was introduced in the

United Kingdom during the beginning of 2004. The RSS was implemented on the different levels of planning authorities in the UK; i.e. regional, central, and local authorities [6], [7], and allow for green business model [8]. The main objective of the RSS was to encourage sustainable development within the UK, thus, enhancing life quality and limiting inequalities between the different regions and with the rest of EU countries in the social, environmental, and economic planning contexts [7], [9].

Despite the many benefits of implementing sustainable spatial planning strategies mentioned above, there is an argument raised by some researchers on the effectiveness of spatial planning in practice. Abdoh states that “Poor spatial planning increases the infrastructure maintenance cost for cities” [10]. She based her conclusions on the analyses she made of a number of cases of spatial planning strategies in Amman and other areas. Basically, some of the spatial planning strategies and concepts could have different outcomes from their original goals/objectives due to challenges in transforming the planning practice and system from a rigid essentialist system with well-defined boundaries, to a dynamic relational system with fuzzy boundaries. This could form a huge problem to many spatial planners as spatial plans could have different outcomes in practice compared to what was intended [11]. Thus, an understanding of the ability of implementing and transforming into a true spatial planning in practice is crucial to develop better spatial plans that overcomes any major mismatching within it and between it and its outcomes in the future.

## ***2.1 Background On The North-West England And Its RSS***

The North-West England region, one of nine regions in England, contains five ceremonial counties [12]. It is bounded by the Irish Sea from the west and the Pennine Hills from the east. It extends over 14,165 square kilometers from the West Midlands in the south to the Scottish borders in the north with North Wales to its southwest. The region has an overall population of just over seven million people by 2011 [13]. It is, therefore, the 3rd most populated region in the UK with its largest settlements being Chester, Blackpool, Preston, Warrington, Manchester and Liverpool [14].

The North-West England region includes a mix of urban and rural areas and landscape. It includes two large conurbations: one centered in Manchester and another in Liverpool that occupy most of its southern part [15]. While the northern part includes the rest of the cities as well as most of the rural areas. The North-West regional authority was the outcome of the merger of the Merseyside County and Greater Manchester councils in 1986 which concluded in the region having five counties [16]. The Cheshire County includes four unitary namely: Cheshire East, Cheshire West and Chester, Halton, and Warrington. The Lancashire County includes three unitary namely: Lancashire, Blackpool, and Blackburn with Darwen. Additionally, the North-West England Region included three other counties namely; Cumbria, Greater Manchester, and Merseyside [9].

According to national census [13], the North-West England’s population accounts to about 14% of the total population of England, more than 37% of those reside in the Greater Manchester county, 21% in Lancashire, 20% in Merseyside, 15% in Cheshire, and only 7.5% in Cumbria which is the largest county by area (See Table 1). This results in a huge diversity in population

density between the different areas within the region itself as well as with other regions nearby, especially the Greater London Region.

**Table 1:** North-West England Counties Population and Population Density

County	Population (person)	Population Density (person/km <sup>2</sup> )	Largest City/Town (person)	Largest Urban Area (person)
Greater Manchester	2,629,410	2,017	Manchester (510,701)	Greater Manchester Area (2,240,231)
Lancashire	1,449,602	469	Blackpool (142,102)	Preston, Chorley and Leyland Area (335,002)
Merseyside	1,353,601	2,119	Liverpool (491,515)	Liverpool Area (816,010)
Cheshire	1,003,612	425	Warrington (202,229)	Warrington Area (202,229)
Cumbria	496,202	74	Carlisle (71,774)	Carlisle Area (71,774)

## 2.2 The North-West England RSS's Key Characteristics

There are a number of key North-West England region's characteristics, which distinguish it from the rest of the regions. Some of these key characteristics are:

- 1- Of England's nine regions, the North-West region has the 4th highest Gross Value Added per capita, and the highest of the regions if southern England was excluded [14].
- 2- The North-West England has above average multiple deprivation in the UK Indices of Deprivation<sup>1</sup>. While most of the wealth is concentrated within very few prosperous areas in the region such as rural Lancashire and Cheshire, the region has many deprived areas, such as Liverpool and Manchester, which are categorized within the 20% most deprived districts/areas in England according to local statistics [17].
- 3- The area has above-average unemployment claimant count when compared to the rest of the UK. The unemployment claimant count inside Liverpool center was 6.8% compared to only 4.2% for the UK overall in 2011 [18].
- 4- The area has a large disproportionate variety of languages and accents. While English is the dominate spoken language, a variety of distinguished accents are present especially in Liverpool, Manchester, and Lancashire. Additionally, the large immigrants communities in the region brought other languages such as Urdu, Hindi, and Punjabi [13].
- 5- The region has two of the five largest metropolitan areas in the UK. With over two million residents each, Liverpool and Manchester are

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<sup>1</sup> The Indices of Deprivation is an index of deprivation at small area level used by the British Dep. for Communities and Local Governments released in 2001, 2004, and 2007. It is used for comparing relative deprivation between areas within the UK.

considered two of the three ‘Class D’<sup>2</sup> metropolitan areas in the UK. Many, nevertheless, combine Liverpool and Manchester into one larger Manchester-Liverpool metropolitan area of over 5 million inhabitants, thus classifying it into Class B [19], [20].

- 6- The North-West Region contains the second most sought-out-for areas by business in the UK [21]. The Greater Manchester region, with its over £60,000 million annual economic output, is considered second only to the Greater London Region and genuine rival to it [22].
- 7- The North-West of England is considered one of the most fragmented areas in the United Kingdom in the planning context since the late 1980s [23].

### **2.3 The Selection Of The Casestudy**

The North-West England RSS 2021 plan, announced during 2008, is considered an interesting case in the UK. This is partly due to the region’s characteristics discussed above, but also the diversity of the economy and policies, cemented by the lack of political responses at the regional level, which caused the region’s economic decline and development challenges especially during the economic recession following the 2008 World Financial Crisis [24], [25]. Hence, the area needed a strategic plan to unite the different local authorities’ efforts in one spatial planning scheme to achieve the spatial planning goals of uniform development and sustainability. The North-West Spatial Plan provided an implementation framework that complements the general UK RSS 2021 to direct the development of the North-West England region towards achieving higher quality of life and residents’ well-being [7].

In its report, the ‘Government Office for the North-West’ describes the vision of the North-West RSS as “*By 2021, we will see a region that has acted to deliver sustainable development, leading to a higher quality of life for all, and reduced social, economic and environmental disparities.*” [12]. In order to achieve its vision, the spatial strategy had a number of objectives set out. Among these objectives is firmly establishing Liverpool and Manchester as world class cities. This is by facilitating their international networks, flourishing leisure and culture industries, and highly developed knowledge and services sectors (See Figure 1). Another objective is building on and spreading existing strengths of individual urban centers such as Central Lancashire City to nearby areas and cities. This includes strengths such as high-quality higher education, advanced manufacturing, flourished commerce, and resort tourism. Finally, increase rural areas’ prosperity and life quality while respecting the natural environment and surroundings.

Thus, the North-West of England RSS 2021 is considered a good casestudy as it was the revised and improved replacement spatial plan of the original RSS so-called “*Regional Planning Guidance for the North-West*” [6]. It brought more focus on the prioritization of development and growth, energy conservation and renewable energy sources in alignment with the national policies, and finally the clarification of the regional housing delivery system [12].

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<sup>2</sup> In accordance with the EPSON project and based on the 2001 and 2011 census in the UK, all 46 major urban areas were classified by their number of inhabitants into different categories (A, B, C, D, E, F, Gi, and Gii).

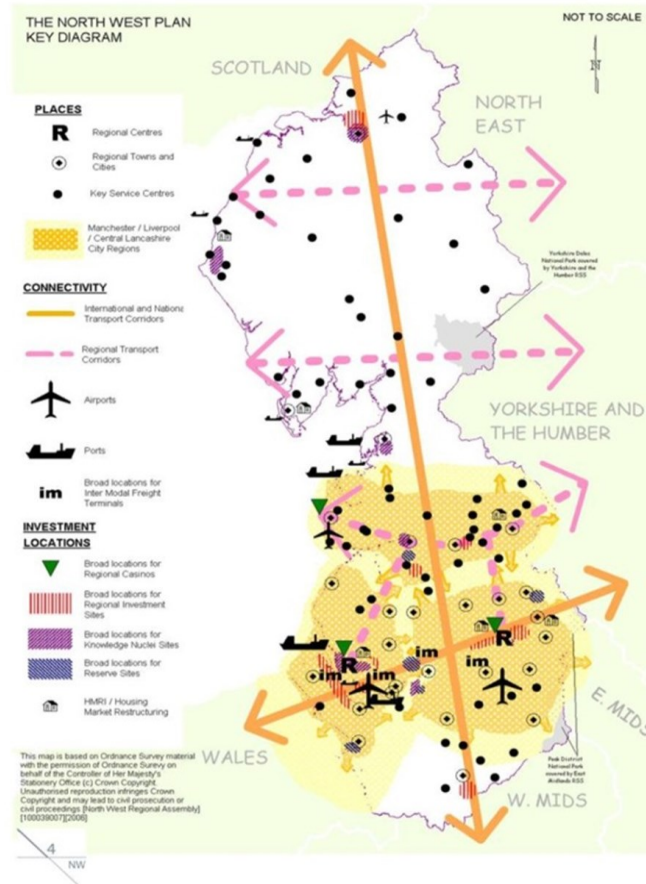


Figure 1: Key diagram of the NW England RSS showing corridors and hubs [25]

### 3. Part 2: Analyzing The North-West England RSS

Despite the many potential benefits of implementing spatial planning strategies, there is always the risk of mismatching outcomes of the spatial plan in practice compared to the plan itself. In her research, Patsy H. [26], started an interesting discussion regarding the spatial planning concepts and elements, and the different agendas of development strategy. One of the key issues she underlined is the relation between policy discourses of place and space within spatial planning strategies and the potential efficiency and benefits of these strategies. Thus, she developed a six-segment criteria method to examine spatial strategies vocabulary mobilization within a spatial planning framework. The six-segment criteria are used to analyze the tendency of a spatial plan in practice towards an essentialist conception or a relational conception. The essentialist conception sees the spatial plan in practice more like the traditional system, hence the spatial plan is more likely to fail or underperform in practice due to the lack of effective/efficient inter-relations and links. The relational conception, on the other hand, is the ultimate goal of a spatial plan in practice where inter-relations and links are sound and effective. The six-segment criteria used by Healey and their explanation according to both the essentialist and relational conceptions are shown in Table 2.

**Table 2:** Criteria for evaluating concepts of space and place by Patsy Healey [26]

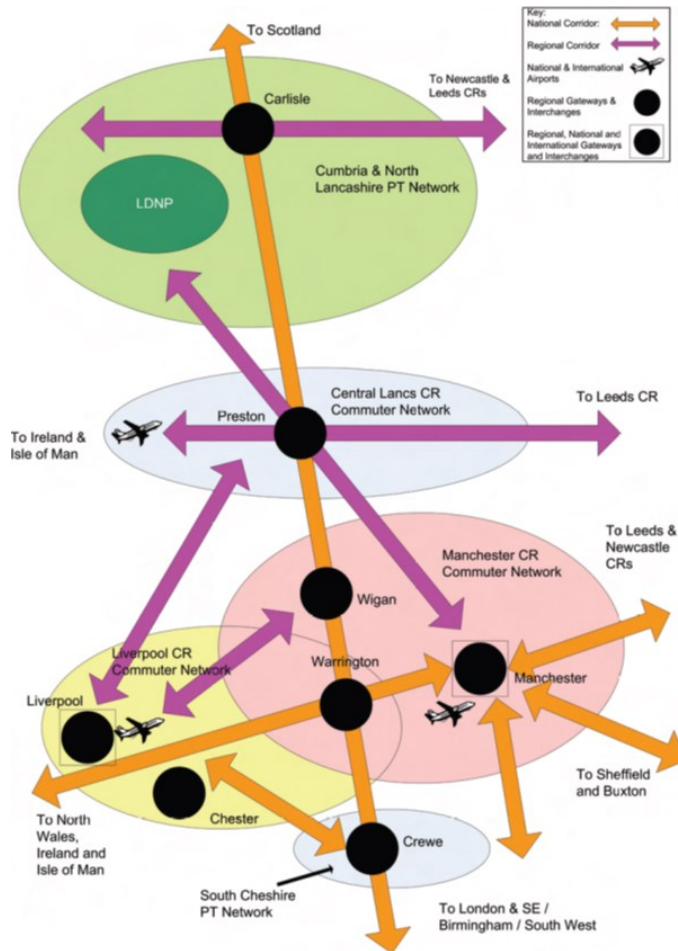
<b>Criterion</b>	<b>Essentialist Conception</b>	<b>Relational Conception</b>
<b>Treatment of position</b>	Hierarchy & borders	Dissimilar position in dissimilar networks
<b>Treatment of scale</b>	Nested hierarchy	Relational reach in dissimilar network
<b>Regionalization</b>	Unified, differentiated physical fabric	Fragmented, folded conception of space, many networks co-exist
<b>Materiality &amp; identity</b>	A material physical future built, interlocked with social relations in unified method	Materiality co-exists with conception of identity & iconographies
<b>Development notion</b>	Unified liner trajectory	Multiple, non-liner, emergent trajectory
<b>Representational form</b>	Material metaphors of functional integration representation in maps.	Metaphors of movement and ambience represented in multiple ways.

This research will use Healey's six-segment criteria to analyze and evaluate the performance of the North-West England RSS 2021 framework. The use of this method is due to incomplete data gathering on the outcomes and performance of the spatial plan especially that the spatial planning strategies often require many years after its implementation to be reliably assessed/evaluated with major investment of time, efforts and funds unavailable to the researcher. Additionally, although the criteria could be applied on worldwide cases, it was specifically tailored to be used on the European model of spatial planning. While this could be an advantage for this method when applied on a spatial plan within the UK, it could also be one of its shortcomings since there is the potential for a bias when used on other cases. However, the effect of this method's shortcomings, if existing, is more likely marginal especially since the case study of this research is UK-based.

In the next sub-sections, the research will analyze and discuss the North-West England RSS 2021 tendencies and performance using each of the six-segment criteria mentioned above.

### **3.1 Treatment Of Scale**

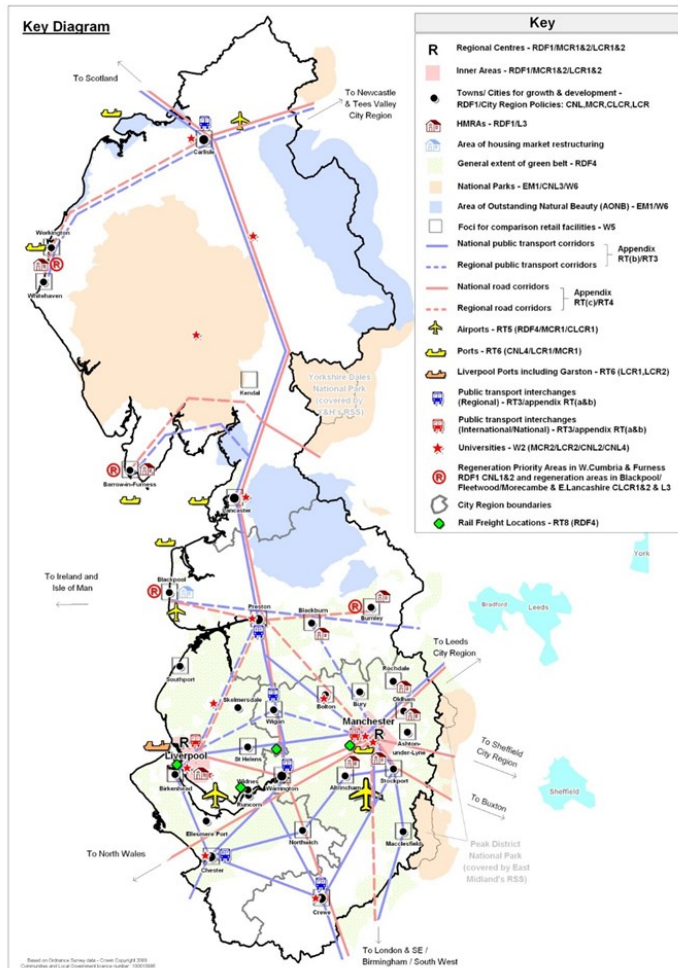
According to Government office's reports [12], [27], [28], one of the North-West England RSS main objectives is building stronger links between the different areas within the region as well as with areas in the surrounding regions and countries. (See Figure 2). The new stronger links should help achieving a balanced development within the different areas of North-West England's region as well as help enhancing development for the region overall.



**Figure 2:** The NW England RSS's Regional Public Transport Schematic [27]

The final RSS report sets out a number of policies as mechanisms for achieving this objective [12]. It is possible to see a clear distinction between the different areas in the region in a form of hierarchical form starting with the more global to the regional and local. The spatial strategy clearly cements the hierarchical relations conception using strong distinct vocabulary of spatial planning elements. Moreover, there is a clear differentiation between rural and urban areas in these policies. Finally, the categorization of urban areas into four distinct categories; regional centers (i.e. Liverpool and Manchester), cities and towns adjacent and surrounding to these regional centers, the cities and towns within the three cities regions, and finally the remaining urban regions and cities outside the Lancaster and Carlisle regions (See Figure 3). The spatial plan treated these categories and regions differently in terms of development priority; it gave the lowest priority to cities and regions outside the Lancaster and Carlisle regions, while giving the highest priority to the regional centers of Liverpool and Manchester. As seen in Figure 2 and 3, the North-West England spatial plan uses specific transport corridors to link the different areas within the region; also, it facilitates airports and ports as regional gateways for linking the region with its surrounding regions and countries.



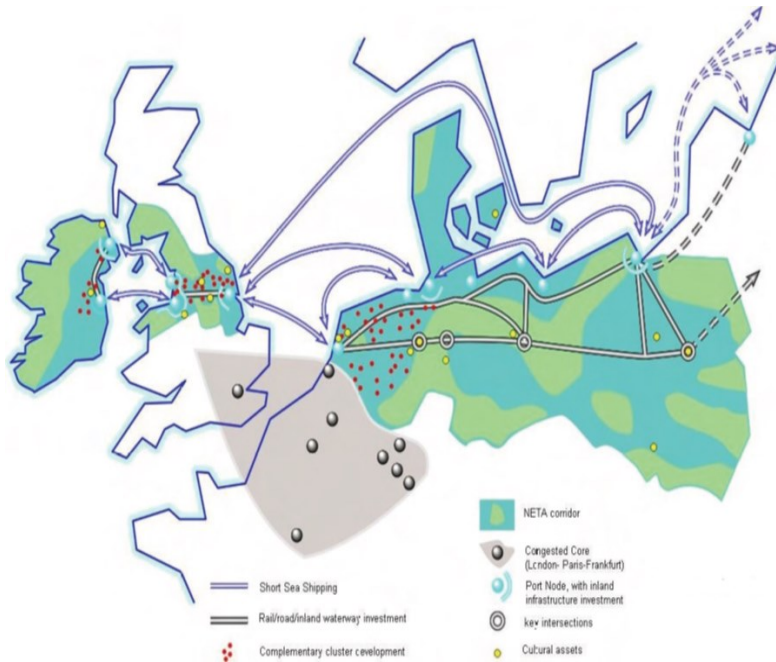


**Figure 3: North-West England's Areas Categorization & Transportation Plan [25]**

Since the spatial plan is treating the region as a set of urban clusters, hubs and transportation corridors in a nested hierarchical approach, it is possible to conclude that the spatial plan is more likely following an essentialist conception and not a relational conception.

### 3.2 Treatment Of Position

The North-West England RSS utilizes the concept of transport corridors between central hubs as a physical development skeleton in its framework. This applies both within the North-West Region itself (See Figure 3), and within the larger European context (See Figure 4). However, there is some emphasis on achieving decentralized development using a polycentric network of clusters and hubs in the region. The different clusters and cities within the region have different positions in the different layers of the spatial plan framework. For instance, while there is a clear emphasis on the advantages of the hubs and corridors system within the framework, the mechanisms for achieving these benefits is still vague especially when considering the different responsibilities and liabilities of cities and clusters within the framework.



**Figure 4:** North European Trade Axis corridor (NETA) [9]

This balance between the well-defined transportation hubs and corridors on one hand and the vagueness of different cities/clusters' responsibilities in the action plan means that the North-West England RSS is utilizing an essentialist/relational hybrid conception concerning the treatment of position. The use of this hybrid system is to some extent justified by the Government Office's report [12] that is this hybrid system would aid in a more equal distribution of development opportunities in the future and encourage more integrated efforts of development within the region while keeping some level of competence as it described in the North-West England RSS report - Chapter 5 [9].

The implementation of a hybrid system within a spatial planning framework could cause, nevertheless, some complications and difficulties especially regarding policies making, decision making, and implementation monitoring. This could have enormous consequences on future development in the region due to reasons such as conflict of interests and un-matching priorities, which in turn could hinder the development down especially within the areas at the divergence between North-West England clusters.

From this, it is possible to conclude that despite using a hybrid system in terms of the treatment of position within the North-West England RSS, the strategy is leaning a little towards a relational conception in this essence.

### 3.3 Regionalization

As discussed, one of the main goals of the North-West England RSS is promoting integrated development within the North-West England region. This is considered a countermeasure set by the spatial planners to displace the issues arising from the old geographical sectarian of policies and development opportunities across the region discussed earlier in this article. The North-West England RSS framework included a structure of 'warps' and 'folds' to

enable multiple relational planning layers' coexistence across the region. This 'warps' and 'folds' system regulates the relational regionalization of the different nodes and borders across the region, and it is based on a clear model of socio-spatial organization (See Figures 2 and 5). However, simply having fuzzy (gradient) borders across the region is not enough to lessen geographical-based sectarian and induce integrated development within the region and surrounding regions especially if the articulation of policies across different local authorities remained different. This challenge was realized within the Government Office's report [12]

As apparent from the statement, the North-West England RSS aimed at amending the challenge of regionalization in the spatial plan by incorporating a set of sub-regional policies to support the integration of development. Yet, the spatial plan is also trying to achieve fragmentation across the region especially around the three main city regions of Lancashire, Liverpool and Manchester, in spite of it sometimes using an old notion of integrating differentiated physical fabric. This use of to-some-extent multiple relational layers to achieve integration and fragmentation within the region to preserve/enhance regionalization, does mean that the spatial plan is leaning towards relational conception here.

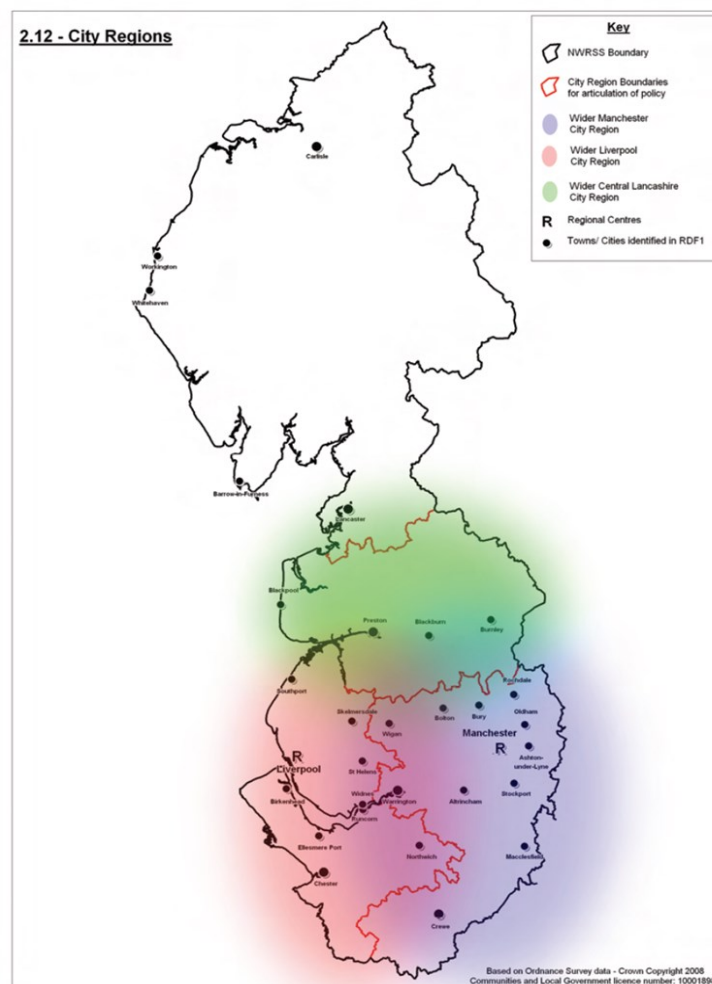


Figure 5: City Regions as defined in the North-West RSS 2021 Source: [12]

### **3.4 Materiality And Identity**

According to the Government Office's report [9], [12], the North-West England RSS divides the region into multiple clusters of development. However, there is some vagueness with regards to the reasons/factors behind this kind of division, moreover, there is no evidence for the mechanism/approach used of this division and why it was used.

It could be assumed that, this division is based on a mixture of both iconography and identity conceptions on one hand, and on the other hand the physical materiality. The plan claims that the glaring history, environment, and social contrast of the region is the most important characteristic of the region. Additionally, the present contrast in the region was an important player during the designing/planning and implementation decision making of the North-West England RSS 2021.

Based on the above, it is, therefore, possible to consider the North-West England RSS 2021 as an essentialist/relational conception hybrid when it comes to dealing with Materiality and Identity of the region. This due to the fact that the plan utilizes both regional/inter-regional identity as well as physical materiality as bases for decision making and planning.

### **3.5 Concept Of Development**

Based on the North-West England RSS 2021 report [12], it is unclear whether the plan is dealing with development as a multiple non-linear trajectory or as an integrated liner trajectory. The spatial plan, nevertheless, evidently expresses a great deal of interest in the political and social development of the region as prerequisite for achieving higher economic and environmental benefits.

Despite the above-mentioned unclarity, the spatial plan does show some receptivity towards dealing with the concept of development as a liner-trajectory. This is particularly sound once the plan deals with countryside/rural development (Policy RDF2) [29]. This issue was highlighted by the North-West Spatial Strategy Panel recommendation on this matter that [30]. The latter prioritizes the development from regional centers, then the inner areas of the two conurbations, all the way to rural areas development in the six position.

Overall, while the spatial plan does have a clear plan/prioritization of major urban areas/centers development, it does not show a clear plan for the development of rural area and other small settlements. Even in the revision of the North-West England RSS in 2008, the spatial plan did not overcome the issue of dealing with development as a liner trajectory. As clear from Figures 1, 2, and 3, the inner regional flows and linkages within the North-West England RSS system are considered as 'less important' than the intra-regional flows and linkages. Moreover, the transportation network, which represents the skeletal framework for the North-West England RSS, is a distant-decaying development-vehicle system. i.e. the further an area is from a gateway (airports or ports), the less important it is in terms of development prioritization.

To conclude, the North-West England spatial plan is using a vague system that is mainly dealing with the concept of development from an essentialist conception as a liner trajectory.

### 3.6 Representational Form

Based on the North-West England RSS plan documents [12], [29] and Figures 1,2, and 3, it could be seen that the spatial plan uses the ‘flows’ metaphor as a gravity-based movement/ambiance model. There is a clear distinction in priorities between areas close to regional hubs and areas far from regional hubs and main transportation corridors. Furthermore, the spatial plan two-dimensional representations and maps use a variety of expressive forms including pictures, icons, and text. This is specifically true for the revised version of the North-West England RSS in 2008 as it was considered a huge improvement over the earlier 2006 version.

Although the North-West England RSS maps use multiple ways to express these metaphors of movement and ambiance, the concepts of functionality and zoning are derived from political and administrative boundaries when dividing the region into the three main clusters; Manchester-Liverpool, Preston, and Cumbria & Lancashire.

Overall, the North-West England RSS uses metaphors of movement and ambiance, while utilizing various expressive forms such as text, pictures, and icons in its representational forms and maps. Thus, the spatial plan is using relational conception when dealing with the representational form.

## 4. Part 3: Final Conclusions And Results

This research aimed to understand the practice of spatial planning through the casestudy of the North-West England RSS 2021. The research used Healey’s six-segment criteria approach for the analysis to pinpoint its tendency towards an essentialist or a relation conception. Table 3 summarizes the key results of the analysis.

**Table 3:** Summary of the results of the North-West England RSS 2021 assessment

Criteria	Results of Analysis
Treatment of Scale	<b>Essentialist Conception:</b> the RSS has a very clear hierarchy of gateways and hubs, and strong national and regional linkages.
Treatment of Position	<b>Hybrid/Transitional Conception</b> leaning towards a relational conception: Although there is a strong emphasis on hierarchy and borders, there is very clear network of gateways, hubs, and transportation corridors. This is cemented by a system for achieving integration on different levels/layers.
Regionalization	<b>Hybrid/Transitional Conception</b> leaning towards a relational conception: Differentiated physical fabric integration do exist especially in rural areas, but there is a strong emphasis on achieving fragmentation within the main city clusters, i.e. Manchester, Lancashire, and Liverpool.
Materiality and Identity	<b>Hybrid/Transitional Conception:</b> The plan utilizes both regional/inter-regional identity as well as physical materiality as bases for decision making and planning
Concept of Development	<b>Essentialist Conception:</b> The plan deals with the development conception as a multiple non-liner trajectory in few occasions; however, the liner conception is dominant overall.
Representational Form	<b>Relational Conception:</b> The plan uses metaphors of movement and ambiance expressed in various ways. Yet, the concepts of functionality & zoning are derived from political and administrative boundaries.

Overall, the North-West England RSS 2021 introduced in 2006 shows more tendency towards a relational conception rather than an essentialist conception in practice. However, the transition from the essentialist conception to the relational conception is not complete. The administrative hierarchy and boarder, coupled with differences in legal and cultural backgrounds does have a mark on the resulted RSS of North-West England.

The spatial plan clearly struggled with these differences and challenges especially when dealing with plan implementation. In spite of that, this spatial plan represents a very good initiative/step to overcome the old notions of essentialist conception of planning especially administrate boarder, legal framework, and political boundaries. It is safe to assume that, tackling challenges like these is of high priority for the successful transition of any planning system from an essentialist to a relation conception.

Finally, the findings of this research although important, is not fully generalizable. Spatial plans differ in their performance according to the region, aims, time, scale, and the overall situation. Hence, the outcomes of this research should be treated as a one-step forward to understanding the effectiveness of spatial planning in practice and the different factors affecting it. Further investigation/research is required to fully understand the subject in full and lay down a set of steps to improve spatial planning transformation in practice.

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## Biographies



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