

PUTTING SILOS TO THE TEST. THE CASE OF THE EU CIVIL SERVICE

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Abstract: *Although, according to insiders and outsiders alike, bureaucracies are typically fragmented into 'silos', such claims have rarely been tested empirically. The range and the frequency of employees' interactions both within and outside their teams and departments, or the extent to which the pattern of such interactions reflect the tasks, roles or values of staff in different parts and levels of the organization, have seldom been the object of systematic investigation. This paper draws on new empirical data from recent research on the European Commission (2014 survey achieved sample n=5545, interviews n=244, focus groups n=5) and on the General Secretariat of the Council (2016 survey achieved sample n=1356, interviews =117, focus groups=5) to examine the ways in which EU civil servants interact among themselves and with stakeholders. Using the technique of blockmodeling, the paper maps out these two parts of the EU civil service in positional and relational terms. Identifying for whom, with whom and where contacts are more extensive or frequent and where working patterns are most insular, it challenges both the general image of bureaucracies as 'stovepipes' and the more specific depiction of the Commission and Council Secretariat as irrevocably fragmented administrations.*

The belief that organizations are inevitably fragmented and that silos are a pervasive, if not an inevitable, feature of bureaucracy is widespread in the literature (see, e.g., Tett 2015; Christensen and Lagreid 2007; Halligan 2005). It is commonly held, moreover, that the tendency for workers to develop loyalties to their individual teams or departments, and for units and sub-units to become introspective, insular and introverted, is pernicious both for the organization and for the clients, customers and constituencies that they serve. According to the literature, silos are found in both the public and the private sectors (see, e.g., Tett 2015). They are located at various territorial levels – sub-national (see, e.g., Froy and Giguère 2008), national (see, e.g., Page 2005), and international (see, e.g., Trondal 2011, 2012) -- and their existence represents a concern for practitioners and academic researchers alike, requiring resolute and concerted action if their negative effects are to be countered.

Given the strength and ubiquity of these claims, however, it is surprising how infrequently they are based on empirical evidence. Crucially, the notion of organizational silos emphasises a lack of communication between different parts of the organization (see, e.g.,

Kotter 2011, Tett 2015). Indeed, the concept is specifically articulated in terms of communication and collaboration between units within an organization, and independently of hierarchy. Communication is considered desirable because it is thought to be conducive to effective coordination and efficient performance as well as to innovative thinking. A silo describes staff who tend to interact only with their closest co-workers, thereby ignoring information or practices generated in other parts of the organization to the detriment of overall performance. Yet, although, for example, civil service surveys routinely enquire about the backgrounds, attitudes and experience of staff, they rarely ask about employee interactions. Therefore, either the existence of silos is assumed or it is inferred from other evidence.

This paper and the research project of which it is a part takes a new approach to the issue of silos. Its central aim is to investigate communication and contact within public institutions and to test empirically the prevailing wisdom that bureaucracies are inevitably or generally fragmented in terms of staff interaction and behaviour. Using data from original research conducted on two administrations -- the European Commission and the General Secretariat of the Council -- the paper undertakes a systematic investigation of interactions between employees and uses a new technique to map them and to measure their frequency. Specifically, it carries out a positional analysis of employees in using information provided through surveys of staff in both organizations, which allows specific observations to be made concerning the existence and the characteristics of silos within each.

The paper argues, first, that the prevailing wisdom concerning the pervasiveness of silos cannot be sustained. Analysis of the data reveals not only that there is a significant degree of interaction between employees in different parts of the organization, but that this interaction follows a pattern. A second argument is that the characterisation of silos needs to be re-examined. The concept needs to be distinguished from the routine internal differentiation found in most organizations. Moreover, greater care is required in its application.

A third argument relates specifically to the two organizations that constitute the case studies. Our findings contest the classic depiction of the Commission (Coombes 1970, Spierenburg 1979, Cram 1992, Cini 1996) as silo'd bureaucracies. In the case of the

Commission, fragmentation may have diminished as a consequence of presidentialization since the first the Barroso Presidency and the routinization of coordination (Kassim *et al* 2013, Kassim *et al* 2017). The GSC, by contrast, is a smaller organization and contact between departments is routinized.

The discussion that follows is organized into four sections. The first reviews the claims made in the literature about the emergence of silos and organizational fragmentation. The second section suggests an alternative perspective. It also outlines a number of competing hypotheses. The data and the analysis are introduced in the third. The fourth section presents the findings and discusses their implications.

THE SILO'D ORGANIZATION

Though the form that it takes (Gulick 1937), task specialization is necessary in all organizations. Whatever organizational principle is selected, the resultant division of labour carries the potential for conflict. At the low end, these can arise from the differences in function, while the high end includes turf battles, budget maximization and bureaucratic politics (Page 2005). Since departments are entrusted with specific functions, recruit appropriately qualified personnel, and develop connections with constituencies in their areas of responsibility in the outside world, differences of outlook can easily emerge. The task of management and the top leadership is to encourage and, in the last instance, compel these units to subordinate their particular interests and to collaborate to realise the wider goals of the organization. Managers recognize that the organization is internally differentiated, but seek to make the different parts work together in the interests of the whole. Through horizontal and vertical coordination across the organization, they aim to integrate units and sub-units. If they do not succeed, the organization is likely to incur the costs associated with the duplication, redundancy or omission of tasks (Peters 1998, 2015). In some settings, the stakes are arguably even higher (Kassim *et al* 2000, 2001; Kassim 2014).

The concept of silos applies when departments cease to be integrated within the wider organization. Units or sub-units become insular and stop interacting or engaging with employees in other parts of the organization. They fail to share information or data, or otherwise communicate or collaborate with staff outside the group. Organizational silos can be based on worker type, responsibility, or geography. They emerge for a variety of reasons (Select Strategy Inc. 2012). Gillian Tett (2015), for example, discusses how collaboration was undermined in the high-tech company, Sony, after each department was given responsibility not only for product development and innovation, but also for its own budget. Each department began to pursue its own particular interest, trust gave way to competition, and collaboration between the organization's different parts ceased. As a consequence, the company failed to compete effectively and its performance suffered. Since a new CEO was unable to break down the silos, despite having accurately identified the source of the company's decline, Sony failed to recover its competitiveness and was not able to repeat the success that it had enjoyed with the invention of the Walkman. Other authors attribute the emergence of silos to a single factor, such as breakdown of trust (Kotter 2011).

In the public sector, silos arise in both intra-organizational and inter-organizational contexts.¹ Though neither uses the term, organizational silos are synonymous with the ministerial 'stovepipes' that Guy Peters (2015) describes in his discussion of coordination in US government and with the 'policymaking archipelago' to which William E. Kovacic (2005: 198) refers in his analysis of competition policy in different jurisdictions. In both instances, departments and agencies are focused on their responsibilities. They are concerned to guard their turf, and they assign a low priority to coordination.

By contrast, authors writing about post-New Public Management (NPM) and post-post-NPM do use the term.² The New Public Management (NPM) reforms of the 1980s (Osborne and Gaebler 1993; Dunleavy and Hood 1994), with their emphasis on managerialism, specialization and differentiation are often said to have exacerbated the tendency of bureaucracies to compartmentalize and form bureaucratic silos (Kavanagh and Richards 2001; Halligan, 2005). NPM-inspired reforms had aimed to increase the efficiency of

¹ To the extent that this distinction can be sustained.

² We owe this distinction to Tom Christiansen.

administrative bureaucracies by emphasising the benefits of specialisation, but by the 1990s governments in the UK and Australia – among the strongest proponents of NPM -- had recognized that they had led to the creation of silos. Hence, the late 1990s saw the launch of efforts to enhance coordination and collaboration across bureaucratic departments, under the slogans of ‘joined-up government’ (Bogdanor 2005) and then of ‘whole-of-government’ (Christensen and Lagreid, 2007).

At the same time, ‘bureaucratic silos’ were identified as an impediment to the delivery of effective public services under New Labour. In a report published in 2008, the Institute for Government concluded that a ‘silo mentality’ was obstructing the coordinated delivery of frontline services, preventing effective action on climate change, obesity and social exclusion (Ansell and Gash 2007). Similar concerns beset attempts to address so-called ‘wicked problems’ (Churchman 1967; Rittel and Webber 1973), issues that cut across the jurisdiction of multiple departments and agencies, and require cross-departmental, cross-agency collaboration to address.

Nor, as recent declarations about the UN testify (see, e.g., Abdulla 2016), are international administrations immune to the development of organizational silos.³ Similar concerns have been long-standing in the case of the EU civil service. Although he does not use the terminology of silos in his classic study of the Commission, Coombes (1970) demonstrates how during the first years of the organization’s existence centrifugal pressures grew unchecked in the absence of a strong central authority. Since for the centre lacked the power to impose itself, Directorates-General became self-governing ‘baronies’ or ‘fiefdoms’ – a state of affairs that continued for a further four decades (see, e.g., Spierenburg 1979, Tugendhat 1986, Cram 1994, Cini 1996). Underlining the power of Directors General at the head of these ‘baronies’ or ‘fiefdoms’, they highlighted the ability of top managers to resist efforts to impose coordination or enact top-down leadership from the centre.

Indeed, the existence of silos in the EU civil service has remained a salient issue among practitioners and academic observers alike. In the case of the Commission, for example, President-elect Juncker identified undermining silos within the organization as a rationale

³ See, for example, the UN Development Group’s silo busting website, <https://undg.org/silofighters/>.

for the restructuring of the College to include seven Vice-Presidents (European Commission 2015). More recently, the Commission (2016) cited the same grounds in announcing measures to introduce compulsory mobility after ten years for Heads of Unit (middle managers).

Two positions on the internal operation of the Commission have been staked out in the recent literature. First, according to the presidentialization thesis (Kassim 2012, Kassim *et al* 2013, Kassim *et al* 2016), decision-making authority has been increasingly centralised within the organization since the beginning of Barroso I, and used by the Commission Presidency's two most recent incumbents to bring about an integration of the College and the administration. The Commission President's precedence over other members of the College, the office's authority over the organization, and the transformation of the Secretariat General into a presidential service enabled Barroso and then Juncker not only to define the Commission's policy programme, but to oversee and ensure its deliver by Commissioners and their services. Coordination is monitored and enforced hierarchically.

According to the second position, articulated most forcefully by Jarle Trondal (2011, 2012), though see also Hartlapp *et al* (2014), departmental loyalties – or the demands of 'portfolio' -- remain paramount within the Commission. In his investigations, Trondal sought to discover whether a logic of portfolio, where staff identify primarily with the concerns of their sub-units, prevail over a logic of hierarchy, where staff highlight the importance of coordination, thereby mirroring the concerns of the executive centre, and downplay 'turf'. He finds that, while staff in the Secretariat General emphasise process, those in DG Trade stress policy substance. He also notes that interviewees themselves used the word "silo" to describe their own working units and 'silo thinking' as the kind of behaviour that Commission President Barroso sought to eradicate. In effect, the behavioural manifestations of the logic of portfolio bear considerable similarity with the notion of silo: turf wars, uncoordinated agendas, identification with the unit, and allegiance to the unit rather than awareness of the higher hierarchy within the organization. He concludes that, although the power of the Commission Presidency may have increased, it is important not to exaggerate 'hierarchy' and 'portfolio' prevails.

The literature on the Council Secretariat is considerably more sparse (see Connolly, Kassim and Vantaggiato 2017), not least because the GSC has remained largely and wilfully in the shadows (Christiansen 2002). Beyond informative textbook treatments offered by Hayes-Renshaw and Wallace (2006), scholars have tended to focus narrowly on the role of the organization in treaty negotiations (Beach 2004) or in the Common Foreign and Security Policy (CFSP) (Dijkstra 2010). To the knowledge of the authors, there have been no previous examination of the GSC at the level of the individual employee beyond Mangenot (2003, 2004, 2010), who investigates the career backgrounds of senior officeholders, or an investigation of their behaviour or work patterns.

In addressing the question of silos in the Commission and the Council Secretariat, the paper aims to advance understanding of both organizations. The richness of the individual-level data allows it to undertake a detailed analysis. Although the focus in this paper is on task and responsibilities, nationality, gender and seniority will be examined at a later stage. In the case of the Commission, an additional objective is to arbitrate between the images of the Commission presented by the above schools. In relation to the Council Secretariat, the paper will add knowledge of a part of the EU administration that has remained largely in the shadows. By investigating two organizations, it aims to deliver greater explanatory power. The differences between the Commission and the Council Secretariat are beneficial in terms of hypotheses formulation and generalization of the results of the analysis. It also allows for comparison of an under-researched bureaucracy with one of the most extensively investigated.

Although the paper takes two parts of the EU civil service as case studies to explore the issue of silos, many of its central claims and observations are applicable to any bureaucracy or organization. Key among the latter is the importance of interaction among employees to discussion of organizational silos. As the above discussion has shown, the presence or absence of interaction among workers in different parts of an organization is central to the emergence or otherwise of silos. Similarly, the advice offered in the business management literature for preventing the formation of organizational silos or for countering them once they have come into existence is mostly focused on the introduction of mechanisms to reintroduce and reinforce interaction -- through the assertion of strong and interventionist

leadership, an effective communication policy, and the mobilization of the workforce behind a common goal.⁴ Given the centrality of employee interaction, it is curious that scholars have not tended to examine on any systematic basis whether or how individuals within the workforce interact with each other across the organization. It is also unclear that organizations themselves undertake such exercises. This paper aims to break new ground by undertaking such an analysis. We operationalize silos using data on the frequency of contacts across units of the organizations.

Three further observations are important. First, although the term 'silos' is used frequently in reference to international bureaucracies, it is rarely defined. This paper applies the term as it is understood in the wider literature – namely, the tendency for workers in units or subunits not to interact with employees elsewhere in the organization.

Second, although it recognizes that there may be an affinity between 'portfolio' and silo, it does not treat the two as interchangeable. The notion of organizational silos has implications that are not the same as the logic of portfolio. As discussed above, internal differentiation according to function or responsibility is a normal part of organizational life, stemming from task specialisation that is necessary in any organization. It does not imply irreconcilability or inability to communicate, collaborate or coordinate. In a silo'd organization, those interactions no longer take place.

Third, Page (2005) cautions against describing silos as universally undesirable and to focus attention and efforts on fostering those synergies whose added value outweighs the potential inefficiencies caused by silos. In other words, not all units in a bureaucracy necessarily need to interact on a daily basis for that bureaucracy to be effective in the fulfilment of its mission. Rather, public management should focus on fostering those collaborations which appear necessary or promising, lest impoverishing a bureaucracy of necessary attributes such as accountability.

⁴ Tett (2015) discusses how Facebook tries to prevent the emergence of sub-organizational loyalties. First, when they join the company, new recruits attend a general induction course for all staff from all departments. This ensures that, from the moment they begin working for Facebook, they have friendship connections across the whole organization rather than in their department alone. Second, Facebook encourages mobility between departments, but although employees are required to periodically to move to a new team, they retain the option of returning to their original department.

HYPOTHESES

Our data allows us to formulate hypotheses and carry out our analysis at the level of the employee. In this regard, we endorse Trondal's (2011, 2012) differentiation of bureaucratic sub-units on the basis of the core logic (whether process or purpose) but recast it in new light by considering that the same logic ought to apply at the level of the individual employee. Hence, we expect employees' patterns of contacts to differ on the basis of their responsibilities or tasks they perform. Employees whose tasks concern organization, coordination, policy analysis and advice can be expected to branch out beyond their immediate co-workers whatever the DG they work in. Employees whose tasks are more purpose-based (logistics, translation, security, IT) are more likely to have a narrower range of frequent contacts.

H1: Interaction within international bureaucracies depends on employees' roles and tasks. Employees with process-oriented responsibilities (such as planning, administration, or support) will tend to interact with different units, whereas employees with purpose-based tasks (such as logistics and translation) will tend to be more limited.

H2: The pattern of internal interactions within international bureaucracies is likely to vary according to the size of administration and its sub-units. In large organizations, task specialization is more extensive, leading to less interaction among units and sub-units. In small organizations, staff are likely to have more general responsibilities and are therefore more likely to interact.

H3: The pattern of interactions within international bureaucracies is likely to vary according to the function of the organization. In a policy-making bureaucracy, interaction is less likely, since policy specialists are more likely to want to protect their turf. Where an organization's mission is to provide administrative support to another institution, greater interaction is to be expected, since staff tend to be generalists, and units and sub-units are more obviously interdependent.

DATA AND METHOD

The data used in this paper derives from research on the European Commission and the General Secretariat of the Council⁵. Surveys were administered in 2014 and 2016 respectively to a total of 31,280 European Commission employees and 3190 GSC employees. Response rates have been remarkably high: 18% (5545 respondents) at the Commission and 42% (1356 respondents) at the GSC. In each survey, two questions concerned the respondent’s frequency of contacts with individuals and institutions within the organization. Table 1 reports the two questions and the possible reply options for each survey.

Table 1 - Questions asked in the surveys of the European Commission and the Council Secretariat

Q34a – European Commission	Q33a – General Secretariat of the Council
<p><i>“How frequently are you in contact with the following inside the Commission?”</i></p> <ol style="list-style-type: none"> 1. Colleagues in my unit other than the Head of Unit 2. My Head of Unit or deputy Head of Unit 3. Colleagues in my directorate outside my unit 4. Colleagues in my Directorate General outside my Directorate 5. Colleagues in other Directorates General 6. Legal service 7. Secretariat General 8. My Commissioner 9. Other Commissioners 10. Members of my cabinet 11. Members of other cabinets 	<p><i>“In order to get your job done, how frequently are you in contact with the following individuals inside the GSC?”</i></p> <ol style="list-style-type: none"> 1. Colleagues in my unit other than my head of unit (N/A if you are a manager) 2. My line manager 3. Colleagues in my directorate outside my unit 4. Colleagues in my DG outside my directorate 5. Colleagues in other DGs in the GSC (policy) 6. Colleagues in other DGs in the GSC (admin) 7. Legal Service 8. Media and Communication 9. Document Management 10. Secretary General or private office of the Secretary General 11. Colleagues in GIP 12. President of the European Council and private office

⁵ For an overview of the organizational structure of the GSC, see <http://www.consilium.europa.eu/en/general-secretariat/>; for the European Commission, please see https://ec.europa.eu/info/about-european-union/organisational-structure/how-commission-organised_en#departments-and-agencies.

In the EC survey, for each type of individual or institution, respondents could choose among 6 reply options concerning frequency of contact. The 6 reply options were:

- Daily
- At least once a week
- At least once a month
- Several times a year
- Yearly
- Other/Does not apply

In the GSC survey, for each type of individual or institution, respondents could choose among 8 reply options concerning frequency of contact. The 8 reply options were:

- Daily
- At least once a week
- At least once a month
- Several times a year
- Yearly
- Never
- Prefer not to say
- Does not apply to my role

We recoded the reply options according to a common system across the two pairs of questions:

- Daily = 5
- At least once a week = 4
- At least once a month = 3
- Several times a year = 2
- Yearly = 1
- Never/Does not apply/Other = 0

In this way, reply options across the two questions have a common coding, with higher values indicating higher frequency of contact.

Our interest is in assessing whether silos can be recognized in these international bureaucracies and what kind of employees tend to belong to silos. For this reason, we performed our analyses on respondents who had provided full answers to the questions (Q34a – EC and Q33a – GSC), and complete information as concerned the DG they worked at, their tasks, their nationality, their role, their gender and the year they joined the service. This reduced the number of respondents included in the two dataset quite considerably. As for questions on internal contacts, we retained 2711 respondents from the EC and 919 from the GSC (out of totals of 5545 and 1356, respectively).

Method

We perform a blockmodeling analysis on these datasets by modelling silos as a latent factor determining patterns of interaction among employees of the Commission and the Council Secretariat. A blockmodel consists of a mapping of approximately equivalent actors into blocks or positions and a statement regarding the relations between the positions (Wasserman and Faust, 1992). Therefore, blockmodeling is a technique of positional analysis, deriving from the sociological literature on organizations (White, Boorman et al. 1976, Snyder and Kick 1979, Gerlach 1992). In that context, blockmodeling techniques are used to analyse the structure of a network of relations between actors or, as in the case of this paper, between two different sets of units, for instance a set of individual employees and a set of collectively described sets of actors (“colleagues in my unit”) or bureaucratic departments (“policy DGs”) and institutions (“European Parliament”). In the latter case, one talks of a two-mode network because the rows and the columns of the matrix describing the network are of different types. In a two-mode network, ties can only exist between nodes of different types.

The traditional approach to two-mode networks is to transform them into a one-mode network whereby two actors are connected if they are affiliated to the same organizations (Borgatti and Halgin 2011). However, considering only one projection of the data (e.g. the individuals) results in loss of information and does not work well with valued ties (Everett and Borgatti 2013), as in this case where we have information not only on links between

employees and their colleagues but also their frequency. Blockmodels represent an analytically rich and interesting way of analysing two-mode valued data, whereby the blockmodeling algorithm finds a partitioning of the rows and the columns that makes each matrix block as homogeneous as possible (Borgatti and Everett 1992).

In positional analysis, actors are described through their relations to other actors into sociomatrices, which are based on a concept of positional equivalence. The most stringent notion of positional equivalence is that of structural equivalence: two actors are said to be structurally equivalent if they have identical ties to identical others. Because structural equivalence rarely occurs in empirical data, most analyses (including this one) are based on the less stringent notion of regular equivalence: actors are said to be regularly equivalent if they have equivalent ties to equivalent others. In a blockmodel, partitions of the set of the actors into a set of positions are sought such that actors who are approximately equivalent (i.e. have same patterns of entries in the corresponding rows and columns of the sociomatrices) are assigned to the same positions.

In a regular equivalence blockmodel, a pair of equivalent nodes is connected not necessarily to the same nodes (as in structural equivalence) but to equivalent nodes (White and Reitz , 1983). For instance, in a two-mode network consisting of consumers and restaurants, the two-mode regular blockmodel identifies which types of consumers go to which types of restaurants. Consumers of the same type do not necessarily visit the same restaurants but they do visit the same kinds of restaurants; the same kinds of restaurants do not necessarily have the same clients but the same kinds of clients (Borgatti and Halgin , 2011).

Statistical or stochastic blockmodels go a step further by taking into consideration the statistical nature of the data underlying a two-mode network. Specifically, rather than simply finding the partition of rows and columns yielding the most homogeneous blocks, stochastic blockmodels allow the formulation of an explicit theoretical model for the relations between actors as depending on some unobserved factor or set of factors. This is a latent variable model, where the positions are categorical latent variables defined on the nodes (Wyse, Friel et al. 2017).

Translating this into the study of bureaucratic organizations, such as the EC and the GSC, the number of employees' blocks Q and the number of blocks of bureaucratic units L are automatically chosen that correspond to the largest exact integrated completed likelihood (ICL) criterion (Keribin, Brault et al. 2015, Wyse, Friel et al. 2017). We essentially partition the row nodes and the column nodes simultaneously to reveal subgroups or subsets of the row nodes that have similar linking attributes to subgroups of the column nodes. We assume that these linking attributes are observed manifestations of unobserved (or latent) silos, which may exist for several reasons that we hypothesised in the previous section.

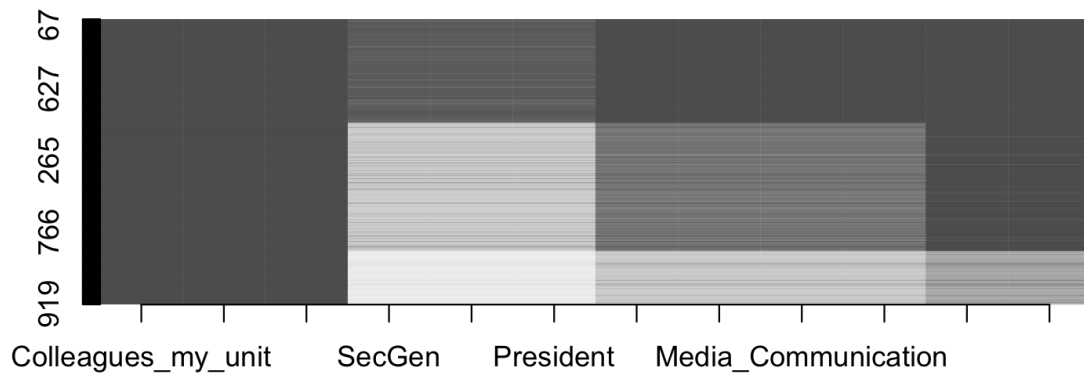
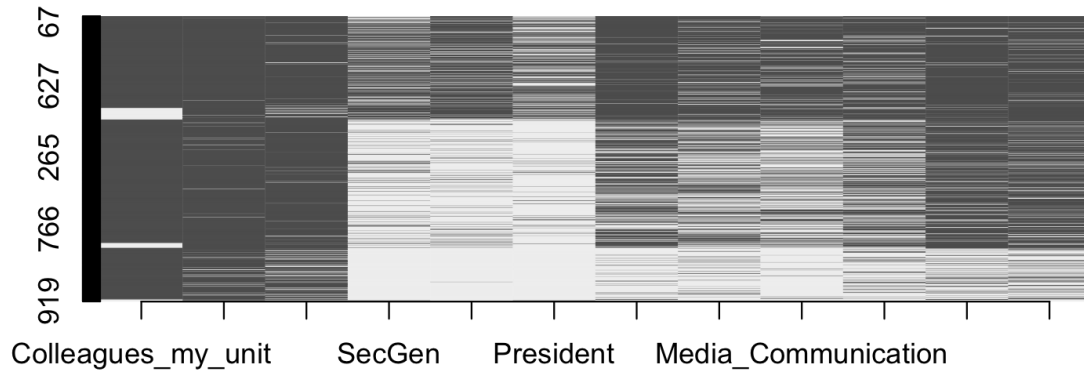
ANALYSIS AND RESULTS

We use the R Package "blockmodels" to perform our analyses. As mentioned, the blockmodeling procedure is able to reduce a large matrix to manageable proportions by permuting rows and columns so as to form blocks of regularly (or approximately) equivalent row and column nodes, so that nodes are similar if they have similar patterns of interaction with similar columns. In this article, we perform a Latent Block Modeling (LBM) on the two datasets concerning the Commission and the Council Secretariat. We model silos as a latent factor of the patterns of interaction among employees and between them and external institutions and stakeholders.

The Council Secretariat and the Commission: Internal Contacts

Let us consider first the results of the model for the smaller bureaucracy, the Council Secretariat as an illustration of how the blockmodeling procedure works in practice (equivalent results for the EC are available from the authors upon request). The upper part of figure 1 shows the original matrix dataset for the question on internal contacts: rows are survey respondents, columns are reply options. Darker shading indicates higher frequency of contact; lighter shading indicates lower frequency of contact; white indicates absence of contact. The lower part of Figure 1 shows the same matrix with rows and columns permuted in order to form homogenous blocks.

Figure 1 - Original data vs Co-clustered data GSC survey Internal contacts



We only retained observations that had provided complete answers, i.e. respondents who provided a reply concerning the frequency of their contacts with each unit. This corresponded to a total of 919 respondents. As can be seen in figure 2, valued ties between 919 respondents and 12 reply options can be re-organized into a 3 by 4 matrix (the three clusters of rows and four clusters of columns). The clusters of columns can be defined as follows:

Column cluster 1: Co-workers – Colleagues in my unit other than my head of unit (N/A if you are a manager), My line manager, Colleagues in my directorate outside my unit;

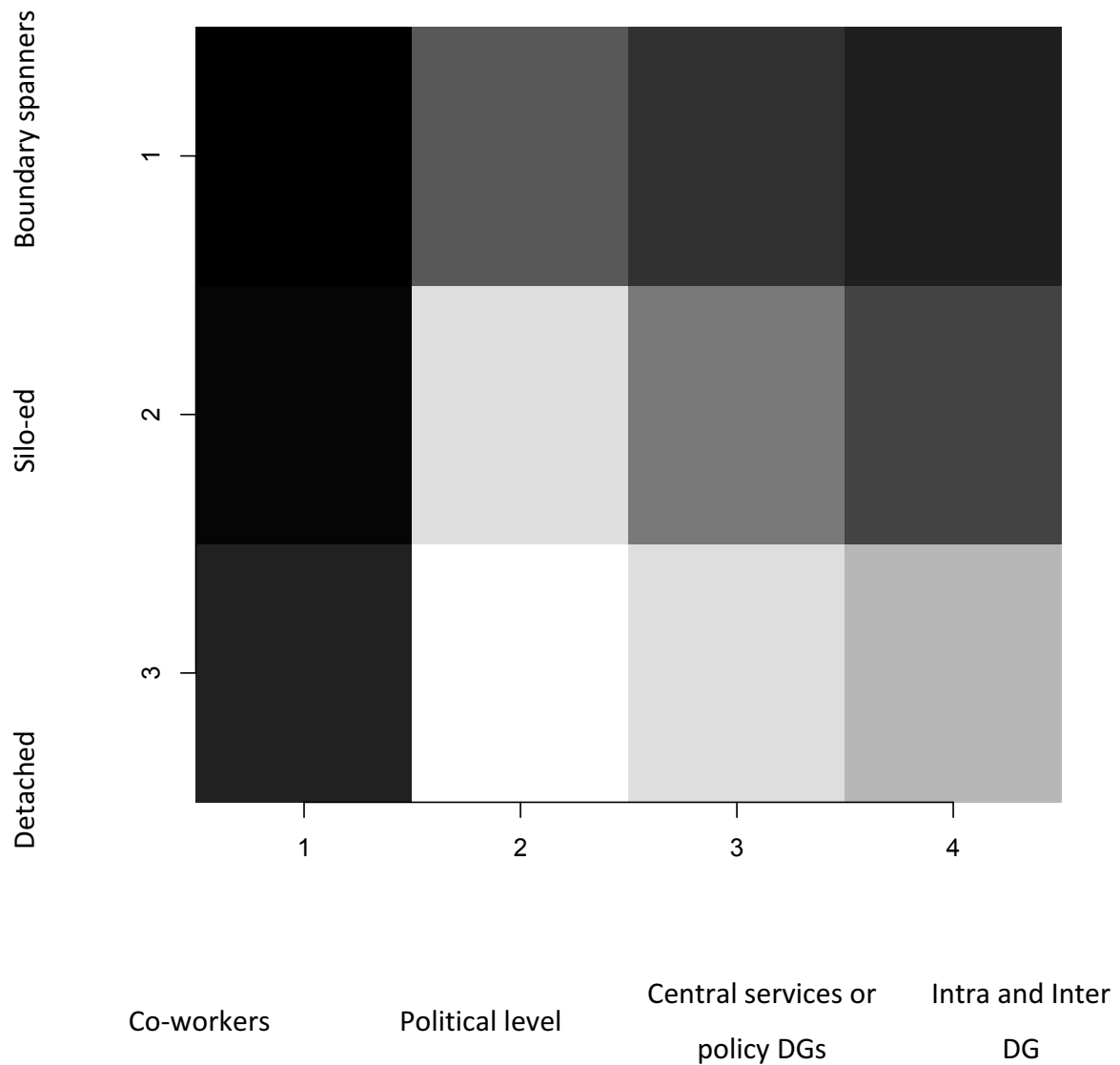
Column cluster 2: Political level – Secretary General or private office of the Secretary General, Colleagues in GIP, President of the European Council and private office;

Column cluster 3: Central services or policy DGs – Legal Service, Media and Communication, Document Management and other DGs in the GSC (policy);

Column cluster 4: Intra and inter DG – Colleagues in my DG outside my directorate, Colleagues in other DGs in the GSC (admin).

Figure 2 reports the block structure and the correspondence between rows and columns. Rows depict different types of employees. The first row describes employees who have daily contacts with their most immediate co-workers, weekly intra and inter DG contacts (cluster 4), monthly contacts with central services or policy DGs and who interact with the political level in the GSC several times a year. We define this category of employees the “boundary-spanners”, as they appear to maintain relations across the whole bureaucracy. A total 35% of GSC respondents belongs to this cluster with a probability higher than 0.6. Cluster 2 of the rows is the cluster comprising the highest number of respondents (42% with a probability higher than 0.6). Members of this cluster have daily contacts with their co-workers, but then rarer contacts with everyone else, including colleagues outside their directorate and in admin DGs. We see them as the closest to the idea of silos, hence we define them “silo-ed”. The third and least numerous cluster of respondents comprises the least active respondents, who have weekly contacts with their most immediate co-workers but rare contacts with any other counterpart. We label these respondents as “detached”; they comprise 18% of the respondents (see Appendix for visualization of the subdivision of the rows and columns clusters).

Figure 2 - GSC Survey Internal Contacts - Matrix plot LBM



We now consider the dataset deriving from the European Commission Facing the Future (ECFTF) survey. Respondents to the question on internal contacts who provided complete replies amount to 2711 individuals. The blockmodeling retrieves the structure reported in Figure 3.

The overwhelming majority of EC employees can be described by just two clusters, the first comprising 46% of the respondents, the second 39% (with a probability higher than 0.6).

The procedure retrieves three additional clusters of employees: two comprise few dozen individuals; another comprises 7% of the respondents (with the same probability, i.e. higher than 0.6). As for the columns (i.e. the reply options), we distinguish the following clusters:

Column cluster 1: Intra and inter DG – Colleagues in my Directorate General outside my Directorate and Colleagues in other Directorates General;

Column cluster 2: Coordinating level – legal service, Secretariat General, members of my cabinet;

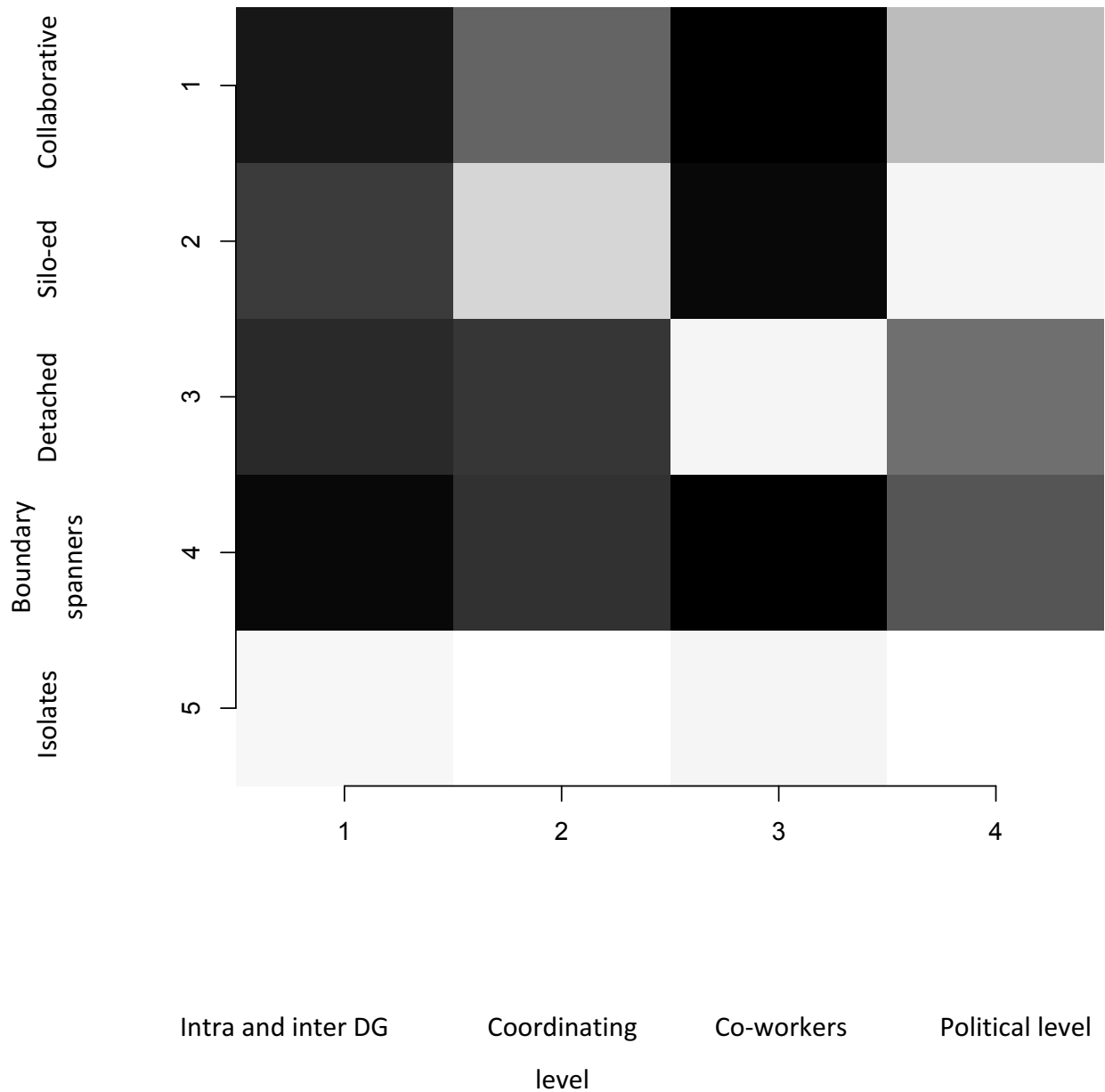
Column cluster 3: Co-workers – colleagues in my unit other than the Head of Unit, my Head of Unit or deputy Head of Unit, colleagues in my directorate inside my unit;

Column cluster 4: Political level – my Commissioner, other Commissioners, Members of other Cabinets.

Figure 3 conveys information about the block structure, i.e. how rows and columns cluster correspond. In studying the figure, we should bear in mind that the vast majority of respondents fits into the first two row clusters, which reveal an overall similar pattern of contacts with other parts of the organization although with slightly different frequencies. Namely, the first two row clusters have daily contact with their co-workers only. Cluster 1 (the biggest overall) also has frequent (i.e. weekly) contacts with other members of their DG and with other DGs, while respondents in cluster 2 have only monthly contacts with these colleagues. Frequency of contact is lowest between these row clusters and political and central services, consistent with a logic of hierarchy (as suggested in Trondal, 2011). We name respondents in cluster 1 “collaborative” and respondents in cluster 2 “silo-ed”.

Whereas the first two clusters of rows seem to correspond to overall similar employees entertaining a similar pattern of interaction with other parts of the EC, the next three clusters of rows appear to depict entirely different kinds of employees.

Figure 3 - ECFTF Survey Internal Contacts Matrix plot



Respondents in row cluster 4 can be aptly nicknamed “boundary-spanners” as they emerge as those entertaining rather frequent contacts with the whole of the organization’s units. There are very few respondents in row clusters 3 and 5. In particular, row cluster 3 respondents appear as interacting across units of the EC but not with co-workers, whereas,

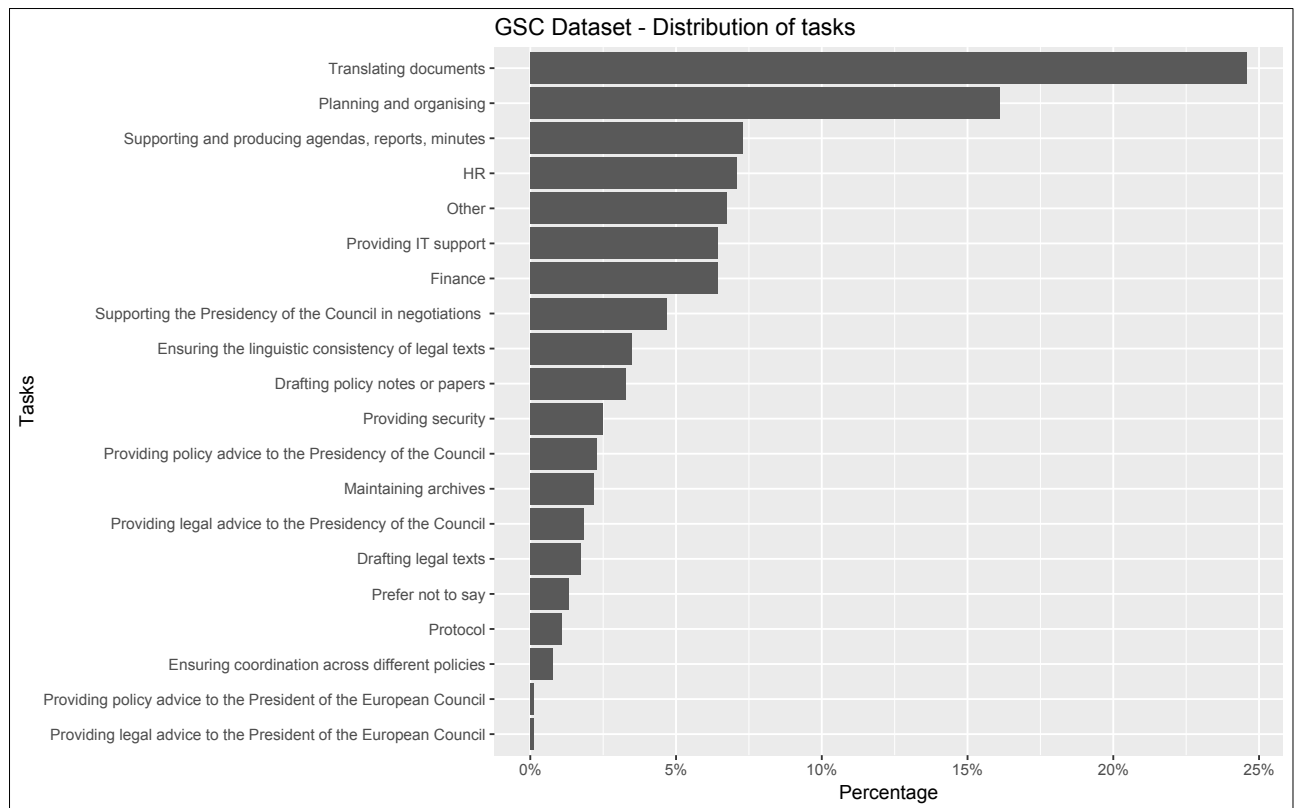
those in row cluster 5 do not have regular contact with anyone. We name respondents in cluster 5 “isolates”.

Unsurprisingly, we identify a tendency for many respondents across both organizations to have most frequent contacts with their closest co-workers only; perhaps more surprisingly, an equally high number appears to maintain frequent horizontal contacts with peers (i.e. colleagues in the DG beyond the directorate and in other DGs). Whilst we observe ‘silo-ed’ or ‘detached’ workers in both organisation, they are a minority.

A naturally arising question is: who is in each cluster? What distinguishes our ‘boundary-spanners’ from the ‘silo-ed’ and who are the ‘detached’? As Page (2005) reminded, not all silos are undesirable or inefficient. Some exist because of the kind of functions and tasks that the relevant employees perform. For this reason, we explore the membership of some of these row clusters in terms of the tasks they perform.

Figure 4 reports the distribution of the respondents in the GSC by the main task they perform in their work (a list compiled by the research team in conjunction with members of the Secretary General’s Cabinet). The majority of respondents are translators. The second biggest category comprises personnel with planning and organisation duties.

Figure 4 - GSC Survey Internal Contacts - Distribution of respondents by task



Bearing in mind the information in figure 4, let us now examine the three clusters of GSC employees according to their internal contacts and identified by their gender and by the DG in which they work in figures 5, 6 and 7. As mentioned earlier, we renamed clusters according to their prevalent interaction patterns with the rest of the organization as, respectively, “boundary-spanners”, “silo-ed” and “detached”. The figures report data for employees whose probability of belonging to each cluster in the latent block model is greater than 0.6. The percentages on the vertical axis refer to the gender of the respondents. The total percentage of employees belonging to each cluster per task is obtained by summing the percentages by gender. For instance, 22% of the members of the cluster in figure 5 perform planning and coordination tasks; 15% are women.

Figure 5 - GSC Boundary Spanners

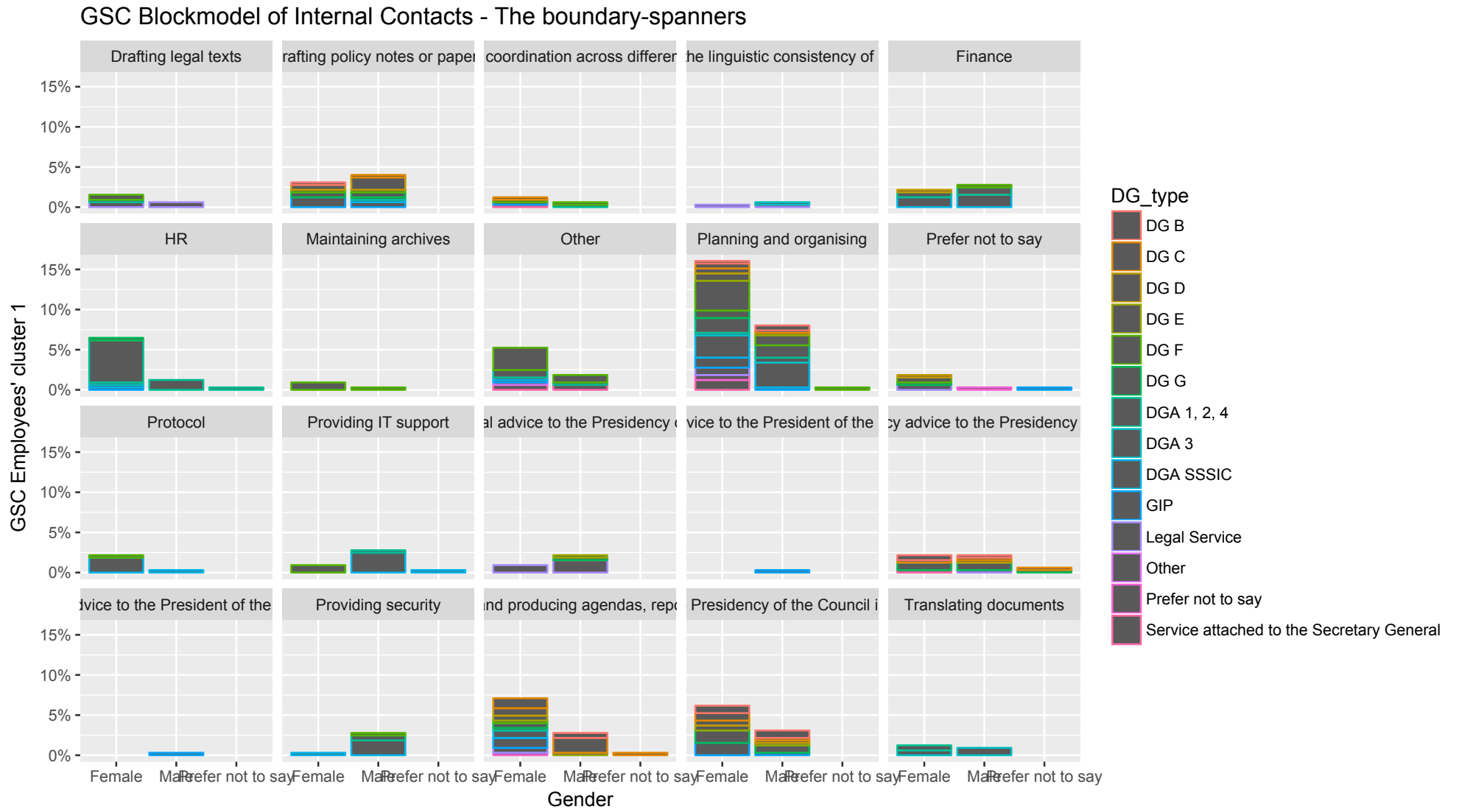


Figure 6 - GSC Silo-ed

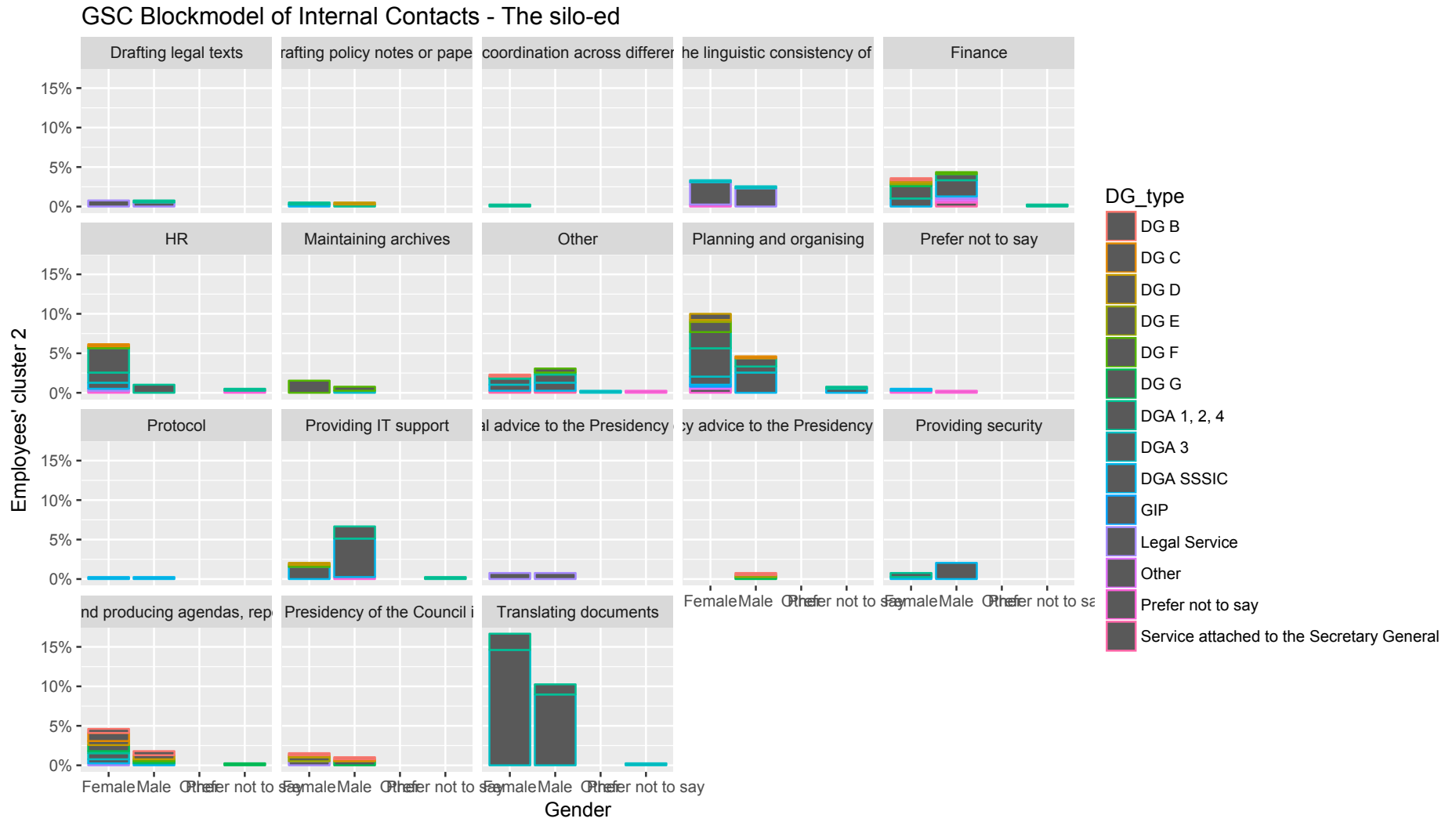
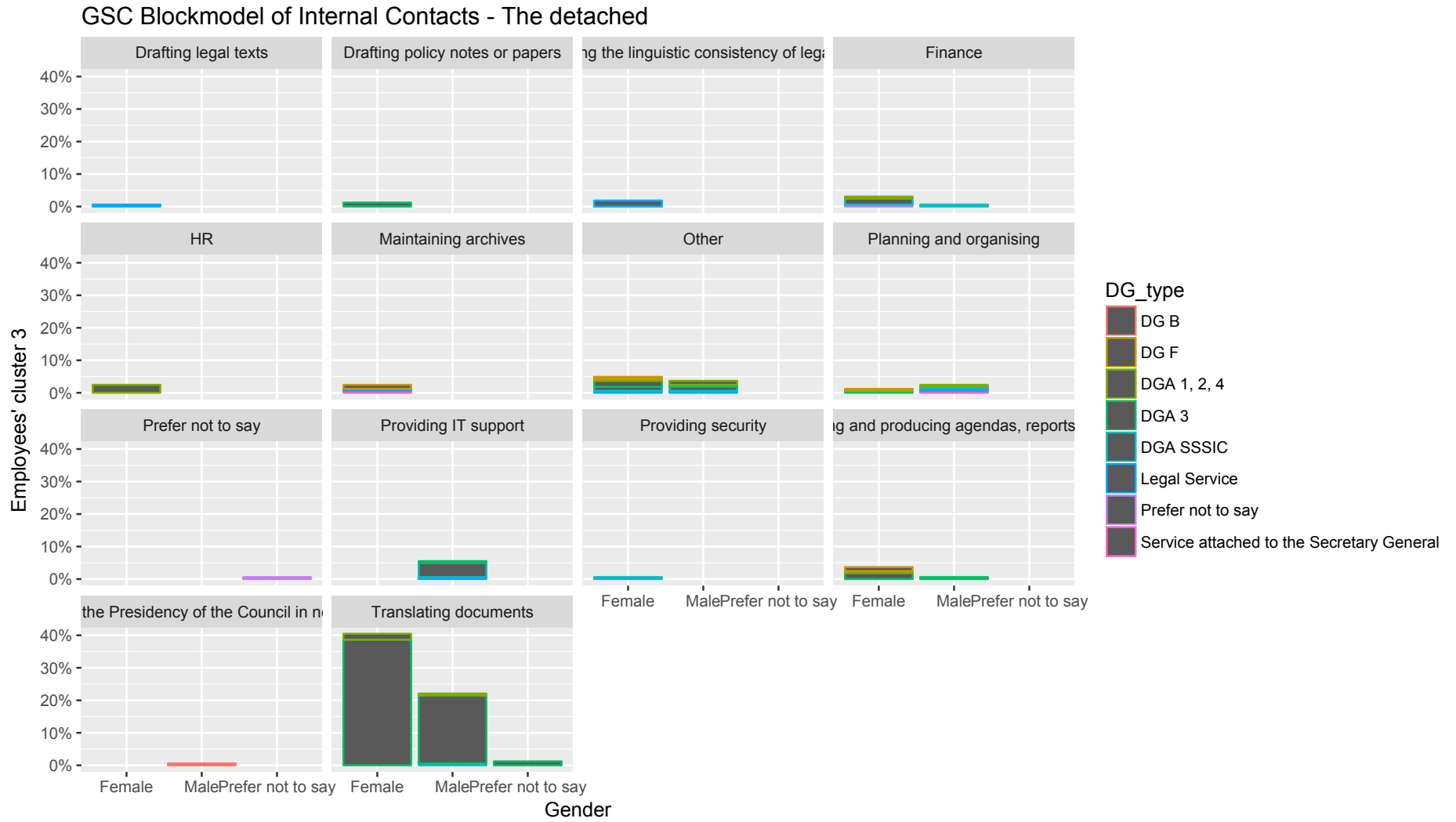


Figure 7 - GSC The detached



The trio of figures reporting the members of each GSC cluster clearly reveals a task-based pattern that is explanatory of the frequency and the types of contacts GSC employees in this sample have across the organization. Employees with planning and coordination duties, as well as those with support roles are clear boundary spanners. Whilst this group of staff mostly work in DG A (SSSCIS and 1, 2, 4) and DG F, we do observe ‘boundary-spanners’ undertaking these tasks across all of the DGs. Unfortunately, very few respondents are tasked with providing policy advice. It stands out, however, that they do not belong to the third cluster of detached employees. The second and third cluster of employees, which we defined as silo-ed and detached, respectively, mostly comprise translators, and here there is a strong overlap between task and DG, the vast majority being located in DG A3.

We now turn to the European Commission. The results of the blockmodeling analysis showed that there are fewer boundary spanners (row cluster 4) in the Commission. The vast majority of the 2711 EC employees in our dataset are described by the first two row clusters. The first comprises employees having daily contacts with their co-workers and frequent contacts with other DGs, but infrequent contacts with the executive level and top ranks. This pattern mirrors the hierarchy in the Commission but would also seem to suggest that collaboration (as proxied by contact) and awareness of others working in related policy areas exists at the level of the DGs. Hence we named this cluster of EC employees “collaborative”. The second cluster comprises employees who can be described as “silo-ed”: their unique frequent contacts are with their co-workers.

The next figure describes the main tasks (an official list of job families provided by DG HR) undertaken by staff within the dataset. As we can see in figure 8, most of the respondents have policy, analysis and advice functions. The following three figures reveal the components of each of these three clusters in the EC personnel: the collaborative, the silo-ed and the boundary-spanners.

Figure 8 - ECFTF dataset Distribution of tasks

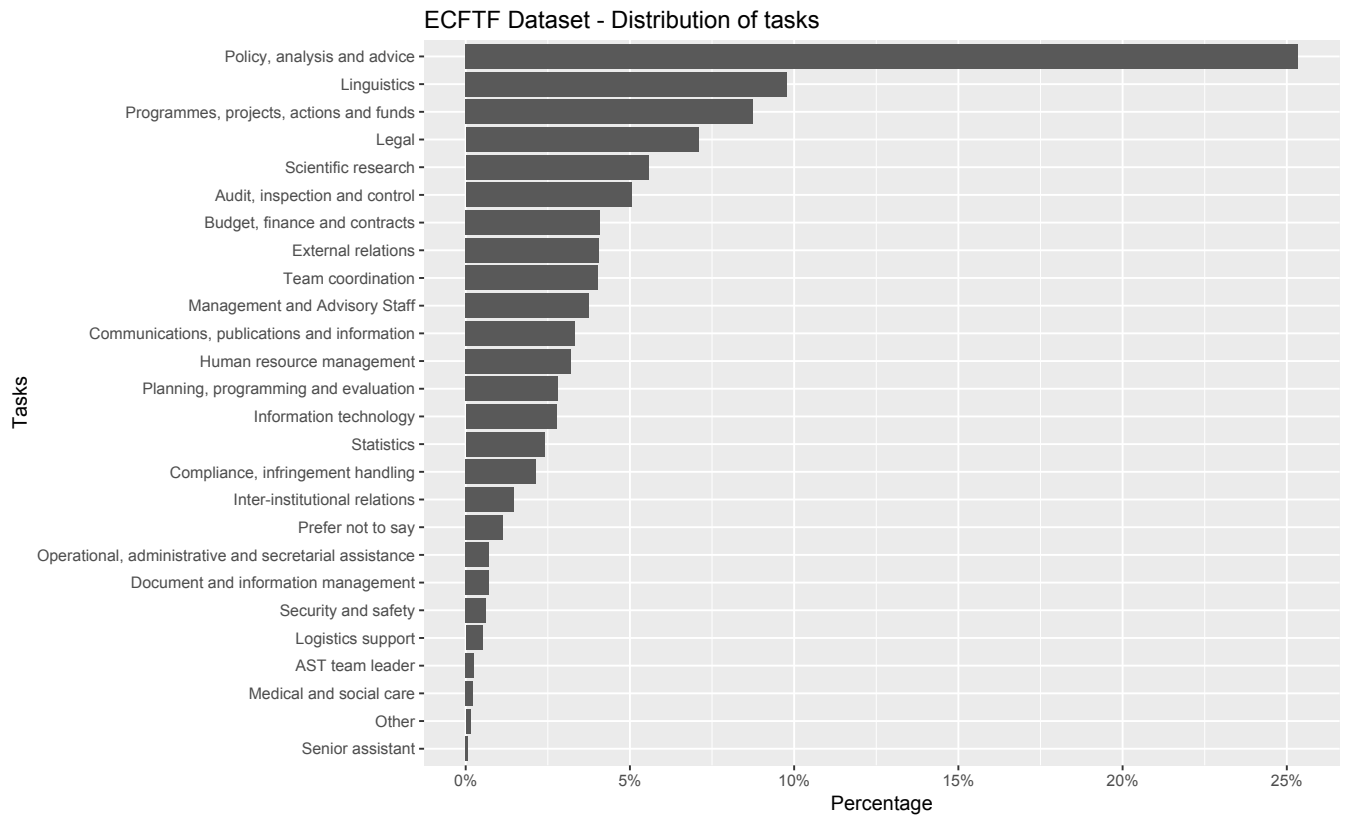


Figure 9 - EC The collaborative

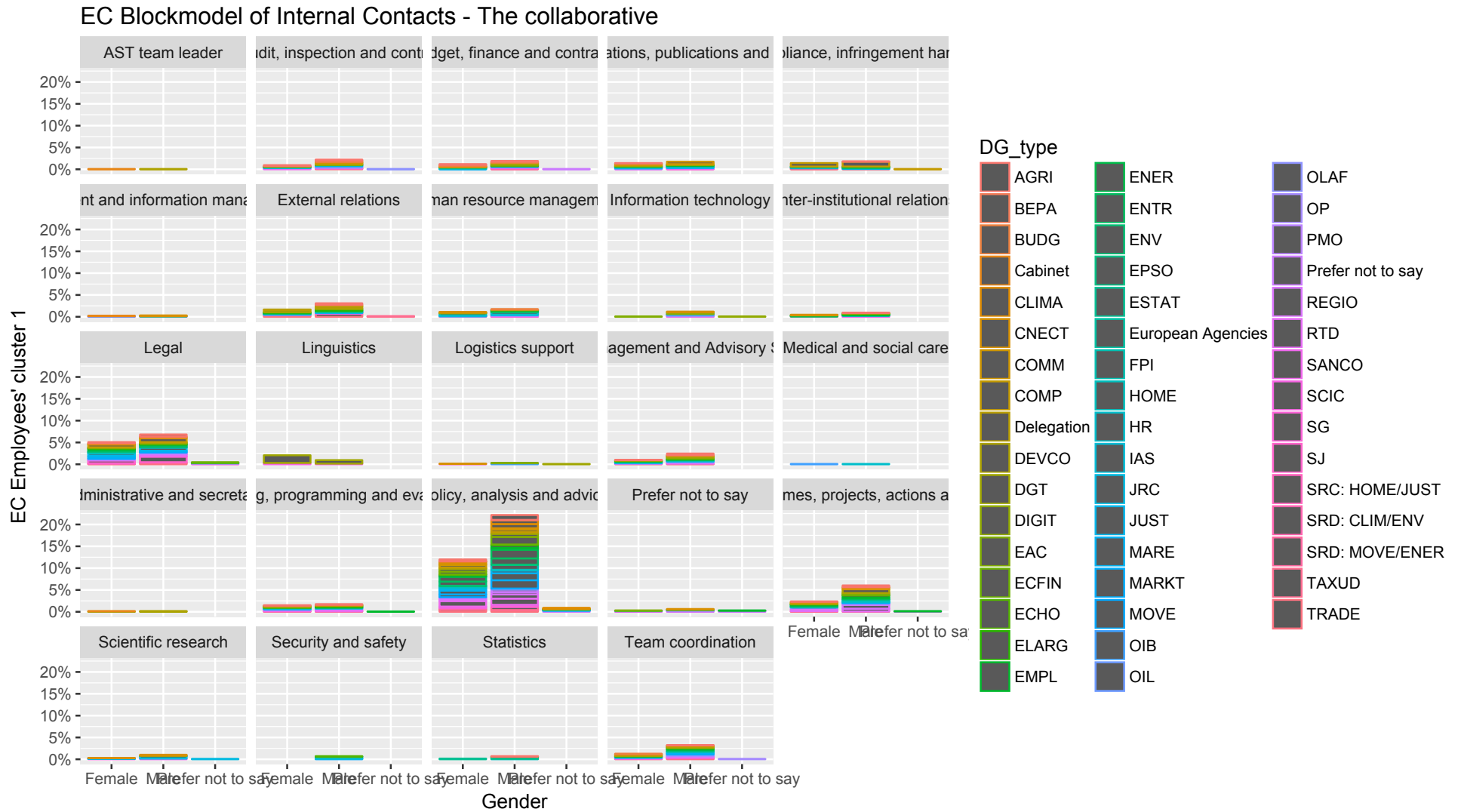


Figure 10- EC The Silo-ed

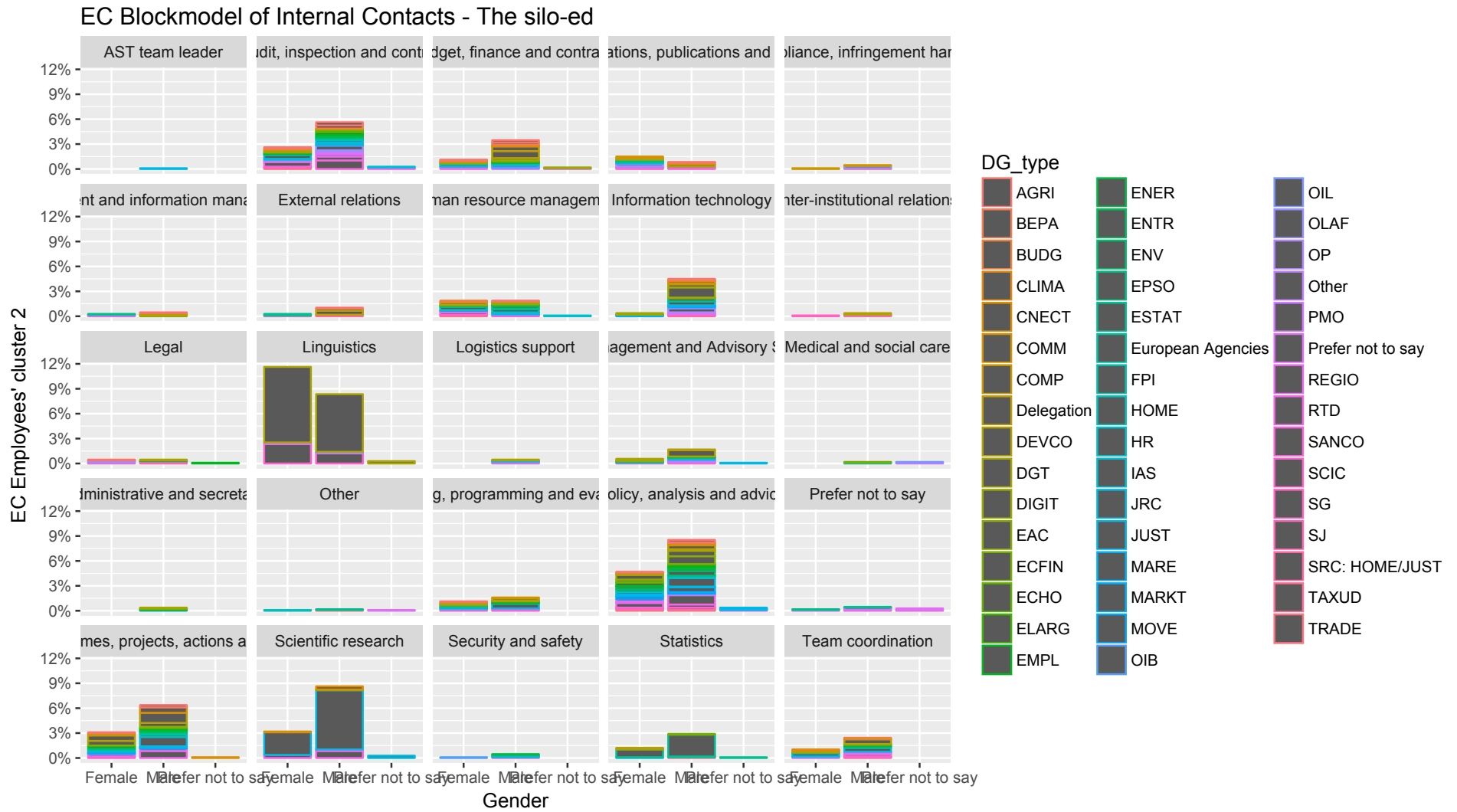
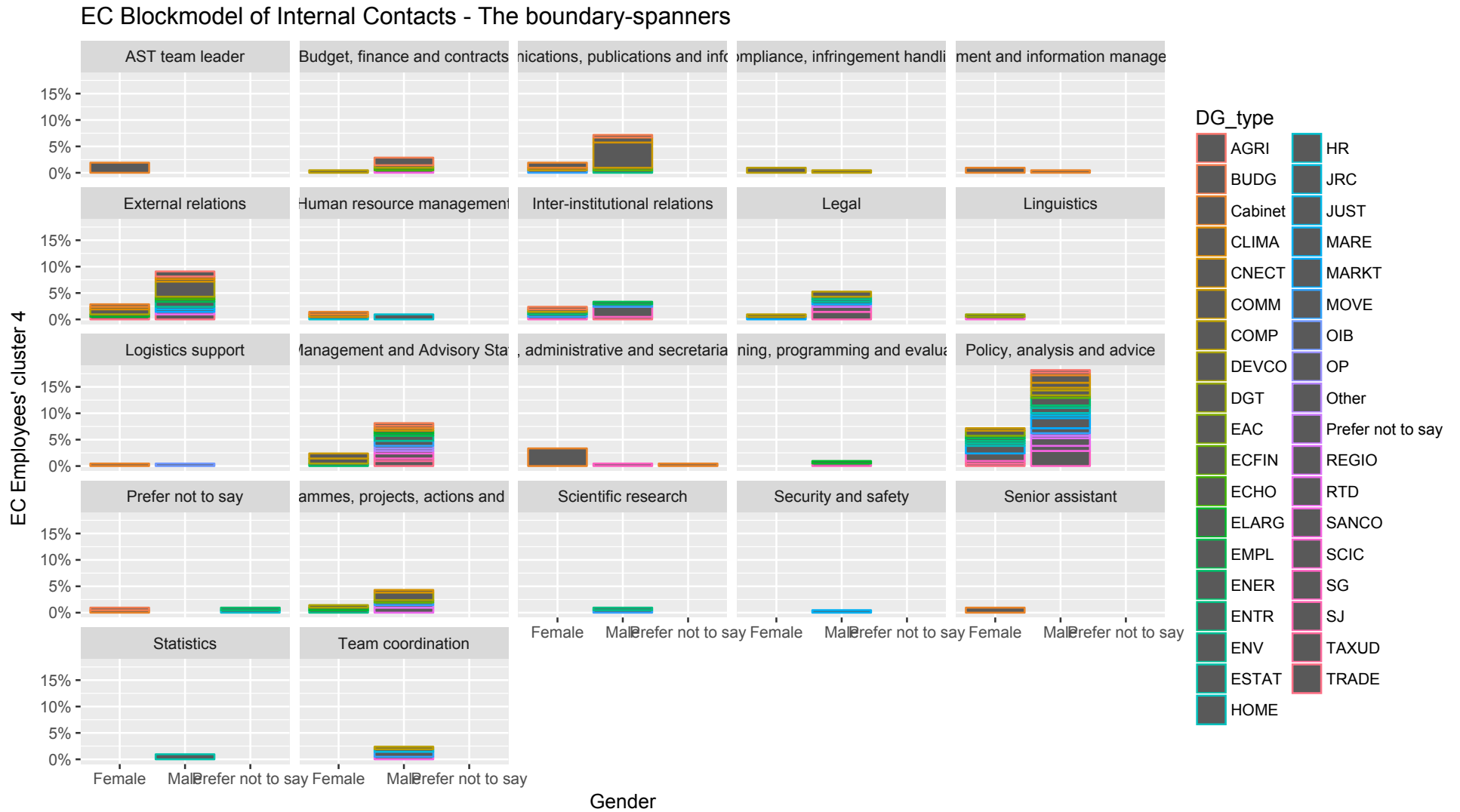


Figure 11 - EC The Boundary Spanners



Figures 9, 10 and 11 paint an extremely interesting picture of the EC. Boundary spanners, although fewer, perform the expected process-oriented tasks: policy, analysis and advice, external relations and management and are employed in DGs across the EC. Silo-ed personnel overwhelmingly undertake translation and linguistic tasks, or scientific research and they are primarily working in the DGs with main responsibilities for these tasks (DGT (translation), DG SCIC (linguistics) and JRC (Joint Research Centres which are located across the EU). The personnel that we refer to as collaborative comprises mostly of those providing policy advice but also legal competences and are employed across DGs with a policy responsibility. As for the remaining two clusters, the third cluster comprising personnel displaying no co-workers interaction but rather frequent interaction across the board is composed of managers, as we expected; the fourth cluster (the isolates) comprises only four respondents. We do not display the figures here but they are available upon request to the authors.

The fact that females emerge as belonging to clusters of boundary-spanners and collaborative personnel to a great extent in the GSC clusters, whereas males appear to be doing so in the EC clusters is due to their relative share in the respective datasets. The GSC respondents are, overall, 60% females and 40% males. These percentages are inverted in the EC dataset.

DISCUSSION OF THE RESULTS

This aim of this research was assessing empirically the presence and the extent of organizational silos within two international bureaucracies that are part of the European Civil Service: the General Secretariat of the Council and the European Commission. These two bureaucracies differ in many respects; not last in the extent of scholarly attention each has thus far been devoted. The Commission is enormous compared to the GSC, with a workforce of roughly ten times the size. The latter is smaller in size and sharper in focus, its main mandate being assisting the European Council in making decisions. Whereas the GSC

can thus be thought of as a “mega conference facility and facilitator of negotiations”, the Commission is best described as a “policy machine”; its right of legislative initiative, the specialisation of its personnel and action, the organizational depth of its structure configure it as an engine of policy-making.

Despite these differences, we see great similarity in the interaction patterns of its employees within each organization. The similarity in the numbers and types of clusters of columns and rows that arise is remarkable. Our results show that (1) staff across the two organizations engage in contact with similar frequency at both a unit and directorate level (as per our definition of a co-worker) and, crucially, often maintain frequent (i.e. daily or weekly) contact outside of immediate teams or units; (2) whilst a percentage of staff in both organisations could be described as silo-ed and a minority might be identified as detached from colleagues, a significant proportion are in regular contact with colleagues across the organisation – we call these boundary spinners and remark that these are the largest group of staff in the GSC; (3) the likelihood of having a particular form/frequency of contacts is associated with the type of tasks that a member of staff undertakes – whilst for some this naturally overlaps with the DG in which they work (e.g. Translation) for others the same task (planning or policy advice) are undertaken across departments; (4) types of departments within each organization also cluster similarly, along hierarchical (political departments are overall the least contacted, but for a minority of respondents) and functional lines (co-workers and intra/inter DG staff and units are most frequently contacted; services including the Legal Service, Media and Communication, Document Management in the GSC and Legal Service, Secretariat General in the EC show intermediate frequencies of contact by staff); (5) we modelled silos as a latent factor explaining interaction patterns across the organization; our results paint a nuanced and informative picture of inter-organizational communication, whereby the efficiency of the hierarchical in the structure of both organizations is oiled by the horizontal relations among staff, especially those whose “portfolio” of activities is premised on performing coordinating and/or policy-related tasks.

Therefore, H1 and H2 appear confirmed: employees with process-oriented task (coordination, policy, advice, management, planning, organization) appear to be boundary-spanners in the GSC and “collaborative” in the EC. Those performing purpose-oriented tasks

(translators and logistics) appear as the real inhabitants of the silos, which does not really matter much, because these tasks have nothing to do with the core mission of either organizations. Hence, contrarily to what might have been expected and therefore amending to a considerable extent the conclusions of previous research (Trondal, 2011, 2012), we conclude that silos presence in the EC and the GSC is not actually that worrying.

In line with H3, our evidence suggests that organizational mandate matters considerably for the patterns of interaction developing within an organization: overall, the EC emerges as a less integrated organization than the GSC. The scope and size of its constitutive units entail a foreseeable tendency for employees to focus on the work and the mission of the DG they belong to.

CONCLUSION

The analysis has shown that the Commission and the Council Secretariat – two key parts of the EU Civil Service -- are better integrated and more collaborative than either the general literature on organizations and bureaucracies or the more specialist scholarship on the European administration suggests. This finding is significant for several reasons.

First, it shows that not all organizations, still less public bureaucracies, inevitably fragment into organizational silos. In fact, what emerges from the detailed investigation of individual-level contacts is not the presence of insular or introspective units and sub-units, but significant cross-departmental interaction.

Moreover, the analysis reveals that these individual interactions are closely related to function. The interaction patterns of employees in both organizations are based on their primary task or area of responsibility – a second important finding.

Third, the image that emerges from the analysis defies the portrayal of the EU civil service by both scholars and practitioners. Contrary to the depiction of the Council Secretariat as segmented or the Commission as fragmented into ‘fiefdoms’ or ‘baronies’, the interaction

between and within different departments is strong. In fact, most staff in both organizations have regular (frequent) contact with colleagues outside of their teams.

At the same time, interaction does vary according to task and responsibility. As a result, some staff – notably those involved in translation, linguistics or scientific research – have less contact with staff elsewhere in the organisation than their colleagues in other areas. This finding is not surprising nor is it problematic in terms of compromising organisational effectiveness. As Page (2005) observed, the notion of organizational silos needs better qualification and, within each organization, characterisation. Silos that exist because they perform a particular function may even enhance, rather than hamper, organizational effectiveness. At least as important, we observe boundary spanning staff undertaking roles such as policy advice and planning in both the Council Secretariat and the Commission.

Fourth, the differences between the two organizations should not be overlooked, but understood: the Council Secretariat emerges as a much more integrated organization, with over a third of respondents classifiable as boundary-spanners; the same figures in the Commission consist of a small minority of 7%. In this respect, the Commission's policy making and policy management responsibilities, and the size and specialisation of each of its DGs help to understand the results. Our analysis does not allow us to say whether there is enough contact across the right sort of role holders or at the right level, but it does provide a rich and rigorous empirical analysis of patterns.

Finally, the study has demonstrated the value of an empirical approach to the existence of organizational silos. Since silos are ultimately about contact between individuals in different parts of an organization, an assessment of interaction at the level of individual contacts would appear to be the most appropriate method for evaluating the extent to which employees communicate with colleagues beyond their team, unit or department.

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APPENDIX

The figures below allow for the visualization of the type and numerousness of both row and column clusters for, respectively, the GSC and the EC.

Figure 12 - GSC Survey - Internal Contacts - Memberships plot

Row clusters – frequency of contact

Column clusters – type of contact

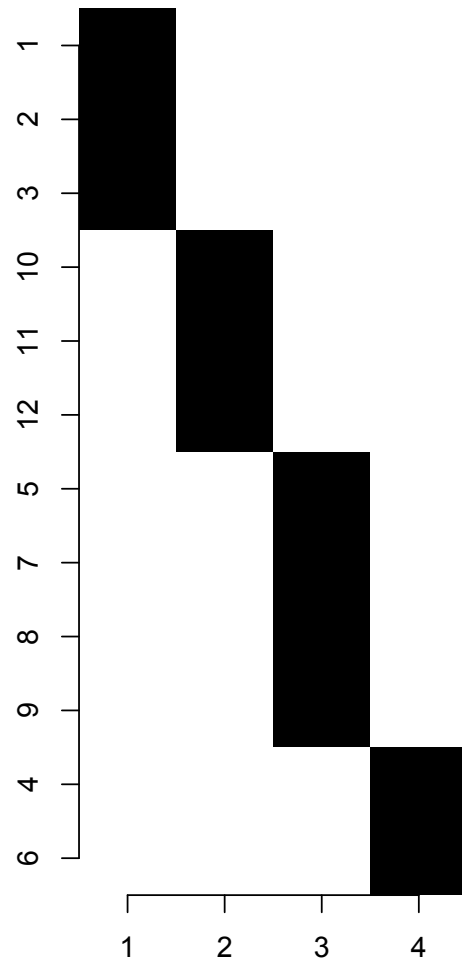
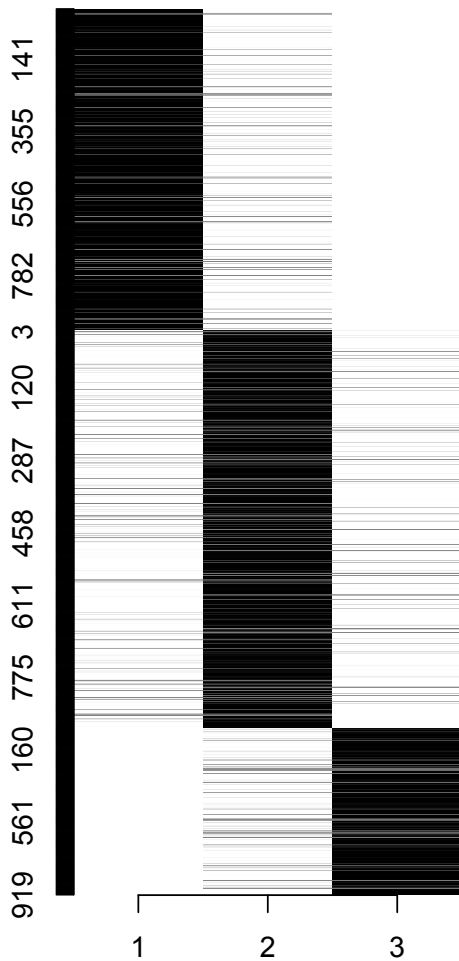


Figure 13 - ECFTF Survey Internal contacts - Memberships plot

Row clusters – frequency of contact

Column clusters – type of contact

