

Geographies of knowledge formation in advanced producer services: some evidence from the Dutch Randstad

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**Geographies of Knowledge Formation in Advanced Producer Services:
Some Evidence from the Dutch Randstad**

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3 **Geographies of Knowledge Formation in Mega City–Regions: Some Evidence**
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7 **from the Dutch Randstad**
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4 *Abstract*
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7 An important source of competitiveness for mega city–regions results from
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9
10 their capacity to combine a strong local knowledge capital base with high
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13 levels of connectivity to similar regions elsewhere in the global economy.
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16 Globally networked advanced producer services firms are presumed to play a
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19 key role in transferring knowledge between local and global circuits. But how
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21
22 does this actually work? Which kinds of knowledge may be acquired through
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25 global networks and which others not? An in–depth analysis of the practices
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27
28 of knowledge production by advanced producer services firms in the mega
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30
31 city–region of the Randstad provides some answers.
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38 Keywords: Mega city–regions, knowledge relationships, advanced producer
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41 services, multi–office firms, regional competitiveness, the Randstad
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48 JEL codes: D21, D83, F23, L8
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50 Des géographies de la formation de la connaissance dans des mégalo­poles:
51 des preuves provenant de la Hollande Randstad
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55 Lambregts
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59 Une source importante de compétitivité pour les mégalo­poles provient de leur capacité à
60 combiner une base de connaissance locale forte avec des niveaux de connectivité aux régions
similaires quelque part ailleurs dans l'économie mondialisée. Les sociétés de services avancés

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3 à l'industrie qui sont en réseau sur le plan mondial sont censées jouer un rôle clé dans le
4 transfert de la connaissance entre des circuits locaux et mondiaux. Mais il faut se poser les
5 questions suivantes. Comment est-ce que cela se déroule dans la réalité? Quelle connaissance
6 est-ce que on peut ou est-ce qu'on ne peut pas acquérir par le canal des réseaux mondialisés?
7 Une analyse approfondie des méthodes de production de la connaissance par les sociétés de
8 services avancés à l'industrie situées dans les mégalopoles de la Randstad fournit quelques
9 réponses.
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14 Mégalopoles / Rapports de connaissance / Services avancés à l'industrie / Sociétés à bureaux
15 multiples / Compétitivité régionale / Randstad
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19 Classement JEL: D21; D83; F23; L8
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23 **Geografien der Wissensbildung in Megastadtregionen: Belege aus der**
24 **Randstad in Holland**

25 Bart Lambregts

26 *Abstract*

27 Ein wichtiger Faktor der Wettbewerbsfähigkeit von Megastadtregionen liegt in ihrer
28 Kapazität begründet, eine starke lokale Wissenskapitalbasis mit einem hohen Maß
29 an Verknüpfung mit ähnlichen Regionen an anderen Orten der globalen Wirtschaft zu
30 kombinieren. Es wird angenommen, dass weltweit vernetzte Wirtschaftsdienstleister
31 bei der Übertragung von Wissen zwischen lokalen und globalen Kreisläufen eine
32 zentrale Rolle spielen. Doch wie funktioniert dies in der Praxis? Welche Arten von
33 Wissen lassen sich über globale Netzwerke erwerben und welche anderen nicht?
34 Eine intensive Analyse der Praktiken der Wissensproduktion durch
35 Wirtschaftsdienstleister in der Megastadtregion Randstad liefert einige Antworten.
36

37 **Keywords:**

38 Megastadtregionen

39 Wissensbeziehungen

40 Wirtschaftsdienstleistungen

41 Firmen mit mehreren Filialen

42 Regionale Wettbewerbsfähigkeit

43 Randstad

44 JEL codes: D21, D83, F23, L8
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49 Geografías de la formación de conocimiento en las regiones mega-ciudad: algunos
50 ejemplos del Randstad en Holanda

51 Bart Lambregts

52 *Abstract*

53 Un factor importante de la competitividad de las regiones mega-ciudades radica en la
54 capacidad de combinar una base sólida de capital de conocimientos locales con
55 altos niveles de conectividad para regiones similares en otras partes de la economía
56 global. Se supone que las empresas de los servicios avanzados de productores con
57 redes en todo el mundo desempeñan un papel fundamental en transferir
58 conocimientos entre circuitos locales y globales. Pero ¿cómo funciona esto en la
59 práctica? ¿Qué tipos de conocimientos podrían adquirirse a través de redes globales
60 y cuáles no? Un análisis exhaustivo de los métodos de producción de conocimientos

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3 por parte de empresas de servicios avanzados al productor en la región mega-
4 ciudad de Randstad nos ofrece algunas respuestas.

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6 Keywords:

7 Regiones mega-ciudad

8 Relaciones de conocimiento

9 Servicios avanzados de productores

10 Empresas con varias oficinas

11 Competitividad regional

12 El Randstad

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15 JEL codes: D21, D83, F23, L8
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23 INTRODUCTION

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25
26 In today's knowledge intensive economy, the competitiveness of regions is
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28 highly dependent on the capacity of actors located within them to generate
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30 leading edge knowledge. In generating state-of-the-art knowledge, however,
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32 no city or region can be constantly self-supporting. No matter how
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34 'knowledgeable' and creative a region's economic agents are, it is rather
35
36 likely that elsewhere in the world particular pieces of new and valuable
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38 knowledge are formed either just a little bit earlier or in just a slightly more
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40 advanced form. Regions that combine a strong local knowledge capital base
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42 (sustained by a healthy 'local buzz') with high levels of connectivity to similar
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44 regions elsewhere in the global economy ('global pipelines') are best off in
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46 this matter (SIMMIE, 2003; BATHELT et al., 2004).
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4 Global or mega city–regions (from here referred to as MCRs), in their
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7 capacity as ‘basic motors of the global economy’ (SCOTT, 2001, p.4), should
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10 have such qualities almost by definition. After all they stand out as regional
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13 accumulations of (economic) mass and opportunity and they are typically
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16 very well tied into the global economy (SCOTT et al., 2001; HALL and PAIN,
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19 2006). Their local knowledge bases should be rich enough to fuel a
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22 continuous process of leading edge knowledge formation and the myriad
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25 external relationships maintained by their many internationally oriented and
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28 globally networked firms should ensure that new and valuable bits of
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31 knowledge created elsewhere quickly find their way to these regions as well.
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35 MCRs’ external knowledge relationships may be maintained by a variety of
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38 (economic) actors, including universities and research institutes,
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41 governmental agencies and firms. Advanced producer services firms
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44 [endnote no. 1] form a particularly interesting category among these. After
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46
47 all, advanced producer services (from here referred to as APS) have over the
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50 past three decades rapidly evolved into a very central and highly knowledge–
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53 intensive feature of today’s post–industrial economy and the firms have
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56 emerged as active agents in the creation and circulation of knowledge in
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59 local and regional economies (COFFEY, 2000; SASSEN, 2001; Wood, 2002;
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4 UNCTAD, 2004). In many of Europe's most urbanised regions, APS now make
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7 up 15 to 30 percent of the local employment base with the highest scores
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10 reached in such typical MCRs as South East England, the Paris region, the
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13 Brussels Capital Region and the Dutch Randstad (EUROSTAT, 2006;
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16 RUBALCABA and GAGO, 2003). The APS firms find in MCRs the human
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19 resources and the client base that they so critically need and through their
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22 active role in investment, innovation and technical change, the firms actively
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25 facilitate the continuous adaptation of the MCR's production system.
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28 Moreover, the 'global players' among the APS firms through their
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31 transnational office networks maintain a great many of relations with other
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34 centres of knowledge creation all over the world (TAYLOR, 2004) and as such
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37 may be conceived as - at least potentially - strongly constitutive to MCRs'
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40 external knowledge linkages.
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45 Yet, while such notions may sound rather straightforward, they are in
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48 principle not much more than a set of interconnected ideas and assumptions.
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51 There is empirical support for parts of it (e.g. APS firms do tend to
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54 concentrate in large urban agglomerations or MCRs), but less so for others
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57 (cf. COE, 2003). Much remains to be explored. Unanswered questions include
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60 those about the extent to which APS firms' transnational office networks are

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4 used indeed for the exchange of knowledge, the kinds of knowledge that are
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7 typically acquired and exchanged through these networks, the kinds of
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10 knowledge of which the acquisition is typically a local affair, and the ways in
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13 which intra- and extra-regional knowledge circuits interconnect. These are
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15
16 the questions that occupy centre stage in this article and they will be
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19 addressed by looking at the knowledge exchanging activities of
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21
22 internationally networked APS firms in the Dutch MCR of the Randstad. The
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24
25 Randstad is Europe's fourth or fifth regional economy measured by gross
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28 regional product, a major APS stronghold, and a particularly multifaceted and
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31 well-connected space economy (LAMBREGTS et al., 2006; TAYLOR, 2002),
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34 and as such makes an interesting case. The analysis is meant to contribute to
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37 our understanding of how a key group of economic actors organises its
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40 knowledge practices and by means thereof helps MCRs to stay at the
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43 forefront of knowledge developments.
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48 The article is structured as follows. Section 2 digs deeper into the
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51 relationship between knowledge and geography. It briefly discusses some of
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54 the key literature dealing with knowledge generating practices in regional
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57 contexts and takes due note of some recent contributions that emphasise the
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60 importance of relational as opposed to spatial proximity in the theorization

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4 of knowledge formation. Next, we take note of the dynamics of knowledge
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7 formation in transnational multi-office firms, borrowing from such
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10 disciplines as international business studies and organisational sciences. In
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12
13 the fourth section, the specific knowledge needs of APS firms are identified
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16 and transformed into a typology of knowledge domains relevant to APS firms.
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19 This typology structures the empirical analysis of the knowledge practices of
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22 multi-office APS firms in the Randstad. This analysis, which takes up the fifth
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25 section, draws from the insights gained through some 64 in-depth interviews
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28 with Randstad-based APS firms. The article concludes with a discussion of
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31 the implications for theory and policy.
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38 FROM SPATIALLY BOUNDED TO TRANS-SCALAR GEOGRAPHIES OF 39 40 41 KNOWLEDGE CREATION 42

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45 In 2005, businesses in the Randstad were responsible for 32 percent of R&D
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48 performed in the Netherlands (STATISTICS NETHERLANDS, 2007). The
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51 Netherlands as a whole at that time conducted no more than one percent of
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54 world R&D (OECD, 2007). For the Randstad this means that the ratio between
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57 R&D performed within and beyond its boundaries is close to 1:300. Even if all
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60 of the region's businesses would qualify as extremely alert and advanced, it

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4 is still rather likely that valuable pieces of knowledge in many cases are
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6 developed just a little bit earlier or in a slightly more advanced form
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10 somewhere else in the Netherlands or, more likely even, elsewhere in the
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12 world. And with the share of non-OECD countries in the production of world
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14 R&D having increased from eight to twenty percent between 1995 and 2006
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16 (OECD, 2007), the importance of such places 'elsewhere in the world' will
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18 probably only increase in the years to come.
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26 This example serves well to illustrate that few cities or regions, not even a
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28 substantial regional economy as the Dutch Randstad , can assume to be fully
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30 self-supporting in terms of state-of-the-art knowledge creation. Claims like
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32 these have recently both been theorised (e.g. BATHELT et al., 2004) as well as
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34 tentatively empirically explored. For example, SIMMIE (2002, 2003) indeed
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36 finds a (positive) relationship between the innovativeness of firms and the
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38 reach of their networks and linkages. He argues that for the most innovative
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40 firms national and international customers are the most important sources of
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42 knowledge and concludes that '[a]s no region has a monopoly on new
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44 knowledge those that form nodes in national and international systems of
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46 knowledge exchanges benefit from both high levels of local knowledge
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48 capital and being the first to receive and decode new knowledge from other
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4 similar nodes' (SIMMIE, 2003, p. 618). Obviously, and as noted by BATHELT
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6
7 *et al.* (2004) these benefits become more substantial as the agents that are
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10 actually involved in receiving and decoding this knowledge are better capable
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12
13 of transmitting the newly acquired knowledge to other actors operating in
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16 their direct surroundings.
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19 The kinds of knowledge referred to in these arguments include both
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21 'explicit' knowledge - to which access is becoming easier anyway - *and* 'tacit'
22
23 knowledge. Tacit knowledge is the kind of knowledge that is 'person-
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25 embodied, context-dependent, spatially sticky and socially accessible only
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27 through direct physical interaction' (MORGAN, 2004, p. 12). It differs from
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29 explicit knowledge in that it 'is difficult to communicate effectively through
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31 written - and sometimes even verbal - form'; 'often resides in the
32
33 unconscious realm of knowledge'; and is 'context-specific' (GERTLER, 2003,
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35 p. 105-106). The central idea is that it is formed relationally and that its
36
37 formation and transmission depend on 'close and deep interaction' between
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39 parties who already share some basic similarities such as the same language;
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41 common codes of communication; shared conventions and norms; and
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43 personal knowledge of each other based on a past history of successful
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45 collaboration or informal interaction (*ibid.*, p. 106). Explicit and tacit
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4 knowledge are complementary categories. Often it needs tacit insights to
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6
7 meaningfully interpret explicit knowledge and it is often from the interaction
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10 between explicit and tacit knowledge that new knowledge is created
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13 (NONAKA et al., 2000). While 'a firm's ability to produce, access and control
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16 tacit knowledge' is widely considered to be 'most important to its
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19 competitive success' (GERTLER, 2003, p. 106), the question to what extent
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21
22 tacit knowledge can be transmitted and formed over longer distances and
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24
25 across boundaries is currently the subject of a lively debate.
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29 Since the 1980s, an extensive body of literature has emerged on the
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32 spatiality of innovation and learning. Until recently, this literature was
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34
35 dominated by perspectives that see a strong link between knowledge
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38 diffusion and spatial proximity. Examples include knowledge-based theories
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41 of spatial clustering (e.g. MASKELL et al., 1998; MALMBERG and MASKELL,
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44 2002), the learning regions thesis (e.g. MORGAN, 1997) and the systems of
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47 innovation literature (e.g. LUNDVALL and JOHNSON, 1994; COOKE et al.,
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49
50 1998). In a nutshell, these theories, each with its own emphasis, build upon
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53 the notion that the basic similarities referred to above are especially likely to
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56 emerge if the actors involved are part of the same spatially confined
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59 environment and thus have been shaped by the same unique combination of
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4 socio-economic, cultural and institutional conditions – a factor emphasized
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7 by the systems of innovation literature notably – and thus are able to meet
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10 each other in person relatively frequently. Over time, such conditions may
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13 prove conducive to the (path-dependent) formation of (increasingly) distinct
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16 and localised ‘ecologies’ of knowledge formation that potential imitators in
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19 other regions may find very difficult to follow (GERTLER, 2003). A key
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22 characteristic of such ecologies is that they produce (assumedly) likewise
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25 spatially bounded knowledge spillovers. These are knowledge externalities
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28 that enable their beneficiaries ‘to introduce innovations at a faster rate than
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31 rival firms located elsewhere’ (BRESCHI and LISSONI, 2001) and as such have
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34 come to be seen as important determinants of local and regional
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37 competitiveness (MALMBERG and MASKELL, 2002) and an important
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40 agglomerative force (GORDON and MCCANN, 2000).
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45 During the past decade or so, however, a growing number of authors have
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48 started to ask if these readings of the spatiality of knowledge diffusion and
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51 creation do not put too high a premium on spatial proximity (e.g. OINAS,
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54 2000; COE and BUNNELL, 2003; AMIN and COHENDET, 2004; BATHELT et al.,
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57 2004; BOSCHMA, 2005). They share the concern that knowledge generating
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60 processes have come to be understood too narrowly as highly localised or

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4 'island' activities and that 'internal links and/or "home-base" characteristics,
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6 distinguishable from external and distant or omnipresent forces' have come
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8 to be seen too selectively and partially as the main factors driving business
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10 creativity and performance (AMIN and COHENDET, 2004, p. 92). In response,
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12 these authors, each in his or her way, call for greater sensitivity to the
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14 existing variety of geographical contexts in which knowledge tends to be
15
16 formed and circulated. While acknowledging: a) that the formation and
17
18 sharing of (tacit) knowledge depends indeed primarily on the existence of
19
20 'thick' relationships in which people are able to 'internalize shared
21
22 understandings or [...] translate particular performances on the basis of their
23
24 own tacit and codified understandings' (ALLEN, 2000, p. 28); and b) that
25
26 spatial proximity does actually increase the likelihood of regular encounters
27
28 and the development of 'thick' relationships between actors; they also argue
29
30 that 'geographical proximity per se is neither a necessary nor a sufficient
31
32 condition for learning to take place' (BOSCHMA, 2005, p. 62). Support for
33
34 this viewpoint comes from the 'communities of practice' literature (e.g.
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36 WENGER, 1998; WENGER and SNYDER, 2000), which contends that tacit
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38 knowledge 'may also flow across regional and national boundaries if
39
40 organizational or "virtual community" proximity is close enough' (GERTLER,
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4 2003, p. 106), and from increasingly credible indications that, enabled by
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7 ever more sophisticated means of communication and ease of travel, learning
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10 and knowledge sharing do in fact take place between persons or
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13 communities that are distant but linked through cultural, ideological,
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16 occupational or organisational affinities and ties (AMIN and COHENDET,
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19 2004; COE and BUNNELL, 2003).
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22
23 The geography of knowledge formation that results from these views is
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25
26 trans-scalar rather than made up of constructs implying a high degree of
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28
29 spatial boundedness (e.g. 'islands of innovation', 'clusters', 'districts'). For
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31
32 example, COE and BUNNELL (2003) consider the making of a priori
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35 presumptions as to how the configurations of knowledge generating network
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38 relations are spatially bounded simply unproductive. Instead they view
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41 innovation systems as 'combination[s] of intra-local, extra-local and
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44 transnational network connections, the exact balance of which is an empirical
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47 outcome that will vary from place to place, and sector to sector' (ibid.,
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49
50 p.454). AMIN and COHENDET (2004, p. 93), likewise, envision knowledge
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52
53 practices as 'tracings in criss-crossing and overlapping networks of varying
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56 length and reach' so as to allow individual sites to be understood as 'node[s]
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59 of multiple knowledge connections of varying intensity and spatial distance'.
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4 Below, while exploring the knowledge practices of APS firms in the Dutch
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6
7 Randstad such notions will be firmly kept in mind.
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10 11 12 **KNOWLEDGE CREATION AND THE TRANSNATIONAL MULTI-OFFICE FIRM** 13

14
15
16 In the literature on the functioning of trans-scalar or 'stretched' knowledge
17
18 relationships much attention is given to the knowledge practices of
19
20 (transnational) multi-office firms. The latter are seen as organisational forms
21
22 that pre-eminently facilitate practices of both 'decentred learning in local
23
24 communities' and 'distanced learning' across corporate space and, as
25
26 such, may be suspected of playing an important role in interconnecting
27
28 different regional innovation systems (COE and BUNNELL, 2003). While
29
30 (transnational) multi-office firms are a heterogeneous lot, they all try hard 'to
31
32 hold various knowledge architectures in place' and seek to achieve relational
33
34 proximity across their distant sites 'through translation, travel, shared
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36 routines, talk, common passions, base standards, brokers, epistemic and
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38 community bonding, and the ordering and orientation provided by files,
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40 documents, codes, common software and so on' (AMIN and COHENDET,
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57 2004, p. 96, 99).
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4 This does not mean, however, that knowledge gets transferred and formed
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7 in such organisations without any resistance. Transnational corporations
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9
10 have gradually come to be seen as to owe their existence at least in part to
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12
13 their ability to transfer and exploit knowledge more efficiently than markets
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15
16 (GUPTA and GOVINDARAJAN, 2000) but it is also recognised that the barriers
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18
19 to knowledge transfer are many and substantial (e.g. KOGUT and ZANDER,
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21
22 1993; FROST, 2001; SCHULZ, 2001; HANSEN, 2002). FOSS and PEDERSEN
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24
25 (2002), for example, consider the success of knowledge transfer to be a
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28 function of a) motivational factors; b) the existence and richness of
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30
31 transmission channels; c) the characteristics of the transferred knowledge
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33
34 (e.g. in terms of tacitness, ambiguity, context-relatedness) and d) the
35
36
37 recipients' absorptive capacity. Motivational factors can work both against
38
39
40 and in favour of effective knowledge transfer. Depending on a corporation's
41
42
43 culture and the nature of the relationships between its individual units, units
44
45
46 may either feel that they have something to lose (e.g. bargaining power, a
47
48
49 competitive edge) by passing on knowledge to other subsidiaries or the
50
51
52 headquarters or know that they will gain something if they manifest
53
54
55 themselves as active knowledge transmitters (e.g. recognition, status,
56
57
58 influence, knowledge shared by other returning the favour).
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60

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4 The knowledge creation process itself, in turn, has been carefully modelled
5
6
7 by NONAKA et al. (2000). They view organisations as continuously concerned
8
9
10 with creating and re-creating knowledge and define knowledge itself as
11
12
13 dynamic, context-specific, humanistic and relational. Knowledge, after all,
14
15
16 they argue: 'is created in social interactions amongst individuals and
17
18
19 organisations', has meaning in a 'particular time and space' only, is
20
21
22 'essentially related to human action' and becomes valuable when it is
23
24
25 'interpreted by [...] and given a context and anchored in the beliefs and
26
27
28 commitments of individuals' (ibid., p. 7). Knowledge creation is understood
29
30
31 by these authors as a dynamic process shaped through the interactions
32
33
34 between explicit and tacit knowledge. Such interactions lead to knowledge
35
36
37 conversions of which NONAKA et al. (p. 9-10) identify four modes:
38
39
40 socialisation; externalisation; combination; and internalisation. Socialisation
41
42
43 refers to the process whereby tacit knowledge gets shared (e.g. through
44
45
46 sharing experiences in communities of practice or through the interaction
47
48
49 between client and producer in the production of a service) and converted to
50
51
52 form new tacit knowledge. Externalisation concerns the process of
53
54
55 articulating tacit knowledge into explicit knowledge, as for example happens
56
57
58 in the presentation of new concepts in a product development process.
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Combination is the process of converting 'basic' explicit knowledge into more complex and systematic sets of explicit knowledge. It includes such processes as the putting together of explicit knowledge from many different sources in one context and the further dissemination of the new knowledge product. Internalisation, finally, is the process where explicit knowledge is assimilated into tacit knowledge. It occurs when individuals make themselves familiar with pieces of explicit knowledge, reflect upon them and, as such, enrich their tacit knowledge base. According to NONAKA et al. (2000), the knowledge creating process is a continuous process of dynamic interactions and shifts between all these different modes of knowledge conversion, whereby knowledge transmissions may take place both within and beyond organisational boundaries.

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APS FIRMS' KNOWLEDGE NEEDS

Knowledge is a heterogeneous resource and the empirical study of knowledge generating practices full of challenges (AMIN and COHENDET, 2004). The above two sections have already produced the insight that making a priori presumptions about the spatiality of knowledge generating practices may not be productive and that the occurrence of various modes of

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4 knowledge conversion should be anticipated. In addition to this, the
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6
7 literature is riddled with different knowledge typologies (e.g. explicit versus
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10 tacit knowledge, individual versus collective knowledge, general knowledge
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12
13 versus specific knowledge), that may be of help to further direct an empirical
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15
16 analysis. Not all of these, however, are equally practicable for our purpose.
17

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19 Our aim, once again, is to empirically explore the knowledge
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21
22 generating practices of (global) APS firms in the MCR of the Randstad. Such
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24
25 an analysis, it could be argued, should also be sensitive to the specific
26
27
28 knowledge needs of such firms (cf. COE, 2003; LINDSAY et al., 2003). Much
29
30
31 of the literature on knowledge and multinational organizations is tuned to
32
33
34 the conditions pertaining to manufacturing firms. However, important
35
36
37 organizational differences exist between these firms and their antipodes in
38
39
40 the producer services domain. While global manufacturers typically roll out
41
42
43 their value chains across the world in search of the right match between
44
45
46 activity and locality, global services firms typically replicate (almost) the
47
48
49 entire value chain in each city or country of operation (MOORE and
50
51
52 BIRKINSHAW, 1998). Naturally, such differences also affect the knowledge
53
54
55 generating practices in such firms. Whereas the various units of a global
56
57
58 manufacturing firm are often engaged in distinct and highly specialised
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4 (production and/or design) activities and, consequently, require and produce
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6
7 very specific knowledge inputs and outputs, the units of a global advanced
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9
10 producer services firm in many cases are involved in a much broader range of
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12
13 activities and therefore face a much wider set of knowledge needs. The
14
15
16 knowledge concerns of, for example, a Dell or a Procter & Gamble global
17
18
19 production facility in Malaysia (or any other country) are likely to remain
20
21
22 confined mainly to issues relating to the management of the local production
23
24
25 process, local regulatory and labour market conditions and local logistics,
26
27
28 and not to spill into such fields as marketing and product development (since
29
30
31 other Dell or P&G units take care of that). The latter is not true for services
32
33
34 firms. A branch office of, for example, KPMG or Clifford Chance in
35
36
37 Amsterdam (or any other city), in order to be able to successfully service the
38
39
40 local market, not only needs to be familiar with local regulatory and labour
41
42
43 market conditions, but also should know all about the workings of the local
44
45
46 client market (marketing) and, in addition to that, make sure its service
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48
49 products continue to satisfy local preferences and needs (product
50
51
52 development).
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57
58 Generally speaking, the operations of a fully-fledged APS front-office
59
60 can be divided into three 'activity packages': the acquisition of new business,

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2
3
4 the actual delivery (production) of services, and the continuous anticipation
5
6
7 of, adaptation to and exploitation of conditions produced by a variety of
8
9
10 relevant environments. Performance in each of these fields depends largely
11
12
13 on the extent to which these firms are successful in acquiring, internalising
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15
16 and using to their advantage the corresponding informations and
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18
19 knowledges. These can be boiled down to: (i) the knowledge required to
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22 successfully acquire new business; (ii) the knowledge required to keep the
23
24
25 quality of the service products up-to-date; (iii) the knowledge that is
26
27
28 required to optimally deal with the regulatory environment (the rules of the
29
30
31 game); and (iv) a residual category reserved for knowledges relating to other
32
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34 environments in which the firm operates (e.g. the labour market). I will label
35
36
37 these respectively: market-related knowledge, product-related knowledge,
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40 knowledge related to the regulatory context, and knowledge related to other
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42
43 contexts. Especially for market- and product-related knowledge it
44
45
46 furthermore makes sense to distinguish between operational and strategic
47
48
49 components. The operational components are essential for running daily
50
51
52 operations. They are exemplified by such questions as: which business
53
54
55 opportunities does the market currently offer, or how should service product
56
57
58 X by adjusted to satisfy the needs of client Y. The strategic components, in
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60

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3
4 contrast, are crucial for the long-term competitiveness of the firm: what will
5
6
7 'tomorrow's' market conditions look like? Which product innovations should
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9
10 be anticipated given expected developments in, for instance, information
11
12
13 technologies or clients' regulatory environment? For an APS firm to master
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15
16 these and other questions in a timely and adequate fashion requires the
17
18
19 constant collection and processing of various kinds of explicit and tacit
20
21
22 knowledge (as modelled by NONAKA et al., 2000; see the previous section).
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25
26 In the next section we explore how these processes work out for each of the
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28
29 knowledge categories identified and how they articulate in (and beyond) the
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31
32 space of the MCR of the Randstad.
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38 **KNOWLEDGE PRACTICES OF MULTI-OFFICE APS FIRMS IN THE RANDSTAD**

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41 At the start of this article it was argued that the global players among
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43
44 regions' advanced producer services firms may be strongly constitutive to
45
46
47 such regions' external knowledge relationships. Armed with the insights
48
49
50 developed above on the spatiality of knowledge diffusion/creation, the
51
52
53 dynamics of knowledge creation in organisations, and the main knowledge
54
55
56 domains APS firms need to master, it is now time to turn to the actual
57
58
59 behaviour of these firms and try to find out exactly how they acquire and
60

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3
4 create knowledge, and how these activities are articulated in space. This
5
6
7 section draws from the insights gained through 64 in-depth interviews with
8
9
10 Randstad-based APS firms held within the framework of the POLYNET project
11
12
13 (see the introduction to this issue). In the summer and fall of 2004 these
14
15
16 firms were asked about, among other things, the ins and outs of their
17
18
19 knowledge practices. The semi-structured, face-to-face interviews were held
20
21
22 with senior staff members (mostly executives) occupying key positions within
23
24
25 the firms. The firms were selected for having multiple offices in various
26
27
28 regions of which at least one should be located in the Randstad. The 64 firms
29
30
31 (listed in Appendix 1) divide more or less equally across the eight APS
32
33
34 industries adopted in the study (i.e. legal services, accountancy, financial
35
36
37 services, insurance, ICT/management consultancy, advertising, design
38
39
40 consultancy and logistics services). For a dozen of these firms, the office
41
42
43 networks remained confined to the Netherlands. The networks of the other
44
45
46 firms (more than 80 percent) were European and/or global in scope. The
47
48
49 typology of APS knowledge needs developed in the previous section is used
50
51
52 to organise this section, meaning that successively market-related, product-
53
54
55 related, legal environment related and other knowledge needs pass in review.
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4 For starters, however, the Randstad and its APS complex are briefly
5
6 introduced.
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9

10 11 12 *Advanced producer services in the Randstad*

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15
16 The Randstad is the horseshoe-shaped urban configuration in the western
17
18 part of the Netherlands. It roughly runs from Dordrecht and Rotterdam in the
19
20 south, via The Hague and Leiden in the west to Amsterdam in the north and
21
22 Utrecht and Amersfoort in the east. These cities surround a predominantly
23
24 rural area called the 'Green Heart'. The area measures about 70km by 75km
25
26 (16 per cent of the Dutch land area) and houses about 6.6 million people (40
27
28 per cent of the Dutch population). They live in a large number of mainly
29
30 medium-sized cities and an even larger number of smaller towns and
31
32 villages. At the beginning of 2007, the region included 12 cities with more
33
34 than 100,000 inhabitants and another 13 in the range 70,000–100,000. The
35
36 biggest cities are Amsterdam (743,000), Rotterdam (584,000), The Hague
37
38 (474,000) and Utrecht (288,000). The co-presence of so many individual
39
40 smaller and larger cities in a relatively small area gives the Randstad its
41
42 archetypal polycentric appearance.
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4 The Randstad is also the country's economic powerhouse. It is home to
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6
7 some 3.3 million jobs (47 percent of Dutch employment), most of them in
8
9
10 various kinds of services. The main population centres and their
11
12
13 surroundings are also the main job centres, with the exception of Schiphol
14
15
16 airport, which has developed into a massive logistics and services centre of
17
18
19 its own. The Randstad stands out as the Netherlands's most services-
20
21
22 oriented region. At the end of 2005, 816,000 or 56 per cent of the country's
23
24
25 jobs in financial and business services were located in the Randstad.
26
27
28 Financial and business services accounted for 24 per cent of total
29
30
31 employment in this region compared to 21 percent in the rest of the
32
33
34 Netherlands (STATISTICS NETHERLANDS, 2008). Within the Randstad, the
35
36
37 Amsterdam and Utrecht regions are particularly important business services
38
39
40 strongholds. Here, the share of financial and business services in local
41
42
43 employment is almost 30 percent.
44
45
46
47

48 The region is well-served by global APS firms. From the 100 global
49
50
51 service firms identified by TAYLOR (2004) some 75 percent has a presence in
52
53
54 the Randstad (LAMBREGTS et al., 2006). Most of these (almost 75 percent)
55
56
57 have their Dutch headquarters in the Amsterdam region (ibid). Quite
58
59
60 interesting, however, is the fact that many of these global APS firms service

1
2
3
4 the Randstad market through two (front) offices or more. In 2004, the sample
5
6
7 of 177 multi-office and inter-regionally networked firms from which the
8
9
10 interviewed firms were selected, together had at least 436 offices in the
11
12
13 Randstad area (on average 2.5 per firm). Apparently, many such firms do not
14
15
16 find it feasible to serve the entire Randstad from a single office (LAMBREGTS
17
18
19 et al., 2006). Below we will see how this finding relates to the knowledge
20
21
22 practices of these firms.
23

24 25 26 27 28 29 *Market-related knowledge*

30
31
32 The acquisition of operational market-related information for most (if not all)
33
34
35 APS firms is an ongoing and vitally important process that is very much
36
37
38 interwoven with the actual practice of acquiring new contracts itself. For the
39
40
41 latter different models apply, but they have in common that a firm's chance
42
43
44 of success strongly depends on the extent to which it has access to not
45
46
47 publicly available information.
48

49
50
51 Tenders for service contracts are sometimes publicly advertised but more
52
53
54 often they are not. In such cases the organisation in need of a service may
55
56
57 either grant the work directly to its 'preferred supplier' (e.g. the bank,
58
59
60 accountant, legal office or insurance company it usually works with), it may

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4 follow the advice of a trusted contact (quite often one of the preferred
5
6
7 suppliers just referred to) and grant the job (more or less) directly to another
8
9
10 service supplier, or it may invite a small number of service suppliers to
11
12
13 present a bid in competition. In each of these cases it is essential for service
14
15
16 firms to be on the radar screen of as many as possible organisations
17
18
19 belonging to or being associated with their target group(s), especially in
20
21
22 times such organisations are planning to put out to tender. As many
23
24
25 interviewees reported, the art is to become *and* remain 'preferred supplier'
26
27
28 for particular clients and, in addition to that, to get short-listed and invited
29
30
31 for tender procedures as often as possible. This is in part a matter of
32
33
34 delivering good quality services, careful name building and keeping existing
35
36
37 clients satisfied, but also a (never-ending) process of securing access to
38
39
40 information that helps the service provider to undertake purposive actions
41
42
43 aimed at winning new contracts. Such information is highly valuable and
44
45
46 typically transmitted through personal, trust-based relationships. Such
47
48
49 relationships are maintained by the service firm's individual employees,
50
51
52 notably the customer-oriented among them. In their work and even beyond
53
54
55 the latter are continuously concerned with the scope of their inter-personal
56
57
58 networks and the quality of the individual ties. They are constantly, also
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60

1
2
3 during weekends at the proverbial sports club, on the alert for useful
4
5
6 information that may give them an (temporal) advantage over their
7
8
9 competitors. Interviewees repeatedly emphasised that building and
10
11
12 cultivating such trust-based networks with clients, former clients, potential
13
14
15 clients, (occasional) partners, suppliers, people working in adjacent producer
16
17
18 services branches, et cetera requires more or less frequent interpersonal,
19
20
21 face-to-face encounters (be they organised or not). E-mail and telephone
22
23
24 exchanges were considered useful for filling the spaces in between but not to
25
26
27 suffice on their own. While at first sight the practice of acquiring operational
28
29
30 market-related information may come across as a relatively straightforward
31
32
33 information collection process, it actually concerns the employment of a deep
34
35
36 (tacit) understanding of a market in order to secure access to exclusive
37
38
39 information that is often distributed among a (very) few people only. As one
40
41
42 Amsterdam-based accountant observed: "it is possible to serve a client in
43
44
45 Maastricht [a provincial capital some 200 km south of Amsterdam] from
46
47
48 Amsterdam without much trouble, but to acquire new business is a
49
50
51 completely different story: you will need to be there for quite some time in
52
53
54 order to become an insider and secure access to the right people and their
55
56
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1
2
3 information, and thus become able to compete successfully with the local
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5
6 firms”.

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10 The interviews also learned that a trickle of useful ‘inside’ information on
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The interviews also learned that a trickle of useful ‘inside’ information on
upcoming business opportunities travels between different offices of the
same firm or a well-functioning alliance, but although some interviewees
observed a gradual increase in the importance of such channels, their
relevance was generally considered of secondary importance at best. The
prevailing picture is clearly one whereby the acquisition of operational
market-related knowledge for APS firms is very much a story of ‘being there’
- physically that is - and that it is notably this particular knowledge need that
eventually leads APS firms to service the Randstad market through more than
one office, if resources allow.

The story for strategic market-related knowledge, however, runs rather
differently. For APS firms to prepare for ‘tomorrow’s’ market conditions they
need to familiarise themselves with a variety of local, national and global
trends that may in the (near) future affect the volume and the nature of the
demand, the place where demand will manifest itself most prominently, and
the behaviour of competitors. While in the acquisition of operational market-
related knowledge we chiefly see NONAKA et al.’s (2000) ‘socialisation’ and

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2
3
4 'internalisation' modes of knowledge conversion at work (i.e. sharing tacit
5
6
7 knowledge and converting explicit knowledge into tacit knowledge, see also
8
9
10 above), the formation of strategic market-related knowledge rather involves
11
12
13 a combination of the 'combination', 'internalisation' and 'externalisation'
14
15
16 modes of knowledge conversion. From the firm's perspective it involves the
17
18
19 collection and synthesis of various streams of mostly explicit knowledge
20
21
22 ('combination'), the interpretation and further development of this
23
24
25 knowledge with help of the firm's tacit understanding of its line of business
26
27
28 and the local markets in which it operates ('internalisation'), and the
29
30
31 articulation of the result into a knowledge product that can be shared
32
33
34 throughout the firm ('externalisation'). Networked firms have typically
35
36
37 introduced a division of labour between their units to perform this strategic
38
39
40 knowledge activity, with headquarters or a dedicated subsidiary taking care
41
42
43 of the identification and interpretation of the global trends and the (other)
44
45
46 subsidiaries seeing to the translation of these insights to their national
47
48
49 and/or local contexts. For the 'average' subsidiary, the office network of
50
51
52 which it is part and the local and national contexts in which it operates
53
54
55 constitute about equally important arenas from which strategic market-
56
57
58 related knowledge gets abstracted and internalised. In geographical terms
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60

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4 this results in a rather more diverse and 'stretched' configuration of
5
6
7 knowledge relationships than for operational market-related knowledge.
8
9

10 11 12 *Product-related knowledge*

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15
16 APS firms are often hired to solve more or less unique problems that require
17
18
19 highly customised solutions. Jobs may start with the (tentative) application of
20
21
22 an 'off-the-shelf' solution but in many cases require considerable fine-
23
24
25 tuning or even the development of a completely new product for the problem
26
27
28 to be solved. New knowledge is likely to be produced along the way, with an
29
30
31 important role set aside for the client itself. The latter, after all, possesses
32
33
34 much of the (explicit and tacit) knowledge that the service provider needs to
35
36
37 successfully deliver its service solution (see also BETTENCOURT et al., 2002).
38
39
40

41
42 Interviewees explained that the mobilisation of (operational) product-
43
44
45 related knowledge often already starts during the making of a bid. This is
46
47
48 still part of the business acquisition process and tends to happen at the
49
50
51 office of the service firm. Depending on the complexity of the contract on
52
53
54 offer, the making of the bid document may require intense communication
55
56
57 between the makers and other experts. These experts are initially searched
58
59
60 for within the office, but it may well be the case that they are only available

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2
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4 elsewhere in the firm (or even only outside the firm). Mobilisation of the
5
6
7 knowledge of these experts is either facilitated through (as some
8
9
10 interviewees were keen to show) sometimes very advanced virtual knowledge
11
12
13 sharing devices or, if the potential gains associated with the contract are
14
15
16 large enough, through flying in the expert(s) in person. In either way the bid
17
18
19 makers benefit from the 'stretched' knowledge relationships that are
20
21
22 available within the firm.
23

24
25
26 Once a work is granted, the actual production and delivery of the service
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28
29 begins. Here again, a variety of models can be identified. There are jobs in
30
31
32 which a (team of) service provider(s) for a certain period of time is stationed
33
34
35 at the client's to manage a particular process or design and implement a
36
37
38 particular tool. Especially these kinds of jobs offer enable the service provider
39
40
41 to acquire and take advantage of the tacit knowledge embedded in the
42
43
44 client's organisation. There are also assignments, however, where most of
45
46
47 the service production takes place in the office of the service firm and where
48
49
50 producer and client just meet (or otherwise communicate) on a regular basis
51
52
53 to discuss progress, share knowledge and make decisions. The nature of the
54
55
56 product and the need for either 'inside' information or frequent intermediate
57
58
59 consent from the client determines how intensive interaction during the
60

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3
4 service production process is, which modes of communication are used and
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6
7 whether the bulk of the production takes place 'at the client's' or 'in-house'.
8
9
10 Depending on the value attached to the job by both the client and the service
11
12
13 provider, both parties may be willing to invest heavily in communication.
14
15
16 Respondents referred frequently to jobs requiring frequent travel over large
17
18
19 distances (e.g. weekly between Amsterdam and London or daily between
20
21
22 different places in the Randstad) or the installation of quite extraordinary
23
24
25 data-transmission devices (e.g. a dedicated satellite-based communication
26
27
28 device to facilitate massive data transport between a Rotterdam-based
29
30
31 service firm and its client in Beijing). Apart from these, the people working on
32
33
34 a particular job of course have at their disposal the same possibilities to
35
36
37 mobilise missing knowledge parts within and, if necessary, outside their firm
38
39
40 environment as their 'bid making' colleagues referred to above.
41
42
43

44
45 After a job is finished, the knowledge that has been generated along the
46
47
48 way is usually 'brought back' to the office where it may be enhanced
49
50
51 (possibly by dedicated product or knowledge development divisions), filed
52
53
54 and made accessible to the firm at large ('externalisation' in the words of
55
56
57 NONAKA et al., 2000). The latter often happens with the help of the same
58
59
60 (sometimes very advanced) virtual knowledge sharing devices mentioned

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2
3
4 above, but traditional (intra-firm) face-to-face knowledge sharing meetings
5
6
7 are also still in use and, reportedly, valued. Within a single office these may
8
9
10 take the shape of monthly presentations over lunch while at the firm level
11
12
13 thematic specialists may congregate once every so many months to discuss
14
15
16 the latest (extra-firm) developments and (intra-firm) experiences within a
17
18
19 particular field.
20

21
22 As far as operational product-related knowledge is concerned, other
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24
25 sources than the firm's client base and internal knowledge resources appear
26
27
28 to be of secondary importance at best. Relationships with universities and
29
30
31 other knowledge producing institutes do exist, but most respondents
32
33
34 observed that these tend to serve junior staff recruitment rather than
35
36
37 knowledge development objectives. In a similar vein, branch organisations
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39
40 and the like were considered useful for many things but not in particular for
41
42
43 the formation of product-related knowledge.
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46

47
48 Altogether, interactions with clients and other units within the firm
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50
51 appeared to be the most instrumental to a subsidiary's operational product-
52
53
54 related knowledge formation. As the client base of the APS subsidiaries
55
56
57 interviewed often appeared to be largely regionally defined (i.e. coinciding
58
59
60 with the Randstad or parts thereof) and since the office networks they are

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3
4 part of often spanned (large parts of) the world, the resulting geography of
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6
7 the knowledge relationships is typically multi-scalar with nearby and
8
9 stretched relationships complementing each other.
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13 Strategic product-related knowledge often gets developed in close
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15 relationship with and along the same lines as strategic market-related
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17 knowledge (discussed above). Insight in tomorrow's market demand enables
18
19 and stimulates thinking about the matching service products. An important
20
21 difference between the two processes seems to be that in the development of
22
23 strategic product-related knowledge a slightly more important role is
24
25 reserved for the subsidiaries. Service products are often 'cut to size' in order
26
27 to be compatible with nationally defined socio-institutional and legal
28
29 frameworks and practices. Their further development depends heavily on
30
31 dedicated, hands-on knowledge of these national contexts and therefore is
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33 best done locally.
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51 *Knowledge related to the regulatory environment*

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54 Regulatory frameworks define the 'rules of the game' in a particular line of
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56 business. Such frameworks are frequently adjusted by the responsible
57
58 legislative powers, usually only marginally, but every now and then also more
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4 drastically (see for instance the recent regulatory changes affecting especially
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7 accountancy and management consultancy firms). An important development
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10 is that firms' operations are no longer affected only by the rules and
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13 regulations set up by national legislative bodies but increasingly also by
14
15
16 those established by international bodies such as the EU and the US
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18
19 Securities and Exchange Commission. Even if firms do not strictly fall under
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21
22 the jurisdiction of a (foreign-based) legislative body, they may still feel the
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24
25 need to follow its rule in order to stay on a par with important international
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27
28 competitors. This means that the regulatory context for many APS firms (with
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31 sectoral differences) has become more complex over the years and probably
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33
34 will continue to do so in the years to come. Legal intelligence teams usually
35
36
37 keep track of the international developments at the corporate level and
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39
40 translate ('internalise') their consequences for the firm as a whole. At the
41
42
43 national level, subsidiaries are usually able to benefit from the services of
44
45
46 professional bodies whose job it often is to translate national (as well as
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48
49 international) legislation into a set of workable directives for its member
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52 firms. Yet, there always remains some intelligence and translation work to be
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55 done within the firm/subsidiary itself as well. From a subsidiary's
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58 perspective, the key knowledge relations in this domain appear to be with the
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4 corporate unit(s) responsible for keeping up to date with and internalising
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7 international regulatory changes and with the professional body (or bodies)
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9
10 that do the same at the national level, meaning that in geographical terms we
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12
13 are talking about both relatively nearby and stretched knowledge
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15
16 relationships.
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22 *Knowledge related to other contexts*

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26 Firms can further enhance their competitiveness by making sure that they are
27
28 getting the best out of the local labour market, making the most of their
29
30 office location, using to their best advantage the knowledge spillovers
31
32 produced by the region, etcetera. Questions such as: 'which high-potentials
33
34 currently working for competitors might be willing to make a career move';
35
36 'how do we make sure that our new office will get 20 percent more parking
37
38 places as set out in the local building code'; and 'which people are currently
39
40 busy figuring out something that might come in handy if we want to enhance
41
42 this product of ours', all require delicate intelligence procedures in order to
43
44 be answered. As in the case of the acquisition of operational market-related
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46 knowledge (see above), such procedures rely heavily upon trusted
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48 interpersonal relationships and a sound understanding of the local
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4 institutions, cultures and practices. The main knowledge conversion mode at
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7 work, to refer once more to the typology developed by NONAKA et al.,
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9
10 (2000), is that of socialisation (sharing of tacit knowledge). The arenas across
11
12
13 which such knowledge relationships stretch are typically quite tightly
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15
16 spatially bounded, perhaps more tightly even than those associated with the
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19 acquisition of market-related knowledge. Respondents mentioned that the
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21
22 kinds of knowledge referred to, are typically shared by befriended employees
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25 from different firms during non-office hours, for example while enjoying the
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28 pleasures of the local nightlife. Figure 1 provides a summary of the above.
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35 Figure 1: Knowledge formation by multi-office APS firms in the Randstad:
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38 summary of findings
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45 CONCLUSIONS AND IMPLICATIONS FOR REGIONAL POLICY

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48 The above analysis of knowledge acquiring practices in multi-office APS
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51 firms in the Randstad puts flesh on the idea of MCRs qualifying as nexus of
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53
54 intra- and extra-regional knowledge relationships. The analysis shows that it
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56
57 is not possible to speak of *the* geography of knowledge production in APS in
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60 the Randstad but that there are, in line with some recent additions to the

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3 literature on the spatiality of knowledge formation (e.g. AMIN and
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5
6 COHENDET, 2004; COE and BUNNELL, 2003) many such geographies indeed.
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10 The analysis has first of all revealed that in order to get a feel for the variety
11
12 of geographies present, it is helpful to connect to the different knowledge
13
14 domains that are central to APS operations. Introducing a distinction between
15
16 market-related knowledge, product-related knowledge, knowledge related to
17
18 the regulatory environment and knowledge related to other contexts proved
19
20 to be very useful. Closer analysis of how and from where the firms tended to
21
22 acquire such knowledges produced a composite picture in which highly
23
24 localised knowledge relationships alternated and co-existed with
25
26 relationships spanning larger distances. Locally defined circuits were found
27
28 especially instrumental to the acquisition of operational market-related
29
30 knowledge and a selection of more 'secondary' knowledge types (i.e.
31
32 knowledge related to local labour market characteristics or the knowledge
33
34 required to efficiently maintain an office in a particular place). It is the
35
36 requirement of physically 'being there' in order to acquire operational
37
38 market-related knowledge combined with the fact that the sources from
39
40 which such knowledge should be acquired are scattered across the
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42 (polycentric) Randstad, that forces many APS firms to maintain various offices
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4 in the area. For the other knowledge categories the picture appeared to be
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6
7 much more mixed with the 'stretched' knowledge relationships available
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10 within the firms' office networks complementing locally defined ones. Nearby
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12
13 and stretched knowledge relationships appeared to complement each other
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15
16 especially well in the formation of operational product-related knowledge
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18
19 and it is probably this category where the benefits of APS firms' 'external
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21
22 knowledge relationships' for the regional economy at large are most
23
24
25 substantial. After all, it is through the actual delivery of services that APS
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27
28 firms let their knowledge spill into a regional economy and if this knowledge
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30
31 is kept 'state-of-the-art' by knowledge inputs from other advanced
32
33
34 economies the regional economy should eventually notice the difference.
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39 It should be noted of course, that our sample of interviewed firms was
40
41
42 biased in the sense that all firms concerned (transnational) multi-office firms
43
44
45 and that stretched knowledge relationships within such firms are more likely
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47
48 to occur than in other firms. Without doubt, the interviews as such have
49
50
51 produced richer information on long-distance knowledge relationships than
52
53
54 they would have done if the majority of the firms interviewed were single-
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56
57 office firms. However, since (transnational) multi-office firms do constitute a
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59
60 crucial part of the economies of MCRs and since they are, as observed by for

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2
3 example COE and BUNNELL (2003, p. 450), among ‘the main “connectors”
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6
7 between regional innovation systems in different national territories’, the
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9
10 findings are of consequence in a discussion on regions’ external
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13 relationships.
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15 16 17 18 19 *Fostering external knowledge relationships* 20

21
22 These results should be of interest to regional policymakers not only in the
23
24
25 Randstad but also beyond. If we follow MALMBERG’s (2003, p. 159)
26
27
28 suggestion that the quality of the local knowledge structure is to some
29
30
31 extent ‘a function of the quality of the global connections that the individual
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33
34 actors in the local milieu have collectively managed to develop’, and if FOSS
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36
37 and PEDERSEN (2002, p. 95) are right in claiming that in dynamic, well-
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39
40 functioning transnational corporations one of the power-wielding assets is
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42
43 ‘the dynamic capability to produce and transfer new knowledge’ and that
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45
46 hence ‘influence is likely to flow to a subsidiary that is able to continuously
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48
49 transfer knowledge to other subsidiaries’, we have identified a powerful,
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51
52 potentially self-reinforcing mechanism that certainly deserves the attention
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54
55 of policymakers. Three areas of special interest can be distinguished.
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4 The first is the level of external connectivity itself. External, knowledge-
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7 enhancing connections have to be initiated and maintained. Multi-office and
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10 transnational firms almost by definition maintain such relations, but the
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13 (large) majority of firms does not possess the means or does not aspire to
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15
16 become a (transnational) multilocal firm. A compromise is to become a
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19 member of a larger alliance or to initialise one. As there seems to be no
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22 upper limit to the benefits of 'being connected' for the region at large
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25 (BATHELT et al., 2004; but note that this is different for the individual firm,
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28 which is likely to reach a point where the costs of maintaining multiple
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31 connections start to outdo the benefits accruing from them), there may be a
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34 case for regional policymakers in encouraging individual firms to engage in
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37 knowledge-enhancing relations to actors operating in other 'centres of
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40 excellence'. Local or regional governments, possibly together with
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43 professional associations, could for example think of promoting and
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45
46 facilitating international events for small and medium sized business in
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48
49 particular (as the larger firms have abundant possibilities and resources
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52 themselves) in the hope that these will yield new international (as well as
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55 intra-regional) connections.
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4 Next to this, policy makers should also ask whether and how they can be
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6
7 of help to local offices that wish to defend and possibly strengthen their
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9
10 position in their respective firm networks. In the loosely structured, partly
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12
13 cooperative, partly competitive network forms that characterise most service
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16 transnationals (COE, 2003), many factors determine the relative position or
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18
19 centrality of a particular branch office. The firm's history frequently plays an
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21
22 important role, with essential power (and thus centrality) often remaining
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24
25 concentrated in one or more home country offices (e.g. headquarters).
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28 However, local offices may gain influence within the network if they stand out
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30
31 in some respect. Sales and profit margins are obvious power-wielding assets
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34 (with the larger and more profitable offices having a bigger say in the firm's
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37 concerns), but so is the capability of an office to produce and transmit new
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40 and valuable knowledge products to the firm at large (FOSS and PEDERSEN,
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42
43 2002). An office that is able over time to build a reputation as an active
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46 'knowledge provider' in some cases may even become (one of) the firm's
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49 'knowledge centre(s)' in a particular field. In all cases, however, it is likely
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51
52 that the office's knowledge production results in more frequent and more
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55 intensive interactions with other offices. And while it is true that such
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58 interactions principally serve to 'export' the locally produced knowledge to
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4 the network, they will also bring benefits in return (e.g. useful feedback,
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7 status and more). Since a local office's knowledge generating capacity
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10 depends at least partly on the quality of the local knowledge environment
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13 (the local 'buzz' in the words of BATHELT et al., 2004), it is here that policy
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15
16 support may be helpful. For policy interventions into the local knowledge
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18
19 environment to be effective it is crucial to identify which local knowledge
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21
22 sources are most productive to which type of industry (or segments thereof).
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24
25 For APS it has been argued that much of the most valuable product-related
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27
28 knowledge is created in producer-client relationships. The quality of the
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30
31 demand for services largely determines the extent to which service firms are
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34 challenged and stimulated to innovate (cf. PORTER, 1990; MOORE and
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36
37 BIRKINSHAW, 1998). Policy makers could consider to complement their
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40 traditional supply-side orientation with a demand-oriented approach and at
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42
43 least examine the opportunities they have to support the production of
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45
46 sophisticated demand for services. Such an approach could start with the
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48
49 identification of the actual producers of sophisticated demand for each and
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51
52 every relevant services subsector (as these may differ), and continue with
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55 addressing the question whether anything should and could be done to
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57
58 sustain (some of) them. An investigation like that is likely to find that larger
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4 companies and multinational corporations (notably their headquarters) are
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6
7 typical producers of sophisticated demand for producer services, but it may
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9
10 well be the case that particular categories of small and medium-sized
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13 businesses appear on the radar screen as well (e.g. those operating in the
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15
16 vanguard of their fields where uncertainties are many and the need for
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19 specialized services possibly high). And whereas the former (i.e. the larger
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21
22 companies and multinationals) often already enjoy substantial policy
23
24
25 attention, policymakers may find it opportune to develop an interest in the
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27
28 ins and outs and the particular needs of the latter as well. Finally,
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30
31 governments should not forget that they are themselves (key) producers of
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34 demand for business services as well and in some fields (e.g. architecture
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36
37 and engineering) capable of rendering 'regular' into 'sophisticated' demand.
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42 The third and final area of interest for policymakers is – of course – the
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44
45 infrastructure that such firms require for the transmission and sharing of
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47
48 knowledge. The region's infrastructure should be able to adequately receive,
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50
51 accommodate, move around and send off the carriers of tacit knowledge
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54 disguised as travelling executives, project teams, specialists and the like.
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57 Frequent and direct flights to the world's major business/knowledge centres
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59
60 are an asset in this respect and the same goes for high-speed train

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4 connections. Essential as well is the region's infrastructure for virtual
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7 communications. Here the difference is not so much made by the
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10 infrastructure that facilitates normal telephone and e-mail traffic (large parts
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13 of the world pretty much constitute a level playing field in this respect), but
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16 rather by the facilities and capacities that are required to support the most
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19 advanced information sharing systems and – in terms of bits and bytes – the
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21
22 most sizeable transmissions.
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25
26 It is, to conclude, not the MCR's 'regional knowledge base' alone that
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28
29 deserves the attention of policymakers but also the region's external
30
31
32 knowledge relations and their constituting factors. Sensitivity to sectoral
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34
35 peculiarities is essential: enhancing the knowledge creating capacities of
36
37
38 manufacturing industries requires partly different tricks than the ones that
39
40
41 might prove successful for advanced producer services.
42

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58
59
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Note

1. Here defined as to include activities such as: legal services, accountancy, financial services, insurance, ICT/management consultancy, advertising, design consultancy and logistics services.

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Figure 1: Knowledge formation by multi-office APS firms in the Randstad:

summary of findings

Knowledge categories	Market-related knowledge	Product-related knowledge	Knowledge related to the regulatory context	Knowledge related to other contexts
Operational	Formed mainly through myriad networks of mainly (but not exclusively) locally defined relationships	Formed mainly through myriad networks of mainly (but not exclusively) locally defined relationships (clients), complemented with varied inputs from the corporate network	Formed mainly through a small number of locally defined relationships and complemented by	Formed mainly through myriad networks of quite strictly locally defined relationships
Strategic	Formed by dedicated input from the corporate network combined with in-house knowledge of local conditions	Formed by in-house knowledge of local conditions combined with dedicated input from the corporate network	dedicated input from the corporate network	