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Telework Agreements, Spatial Autonomy and Decent Work in the Hospitality Workforce

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Abstract

Digital transformation in hospitality has centred on guest-facing and operational technology, and most of its jobs cannot be done away from the premises. This paper examines how collective agreements on telework treat such a workforce, as a decent-work question in the sense of Sustainable Development Goal 8. The evidence is 216 French firm-level telework agreements, 108 in hospitality and 108 controls matched on signature year, of which 179 contain an operative rule. Hospitality and control agreements share one eligibility template. In both, about four in five exclude the operational core by named staff categories or a task-compatibility test (78.3 and 81.6 per cent), and almost none compensates excluded staff (0 of 92 and 2 of 87). The template is place-blind, so its reach depends on the workforce it governs. In 49.5 per cent of hospitality agreements and 23.0 per cent of controls, fewer than one-third of employees in the signing entity's sector hold teleworkable jobs. In Germany in 2025, hospitality had the lowest home-office share of fifteen activities, below the feasibility of remote work in the sector. The institutional finding is the shared template without counterparts; effects on recruitment, retention and labour sustainability are implications to be tested.

Keywords: telework; spatial flexibility; digital transformation; decent work; labour sustainability

1. Introduction

Hospitality is an extreme case of place-bound work in the digitised economy, since most of its front-of-house and back-of-house jobs cannot be performed away from the premises. Research on digital transformation in hospitality has centred on guest-facing and operational technology and has rarely asked which employees gained spatial autonomy as work was digitised. A recent systematic review of research on artificial intelligence and hospitality employees finds the field centred on the adoption of artificial intelligence, on service robots and on turnover intention, with spatial flexibility absent from the dimensions it covers (Kumawat et al. 2025). The omission matters because technology has become a concern across tourism employment research (Ladkin et al. 2023), while the workforce, where distributional questions arise, remains a neglected area of tourism research (Baum et al. 2016a; Ladkin et al. 2023). The present paper examines the rules that decide which employees may telework, from the side of the employees whose work stays on the premises.

After 2020, telework was institutionalised, regulated and debated at workplace, sectoral and national levels (Eurofound 2022). Hospitality was among the sectors the pandemic hit hardest (Baum et al. 2020). It is also among the sectors with the lowest realised telework. In

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2025, food and beverage service activities (*Gastronomie*) had the lowest home-office share of the fifteen activities itemised in the Destatis (Federal Statistical Office) release of German Microcensus results, 5.7 per cent against 24.6 per cent of all employed persons (Destatis 2026). These figures give the position of the sector in 2025, since no German series follows its home-office share over time (Section 5.3).

The low level of telework in hospitality follows largely from the content of its jobs, which no agreement can change. The claim of the paper concerns the rule that collective agreements write for such a workforce. Eligibility for telework is a negotiated rule, in which the parties decide which posts qualify and whether staff whose posts do not qualify receive a counterpart, such as additional rest or more control over their working time (Section 3). A rule that admits the posts compatible with remote work and gives nothing to the other staff is place-blind.

The primary evidence is a corpus of 216 French firm-level telework agreements, 108 in hospitality and 108 controls matched on signature year, of which 179 contain an operative rule (Section 4). In each corpus, about four agreements in five exclude the operational core by a named category of staff or by a test of task compatibility, and almost none grants a counterpart to the staff it excludes. Because this shared template is place-blind, its reach depends on the workforce it governs, and in hospitality, it reaches a smaller part of the workforce than in the controls (Section 5.1). The paper treats access to telework as a decent-work question in the sense of Sustainable Development Goal 8 (SDG 8). The tourism decent-work literature has examined pay, security, voice and dignity (Winchenbach et al. 2019), and the paper proposes spatial autonomy as a further, largely unmeasured dimension. The corpus analysis builds on a prior study of the institutionalisation of telework (*télétravail*) in France (Thoemmes 2025a, 2026).

2. Framework: Decent Work, Spatial Autonomy and Labour Sustainability

The paper connects three bodies of literature through the decent-work agenda: cross-sector research on telework, research on digital transformation in hospitality and research on hospitality labour. Decent work, in the four-component sense of the International Labour Organization, comprises employment, social protection, rights at work and social dialogue (Ghai 2003). Employment is sustainable when the goods that make work decent are distributed so that a sector can recruit, retain and reproduce its workforce, the concern SDG 8 and sustainable human resource management pose for tourism; labour sustainability is this paper's term for that condition. The expectations drawn from this literature are stated in Section 2.4 and tested in Section 5.

2.1. Telework as an Unevenly Distributed Good

Research on telework since the pandemic starts from two stylised facts. The first is that the share of work performable from home varies by sector and occupation: 37 per cent of jobs in the United States can be performed entirely at home, with large differences between industries (Dingel and Neiman 2020). A European classification of economic sectors by the lockdown decrees of spring 2020 counts the activities the decrees closed, accommodation and food services among them, among those that could not continue to operate through telework (Fana et al. 2020). The second fact is that realised telework surged during the lockdowns, and surveys of managers and workers found it set to remain above its pre-pandemic level, at levels that differ widely across countries (Barrero et al. 2021; Criscuolo et al. 2021; Aksoy et al. 2022).

Distributional questions drew attention early. In Italy, an increase in the opportunity to work from home has been projected to favour male, older, highly educated and well-paid

employees and thus widen existing income inequality (Bonacini et al. 2021). Across the EU, telework was concentrated before the pandemic among experienced employees in high-skilled, well-paid occupations (Milasi et al. 2021). The paper reads these findings as placing spatial autonomy among the goods whose distribution decides whether work is decent.

A second strand compares feasible with realised telework, names organisational factors and the reluctance of employers among the reasons for the difference and finds the realised rate among EU employees in 2020 at about half the feasible one, with wide differences in the realised rate between member states (Adascalitei et al. 2022).

2.2. Digital Transformation Without Spatial Autonomy

Research on digital transformation in hospitality treats the sector as having its own technological trajectory, centred on guest-facing and operational technology. One review discusses smart environments, cybersecurity and gamification as strategically important innovations and examines technological disruption in terms of value co-creation (Buhalis et al. 2019). Service robots have been examined conceptually across services and empirically in hospitality service encounters (Belanche et al. 2020; Tuomi et al. 2021), and the adoption of artificial intelligence and robotics has been discussed for hotels and for tourism more broadly (Nam et al. 2021; Samala et al. 2022).

Where this body of work addresses employees, it has examined how they perceive automation (Kumawat et al. 2025), and in a survey of service-sector employees, awareness that such technologies could replace their jobs was associated with lower organisational commitment and higher turnover intention (Brougham and Haar 2018). The technologies adopted in hospitality serve work that stays on the premises, so the sector has digitised without extending to its staff the spatial autonomy that staff in other digitised sectors gained.

2.3. Hospitality Labour: Precarity and Decent Work

For two decades, the labour-side hospitality literature has documented that the work is low-paid, insecure and stratified by gender and migration and that change in these respects has been slow or has stalled (Janta et al. 2012; Baum 2015). A backcasting study of hospitality employment in 2033, built on the criteria of working conditions, pay, diversity, opportunity and enforcement, finds that the problems of hospitality work have not changed in substance since the 1930s (Baum 2019b).

The pandemic amplified the existing precarity of the hospitality workforce and made visible, at speed, vulnerabilities that research had recorded for years (Baum et al. 2020). The embodied and emotional labour of UK hospitality workers during the pandemic has been documented as a form of social reproduction, in which workers absorbed risk-management and hygiene duties on top of their existing tasks (Jones et al. 2024).

Dignity has been placed at the core of what makes tourism work decent (Winchenbach et al. 2019). Precarity has been analysed as an employment model that the sector sustains (Robinson et al. 2019). Sustainable human resource management has been advanced as a policy response (Baum 2018), and workforce considerations have been found to be neglected in the debate on sustainable tourism (Baum et al. 2016b). This literature has examined pay, security, voice and dignity but not spatial autonomy, whose distribution became a decent-work question when telework spread after 2020 (Section 2.1).

The regulatory side has drawn less notice within the hospitality literature itself. A comparative Eurofound report finds that the pandemic accelerated a trend towards telework agreements at sectoral and company levels, mainly in western and southern European countries (Eurofound 2022). The institutionalisation of telework in France has been examined elsewhere and shows that the agreements signed from 2020 onwards exclude production

occupations more often than those signed between 2017 and 2019 (Thoemmes 2025a, 2026). To date, no study has measured whom the negotiated telework settlement reaches in hospitality or compared the position of the sector in the post-2020 telework regime across France and Germany, and the present paper addresses both questions.

2.4. Four Expectations

The framework yields four expectations. Expectations 1 and 2 concern the negotiated rule and are tested on the French agreements; Expectations 3 and 4 concern the position of hospitality and of place-bound occupations in national statistics.

Expectation 1, shared template with divergent reach: If eligibility is set by a template shared across sectors, hospitality agreements should resemble their controls in the clauses of the eligibility rule, while the share of the governed workforce that the rule can reach should be smaller in hospitality. It is tested in Section 5.1.

Expectation 2, the same treatment of the operational core in all sectors: If the settlement is place-blind, agreements in either corpus should rarely open telework to their own operational core or grant a counterpart to the staff they exclude, and neither feature should differ between hospitality and the controls. It is tested in Section 5.1.

Expectation 3, position: As the extreme case of place-bound work, hospitality should stand at the bottom of the most recent sector ranking of home-office work, and its realised share should lie below the feasibility of remote work in its own sector. Job content can account for this position on its own, and the comparison with feasibility does not separate the contribution of rules from that of job content. It is tested for Germany in Section 5.3.

Expectation 4, class gradient: If access follows the occupational structure, telework should be distributed along occupational class, with a gradient that widens as the settlement matures. It is tested for France in Section 5.2.

3. Analytical Lens: The Negotiated Rule and the Social-Dialogue Pillar

Decent work names social dialogue among its four components (Ghai 2003). This paper treats social dialogue as the procedural component, through which the workplace content of the other three is set. Decent-work scholarship rarely offers a theory of what social dialogue produces in the workplace, and the theory of social regulation provides one. On that account, a workplace rule settles for a time the confrontation between what managers prescribe and what work groups claim for themselves (Reynaud 1979, 1988, 1991). Who may work remotely is such a rule. It is open to bargaining, since the place of work, its timing and its monitoring are all in principle negotiable, and a negotiated rule is a provisional settlement that the parties can revise (Reynaud 1989; de Terssac 2003). The same reasoning applies to the way digital change is absorbed in the workplace (Thoemmes 2025b). National systems route the settlement through different channels, company and branch agreements in France and company agreements in Germany. In France, the settlement is written down and centrally deposited, so the eligibility clauses of a telework agreement show to whom social dialogue gives access to telework.

The parties to an agreement can write the eligibility rule in more than one way. Job content sets which tasks can be done away from the premises, and no agreement can make cooking, serving or cleaning rooms teleworkable. Within that limit, two kinds of settlement can be distinguished. A place-blind settlement admits the posts whose tasks can be done remotely, through a list of eligible categories or a test of task compatibility, and leaves the other staff on the terms they had before. A settlement that took the place of work into account would also open telework for the remotely feasible tasks of mixed posts, and it would grant the staff it excludes a counterpart, such as additional rest, flexibility of working time, help with transport or another form of recognition. The institutional claim of the

paper therefore concerns the access and the counterparts that the agreements could grant, which the corpus measures; the low feasibility of remote work in hospitality is explained by job content and is not attributed to bargaining.

Counterparts are the other forms of flexibility and recognition, named above, that an agreement can grant to staff whose posts cannot be done remotely, and they differ from the technical feasibility of telework, which job content sets outside bargaining. Spatial autonomy, the dimension of decent work that the paper proposes, concerns how telework and these counterparts are distributed among the staff that a rule governs. It does not imply a right to telework for posts whose tasks require presence on the premises, and a settlement can address it for place-bound staff through counterparts.

Two strands of the post-2020 literature give the lens its empirical content. The first is the split between essential jobs, which had to be performed in person during the pandemic, and jobs that could be performed remotely (Aloisi and De Stefano 2022). The second is the gap between the share of jobs that could be done from home, estimated for OECD countries (Espinoza and Reznikova 2020), and the realised share, which differs widely between European countries (Adascalitei et al. 2022). Hospitality lies at the unfavourable end of both, with low feasibility and high exposure to the pandemic shock, and the paper treats it as the extreme case of place-bound work.

The argument has four steps. Telework eligibility is a negotiated rule. Because telework remained above its pre-pandemic level after 2020 (Section 2.1) and spatial autonomy belongs among the goods that make work decent (Section 2.3), the rule distributes a decent-work good. Whom the rule admits, and whether it compensates the staff it does not admit, therefore shows how social dialogue distributes that good, which Section 5.1 measures. Tourism research has analysed precarious employment as a model that the sector sustains (Robinson et al. 2019), and where a rule withholds the good from most of a sector's workforce without a counterpart, negotiation may be one of the mechanisms that sustain it. The corpus does not measure this fourth step, and Section 6 states it as an implication to be tested.

4. Data and Method: A Firm-Agreement Corpus and Secondary-Data Triangulation

4.1. Corpus Construction

French firm-level agreements (accords d'entreprise) are deposited with the labour administration and published in the Légifrance ACCO database, which was queried in June 2026. The hospitality corpus is the census of the telework-themed agreements of the five principal bargaining branches of the sector, 108 in all: hotels, cafés and restaurants (67 agreements), restauration rapide (21), collective catering (16), railway catering (3) and casinos (1). The control corpus consists of 108 telework-themed agreements drawn at random from all other branches, after the exclusion of the activity codes of accommodation and food services, and matched one to one on signature year. The two corpora share no agreement and were signed between February 2018 and April 2026. The numbers of the 216 agreements are given in Supplementary File S4.

The control is matched on signature year only. The year match holds the period of negotiation constant, which matters because the share of firm-level agreements that address telework rose from under 1 per cent in 2017 to 4 per cent in 2022 (Askenazy et al. 2025). The nature of work was not used as a matching criterion because the difference in the nature of work between the two corpora is what the coverage comparison measures (Section 4.3). Clause wording is therefore compared between agreements that govern different kinds of work, and a similarity in wording indicates a template shared across sectors.

In total, 37 of the 216 deposits contain no operative telework rule: extensions and renewals of earlier agreements, method agreements, records of the annual mandatory

negotiation and other agreements that only mention telework and texts that refer to a rule set in another agreement (16 hospitality and 21 control). Thirty-four were identified by a keyword screen and a reading of every flagged text and three by the author's reading of the validation sample (Section 4.2). A deposit without a rule cannot show whom a rule excludes, so the main analysis uses the 179 operative agreements (92 hospitality and 87 control), and the 216 deposits are reported as a sensitivity check.

4.2. Coding and Validation

Each deposit was coded from its full text against a fixed codebook (Supplementary File S1), and Table A1 gives every variable with the criterion of each category. The exclusion mechanism records whether the eligibility rule keeps operational roles out by naming a person or post category (E1) or by a test of compatibility with remote work (E2), restricts access only by neutral administrative conditions (E3) or leaves access open (E4); E1 and E2 are pooled into the exclusion of the operational core. Other variables record whether front-line roles are named as excluded or as eligible, the framing of telework and any counterpart for staff who cannot telework.

The codes were assigned in October 2026 by Claude Sonnet 5.5, a large language model developed by Anthropic (San Francisco, CA, USA), in a separate session for each agreement, which returned the codes with the French passage on which the exclusion mechanism rests (Supplementary File S2). File S2 also marks the codes that the author assigned in August 2026, kept for the coder-judged coverage band of twelve agreements and the exclusion mechanism of one. A second model, Claude Opus 5.5, coded thirty agreements as a check of the stability of the codes ($\kappa = 0.91$) and screened the coverage codes (Supplementary File S7).

The accuracy of the model codes was assessed on a fresh random sample of forty agreements outside those thirty, twenty per corpus, which the author coded from their full texts without seeing the model codes and froze before the comparison. The author found no operative rule in 3, which are counted with the deposits without one (Section 4.1), so the comparisons use 37. The model codes agree with the author's on the exclusion of the operational core in 33 ($\kappa = 0.68$), on the finer classification (E1 or E2, E3 and E4) in 30 ($\kappa = 0.48$) and on the naming of operational roles in 30 ($\kappa = 0.52$), and the model places one agreement fewer than the author in the excluding codes in each corpus. The author's second coding of 15 agreements on the same day agrees with the first in 13 of the 14 with an operative rule, and a rule-based extractor without a language model agrees with the author on the named exclusion of operational roles in 34 of 36 (Supplementary Files S6 and S7).

4.3. Coverage Band

The sectoral coverage band estimates the share of employees in the sector of an agreement's signing entity who hold technically teleworkable jobs, as an approximation of the largest share of the governed workforce that a place-blind eligibility rule can reach. It measures potential reach and observes neither the staff that an agreement covers nor the access that it grants. It is derived from public data and involves no coder judgement. Each agreement is assigned the sector of its signing entity, as recorded in the ACCO metadata at the level of the NAF division. The teleworkable share of a sector is the mean of the JRC-Eurofound index of technical teleworkability over its employees, whose occupations are taken from the 2023 Labour Force Survey of Insee, the French national statistical institute (Sostero et al. 2020a; Insee 2024). An agreement falls in the band "minority" when that share is below one-third, "about half" when it lies between one-third and two-thirds and "most" when it is above two-thirds.

Three sensitivity analyses change one element each: a broader sector classification, a single threshold at one-half, and a classification that counts work performed directly with the public as not teleworkable (Dingel and Neiman 2020). No public source gives the occupational structure of individual firms, so the band applies the composition of the sector to each signing entity; in 6 of the 37 agreements coded by the author, the activity code of the signing entity did not describe the perimeter that the agreement governs (Section 7). In five of the six, the signatory is the head office or holding company of a hospitality firm, and the agreement covers the whole firm; all six fall in the band "most". A fourth sensitivity analysis therefore leaves out the agreements signed in NAF divisions 64 (financial services) and 70 (head offices and management consultancy). The coder-judged coverage band, assigned from the activity and the text of each agreement, is reported for comparison (Supplementary File S7).

4.4. Statistical Analysis

Hospitality and control agreements are compared within signature-year strata, the dimension on which the control was drawn. For each indicator, the paper reports the share in each corpus and the difference between them in percentage points, with its 95 per cent interval (Mantel–Haenszel estimates, with exact tests where events are few). With about ninety agreements per corpus, a test of equivalence could succeed only if the two rates were practically identical, so similarity between the corpora is judged from the interval of each difference. Odds ratios and tests for every comparison are given in Table S1 (Supplementary File S5), and the scripts of the comparisons in Supplementary File S3.

4.5. Secondary Statistics

Around that corpus the empirical strategy adds four post-2023 statistical sources: national statistics for France and Germany, a European series and Malaysian productivity data, which Section 6 uses as context. None of them follows the telework of hospitality as a sector across years, so the telework data are read as levels and rankings at a given date.

For France, the paper uses the rates of telework by socio-professional category that Dares, the statistics directorate of the French Ministry of Labour, published from its Tracov 2 survey of 2023 (Beatriz and Erb 2024; Dares 2024). The Dares analysis of the 2019 to 2023 surveys gives no rate for accommodation and food services (Beatriz and Erb 2024). The paper therefore sets the category rates beside the composition of hospitality employees by socio-professional category in 2023, taken from the Labour Force Survey, and derives no sector rate from them (Insee 2024).

For Germany, the paper uses two Destatis Microcensus home-office releases, for 2025 and for 2023, which report home-office shares by sector (Destatis 2024, 2026). The 2025 release covers all employed persons and the 2023 release dependent employees, and they itemise partly different sectors, so the 2023 release serves as a cross-check, and the two are not compared year on year.

Two measures give the feasibility of remote work in the sector. For Germany, a survey-based measure gives the share of jobs in each sector that can be done at least partly from home (Alipour et al. 2020). For the EU27, the JRC-Eurofound task-based classification gives the share of employees in teleworkable occupations (Sostero et al. 2020b). Both measures refer to employees before the pandemic, whereas the German realised rate refers to all employed persons in 2025.

For the European backdrop, the paper uses the Eurostat Labour Force Survey table *lfsa_ehomp* (persons employed working from home), with the share of the employed working from home usually or sometimes across 2019 to 2023 (Eurostat 2024).

For Malaysia, the paper draws on the Department of Statistics Malaysia (DOSM) annual productivity series for 2015 to 2025, for hospitality and for information and communication, retrieved on 14 October 2026 (DOSM 2026). The series record output, employment and hours and contain no information on telework, so Section 6 uses them as context only.

5. Findings

Section 5.1 presents the evidence of the agreement corpus, and Sections 5.2–5.4 present the national statistics for France, Germany and Europe.

5.1. The Negotiated Rule, Measured: Firm-Agreement Evidence

Telework is a rare theme of bargaining in hospitality. Telework-themed agreements make up 1.5 per cent of the agreements deposited in the five branches of the corpus, less than a third of the 5.1 per cent observed across the whole ACCO base (Table 1, Panel A). The five branches held 108 telework-themed agreements in June 2026, when the corpus was drawn, and 111 in October 2026, when Panel A was counted.

Table 1. Telework in hospitality firm-level agreements in France: rarity, coverage and the shared template. Légifrance ACCO corpus, 179 operative agreements (92 hospitality, 87 year-matched controls); results on the 216 deposits in the notes.

Panel A. Rarity: telework-themed agreements as a share of all deposited agreements, by branch			
Branch (IDCC)	**Telework-themed**	**All deposited**	**Rate**
Hotels, cafés and restaurants (1979)	69	4083	1.7%
Restauration rapide (1501)	21	1419	1.5%
Collective catering (1266)	17	938	1.8%
Railway catering (1311)	3	90	3.3%
Casinos (2257)	1	994	0.1%
Hôtellerie de plein air (1631)	0	144	0.0%
Five branches of the corpus	111	7524	1.5%
Whole ACCO base	20,489	400,649	5.1%
Panel B. Sectoral coverage band: share of employees in the signing entity's sector who hold teleworkable jobs (178 operative agreements: 91 hospitality and 87 control)			
Band	**Hospitality**	**Control**	**Difference, pp [95% CI]**
Most (above two-thirds)	12.1% (11)	25.3% (22)	
About half	38.5% (35)	51.7% (45)	
Minority (below one-third)	49.5% (45)	23.0% (20)	26.7 [13.5, 39.9]
Sensitivity: below one-half	75.8% (69)	36.8% (32)	39.0 [26.3, 51.8]
Sensitivity: minority, A38 sector	74.7% (68)	21.8% (19)	53.1 [41.0, 65.1]
Sensitivity: minority, US classification	74.7% (68)	18.4% (16)	56.4 [44.9, 67.9]
Sensitivity: minority, NAF divisions 64 and 70 left out	56.2% (45)	25.0% (20)	31.9 [17.9, 45.8]
Coder-judged band: minority (comparison)	68.1% (62)	21.8% (19)	45.9 [33.3, 58.4]

Table 1. *Cont.*

Panel C. The shared template: clauses of the eligibility rule (179 operative agreements: 92 hospitality and 87 control)			
Clause	**Hospitality**	**Control**	**Difference, pp [95% CI]**
Excludes the operational core (E1 or E2)	78.3% (72)	81.6% (71)	−3.4 [−14.3, 7.5]
Front-line roles named as excluded	39.1% (36)	29.9% (26)	9.7 [−3.4, 22.9]
Front-line roles named as eligible	3.3% (3)	3.4% (3)	−0.5 [−5.4, 4.3]
Open to all staff in scope (E4)	2.2% (2)	2.3% (2)	−0.5 [−4.2, 3.2]
Counterpart for staff who cannot telework	0.0% (0)	2.3% (2)	−2.3 [−5.3, 0.7]

Notes. Panel A: Légifrance ACCO base, counts of October 2026; the coded corpus consists of the 108 telework-themed agreements that the five branches held in June 2026 (Section 4.1). Panels B and C: operative agreements, that is, the 216 deposits less the 37 that contain no operative telework rule (Section 4.1); Panel B leaves out one hospitality agreement that has no activity code. Differences: hospitality minus control in percentage points, estimated within signature-year strata, with 95 per cent intervals; the three constructions of the sectoral band differ between the corpora at $p < 0.001$. Sectoral band: Section 4.3; each sensitivity row changes one element of it, and the row without NAF divisions 64 and 70 rests on 80 hospitality and 80 control agreements; the coder-judged band is the model's judgement, with the author's codes for twelve agreements (Section 4.2), reported for comparison. E1, E2 and E4: Table A1. The rows on front-line roles named as eligible and on open access give the codes of Supplementary File S2; read in full, the eight agreements concerned name a front-line role as eligible or open telework to all staff of a perimeter with operational staff in none of the hospitality agreements and in 2 of the 87 controls (Section 5.1). On the 216 deposits (215 for the sectoral band): sectoral band, minority, 53.3 against 24.1 per cent; exclusion of the operational core, 73.1 against 68.5 per cent; front-line roles named as excluded, 33.3 against 24.1 per cent; counterpart, 0.0 against 1.9 per cent. Odds ratios, p values and every row on both samples: Table S1.

The sectoral coverage band places 49.5 per cent of the hospitality agreements in the band "minority", in which fewer than one-third of employees in the signing entity's sector hold teleworkable jobs, against 23.0 per cent of the controls, a difference of 26.7 percentage points [95 per cent interval 13.5, 39.9] (Table 1, Panel B). The difference follows the sectors in which the agreements are signed. The 45 hospitality agreements in the minority band comprise the 42 agreements signed in food and beverage service activities (teleworkable share 0.23) and 3 others; the 24 agreements signed in accommodation (share 0.39) fall in the band "about half"; and of the 11 hospitality agreements in the band "most", 10 are signed by holding companies and head offices and 1 by a firm in management consultancy. The 20 control agreements in the minority band are signed in manufacturing, waste treatment, construction, retail, building services, health care, residential care and social work.

The difference holds under each change to the construction of the band (Table 1, Panel B). Leaving out the agreements signed in NAF divisions 64 and 70, which include all eleven hospitality agreements in the band "most", raises the difference to 31.9 points [17.9, 45.8]. It is largest under the classification that counts work performed directly with the public as not teleworkable, which lowers the share of accommodation from 0.39 to 0.26. The JRC-Eurofound index rates customer-service clerks, among them hotel receptionists, as teleworkable because it measures the physical handling a job requires and not presence with the customer (Sostero et al. 2020b), so the main analysis is likely to understate the difference between the corpora. The coder-judged coverage band places 68.1 per cent of the hospitality agreements and 21.8 per cent of the controls in the minority band.

The clauses of the eligibility rule differ little between the two corpora. The rule excludes the operational core, by a named category of staff or by a test of task compatibility, in 78.3 per cent of the hospitality agreements and 81.6 per cent of the controls, a difference of −3.4 points whose interval runs from −14.3 to 7.5 (Table 1, Panel C). Hospitality agreements name front-line roles as excluded in 39.1 per cent of cases and control agreements in 29.9 per

cent, and the interval of the difference includes zero. The framing of telework as a standing arrangement, the declared scope, voluntariness, managerial validation, reversibility, the ceiling on simultaneous teleworkers and the statement of a weekly cap on days, with a median cap of two days in both corpora, differ by less than ten points between the corpora (Table S1).

No hospitality agreement names a front-line role as eligible or opens telework to all staff of a perimeter with operational staff, against 2 of the 87 controls (−2.4 points [−5.5, 0.7]). The eight agreements coded as naming front-line roles as eligible or as open to all staff, as well as six that the author's coding of the validation sample placed in these categories, were read in full against criteria written before the reading, and the author settled each case (Supplementary File S6). For the controls, the criteria name the front-line roles of the control sectors (production, workshops, building sites, sales and care). One of the two controls names building-site staff as eligible, and the other sets no restriction on eligibility in a perimeter with operational staff. Conditional access without a named front-line role appears in both corpora. Two agreements of one hospitality firm, signed in 2021 and 2023, allow occasional telework, up to 24 days a year, for unspecified operational functions where telework is compatible with the functioning of the service, and two controls give an annual allowance of telework days to the reception staff of a social-protection fund and to the shift staff of a continuous operations service, two roles outside the list for the control sectors.

A counterpart for staff who cannot telework appears in none of the 92 hospitality agreements and in 2 of the 87 controls (−2.3 points [−5.3, 0.7]). The coding counts a measure as a counterpart when the text grants it to staff because they cannot telework. Three hospitality agreements and two controls contain other measures for staff on site or without regular telework, such as bonuses for presence on site during the health crisis of 2020, rest areas for restaurant staff or a four-day week, and counting them as counterparts would raise the figures to 3 of the 92 hospitality agreements and 4 of the 87 controls (Supplementary File S2). The four-day week appears in the 2024 agreement of a Paris hotel for its reception and customer-relations services, beside telework for its support functions, and the agreement gives the recruitment difficulties of the sector, the retention of staff and the attractiveness of its vacancies as its reasons. The comparisons on the 216 deposits lead to the same conclusions (Table 1, notes).

These results describe a shared, place-blind eligibility template, which reaches only the teleworkable part of the governed workforce. Hospitality is the extreme case of this template because its workforce is among the most place-bound. On the JRC-Eurofound index, 23 per cent of employees in food and beverage service activities and 39 per cent in accommodation hold teleworkable jobs, against a median share of 57 per cent across the control agreements. The reading is confined to France, the one case with a centrally deposited agreement base, and its limits are taken up in Section 7.

5.2. France: Occupational Class as the Visible Cleavage

The Dares Tracov 2 data for 2023 show a French telework distribution governed by an occupational-class cleavage. Among managers and professionals (cadres, including engineers and technical managers), 65.43 per cent practised telework at least occasionally in 2023; among clerical and service employees (employés, covering clerical, sales and service occupations), the rate was 10.59 per cent; and among manual workers (ouvriers, covering manual production and service workers), it was 0.79 per cent. The manager-to-worker ratio is 83-to-1 (Figure 1).

Hospitality employs a larger share of clerical and service employees and a smaller share of managers and professionals than the economy as a whole. Of the 982,000 employees of accommodation and food services in 2023, 52.2 per cent were clerical and service

employees, 20.8 per cent manual workers, 18.3 per cent intermediate occupations (*professions intermédiaires*) and 7.6 per cent managers and professionals, against 28.6, 21.2, 26.6 and 23.0 per cent of all employees (Insee 2024). Clerical and service employees and manual workers, the two categories with the lowest telework rates in 2023, account for 73.0 per cent of hospitality employees and 49.9 per cent of all employees (Beatriz and Erb 2024; Insee 2024). The category rates are economy-wide and are not the rates of the clerical and service employees and manual workers who work in hospitality, so the paper derives no sector rate from them.



Figure 1. Telework share by socio-professional category, France 2019–2023. Source: data file of Dares Analyses no. 64 (Beatriz and Erb 2024).

None of the French statistical sources used here gives a rate of telework for hospitality as a sector. The Dares statistical base of company agreements places accommodation and food services in an aggregate that also contains wholesale and retail trade and transport and storage (Favaro and Thiounn 2025). The paper therefore reads the position of hospitality in France from the agreement rates of its branches (Table 1, Panel A) and from the occupational composition of its workforce.

Between 2019 and 2023, the gap between the telework rates of managers and manual workers widened from about 28 percentage points (28.27 against 0.24 per cent) to about 65 points (65.43 against 0.79 per cent) because telework expanded among managers and barely among manual workers. This widening gradient between occupational classes is the pattern that Expectation 4 describes.

5.3. Germany: The Sectoral Cleavage in 2025

The German statistics, unlike the French, give home-office shares by sector. The Destatis Microcensus home-office release of 2025 gives these shares for fifteen activities and for all employed persons (Destatis 2026). Hospitality is represented in the release by food and beverage service activities, in which 5.7 per cent of the employed worked from home at least occasionally in 2025. The share is 24.6 per cent for all employed persons and 74.4 per cent in IT services (Figure 2).

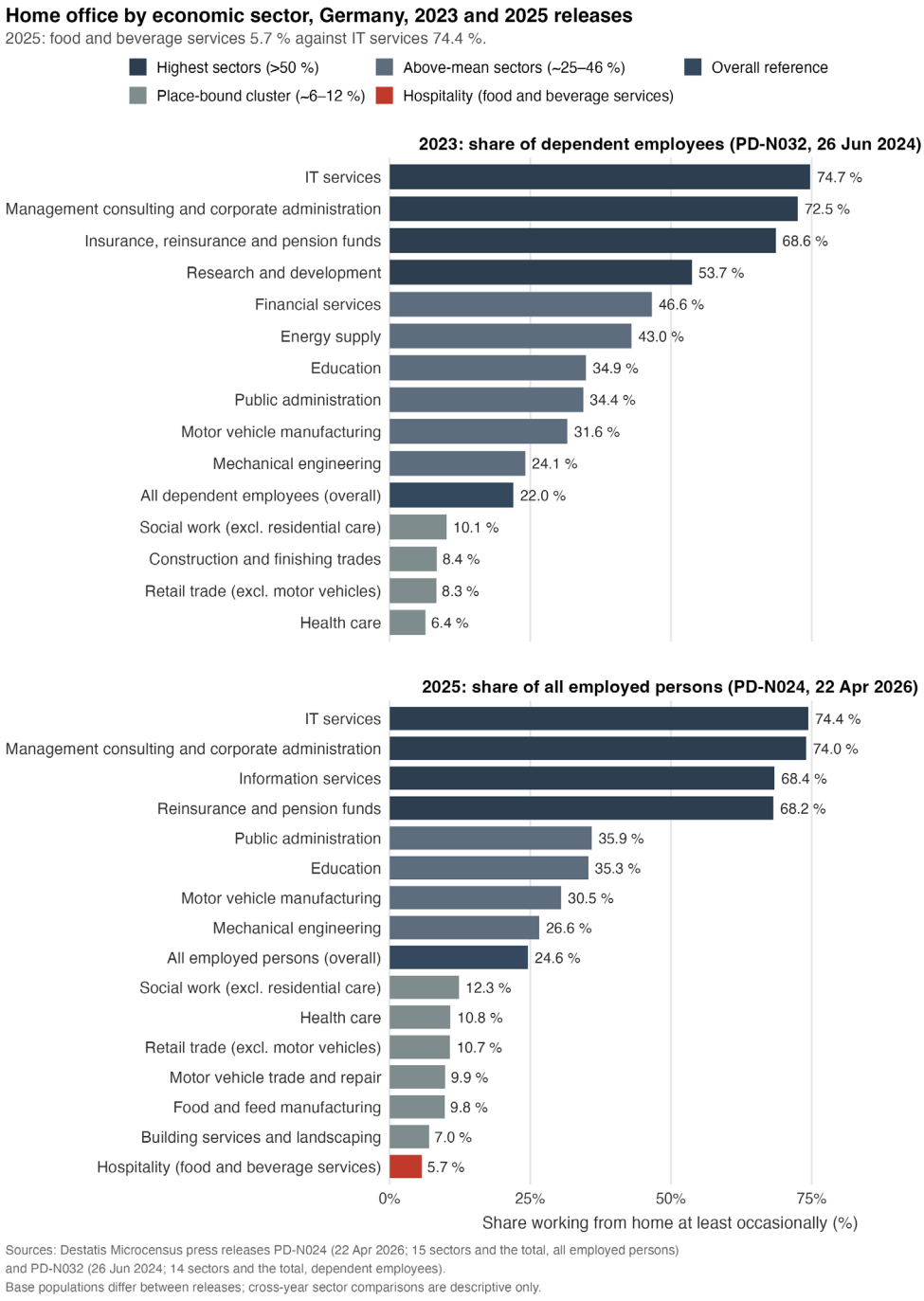


Figure 2. Home-office share by economic activity, Germany, 2023 release (14 selected activities and the total, dependent employees) and 2025 release (15 selected activities and the total, all employed persons). Source: Microcensus press releases (Destatis 2024, 2026). Base populations differ between releases; the panels are placed side by side to show the place-bound cluster in each release, not for direct cross-year comparison at the sector level.

How to read the figure. Each bar is a sector's home-office share; the place-bound activities sit at the foot of both panels, and in the 2025 panel, hospitality sits at 5.7 per cent, below the economy-wide 24.6 per cent and the 74.4 per cent of IT services.

In 2025, hospitality had the lowest home-office share of the fifteen activities that the release itemises, and its share lies below the feasibility of remote work in the sector (Figure 2). On the German survey-based measure, 39.0 per cent of jobs in food and beverage service activities can be done at least partly from home, against 55.5 per cent of all jobs

(Alipour et al. 2020). On the JRC-Eurofound task-based measure, 16 per cent of employees in accommodation and food services in the EU27 hold teleworkable jobs (Sostero et al. 2020b). The feasibility measures refer to employees before the pandemic and the realised share to all employed persons in 2025, and the German measure also counts jobs that can be done from home only in part, while the task-based measure refers to accommodation and food services in the EU27. The distance between realised and feasible shares, about 33 points on the German measure and about 10 points on the task-based measure, therefore gives an order of magnitude and does not isolate the contribution of institutions. This position is the pattern that Expectation 3 describes.

Six other activities lie below the economy-wide share of 24.6 per cent: building services and landscaping (7.0 per cent), food manufacturing (9.8), motor-vehicle trade and repair (9.9), retail (10.7), health care (10.8) and social work (12.3) (Destatis 2026). The 2023 release, which covers dependent employees and does not itemise food and beverage service activities, places health care, retail, construction and finishing trades and social work at the foot of its ranking (Destatis 2024). The two releases rest on different populations and activity lists, so the German data give the position of hospitality in 2025 and no trend since 2020.

5.4. European Backdrop: Divergence of National Trajectories

Figure 3 shows France, Germany and the EU-27 aggregate on the Eurostat Labour Force Survey series lfsa_ehomp for 2019 to 2023. The series records the share of the employed population working from home at least sometimes. France registers 33.5 per cent in 2023 against 23.2 per cent for Germany, with the EU-27 aggregate sitting slightly below the German share.

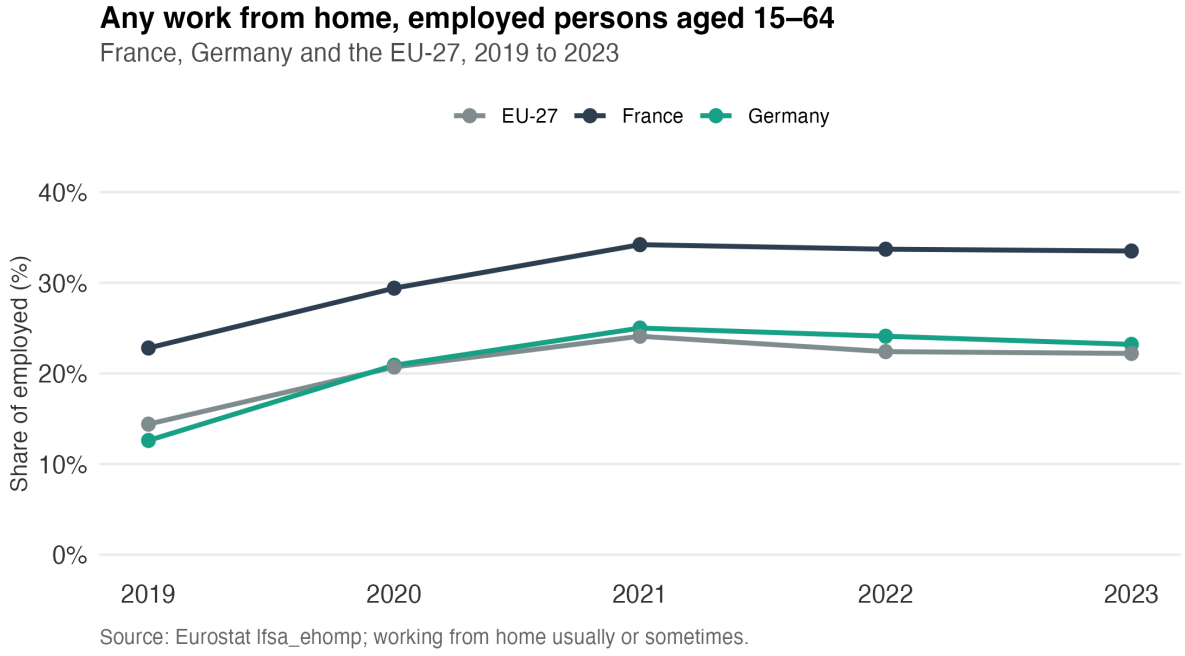


Figure 3. Share working from home (WFH) usually or sometimes of employed persons aged 15 to 64, France, Germany and EU-27, 2019–2023. Source: *lfsa_ehomp* (Eurostat 2024). Eurostat flags breaks in series for Germany in 2020 and 2021 and for France and the EU-27 in 2021, with a different definition for France from 2021 to 2023.

How to read the figure. Each line tracks one geography's WFH share over time; the comparison concerns the gap between the French and the German lines in each year.

The French–German gap, 9.2 percentage points in 2021 and 10.3 points in 2023, is large given the similarity of the two countries' teleworkability potential. Eurostat flags a different definition for France in both years (Figure 3), so part of the gap may reflect the difference in definition. The OECD task-based feasibility measure reports 32 per cent for France and 34 per cent for Germany (Espinoza and Reznikova 2020). The feasibility measure does not predict the difference between the realised rates, and institutional and regulatory differences between the two countries are among its possible explanations (Section 3).

6. Discussion

First, the corpus measures the negotiated rule directly for France. Hospitality and control agreements share one eligibility template, which excludes the operational core in about four agreements in five in each corpus and almost never opens telework to operational staff or grants a counterpart to the excluded staff. The template admits the posts whose tasks can be done remotely, so its reach depends on the workforce it governs, and the smaller reach in hospitality follows from job content under a rule shared across sectors. The reach of the template also varies within hospitality, where the agreements signed by holding companies and head offices fall in the sectoral band "most" and the template that excludes operational staff admits office and support staff (Section 5.1). In the terms of Section 3, the institutional finding is a place-blind template that grants the staff it excludes no counterpart, in the one system with a centrally deposited agreement base.

Second, the national statistics give the position of hospitality at one date. In Germany in 2025, food and beverage service activities had the lowest home-office share of the fifteen activities itemised, below the feasibility of remote work in the sector, and the six other activities below the economy-wide share are also place-bound (Section 5.3). In France, clerical and service employees and manual workers, the two occupational classes with the lowest rates of telework, make up almost three-quarters of hospitality employees (Section 5.2). The statistics for 2023 and 2025 show where hospitality stood after the pandemic and do not show whether its position has changed since 2020.

The consequences for the hospitality workforce are implications that the corpus does not test. Hospitality has been documented as an employer with persistent difficulties in recruiting and retaining staff (Baum 2019a, 2019b), and its work as hard to sustain (Baum 2019b; Jones et al. 2024). A meta-analysis of 46 studies found that telework was associated with higher job satisfaction and lower turnover intent and that its effect on job satisfaction appeared to run through greater perceived autonomy (Gajendran and Harrison 2007). A later meta-analysis of 113 samples from 101 papers found that flexibility of working time and flexibility of the place of work were each related to higher job satisfaction and that their combination was related to it more strongly than either alone (Harrop et al. 2026). In a six-month randomised trial with 1612 graduate employees of a Chinese technology company, being allowed to work from home two days a week raised job satisfaction and reduced quit rates by one-third (Bloom et al. 2024). If job seekers and employees compare the terms of employment across sectors, a sector whose agreements exclude most of its staff from telework and grant them no counterpart may find recruitment and retention harder still. The corpus does not measure applicant numbers, turnover, employer attractiveness or job satisfaction, and each step of this reasoning needs such data (Section 7). Sustainable human resource management has been advanced as a policy response to the workforce problems of the sector (Baum 2018), and counterparts for the staff whom telework agreements exclude would fall within its scope.

As context, official recruitment statistics for 2025, which do not link recruitment to telework, show that employers in France expected half of their planned recruitments in accommodation and food services to be difficult, with waiters, kitchen assistants, cooks

and hotel employees among the twenty occupations with the most planned recruitments (Chartier et al. 2025). In Germany, cooks and restaurant service staff were among the ten shortage occupations with the most employees at the skilled level, while the Federal Employment Agency found no evidence of a general labour shortage (Bundesagentur für Arbeit 2026).

In the Malaysian productivity series, employment and hours worked in hospitality stood 19 and 16 per cent above their 2019 level in 2025 and output per hour stood 6 per cent below it, while output per hour in information and communication was 14 per cent above its 2019 level (Section 4.5). Malaysian hotel employees surveyed during the pandemic reported job insecurity and psychological distress that were associated with higher turnover intentions (Appannan et al. 2022).

Implications for Hospitality Managers and Policy

For hospitality employers, the implication concerns the counterparts that agreements and company practice can offer to staff who cannot telework, such as additional rest, flexibility of working time or help with transport. None of the 92 hospitality agreements grants one to staff because they cannot telework. Within the in-person nature of the work, employers could offer schedules that are predictable and published well in advance, compressed working weeks such as the four-day week of the Paris hotel agreement (Section 5.1), shift swapping controlled by employees, paid travel time and more control by employees over their rotas. None of these measures substitutes for telework, and whether they affect recruitment, retention or job satisfaction is a question for further research (Section 7).

For the negotiating parties and for regulators, the corpus shows that telework agreements, in hospitality and in the other sectors, almost never grant a counterpart to the staff they exclude. Branch and company agreements on telework or on working time could provide such counterparts.

For hospitality research, the results suggest adding the distribution of spatial and temporal autonomy to the dimensions that studies of digital transformation examine (Section 2.2).

7. Conclusions and Research Agenda

The paper has examined the rule that collective agreements write on telework for a place-bound workforce. In the French firm-agreement corpus, hospitality and control agreements share one place-blind eligibility template. The rule excludes the operational core in 78.3 per cent of the 92 operative hospitality agreements and in 81.6 per cent of the 87 controls. No hospitality agreement names a front-line role as eligible or opens telework to all staff of an operational perimeter, against two of the controls, and two agreements of one hospitality firm allow occasional telework for unspecified operational functions. A counterpart for the excluded staff appears in none of the hospitality agreements and in two of the controls. The template reaches only the teleworkable part of the workforce it governs, so its potential reach, estimated from the occupational composition of each signatory's sector, is smaller in hospitality, where 49.5 per cent of the agreements fall in the lowest sectoral coverage band, against 23.0 per cent of the controls. National statistics place hospitality at the foot of the German ranking of home-office work in 2025, and in France, the gap between the telework rates of managers and manual workers widened between 2019 and 2023.

The paper reads the evidence as a segmentation of telework between place-bound and teleworkable work, a divide already visible across sectors and groups of workers during the lockdowns of 2020 (Fana et al. 2020), and it describes the negotiation that sets the rule in the terms of the theory of social regulation (Reynaud 1988; de Terssac 2003). The data do

not show whether the level at which telework is negotiated bears on the difference between France and Germany (Section 5.4).

Limitations. The firm-agreement corpus is confined to France, the one system with a centrally deposited, searchable base of firm-level agreements; no equivalent corpus exists for German company agreements. The deposited base holds collective agreements only; telework set by an employer charter or by individual agreement, which the French Labour Code allows where no collective agreement exists, is not deposited, so the corpus describes the rules of the firms that negotiate telework. The control is matched on signature year only. Firm size could not be matched because the ACCO records give no headcount, and differences in size between the corpora may account for part of the differences and similarities in their clauses; the nature of work was left unmatched because the coverage comparison measures it, so the clauses are compared between agreements that govern different kinds of work (Section 4.1). The sectoral coverage band is an estimate of potential reach. It applies to each signing entity the occupational composition of its sector, observes neither the staff that an agreement covers nor the access that it grants and rests on an activity code that can differ from the activity of the units that an agreement governs (Section 4.3); measuring actual coverage would require firm-level data on the workforce of each agreement. The codes were assigned by a language model and checked against the coding of forty agreements by the author, the one human coder of the study (Section 4.2). Agreement between the model and the author was good on the exclusion of the operational core and moderate on the finer classification and on the naming of operational roles, so the results that rest on the finer codes are less certain, and an independent second coder would be needed to establish them. The author found no operative rule in three of the forty agreements, which the screen had classed as operative, so the operative agreements that the author did not read may include a few more deposits without one; three others amend an earlier agreement without restating its eligibility rule and are coded as they stand, and leaving them out changes no difference between the corpora by more than 1.5 percentage points (Table S1). Each deposit was coded on its own, so a counterpart that a firm grants in another agreement, on working time for instance, is not recorded. The corpus does not measure recruitment, turnover, wages or well-being. The national statistics give levels at one date, from surveys whose populations, years and definitions differ, and none of the series used here follows the telework of hospitality as a sector over time.

Research agenda. A first line of research would measure the coverage of each agreement with firm-level data on the workforce it governs and code the agreements with independent human coders. A second would test the implications of Section 6 with the measures this paper lacks, applicant numbers, vacancy duration, turnover, employer attractiveness and job satisfaction, compared between staff with and without access to telework and with and without a counterpart, within hospitality and across sectors. A third would compare the regulation of telework across countries, through German company agreements (*Betriebsvereinbarungen*) once a comparable corpus exists and through fieldwork on hospitality in Malaysia, which would study the spatial organisation of work, the workforce's experience of post-pandemic restructuring and the channels through which workplace flexibility is decided. A fourth would study how hospitality employees experience the division between place-bound and teleworkable work, combining qualitative fieldwork with decent-work indicators and attending to age, gender, migration status and type of contract (Janta et al. 2012; Santos 2023; Farrugia et al. 2025).

The paper proposes that hospitality research and practice treat access to telework, and the counterparts for staff who cannot have it, as a decent-work question in the SDG 8 sense, with labour sustainability as the condition at stake. Precarity in tourism has been analysed as sustained by the sector's employment practices (Robinson et al. 2019), and a

settlement that withholds spatial autonomy from most of a sector's workforce and grants no counterpart may be one of those practices. Hospitality is the extreme case of place-bound work in the digitised economy, and whether the form of its exclusion from spatial flexibility affects the capacity of the sector to recruit, retain and reproduce its workforce is a question for the research set out above.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/socsci15110745/s1, File S1: Coding instrument; File S2: Coding sheet of the 216 deposits; File S3: Analysis scripts; File S4: Numbers of the 108 hospitality and 108 control agreements in the Légifrance ACCO database; File S5: Table S1, every comparison between hospitality and control agreements; File S6: Validation of the model codes against the author's coding and the reading of the operational-access cases; File S7: Technical notes on the corpus, the coding and its validation, the coverage band and the statistical analysis.

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Institutional Review Board Statement: Not applicable. The study involved no human or animal participants and used publicly available data only, comprising official statistics and firm-level agreement records.

Informed Consent Statement: Not applicable.

Data Availability Statement: Publicly available datasets were analysed in this study. The firm-level agreements examined in Section 5.1 are public records available through the Légifrance ACCO database; their numbers are listed in Supplementary File S4. The coding materials, the analysis scripts, every comparison between the corpora and the validation materials are given in Supplementary Files S1–S7. The secondary statistical sources are official statistics of Dares, Insee, JRC-Eurofound, Destatis, Eurostat and the Department of Statistics Malaysia (DOSM). Source URLs are listed in the references.

Acknowledgments: During the preparation of this study, the author used Claude Sonnet 5.5 (Anthropic, San Francisco, CA, USA) for the purposes of coding the firm-agreement corpus against a fixed codebook and Claude Opus 5.5 (Anthropic) for the purposes of a check of that coding and of a screen of selected codes against the coding rules (Section 4.2). The author has reviewed and edited the output and takes full responsibility for the content of this publication.

Conflicts of Interest: The author declares no conflicts of interest.

Appendix A. Coded Variables

Table A1 gives the criterion of each category of the variables described in Sections 4.2 and 4.3. Every variable is coded from the text of the agreement; when the text is silent on a variable, its silent category is coded.

Table A1. Coded variables, categories and criteria (codebook version 1.0 and the analysis rules of October 2026).

Variable	Category	Criterion
Exclusion mechanism (B)	E1 Person or post category	Eligibility is limited to named office or support categories (fonctions support, cadres, sédentaires or personnel du siège), or named operational posts are excluded.

Table A1. *Cont.*

Variable	Category	Criterion
	E2 Task-compatibility gate	The scope is broad, but eligibility requires the post or activity to be compatible with remote work (postes compatibles or télétravaillable), usually with managerial assessment and voluntariness.
	E3 Indirect filter only	No category and no compatibility test; only neutral administrative conditions (permanent contract, seniority, autonomy, equipment or home conditions).
	E4 Open access	No category limit and no compatibility gate that removes operational roles, or operational roles explicitly included.
Excludes the operational core (derived)	Yes, no	Yes, when the mechanism is E1 or E2.
Operational roles (F)	Named, excluded	Front-line roles (kitchen, service, housekeeping and reception) are named as ineligible or incompatible.
	Named, included	Front-line roles are named as eligible or given a telework provision.
	Not addressed	Front-line roles are not mentioned.
Framing (C)	Standing	A regular, ongoing regime (fixed or monthly formulas, recurring days per week).
	Occasional	Telework is permitted case by case, with no regular rhythm.
	Exceptional or crisis	Telework is framed mainly around force majeure, exceptional circumstances, an epidemic or business continuity; a single crisis clause inside a standing regime does not count.
Scope (A)	Universal	The scope article covers all staff (l'ensemble du personnel or tous les salariés) with no category limit.
	Restricted	The scope article names categories (cadres, fonctions support, sédentaires or personnel du siège).
	Silent	No scope is stated.
Counterpart (G)	Yes, no	Any compensating measure for staff who cannot telework (extra rest, flexibility, transport and recognition), counted when the text grants it to them because they cannot telework; other measures for staff on site are described in the coding note (File S2).
Gatekeeping (E)	Voluntariness (*volontariat*); managerial validation; reversibility	Each yes or no: telework is voluntary; entry requires hierarchical approval; a reversibility or return clause exists.
Intensity (D)	Weekly cap; ceiling	The maximum number of days per week (upper bound of a range; missing when not stated in figures); a ceiling on simultaneous teleworkers, yes or no.
Coder-judged coverage band (I)	Most; about half; minority	See Supplementary File S7.

Notes. The exclusion mechanism is coded by decision order: the first category that matches, from E1 to E4, is assigned.

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