

This item was submitted to [Loughborough's Research Repository](#) by the author.
Items in Figshare are protected by copyright, with all rights reserved, unless otherwise indicated.

Strategic coupling between finance, technology and the state: Cultivating a Fintech ecosystem for incumbent finance

PLEASE CITE THE PUBLISHED VERSION

<https://doi.org/10.1177/0308518x19887967>

PUBLISHER

SAGE Publications

VERSION

AM (Accepted Manuscript)

PUBLISHER STATEMENT

This paper was accepted for publication in the journal *Environment and Planning A: Economy and Space* and the definitive published version is available at <https://doi.org/10.1177/0308518x19887967>. Users who receive access to an article through a repository are reminded that the article is protected by copyright and reuse is restricted to non-commercial and no derivative uses. Users may also download and save a local copy of an article accessed in an institutional repository for the user's personal reference. For permission to reuse an article, please follow our [Process for Requesting Permission](#).

LICENCE

CC BY-NC-ND 4.0

REPOSITORY RECORD

Hendrikse, Reijer, Michiel Van-Meeteren, and David Bassens. 2019. "Strategic Coupling Between Finance, Technology and the State: Cultivating a Fintech Ecosystem for Incumbent Finance". Loughborough University. <https://hdl.handle.net/2134/10315799.v1>.

Strategic coupling between finance, technology and the state: Cultivating a Fintech ecosystem for incumbent finance

Reijer Hendrikse*

(Corresponding author: reijer.hendrikse@vub.be)

Michiel van Meeteren*, **

David Bassens*

* Vrije Universiteit Brussel, Cosmopolis: Centre for Urban Research, Department of Geography, Pleinlaan 2, 1050, Brussels, Belgium.

** Loughborough University, Geography and Environment, School of Social Sciences, Epinal Way, LE11 3TU, Loughborough, United Kingdom.

ABSTRACT

The rise of Fintech challenges established financial centres and incumbent financial institutions to rethink their strategies to remain obligatory passage points in the age of digitizing finance. To appreciate these changes, it is important to maintain theoretical interchange between developments in financial geography and economic geography, its parent discipline. In this paper, we argue that the ways in which evolutionary economic geography impacts strategic coupling in global financial networks are crucial to grasp tomorrow's geographies of Fintech. Through an in-depth examination of Brussels, we analyze the potential of Fintech opening a window of locational opportunity in financial services. Belgium has put together a strategy to seize this window by leveraging its politically neutral image and Brussels' existing niche in financial collaboration and infrastructural plumbing. The latter status is exemplified by the presence of global players SWIFT and Euroclear. We analyze how Belgian entrepreneurs and politicians assess Brussels' locational resources, and strategically couple big financial institutions with small tech startups in order to cultivate a Fintech ecosystem in the service of incumbent finance, constituting a Fin-Tech-State triangle. As such, we document and analyze how the coalescence of finance and technology offers new opportunities for second-tier financial centres, whilst highlighting the difficulties in reaping these in practice.

Keywords

Fintech, Economic Geography, Strategic Coupling, Financial Centres, Digitization, Innovation Systems, Belgium, Brussels, Financial Geography, Economic Ecosystem

Introduction: Financial geography at a crossroads

The proliferation of financial technology (Fintech) questions established wisdom about the trajectory of financial geography, inviting financial geographers to evaluate their conceptual apparatus. FinTech denotes ‘the digital transformation of financial services, [...] unfolding via the diffusion of Information and Communication Technology (ICT) applications in the field of finance’ (Hendrikse et al., 2018: 160). While ICT has been central to finance from at least the 1960s onwards, the current adoption of digital technologies could radically reshape economic geographies of finance. The possibilities of Fintech invoke large technology companies to develop financial services on their own platforms, and enables tech startups to deliver financial services in innovative ways. Meanwhile, for aspiring financial centres, tomorrow’s geography of Fintech opens up new windows of locational opportunity (Boschma, 1997; Storper and Walker, 1989). Not only as places of radical disruption, but also for the cultivation of incumbent-dominated ecosystems from where established financial players can ward off the Fintech threat (Hendrikse et al., 2018).

Conceptualizing this coalescence of high-tech and finance requires careful reflection about the available theoretical tools. Financial geography emerged at a moment in economic geography when the taxonomy of sectorially-organized ‘industrial geographies’ started to include services (Barnes et al., 2007; Daniels, 1985). Gradually, as finance became defined as the growth machine of the 1980s (Van Meeteren, 2019), the path of ‘service geography research’ forked into ‘producer services geography’ and eventually in ‘geographies of money and finance’ (Leyshon, 1995). Since then, financial geography has grown into an increasingly diverse subdiscipline, borrowing from diverse foci in geographical thinking, with much work theorizing in relative independence from its economic geography parent (Aalbers, 2015). To comprehend the Fintech moment, we argue that a rejoined and strengthened conversation with economic geography approaches to finance is imperative.

Three economic geography connections undergird our study. First, as Fintech investment embodies a new techno-economic paradigm (Perez, 2003), cities are examining their competitive assets (Cassis and Wójcik, 2018). Finance’s newest international division of labor generates opportunities for second- and third-tier financial centres to reclaim a more prominent position, potentially reversing ongoing decline (Faulconbridge et al., 2007; Zademach and Musil, 2014). Second, the merging of Fin and Tech suggests increased related variety between coalescing industrial fields (Hendrikse et al., 2018). Evolutionary economic geography (Frenken and Boschma, 2007), theorizes how related variety enables innovation, while spatializing the framework in terms of the concept of windows of locational opportunity (Boschma,

1997). This raises questions about the geographical political economy of Fintech and how this window of locational opportunity is valorized. Such valorization typically happens through efforts of 'strategic coupling' (Coe et al., 2004; Yeung, 2016) as part of wider industrial policies (Dörny, 2015). Third, financial centres, assisted by advanced producer services (Bassens and Van Meeteren, 2015), are actively forging linkages to bridge geographical and institutional differences between Fin and Tech. Financial incumbents often rely on tech newcomers to unlock Fintech's potential. As part of coupling strategies, financial centres are developing economic ecosystems (Auerswald and Dani, 2018; Stam and Spigel, 2018) to cultivate those linkages, inviting dialogue with this newest iteration of the industrial district literature. Together, these literatures provide a powerful framework to keep track of the shifting geographies of Fintech.

With this theoretical toolkit, this paper aims to uncover mechanisms supporting strategic coupling of Fin and Tech in established financial centres, empirically focusing on Brussels (Belgium). Despite its key European-level governance functions (Elmhorn, 1998; 2001), Brussels is regarded as a typical case of a second-tier financial centre in decline. Brussels has not fulfilled Kindleberger's (1974) prophecy of becoming Europe's leading financial centre. All over Europe, second-tier financial centres are developing FinTech hubs trying to reverse the long-term trend of decline. What makes Brussels different from its European counterparts in the current moment is the local presence of major financial infrastructure providers, embodied by the global headquarters of SWIFT and Euroclear. Mirroring Belgium's political role as a neutral site for inter-state diplomacy, Brussels is a key centre of financial collaboration and infrastructural 'plumbing' (Norman, 2007), related to interbank communications, payments, post-trade clearing and settlement, collateral management, and custodian services. The concentration of this market infrastructure, combined with an oligopolistic partially foreign-owned banking sector, has rekindled Belgian politico-financial elites' financial centre aspirations. The presence of financial infrastructure providers, whose own existence is challenged by 'disruptive' Fintech, makes Brussels a salient case of an incumbent-dominated second-tier financial centre where interests are aligned to appropriate and enclose Fintech to their own benefit.

We continue with building theoretical dialogue between sector coalescence, entrepreneurial ecosystems, and strategic coupling. We then address methodological issues. Thereafter, we narrate the cultivation of the incumbent-dominated Fintech ecosystem in Brussels. We approach our study from the genesis of one particular company, *Eggsplore*, that quickly assumed a leading role within the ecosystem. A year onwards, the company was renamed as *B-Hive* as the state's involvement became more active. This section

chronologically describes B-Hive's evolution, zooming in on key moments of strategic coupling between the actors involved over the period 2016-18. These key moments comprise a repository of promises, pitfalls, and paradoxes shaping an emergent interlocking Fin-Tech-State triangle. By accentuating B-Hive's role, our study uncovers the government-sponsored efforts of incumbent finance to colonize this emerging Fintech space, but is sensitive to the financial ecology (Leyshon et al., 2004) of Brussels' wider 'organic' Fintech development. The concluding section revisits the theoretical framework and discusses the implications for financial and economic geography.

Theorizing the economic geographies of Fintech

Strange (1994: 110) famously argues that the post-1985 period of runaway finance is a consequence of its mistreatment as 'just another sector'. As a range of financial crises have revealed since, market competition works different in finance, where rewards are largest for those who take irresponsible risks, yet typically get away with it whilst society absorbs the costs. While this remains a valid political-economic critique, one cannot help observing the ever-closer relations between finance and 'non-finance' that has developed since (Froud et al., 2006; Fernandez and Hendrikse, 2015; Pike and Pollard, 2010). Indeed, Fintech's rise suggests that ongoing coalescence between finance and non-finance is accelerating, as incumbent finance progressively mimics ICT firms' strategies (Hendrikse et al., 2018). Hence, the longstanding division of labor between academics studying 'finance' and 'the productive economy', resulting in distinctive brands of scholarship, may be hampering fruitful debate. In our view, apart from using insights from financial geography to understand contemporary non-financial economic geographies (Coe et al., 2014; Pike and Pollard, 2010), we also need to explore how economic geography illuminates transformation of financial geographies (Dörny, 2016). Taking cue from MacKinnon (2012), this section develops a framework combining three families of economic-geographical scholarship.

Related variety and coalescing fields and sectors

Economic geographers have long pondered when regions can achieve upgrading in the global capitalist division of labour. Capitalist history can be understood as a succession of techno-economic paradigms, each based on a key technology that transforms other sectors (Perez, 2003). Regions that are leading players in those technologies tend to be economically successful (Storper and Walker, 1989). Since the 1970s, the latest paradigm shift has been driven by ICT, which has broadly affected finance along three phases (Hendrikse et al., 2018: 163). First transformations were foremost based on hardware innovations, such as the ATM and computerized accounting. Subsequent transformations were predicated on software allowing interoperability between systems. The latest phase of the ICT revolution, built on the preceding

ones, is based on (mobile) data-generating technologies allowing for platformization of financial services (idem; Langley and Leyshon, 2017; Srnicek, 2017). For economic geographers, a key issue about these technological transformations is that every new sectoral (re-)combination provides a window of locational opportunity (Boschma, 1997; Storper and Walker, 1989) where regions can reinvent themselves. Such a window is path-dependent (Mackinnon et al., 2019) and arguably only present if the regional resource base is a good fit with the sectors that are coalescing in a new technological paradigm. Coalescence branches from related variety (Neffke et al., 2011; 2018), in this case 'finance' and 'technology'. However, having rich regional endowments is not sufficient to avoid the risks of a misguided industrial policy (Lambooy and Boschma, 2001). Despite synergetic potential, coalescing sectors can have widely diverging institutions articulated in conceptions of control (Fligstein, 2002) and organizational routines (Frenken and Boschma, 2007). Established firms can be locked into routines that preclude them from adopting innovations (Grabher, 1993) even if the resources are present. This shifts focus to the agency of those mobilizing regional resources through acts of 'strategic coupling'.

Strategic coupling: Seizing the window of locational opportunity

The world economy hinges on networked structures of organizations, institutions and territories, be they global production networks (GPN) or global financial networks (GFN) (Baumeister, 2015; Coe and Yeung, 2015; Coe et al., 2014). Spatially, these systems are articulated as 'neo-Marshallian nodes in global networks' (Amin and Thrift, 1992). Global networks are usually orchestrated by lead multinational firms acting as 'movers and shapers' (Dicken, 2011). Insertion into the global economy depends on having a local environment that is conducive to the success of orchestrating firms (Coe and Yeung, 2015). To understand how regional economies are plugged into global networks, Coe et al. (2004) developed the concept of 'strategic coupling'. Yeung (2016: 54) defines strategic coupling as a 'mutually dependent and constitutive process involving particular ties, shared interests and cooperation between two or more groups of economic actors who otherwise might not act in tandem to achieve a common strategic objective'. Strategic coupling is an agency-based concept, requiring active entrepreneurship of powerful actors to succeed. It describes a contingent phenomenon (idem: 190-193), implying that its effects and continuation cannot be taken for granted. Lastly, it is 'strategic' because the entrepreneurial result ought to facilitate a path-breaking trajectory where a region is able to change its position in the international division of labour (idem; Mackinnon et al. 2019). Strategic coupling hints at bridges that need building to seize a window of locational opportunity, yet different cultural, economic and organizational reasons exist why a 'state-firm-GPN assemblage' (Yeung, 2016: 66) envisioned by strategic coupling does not

materialize. According to Yeung (idem: 55), strategic coupling requires at least transnational communities that enable the flow of people, ideas, and capital through the global network; dynamic changes in industrial organizations such as the current moment of shifting techno-economic paradigms; and domestic institutional (state) support to navigate those risks.

Creating Entrepreneurial Ecosystems

To understand how concrete context-dependent strategic coupling unfolds, one needs to specify how key actors engender mechanisms of change (Yeung, 2019). For Fintech, Hendrikse et al. (2018) explain that incumbent banks seek to learn building integrated digital platforms where they can remain obligatory passage points for other suppliers offering financial services to their clients. To that end, incumbent finance has to internalize the knowledge, organizational practices, and culture of the technology sector. Financial institutions, with their tendency to develop applications in house as proprietary assets, need to learn dealing with the volatility and relative openness of innovation in the startup world. For the state, in turn, the question is how to formulate a 'platform policy', bringing together related variety (Asheim et al. 2011a) and be a regional animateur (Morgan, 1997) cultivating a dynamic entrepreneurial ecosystem (Stam and Spiegel, 2018) around Fintech. The ecosystem concept allows comprehending how localized knowledge, inter-firm networks, and shared labor markets sustain and augment regional competitive advantage in global networks (Asheim et al., 2011b). Evolutionary metaphors such as 'variation' and 'selection' (Auerswald and Dani, 2018), in turn, capture some dynamics around emerging geographies of Fintech. For instance, the ecosystem concept stresses the relative self-containment of 'the system', i.e. the region's unique configuration of capabilities, without denying the influence of the ecosystem's environment – in this case the global Fintech landscape in which a specific financial centre finds its niche. Similar processes of niche-finding also work *within* the ecosystem: different kinds of startups, incumbent banks, state actors, advanced producer services, and other intermediaries are involved in an intricate division of labour. The ecosystem produces variation in startups, initiatives, and applications that might prove valuable. Which ones survive is dependent on the selection environment, but also the degree to which ecosystem actors – primarily incumbents and startups – engage in symbiosis, parasitism, or any other form of competitive or collaborative co-existence. Understanding ecosystem dynamics allows an analysis of which institutions and financial centres might ultimately benefit from the rise of Fintech.

Methodology: Studying economic geographies of Fintech

Making the case for Brussels

According to Gerring (2006: 40), case studies are particularly powerful to generate in-depth insight when a 'subject is being encountered for the first time or is being considered in a fundamentally new way'. To the extent Fintech existed prior to the current wave, it seems to have significantly changed in character. Therefore, using a case study methodology to closely examine how Fintech's core characteristics affect financial centres is useful. In order to maximize insight, a case has to be situated in the universe of cases, which we do following Gerring's (2006) taxonomy.

Brussels is a typical case of a small financial centre in decline and, at first sight, its FinTech 'performance' is not spectacular. Table 1 collates key economic indicators for Belgium and its neighbours. Brussels ranks 54th on the Z/Yen Global Financial Centres Index (Z/Yen, 2018) and its score on FinTech hub rankings (e.g. Deloitte, 2017) suggests it trails behind 'old hubs' and 'new hubs' alike (compare Wójcik and Cojoianu, 2018: 223). However, when we examine venture capital (VC) Fintech investment stocks, arguably a good measure to trace potential, a more nuanced picture emerges. Although with US\$231 million to a GDP of US\$532 billion Belgian investment is not comparable to the UK, Germany, France, or the Netherlands in absolute or relative terms, Belgium does outperform neighbouring Luxembourg. Fintech investments in Belgium are also relatively high compared to the modest number of reported Fintech companies (36) although this number does not capture the more diverse set of smaller startups. A 2018 journalistic mapping counted 135 Fintech firms in Belgium (De Tijd, 2018), indicating the size of this larger population. Overall, Table 1 shows that the size and fire-power of Fintech ecosystems is more or less commensurate with financial *and* ICT sector size – both sectors typically being on equal footing across this sample. The UK, however, packs a disproportionate share of Fintech activity relative to its financial and ICT sector size, with other countries showing a rather linear relation between Fintech Investment and other variables.

Table 1. Key economic indicators for Belgium and its neighboring countries

Country	Number of FinTech Companies ^a	Reported FinTech investment stocks (US\$ millions) ^a	GDP ^b (current US\$ billions)	Financial sector employment ^{cdefgh} (thousands)	ICT sector employment ^{cdefgh} (thousands)
UK	1065	14530	2825	1373	1290
Germany	242	2723	3997	971	1107
France	152	1659	2586	877	780
Netherlands	111	629	913	207	306
Belgium	36	231	532	117	120
Luxembourg	28	32	69	50	19

Authors' compilation on the basis of 2019 data available via a: CrunchBase; b: World Bank; c: ONS (UK); d: DESTATIS (Germany), e: INSEE (France), f: CNS (Netherlands); g: NBB (Belgium); h: Statistics Portal (Luxembourg).

Taken together, despite modest rankings a sizable and dynamic Fintech ecosystem is materializing in Brussels. However, it would appear that the Fintech investment round has already shuffled the cards to the benefit of the dominant financial centres in Europe, the UK in particular, putting serious external constraints on the capacity of Brussels to become a leading Fintech hub. Brussels' position then reflects the decline in traditional financial centre functions, comparable with its second-tier European peers, where European integration accelerated financial relocations to London (Fernandez, 2011; Van Meeteren, 2019), whilst subsidiaries of neighbouring European banks assumed an ever-larger Belgian footprint – a development exacerbated by the 2007-2009 financial crisis in which domestic players Dexia and Fortis collapsed. Today, Belgian finance is dominated by a small number of universal banks: Belfius, KBC, and foreign-owned BNP Paribas Fortis, ING, and, to a lesser degree, Deutsche Bank.

Still, Brussels holds territorial assets that could be mobilized for Fintech. Building on its political and regulatory functions, Brussels has a long history of being a neutral terrain to streamline inter-state collaboration – a niche triggering various financial spillovers. In the wake of the First World War, the British-dominated League of Nations congregated in Brussels as a neutral site to discuss international financial matters (Davis, 1920; Siepmann, 1920). After 1945, Brussels further specialized in inter-state diplomacy, headquartering the North-Atlantic Treaty Organization (NATO) and the (precursors to the) European Union (EU). The Brussels financial centre benefitted from this political function, heralding the arrival of globally operating financial players. Today, Brussels hosts the European headquarters of credit card companies Mastercard and Visa, the world's largest custodian Bank of New York Mellon, and the

global headquarters of market infrastructure firms Euroclear and SWIFT. The latter two firms have financial collaboration written in their DNA, with Euroclear handling the global settlement and clearing of securities trading (Norman, 2007), and SWIFT managing global interbank communications, systems and standards (Scott and Zachariadis, 2014). Both firms execute mandates and strategies formulated by their members and shareholders, i.e. the world's major financial institutions, and operate key parts of the 'plumbing' underlying global finance (Dörny et al., 2018). As such, there is an interdependency between the Brussels financial centre and its role as 'neutral' diplomatic-cum-regulatory centre, which makes Brussels case deviate from other second-tier financial centres. For example, the growth of Euroclear evolved 'haphazardly ... reflecting the way European integration – a hugely important overarching force – impinged upon the post-trade sector' (Norman 2007: 5). Indeed, this political niche led Charles Kindleberger to famously remark: 'I predict, very tentatively, that Brussels will emerge as the financial centre of the European Economic Community' (1974: 71). Whilst this prophecy has not materialized, the combination of a handful of big banks and world-class market infrastructure players collectively shape incumbent finance's dominance over the Brussels' financial ecosystem, granting the place a peculiar institutional thickness (Amin and Thrift, 1994).

Brussels' institutional thickness is permeated by a history of offering neutral territory to align political-economic interests, including hosting financial players collaboratively shaping and maintaining global financial standards – a niche that in Europe is only challenged by Luxembourg (Dörny, 2015; Norman, 2007). This feature is likely to be key in the variation and selection environment for Fintech startups, as their properties tend to be reflective of the local institutional environment (see Schamp, 2018, on Germany). Brussels is also a place where 'incumbent finance' has the higher ground given the oligopolistic banking sector, reproducing a historically grown practice of correlative competition (Bassens and van Meeteren, 2015; Crotty, 2008: 170). In sum, while Brussels might have been a 'typical case' of a declining second-tier financial centre, its propensity towards collaborative financial plumbing and proximity to European levers of regulatory power makes it a 'deviant case' (Gerring 2006: 105-107) when it comes to embracing Fintech-induced 'disruption'. Brussels is ideal-typical of an environment supportive to incumbent finance able to capture and enclose Fintech disruptors in their orbit. Deviant cases provide insight into causal mechanism due to their (expected) over- or underperformance given theoretical expectations (idem). Thus, the efforts of Brussels to buck the trend of decline is indicative of the importance financial plumbing expertise and political clout for second tier financial centre futures. As such, rather than making renewed predictions à la Kindleberger, our study allows us to understand a variety of niches in which Fintech can thrive.

Within-case methodology

Although our research covers the wider ‘organic’ development of the Brussels’ Fintech ecosystem, and informs our analysis throughout, we centre our analysis on a particular company: *B-Hive*. Its trajectory as a state-sponsored collaborative platform highlights the efforts of Brussels’ incumbent financial players and the Belgian state to colonize the emerging Fintech ecosystem. We enter our account of Fintech developments in Brussels with the establishment of B-Hive’s predecessor *Eggsplore*. Eggsplore invokes organic notions around fertilizing or hatching eggs, coupled with exploration, signifying a desire to cultivate variation in innovative applications. Rebranding into B-Hive occurred halfway in the fieldwork period, again invoking an organic idea of a central biotope of production, collaboration and cross-fertilization, albeit in a more mature state. Our account chronologically describes B-Hive’s birth and evolution, zooming in on key moments of strategic coupling between various actors involved over the period 2016-18.

Our interrogation of B-Hive results from ‘close dialogue’ (Clark, 1998) with politicians, financial institutions, regulators and Fintech startups during a multi-year project (2016-2019) assessing the evolution of the Brussels financial centre (Waiengnier et al, forthcoming). As Fintech and wider digitization became a key policy focus for the Belgian government, we had the opportunity to observe its implementation unfold. After surveying the institutional landscape, our qualitative research focused on the challenges of creating and sustaining a collaborative Fintech ecosystem in Brussels that finds the right balance between collaboration and competition between the involved actors. Particularly, we concentrated on unearthing contradictions that emerge when big banks are nudged by the state to nourish what could become disruptors of their own shielded markets. The state has an interest in ‘nudging’ (Wilkinson, 2013) incumbent finance into participating in a strategy that opens up an oligopoly to newcomers in order to secure the long-term survival of the financial centre. Close dialogue allows understanding economic-geographic dynamics and processes as lived and understood by the actors involved, but there is the methodological challenge of bringing these back to into validated theoretical statements that describe a certain generality (Clark, 2007). To this end, we have followed Yeung’s (2003) tripartite ‘litmus test’ in assessing the (in- and eternal) validity, reliability and reflexivity of our study through triangulation (Denzin, 1970).

In preparation, we conducted participant observation at a dozen Fintech networking events and regulatory meetups in Brussels, helping us to identify the best-positioned informants, resulting in fifteen anonymized interviews conducted over the period 2016-18. Respondents include key representatives and

shareholders of B-Hive, including incumbent banks, infrastructure players, and intermediaries, supplemented with insights from the Cabinet of the Belgian Ministry of Finance, Fintech startups and entrepreneurs. Data triangulation was sought by diversifying the interviewee sample between 'insiders' and 'outsiders', allowing us to detect contrasting positions and tensions amongst stakeholders. Our interviews lasted between 1 and 2 hours and were transcribed and analyzed by multiple researchers (investigator triangulation) and cross-checked with insights from policy documents, internal reports, and participant observations (methodological triangulation).

Our position as Brussels-based academics empowered us while investigating B-Hive. In a context where 'openness' and 'collaboration' are part of the narrative, our interviewees considered us as 'insiders' and readily disclosed stories about the tensions around getting their interests aligned. Again, close dialogue brought the benefit of contextualizing and aligning key concepts with the lifeworld of our research subject (Clark, 1998). For instance, the ecosystem concept was found to have strong resonance, making us adopt it over concepts such as 'cluster' or 'industrial district'. As the ecosystem notion gestated in business studies and consultancy (Stam and Spiegel, 2018) it is an emic concept (Harris, 1979) to practitioners. Not only did our interviewees identify with entrepreneurial ecosystems, they were proficient in the metaphorical reasoning towards related ecological and evolutionary notions. Resultantly, the vernacular language of the research field remained close to the theoretical language of the research project, increasing the concept validity of the results.

Close dialogue also necessitated a realignment of the strategic coupling concept. Strategic coupling's positive connotation around state intervention relates to the concept's maturation in East Asian economies where there is a clear positive legacy of active industrial policy. The Asian cases provide a clear-cut narrative of developmental states, local aspiring companies, and global lead firms with a clear division of power between them (Yeung, 2015). As we applied strategic coupling to the political economy of Europe, we noted that this power balance is distorted and that predefined roles in the concept had to be re-evaluated. It became clear that during moments of technological change it is uncertain who the 'movers and shapers' of tomorrow's capitalism will be. Faith in incumbent firms of the previous era is diminishing (see Feng et al., 2001), evidenced by how media depict incumbent banks as 'dinosaurs' in the Fintech era (Hendrikse et al., 2018). Moreover, although the benefits of state intervention suggested by strategic coupling were implicitly acknowledged, the notion of state support generated cognitive dissonance and negative associations. This can be understood in a context of European states having

developed more hands-off approaches to industrial policy after episodes of deindustrialization and misguided policy impulses in the 1970s-80s (Mommen, 1994).

Cultivating a Fintech ecosystem

It sounds nice, doesn't it, the word ecosystem, but I see it as a spider's web, as a network which probably already existed, informally and virtually, via customer relations and events. But let's give it a face, and let's give it a place. That is how Eggsplore came to life (interview Eggsplore representative 2016, *translated by authors*)

Hatching the egg: Interfirm coupling and the genesis of Eggsplore

Although banks have long since adopted ICT to streamline their operations, the rise of Fintech denotes the financial sector's embrace of data-driven platform capitalism, necessitating new forms of innovation (Hendrikse et al., 2018; Langley and Leyshon, 2016). According to Belgian entrepreneur Jürgen Ingels, selling stand-alone software to the financial industry is a formula of the past. Today, banks need to open up their ICT systems to the disruptive energy of startups, necessitating radical change. Having sold his payments software company Clear2Pay to the American financial software giant FIS late 2014, Ingels developed the idea to foster a Fintech ecosystem in the service of incumbent finance, together with Wim de Waele who used to head the Brussels-based tech incubator iMinds. Informed by organizational divisions of labour observed in the biotech sector, a year onwards their vision of a 'Tech-for-Fin' ecosystem became reality with the launch of Eggsplore.

We want to develop an ecosystem that brings together all the relevant players that want to collaborate in developing and offering the financial services of the future ... Collaboration is the name of the game and creates opportunities for both established actors as well as new technology start-ups (Ingels quoted in Eggsplore 2016a)

Launched in January 2016, Eggsplore was supported by ten 'structural partners', dominated by the incumbent players of the Brussels financial centre – Belfius, BNP Paribas Fortis, Euroclear, ING, KBC and SWIFT – supplemented with advanced producer services firms, ranging from global management consultants McKinsey to the local boutique law firm Cresco. These structural partners, paying an annual fee for their partnership, comprised the governing board of Eggsplore, collectively deciding on the company's strategy. The first 'members' or 'residents' of Eggsplore included Projective, The Glue and Qover – all promising Fintech (and Insurtech) start- and scaleups. In so doing, Ingels and De Waele were

the driving entrepreneurial forces behind the interfirm coupling between Brussels' financial incumbents, and between incumbents and FinTech startups.

With European and worldwide headquarters of companies such as our strategic partners, a strong start-up community, excellent available talent and the European Commission and other regulators nearby, we have all the assets to become a European and international centre (De Waele quoted in Eggsplora, 2016a)

The Eggsplora ecosystem encompassed more than incumbents, startups and business intermediaries, including 'associate' and 'research partners' drawn from both private and public sectors. Moreover, venture capital (VC) was also represented 'in house' to finance promising startups, going by the name SmartFin Capital, founded late 2014 by Ingels. Although not an accelerator or incubator itself, Eggsplora facilitated the incubators of their partners in its co-working office space, such as ING's FinTech Villageⁱ, which like Eggsplora was sponsored by various corporate players. In bringing startups and incumbent incubators together, Eggsplora sought to accelerate the spread and cross-fertilization of innovative ideas, knowledge and people. This speaks to a desire to engineer a micro-geographical setting conducive to the transfer of innovative and commercially-sensitive knowledge (Flögel and Zademach, 2017; Zook, 2004). They did so whilst promoting themselves as 'an entirely neutral and open organization' (Eggsplora, 2016a), drawing on Belgium's historical neutral image.

Eggsplora is not interested in commercial deals. If we facilitate an incubator for ING, we can also do that for KBC and the others, because these initiatives are separate from Eggsplora's activities. I think that neutrality is important. In addition, we have defined strategic programs, common themes which all banks are interested in. So Eggsplora is about defining common goals, and working from there (interview Eggsplora representative 2016, *translated by authors*)

As much as Eggsplora's business model was 'work in progress', the company's initial 800 square meter office was viewed a 'test setup' (*idem*), with plans for a 4.000 square meter office in the future. Eggsplora focused on the European market from inception, aiming to bring more incumbent firms onto its platform, with French insurer AXA joining as eleventh structural partner in May 2016.ⁱⁱ Over 2016, Eggsplora put its mark on the Belgian Fintech landscape, as it was formally recognized by the Flemish government as a cluster organization, allowing Eggsplora 'to act as the representative organization for the Fintech community' (Eggsplora 2016b). Furthermore, Eggsplora was one of twenty organizations behind the formation of *The Global Fintech Hubs Federation* – a global network of emerging Fintech hubs brought

together by one of Eggsplore's structural partners: Innotribe. Innotribe is a SWIFT subsidiary created 'to enable collaborative innovation in financial services'ⁱⁱⁱ headed by Fabian Vandenreydt, who would soon become the executive chairman of 'Eggsplore on steroids' (Ingels quoted in Suy 2017).

Populating the hive: Firm-state coupling and the making of B-Hive

Around the time Ingels sold his company Clear2Pay, another main character in this story also made a noteworthy career move. Johan van Overtveldt – a trained economist who made his name as journalist and editor, and author of multiple popular economic books – dived into politics in 2013, captaining the *New Flemish Alliance* (N-VA) for the 2014 European elections. However, his stint in European Parliament proved short, as he became Belgian finance minister later that year. As one of his first moves, Van Overtveldt commissioned an expert study to anticipate the future of Belgian finance, which defined the shape of things to come. Published 13 January 2016, the report titled *The Future of the Belgian Financial Sector* (HLEG, 2016) articulated ten recommendations to strengthen Belgian finance and put Brussels (back) on the global map of financial centres, explicitly calling upon the government to promote Fintech:

A number of flagship institutions like Euroclear and Swift are located in Belgium, and several other Fintech startups or university spinoffs operate in Belgium. What is lacking in Belgium, however, is a culture or environment to actively stimulate the growth of Fintechs and nurture national champions beyond the initial start-up phase (HLEG, 2016: 53)

The report triggered further action by Van Overtveldt, bringing together all major players of the financial sector, including industry associations Febelfin (banks) and Assuralia (insurance) and regulators such as the National Bank of Belgium (NBB). Several working groups were created to discuss and implement the recommendations. One of the working groups focused on digital cyber risk, led by Johan Thijs, CEO of KBC. This working group called for the establishment of a government-supported collaborative platform to stimulate the growth of a Fintech ecosystem. Although discussing the future makeup of this platform with a range of relevant players, including the non-profit organization *FinTech Belgium* founded in 2015, Van Overtveldt decided that Ingels and De Waele were best equipped to take on the job, having launched Eggsplore two weeks after the publication of the report. Accordingly, firm-state coupling between Eggsplore and the federal government commenced late 2016, eventually resulting in the makeover of Eggsplore, which was relaunched as B-Hive the following year.

B-Hive is partly a continuation of Eggsplore, but also a strong broadening and deepening of the idea. Much more parties are on board now, with the government as partner, the regulator as partner, consultants on board, universities too. So we now have a very broad ecosystem (interview Cabinet Van Overtveldt 2018, *translated by authors*).

The Eggsplore makeover, informed by a larger 15 million euro government commitment to cultivate a Fintech ecosystem, led to interfirm recoupling between Eggsplore's structural partners. The legal entity undergirding their collaborative platform remained the same: a Belgian cooperative partnership with limited liability (CVBA) reminiscent of SWIFT's governance structure (Scott and Zachariadis, 2014). This setup allows for an 'open' structure in which the structural partners did no longer pay an annual fee, but instead put up 250.000 euro each as share capital, hence becoming the owners of B-Hive. In so doing, the partners agreed on a three-year commitment during which B-Hive will work towards a self-sustaining business model (if unsuccessful, the owners are expected to put up another 250.000 euro by 2020). Besides the Federal Holding and Investment Company (SPFI-FPIM), which owns sizeable chunks of the post-crisis Belgian financial sector and sits on the B-Hive governing board to oversee its 2 million direct investment, the board is exclusively comprised of financial institutions: incumbent banks, insurers and infrastructure firms. Meanwhile, the former non-financial structural partners of Eggsplore, such as McKinsey and Cresco, became 'associate partners', paying an annual fee of 75.000 euro for their partnership, without having a seat on the board (B-Hive 2017a).

I'm very excited and honoured that the Eggsplore initiative is serving as the base for the B-Hive platform. This was exactly what I envisioned when I conceived Eggsplore 18 months ago (Ingels, quoted in B-Hive 2017b)

B-Hive was launched early 2017 in London, where B-Hive signed a memorandum of understanding (MoU) with *Innovate Finance*^{iv}, the representative body of the UK Fintech sector supported by the City of London Corporation. Under the watchful eye of Van Overtveldt and CEOs of B-Hive's new owners, B-Hive effectively assumed the role of industry representative of the Belgian Fintech community. In reaching out to Fintech hubs elsewhere to streamline the cross-border flow of Fintech innovation, knowledge and people, B-Hive again leveraged Belgium's neutral image:

London is one of the most important Fintech hubs in the world and since the news of the Brexit, many European countries ... want to compete with London. That's not the purpose of B-Hive. As a country of natural born diplomats and centrally located within Europe, Brussels – Belgium wants to build close ties with London (B-Hive 2017b)

Throughout the year, B-Hive signed similar MoUs with other Fintech hubs, including Luxembourg and the Netherlands. Moreover, B-Hive opened satellite offices in Fintech centres London, New York and Tel Aviv, the latter being a leading hub in cyber security. Next to its focus on internationalization and community building to gather global Fintech intelligence, B-Hive set up a number of internal strategic programs, where variegated coalitions of B-Hive shareholders, partners and members collaboratively work on issues they collectively deem important, including cybersecurity, identity management, digital skills and standardization (see B-Hive, 2018).

Since the makeover, there has been significant growth in the uptake in startups and partners, with more than 100 startups aligned to the platform by the end of 2017, and 13 shareholding partners on the governing board, including new names such as Mastercard, Bank of New York Mellon, and German insurer Allianz (B-Hive 2018). This number has increased since, with US tech giant Oracle choosing Brussels as its European gateway early 2018, and buying into B-Hive. This proved another key moment in the cultivation of the Brussels' Fintech ecosystem. 'Adding BigTech firms to our ecosystem is an important part of our strategy to grow and expand innovation for our start-ups, scale-ups and financial service partners', according to B-Hive chairman Vandenreydt (Oracle, 2018). Furthermore, B-Hive saw a sizeable uptake in major 'associate partners', including global intermediaries like KPMG, PwC, and Baker McKenzie.

The Fin-Tech-State triangle

Having detailed the genesis of B-Hive, highlighting key moments of interfirm and state-firm coupling in the cultivation of the Brussels' Fintech ecosystem, this section reflects on the tensions and synergies in such a collaborative company, as well as the bottlenecks and paradoxes observed between the various stakeholders constituting Belgium's *Fin-Tech-State triangle* (Figure 1). Tensions in Figure 1 are related to structural roles and positions of actors in the field, and are not necessarily connected to interpersonal relations, although structural positions may impede or grease those relations (Strange 1994, Fligstein, 2002). Structural positions emerge from societal and industry expectations and rules of what the interest

of a particular party is, or ought to be. Nevertheless, all three vertices in the triangle seek to transcend these institutional roles to augment their anticipated future position. These (anticipated) win-win propositions facilitate strategic coupling.

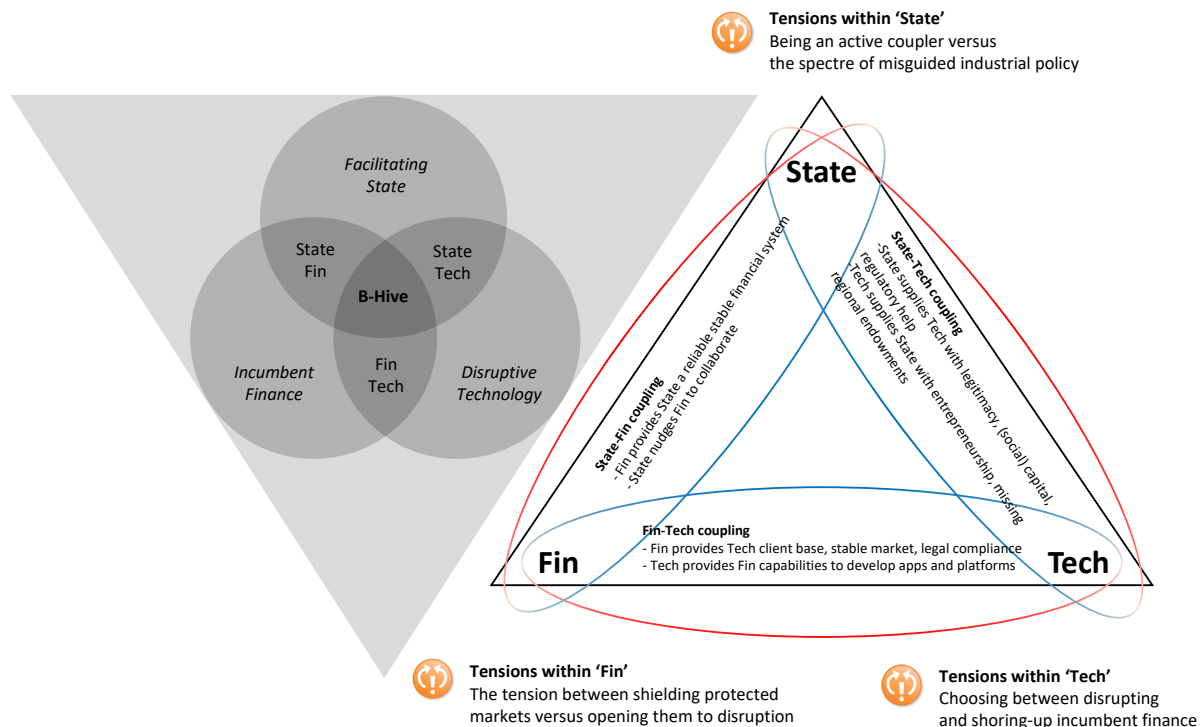


Figure 1: The Fin-Tech-State triangle

From the Fin vertice, as indicated, incumbent banks deem it crucial to collaborate with tech startups and reinvent themselves for the digital age – better still when supported by the public purse. The involvement of Euroclear and SWIFT assures that participants enjoy access to deep experience with interbank collaboration, possessing detailed knowledge over financial infrastructures and standards. As argued by an executive of one of the infrastructure firms, ‘We have digital platforming written in our DNA [...] We have been in the dematerialization of finance for fifty years’ (interview infrastructure partner, 2018). Meanwhile, law firms and management consultancies partner up with B-Hive to gather insights on Fintech and new forms of collaboration and organization, which then can be sold on to other corporate players (Bassens and Van Meeteren, 2015), whilst lubricating movement within the Fin-Tech-State triangle

through advisory work conducted within B-Hive. For startups located at the Tech vertice, meanwhile, there is a clear rationale to become a member of B-Hive.

If you want startups you need ecosystems like B-Hive. And the only people who really understand it in Belgium are B-Hive. For the Fintech industry they are excellent. There is [...more than...] marketing, they really can help you: there is money, there are clients, there are resources, there are other startups, there is political support, you gain credibility by being in there. It is crucial (interview member startup 2018, *translated by authors*)

Because of these connections and resources available within B-Hive, start- and scaleups gain traction in rolling out their Fintech solutions. For example, Cresco is considered a top notch Belgian boutique law firm to advise startups in structuring and financing their activities. For startups, establishing such connections themselves consumes time and money. As argued by Ingels (2017): ‘The best startups are those who manage to squeeze time. That is best achieved if you are part of an ecosystem’. To have a supportive government and wider set of public institutions helps accelerating the digital makeover of Brussels’ regional assets, resulting in the tripling of Eggsplora’s original budget.

Van Overtveldt and his cabinet [...] are extremely supportive of startups, they are always at B-Hive, and have two excellent people heading the Cabinet [...] I can call them whenever I want, when I need an introduction somewhere, somehow [...] Everybody in politics, at federal level, hell even in Brussels, but also in Europe – everyone in politics understands very well that we need to move towards a digital economy, and the key role played in this process by startups’ (interview member startup 2018, *translated by authors*)

For the government, represented in the State vertice, their investment is expected to generate a return for the Belgian economy, rebooting the Brussels financial centre for the needs of tomorrow, generating new jobs for the city and wider capital region. Through the coupling of Fin, Tech and the State, therefore, each of the species tied up with B-Hive anticipates a clear return. Nevertheless, collaboration does not come naturally.

We are thirteen partners in B-Hive. It was very challenging to have them to agree on a single document. It is not about the principles, but about each comma and dot that has to be correct for each partner. We sat down with about twenty legal representatives and lawyers [...] We also needed to consider different regulations, not only Belgian, but also US and UK regulation. Everyone had their own wishes (interview law firm 2017, *translated by authors*)

The reboot of Eggsplore culminating into B-Hive took three months of legal craftsmanship. The ways in which the company is setup mimics platform logics (Srnicsek 2017), with shareholding partners ‘plugging in’ on equal terms and being able to exit relatively easily. Furthermore, within B-Hive, each partner can be involved to varying degrees, and work on as many projects as they please, as is typical for digital platforms where users build their own content. Yet organizing for inter-firm collaboration can be tension-ridden.

We had to check with the competition authorities, as you have different banks, insurers and financial services providers who jointly build a platform. The aim is to create possibilities for collaboration, but this needs to occur within the legal bounds of competition rules, to make sure you are not regarded a cartel. This is not the idea behind B-Hive, but we had to check carefully (interview law firm 2017, *translated by authors*)

Digital platforms typically harbour a tendency toward monopoly. Yet in contrast to Amazon or Google, collaborative platforms like B-Hive are better viewed as oligopolies in correlative competition (Crotty, 2006), as they are characterized by *multiple* owners with converging interests around Fintech innovation, but with equally competing commercial aims and strategies. Accordingly, despite having fixed the above legal hurdles, inter-firm collaboration or coupling requires constant care within B-Hive, and collaboration on concrete financial innovations remains one of the bottlenecks. It is arguably for this reason that the institutional heritage of SWIFT and Euroclear plays an important role within B-Hive, with ex-SWIFT employees such as Vandenreydt taking on key roles to streamline the inevitable frictions amongst the banks and insurers.

Intellectual property is one of the big issues. Crucially, innovations within B-Hive are not owned by B-Hive. That model was not accepted by the members. I thought in the beginning this was a good idea. It makes initial cooperation easier (interview law firm 2017, *translated by authors*)

Incumbent players also have their own innovation programs and Fintech strategies, which superficially look alike, but all come with unique specialties reflexive of their specific markets, organizational cultures, or legacy ICT infrastructures. In contrast to Euroclear and Swift, it follows that banks and insurers buying into B-Hive have an interest to be cautious when discussing their Fintech endeavours with their partners/competitors. Accordingly, some banks are more involved in B-Hive than others, although there are also more concrete reasons for this. For example, our interviews indicate that some shareholders are concerned about ING’s relationship with Jürgen Ingels, with ING housing its incubator within Eggsplore/B-

Hive, enjoying an exposure the banks did not have, and hence did not like. Furthermore, the building housing B-Hive is owned by Ingels and ING, which the other shareholders did not want to renovate to house B-Hive's larger co-working space. As a result, B-Hive made plans to move from the outskirts of Brussels to the city centre to find a more neutral playground.

More fundamentally, although Ingels is widely appreciated as the central knowledge broker (Zook, 2004), tying all species in the ecosystem together, there equally exist some reservations about his paramount role. For example, where ING has invested millions in SmartFin Capital, the other banks have refrained from doing so, again feeding suspicions about the close ties between the bank and the venture capitalist. Outside B-Hive, meanwhile, there are concerns in the Brussels' Fintech community that the federal government is too close to Ingels, hampering the neutrality of B-Hive. For not only has the federal government invested 2 million euros in the B-Hive platform, its investment arm SFPI-FPIM also invested 5 million euros^v in SmartFin Capital, seeing Ingels setup a new subsidiary called SmartFin Ventures, of which SFPI-FPIM is 49,45 percent shareholder.^{vi} The dominant role of Ingels – acting in multiple roles as B-Hive founding partner and chief venture capitalist, whilst enjoying the ear of the finance minister – raised suspicions that the startups financed by Ingels are enjoying more exposure on the B-Hive platform than others.

The critique of the Fintechs is 'They [B-Hive, added] do not represent us, they represent the banks'. Only when SmartFin Capital is funding your startup, which is closely entwined with B-Hive, then you do enjoy exposure [...] There is some suspicion among Fintechs that if you are not close to Ingels, you will not get exposure through B-Hive [...] This critique is well known within B-Hive, they know they are perceived this way (interview Fintech entrepreneur 2018, *translated by authors*)

Interestingly, the view that B-Hive is dominated by the banks is shared by Ingels himself, criticizing their lack of innovative thinking: 'The mindset of the banks still has not changed. They do allegedly want to innovate, but it always has to go in their old way' (Ingels quoted in Michelsen and Suy 2019). It is for this very reason Ingels founded Eggsplora, to bring some disruptive entrepreneurial spirit into the financial sector. With Eggsplora's makeover into B-Hive, however, the banks gained more control over the company. Sounding somewhat frustrated, Ingels criticized the banks, arguing that 'it is not part of their DNA to allow entrepreneurs within their ranks' (ibid).

[A]t a given moment the banks, who became shareholders, asked for a banker to head it. The CEO is a fine man, but it is a banker coming from Swift, you know. That did not match with the original idea that it had to be an entrepreneur (Ingels quoted in Michelsen and Suy 2019)

Where Ingels is critical of the banks 'enclosing' entrepreneurial spirits, a similar critique can be made towards the role of the Belgian government. Although the federal government has rolled out a larger menu of policies to support the Fintech start- and scaleup scene, for example through the creation and expansion tax shelters, and initiating the creation of larger venture capital funds to keep promising scaleups in Belgium, the state accelerated the rise of B-Hive as industry representative, arguably at the expense of more 'organic' Fintech initiatives.

Via FPIM, the government sits in the governance board of B-Hive. In that way we are directly involved in the ecosystem. We feel it is important to show commitment: financially but also in terms of content, yet it should principally always remain private initiative. We do not want it to become yet another government institution (interview Cabinet Van Overtveldt 2018, *translated by authors*)

The degree of identification by the Van Overtveldt Cabinet with B-Hive is remarkable, but its representatives are quick to argue that state involvement is in the realm of investments, not subsidies, stressing that 'it is important to let the market do this' (interview Cabinet Van Overtveldt, 2018). This is where the tension between shaping the future of Fintech in Brussels, but not wanting it to fit into a preconceived notion of state support, becomes tangible. By late 2018, the government spent about half of its committed investment in Fintech, contributing to an annual budget for B-Hive that, according to some of our interviews, might prove unsustainable in the long run as 'banks eventually do not want to pay this large amount of money to disrupt themselves' (interview Fintech entrepreneur, 2018). With B-Hive, the state broadened the field of industry representatives beyond the traditional associations (Febelfin, Assuralia) – some of whom feeling somewhat sidestepped as a consequence. Nevertheless, the finance minister successfully nudged incumbent finance to embrace Fintech, with incumbents more or less reluctant going along in the hope the government will continue to 'protect their patch' in an uncertain digitizing future, for instance when translating EU legislation such as the recent European Payment Services Directive (PSD2, see Van Meeteren, 2019) into Belgian law. In fact, most incumbents happily accepted the government's nudge, having embraced B-Hive as a way to become Fintech-savvy with the aim to retain their established oligopolies. But all involved agree that the project is rife with tensions between the structural positions of Fin, Tech and State. As of writing, whether these tensions will be

successfully transcended in a highly dynamic and volatile financial and technological environment is all but certain.

Conclusions

A banker cannot transform his own sector. If you work in a bank for five years, you are indoctrinated [...] Most banks carry an inheritance of decades with them. Turning around such a mentality takes fifteen years (Ingels quoted in Michelsen and Suy 2019)

Financial geographers have long argued that the idea of financial centre competition is somewhat of a red herring from the perspective of global finance, as it operates across an archipelago of financial centres and offshore havens marked by hierarchy and complementarity (e.g. Faulconbridge, 2004; Fernandez and Hendrikse, 2020; Van Meeteren and Bassens, 2016; Wójcik et al., 2018). The result is remarkable stability amidst conjunctural fluctuations (Cassis and Wojcik, 2018; Z/Yen, 2018). Nevertheless, Cassis and Wójcik (2018) suggest that Fintech could generate new opportunities for financial centres to change this hierarchical grid, although the evidence presented is cautious. This paper developed an evolutionary economic geography perspective that gauges how a second-tier financial centre might seize the Fintech window of locational opportunity, while identifying the tensions and pitfalls inherent to that project. Our perspective, synthesized in the analytical concept of the Fin-Tech-State triangle, offers an understanding of how politico-financial *and* tech elites can act given the positionality and endowments of their respective financial centre in the global division of Fintech labour. The Fin-Tech-State triangle provides an analytical tool to explore the tensions in strategic coupling when yesteryear's dominant lead firm needs to adapt to new technology pioneered by startups.

We identified Brussels with its institutional thickness geared to correlative and collaborative incumbent behaviour as an indicator case to show Fintech's potential. Brussels provides the conditions to cultivate, leverage and reboot a specific niche – related to its legacy of neutrality, collaborative diplomacy and longstanding experience in financial plumbing – in the global map of financial centres. Our findings show that Brussels' current Fintech connections reaffirm yesteryear's financial centre hierarchy with links to London, New York and Singapore, but additionally reaches out to other niche players such as Amsterdam, Berlin, and Tel Aviv. Zooming in on local dynamics we find that Brussels' entrepreneurial ecosystem is generative of the kind of startups that could help incumbent finance to develop capabilities to retain pole position in the digital age. There is potential for collaborations that help startups gain access to banks' established client base and knowledge of due diligence in the highly regulated EU financial sector

(Hendrikse et al., 2018). Such a symbiosis, the study affirmed, is facilitated by acts of strategic coupling by entrepreneurial political elites. While Fin and Tech may have much to gain from cross-fertilization as the technological conjuncture advances, both are clearly marked by different organizational cultures. B-Hive is a coalition of transnational Tech-for-Fin entrepreneurs and the state personified by the finance minister that actively couples and mediates between incumbents and startups. The entrepreneurial state (Mazzucato, 2011) uses public funds to underwrite the risks of innovation and stimulate the anchoring of Fintech innovations in the confines of a particular platform. In Belgium, like elsewhere, venture capital plays a role as investor, agenda setter and knowledge broker (Zook, 2004). Through nudging, financial institutions are encouraged by the state to participate while startups are actively supported in gaining access and knowledge about what in the EU are still largely shielded markets, underlining the relevance of close ties between political and financial elites for strategic coupling (cf. Kleibert, 2014).

Our Fin-Tech-State analysis indicates that despite the focus on technologically-induced change, the outcomes might be in favour of yesteryear's lead firms. That is, incumbent banks and infrastructure firms who have traditionally used 'neutral' Brussels to roll-out their business. In our case, private investments are significant but also parochial, mostly concerned with anchoring Fintech in Belgium. The state-sponsored B-Hive initiative is central as it encloses the selection environment of incumbents and a range of Fintech startups. This enclosure draws a clear boundary instrumental to arbitrate how the future spoils of Fintech will be shared, carrying similarities with platformization strategies in other sectors. B-Hive is open to all, pending on a buy-in, yet in practice internal tensions between Fin, Tech and State erects barriers, potentially problematizing the dearly desired open cross-sectoral 'Digital Belgium' industrial policy.^{vii} Furthermore, although political-economic elites have mobilized Brussels' institutional endowments to seize the Fintech window of locational opportunity, it is too early to judge whether they will prove successful. Recent developments underline the volatility of that assessment. A new B-Hive shareholder is the Qatar Financial Centre (QFC, 2018), and although it has been communicated that B-Hive will assist QFC in digitizing its financial centre, it might also suggest a need for additional capital. Another ripple in the pond is Ingels' critical assessment: although he notes that changing the mentality of the banks takes time, he does not see a thriving Fintech ecosystem emerge in Brussels anytime soon: '[W]e have blown our chances. We held all the cards, because we had quite a few big players, like Swift, ... But this has made us take success for granted' (Ingels quoted in Michelsen and Suy, 2019). His assessment underlines the complexities of agency when seizing a window of opportunity, especially if deeply entrenched practices stimulate cognitive lock-in (Grabher, 1993: 262-263) in a rapidly transforming industry.

Where the Brussels' ecosystem is dominated by big banks and infrastructure players, the case studies in Cassis and Wójcik (2018) indicate that this balance of power is very different elsewhere. The Brussels start-up scene itself is diverse, but increasingly cultivated around one collaborative platform. The implication is that it is easier to enclose potential disruptions for incumbents, but also that the selection environment risks monoculture as incumbents tap into similar innovation environments. While universal banks are key in many financial centres, the more diverse range of functions in larger centres such as London, Frankfurt, or Paris makes it harder for universals to dominate the ecosystem. Larger and more diversified centres operate in different markets which may have their own startup, incubator and accelerator scenes. There will be contextual differences and traditions in how the state might mediate, setting up incentives structures and installing regulatory sandboxes which may cater to the needs of Fin or Tech in a preferential way. Contexts with a stronger venture capital tradition could embed Fintech innovation in a more global investment landscape, nurturing more diverse and potentially more resilient selection environments. In newer hubs, where incumbent positions are less strong, there may be windows of opportunity for Bigtech with financial firepower to move in (e.g. Facebook in India, see CNBC, 2018) and establish parallel markets based on expanding tech platforms. That said, hubs lacking incumbent dominance also lack the benefits of strategic collaboration that ensure a steady market for Fintech innovation, making scaling-up more difficult. Thus far the rise of Fintech has not heralded a full-blown financial disruption, but rather an ongoing recalibration of the merged field of (Big) Fin and (Big) Tech around incumbent-dominated ecosystems strategically enclosing Fintech startups (cf. Hendrikse et al., 2018). In our view, our in-depth examination of Brussels could spark future comparative approaches – for instance by means of a panel study across financial centres old and new – to further contextualize the tensions around the strategic coupling of Fin, Tech, and the State and explain divergent Fintech development trajectories.

To end, our evolutionary economic-financial geography of Brussels shows how a wide variety of regional endowments determine the future geographies of financial centres. Recent theorizing in economic geography provides insight in where the gains of the continuing merger between Fin and Tech might land. Our Fin-Tech-State triangle offers a helpful tool to analyse how sector coalescence between Fin and Tech is moderated by the State furthering its own interest across financial centres. For despite the ongoing surge in digitization, and notwithstanding the threat of Bigtech to established finance, the emerging geography of Fintech is likely to remain anchored in a global network of financial centres in which new specializations and niches specific to Fintech will be integrated.

Acknowledgements

We would like to thank editor Henry Yeung and three anonymous referees for their constructive engagement with our work. We also thank Allan Watson for useful feedback on an earlier version of the paper. We thank Desiree Fields and Chris Muellerleile for hosting our paper in a dedicated Fintech session at the 2017 RGS-IBG Annual Conference (London). Similar thanks to Joe Blankenship and Matthew Zook who hosted our paper in a dedicated series of sessions at the 2018 Annual Conference of the American Association of Geographers (New Orleans), and to Eric Knight and Dariusz Wójcik for hosting our paper at the 2018 Global Conference in Economic Geography (Cologne).

Funding

Research for this article was supported through Innoviris grant BRGEOZ289, Research Foundation - Flanders (FWO) G019116N, and ESRC grant ES/S010416/1.

References

- Aalbers MB (2015) Financial geography: Introduction to the Virtual Issue. *Transactions of the Institute of British Geographers*, 40(2): 300-305.
- Amin A and Thrift NJ (1992) Neo-Marshallian nodes in global networks. *International Journal of Urban and Regional Research* 16(4): 571-587.
- Amin A and Thrift NJ (1994) (eds) *Globalization, Institutions and Regional Development in Europe*. Oxford: Oxford University Press.
- Asheim BT, Boschma RA and Cooke P (2011a) Constructing regional advantage: Platform policies based on related variety and differentiated knowledge bases. *Regional Studies*. 45(7): 893-904.
- Asheim BT, Smith HL and Oughton C (2011b) Regional innovation systems: Theory, empirics and policy. *Regional Studies* 45(7): 875-891.
- Auerswald PE and Dani L (2018) Economic ecosystems. In: Clark, GL Feldman M, Gertler M and Wójcik, D. (Eds.) *The New Oxford Handbook of Economic Geography*. Oxford: Oxford University Press, pp. 245-269.
- B-Hive (2017a) *General presentation B-Hive*. Mail version. 21 March. Not available online.
- B-Hive (2017b) *From Eggsplore to B-Hive*. 11 January. Available online: [<https://b-hive.eu/news-full/fromeggsploretobhive>]. Last accessed 28 May 2019.
- B-Hive (2018) *2017: Year in Review*. Not available online.
- Barnes T, Peck J, Sheppard E and Tickell A (2007) Methods matter: Transformations in economic geography. In: Tickell A, Sheppard E, Peck J, and Barnes T (eds) *Politics and Practice in Economic Geography*. Los Angeles: Sage, pp. 1-24.
- Bassens D and Van Meeteren M (2015) World cities under conditions of financialized globalization: Towards an augmented world city hypothesis. *Progress in Human Geography* 39(6): 752-775.
- Baumeister C (2015) *Unternehmensübergreifende Finanzierung in Wertschöpfungsnetzwerken: Potenziale und Grenzen am Beispiel der Automobilindustrie in Deutschland und in Brasilien*. PhD thesis. Muenster: Lit Verlag.
- Boschma RA (1997) New industries and windows of locational opportunity: A long-term analysis of Belgium. *Erdkunde* 51(1): 12-22.
- Cassis Y and Wójcik D (eds) (2018) *International Financial Centres after the Global Financial Crisis and Brexit*. Oxford: Oxford University Press.

- Clark GL (1998) Stylized facts and close dialogue: Methodology in economic geography. *Annals of the Association of American Geographers* 88(1): 73–87.
- Clark GL (2007) Beyond close dialogue: Economic geography as if it matters. In: Tickell A, Sheppard E, Peck J, and Barnes T (eds) *Politics and Practice in Economic Geography*. Los Angeles: Sage, pp. 187–198.
- CNBC (2018) *Facebook will reportedly use cryptocurrency for transferring money through WhatsApp*. Available at: [<https://www.cnbc.com/2018/12/21/facebook-reportedly-working-on-a-cryptocurrency-for-transferring-money-through-whatsapp.html>]. Last accessed 28 May 2019.
- Coe NM, Hess M and Yeung H.W-C, Dicken P and Henderson J (2004) “Globalizing” regional development: A global production networks perspective. *Transactions of the Institute of British Geographers* NS29(4): 468–484.
- Coe NM, Lai KPY and Wójcik D (2014) Integrating finance into global production networks. *Regional Studies* 48(5): 761–777.
- Coe NM and Yeung HW-C. (2015) *Global Production Networks: Theorizing Economic Development in an Interconnected World*. Oxford: Oxford University Press
- Crotty J (2008) If financial market competition is intense, why are financial firm profits so high? Reflections on the current “Golden Age” of finance. *Competition and Change* 12(2): 167–183.
- Daniels PW (1985) The geography of services. *Progress in Human Geography* 9(3): 443–451.
- Davis JS (1920) World Currency and Banking: The First Brussels Financial Conference. *The Review of Economics and Statistics* 2(12): 349–360.
- Deloitte (2017) *A Tale of 44 Cities. Connecting Global FinTech: Interim Hub Review 2017*. Available online: [<https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Innovation/deloitte-uk-connecting-global-fintech-hub-federation-innotribe-innovate-finance.pdf>]. Last accessed: 28 May 2019
- Denzin NK (1970) *The Research Act: A Theoretical Introduction to Sociological Methods*. London: Butterworth.
- De Tijd (2018) *Silicon Belgium, de Belgische techstarters in kaart*. Available online: [<https://multimedia.tijd.be/techbelgie/>]. Last accessed: 28 May 2019
- Dicken P (2011) *Global Shift* (6th edition). New York/ London: The Guilford Press.
- Dörny S (2015) Strategic nodes in investment fund global production networks: The example of the financial centre Luxembourg. *Journal of Economic Geography* 15(4): 797–814.
- Dörny S (2016) The geographies of industrialised finance: Probing the global production networks of asset management. *Geography Compass* 10(1): 3–14.
- Dörny S, Robinson G and Derudder B (2018) There Is No Alternative: SWIFT as Infrastructure Intermediary in Global Financial Markets. *Financial Geography Working Paper* 22, http://www.fingeo.net/wordpress/wp-content/uploads/2019/01/FinGeo-WP_Robinson_Swift-GPN_GR2.pdf.
- Eggsplore (2016a) Eggsplore launches its Brussels hub and announces its first partners. Press release. 29 January. Available online: [<https://b-hive.eu/news-full/2016/7/27/eggsplore-launches-its-brussels-hub-and-announces-its-first-partners>]. Last accessed 28 May 2019.
- Eggsplore (2016b) Eggsplore receives regional and international recognition. 9 September. Available online: [<https://b-hive.eu/news-full/2016/9/9/eggsplore-receives-regional-and-international-recognition>]. Last accessed 28 May 2019.
- Elmhorn C (1998) Brussels in the European economic space: The emergence of a world city? *Bulletin De La Société Belge d'Etudes Géographiques / Tijdschrift Van De Belgische Vereniging Voor Aardrijkskundige Studies* 67(1): 79–101.
- Elmhorn C (2001) *Brussels: A Reflexive World City*. Stockholm: Almqvist & Wiksell International

- Faulconbridge JR (2004) London and Frankfurt in Europe's evolving financial centre network. *Area* 36(3): 235–244.
- Faulconbridge JR, Engelen E, Hoyler M and Beaverstock JV (2007) Analysing the changing landscape of European financial centres: The role of financial products and the case of Amsterdam. *Growth and Change* 38(2): 279–303.
- Feng H, Froud J, Johal S, Haslam C and Williams K (2001) A new business model? The capital market and the new economy. *Economy and Society* 30(4): 467–503.
- Fernandez R (2011) *Explaining the decline of the Amsterdam Financial Centre*. PhD thesis: University of Amsterdam.
- Fernandez R and Hendrikse R (2015) *Rich Corporations, Poor Societies: The Financialisation of Apple*. SOMO, Amsterdam. Available online: [<https://www.somo.nl/wp-content/uploads/2015/10/Rich-corporations-poor-societies.pdf>]. Last accessed 28 May 2019.
- Fernandez R and Hendrikse R (2020) Offshore finance. In Mader P, Mertens D and Van der Zwan N (eds) *The International Handbook of Financialization*. London: Routledge.
- Fligstein N (2002) *The Architecture of Markets: An Economic Sociology of Twenty-First-Century Capitalist Societies*. Princeton, NJ: Princeton University Press.
- Flögel F and Zademach HM (2017) Bank branches as places of knowledge creation: Conceptual considerations and empirical findings at the micro-geographical scale. *Erdkunde* 71(4): 301–312.
- Frenken K and Boschma RA (2007) A theoretical framework for evolutionary economic geography: Industrial dynamics and urban growth as a branching process. *Journal of Economic Geography* 7(5): 635–649.
- Froud J, Johal S, Leaver A and Williams K (2006) *Financialization and Strategy: Narrative and Numbers*. Abingdon and New York: Routledge.
- Gerring J (2006) *Case Study Research: Principles and Practices*. Cambridge: Cambridge University Press.
- Grabher G (1993) The weakness of strong ties: The lock-in of regional development in the Ruhr area. In Grabher G (ed) *The Embedded Firm*. London: Routledge, pp. 255–277.
- Harris M (1979) *Cultural Materialism: The Struggle for a Science of Culture*. New York: Random House.
- Hendrikse R, Bassens D and Van Meeteren M (2018). The Appleization of finance: Charting incumbent finance's embrace of FinTech. *Finance and Society* 4(2): 159–180.
- HLEG (2016) *The Future of the Belgian Financial Sector*. Report of the High Level Expert Group established on the initiative of the Minister of Finance of Belgium. 13 January. No longer available online.
- Ingels J (2017) *The Law of Time Reduction*. LinkedIn. 27 June. Available online: [<https://www.linkedin.com/pulse/law-time-reduction-jurgen-ingels/>]. Last accessed 28 May 2019.
- Kindleberger CP (1974) *The Formation of Financial Centers: A Study in Comparative Economic History*. Princeton: International Finance Section, Department of Economics, Princeton University.
- Kleibert JM (2014) Strategic coupling in “next wave cities”: Local institutional actors and the offshore service sector in the Philippines. *Singapore Journal of Tropical Geography* 35(2): 245–260.
- Lambooy JG and Boschma RA (2001) Evolutionary economics and regional policy. *The Annals of Regional Science* 35(1): 113–131.
- Langley P and Leyshon A (2017) Platform capitalism: The intermediation and capitalisation of digital economic circulation. *Finance and Society* 3(1): 11–31.
- Leyshon A (1995) Geographies of money and finance I. *Progress in Human Geography* 19(4), 531–543.
- Leyshon A, Burton D, Knights D, Alferoff C and Signoretta, P. (2004) Towards an ecology of retail financial services: understanding the persistence of door-to-door credit and insurance providers. *Environment and Planning A* 36(4): 625–645.
- Mackinnon D (2012) Beyond strategic coupling: Reassessing the firm-region nexus in global production networks. *Journal of Economic Geography* 12: 227–245.

- Mackinnon D, Dawley S, Pike A and Cumbers A (2019) Rethinking path creation: A geographical political economy approach. *Economic Geography* 95(2): 113–135.
- Mazzucato, M. (2011) The entrepreneurial state. *Soundings* 49(49): 131-142.
- Michelsen T and Suy P (2019) 'De echte Tsunami moet nog komen voor de banken'. *De Tijd*. 7 September. Available online: [<https://www.tijd.be/ondernemen/technologie/de-echte-tsunami-moet-nog-komen-voor-de-banken/10160355.html>]. Last accessed 12 September 2019.
- Mommen A (1994) *The Belgian Economy in the Twentieth Century*. London and New York: Routledge.
- Morgan K (1997) The regional animateur: Taking stock of the Welsh Development Agency. *Regional & Federal Studies* 7(2): 70–94.
- Neffke F, Henning M and Boschma RA (2011) How do regions diversify over time? Industry relatedness and the development of new growth paths in regions. *Economic Geography* 87(3): 237–265.
- Neffke F, Hartog M, Boschma RA and Henning M (2018) Agents of structural change: The role of firms and entrepreneurs in regional diversification. *Economic Geography* 94(1): 23–48.
- Norman P (2007) *Plumbers and Visionaries: Securities Settlement and Europe's Financial Market*. Chichester: John Wiley and Sons.
- Oracle (2018) *Bank and Insurance Innovators to Benefit from European Oracle Fintech Innovation Program with B-Hive Europe*. Press Release. 28 June. Available online: [<https://www.oracle.com/corporate/pressrelease/oracle-fintech-innovation-program-062818.html>]. Last accessed 28 May 2019.
- Perez C (2003) *Technological Revolutions and Financial Capital*. Cheltenham: Edward Elgar.
- Pike A and Pollard JS (2010) Economic geographies of financialization. *Economic Geography* 86(1): 29–51.
- QFC (2018) We are partnering up with B-Hive to develop Fintech Industry in Qatar. *Qatar Financial Centre*. 28 October. Available online: [<http://www.qfc.qa/en/MediaCenter/News/Pages/bhive-fintech-partner.aspx>]. Last accessed 28 May 2019.
- Schamp EW (2018) *Frankfurt: A tale of resilience in Cities*. In: Cassis Y and Wójcik D (eds) (2018) *International Financial Centres after the Global Financial Crisis and Brexit*. Oxford: Oxford University Press, pp. 83-105.
- Scott SV and Zachariadis M (2014) *The Society for Worldwide Interbank Financial Telecommunication (SWIFT)*. London and New York: Routledge.
- Siepmann HA (1920) The International Financial Conference in Brussels. *The Economic Journal* 30(120): 436-459.
- Srnicek N (2017) *Platform Capitalism*. Cambridge: Polity Press.
- Stam E and Spigel B (2018). Entrepreneurial ecosystems. In: Blackburn R, De Clercq D and Heinonen J. (eds) *The Sage Handbook of Small Business and Entrepreneurship*. London: SAGE, 407-422.
- Storper M and Walker R (1989) *The Capitalist Imperative: Territory, Technology and Industrial Growth*. New York: Basil Blackwell.
- Strange S (1994) *States and Markets* (2nd edition). New York: Bloomsbury.
- Suy P (2017) Overheid pompt miljoenen in FinTech. *De Tijd*. 10 January. Available online: [<https://www.tijd.be/ondernemen/financiele-diensten-verzekeringen/overheid-pompt-miljoenen-in-fintech/9850090.html>]. Last accessed: 28 May 2019
- Van Meeteren M and Bassens D (2016) World cities and the uneven geographies of financialization: Unveiling stratification and hierarchy in the world city archipelago. *International Journal of Urban and Regional Research* 40(1): 62–81.
- Van Meeteren M (2019) European Union financial integration, a geography perspective. *Geography Compass* 13(4): e12424.

- Waiengnier M, Bassens D, Hendrikse R and Van Hamme G (forthcoming) Metropolitan geographies of advanced producer services: Centrality and concentration in Brussels. *Tijdschrift voor Economische en Sociale Geografie*.
- Wilkinson TM (2013) Nudging and manipulation. *Political Studies* 61: 341–355.
- Wójcik D and Cojoianu TF (2018) Conclusions: A global overview from a geographical perspective. . In: Cassis Y and Wójcik D (eds)(2018) *International Financial Centres after the Global Financial Crisis and Brexit*. Oxford: Oxford University Press, pp. 207-232.
- Wójcik D, Pažitka V, Knight ERW and O'Neill P (2018) Investment banking centres since the global financial crisis: New typology, ranking and trends. *Environment and Planning A* 68(1): 0308518X1879770–18.
- Yeung HW-C (2003) Practicing new economic geographies: A methodological examination. *Annals of the Association of American Geographers* 93(2): 442–462.
- Yeung HW-C (2016) *Strategic Coupling. East Asian Industrial transformation in the New Global Economy*. Ithaca: Cornell University Press.
- Yeung HW-C. (2019). Rethinking mechanism and process in the geographical analysis of uneven development. *Dialogues in Human Geography*. <http://doi.org/10.1177/2043820619861861>
- Zademach H-M and Musil R (2014) Global integration along historic pathways: Vienna and Munich in the changing financial geography of Europe. *European Urban and Regional Studies* 21(4): 463–483.
- Zook MA (2004) The knowledge brokers: venture capitalists, tacit knowledge and regional development. *International Journal of Urban and Regional Research* 28(3) 621-641.
- Z/Yen (2018) The Global Financial Sectors Index 24. Available online: [https://www.zyen.com/media/documents/GFCI_24_final_Report_7kGxEKS.pdf] Last accessed: 28 May 2019

List of anonymized interviewees cited in text:

Cabinet Van Overtveldt, interview conducted on 26 April 2018, Brussels, Belgium.

Eggsplore representative, interview conducted on 17 June 2016, Diegem, Belgium.

Fintech entrepreneur, interview conducted on 11 June 2018, Brussels, Belgium.

Infrastructure partner, interview conducted on 13 June 2018, Brussels, Belgium.

Member startup, interview conducted on 9 March 2018, Schaarbeek, Belgium.

Law firm, interview conducted on 15 November 2017, Antwerp, Belgium.

ⁱ See [<http://smartfinvc.com/ing-fintech-village-de-eerste-fintech-specifieke-accelerator-in-belgie/>], last visited May 28 2019.

ⁱⁱ See AXA press release: [<https://press.axa.be/axa-belgium-partnership-met-eggsplore/>], last visited May 28 2019.

ⁱⁱⁱ See [<https://innotribe.com/about/>], last visited May 28 2019.

^{iv} See [<https://www.innovatefinance.com/>], last visited May 28 2019.

^v See [<http://www.madeinmechelen.be/nieuws/jurgen-ingels-richt-nieuw-fintech-fonds-op/>], last visited May 28 2019.

^{vi} See [<http://www.sfpi-fpim.be/en/portfolio-its-own-behalf>], last visited May 28 2019.

^{vii} See [<http://digitalbelgium.be/en/digital-belgium/>], last visited May 28 2019.