

POLYNET Action 2.1

Qualitative analysis of service business connections



Bassin Parisien

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1. Introduction

The Paris metropolitan area is the main gateway both for international firms working on the French market and for national firms willing to access to global markets. In a macrocephalic urban system, the Paris region has the greatest international connectivity of all French cities (Bevearstock, Smith and Taylor, 1999). Yet, the consequences on the regional level are unclear. The “London model” attests the importance of up to 50 different cities in the South-East region. If Paris was to be an equivalent, Reims, Le Mans, Rouen or Orléans would be key elements in business services deconcentration. Taking into account the strict definition of the Mega-City-Region (contiguous FURs around Paris), Chartres, Beauvais and Creil would have to be included in the study. If deconcentration is not occurring then the efficient scale is the Paris agglomeration and most likely the dense central part, from the City of Paris to La Défense and some of the Inner Suburbs (mostly the Hauts-de-Seine département).

The sample of firms and institutions refers to these three scales. Two databases have been used: the Action 1.2 dataset was crossed with the alumni directory of one of the top French business school (HEC). This guaranteed consistency from Action 1.2 and a direct access to some French decision makers. Appendix 1 shows that two thirds of the interviewees were chairmen, the rest being all senior managers dealing with key functions (Financial and legal Affairs, strategic management, etc). However this database of potential contacts indicates a very restricted locational pattern. Once the non Bassin Parisien top decision makers were withdrawn from the initial dataset, over eighty percent of the remaining 350 contacts were located in the central part of the Paris’ agglomeration (Paris City + Inner Suburbs). The rest were mostly in the Outer suburbs (in the external fringes of the agglomeration), none were in the surrounding Paris FURs and only a very limited number were to be found in distant medium size cities such as Rouen, Le Mans, Orléans, etc.

This result is a major finding that slightly re-evaluates the purpose of this paper. In order to study the Paris Mega-City-Region one may need to reverse the POLYNET overarching hypotheses: the question is not so much of deconcentration dynamics but rather the explanation and the limits of a concentrated location in the advanced producer services sectors. Is the overall concentration an unchanging structural characteristic that globalization will not alter – and may indeed reinforce – or a pattern resulting from historical centralisation that is currently evolving into a more polycentric spatial organisation?

To address such issues, the selection of urban centres for the interviews must first focus on the Paris central business district. Relationships with other more peripheral business services concentrations must be analysed in order to understand possible deconcentration dynamics and functional linkages. Then, the observation must be complemented with interviews divided into two groups according to firms’ location: a first set of interviews was conducted with top decision makers of firms located in the Paris FUR (around a third of the total number of interviews), both in the Inner Suburbs which tend to strongly benefit from firms’ relocation strategies and in Outer Suburbs economic centres (mainly firms from the New Towns of Saint-Quentin-en-Yvelines and Evry-Sénart and the two airports of Roissy and Orly). The rest of the interviews (around a quarter of the total) took place with business services managers located in the four cities of Rouen, Reims, Le Mans and Orléans in order to test further deconcentration trends . The cases of Beauvais, Chartres and Compiègne could not be addressed as no major business services firms were located there.

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From the initial contact database, direct phone calls and e-mails were sent (around 3 follow-up actions per contact). On the total number of potential contacts (350 + 50 complementary contacts achieved through more in depth investigations in non-central Paris locations), 60 interviews were conducted with firms and an additional 5 interviews with professional institutions. Despite the difficulty to keep track of all contacts added to and deleted from the database, the response rate is around 5 to 10 percent which is a normal value for such work.

The interviews lasted from 45 minutes to 2 hours at most, depending on the respondents' availability. The semi-directive POLYNET questionnaire was translated into French with no major changes. Notes were taken and on this basis two types of tasks were achieved: i) a basic statistical data analysis was undertaken in order to inform the general characteristics of the firms interviewed, ii) a textual study was made thanks to full length interview transcriptions.

2. Firms and places

The first issue to be addressed is to determine the existence of any linkages within the study region defined at the three different scales stated in the introduction. Such linkages are not self-evident, looking at basic preliminary statistics drawn for the 60 firms interviewed .

First, it is to be mentioned that the interview database cannot be said to be statistically representative of the producer services' location. The total number of firms per detailed producer services sectors is based neither according to employment figures nor to the actual number of firms in the case study region. Yet, it does reflect major spatial strategies as the number of interviews per urban centres and sectors have been strictly monitored. From the moment interviews attested that in a particular producer services sector, firms would follow invariably the same locational pattern it has been decided not to continue with more interviews. This is true with law, accountancy, logistics and management firms which have been limited to a number of 4 to 6 interviews because of a very similar spatial organisation. This gave us the opportunity to spend time on more heterogeneous spatial strategies in other sectors (from 11 to 15 interviews in Advertising, Design consultancy and Finance/Insurance).

The detailed sectoral breakdown indicates distinct economic specialisations in urban centres. Some producer services are specifically Parisian. It is true with Law companies which are all located in the northern 16th arrondissement (Lowell, Clifford Chance, Bignon-Lebray & partners) but for one willing to distinguish its rather small office to service a sub-regional market in the South-Eastern part of the Paris region (Dubault, Biri & Partners at Evry). Seemingly, management firms, which are often quite small tend to locate in the heart of the business district (prestigious Paris western arrondissement addresses such as the Boston Consulting Group in the 8th arrondissement) or in the rest of the City of Paris where real estate prices may be less expensive (Intervenance Isalariat in the 19th arrondissement).

Other sectors are apparently less spatially selective. Yet, it appears that major companies (in terms of size and scope) are all located within the central business district spreading from Paris to La Défense and Boulogne-Billancourt. Main accountancy firms are found in an area that goes from the Paris neighbouring municipalities (Neuilly-sur-Seine) to La Défense while smaller firms are encountered in most other urban centres (both within the Ile-de-France region and in the Bassin Parisien cities). The pattern is almost the same with advertising firms: all national and international major companies are located in the Paris City; smaller ones are dispersed elsewhere.

The situation is different with Design Consultancy companies: in our sample, all of them but a very small one were located in the dense part of the Paris agglomeration. Then again size matters to some extent: the biggest firms have chosen La Défense or Paris western arrondissements while smaller are found both in Paris and in the south-western suburbs such as Suresnes, Antony, Bourg-la-Reine and further away Igny. This location reminds the existence of a technopolitan quadrant going from Boulogne to Saint-Quentin-en-Yvelines and Massy-Palaiseau which development have been stirred by important public investments in military industries such as nuclear energy, electronics and aeronautics.

The Finance and Insurance sectors follow their own pattern. If all national headquarters are in Paris and La Défense, quite a large number of regional office are observed in the main Bassin Parisien cities (Orléans, Reims,

Rouen). Le Mans stands out as it even hosts insurance headquarters.

The least centralised sector is Logistics. Most firms' locations are determined by the geography of infrastructures. The two airports of Roissy and Orly as well as the industrial Inner Suburbs such as Gennevilliers (the Paris' agglomeration major port on the Seine River) have attracted logistic companies. If warehouses have been relocated on the fringes of the agglomeration (Sénart for instance) and in other Bassin Parisien centres (Orléans, Amiens), no advanced producer activities of this branch have been found outside the Paris region.

From the interview sample, we observe strong correlations between the central location of a firm, its size and its scope within each sector. The producer services firms in the main Bassin Parisien urban centres outside the Ile-de-France region are generally smaller and have a more local to regional scope in proportion to the hub city's producer services as a whole and more specifically to the firms located in the business centre of Paris / Hauts-de-Seine département. For instance, while Paris central district have around 40% of small and very small firms, urban centres in the Bassin Parisien and in the Outer Suburbs have 60 to 80% of such small firms. Seemingly, if the central business district has over 90% of national and international scopes firms, the proportion in non central urban centres is from 50 to 70% of regional scope firms (most of them being in fact local).

These first findings and in-depth interview analysis reveal different sort of intra-firm connectivities according to the location of firms within the study region. The Polynet polycentricity overarching question must not elude the most important type of intra-firm connectivity depicted by respondents: the most intense intra-firm flows are within the dense part of the Paris region, as most offices of multi-located firms are in the business district and in the surrounding inner suburbs. The triangular-shaped central part of the Paris agglomeration is the business campus of most major producer services firms. A consultancy firm specialised in high technology industries management and research-development has its headquarters in the Paris 17th arrondissement and coordinate over 170 firms. A large number of its 17 000 workers are located in Paris and La Défense.

"We have been here for around six or seven years. It is very useful to be in western Paris as we work mainly with firms located in Paris, La Défense and Cergy-Pontoise . (...) We are located in the heart of our group's subsidiaries. It is the biggest concentration we have in the world, before London and Brussels." (Design Consultancy)

However, once the intensity of central relationships is being acknowledged as being the most important form of intra-firm connectivity, three other types of knowledge flows may be identified. The first one follows a centre-periphery pattern and is made of the interactions between the hub global city and other urban centres of the study region. This is true only in some sectors where multi-located producer services firms open branches outside of the Paris agglomeration. The most striking case is the banking activity. Most of the Bassin Parisien main cities have regional headquarters of the national Paris-based banks such as the Crédit Mutuel du Centre and the Crédit Agricole in our dataset. Yet, the intensity of interactions must be carefully evaluated. It would be inaccurate to state that intra-firm flows are important in terms of volume and intensity for all the professionals working in the regional offices. According to our examples, intense interactions with the hub city are not the common features of all local/regional staffs who are dealing mainly with issues at this local/regional scale. Intra-firms flows with the Paris central offices become frequent only at a certain level of responsibility within the regional office that is to say mainly for managerial staff at the upper levels. If intra-firms linkages exist between Paris hub city and more secondary urban centres, they are therefore of limited volumes. This is a finding that we must be taken into account in re-evaluating Action 1.2 results as one of the hypothesis states that all qualified professionals working in producer services are networking with other offices at all different scales (with their local colleagues but also with the regional, national and international partners of their firms' network). The interviews show that a firm's network of offices is not its employees' business network.

The intensity of producer services clustering within the central part of the Paris region strongly limits the importance of intra-firm connectivities in proportion. A more intense form of connectivity may be seen in small- to medium-size firms originally located in peripheral urban centres which have opened offices in Paris hub. This is the case in our dataset of most firms located in Orléans, Reims, Rouen and Le Mans. For instance, an insurance company located in Le Mans has

“an office in Clichy because Paris is a meeting plate-form in our activity. It enables us to meet our clients without dragging them out of their Parisian life. Moreover, as our stake-holders are diversified, when we meet them, it is always in Paris as it is easier to gather all actors at once.” (Insurance)

This reveals that top decision making – from business contract deals with clients to strategic decisions taken with stake-holders – are made not only in the company’s headquarters in Le Mans but also in Paris. Even if it does not represent a significant amount of information or people flowing from one place to the other, it is a strategic piece of information that is being exchanged between the two urban centres.

Another spatial pattern of intra-firm connectivity would be between non-Parisian urban centres (which is at the basis of a regional polycentric system of flows). From the interviews such relationships are mostly limited to small to medium size producer services which tend to enlarge their market from their original location to a nearby city. In this case, the target that is being aimed at is restricted to only very local and small firms which are not numerous enough to raise the interest of major international actors of a given sector. For instance, Aces-Sobesky is a 30-year old accountancy firm is located in five different small and medium size cities in the western and northern part of the Paris FUR (Beauvais being the most important). It has been spreading through successful purchases of smaller firms, creating a professional network of around 30 workers.

These types of intra-firm connectivities depict a regional network where central relationships are dominant while there are more secondary interactions between the hub city and other urban centres. From the interviews we observe no particular evidence of a polycentric pattern in the producer services linkages. This confirms the clustering of producer services in the central part of the Paris agglomeration.

3. Sectors, Markets and Corporate Strategy

Most producer services professionals interviewed have the feeling that important changes are occurring because of economic globalisation. This has now been integrated into a narrative of progress and of uncertainty, where *“things are changing, things will keep on changing” (Insurance)*

This cultural transformation relies on effective sectoral changes whether specific to a particular branch or to all producer services.

These transformations affect the service markets in ways often common to all sectors. One of the characteristics of these changes is the shared feeling among top decision makers that business services markets have entered a phase of increasing competition. One of the consequences is the thrust for an enlargement of producer services markets. Firms located in the hub agglomeration have to search for new business opportunities in smaller cities that used to be left aside. This enlargement is not only spatial; it is also in terms of market depth. If medium to large size firms markets’ segments were found sufficient by producer services, *“the increasing competition pushes all professionals to seek for smaller clients” (Advertising)*.

The reinforced competition has increased the sensitivity of some firms to international economic variations. But the changes are also more structural as globalisation is a long term process that does not seem reversible for any respondents. Consequently, a second trend in the service markets is the increasing urge to reach the critical mass – whatever the current size of the firm is. When a small company makes a technological breakthrough, it has to keep on growing if it wants to insure its survival (Design Consultancy). As for large size firms, the competition being clearly global, or at least European, the scope of such a critical mass search is changing. This is even true in sectors where firms are mostly small sized such as in Management.

The second type of producer services’ sectoral changes is the transformation of service providing processes. Firms often insist on the increasing role of clients. It is true in logistics companies which are frequently working on “open books” with their customer (Géodis). But this is not specific to the transport sector. Most business producers believe that availability towards clients is a key issue. This is an observation made for instance in the accountancy sector both by small regional firms such as FCN in Reims and by global companies such as PriceWaterhouseCoopers

in central Paris. The growing importance of knowledge inputs is also often stated by respondents. In the example of Finance industries, high value services (from consultancy to software) are based

“on research-development works undertaken by (our) team of high level mathematicians” (Finance)

The third important feature of the producer services sector is the importance of national regulations. It is verified with all general trade and labour market laws as in any other sectors while some are more specific to particular branches. They are sometimes welcome, being seen as a relief as in the case of the law sector where national regulation policy has been described as a necessary action, as too many affairs in the United States have decreased the overall image of the activity. Sometimes they are felt as a limitation for future development as the example of some restriction laws on advertising. The importance of regulations in some sectors such as accounting, finance and insurance strongly affects the producer services markets. National specificities bring up barriers for outsiders as requirements are restricting. All chartered accountants for instance have to be certified by a public institution in order to be members of the Accountancy Professional Order. The cultural question becomes important in a context of globalisation as the specific rules induce the reinforcement of national and sometimes regional (local bars in the law sector) markets which forces global firms to adapt their strategies to local imperatives.

Corporate strategies are obsessively trying to follow (and even anticipate) the changes in markets and production processes. All respondents stated their concerns to improve their ability to adapt the global transformations of their sectors (“agile management”). To do so they are compelled to balance opposite forces: diversification and specialisation on the one hand, the global and the local on the other.

Diversification and specialisation. In order to enlarge their markets and to prevent themselves from unexpected results in one or more key activities, most large size firms are trying to be as polyvalent as possible. In the logistic sector, Géodis for instance is dealing with the entire logistic supply chain; DDB, a major advertising firm has subsidiaries in general advertising but also corporate communication, sales and incentive, health marketing, design, branding, media strategy, etc.

Meanwhile, other firms are putting the accent on being more specialised. This is often achieved on a sectoral basis. Emphasizing their main skills, such firms are trying to be one of the few outstanding specialists in their domain. Fedex is concentrating on the express delivery; many design consultancy companies focus on well delimited markets such as financial software programming; advertising firms do as well (Clinic Pro Sport is working only on health and sport related communication). Many respondents aim at being what they call “pure players” .

Interestingly, the firms that are trying to be polyvalent do not feel uncomfortable with this specialisation process. Each office or subsidiary of such diversified companies is trying to be a pure player on its own segment of market. Diversification and specialisation are not opposite. DDB depicts its 25 subsidiaries as being “united but all different”. It has even been argued by producer services professionals that the latter requires the former to be efficient. Indeed pure players lack the ability to encompass problems that have to go past rigid markets and skills demarcations. Competitiveness may be increased in firms that manage to become what they call themselves as “global pure players”. A financial firm manager defines this concept as a

“differentiated niche activity but with a global knowledge of markets” (Finance).

In this context, diversification and specialisation is not far from the tension between global and local. This well-known narrative is deeply embedded in producer services professionals’ culture.

“it is necessary to be global in order to be local; and reciprocally, it is mandatory to be local in order to be global.” (Advertising)

Global and local. Regardless of their locations in the urban centres of the study and their sizes, most firms acknowledge that a way to improve one’s penetration in a local market is to be as global as possible. Some examples are self-evident. It is not cost-efficient for logistic companies to be present worldwide; yet they have to be able to answer international demands from their regional customers. Hence the necessity to be part of worldwide networks.

"We have not found possible to be everywhere in the world. We have had to find partners and make alliances"(Logistics)

This can be generalized to all producer services sectors. Even the smallest firm has nowadays to consider the possibility to enlarge its market through export strategies. Expertise at national and international levels may be necessary in a very near future. This possibility has convinced producer services to be part of professional networks even if they deal with small firms and/or small urban centres of the Bassin Parisien. In the accountancy sector where many small professionals are to be numbered, this has proved to be true in the central part of Paris (cabinet Scheer) and in Reims (FCN is part of the Salustro-Reydel international networks).

Meanwhile, if being global is a requirement to get access to regional markets, the opposite statement is considered to be true by the respondents: it is necessary to be local to satisfy the global demand. International firms asking for producer services in a particular region are expecting to find specialists that will be able to adapt their global strategies to the local markets. The corporate strategies resulting from such expectations are often two-fold. The first solution is to create a branch office or to purchase and affiliate a local firm; the second is to subcontract specific activities to already well-known specialists. Global firms are both network-firms and networks of firms. Yet subcontracting reaches its limits when the number of firms being part of the network increases too dangerously. A large consultancy firm has countered more than 10 000 subcontractors. Three months later the figure was taken down to 50 as the management staff decided to cut costs down.

As it is necessary to be specialised and polyvalent at the same time, as well as global and local, relationships with competitors are becoming more complex. If on one hand competition is increasing, aggressive attitudes are – officially – limited to particular cases. Two firms of the same size working exactly on the same markets with the same skills have no interest into working together. However as soon as potential complementarities exist, cooperative strategies are frequent.

"Today's competitor is not only tomorrow's partner: today's competitor is today's partner." (Accountancy)

"Our interests are intermingled. We work on Crédit Lyonnais funds while Société Générale Asset Management work on our own funds" (Finance)

"There are many alliances and partnerships as well as time-limited or long-term informal agreements" (Design Consultancy)

Of course some rivalry may never be settled and they are combinations that are refused regardless the firm's interests. Yet to some extent, coo-petition (both competition and cooperation) is a common corporate strategy. Being close to the clients is no longer enough. The proximity to the competitors, therefore to the potential partners, is important as well.

"We are where everybody is." (Accountancy)

On of the most praised strategic corporate organisation according to our respondents is resulting from these tensions between diversification and specialisation and global and local: medium to large size firms develop a matrix organisation that crosses both regional markets and sub-sector specialisations. Important legal affairs companies such as Lovells and Clifford Chance distinguishes in their internal organisations different practices (financial affairs, real estate, corporate taxation, contentious, etc.) within their different market (France, UK, Germany, etc.). Major advertising firms tend to follow the same approach. Ogilvy & Mather have copied such organisation from lawyers. Their concern is to be able to offer all sorts of tools in order to address their clients' needs.

"When you have only hammers in your hands, you believe that all problems are nails". (Advertising)

This does not prevent some type of integration between departments (or practices) and regional markets. The most important clients, often the most globalised, are often followed by a senior consultant that will make sure that

all departments and regional/national offices are efficiently coordinated.

What are the consequences on the location strategies of firms? First, within the case study region, deconcentration trends are very limited. In fact, no respondents were considering moving out of the Paris region. The location debates that may occur are whether to stay in central Paris (including La Défense and close surrounding municipalities) or to try alternative locations. To move to other Inner Suburbs is considered as being a “challenge”.

“Moving to Suresnes was surely a challenge but not a mad bet” (Design Consultancy)

And not even all inner suburbs as some are being seen as both too decentred and not suitable for business purposes (the eastern half mostly). Other deconcentration trends are seen in outer suburbs. It is usually the case of single individuals, sometimes two or three partners that run a small consultancy firm located in the western part of the Ile-de-France region where some highly qualified people live. Design consultancy firms have also been located in the South-western quadrant in order to be close to important public and private customers of the high technology industries. Yet this is only limited to a restricted number of producer services. Several majors in the accountancy industry have tried to move some of their staff to the Outer Suburbs. Both Ernst & Young and PriceWaterhouseCoopers failed and had to move back their offices to the central part of Paris a few years later. Other urban centres outside of Paris urban region are generally considered not worth thinking of possible deconcentration from the hub city region. This is not a scale of reference in the economic geography mental map of producer services professionals. Main national cities are most likely to be potential places for spatial reorganisation. Lyon, Lille, Strasbourg, Nantes, Toulouse, Bordeaux, Marseille have dynamic markets. Yet, the central functions will stay in the Paris region. Most contracts in these regional markets are gained in Paris, which is the place where decision is taken as almost all national and international headquarters in France are located there. Deconcentration is therefore limited to operational functions, research-development towards highly qualified cities with an important number of graduates and to non-central functions. For the latter, outsourcing in low wages countries seems to gain momentum (towards north Africa and India) even though it may be politically incorrect to admit it for most respondents.

Both at regional and national scales, the interviews show that producer services keep their functions (and most of their activities) in the hub city and do not consider to change anything but the location within the central part of the Paris region for a limited number of respondents. Only few functions may witness small differences: airports are attracting some high level professionals working in logistics, Le Mans manage to keep a specialisation in Insurance industries. Elsewhere, the firms’ scope is both the Ile-de-France and the national scale while Paris is taking advantage on all international markets.

The main finding would then be the importance of centrality and density. Some respondents doubted the relevance of any polycentric pattern at all scales, from regional to national, while most of the interviewees were insisting on the benefits of concentration in the hub city.

4. Flows and relationships

The growing importance of networking both within and outside producer services firms has increased the volume and intensity of information flows. This is possible thanks to the generalisation of virtual communication technologies. Phone, fax, email, intranet, extranet, video-conference, cellular phone are being depicted in the interviews as “ordinary every day use tools” (*Design Consultancy*).

The amount of telecommunications exchanges is important in number. Phone calls exchanged by the Chairman of Morning Star France are numbered around 30 to 40 per day, one regional director of a bank has the impression to “spend his working days talking on the phone”, a high decision maker in an international insurance company does not access to his e-mails until it is first sorted by her personal assistant: he receives over a hundred emails daily.

The use of virtual communications technologies serves several purposes, the first one being their ability to facilitate mobility. Cellular phones, Blackberries, virtual desks, laptops and the Internet allow any consultant to get access to the information he needs while away from his office. The general feeling observed in the producer services profes-

signals is the decreasing importance of physical distances.

"Internet has ended the inconveniences of distance" (Accountancy)

ICTs have shifted accessibility matters from space to time. Some professionals have established strict rules.

"My objective is to always be available in less than 20 minutes to a client, wherever I am. (...) Time proximity is much more important than actual geographic proximity" (Advertising)

It is not only a problem of time; the perception of availability by a client is determinant.

"A client has got to be able to contact me within 24 hours. What matters is not physical proximity but psychological proximity." (Advertising)

The use of ICTs is of course not restricted outside the firms' boundaries. The intranet website, the shared databases, the internal diary are some tools used to facilitate information flows as well as knowledge transfers (Atos Origin). As workers mobility is increasing, ICTs allow to keep contact with the company. For some respondents, these tools have become the heart of a corporate organisation.

"What keeps together all the many offices is not workers mobility, neither common business projects but ICTs as all our virtual tools are shared, from intranet websites to all the databases." (Advertising)

However despite the spread of ICT, virtual flows are no substitute for personal face-to-face meetings. Conference calls and video-conference may sometimes be used to cut down travel costs. An Insurance company frequently relies on this technology to facilitate information flows within its national network; Technip, a leading Design Consultancy company based at La Défense has an entire floor equipped for international video-conference thanks to a teleport connection based on the roof of its 30 storeys building. Yet, video-conferencing requires important investments that are possible only in large size companies. Some smaller firms using less advanced technologies have often the feeling that conference calls and video-conferences cannot efficiently replace face-to-face contacts. Most virtual telecommunications appear therefore complementary ways to exchange information rather than substitute to direct meetings.

"Direct contact remains indispensable. ICTs technologies is practical but can only be complementary." (Design Consultancy)

In fact, as ICT facilitates people's mobility (it is no longer necessary to be at one's office to access to information), it also permits easier physical travel to meet partners and clients. Quite paradoxically, ICT encourage face-to-face contacts.

"We always meet our clients, even the most distant ones. It is interesting to notice that new telecommunication media have not decreased physical contact which remains essential in our activity." (Advertising)

"Computers have eliminated many problems but not all: there need to be as many meetings as before." (Assurances, Insurance)

Face-to-face contacts are important for all producer services sectors. The average number of direct meetings ranges from two to three up to eight to ten per day, according to the respondents. Direct contacts are moments when important information is not only been exchanged but also discussed and negotiated.

"Nowadays anything can be done at distance. Yet we have a golden rule: nothing is discussed via the internet. Information can be transferred thanks to e-mails but discussion deserve face-to-face." (Advertising)

Even if it may not be the most time-consuming part of some consultants' tasks, it is acknowledged that it is the most cost-effective, "this is where and when value added and profits are made" (Finance). Telecommunications tools

are considered as being not efficient enough in terms of exchanges.

“Some things cannot be sensed through a phone call. You have to see your interlocutor”. (Insurance)

This differentiation in the quality of information that can be exchanged through virtual communications and through direct meetings explains why face-to-face contacts tend to be prevalent in the upper staff hierarchy.

“The more senior the lawyers, the more face-to-face contacts with the clients. Junior lawyers work on the files as it is too perilous to have a beginner in front of our clients who are senior managers.” (Law)

Why is face-to-face contact so important for producer services? Despite the importance of economic and financial considerations in these sectors, most decisions are based on extra-economic choices.

“Finance is a story of men. You have to see each other” (Finance)

Face-to-face contact is felt to be a basis for a trustee relationship. Confidence in one's partners can be achieved through physical meeting.

“Our jobs require establishing relationships based on confidence because people are giving us their money. You do not give your money via an email.” (Finance)

“The way I do business shows in my behaviour. It is always reassuring for my clients because when I am providing a service, I am not representing only my firm but also my clients’.” (Advertising)

The form of face-to-face contacts is not limited to scheduled meetings. The interest of the hub city central business district is the possibility to arrange informal meetings. Business lunches are part of the many ways to achieve a long-term relationship with a customer.

Face-to-face contacts are not limited to relationships with clients. In most firms, direct contacts are valorised as a key element to insure information flow within the organisation and to integrate fast-changing mobile staff. The Boston Consulting Group has a long-thought strategy to facilitate internal communication thanks to face-to-face contact.

“We have opened offices; people are encouraged to walk to exchange information. All collaborators have direct access to each other, no matter the hierarchal level.” (Management)

In this case, the official aim is to encourage user-friendly working conditions and to maximise physical contact through different actions: weekly thematic talks (Monday Midday Meetings), professional conferences, monthly lunches (presentation of new comers around a buffet) and yearly self-improvement sessions. Some special events are celebrated: end of mission dinner, leisure activities and week-end events. In fact, these measures tend to create internal solidarity and professional complementarities among professionals who are running their career according their own interest, not hesitating to change firms as often as necessary.

Virtual communications and real face-to-face contacts appear to be complementary in a wide range of ways. Telecommunications and physical meetings often alternate according to the development stage of a given project. Face-to-face is always present at key moments such as the initial negotiations, as well as the validating dates and at the end of a project while the rest of the time intense interactions are made thanks to ICTs. This complementarity is verified also in terms of the value of information: highly sensitive information and discussions are restricted to face-to-face contacts while more basic information exchanges can be done through e-mail and phone calls.

These general findings are common to all sectors. Yet there are differences among producer services professionals, depending on firms' specificities. In some cases, all workers are consultants that have to be in close contact with their clients. Face-to-face contacts are crucial. Elsewhere, there are noticeable differences between technical staffs and the rest of the workers. For the former most of the activity can be done from a distance. Such functions are the one that may be relocated abroad in order to cut down costs. An insurance company in Le Mans is currently considering moving all its contact-rich workers to Paris, while the central services and some technical engineers could either

be left in Le Mans or out-sourced to India.

The growing number and frequency of meetings has increased mobility requirements for most advanced producer services. Some professionals have as many as three offices: one on their firms' headquarters and two at their main clients' buildings (Design Consultancy). Depending on the hierarchical level and function, people spend from 10% of their working time up to almost all of it away from their offices. Accessibility becomes therefore one of the main concerns for all the firms interviewed. The amount of travel both within and outside the study region is important. The overall pattern resulting from our respondents seems to associate a very important number of travels within the Paris central area and between this dense part of the Ile-de-France region and other urban centres (at all scales: regional, national and international). Only few professional trips seem to be numbered between secondary urban centres in the region. The frequency of national and international travels is high. In many global firms, trips to other European cities are weekly (London, Brussels, Amsterdam are often mentioned) trips to the North America are monthly. The consequences on the transport system are obvious for the persons interviewed: accessibility must be reinforced. However there are differences: in secondary urban centres such as Le Mans, Orléans or Rouen, the concern is the accessibility to the Paris region market and infrastructures (airports, fast train railway stations). In the hub city, accessibility should be reinforced in order both to improve the connections with other national and global cities and to facilitate transportation within the dense part of the region. A minimum service in public transport has the favour of most respondents. From the Paris region firms' point of view, it is not a priority to increase accessibility with the rest of the Bassin Parisien. A major improvement in transport infrastructure is not seen as an argument to relocate even partly their staffs. As complement, the study of phone calls made by all firms in the Ile-de-France region shows the intensity of information exchanges within the dense central part of the agglomeration (Annex 1). It confirms a dominant pattern of concentration rather than one of polycentricity at the regional level.

5. People and places

Labour markets are considered by producer services firms as being as important as accessibility to the clients and partners in terms of location strategy. The activities we are looking at rely on a highly-qualified workforce which creates most value added. All the managers interviewed in the Polynet study have been talking in a very positive way of their skilled employees which indeed are rather called "collaborators" or "partners". One chairman even calls his staff with eulogistic words as his "gold nuggets" (Advertising).

To be more accurate, the workforce is divided in different types on which depend their labour market scopes. Operational and general services staffs are often recruited locally, both in the Paris region case and in the secondary urban centres. It is especially true with clerical workers, financial and management employees, etc.

For highly qualified collaborators, things are different. Junior workers are recruited on the national and sometimes international markets. For some profiles such as junior engineers in Design Consultancies and according to the firms' culture, this implies a selection among major Universities in France (Lyon, Grenoble, Toulouse, etc.). For instance, Atos Origin has a list of top national schools from which all students willing to may be automatically received by the Human resources manager. It is a way to keep a reserve of qualified juniors ready to be hired according to the market's variations. However in other sectors, the national recruitment is in fact limited to the Paris region because of the concentration of the most prestigious Universities and schools: major law, accountancy, business and management firms are highly selective in their recruitment scope. For instance both Lovells and Clifford Chance admits to recruit mainly junior lawyers educated in the prestigious Parisian universities and having an experience abroad. International juniors coming from American and British schools are welcome too in the US and English affairs practices.

In non-Parisian urban centres, recruitment of such junior workers may be a problem. If there are universities in the main cathedral cities which provide qualified young professionals (Le Mans, Orléans, Rouen, etc.), it is sometimes not enough to satisfy the local demand. For instance, Servyr Courtage located in Reims complains not to easily find qualified applicant in the regional workforce.

The labour market for senior professionals is national and international as well. Yet, this often translates into a very

Parisian labour market as most advanced producer services firms are already concentrated there.

This attests a second limit to deconcentration trends in producer services activities. If accessibility is strongly in favour of the central hub city, there is also a lock-in situation because of the geography of skilled labour. The logic is auto-cumulative: most producer services firm being located in Paris, the workforce is encouraged (sometimes compelled) to come and live in the Paris region; in return, as most of the skilled workforce is located in the Ile-de-France region, no firm has interest into moving away from such an important labour market. Even within the regional hub city, the importance of the skilled workforce helps in the understanding of producer services firms' location. As most highly qualified professionals live in the western part of the Ile-de-France region and in the City of Paris, many respondents admitted that they located in the central-metropolitan triangle in order to facilitate their workers' access. More over, in two thirds of our interviews, whether it is openly admitted by the chairmen or given by a simple verification of the managers' place of residence, firms' re-location is highly dependent to the managerial staff's place of residence.

All the other urban centres in the Bassin Parisien are unable to compete with the Paris region in terms of workforce attraction. A fairly small number of highly qualified professionals leave the Ile-de-France region in order to benefit from what is sometimes described as a better quality of life. Environmental and financial aspects such as less pollution, less traffic and lower housing costs are put forward to justify such choices. For some others, the quality of some transport infrastructure linking medium size cities to the Paris region (trains and highways to Orléans, Rouen or Le Mans) enables a few professionals living in Paris to work in these cities. However, daily commuting tends to show asymmetrical relationships as more people go to work in Paris while living in secondary urban centres (Action 1.1). It is to be noticed that these commuters are very often qualified professionals.

There are some advantages in setting up producer services in non-central urban centres. Xi Ré, a Bermudian re-insurance company located in Le Mans insists on three of them: the cost of qualified labour force is lower than in Paris, the turn-over is also not as important and people are supposedly more available as they do not suffer important time losses in traffic jams. However it is still hard to find the necessary skilled workforce willing to come and live in Le Mans. This observation is reinforced by what is being depicted by respondents as a general lack of long-term mobility of qualified workers. If some chairmen insist on the "nomadisation" of people living for instance four days of the week in Paris and the three others in a "rest place" in the countryside (where work can be done thanks to ICTs), most producer services workers are said to be very reluctant to move from the Paris region. This is true both towards Bassin Parisien cities but also towards other national and international main metropolitan regions. If most websites and official narratives insist on the ability of workers to smoothly move from one place to the other in major companies, the reality is far less enthusiastic. In most cases, less than 5% of the total workforce moves. Yet this statistic is very different for some categories of workers. The non-Parisian junior staffs are much more inclined to change their place of living ... and move to the Paris region where opportunities are more important. Seemingly, according to their sayings, the very highly skilled professional and the upper managerial staff seem to be more mobile.

This overall lack of mobility is not opposite to an eagerness to integrate international workers. Multicultural teams are valued as it is thought as bringing some "freshness" in the firm. It enables knowledge transfers from other countries and allows developing more global approaches. On the 12 mathematicians and physicians working in Capital Fund Management only 2 of them are French. Yet, in order to attract international workers a city must offer characteristics that are hard to find outside the Paris region. International schools, easy access to airports, rich cultural life are necessary to seduce such workers.

In conclusion, the number of international workers, the concentration of highly qualified specialists distinguishes the Paris region from any other regional and national urban centres. It is the only place where such an important and diversified labour market exists. It is said to facilitate encounters, it reinforces potential connections and it maximises knowledge production. It is a human resource hub on which firms can rely. The Paris metropolitan region functions as both a commutator and a laboratory, encouraging professional interactions and innovation (Veltz, 1996). In this regard, the social capital that represents the sum of all the workers' networks is a source of agglomeration economies for producer services firms.

On the contrary, more secondary urban centres do not benefit from such a concentration. The long-term location of prestigious universities and schools in the capital region has prevented non-local firms to seek for junior profes-

sionals in the rest of the Bassin Parisien. This may be an issue to address in order to increase the attractiveness of such urban centres. Another measure could be in attracting qualified workers that live in the Paris region. To promote the development of high-speed infrastructure linking these places to the central region may be a way to achieve such a goal. Yet the consequences may not be successful as in most TGV cities: there are asymmetrical flows largely in favour of the Paris market which attract daily qualified commuters in a much more important proportion.

6. The regional knowledge economy

The interviews show an intense clustering of producer services in the Ile-de-France region and within it, in the central part of the agglomeration. Law firms are located around the Arc de Triomphe (8th, 16th and 17th arrondissements), human resources management companies are in the northern part of the 16th arrondissement, large accounting firms are in La Défense and Neuilly-sur-Seine while smaller ones are in western Paris, advertising and communication agencies are both in Paris and in the south part of the Hauts-de-Seine département (Boulogne-Billancourt, Suresnes), national and international finance and insurance companies are on an axis that spreads from the stock market to La Défense. A few other sectors are more dispersed but still within the Paris agglomeration. It is the case with some design consultancy firms and with logistics companies, the latter being often close to infrastructure equipments required by the operational activities. Other urban centres do have producer services but in a much smaller proportion than the Paris region. Location quotients calculations demonstrate that in a large Bassin Parisien region producer services are the base economy only in the Paris agglomeration, while not in other secondary urban centres.

How can this intense concentration within the Paris central area be explained? Three major factors have been mentioned in the interviews. The first reason for producer services location is proximity to their clients and partners (sub-contractors, complementary firms, etc.). More precisely most respondents insisted on the fact that what matters is rather time proximity or accessibility than spatial proximity. This second factor in the location of producer services is again in favour of the Paris region as it is the major transport hub in France. From there, all provincial and international destinations can be reached thanks to fast trains, planes and highways. As producer services are contact intensive, the everyday business life is one of mobility. The third location factor is not often directly addressed by interviews but it is still very important. The accessibility to the labour force and to decision-makers' place of living is essential in any future attempt to change a firm's location. Producer services' value added is dependent on the highly skilled professionals. This is the driving force of a strong territorial lock-in as firms cannot take the risk to lose its most important input. To measure the importance of such a factor, one may remember that moving a few kilometres away from Paris and La Défense has been depicted in some interviews as a great challenge.

The impact of such an intense producer services clustering on regional linkages are important. The most intense flows exchanged in the study region are mainly internal to the hub city. The pattern of the Ile-de-France firms' phone calls highlights this: two thirds of all phone calls destinations do not go beyond the Ile-de-France region's boundaries, while the remaining third is divided between international and national calls in which the Bassin Parisien is no more than 10% of the total. Linkages between urban centres are therefore limited. The common inter-urban relationships in our case study region follow an asymmetrical pattern of binomial interactions linking all secondary urban centres to the hub city. This has been testified by commuting data where the Paris region attracts many workers from the neighbouring départements but it is also true in terms of business relationships and knowledge flows. All producer services located in non-Parisian urban centres have stressed the importance for them to be in Paris either through frequent travels or by the opening of a representational office. This informs the limit of the Mega-City-Region hypothesis in the Paris case. Such relationships are not specific to closely located urban centres: the observation could be generalised to all other French metropolitan areas. The asymmetrical linkages can be read in two different ways. For secondary urban centres, the Mega-City-Region exists as Paris hub city region is the business horizon for most of them. On the contrary, for Paris firms' there is no such thing as a Mega-City-Region.

What are the consequences for the definition of polycentricity? Former Polynet actions have stressed the fact that there are local concentrations of producer services both within the Paris region and in the surrounding towns and

cities. This results in the definition of a polynuclear spatial organisation. Yet, as flows are mainly either converging towards the dense part of the hub city or circulating within it, leaving only a very restricted proportion of linkages between non-Parisian urban centres, it is to be said that if there is any sort of polycentric pattern it is one of a hierarchical polycentricity.

In this regard, the hub city is the gateway and articulator for the entire case study region. As most national headquarters in France are located within the agglomeration of Paris, many business deals are negotiated there. Even if the service will not be provided in the Ile-de-France region but in a provincial region, producer services firms have to be part of the central network to gain contracts. An architect firm from the Nantes region for instance has moved its main office to Paris (Les Halles) in order to be as close as possible to decision makers. From there, the firm grew as it got access not only to their original markets around the Nantes region but also to many other national and international cities (Germany, China, etc.). Indeed, the same logic can be applied at the global level. The privileged location of foreign firms being the Paris agglomeration, it reinforces the role of the hub city in the knowledge economy. The interviews and the study of information flows enable us to be even more precise. It is not all of the Paris agglomeration that plays the role of the gateway. It is restricted to only a few places. Boulogne-Billancourt and the municipalities between Paris and La Défense have a national scope while Paris and La Défense ones are both national and international. According to producer services, the main relationships abroad are mainly with nearby European countries such as Belgium, Germany, the Netherlands, the United Kingdom, Italy and Spain. Linkages are important too with the United States, a little less to Eastern Asia. The geography of international business phone shows also the importance of North Africa in terms of flows (Tunisia, Morocco).

From the interviews, there is therefore no evidence of major trends of deconcentration at the level of a hypothetical Mega-City-Region. If there were to be such dynamics, they would rather affect some R&D functions working for high tech industries in other national urban regions (Lyon, Grenoble, Toulouse have been evoked in the interviews) or some non-central functions that may be out-sourced into low-wage countries (India and Tunisia were mentioned twice by respondents). Nor is there evidence of strengthening flows in low-order urban centres resulting from intense knowledge concentration in the hub global city. On the contrary, it can be argued that the strength of the central Parisian concentration may prevent the development of secondary urban centres. None of the firms interviewed in the Ile-de-France region consider the Bassin Parisien scale to be an efficient one in terms of business opportunities. According to them, the most important levels are both the intra-metropolitan and the inter-metropolitan both nationally and internationally.

At the intra-metropolitan scale the factors are a mixed decision taking into account the accessibility to clients, to partners and to the skilled labour force. Concerning the detailed location within the agglomeration it is often observed as a balance between these factors and an arbitrage between cost and image. Design consultancies and logistics firms tend to accept more peripheral location as it is less expensive while many other advanced producer services that receive their clients in their own buildings are cautious to choose an accessible and prestigious location.

At the inter-urban region level, the concern is to ensure a good general accessibility to major national and international cities.

“Spatial equilibrium will be achieved at the national scale at least: Lille, Grenoble, Toulouse are competitive and attractive places, much more than Beauvais, Orléans or Le Mans.” (Advertising)

Policy makers may be willing to promote the development of secondary urban centres. The concentration of advanced producer services in the Paris region creates a spatial disequilibrium with the surrounding cities, whether they are the closed neighbouring FURs or the more distant cathedral cities. Yet, in all sectors but maybe logistics (and, in this sector, in functions that cannot be considered as advanced), there is an agreement on the fact that the Politique d'Aménagement du Territoire, such as the “industrial decentralisation”, is working against their interests.

“Firms’ efficiency does not need deconcentration but density.” (Advertising)

These results sketch two different policy orientations. The first one could be a plea for investments in order to promote the deconcentration of producer services. Yet spatial equity is not synonymous with sustainable develop-

ment, nor with economic development. The second policy orientation would try to answer producer services needs both in secondary urban centres and in the hub city. This is hard to manage as, even when being directly asked, firms do not easily express specific expectations: in a global world, according to our respondents, it is as if regional policies were not as important as national and international issues. Therefore, most proposals emerging from the interviews in terms of policy requirements are of national concerns, and mainly deal with labour regulations. It is interesting to notice the gap between the decision makers' perception of the relevant political scale and the metropolitan scope that explains their firm's location.

7. Emerging Policy Issues

The results of this study re-evaluate polycentric policies. The Paris region model is one of a strong hierarchical polycentricity. The overall productivity of the system relies on the concentration and density of producer services (Prud'homme, Chang-Lee, 2001). It is doubtful that promoting deconcentration will benefit to other urban centres. We have found no evidences in the POLYNET study that polycentricity was a concern to any firms.

The general expectations both in the Paris region and in the other urban centres are the reinforcement of accessibility and the formation of a skilled labour force. On the first aspect, three main issues have been raised. First, the quality and frequency of transport infrastructures linking non-central urban centres to key transport nodes of the Ile-de-France region is crucial for producer services. Firms need direct access both to their Parisian clients and to other cities' markets (national and international) thanks to airports and railway connections. Second, all producer services professionals are asking for increasing transport functionality. Planes, trains and hotels are an extension of the office, they are places where to work; they should be fully equipped with the technologies used by the mobile professionals. Third, in the Paris region case, there are concerns with the metropolitan transport system. If its general quality is being depicted by the persons interviewed as very high, most respondents are in favour of a minimum service that will limit the effects "of the too numerous strikes" (Design Consultancy).

In terms of skilled labour force, firms located outside the Ile-de-France are generally asking for long-term measures that may enlarge an often too limited labour market. More investments in the education system may be needed. Yet the capacity of these cities to keep their newly qualified workers may not be enough to resist the strong attraction forces coming from the Parisian market.

All improvements in terms of accessibility and education in the non-central urban places are useful to help their economic development. Yet, it seems that the major issue for producer services is the reinforcement of

the Paris region and more specifically of its central part. The firms' demand for central location has not diminished despite evidences of residential deconcentration of their workers. To satisfy producer services expectations it is necessary to propose more office space in the centre of the agglomeration. Where may densification be achieved? The Hauts-de-Seine département from La Défense to Boulogne-Billancourt – Issy-les Moulineaux is successful enough not to require any major public action. On the contrary the rest of the Inner Suburbs is suffering from a negative image. However there is a strong potential in terms of accessibility. The Saint-Denis office park as well as some new buildings in Vincennes or Ivry-sur-Seine are currently attracting producer services. In many inner suburbs municipalities there are places of down-graded areas mixing poor housing and small industries. These are places where major redevelopment projects could be undertaken. To do so, real estate promoters and firms are awaiting a strong signal from public institutions. The Hauts-de-Seine département benefited from government's La Défense

Appendix 1: Table 1: Number of firms' personnel interviewed in the following grades

Staff Grades	Number of Respondents
Chairman	36
Chief Executive	3
Senior Manager	19
Partner	2
Total	60

Table 2: Number of institutional personnel interviewed in the following grades

Staff Grades	Number of Respondents
Chairman	2
Member	3
Total	5

action plan under de Gaulle's authority. In a context of political decentralisation, what institution will be able to ignore electors' preferences for a less dense metropolitan area and to promote the densification of eastern and northern inner suburbs? What institution will be able to balance economic efficiency and social integration as the development of new office blocks may lead to the evacuation of the poorest populations currently living in the Inner Suburbs? What institution will choose to promote densification and hierarchical polycentricity against so-called "spatial equity"?

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Appendices

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Total	5

Appendix 2

Table 3: List of firms interviewed by centre, sector & network scope.

Firms	Urban Centres	Category of Urban Centres	Sector	Network scope	Size
ABX Logistics	Gennevilliers	Inner Suburbs	Logistic	International	Large
Aces-Sobesky	Beauvais	Rest of Bassin Parisien	Accountancy	Regional	Small
Altran	Paris	Paris	Design Consultancy	International	Very Large
API	Paris 2	Paris	Advertising	National	Very Small
ARACT Haute-Normandie	Rouen	Rest of Bassin Parisien	Management	Regional	Small
Arcange	Igny	Outer Suburbs	Design Consultancy	Regional	Very Small
Archi	Paris 1	Paris	Design Consultancy	International	Small
Aressy & Associés	Suresnes	Inner Suburbs	Advertising	National	Small
Asset Technology	La Défense	La Défense	Finance	National	Small
Atos Origin	La Défense	La Défense	Design Consultancy	International	Very Large
AXA Gie	Paris 8	Paris	Insurance	National	Large
AXA Investment Managers	La Défense	La Défense	Finance	International	Large
AXA Monde	Paris 8	Paris	Insurance	International	Very Large
Bignon, Lebray & Associés	Paris 16	Paris	Law	International	Medium
Boston Consulting Group	Paris 8	Paris	Management	International	Medium
Cabinet Bernier	Le Mans	Rest of Bassin Parisien	Advertising	Regional	Small
Cabinet Scheer	Paris 16	Paris	Law	Regional	Small

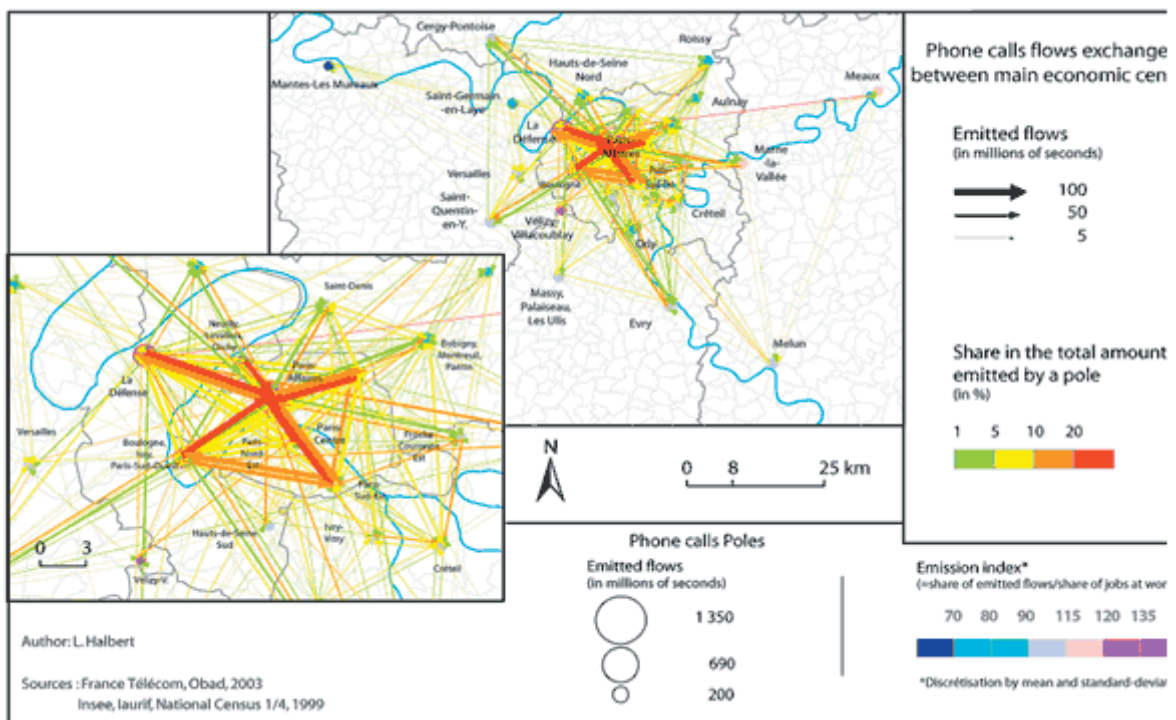
Caisse des dépôts	Rouen	Rest of Bassin Parisien	Finance	Regional	Small
Capital Fund Management	Paris 9ème	Paris	Finance	International	Small
Cincom System	Paris 13	Paris	Design Consultancy	International	Small
Cinic Pro Sport	Paris 13	Paris	Advertising	National	Very Small
Claude Gasnal Organisation (CGO)	Le Mans	Rest of Bassin Parisien	Advertising	Regional	Small
Clifford Chance	Paris 16	Paris	Law	International	Medium
CNP Assurances	Paris 14	Paris	Insurance	National	Very Large
Covea Fleet	Le Mans	Rest of Bassin Parisien	Insurance	National	Medium
Firms	Urban Centres	Category of Urban Centres	Sector	Network scope	Size
Crédit Agricole Centre Loire	Bourges	Rest of Bassin Parisien	Finance	Regional	Medium
Crédit Mutuel du Centre	Orléans	Rest of Bassin Parisien	Finance	Regional	Large
DDB Communication	Paris 8	Paris	Advertising	International	Very Large
Dragon Rouge Packaging	Suresnes	Inner Suburbs	Design Consultancy	International	Small
Dubault, Biri & Associés	Evry	Outer Suburbs	Law	Regional	Small
Ernst & Young	Neuilly-sur-Seine	Inner Suburbs	Accountancy	International	Very Large
Executive Transition Management	Paris 8	Paris	Management	National	Very Small
FCN – Société Française de révision	Reims	Rest of Bassin Parisien	Accountancy	National	Medium
Fedex	Roissy/Gennevilliers	Outer Suburbs	Logistic	International	Large
Force Motrice	Orléans	Rest of Bassin Parisien	Advertising	Regional	Small
FP Communication	Rouen	Rest of Bassin Parisien	Advertising	National	Small
Generali	Paris 2	Paris	Finance	International	Large
Geodis	Clichy	Inner Suburbs	Logistic	International	Very Large
Harmatan	Paris 5	Paris	Design Consultancy	National	Small
Hays Logistique	Paris 11	Paris	Logistic	International	Large
Intervention Isalariat	Paris 19	Paris	Management	National	Large
K-BUY	Neuilly-Plaisance	Inner Suburbs	Logistic	International	Medium
Linedata Services	Antony	Inner Suburbs	Design Consultancy	National	Medium
Lovells	Paris 16	Paris	Law	International	Medium
Medianova	Epinay-sous-Sénart	Outer Suburbs	Advertising	Regional	Very Small
MorningStar France	Paris 2	Paris	Finance	International	Very Small
Ogilvy & Mather	Paris 8	Paris	Advertising	International	Medium
PFLS	Maison-Alfort	Inner Suburbs	Design Consultancy	National	Very Small
PriceWaterHouseCoopers	La Défense	La Défense	Accountancy	International	Large
Servyr Courtage	Reims	Rest of Bassin Parisien	Finance	Regional	Small
Sidexa	Bourg-la-Reine	Inner Suburbs	Design Consultancy	National	Small
SIG	Jouy-en-Josas	Outer Suburbs	Finance	National	Very Small
Sogaris	Rungis	Outer Suburbs	Logistic	National	Small
Spatialist	Maisons-Lafitte	Outer Suburbs	Advertising	Regional	Very Small
Technip	La Défense	La Défense	Design Consultancy	International	Large
Think Communication	Loges-en-Josas	Outer Suburbs	Advertising	National	Small
Transearch France	Paris 16	Paris	Management	International	Very Small
Firms	Urban Centres	Category of Urban Centres	Sector	Network scope	Size

Variations	Paris 14	Paris	Management	National	Very Small
Wizz	Paris 1	Paris	Design Consultancy	National	Small
XL Ré	Le Mans	Rest of Bassin Parisien	Insurance	National	Medium

Appendix 3

Table 4: List of names and locations of institutions interviewed.

Names	Location
Medef	Le Mans
Medef	Puteaux
Association des Agences de Conseil en Communication	Paris
Association des Juristes d'Entreprises	Paris
Association pour la logistique	Paris



Annex 1: Firms' phone calls in the Paris region (2003)