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Understanding knowledge and creativity-based development in well-established cities and urban regions

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Abstract: Developing creative and knowledge-intensive economic activities is an objective for many well-established cities and urban regions. We aim to enhance the understanding of that process by focusing on the institutional and local/regional contexts in which the activities take place. We offer a ‘thick description’ showing the role played by deep structural and contemporary contexts in the growth of these activities. The regions of Madrid and Amsterdam have been selected to illustrate our ideas and method. They appear equally well-established, are well-embedded in the global economy and are both strong economic centres. However, they are also well-positioned to demonstrate that specific contexts have influenced their development. In particular, Madrid’s political and economic ruptures seem decisive in its development, while in Amsterdam it is self-reinforcing paths that appear crucial. We suggest developing tailored context-sensitive urban policies. These will be effective, but will also reduce the risk of losing local characteristics that may offer a unique competitive advantage.

Keywords: creative knowledge cities; global economy; competitive advantages; urban pathways; place-based strategies; institutions; Madrid; Amsterdam.

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Marco Bontje is an Assistant Professor of Urban Geography at the University of Amsterdam. In recent years, his research has focused mainly on creative knowledge cities and urban geographies of growth and decline in Europe. He has also done research on polycentric urban regions and sustainable urban and regional development. He has published on these issues in highly ranked journals (*Geoforum*, *Urban Studies*, *Cities*, *Urban Geography*, *Journal of Urban Affairs*, etc.) as well as books and book chapters with prominent international academic publishers (Routledge, Wiley-Blackwell, Ashgate, Palgrave Macmillan). Currently, he is involved in two JPI Urban Europe projects about future development perspectives of cities facing structural demographic and economic stagnation or shrinkage. He is an Associate Editor of the *Journal of Housing and Built Environment* and member of the editorial board of the *International Journal of Knowledge-Based Development*.

Sako Musterd is a Professor and the Director of Urban Geography in the Centre for Urban Studies, at the Department of Geography, Planning and International Development Studies, University of Amsterdam. His research focuses on housing and urban issues, with special attention for spatial segregation and neighbourhood effects on people's lives; he was also engaged in research in the field of creative knowledge. He has published extensively on these issues. Over the last years, he was/is in the managing, editorial and advisory boards of six leading international journals in his field: *Urban Affairs Review*, *International Journal of Urban and Regional Research*, *Housing Studies*, *Urban Studies*, *Urban Geography*, and *GéoCarrefour*. Over the past six years, he was a member of the evaluation panel of the European Research Council (ERC) for social and environmental spatial research.

1 Introduction

Many cities and urban regions (hereafter frequently referred to as 'cities') are looking to 'creative knowledge' as a way of 'reinventing' themselves in the current era of globalisation (Lang, 2011; Chica and Marmolejo, 2016). However, creative knowledge cities do not develop 'out of thin air' (Hall, 2004). Over the last decade, knowledge-based urban development theories have underlined the need to consider a range of economic, societal, spatial, and institutional development factors – these also being understood as the four policy areas for cities (Fernandez-Maldonado and Romein, 2010; Yigitcanlar et al., 2012; Yigitcanlar and Lönnqvist, 2013; Lönnqvist et al., 2014).

In addition, the growth of creative and knowledge-based economic activities has been particularly associated with a complex combination of *deep structural factors* that reflect the wider historical, economic, political and societal positions and paths of urban regions, and *contemporary conditions* in which 'hard' (classic) conditions, economic clusters, personal networks and 'soft' conditions take centre stage (Musterd and Murie, 2010; Bontje et al., 2017).

The connection between past and contemporary conditions should be studied from different perspectives through the analysis of pathways (Martin and Sunley, 2006). A number of characteristics accumulated by European cities over the centuries (such as their economic structure, socio-demographic composition, built environment, cultural heritage and institutional frameworks) have created distinctive pathways for each individual city. Nevertheless, there may also be patterns of change that cities have in common.

This study examines two relatively well-established European cities – Amsterdam and Madrid: the first is located in the heart of Europe, where often relatively stable urban paths are expected and where cities may benefit from ‘self-reinforcing processes’ (Pierson, 2000; Sorensen, 2015); and the second is located in the South of the continent, where more reactive paths have been seen. While EU Regional Policy has contributed significantly to reducing existing structural differences, the influence of inherited urban legacies, especially institutional arrangements, cannot be easily erased. According to the literature, formal and informal institutions support the transactional networks that shape clusters, nurture the (social) phenomena of learning, creativity and innovation within the urban milieu, and influence the shape of political processes (Scott, 2008).

The aim of this paper is to thoroughly review the impact of deep structural factors and contemporary conditions on the two distinctive European urban regions, both preparing for the era of cognitive-cultural capitalism (Scott, 2008). The comparison will prioritise the role of institutional arrangements that emerged during the industrial crisis in the last quarter of the twentieth century, in an attempt to contribute to ongoing discussions about ‘what’, ‘how’ and ‘when’ institutions influence long term local urban economic development (Rodriguez-Pose, 2013, Tomaney, 2014). The paper also seeks to contribute to developing tailored urban policies, instead of simply transferring urban development policies from core EU regions to more peripheral EU regions. Such strategies may reduce the risk that cities lose their unique historically grown profile due to the adoption of a common ‘creative city’ formula (Peck, 2012).

We will first present a theoretical discussion of key urban economic development factors, resulting in the formulation of three research questions. This will be followed by the introduction of the case studies and the methods applied. The current creative-knowledge profiles of the two cities, deep structural factors and contemporary conditions will then be reviewed, along with the governance frameworks and recent urban initiatives in the field. The final section discusses the main results and implications for policy-making.

2 A framework of conditions for urban economic development

2.1 Deep structural factors and development paths

Understanding the current paths of creative knowledge economies requires, in the first place, consideration of the role of historical factors. Deeply-rooted structural conditions that reflect the economic, political and societal positions of a region influence its future prospects. Cities that have been able to establish multiple layers of development while maintaining a strong economic position tend to be more resilient than others, since these layers can be capitalised on again in later periods (Musterd and Murie, 2010). Some urban regions have built a reputation as international or national political and economic

decision-making centres; or have built up international recognition as historical-cultural and educational centres. Such regions frequently have profiles which, when well-managed, support their contemporary functioning and attractiveness. Others have created a specialisation based on skills or high-tech activities and merged them with other economic functions; when these new economic structures fit today's economic activities, such urban regions may also be functioning well. However, when the regional economy has developed a mono-structural economic profile, and has not combined this singular economic emphasis with other functions, this may create a vulnerable urban economic position.

The notion of 'path dependence' considers not only economic profiles but also many other urban legacies, such as the institutional structure, housing market, cultural heritage, and specific political and economic events and episodes (Martin and Sunley, 2006). Pierson (2000, p.252) has argued that "the probability of further steps along the same path increases with each move down that path."

This explains the interest in 'critical political and economic junctures', short periods of new and powerful interventions with major effects on the economy and its institutions (Collier and Collier, 1991; Mahoney, 2000). These institutional arrangements are very difficult to alter (Pierson, 2004). Moreover, they affect each other; economic growth is linked to political institutions through property rights, the rule of law and the rules for public political participation. In addition, arrangements between government, industry and labour play a crucial role in enlarging the 'social pie' and in distributing it (Acemoglu and Robinson, 2005; Rodriguez-Pose, 2013).

Such critical features are also recognisable in the 1970s crisis of Fordist production. The transformation to Post-Fordism affected technological development, business organisation and a new political regulation of the economy. Although this created the necessary conditions for the development of the knowledge economy (Scott, 2008), not all Western European urban regions were in the same position to benefit from that transition. This is particularly the case in southern Mediterranean urban regions, embedded in countries which were affected by authoritarian and dictatorial regimes and which were characterised by certain 'industrial delays' (Malecki, 1991). According to Leftwich (1996) authoritarian regimes are strongly focused on economic investment strategies that promote internal protectionism and the accumulation of so-called physical capital. In contrast, democratic regimes are usually against protectionism and more frequently focus on the accumulation of human capital. Although authoritarian strategies may be appropriate for countries in the early stages of their development, Przeworski and Limongi (1993) argue that delaying the switch to innovation-based strategies may harm growth, freedom and an open exchange of ideas. Our hypothesis is that in one of our case studies, Madrid, such political ruptures must have had an impact not only on urban economic development but also on the subsequent institutional developments which emerged as a response to the legacies of dictatorships.

2.2 Contemporary conditions: 'classic' conditions, clusters and 'soft' conditions

However, it is not just the deep-structural experience of urban regions that shapes their economies. 'Hard' (or 'classic') conditions are still essential for urban economic development as well. Factors such as the provision of transport and communication networks, the availability of capital, qualified labour and an institutional framework with

a supportive set of regulations, tax policies, rent levels, labour costs and labour legislation, are still very important. While European Regional Policy has reduced regional disparities between the core and peripheries of Europe, these factors are not uniformly distributed (Winden et al., 2007; Mendez and Sanchez-Moral, 2011).

Many of these factors are incorporated into economic cluster theory via both urbanisation economies (related to market size, diversity of urban milieus, physical and human capital) and location economies (specialised local labour pools, auxiliary industries and information exchange). Thus, the vitality of clusters has been linked to the number of firms, the diversity of sectors and actors (firms, R&D institutions, administration, etc.), stable trading relations between firms, and with deeply-rooted intra-regional and trans-local networks through which codified and tacit knowledge is channelled (Bathelt et al., 2004). Local labour markets also play an important role, providing the diversity of skills and organisational flexibility demanded by the creative knowledge economy (Scott, 2008).

All of the above underlines the importance of the ‘community institutions’ of trust and social capital (Rodriguez-Pose, 2013). These are essential for shaping and securing transactions-intensive networks and interdependencies in de-routinised and de-standardised sectors such as creative knowledge industries (Scott, 2008). This reduces uncertainty and costs in the interaction between individual producers and workers and in the exploitation of the returns on agglomeration. This in turn contributes to improving the efficiency of economic exchange and local innovation (Storper and Venables, 2004).

Governance arrangements are also considered crucial in defining local policy agendas and discourses (Healey, 2004; Grodach, 2012). These require political coordination under multi-level governance structures. The policy agendas of the central cities should match those of the rest of the metropolitan region, and take into account the objectives of central governments in relation to both ‘hard’ (i.e. infrastructure or labour legislation) and ‘soft’ (i.e., migration policies or welfare provision) conditions.

Recent debates have directed attention especially to ‘soft’ conditions (i.e., urban amenities, levels of tolerance, population diversity). In this regard, despite the strong criticism that R. Florida’s ideas have generated – see for example: Boschma and Fritsch (2009) or Tremblay and Darchen (2010) – they are essentially part of the debate linking creative industries, creative class and knowledge-based urban development (Cabrita et al., 2013; Bontje et al., 2017).

All in all, ‘hard’ conditions in European cities – especially job opportunities – and ‘network factors’, including relations between firms, but also personal networks and trajectories which were developed when individuals grew up or studied in a certain place – turn out to be much more important in attracting human capital than ‘soft’ factors. Soft conditions may be more relevant for retaining talent (Musterd and Murie, 2010).

2.3 Questions

From this short discussion of the conditions for urban economic development we derive three general questions which will guide the analysis:

- 1 Which deep structural pathways and contemporary factors are crucial to understanding the different potentials of Madrid and Amsterdam to develop as ‘creative knowledge cities’?

- 2 What is the role of the institutional arrangements initiated after the industrial crisis, in terms of the impact of these on their development as ‘creative knowledge cities’?
- 3 What are the implications of the answers to questions 1 and 2 on the development of new policies towards creative knowledge cities?

3 Case selection and methodological approach

The selection of Madrid and Amsterdam follows the logic of ‘most similar’ cases (George and Bennett, 2005). Despite evident population differences, both are currently regarded as secondary global cities competing in similar European urban strata and functioning as decision-making centres: the particular status of Amsterdam as the economic and cultural capital of the Netherlands is somewhat similar to the capital city status of Madrid. Furthermore, the development paths of these two historic Western European cities were interwoven until the end of the 16th century, when the Dutch United Provinces instigated a rebellion against the Spanish Habsburg Empire of which they were part. This created the conditions for Amsterdam to become a hegemonic city in the world economy up to the first half of the 18th century. Both European commercial power centres accumulated a vast cultural legacy. Despite these relative similarities, their pathways diverged from that point on. This is of interest for this study, since it is precisely these differences that may be related to the differences in performance in the economic sectors we are focussing on. Amsterdam developed a more stable trajectory in the European core and Madrid a more reactive one in the periphery. Amsterdam currently seems to have a somewhat stronger competitive profile than Madrid and is firmly recognised as a creative knowledge city (Bontje et al., 2011). Amsterdam is also considered an international example due to conditions deeply rooted in its history (Peck, 2012). Madrid remained isolated during the twentieth century until the return to democracy, and only a few years ago was considered an outstanding case of insertion into the capitalist global economy (OECD, 2007).

Although both urban regions suffered from the 2008 crisis and subsequent restructuring, the impact on Amsterdam turned out to be relatively limited. Meanwhile, Madrid seems to be lagging behind again, as the development of the gross domestic product (GDP) and the change in the unemployment rate show (Table 1).

In short, there are also some structural differences between the two urban regions which may influence their position in creative and knowledge-intensive industries.

The starting point for the comparison between the two urban regions, and the search for crucial factors explaining the differences between them, is the aforementioned theoretical framework, firstly with a ‘thin’ description of the creative knowledge city profiles in both urban regions (Section 4), followed by ‘thick’ descriptions in Sections 5 and 6, aimed at uncovering more general causal mechanisms on the one hand, but with ample attention to contextual specificities on the other (Pierre, 2005). Quantitative data, from national and international sources; and qualitative data, derived from international surveys, literature reviews and the analysis of policy documents will be used to rigorously describe and subsequently analyse the differences between the two cases.

Table 1 Socio-economic characteristics and economic performance indicators (NUTS2)

	<i>Year</i>	<i>Madrid</i>	<i>Amsterdam</i>
City-region population	2014	6,378,297	2,741,369
Average annual population change (%)	2001–2007	2.29	0.53
Average annual population change (%)	2008–2014	0.70	0.69
Built-up areas change (%)	2009–2012	9.39	0
Share of jobs in manufacturing (%)	2014	8.92	6.64
GDP per inhabitant (Euros)	2014	33,900	45,600
GDP per inhabitant change (%)	2008–2011	–4.20	0.24
GDP per inhabitant change (%)	2010–2014	0.98	2.20
Employment change (%)	2008–2014	–13.30	–0.62
Unemployment rate (%)	2014	18.7	6.3

Source: EUROSTAT, EC

4 A ‘thin’ description of the ‘creative knowledge city’ profiles

Both urban regions stand out as important hubs for creative industries and knowledge-intensive industries (Michellini and Méndez, 2013; Bontje et al., 2011), with Amsterdam being somewhat stronger in relative terms.¹ (Table 2). In Madrid, three out of four jobs in the creative industries are in software, architecture or advertising. In Amsterdam, employment is more equally distributed between these three industries and music, visual and performing arts, as well as video, film, music production, and photography. In terms of employment, knowledge-intensive industries are more important than creative industries in both urban regions.

Madrid’s role as a national political and economic centre explains the strong presence of the financial services, but also its share in legal and other business services. In Amsterdam, the financial sector is smaller, but this is compensated for by legal activities and other business services.

Even though Madrid and Amsterdam represent by far the most important national agglomerations of the information and communications technology (ICT) sector, the respective employment levels in this sector are of limited significance. The spatial agglomeration of the creative knowledge industries – an initial symptom of clustering forces – is strong in both cases. The central areas of Amsterdam and Madrid concentrate the largest share of employment (60% and 70% respectively). The concentration of small culture-oriented creative firms in particular (i.e., music, visual and performing arts, architecture and the antiques trade) in the central neighbourhoods of Madrid overlaps with financial and legal services, R&D and higher education institutions. In contrast, an intense spatial de-concentration process towards the metropolitan region has affected many advertising, radio and TV and ICT firms since the 1990s. Amsterdam’s situation is different. Since the 1960s, financial and legal services have deconcentrated from the historic city centre to the southern edge of the city. ICT has also developed a deconcentrated location pattern since the 1990s. Most creative industries, especially small and self-employed companies, settled in the historic city centre or adjacent 19th century neighbourhoods. Larger creative companies have spread across the urban region.

Table 2 Employment in creative and knowledge-intensive industries (2012)

	<i>Madrid metropolitan region</i>			<i>Amsterdam metropolitan region</i>		
	<i>Jobs</i>	<i>Central city (%)^a</i>	<i>Total employ (%)^b</i>	<i>Jobs</i>	<i>Central city (%)^a</i>	<i>Total employ (%)^b</i>
Radio and TV	8,361	35.35	0.31	5,243	5.11	0.41
Music and visual and performing arts	11,739	83.65	0.43	24,906	72.76	1.93
Video, film, music and photography	14,447	68.30	0.53	16,239	57.52	1.26
Publishing	22,411	64.19	0.82	10,873	61.08	0.84
Advertising	30,315	82.88	1.11	15,513	60.41	1.20
Software	92,573	67.15	3.39	29,405	41.28	2.28
Arts and antiques trade	4,387	71.51	0.16	6,735	55.47	0.52
Architecture	55,869	77.18	2.04	19,536	50.10	1.51
Design	1,999	75.39	0.07	4,476	65.62	0.35
Total creative industries	242,101	71.07	8.86	132,926	54.42	10.30
Jobs/1,000 inhabitants	37.96			48.49		
Legal and other business services	100,882	79.81	2.03	104,651	54.43	8.11
R&D and higher education	55,227	77.55	0.81	23,675	80.58	1.83
Financial services	108,813	81.20	8.06	63,030	66.66	4.88
ICT	44,249	69.35	1.22	14,012	59.51	1.09
Total knowledge-intensive industries	309,171	73.21	12.11	205,368	61.55	15.91
Jobs/1,000 inhabitants	48.47			74.91		
Total creative knowledge industries	551,272	72.31	20.97	338,294	58.75	26.21
Jobs/1,000 inhabitants	86.43			123.40		

Notes: ^aShare of central city in that sector. ^bShare of creative knowledge employment in total employment for the region.

Source: Madrid City Council, Amsterdam, LISA

5 A 'thick' description of the 'deep-structural' histories of two well-established European capitals

An exhaustive analysis of the multiple economic, demographic or social 'layers' that were built up during the modern history of Madrid and Amsterdam is beyond the scope of this article. Instead, we selectively scrutinise urban development by analysing the most decisive factors – according to the theory – that have contributed to shaping the 'creative knowledge' economies of the two urban regions.

5.1 Madrid

Madrid acquired an early service profile, based around trade and public administration functions, thanks to the colonial trade and its status as the kingdom's capital (acquired in 1561). This had a huge impact on the city's demographic growth (from 9,000 inhabitants in the medieval fortified settlement to 85,000 at the end of the 16th century). The Spanish absolutist monarchy organised colonial trade under strict control of the *Indies Company* (headquartered in Madrid), which limited the transfer of benefits to the general population. This resulted in several economic and demographic crises affecting the country over the next two hundred years. Nevertheless, the city was witness to the Spanish Golden Age and the start of the Prado Museum's collection of paintings, as well as the foundation of one of the oldest universities in Europe (1499). During the nineteenth century this economic profile was reinforced by financial services, real estate and cultural activities. Pareja-Eastaway and Pradel i Miquel (2014) have linked the development of creative industries with the emergence of new lifestyles, the consolidation of the bourgeoisie and the creation of cultural or political state institutions in the capital city.

Industrialisation was initially weaker than in other European centres and Madrid only fully industrialised under Franco's dictatorship. At first, this involved an autarky policy (1939–1950) based on the international isolation of Spain and intervention in its internal market. That policy damaged innovation and the competitiveness of firms, while the persecution of intellectuals, scientists and artists and the absence of civil liberties discouraged the creativity of its citizens for decades. Nevertheless, state investment through the public holding 'INI' finally transformed Madrid into the country's second main industrial site, without destroying its diversified structure. Financial and construction activities received a boost from the post-war reconstruction, the proliferation of urban slums and campaigns in favour of home ownership and tourism.

The industrial crisis of the 1970s can be regarded as the starting point for the modernisation of the Spanish economy, which was given a further boost by joining the EEC in 1986. The openness of Madrid to the global economy attracted foreign investment and multinational companies in the financial and business services sectors (OECD, 2007). After Franco's death, and affected by the industrial crisis, the young Spanish democracy struggled to find a covenant between new political achievements (such as freedom of assembly and political association, the right to strike, press freedom, and the recognition of democratic unions) and the initial development of a welfare state on the one hand, and wage moderation on the other. The 'contract' maintained the status quo, ensuring an economic model based on low wages. This, however, prevented the modernisation of the country's productive structure, and largely explains the structural problems of low productivity, unemployment and labour precariousness that can still be seen today (Gallie, 2007; Sola, 2014).

The new Spanish Constitution (1978) also brought with it a new governance framework. A new regional autonomous government for Madrid was created in 1983, replacing the existing governance body at the metropolitan level which was seen as a centralised counter-power inherited from Franco. The same occurred with neighbourhood movements, many of whose leaders were recruited into the first democratic local governments; and with the counter-culture movement led by a young generation of pop stars, film directors and other artists, who were promoted officially in order to create an

internationally recognisable 'positive image' of Madrid (the first in decades). However, the institutionalisation of these movements limited their later influence.

Throughout its history Madrid has had to transform physically in order to cope with court and capital city needs. While major urban and communication projects carried out in the 19th century tried to place the city on a par with other European capitals, after the Spanish Civil War (1936–1939) the city set about its physical reconstruction under the strict control of the central government. This reinforced the initial identification of Madrid as the capital of the regime and as a centre of oligarchies (businessmen, financiers, landowners) which damaged the city's image for years. Since the 1980s many urban renewal projects have been initiated to improve living conditions in peripheral neighbourhoods. During the 1990s–2000s, land regulation changes and the financialisation of the economy led to unprecedented urban growth of the whole metropolitan region.

5.2 *Amsterdam*

As with Madrid, the economic profile of Amsterdam goes back to the European colonial period; it has been the country's main centre of finance, trade and internationalisation since the late 16th century. The demographic growth of Amsterdam went hand in hand with its impressive economic growth, especially in the half century known as the Dutch Golden Age (the population grew from about 30,000 to 210,000 in the 17th century). Amsterdam became what we would now call a 'global city', mainly thanks to being the centre of Dutch colonial trade, led by the Dutch East Indies Company and also later by the Dutch West Indies Company. These organisations were considered to be among the world's first multinationals and introduced new systems of trade, finance, and insurance, including a stock exchange and money exchange (Bontje et al., 2011). The concentration of wealth and economic decision-making created an ideal environment for the proliferation of creative industries, scientific progress and innovation. Amsterdam's leading merchant families were eager to invest in the arts, cartography, culture and higher education; the Athenaeum Illustre, which later became the University of Amsterdam, was founded in 1632.

In a somewhat parallel way to Madrid, Amsterdam lost its leading position in the late 17th century and stagnated until the late 19th century when colonial trade was revived and the industrial revolution finally took off in the Netherlands. Like Madrid, Amsterdam was relatively late to industrialise and in fact never really became an industrial city. As a result, the city's traditional economic strengths in trade, finance, education and culture remained unchanged. In this 'second Golden Age', the widely known Rijksmuseum and Concertgebouw were opened, as well as the city's second university, the Free University. Again, economic growth went hand-in-hand with progress in the creative and innovative industries and in science (Bontje and Musterd, 2008).

With the loss of its colonies in the 20th century, the Netherlands' economic driver of colonial trade weakened. Nevertheless, post-war Western Europe and the Netherlands in particular benefited from aid under the Marshall Plan which led to huge investment in manufacturing, technology and infrastructure. This was based on a 'Keynesian social pact' between states, firms and unions to achieve similar wage moderation in exchange for full employment and welfare policies. After years of prosperity, Amsterdam was affected by the industrial crisis and hit by high unemployment and a deterioration of the inner city. In response to the crises of the 1960s and 1970s, many urban renewal projects

were initiated during the 1980s and Amsterdam recovered remarkably to become the attractive and competitive city that it is generally considered to be today.

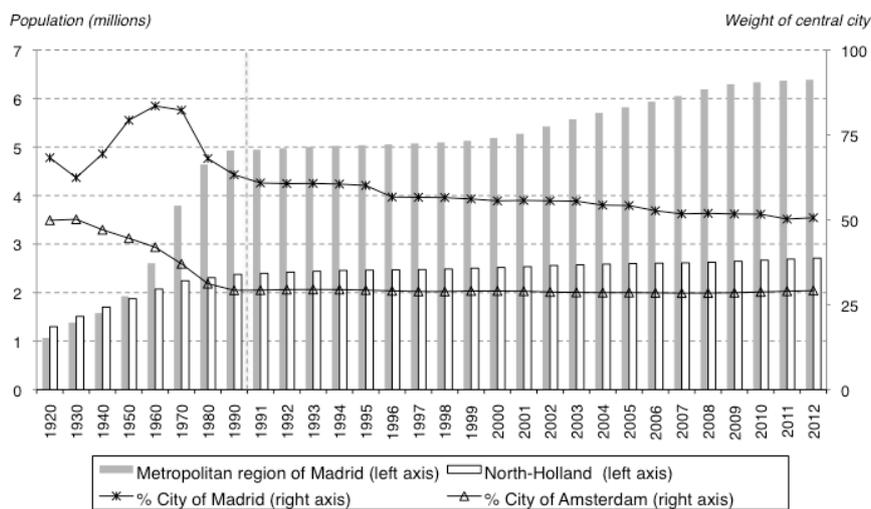
This was also a time of public protest and violent clashes. In retrospect, the public protests and urban social movements of the 1960s and 1970s can be considered the trailblazers for Amsterdam’s current status as a hub of creativity, knowledge and innovation. Just like in Madrid, however, most of the former urban social movements seem to have become institutionalised, leading to critical debates about what is left of their ideals and to the question of whether Amsterdam can still be called a ‘just city’, offering fair opportunities to everyone living there (Uitermark, 2009; Savini et al., 2016).

All in all, the city’s reputation as liberal and tolerant is an important legacy. Since the early days, one feature of Amsterdam’s governance has been that it was ruled by the people instead of by royalty or religious powers, as was common in most other European capital cities. Amsterdam also experienced some ‘dark’ episodes along the way, such as slave trading between Africa and America. Nevertheless, Amsterdam’s image as a city of freedom, created through centuries of strengthening its openness to trade, business and ideas, offers a great contrast with Madrid.

6 A ‘thick’ description of contemporary factors shaping the recent economic performance of Madrid and Amsterdam

The analysis of the historic development paths of Madrid and Amsterdam allows a ‘dialogue’ to be established between deep structural conditions and contemporary factors. Both regions have experienced the reinforcement of agglomeration economies throughout their evolution, which seemed quite similar up to the 1960s, when Madrid experienced the ‘second industrialisation’ wave and mass migration from rural areas (Figure 1).

Figure 1 Population development of Madrid and Amsterdam, 1900–2012



Source: Authors’ data based on EUROSTAT, Madrid City Council and Amsterdam Bureau Onderzoek en Statistiek (O + S)

From that point on, their population developments have diverged, although both cities have displayed a reduction in the weight accounted for by the central city (down to 50% of the regional population in Madrid and to 30% in Amsterdam). Meanwhile, intense immigration has reflected the strong international position of Amsterdam which today is recognised internationally as a multicultural and multi-ethnic city (Table 3).

Table 3 Indicators of contemporary conditions for developing as creative knowledge city-regions

<i>Indicator</i>	<i>Theoretical domain</i>	<i>Year</i>	<i>Madrid</i>	<i>Amsterdam</i>
City-region population ^a	Hard factors	2015	6,385,298	2,761,929
Core city population ^b	Hard factors	2013	3,207,247	799,278
Share of people aged 25–64 with tertiary education ^a	Hard factors	2014	47.2	40.8
Labour cost (€, full time per hour) ^c	Hard factors	2012	23.68	30.81
Share of professionals, technicians and associate professionals in high-technology sectors (%) ^a	Hard factors	2015	46.6	56.0
Share of permanent contracts in creative knowledge sectors (%) ^{d,e}	Hard factors	2010/2008	59	68
Airport passengers (thousands) ^f	Hard factors	2015	46,815	58,284
Households with broadband access (%) ^a	Hard factors	2014	83	94
EQI index (rank) ^g	Hard factors	2013	103	32
European Cities Monitor: best to locate business (rank) ^h	Hard factors	2011	7	4
No. of start-ups per 100 enterprises (information, communications, professional services, arts and entertainment) ^a	Hard factors	2010	8.80	13.39
Average no. of employees per enterprise (information, communications, professional services, arts and entertainment) ^a	Hard/cluster factors	2010	5.20	5.79
International students ⁱ	Hard/network factors	2013	47,359	6,750
Foreign-born as a share of the population (core city) ^b	Soft factors	2012	20.5	28.0
Position in Mercer's quality of living survey ^j	Soft factors	2011	51	11
Rent per month (\$US) ^k	Soft factors	2014	1,816	3,612

Source: ^aEUROSTAT (NUTS2), ^bUrban Audit; ^cEUROSTAT (NUTS1), ^dSánchez-Moral and Arellano (2012), ^eBontje et al. (2008), ^fAirport Council International, ^gCharron et al. (2014), ^hCushman and Wakefield, ⁱThe Class of 2020, ^jMercer LLC and ^kGlobal Property Guide

Consequently, firms in both regions are today benefitting from major urbanisation economies, beginning with the availability of capital, the accumulation of institutions, organisations and the presence of highly-skilled human capital (Table 3). However, there are some clear differences as well.

The proportion of professionals in the high-technology sectors is almost ten points lower in Madrid. This reflects its economic concentration on services and house building, which limits job opportunities for qualified workers. Madrid also has a lower quality of employment in creative knowledge industries; the share of permanent contracts – often used as a ‘proxy’ variable for quality – is almost ten points higher in Amsterdam. These labour market differences, rooted in history, contrast with the position of the cities as international educational centres where Madrid clearly has a stronger position than Amsterdam. The economic structure has helped to maintain the traditional Spanish economic model based on low labour costs. This creates an international competitive advantage but also low innovation and productivity rates. The EC Regional Innovation Scoreboard classifies Madrid as a ‘moderate innovator’, while ‘Greater Amsterdam’ is classified as an ‘innovation leader’ (EC, 2017). The differences are less evident in other hard factors, such as infrastructure and telecommunication networks. The decisive impact of the Barajas (Madrid) and Schiphol (Amsterdam) airport hubs on their regional and international positioning and on the performance of creative and knowledge-intensive industries is obvious.

The historical development of these cities is also reflected in the quality of the institutional environment. According to an index measuring the overall quality of institutions², Amsterdam ranks well above Madrid. The European City Monitor³ indicates that in terms of attractiveness as a place for doing business, in terms of tax policies and the availability of financial incentives, Amsterdam again has a higher score than Madrid, although some of the tax incentives are nowadays seen as highly improper. Nevertheless, Madrid’s institutional context is regarded as being weaker than that of Amsterdam. This seems to relate directly to the difficulties of starting a business in Madrid, and is reflected in the level of shareholder protection. One illustration is the rate of new firms per 100 existing firms in the selected business areas. Those for Amsterdam are clearly higher than those for Madrid.

Along with hard factors, networks must be considered from different perspectives. Madrid and Amsterdam’s long histories as economic decision-making centres are reflected in their strong position in today’s world city network. The ‘Globalisation and World City (GaWC) research network’, ranks Madrid 4th in Europe in terms of global connectivity, measured in terms of networks of offices of the largest international firms in producer services (Table 4). This is just behind London, Paris and Milan, and ahead of Amsterdam (ranked at number eight). The position of Madrid is strong in financial services and in management consultancy. Amsterdam stands out as a centre for legal services and management consultancy, while other strategic command functions are more widely distributed within the polycentric Randstad region (Taylor et al., 2011).

With regard to the relative weight of connections with other European cities, Madrid has a stronger position than Amsterdam. Amsterdam has stronger links with North America and Pacific Asia. These positions again reflect historical trading patterns: Dutch involvement in the foundation of the first North American colonies and in establishing preferential trading relationships with the Asia Pacific region. Also relevant is the ‘North Atlantic’ political and economic focus of the Netherlands after World War II. On the

other hand, the deeply-rooted cultural link Spain has with Latin America explains the orientation of many financial and business services firms headquartered in Madrid. Furthermore, as a cultural capital among Spanish speakers, Madrid displays a leading position for some cultural products and services.

Table 4 Madrid's and Amsterdam's networks of business service firms in 2008

	<i>Madrid</i>		<i>Amsterdam</i>	
	<i>Rank</i>	<i>Proportionate connectivity (1.00 = London)</i>	<i>Rank</i>	<i>Proportionate connectivity (1.00 = London)</i>
Global network connectivity ^a	4 (11)	0.65	8 (23)	0.55
Financial services	3	0.70	8	0.56
Accountancy	8	0.56	19	0.47
Legal services	8	0.37	5	0.40
Advertising	7	0.60	13	0.53
Management consultancy	4	0.55	6	0.47
Europe ^b	46	1.62	62	0.93
Northern America	32	-0.02	23	0.53
Pacific Asia	8	0.60	5	1.15

Notes: ^aGlobal Network Connectivity is based on the connectivity between the offices of 175 of the world's leading firms in advanced producer services across 525 cities. All rankings refer to a total of 70 European cities, with the world position shown in brackets. ^b'Europe', 'Northern America' and 'Pacific Asia' measure the relative concentration of connections to Europe and to the other two major world regions respectively. The standardised values (average = 0) indicate whether a city is relatively over- or under-linked.

Source: Adapted from Taylor et al. (2011)

Intra-regional and trans-local networks may be derived from input-output relationships. Unfortunately, making precise comparisons at this point is impossible due to a lack of adequate data for similar time periods. However, the limited data available supports the idea that activities with a high share of local employment, such as business services or advertising, publishing, film, video, TV, radio and sound, display strong regional trade relationships (Madrid Statistics Institute, 2011; RUG/CBS, 1999). In contrast, ICT activities are clearly more export-oriented.

We assume that the concentration of state cultural and political institutions seen throughout the urban history of both cities has fostered the co-location of cultural industries (i.e., printing houses, performing arts and entertainment services). However, proximity to suppliers and customers will also have played a role. In addition, some clustering of firms in the creative industries will be triggered by local trust and reputation-shaping networks, as Deinema (2012) and Heebels (2012) have shown for publishing activities in Amsterdam's Canal District and Michelini and Méndez (2013) for performing arts activities and other creative firms in the historic central neighbourhoods of Madrid.

7 Governance framework and recent initiatives for developing creative knowledge cities

Although both Madrid and Amsterdam embrace the idea of the creative knowledge city, there are clear differences between the two regarding their urban governance in general and more specifically the initiatives they take to enhance their position. These differences appear to be deeply rooted in the cities' social and institutional substrates (Pareja-Eastaway and Pradel i Miquel, 2014). The comparisons in this section cover the period from the beginning of the 2000s, when the Europe-wide shift towards neoliberalism and entrepreneurialism had already had an impact on both cities.

7.1 Governance and participation mechanisms

Madrid's governance framework is characterised by poor institutional coordination. Friction between the central city council and the regional government is common, while the lack of instruments for metropolitan coordination and spatial development is a well-known problem (OECD, 2007). This particularly affects the large number of local initiatives launched just before the crisis in the field of knowledge and creative activities across the metropolitan region. Madrid contrasts with other Spanish cities such as Barcelona and Bilbao, which exhibit high performance levels in terms of their creative and knowledge economies. As a capital city, Madrid has had a privileged relationship with the central government but this may have limited the power of the local institutions (Iglesias et al., 2012).

The lack of coordination in Madrid also affects local government and a number of autonomous entities, including the (now extinct) Development Agency which was created in 2004 to reinforce the city council's leadership. In contrast, collaboration with the private sector is increasing, reflecting the 'alliance' between the local and regional governments and the financial and real estate sectors.

The participation of civil society in governance networks remains limited compared to other capital cities (Michelini and Méndez, 2013). Historically, scant use has been made of formal mechanisms, such as the 'territorial councils' created at the urban district level, and public representatives frequently obstruct these. With this situation of political centralisation and frequent conflict with social actors, participation has mostly been conducted via informal mechanisms (Walliser, 2013).

The Amsterdam region lacks a strong formal regional government. The Dutch provinces are relatively weak compared to the local and national government layers and the Amsterdam region spreads across several provinces. The formal region created in the 1990s, Stadsregio Amsterdam, turned out to be too small and has therefore been discontinued. A more successful alternative was the Amsterdam Metropolitan Area (AMA), a voluntary regional collaboration with a much wider scope. In the AMA, 36 municipalities and several regional institutions frequently meet and negotiate collaborative regional strategies and projects. This informal regional governance system has been an important force behind most of the recent initiatives to strengthen the Amsterdam region as a knowledge, innovation and creativity hub. As part of the new local strategies, 'growth coalitions' of government, business and knowledge institutes have also emerged in Amsterdam. However, within the AMA, the city of Amsterdam dominates and its claims are often successful at the expense of the rest of the region.

Furthermore, the democratic legitimacy of such a regional governance structure may be questioned, as the citizens it claims to represent can only indirectly influence policies through their own municipality, and not directly at the regional level (Savini et al., 2016).

7.2 Outstanding policy initiatives within a new urban creativity agenda

Since the early 2000s many initiatives have been launched at a local and regional level, all fostering creative and knowledge industries in both urban regions⁴ (see Bontje et al., 2011 for a more extensive overview of Amsterdam; and Michelini and Méndez, 2013 for Madrid). Table 5 summarises some of the most cited initiatives.

Table 5 Some significant regional and local strategies and initiatives of importance for creative knowledge industries (2000–2014)

	<i>Madrid</i>	<i>Amsterdam</i>
Regional level	‘PromoMadrid’ (FDI, fairs, events) Cluster Platforms	OPERA ‘Going for Gold’ Knowledge and Innovation Agenda
Local level	Business incubators, service centres and urban labs Artist and entrepreneur workspaces (Matadero-Madrid and AVAM)	Amsterdam Topstad Amsterdam Innovation Monitor Art Factories (Broedplaatsen; Incubators)

Source: Authors’ elaboration

In recent decades, Madrid’s regional government has aimed to improve the region’s competitiveness in relation to the other European metropolises. The initiatives range from the upgrading of the transport infrastructure, in close collaboration with the state government (i.e., the Barajas airport extension, high-speed train lines), to the reinforcement of the international positioning of Madrid as a business centre (by attracting foreign direct investment, and hosting international meetings, fairs and events). However, as in many other European countries, the main efforts have concentrated on the promotion of so-called ‘cluster platforms’ (i.e., aerospace, audio-visual activities, car industries, biotechnology, graphics and communications, logistics, renewable energy, health and wellbeing, ICT, security and trust, tourism and the Spanish language). The initiatives launched include improving the business climate and strengthening innovation and technological firms’ capacities and promoting (before the crisis) science parks and ‘tech poles’ to accommodate firms across the metropolitan region. Several of these top-down initiatives illustrate the limitations of creating clusters from scratch. Many were selected under the strong influence of chambers of commerce, industry associations and real estate companies, acting as true regional lobbies. Recent history has shown, however, that – with some exceptions – these clusters did not develop beyond their ‘virtual’ initial status, while others performed poorly (Sánchez-Moral, 2009).

A second major policy area corresponds to initiatives to support creativity from the entrepreneurial and cultural perspectives. In both cases Madrid city council has played a significant role, while displaying certain internal dichotomies between the departments in charge, as seen in Amsterdam. First, with the explicit purpose of positioning Madrid as a creative-knowledge city, the local government has focused on fostering innovation and entrepreneurship through a network of ‘urban labs’, business incubators and service

centres. A specific programme for nurturing and subsidising the creative industries of young entrepreneurs has been implemented, which is a milestone in the adoption of the concept of creativity within the local policy agenda.

Meanwhile, culture and the arts have been promoted via the provision of workspaces for artists and creative entrepreneurs, such as those offered through the collaboration between Madrid city council and Madrid Association of Visual Artists (AVAM). At the same time, the most important initiative has been the refurbishment of the huge former central slaughterhouse ('Matadero-Madrid'), re-used today as a centre of contemporary arts. Despite certain apparent similarities with other examples in Europe, the origin of such top-down initiatives seems disconnected from grassroots movements. In contrast, in recent years flourishing alternative urban cultural movements and self-managed collectives – following a more bottom-up approach – have been actively engaged in other urban projects that had previously been halted or were delayed by the crisis (Walliser, 2013). Indeed, due to the global economic crisis, large-scale cultural and knowledge infrastructures are much harder to implement. 'Madrid's Strategic Plan for Culture (2012–2015)' therefore sought to foster collaboration between partners and networks within a 'creative ecosystem'. The vague nature of the newly adopted approach and its financial uncertainties at the end of the period being analysed, as well as local government remodelling, has similarities with Amsterdam's experience (Peck, 2012).

The major initiatives in Amsterdam at a regional level traditionally relate to economic development and competitiveness, including common issues like infrastructure (Schiphol airport in particular), diversification of the economy, and attraction of international visitors and encouraging governance and public-private partnerships. However, the key role of creative and knowledge intensive industries is more explicit than in Madrid (i.e. in the OPERA or 'Going for Gold' programmes). Indeed, the Amsterdam city-region has recently developed a cluster-driven strategy, within which one of the most prominent and influential programmes is the 'Knowledge and Innovation Agenda' (KIA), one of the first concrete results of the Amsterdam Economic Board, founded in 2010. Government, business and knowledge institutions meet and collaborate to strengthen the international competitiveness of the Amsterdam Metropolitan Area. The KIA is a key tool in encouraging regional collaboration. The core strategy (as in Madrid) is based on a cluster approach, with the prioritised clusters being: creative industries; financial and business services; ICT/e-science; life sciences and health; flowers and food; logistics; and tourism and conferences. In addition, sustainability is promoted in the regional economic strategy as a cross-sector theme. Attracting and retaining international headquarters is also prioritised (Amsterdam Economic Board, 2011). The philosophy behind the KIA – aiming at a synergy between government, business, higher education and research – was first developed in Finland and is a clear example of 'mobile policies' (Lawton et al., 2010).

The economic perspective has progressively been introduced into the local policy agenda (throughout the *Amsterdam Topstad* programme). The spatial development dimension is still important as well and the role of the 'Art Factories' programme, implemented much earlier than the KIA, is frequently mentioned. In the 1990s, 'free spaces' for artists and new creative companies disappeared due to the redevelopment of the former port and industrial areas and a protest movement, led by artists and squatters, encouraged the city's government to take action. The city's government realised that affordable workspaces for start-up creative industries are also an important ingredient in

remaining or becoming a creative city, and it therefore initiated the *Broedplaatsen* ('Incubator') programme, marketed internationally as 'Art Factories'. Buildings and spaces that were temporarily unused were offered to emerging artists and creative start-up companies at rents significantly below market rates. The artists and companies were only supposed to stay for a few years, after which they would make room for new emerging artists and creative start-ups (Arnoldus, 2004). The programme became quite successful and has, remarkably, survived several national and local elections and changes in urban development strategies. The programme has also been criticised, however. Over time, it has gradually become commercialised, serving as a tool for neighbourhood upgrading and competition rather than its initial aim: offering an affordable start-up milieu for 'marginal' creative individuals. The 'Art Factories' programme has, meanwhile, also been exported. Many city delegations have visited Amsterdam to learn how it works and have shortly afterwards tried to establish similar strategies (Peck, 2012).

Although starting from totally different and maybe even contrasting starting points, eventually the 'Art Factories' programme and the KIA have become complementary parts of a more comprehensive creative knowledge strategy, fostering and encouraging creative and knowledge-intensive companies across the full spectrum, from the self-employed and tiny start-ups to multinational corporations. Policy agendas at the local and regional level have traditionally included not only these two main approaches but also other initiatives in the housing and social spheres, as well as the common promotion of thematic events and marketing campaigns in which creative industries featured prominently (Bontje et al., 2011).

8 Discussion and conclusions

The distinctive trajectories of Madrid and Amsterdam show that the cognitive-cultural economy may represent an economic opportunity, albeit one with no single, unique pathway towards creating the 'perfect' creative knowledge city. Taking into account the complexity of factors simultaneously affecting the location and growth of these activities, the comparison of Madrid and Amsterdam's paths allows for a discussion structured into three areas: strengths and weaknesses in terms of the necessary conditions for development in creative and knowledge industries; the societal-contextual factors that influence urban development; and finally, the cities' pathways, their potential impact and their policy implications.

8.1 *Strengths and weaknesses*

The analysis of conditions which has provided an understanding of the development of creative knowledge cities has firstly shown the strong influence of historically developed deep-structural conditions and contemporary, 'classic' or 'hard' conditions (Table 6).

Madrid and Amsterdam are known as international political and economic decision-making centres, which makes them attractive, especially for firms integrated into global and regional networks and for qualified workers in general. In the case of Madrid, its isolation in a corner of Europe – a condition strengthened by the Franco regime some decades ago – fuelled the city's long-term strategy to reach a status beyond the European continent, i.e., a 'global' status. Madrid has been able to build on its urban size, its role as a capital city, and on agglomeration economies. Amsterdam has not been

able to capitalise on these assets, yet it has profited from urban synergies and complementarities in the polycentric Randstad region. Both urban regions are also known as international historical-cultural centres that benefit from having multiple development layers on which to build in the attempt to become knowledge creative cities.

Table 6 Conditions for the development of creative knowledge cities (overview)

	<i>Madrid</i>	<i>Amsterdam</i>
Strengths	<ul style="list-style-type: none"> • Global positioning as economic decision-making/historical-cultural centre • Capital city role • Strong agglomeration economies • Transport and telecommunications infrastructure • High education level • Dynamics of collaboration among creative and knowledge activities • Art and cultural heritage. 	<ul style="list-style-type: none"> • Global positioning as economic decision-making/historical-cultural centre • Polycentric urban development and quality of built environment • Transport and telecommunications infrastructure • Diverse economy • High education level • Diverse and multicultural population • Dynamics of collaboration among creative and knowledge activities • Art and cultural heritage • (Increasing) regional cooperation • Capitalisation on grassroots and social movements • Strong international image.
Weaknesses	<ul style="list-style-type: none"> • Labour market problems (job scarcity and insecurity) • Housing market access • Institutional bottlenecks (e.g. business environment, regional cooperation) • Limited public participation • Limited attractiveness of (part of) built environment • Weak international image. 	<ul style="list-style-type: none"> • Space scarcity • Housing market access • Social imbalance • Gentrification and social spatial polarisation.

Source: Authors' data

Although this study has supported the view that so-called soft factors generally play only a minor role in urban economic development, while hard conditions and personal networks are the most important contemporary conditions, it is clear that urban diversity, an international reputation for openness and tolerance (more evident in the past) and the quality of its built environment form part of Amsterdam's strengths. Urban renewal policies have increased the attractiveness of 19th century neighbourhoods for residents and creative firms. However, attention should be paid to the threat of gentrification and

increasing social polarisation (see e.g., Van Gent, 2013). Other threats relate to recent ethnic tensions and less tolerant attitudes (Bontje et al., 2011).

In contrast, Madrid's built environment – clearly affected by former authoritarian urban planning, which promoted 'glorious' times and central political power – has suffered from its own growth-oriented strategies and the resulting urban sprawl. Recent regeneration plans for the city centre have increased the city's attractiveness for tourists and residents, although they have also been criticised for accelerating gentrification processes and for avoiding public participation (see e.g. Iglesias et al., 2012). In addition, Madrid has struggled for years to improve its international reputation. So far, this has not been completely accomplished, either by the cultural movement of the early 1980s or by international cultural events such as being named European Capital of Culture in 1992. This is further illustrated by the ten urban branding campaigns launched since 2005, including three failed Olympic Games bids (Canosa and García, 2012).

8.2 Influence of societal-contextual factors

All of the above shows that the economic performance of Madrid and Amsterdam is strongly influenced by structural and path dependent processes. Common strengths such as infrastructure (clearly more prioritised in Madrid's recent competitiveness strategies) and human capital reflect the positive contribution of European regional policy in reducing the structural disadvantages of peripheral regions. Nevertheless, structural differences remain with regard to the knowledge-based economy.

On the other hand, the (restored) Spanish democracy is relatively young in contrast to the long democratic tradition of the Netherlands. This has had an impact on the stability and quality of institutions. In addition, the still recognisably hybrid nature of the regulatory environment of Amsterdam, a combination of neoliberal and strong welfare interventionist visions, has contributed to creating a unique business climate (Engelen and Musterd, 2010). The more liberal orientation of Madrid's institutions prevents similar 'buffering' interventions as seen in Amsterdam, which is reflected in public sector employment creation, capital investment and the promotion of creative knowledge industries. Finally, historically grown contextual settings may also explain differences between the two cities in terms of social norms and the values shaping economic relations, and in terms of identity. A complementary in-depth research strategy would, however, be required to gain more of an insight into these dimensions.

8.3 Pathways and policy implications

Along with the influence of contextual factors, some causal patterns emerge from the comparison of the pathways of the two city-regions. Clearly, the impact of colonial trade was extremely beneficial in terms of the early acquisition of diversified urban service profiles, positioning within global networks, and for developing a unique physical, social and cultural heritage. However, Madrid and Amsterdam inherited not only 'bright' but also 'dark' legacies from their long histories. Moreover, the comparison of the two pathways supports the view that political and economic disruptions may have very negative effects on the development of creative knowledge industries. This is clearest in the case of Madrid. In this paper we have selectively looked at the industrial crisis and the institutional arrangements that emerged from it. Following Rodríguez-Pose (2013), such events may have affected the efficiency of economic development. One outstanding

example is the 'Keynesian social pact' that fuelled decades of growth in Western Europe (also in the Netherlands). The Spanish version of this contract was the continuation of policies that kept wages low in exchange for democratic rights and initial welfare development. Furthermore, the continuation of old labour regulations and the lack of flexibility help to explain the structural problems seen in the Spanish labour market today, probably the key negative factor affecting the ability to attract employees in creative and knowledge-intensive industries.

Amsterdam's governance system experienced increasing economic returns, while Madrid suffered from political ruptures. The current urban governance frameworks of both cities show marked differences in terms of vertical and horizontal cooperation and public participation (both are stronger in Amsterdam than in Madrid), or collaboration with the private sector (initially more empowered in Madrid). According to Scott (2008), differences in 'local institutional arrangements' should influence urban policymaking, governmental and non-governmental infrastructures, and capacities for collective action.

Nothing seems to have been more decisive for Amsterdam than local stakeholder involvement and institutional cooperation in pursuit of the creation of an urban narrative. This capitalised on the public protests and urban social movements of the 1960s and 1970s. Madrid had to wait some decades to witness similar freedom of protest and citizen participation. This occurred especially with the rise of Madrid's cultural movements in the early 1980s and with the new urban activism connected with the '15th Mobilisation' (15M) in 2011. These grassroots and social movements had a refreshing impact on the city's image internationally. Moreover, they support the left-wing coalition that has been governing the city since 2015, which in fact struggles nowadays to correct some of the traditional institutional deficiencies.

The empirical evidence suggests the wisdom of reflecting on the tailored context-sensitive nature of policies in each city (Musterd and Kovács, 2013). Any city can develop its own policy strategies in an attempt to become a creative knowledge city and there is no obligation to follow the global trend of 'best-practices policy transfer'. Even Amsterdam, which supposedly enjoys deeply-rooted and contemporary conditions that are supportive for developing as a creative knowledge city manages, paradoxically, to attract the attention of foreign policy-makers with specific local programmes and initiatives. In the case of Madrid, the deeply rooted liberal urban regimes and the lack of a clear alternative urban narrative for the exhausted and contested 'Madrid global vision' may explain the rapid adoption of that 'vehicular idea' of 'creative competitiveness' as identified by Peck (2012). It is questionable whether that will really bring about a comparative advantage.

The main 'prevailing policy' approaches are well represented in our case studies. However, beyond the success of the European Regional Policy, the reduction in the differences observed in terms of classic conditions suggests a declining role for these conditions as a source of comparative advantage when cities compete globally. Arguably, even though there are still important differences between urban regions, globalisation is somehow equalising the attractiveness of some European 'global regions', including those from the South (Capello et al., 2011).

All of the above underlines the benefit of considering the strengths and weakness that stem from a city's own development path. This should receive ample attention when designing new policies, together with the potential arising from strong personal attachments and networks (Musterd and Kovács, 2013). The experience of Amsterdam

has shown that the city-region is already progressing towards a comprehensive creative knowledge strategy, involving all these aspects. So far, a more sectoral vision prevails in Madrid, within which some of the identified shortcomings (i.e., institutional capacities) have received less attention. Meanwhile, the development of new policy approaches based on the important roles of personal networks and personal trajectories is still limited. Initiatives involving highly-skilled expatriate employees, international students as potential entrepreneurs and neighbourhood initiatives are not yet receiving the attention they deserve.

In conclusion, the strong inertia of structural factors affecting competitiveness in economic and societal contexts does indeed limit the potential of policies aimed at fostering creative knowledge cities. The success of such policies ultimately requires long-term, context-dependent and tailored policy making that takes into account a city's developmental pathways and personal trajectories and networks.

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Notes

- 1 To avoid a very broad identification of the creative and knowledge intensive sectors, the following 2- or 3-digit NACE codes were considered: radio and TV (601, 602); music and visual and performing arts (900); video, film, music production and photography (182, 591, 592, 742); publishing (581, 639); advertising (731); software (582, 620); arts and antiques trade (910, 321, 322, 237); architecture (711); design (741); legal and other business services (691, 692, 701, 702, 732, 781, 823); R&D and higher education (72, 854); financial services (64, 65, 66); ICT (261, 262, 263, 264, 265, 273, 61, 631).
- 2 The EQI index measures government quality at the NUTS-2 level in terms of combating corruption; rule of law; government effectiveness and bureaucracy; and government accountability. It is based on a survey of 34,000 residents across 18 EU countries (Charron et al., 2014).
- 3 Grant and Chuang (2012) recently discussed the use of indicators in ranking knowledge-based development of cities.
- 4 It is necessary to also mention the initiatives launched at a national level. The Spanish central government supported Madrid's competitiveness through general macroeconomic reforms and fiscal and monetary policies, infrastructures, and education; but also more specifically through cultural promotion of the city. In the Netherlands, the international competitiveness goal seems much more explicit, notably with different programmes to foster knowledge and creative clusters. Recently, some of these aim to achieve the greater involvement of the business sector and the creation of a 'business-friendly' investment climate.