

Theme issue: open innovation and ‘catch-up’: globalist or localist?

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ABSTRACT

Abstract:

This collection on ‘Open Innovation and Catch-Up: Globalist or Localist?’ is introduced with an appreciation of three key transitions for spatial development today, viewed through seven comparative case analyses from Asia, the US and Europe. ‘Institutional path dependence’ is the first issue. The second has been ‘hyperglobalization’ now under moderate challenge from ‘de-globalization’. Third, is the process of ‘open innovation’ that accompanied the ‘globalist’ turn, nowadays a slur of extreme populists. A ‘pattern recognition’ exercise follows to discern types of path dependence, agency (‘dark’ and ‘lighter’) and institutional co-evolution, then the Theme Issue contributions are summarized.

KEYWORDS: *Hyperglobalization, de-globalization, institutional-coevolution, path dependence, agency, open innovation*

Introduction

This Theme Issue explores three key transitions underpinning urban and regional development processes occurring in their comparative international research settings. The processes in question bring into sharp focus three possible shifts in these trajectories observed through the lenses of seven contributions drawn from urban and regional settings in Europe, the USA and Asia. For the last-named, the domicile of many of the contributors being South Korea, changes there are highlighted but so are those occurring in nearby China. On the face of it the typical regulatory spatial economy regimes in the three continents would seem likely to have borne the main force of transition of late. Accordingly, this ‘institutional path dependence’ is the first

issue prioritized in the content highlighted below. South Korea has for a long time been a classic case of ‘catch-up’ by a ‘developmental state’ animating modernization of industrial, environmental and social policies to a large degree. In the 1950s, it was the world’s poorest country following its proxy Civil War; today, it has risen to 24 in the OECD rankings of GDP for 2021. After a brief interlude of state capitalist experimentation at the turn of the millennium, China has reverted to its ‘indicative’ developmental model displaying ‘authoritarian-capitalist’ characteristics towards corporate practices, socio-cultural ‘assimilation’ and indicative environmental and healthcare control. Europe, especially the EU, continues to build on its state ‘interventionist’ traditions, albeit moderated by strong regulatory rules over market competition for goods, labour mobility, capital mobility and trade in services. The other comparators, the US and UK, are liberal market economies (Hall and Soskice [2001](#)) with apparently little overt indicative planning, but often quite covert hegemonic, political influence upon social, economic and environmental practices.

A second transition enveloping them all in different ways was the post-Cold War tendency since around 1989–1990 for the acceleration to ‘hyperglobalization’ (Rodrik [2021](#)). This occurred under the influence of the World Trade Organization that facilitated the liberalization of world trade rules. This coincided, in Europe, with the establishment of the Single Market. It was ‘projected’ in 2016 by acknowledged UK leading think-[tank](#), the National Institute for Economic and Social Research, to have likely increased the GDP of EU members by 9% and reduced that of soon-to-be ex-member the UK by up over 5% following Brexit (Ebell and Warren [2016](#)). By 2022 the UK’s GDP deficit was measured at 5.2%. It is well-known that a variety of political and economic convulsions have afflicted the UK since its 2016 plebiscite led to departure from the EU. Among the forces epitomizing its fragility (Taleb [2012](#)) have been policies of enforced: austerity, otiose populism, ‘moron risk premium’ libertarianism (Krugman [2022](#)) and back to austerity. The US was afflicted by the ‘otiose populism’ of the Trump administration from 2016 to 2020 which culminated in insurrection by his supporters who invaded America’s seat of democracy in the US Capitol. So clearly, ‘globalistion’, caused major disruptions in at least two of our sampling frame, but particularly in what had not hitherto been seen as ‘populist’ liberal democracies. By this time of [writing](#), the term ‘globalist’ itself had become a ‘meme’ of the right-wing neo-fascist minority in both countries. Thus – more soberly – the following analysis of globalism-populism mechanisms is instructive:

I identify two each on the demand and supply sides: (a) a direct demand-side effect from economic dislocation to demands for anti-elite, redistributive policies; (b) an indirect demand-side effect through the amplification of cultural and identity divisions; (c) a supply-side effect through the adoption by political candidates of more populist platforms in response to economic shocks; and (d) another supply-side effect through the adoption by political candidates of platforms that deliberately inflame cultural and identity tensions in [order](#) to shift voters’ attention away from economic issues. (Rodrik [2021](#))

‘Globalist’ slurs are recent, even in the US, though would fit best into category (a) but with varying overtones also in the political-cultural categories. This is made clearer by a sketch of its usage by [English](#) Brexiteer-populist Nigel Farage (Kirkup [2022](#)). ‘Globalist’ has two ‘optics’; first is the populist notion of governmental politicians whose prime loyalty is to global institutions and ideas rather than to their community or nation. Then, his second and broader optic plays with a notion advanced first by the UK’s Theresa May in her inaugural speech of 2016 having been elected Prime Minister after authoring, as Home Secretary, the UK

government's 'Hostile Environment Policy' to deter illegal immigrants. Her abiding xenophobia was captured in the following:

.....today, too many people in positions of power behave as though they have more in common with international elites than with the people down the road, the people they employ, the people they pass in the street. But if you believe you're a citizen of the world, you're a citizen of nowhere. You don't understand what the very word 'citizenship' means. (May 2016)

This discourse occurred in the context of two books that acted as an accompaniment and utopian response to this kind of 'Little Englander' mentality. The accompaniment was Goodhart's (2017) 'The [Road](#) to Somewhere' which agreed with May's xenophobia, arguing that populism lay in the neglect of rooted 'Somewhere' communities by 'Anywhere' cosmopolitan elites, especially in the political sphere. May's speech also provided the stimulus for a second book – by Marsili and Milanese (2019): a critical look at the weakness of citizenship under the neoliberal [order](#), which also confects 'citizens of nowhere'. The answer is to create the missing ingredient of 'agency' against international elites by the device of 'transnational citizenship'. Sadly, with all due deference to the Socialist International of yesteryear, the recipe sounds like a rather lame and probably misinformed analysis of the 'if you can't beat them, join them' platitude.

Finally, the third dimension of 'process' provoked by these papers is their core interest of 'open innovation'. This is another complex concept, taken in one of its possibly also misinformed meanings, as open thus 'free' knowledge of the kind characterized by Linux, the global community that designs 'Open Source' software. As an interpretation, this is acceptable while, as an influence upon software use in the institutions of modern society it registers 2.81% against Microsoft's 74.99% (Statcounter [2022](#)). In fact, in his pioneering book on the subject, (Chesbrough [2003](#)) formerly employed as a senior IBM executive, made it clear that 'open innovation' operated in contrast to 'closed innovation' as practised in central research labs such as IBM's, which nevertheless would expect contractual transactions to be paid for whether inwardly or outwardly directed. This was intellectually interesting because hitherto the results of internal corporate R&D were skirted around like the crown jewels with overlapping patents to protect valuable intellectual property (IP). Such knowledge concentrations were also important geographical crown jewels since they often existed in remote rural or small campus towns rather than always being in central cities where small research laboratories were deterred by high real estate or rental costs. Universities were being perceived as cheaper sources of esoteric technical knowledge than government research laboratories or in-[house](#) projects, so a market had opened up for small research or innovation start-ups often, but not exclusively, near [university](#) campuses.

Chesbrough's ([2003](#)) data showed a remarkable growth of corporate outsourcing contracts to such smaller research labs in the years preceding his publication. Research activities stopped emulating the crown jewels and became somewhat closer in price to Swarovski rhinestones as they grew into knowledge supply networks. They were, for a time, key components of regional innovation systems. But in the era of 'hyperglobalization' as Rodrik calls it, much of even the R&D element of innovative supplier networks became 'offshored' such that whole strings of division of labour cascades were to be found, like Apple's approximately 200 sub-contractors dotted around China (including Hong Kong) – 51; Taiwan – 48; Japan – 34; USA – 32; Vietnam – 21; Thailand – 15; India – 9 (NIKKEIAsia [2020](#)). These data fuelled the Trump and other

administrations to initiate a modest ‘de-globalization’ measure that halted elements of ‘hyperglobalization. This was particularly pronounced in defence electronics causing problems in the UK as well as the USA and – later – Canada, Australia and New Zealand (members of the 5 Eyes ‘spy club’) concerning Huawei and other telecoms, digital and cyber businesses from buying or selling in those countries. Later, supplier networks were severely disrupted by Covid-19 restrictions and infrastructural effects, upon global automotive manufacturing and assembly. Later still, global food production networks were interrupted by feedstock shortages caused by Russia’s invasion of Ukraine.

Thus a period of ‘de-globalization’ has begun to be chronicled – enveloped somewhat by the populist backlash in the West to earlier deindustrialization and offshoring of manufacturing capacity to cheaper labour zones such as China’s ‘world factory’. The extent to which any de-globalization effects have become pronounced in the open innovation that has been practised in the studies that follow is hard to determine because of sectoral variety – some focus on low value-adding like hospitality, other cases higher value-adding, such as automotive or biopharmaceuticals. It may be that de-globalization will be confined more to strategic security sectors, but the inflationary effects upon energy and food caused by war give pause for thought. In a study of ICT de-globalization after the 2007–2008 Financial Crash, Antras ([2020](#)) concluded that while shocks to the world economy were likely to lead to significant changes in the [geography](#) of global production it would only be so if such shocks were large and perceived to be persistent.

Types of path dependence, agency and institutional context

As an interpretative bridge to the focal contributions presented in this Theme Issue we essay a modest exercise in ‘pattern recognition’. By ‘pattern recognition’ we aim to reveal key underlying structural lineaments that repeat across diverse cases of interest. These can be inferred, where existing, by observation and interpretation, but their absence can also be registered. An example is ‘rain fell because the grass is wet’. More appositely, a ‘green jurisdiction’ may be inferred from the absence of plastic food waste on their beaches. Either they benefit from (possibly volunteer) litter patrols, or they have a paid plastic waste disposal policy. Alternatively, they have regulated that the polluter pays a ‘wide’ or ‘narrow’ levy. The ‘wide’ or indirect levy goes into the general jurisdictional income; the ‘narrow’ or direct levy is ‘hypothecated’ to pay for the waste disposal. The reverse inference would be that ‘market failure’ is allowed to prevail by ignoring the pollution. Path dependence may, further, be inferred by inspection of the nature and type of waste. It may be seen to have ancient provenance or the opposite, implying some relatively recent path deviation or even reversal where waste is absent. These observations could then inform judgements about the co-operative (commons) or egotistic (unregulated) governance posture or even institutional tradition of the jurisdiction. This may sound legalistic, but it is not confined to pollution issues. Pattern recognition can work well where ‘dark’ versus ‘light’ traits are observable in, for example, the [psychology](#) of ‘entrepreneurship’, ‘public service’ or any number of socio-political or economic settings. International comparative research enlightened the origins of the noted ‘varieties of capitalism’ thesis (Hall and Soskice [2001](#)) which arose from structured comparisons and contrasts between economic regimes, as to a considerable extent did discoveries about institutional ‘co-evolution’ (Murmah [2003](#)) and in much RIS research (Cooke, Heidenreich, and Braczyk [2004](#)).

Clearly, path dependence is a congeries of causalities, which involve ‘change agency’ as well as its ‘blocking agency’ counterpart or ‘maintenance’ form (Tödtling, Trippl, and Desch [2022](#)). A second element in pattern recognition of transformative versus recalcitrant postures towards change, hinted at by the preceding authors, is recognition of the ‘light’ versus ‘dark’ motivation underlying either dominant trait. Thus RIS studies ‘depart from the assumption that innovation is always positive, ignoring that it may also have a dark side’ (Tödtling, Trippl, and Desch [2022](#)). Malign or benign tropes may emanate from ‘destructive creation’ according to Soete ([2012](#)): ‘... Thus Luc Soete ([2012](#)) argued that innovation now warranted the epithet “destructive creation” for its promotion of inequality, lessening of overall welfare and reduction in productive growth’ (Cooke [2019](#)). To explore this a little further means analysis of possible motivations.

While economic geographers have thought elaborately about descriptions of possible ‘pathways’ like path ‘extension’ by agglomeration augmented by foreign direct investment (FDI) or path ‘deviation’ occasioned by ‘spinoff’ activity, which, Boschma ([2017](#)) asserted also only ‘extends’ the original ‘path’ by emulative ‘learning’ of parental routines which promote replicative entrepreneurship. But can, for example, a risk financier emanating from a semiconductor firm (e.g. Gene Kleiner, founder at nearby Palo Alto, of venture capitalist KPCB, after leaving Fairchild Semiconductor at [Mountain View](#)) be considered strictly ‘path dependent’ when financial skills or routines are so different from electronics? Accordingly, such mechanisms may possibly have been over-thought. Thus Isaksen and Jakobsen ([2017](#)) say ‘spinoff’ activity does not ‘extend’ but only ‘renews’ pathways by growth of entirely new industries (à la Kleiner). The latter are also clear these are often created from scratch based on results from R&D activities or imported knowledge (possibly FDI). It can be that a sub-conscious preference for path ‘creation’ over path ‘renewal’ applies. This can be inferred from additional analysis – of two path ‘creation’ micro-processes: first, local spinoff firms, or translocation of external firms in industry new to a region; or firm formation by existing local firms in industry new to the region. So, FDI seems to be an analytical deflection point just as path-extending ‘spinoff’ versus path renewing ‘spinoff’ activity seems another dilemma suggesting evolutionists are comfortable with an ‘anything goes’ ontology.

What, by contrast, is of interest here, notably in relation to the described empirics of more or less successful ‘catch-up’ is whether and in what ways such processes using advanced, mostly imported knowledge – ‘open innovation’ – got conditioned by traditional, established path dependences of their dominant economic, institutional and socio-cultural ‘embeddedness’ and what limitations ‘blocked’ or ‘favoured’ further evolution beyond ‘take-off’. In this, certain light versus dark traits are explored in ‘pattern recognition’ form to allow sense-making of how path dependent against path ‘interdependent’ co-evolution occurred. For now, we take three brief summary accounts by way of initial introduction of what to discern.

Fintech and digital payments

City-based research in three distinctively complex regimes inquired about the adoption of ‘digital payment systems’. In Korea smart card payment dominated, in Europe (UK) smart card was transitioning to digital smartphone payment systems, while China was dominated by [mobile](#) handset payment systems. In each regime KIBS firms, notably McKinsey, were instrumental in financial innovation. The firm was first set up along Jesuit lines with a premium on in-[house](#) privacy and client secrecy. Low transparency was thus a corporate virtue but it also valued ‘telling clients what they wanted to hear’ (O’Shea and Madigan [1999](#)). Until recently, its main ‘scandal’ had been a sex discrimination lawsuit in 1996, but later it was

implicated in the Enron bankruptcy. Later still, it agreed to repay tens of millions of dollars in fees to South Africa over alleged irregularities in some of its railway renewal contracts in the country, and in 2019 it struck a \$15 m settlement with the US Department of Justice to resolve claims that it had failed to properly disclose conflicts of interest in bankruptcy cases. Kevin Sneader, who was appointed global managing partner in 2018, had tried to enhance its legal and governance teams and enforce compliance with its policies. Sneader was voted out of McKinsey's board three years later. It then settled claims by US jurisdictions it 'turbocharged' sale of opioid OxyContin by now-bankrupt manufacturer Purdue Pharma worth \$600 million, which contributed to 500,000 US deaths. It was responsible for the UK government's disastrously failed Covid 'test and trace' programme led by its ex-McKinsey consultant Dido Harding, for which it was paid £563,400 (Bogdanich and Forsythe [2022](#)). In finance, McKinsey's produced large amounts of 'Global Payments' [literature](#) with respect duly paid to institutional regime diversity as follows, regarding EU member-state, Germany:

....payments behaviour is unlikely to suddenly rival that of China, where mobile payments methods such as Alipay are now used for 28 percent of consumer-to-consumer and consumer-to-business payments. (Germann, Höll, and Niederkorn 2019)

Elsewhere, McKinsey's noted that while digital banks in other geographies were often startups, Asian digital banking was being driven largely by established companies and consortia. Despite structural challenges with regard to governance, consortia were perceived to bring significant advantages in terms of achieving scale. Just five years after launch, Tencent-backed WeBank served some 200 million people, and Alibaba-supported MYbank had more than 20 million SME customers. Simultaneously, McKinsey's further advocated 'cracking' further entries behind China's defences through 'disruption and connection' methods (Dahl, Sengupta, and Ng [2020](#); Ngai et al. [2020](#)). Contrariwise, in the OECD report on 'digital disruption', that club warned against exploiting China's 'loose regulatory environment' (OECD [2020](#)).

In Korea, by contrast, where traditional banking remained under the institutional control of Chaebol systems, modernization was less prone to disruption and remained under their hegemony of credit and debit card systems (Khon et al. [2022](#)). Interestingly, the UK financial system was the first outside the US to be exposed to McKinsey's own 'closed' innovation of 'structured debt securitization' touted to protect loans by 'slicing and dicing' them to be sold on as bonds. In theory, banks were thus securitized against credit card debt, mortgages, student and other loan defaults. However, as 'credit default swaps' allowed banks to become seriously profitable, with later loan issuers including many large international commercial, industrial and secondary banks, utilities and retail companies, securitization, in 2007, became the proximate cause of the Great Financial Crash 2008–2009 (Bogdanich and Forsythe [2022](#)). Subsequently, due to poor security against hackers [mobile](#) payments 'issuance' grew on a plethora of smartphone apps to challenge credit card debt repayment methods. Beck et al. ([2022](#)) invoked the 'competition-fragility' hypothesis that higher competition from such new entrants reduced incumbent banks' profitability, thus incentivizing them to take on more risk. Entry by new providers, including Big Tech companies, was feared likely to trigger such aggressive risk taking and increase bank fragility. Further, cooperation between banks and Big Tech companies might lengthen intermediation chains and alter the incentives and transparency of credit intermediation, which was also perceived as a potential new source of fragility. Examples quoted include Amazon loans and Apple's credit card partnerships with Goldman Sachs and Google finance in partnership with Synchrony Bank. Fragile intermediation of that kind had occurred in 2021 when McKinsey fired or suspended several members of its CIB Insights

investment banking research team for violations of company policies, undermining its attempt to become a dominant provider of industry insights to Wall [Street](#) (Edgecliffe-Johnson, Noonan, and Morris [2021](#)). McKinsey managers were planning for CIB Insights to offer analytics to financial services giants such as Goldman Sachs and Deutsche Bank for their advisory and trading activities. While CIB Insights achieved some early success, attracting clients including Credit Suisse, Deutsche Bank and Morgan Stanley it had only six customers before its work was halted.

Contract development manufacturing and biopharmaceuticals catch-up

What our ‘pattern recognition’ methodology has revealed by international comparison of digital payments innovation is that institutions and their path dependence, matter in distinctive ways. Summarizing, path ‘extension’ was confronted with path ‘renewal’ to varying degrees contingent on FDI knowledge, its absorptive capacity and its malign or benign effects. McKinsey’s as a ‘controlling agent’ had directly malign, possibly unanticipated but lethal, effects from ‘securitization’ and possibly from ‘analytics’ infractions, while in other cases of its embrace of neoliberal regulation change and privatization advice, results have risked system ‘fragility’. In this vignette from a further comparison of cases, this time in biopharmaceuticals, what can be called ‘arrested catch-up’ is more pronounced. However, institutional path dependent development and change, and the presence of ‘dark’ advisory effects form a salutary backdrop. The biopharmaceutical processes under intercontinental comparison are Contract Development and Manufacturing Organizations (CDMO). To start, given McKinsey’s remarkable sectoral ubiquity, we consulted their latest available CDMO report on ‘Covid-19’ vaccines (Agrawal et al. [2020](#)).

For candidate drug platform performance, the authors assumed all candidates (regardless of the technology platform used) would have an equal chance of success, as well as a conservative scenario in which all novel vaccine platforms (for example, DNA and messenger RNA) failed to complete clinical trials successfully. The authors assumed that vaccines would progress through the pipeline at historical rates. They further assumed novel technology platforms would have the same chances of success as platforms with previously approved vaccines. Last, it was assumed that the type of developer (for instance, industry sponsored or academic) would have no bearing on the chances of success. Several of the technologies – for example, DNA and messenger RNA – being used to develop COVID-19-vaccine candidates, held unique advantages over traditional platforms, the chief one being their ability to accelerate development time, However, RNA platforms were largely unproven. At that time, there were no licenced vaccines for humans that had been approved using them. Questions remained regarding the long-term safety of the new modalities, as well as the degree to which they could induce a strong and lasting immunity response. Given McKinsey’s reputation, it is remarkable that each of the above prognostications was wrong, some almost risibly so. Thus some candidates failed miserably, most notably Sanofi’s, never mind Sputnik or Sinopharm. Oxford-AstraZeneca’s and Pfizer-BioNTech’s broke records for speed to patient. Only innovative vaccines performed successfully. In particular, messenger RNA was a successful breakthrough innovation with benign implications for cancer therapeutics. Thus far messenger RNA has provoked no significant safety issues. Quite why such deeply conservative prognostications should have a market value is difficult to discern. Much relatively unchallenging research effort has been invested in defining and exploring KIBS as ‘knowledge-intensive business services’ in the past. But it has taken McKinsey’s ‘leadership’ pretensions to culminate in ‘nonsense-intensive business services’, otherwise NIBS – with ‘the [writing](#) on the wall’.

Among the firms in the continents being compared by this Theme Issue's authors are leading global players like Catalent (US) who manufactured for the Oxford [University](#)-AstraZeneca drug developer; Moderna likewise, alongside Lonza (Europe) and Johnson & Johnson, suggesting Catalent chose well as did the authors, one of whose Asian CDMO case studies is Samsung Biologics. The research shows three main patterns among the respondents. The first is that the institutional context is crucial to performance. Catalent is a global CDMO leader, headquartered in New Jersey, once the 'Medicine–Chest to the World' with over fifty global locations, a workforce of 19,000 and 2021 revenue of \$4 billion. It is [science](#)-led with 2,500 scientists and technicians. It has over 1,000 'open innovation' programme partners and a similar number of main customers. Accordingly it is, spatially and cognitively, deeply embedded in its milieux locally and globally.

Lonza is also a settled multinational, based in Switzerland's main biotechnology cluster at Basel, but with locations elsewhere in Switzerland, Europe, the Americas and Asia. Lonza's Bioscience products and services range from cell culture and discovery technologies for research, to quality control tests and software for biomanufacturing. Basel's assets are listed in the Jeong et al. (2023) article, but Novartis and Roche are headquartered there alongside high-grade [university](#) research and a well-developed SME biocluster. It differs from Catalent by being a full Life Sciences entity encompassing CDMO whereas Catalent is a large, specialist CDMO. As both are [science](#)-led businesses, the second 'pattern' that affects 'catch-up' in the field for Samsung Biologics is that it and Korea's higher research institutions have yet to evolve to [science](#)-led status and for now the company aims to remain a developer of CDMO technology. This echoes its founding vocation and expertise in Information Technology and Electronic Engineering. Finally, from a path-creation perspective Samsung and its CDMO rival Celltrion are relatively dis-embedded although located in Songdo 'smart city' near Incheon International [Airport](#) in a special economic zone. They appear not to engage in much 'open innovation' and could be said to be less 'system-based' than 'agent-based'. Samsung is particularly self-possessed as one of South Korea's leading Chaebols while Celltrion has had management weaknesses including accounting fraud to overcome. Meanwhile both had weak profitability. Samsung is a user of McKinsey's 7S management model, which has been criticized as overly normative, insufficiently empirical and a static management model. Accordingly 7S seems path-extending rather than path-creating. This may be implicit or even explicit in the critique that 7S is now badly dated from its early 1980s origins.

Deflection from heavy industry to circular economy region

In our final vignette of the co-evolutionary lineaments of the narratives contained in a small selection of the contributions collected in this Theme Issue – Open Innovation and 'Catch-Up': Globalist or Localist? – we turn to a theme adumbrated in a previous Special Issue (Cooke 2023). This refers to Circular Cities (e.g. Williams 2023) otherwise Circular Economies and even, initially Industrial Ecology or Symbiosis. South Wales was perceived to need support in its efforts at path creation from a heavy industry legacy. The deflection was to be towards a clean, green, Circular Economy. The idea is rather well-known and although seemingly simple can involve nefarious, disruptive technical and regulatory advice. One of the subjects in the Theme Issue contribution that warrants attention was the role played by McKinsey's as leading consultant to the UK Ministry of Housing on cladding, which we discussed in the EPS 'Jubilee Issue'; Cooke (2022, 2023). It concerned the disastrous Grenfell Tower fire in London in 2017. Briefly, the fire arose – according to the evidence furnished at the public inquiry five years later – from an earlier renovation based on a low and successful

contractor bid achieved by ‘value engineering’ (Kagermann [2015](#)). Value engineering is the adaptation outside its original setting of Japanese automotive engineering and assembly setting that promises to take out value from any contractual supply process, otherwise ‘sub-contracting’, by removing burdensome cost elements, typically concerning labour and safety. Accordingly, the primary cause of the fire was failed building regulations that were further circumvented by corporate suppliers of new cladding that was supposed to be fireproof. This comes straight from the McKinsey playbook:

Modern methods of construction (MMC) – a broad term encompassing a range of volume- manufacturing and technology-enabled techniques – has the potential to be significantly more productive than traditional site-based construction processes. (McKinsey & Co 2019a)

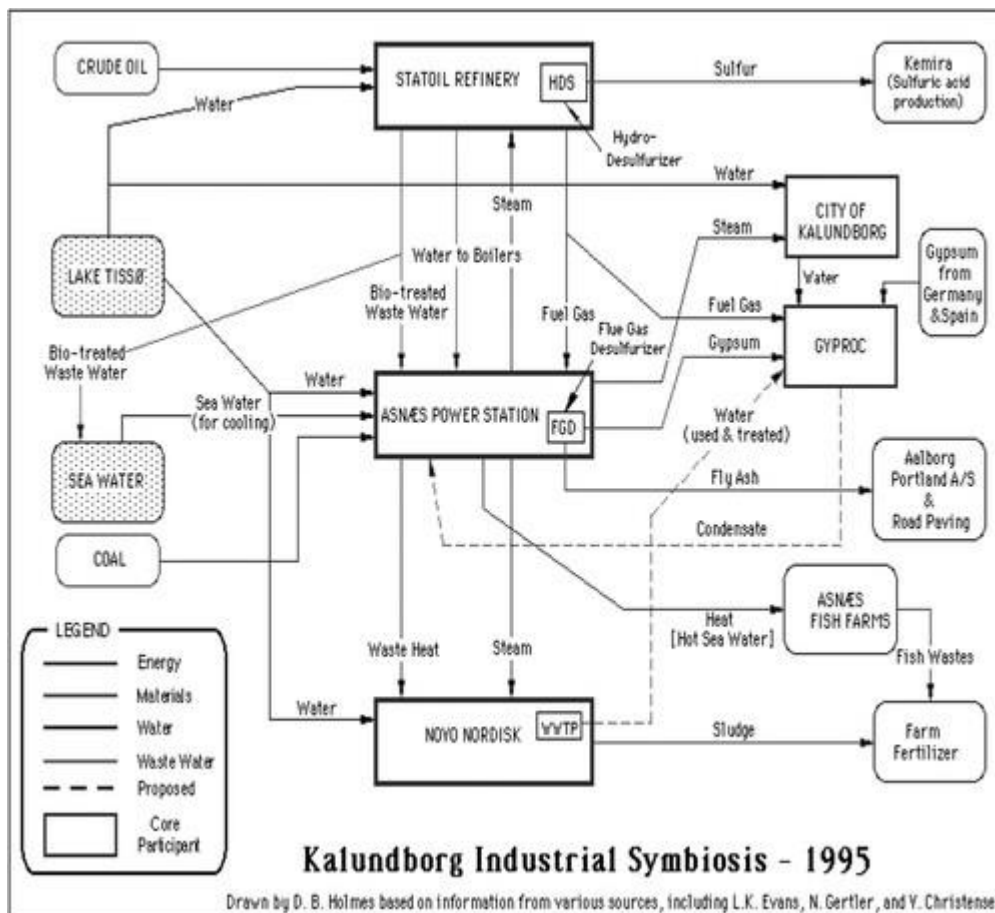
.....modular construction is not a straightforward proposition. It requires carefully optimizing the choice of materials; finding the right mix of 2-D panels, 3-D modules, and hybrid designs; and mastering challenges in design, manufacturing, technology, logistics, and assembly. (McKinsey & Co 2019b)

Value engineering replaced the supervision of projects by professional architects as ‘too expensive’ and handed that power to unqualified builders ‘using guesswork’ (as cited in the public inquiry; e.g. in materials procurement), who were driven by their low tendering to prioritize cost over safety. This fitted perfectly with McKinsey’s consistent advocacy of downsizing workforces, deregulating safety regimes and ‘evangelizing’ technological and organizational management innovation. A manager for [French](#) subsidiary Celotex admitted management told him ‘to lie for commercial gain’ regarding corporate flammability test results. An internal memo at US corporation Arconic made clear the product it sold for Grenfell was flammable, while Irish firm Kingspan also later admitted that its new foam-filled boards were also flammable. As an interim observation, at all levels, it is obvious that from manufacturers up to builders then to contractors and government agents to the KIBS supplier of advice, namely McKinsey, their ‘dark entrepreneurship’ (Baumol [1990](#)) prevailed.

Interestingly, the inputs to and manufacture of such panels is a mainstay of many Circular Economy/Circular City systems, starting with one of the earliest at Kalundborg, Denmark. Kalundborg’s Industrial Symbiosis system (of 1995) was based on collaboration between the municipality and five primary independent industrial enterprises for mutual economic and environmental benefit. It was based on a series of bilateral commercial agreements on three different kinds of projects: recycling [water](#), exchanging energy at different levels, and recycling waste products. At the core then was the Asnaes (coal-fired) power station. It provided steam to the Statoil refinery and Novo Nordisk pharmaceuticals plants ([Figure 1](#)). In exchange Statoil supplied fuel gas, cooling [water](#) and treated waste [water](#) to Asnaes. The latter’s heated [water](#) also warms the tanks of a [fish](#) farm, while its waste steam is used for district heating by the municipality as well as Novo Nordisk. The pharmaceutical company, in turn, pipes organic sludge waste to farms to use as fertilizer. Adjacent on the Eco-industrial [Park](#) is the Gyproc wallboard factory, which receives surplus fuel gas from the Statoil refinery and scrubber sludge from Asnaes. In return, Gyproc supplies condensate back to the power station and sends chemical waste to Novo Nordisk. Power station [fly ash](#) goes as input to a nearby [Portland](#) cement factory that also produces industrial metals as a saleable by-product. Sulphur from the Statoil refinery is supplied to a Kemira sulphuric acid plant as an input to fertilizer production. Co-operation between businesses was based on interactions

among a voluntary business network, but conducted in close collaboration with regulatory authorities (Christensen 1994). By 1998, the Industrial Symbiosis agreements had amounted to some \$160 million in savings. Up to 2005 only China’s State Environmental Protection Agency (SEPA) had seriously promoted the concept of the closed loop economy and developed a programme to highlight and assist model eco-industrial parks across the country. The Tianjin Economic-Technological Development Area (TEDA) was one example of an existing industrial region with developed industrial symbiosis linkages among facilities. TEDA was formed in 1984, and provides a utility sharing infrastructure including electricity, gas, steam, [water](#) and materials. By 1998, the ‘Closed Loop’ agreements at Kalundborg had amounted to some \$160 million in savings. In a nearly twenty year update of Christensen’s (1994) account, by 2015 (Girard and Nocca 2019) reported the number of output–input exchanges (symbioses) as 30; the number of different resource streams exchanged was 25 and annual economies generated from transforming waste into valuable resources while reducing pollution and materials consumption amounted to €80 million/year. Randers (2019) cited the European Circular Economy Stakeholder Platform (ECESP) report on Kalundborg as achieving ‘annual’ results as follows: bottom-line savings of €24 million; €14 million in socio-economic savings; saving of 635,000 tons of CO₂; saving of 3.6 million m³ [water](#); generation of 100 GWh of energy; and reuse of 87,000 tons of materials. Clearly for a town of less than 15,000 inhabitants, the Kalundborg Closed Loop City is a remarkable environmental and economic success.

Figure 1. ‘Closed Loop City’: Kalundborg, Denmark’s first circular economy.



Now, to return to the second theme of the Wales Circular Economy, it is important that – in implementing the Welsh government’s desire to manage the project in question as a Community of Practice (CoP), it is even more drawing implicitly upon consultancy advice as promoted by Seeley-Brown and Duguid (1991) affiliated with XeroxPARC in California. However, in contrast to McKinsey & Co. they were interested in enhancing creative productivity rather than obliterating it. Noteworthy was their observation that Californian tech-utopian co-operation was preferable among and between employees of different Silicon Valley companies than within a single firm they had experience of in Austin, Texas. In other words a true CoP was culturally superior to ‘don’t mess with Texas’. But on our crucial signifier of ‘flammable cladding’ it is not evident either that the Wales CoP had fully realized the ‘dark’ agency power its use in re-modelling old housing had been exerted by McKinsey and its client, the UK Housing Minister, let alone been solved, as the following implies:

CoP Observer: They start with a general theme, such as ‘decarbonisation of housing stock’, and then form into small challenge groups of 5–6 people to work on a specific problem (i.e. ‘how might we develop a common approach to installation of external cladding’).

CoP Participant: ‘I found it useful to have guest speakers on the circular economy subject on the CEIC programme and they covered subjects like about sustainability for building buildings and refurbishing buildings’. (Liu et al. 2023)

This is not a criticism, rather it may be an example that Baur, Wanzenböck, and Frenken (2022) describe as ‘small wins for grand challenges’ but while those authors see path creation as taking place with Mao’s ‘one first step’ it is also easy to see how the reality is more like McKinsey’s ‘one first path blockage’. Such incremental change in policy has been critiqued since Charles Lindblom’s (1959, 1979) ‘muddling through’ incrementalism countered Herbert Simon’s contemporaneous advocacy of albeit ‘bounded’ rational-comprehensive planning. Among those criticisms of ‘muddling through’ were its innate conservatism, the absence of ‘prepared mind’ thinking, faith in market spontaneity and the prospect that small steps might lead to ‘going round in circles’. Ironically, that is what McKinsey’s consulting on the UK’s National Health Service over fifty years has been upbraided for (Bogdanich and Forsythe 2022). To end with a quote that resonates with our global agency, institutional and path dependency context from their new book:

One former McKinsey consultant wrote anonymously, ‘To those convinced that a secretive cabal controls the world, the usual suspects are Illuminati, Lizard People or ‘globalists.’ They are wrong, naturally. There is no secret society shaping every major decision and determining the direction of human history. There is, however, McKinsey & Company’. (Bogdanich and Forsythe 2022, ‘Epilogue’, p. 277)

Summaries of the contributions

And so we come to summaries of the contributions. The first of these is JinHyo Yun et al.’s study of ‘Open innovation dynamics and evolution in the mobile payment industry – a comparative analysis among Daegu, Cardiff, and Nanjing’ in which understanding of the smart

payment industry in digital financialization is indicative of future directions and dynamics of modern, late capitalist [economics](#). It asks is there any difference in paying patterns according to capitalist economy conditions among Daegu, Cardiff and Nanjing? How does the smart payment industry fare in its smart payment market share, competing with traditional payment systems, and open innovation of the smart payment industry among these three regions? By answering these research questions through a comparative analysis of 3 regions based on qualitative interviews, this study found the following. First, there are different payment industry contexts among the three city-regions; Daegu, has a card payment majority; Cardiff, is in transition from card payment to smart payment; Nanjing, has a smart payment majority. Second, the economic context of regions has direct impacts on the development of a [mobile](#) payment industry such as the locked-in card industry at Daegu in South Korea, or the well-developed smart delivery platform of E-commerce of Nanjing in China, or the long [history](#) of capitalist banking which eventually spread to the labour force to an extent improving credit access for labour in Cardiff, Wales and UK. Third, from the qualitative interview research on the three city-regions, two additional grounded theses emerged on the future direction of the smart payment industry in Cardiff and Nanjing, and the double locked-in the card industry at Daegu in South Korea occurred.

Following the [mobile](#) payments contribution is the study of ‘catch-up’ in biopharmaceuticals from Harry Jeong, Changhyeon Song, Seunghyun Kim & Kwangsoo Shin. The title here is ‘Quantum jump in biopharmaceutical industry: a case of Korea’s catching up with Europe and US’. In the [science](#) and technology-based biopharmaceutical industry, the gap between advanced countries and developing countries is large. What is interesting recently is that a latecomer such as Korea in the biopharmaceutical industry has an opportunity to make a quantum jump through a new business model. This study investigated latecomer firms’ catching up with advanced European and American firms in the biopharmaceutical industry, focusing on the cases of Celltrion and Samsung Biologics, which are representative Korean biopharmaceutical firms. In terms of profitability, as determined by EBITDA margin, Samsung Biologics has overtaken Lonza and Catalent. In terms of firm value, Samsung Biologics has overtaken Catalent. Celltrion surpassed all firms in 2017 and 2018, however it has been caught up by Catalent since 2020. In Environmental, Social and Governance (ESG) management, Korean firms ranked lower in grade than European and American firms. The driving force of the catching up strategy revealed by this study is as follows; (1) utilize changes in the industrial structure and environment, (2) maximize the capabilities of the innovation system, (3) make strategic choices and (4) secure an independent and stable position in the relevant field.

The next contribution is by Hanbyul Choi, Choong-sik Chung, Young-min Cho on the comparison of ‘Changes in planning approach: a comparative study of digital government policies in South Korea and Denmark’. Governments plan to absorb conflicts caused by policy problems, have a goal orientation, and solve problems through policy implementation. This process is meaningful in that it can reduce the goal ambiguity of the organization and achieve results. In other words, goal setting and optimal alternative selection based on a comprehensive analysis of the situation can achieve improved government performance. The globally noteworthy achievements in e-government in South Korea and Denmark also follow this initiative. However, the shift from e-government to digital government requires a change in approach to planning. In other words, rather than planning a rational-comprehensive approach to find the optimal solution, it requires a social and political approach or an incrementalist approach (as in Baur, Wanzelböck, and Frenken [2022](#)) with the participation of various stakeholders. This second point of view is similar to the study of a regional innovation system that aims to innovate through a network of multiple participants. It is also consistent with the

perspective of open innovation, which creates knowledge through internal and external exchanges and breaks down organizational boundaries.

The next contribution is from Ben Zhang and Yakun Ji. And the title is Patent [actor](#)-network formation from regional innovation to open innovation: A comparison between Europe and China. The automotive industry faces the challenge of digital transformation at present, especially the regarding autonomous vehicle. To explore the innovation links between different regional innovation systems, this study proposes a theoretical framework combining [actor](#) network, regional innovation and open innovation systems. Through the social network analysis and non-parametric test of patent data, the research findings show many significant differences between Europe and China. Finally, some suggestions are provided for strategy planning and policy implementation of open innovation.

Following this comes ‘The way to the “comedy of commons” of a new business model-finding from Naples in Italy, and Jeju Island in South Korea’ by JinHyo Joseph Yun, Xiaofei Zhao, KyungBae [Park](#), Valentina Della Corte and Giovanna Del Gaudio. Members of globally successful economic spaces (like Silicon [Valley](#) and Cambridge; UK) innovate new technologies, business models, or patents as a type of ‘commons’ with self regulatory processes, and intermediaries in their systems communicate with one another in a democratic and mutually participative manner to arrive at creative and ‘open’ innovations. However, newer ‘platform’ firms, such as Uber and Airbnb, are based on two-sided network effects (i.e. sharing and social economies) and on information or digital ‘commons’ contingent on platform corporatism. They also promote a re-thinking of the ‘comedy’ of the commons instead of the more familiar ‘tragedy of the commons’. In other words, while the tragedy of the commons arises from unsustainable overgrazing of common land, over-fishing of seas or egotistic appropriation of utilities like communal [water](#) or air, the ‘comedy’ of the commons is that (unregulated) markets can be made for anything a consumer desires provided they can afford the price of the exchange. So, in fact, the ‘commons’ – like co-operation apparent in ‘open innovation’ among and outwith firms in Silicon techno-utopias is a species of ‘magical (comedic) thinking’ underwritten by market exchange (Brown and Duguid [1991](#)). Or is it? Open software built around Linux may be an exception to the rule. Even arch-capitalist Elon Musk practices some ‘commons’ transactions as prose on his artificial intelligence firm (OpenAI) implies, asserting:

‘OpenAI’s prospectus emphasises it will ‘build value for everyone rather than shareholders’, vowing its ‘primary fiduciary duty is to humanity’ and if lagging a competitor, it ‘would stop competing with it and collaborate instead’. (Cooke 2021)

As Nobel laureate Eleanor Ostrom’s research in diverse disciplines finds, certain government policies accelerate resource destruction, whereas other resource users invest time and energy to achieve sustainability (Ostrom [2009](#)). These authors’ research question asked: ‘Are there any common success factors that can be applied to produce and use common goods across diverse economic conditions? In South Korea’s Jeju Island, ten common fisheries were interviewed. The research found co-operative membership where female divers obtained [sea](#) products, managed their restaurants autonomously, used their marine products as ingredients, and shared the benefits. Sadly, however, the S. Korean government is promoting the free use of non-members, which exacerbates the depletion of the [sea](#) near the coast of Jeju Island and worsens pollution along its coast. The Naples ‘commons’ exemplars are also closely related to varieties of cultural tourism ranging from [geology](#) and [archaeology](#), to natural local

produce and the [restaurant](#) trade. Government influence is ‘indicative’ towards protected monuments but otherwise weak in regard to promotion of ‘slow’ tourist innovation.

Our penultimate contribution comes from Tae Youn Kim, Eun Song Bae and Daecheol Kim, and is entitled: Regional Visa-Waiver Programme for Open Tourism Development. Tourism development is known to have an important impact on the economic growth and competitiveness of the region. For tourism development, the Jeju Island local government introduced a visa-waiver programme that is valid only for the Jeju region. In addition, the regional visa-waiver programme was possible in Korea, which has a stronger centralized system, because of strong cooperation in tourism from the central government. To our knowledge, few countries have introduced a visa policy at regional level like Jeju. Therefore, it is important to study the relationship between this unique regional visa policy and tourism development from the open tourism perspective. Meanwhile, citizens of countries that do not have a visa agreement with Korea must have a direct flight from the departure point to Jeju to benefit from this programme. To alleviate this problem, domestic airports where inbound travellers whose final destinations is Jeju can transit without a Korean visa have been designated. The purpose of this study is to examine the effects of these programmes on inbound tourism demand. For this, the Difference-In-Differences estimator has been used. From the results, both programmes were found to have a statistically significant effect on the increase of inbound tourism in Jeju.

The Theme Issue’s final contribution is from Zheng Liu, Steffan James, Gary Walpole and Gareth White – ‘A Communities of Practice Approach to Promoting Regional Circular Economy Innovation: Evidence from South Wales’. The region was, famously, a classic coal and steel economy. With sustainability orientation and opportunities provided for economic growth, the circular economy was moderately promoted by – amongst others – the Welsh government in recent years. In Wales, Communities of Practice (CoP) were cultivated to link various industry sectors together, sharing knowledge and creating a practical solution to Circular Economy related challenges. While current [literature](#) provides the framework of a regional innovation and firm ecosystem following Triple Helix, the role of CoP is as yet underexplored. The key research question of this paper is ‘how can the CoP approach cultivate regional circular economy innovation?’ Through an in-depth case study of the Communities of Circular Economy Innovation (CEIC) project in South Wales, the paper identifies the construct of CoP, its dynamic lifecycle, and the interaction between CoP and Triple Helix-type innovation systems. Findings reveal that while universities and government play a leading role in innovation at early stages by deliberately establishing the CoP, the self-governance of a CoP at later stages results in an active influence on industry attitudes and policy designs. The paper contributes to the [literature](#) on micro-relations among regional innovation system actors by highlighting the role of CoP in creating emerging new knowledge and tools. It also provides practical implications for industry and policy makers to promote a ‘spherical’ regional economy.

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