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Silicon slipways and slippery slopes: techno-rationality and the reinvigoration of neoliberal logics in the Dublin Docklands

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ABSTRACT

The Dublin Docklands have become a key site for technology-friendly urban development in post-crisis Ireland. Local urban governance institutions have recommitted Dublin to the objective of 'competitiveness', enabling an expansion of the technology sector within a newly established Special Development Zone. We argue that this mantra of technology-friendly development is a new phase of neoliberal restructuring of Dublin's economy. Using interviews, content analysis, and building on the 'Silicon Docks' as case site, findings show that, just as neoliberalism was rendered most visible by the crisis, these respective institutions reinvigorated neoliberal logics through an endorsement of the technology sector.

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Silicon Docks; Dublin Docklands; neoliberalism; technology; Ireland; techno-rationality

1. Introduction

This article poses the question whether the new mantra of technology-friendly development in Dublin can be regarded as a masked version of neoliberalism: harder to dislodge, since technology enthusiasts blend rhetoric of openness and inclusivity with promises of economic resurrection and new profitability prospects – yet not essentially deviating from the premises and operational logics of a discredited economic model. Our argument is that as the global financial crisis of 2007/8 and its aftermath rendered neoliberal logics and deep-seated institutional dispositions most visible, the promises and allure of the technology sector enabled a crisis response, which recommitted Dublin towards competitiveness. This is most visible in the development of the Dublin Docklands.

Amongst Dublin's growth coalition, the development of the Docklands is hailed a success. The presence of firms such as Google, Facebook, Accenture, and Airbnb, amongst others, brings endorsement of the Docklands as the 'Silicon Docks' – a brand created by the growth coalition conjuring images of a European Silicon Valley and signifying Dublin's aspirations to play a major role in the global knowledge economy. In this article, we delve into the regulatory measures and strategies that facilitated the rapid development of the Docklands from derelict warehouses and abandoned buildings to a high-tech strategic development zone to demonstrate how the adoption of a techno-rationality resuscitated neoliberal logics.

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The focus on competitiveness and neoliberalization is not new to Ireland. O’Callaghan, Kelly, Boyle, and Kitchin (2015) argue that pre-crisis neoliberalism in Ireland was unique in that it was ‘adopted as a common-sense and consensual approach to policy formulation’ (ibid, p. 34) and thus remained largely ‘invisible’ (ibid, p. 31). Throughout the 1990s and early 2000s, the Irish variant of ‘actually existing neoliberalism’ (Brenner & Theodore, 2002) enjoyed tremendous acceptance abroad and at home. This consensus crumbled with the bursting housing bubble and the financial crisis culminating in a national debt crisis. Questions emerged as to why Ireland had accepted and promoted property and debt-driven economic expansion prior to the crisis. Noticing the combination of transnational capital flows, promising investment prospects, and strong local discourses around homeownership, academics saw not so much ‘creative destruction’, but ‘path amplification’ (Kitchin, O’Callaghan, Boyle, Gleeson, & Keaveney, 2012, p. 1308) as the suitable metaphor for Ireland’s pre-crisis policies.

The combination of global developments and local realities also continued to shape the response to the crisis, albeit in a peculiar way. Our findings suggest that, as the crisis exposed previously silent operations of neoliberal logics and plunged investment-friendly business-as-usual into disrepute, the technology sector offered a safety valve for an ailing economy and provided decision-makers an easy way out. In the eyes of institutions tasked with developing Dublin, the technology sector constituted a promising avenue to economic recovery and its endorsement shifted the debate away from a fundamental interrogation of economic precepts to a renewed emphasis on the objective of ‘competitiveness’. By adding to an understanding of operational logics of neoliberalism in Ireland, we answer O’Callaghan et al.’s (2015) call for research on how ‘neoliberalism, financialization and uneven development are being reshaped by geographically situated responses to the crisis’ (p. 31). The research presented below is based on 30 semi-structured interviews with key players of Dublin’s innovation ecosystem – from residents and workers of the Silicon Docks and university affiliates to the public administrators, developers, incubator owners, venture capitalists, non-profit executives, and consultants driving the majority of growth strategies. We granted respondents anonymity and, where quoted, display only professional affiliations. To ensure accuracy of findings, we drew upon newspaper accounts, Internet media sources, promotional material, web-based information, census data and government documents regulating the planning, financing, and governance mechanism of the Dublin Docklands.

2. Neoliberalism, entrepreneurial urbanism, and techno-rationality

The use of neoliberalism as a frame to understand contemporary developments is continuously debated and criticized for its all-encompassing application. While we value the careful and rigorous interrogation of the precepts and utility of the concept, we argue it is useful to employ the term to signify a certain set of logics, such as the focus on competitiveness, the privatization of public assets, and the reduction of public expenditure on social services.

Scholarship on neoliberalism can be crudely divided into two main strands. The first, we might call it the ‘orthodox’ view on neoliberalism, is exemplified by Marxist scholar David Harvey (2005), and defines neoliberalism as an institutional framework characterized by strong private property rights, ‘free markets’, and free trade, which work in concert

to liberate entrepreneurial freedom. The second, rooted in ‘Foucauldian’ approaches, construe neoliberalism as a governing rationality. Scholars in this vein examine how reshaped forms of governance, disciplinary techniques, and powerful norms compel individuals. In this view, the ‘managerial state’ ensures the growth of the economy through the management of human capital. Neoliberal reason extends a specific formulation of economic values, practices, and metrics into every dimension of human life (Brown, 2015, p. 30).

The two strands are not opposing lines of inquiry. Rather, both seek to explain contemporary capitalist processes from different vantage points and to understand interactions between different actors, policies, and institutions. Thus, whereas for some scholars a direct genealogy can be traced to either a Marxist or Foucauldian understanding of neoliberalism, many scholars mobilize both. This ad hoc borrowing contributes to critiques on the adoption of a neoliberal framework as an overused concept (Boas & Gans-Morse, 2009). Yet, both frameworks are useful for understanding the various permutations and configurations of neoliberalism in light of historical contingencies and spatial variances (Brenner, Peck, & Theodore, 2010; Peck, 2010).

The city is a useful site to examine expressions of neoliberalism, often categorized under ‘entrepreneurial urbanism’ (Harvey, 1989). The transformation of urban governance and its reorientation towards entrepreneurial logics is evident in countless locations and municipalities. The waterfront and property-led regeneration, such as Baltimore’s Inner Harbour and London’s Docklands, are often accompanied by branding strategies to revitalize the post-industrial city (Fainstein, 2001; Levine, 1987; see also Avni, 2017; Fisher & Benson, 2004; Hoyle, Pinder, & Husain, 1988).

The impacts of neoliberal reason on sub-national levels vary tremendously. Post-crisis, these range from ‘austerity urbanism’ (Peck, 2012) to an intensification and expansion of inter-urban competitive logics. Such competition manifests in new spaces of exception – special economic zones, strategic development zones, and incentivized tax structures designed to attract foreign direct investment (FDI) (Bach, 2011). These zones follow replicable global formulas for policy and infrastructure, and constitute new ‘spatial softwares’ (Easterling, 2014), which prioritize free and unrestricted flow and operation of capital. Aligned with grandiose architecture and pursuant to methodically competitive agendas, these high-tech, capital-intensive, low-tax enclaves can be sites of exalted financial and economic activity.

Futuristic high-tech fantasies have long proven alluring, as confirmed by attempts to build biotech campuses, digital media quarters, innovation districts, cultural districts, science and research parks, and technopoles across the globe (Massey, Quintas, & Wield, 1991). As mobile policies circulate the globe (McCann, 2011), particularly in relation to economic and smart cities development (Cook, 2008; Crivello, 2015; Ward, 2017; Wiig, 2015), active efforts to replace remnants of an industrial past with activities of the knowledge economy are evident in the urban core of cities (Eisenschitz, 2010; McCann & Ward, 2011).

These transformations speak to neoliberalism’s ability to reconfigure and reconstitute itself and its ability to thrive on crisis to mutate (Harvey, 2005; Klein, 2007). Neoliberal logics must be continuously reasserted as hegemonic (Peck, Theodore, & Brenner, 2013), and it is particularly pertinent to understand how this happens on the level of individual cities and local regulatory frameworks (Boyle & Wood, 2017). We argue that, in Dublin, urban governance is now reconfigured not only by entrepreneurial and neoliberal

logics, but also through a set of rationalities introduced and expounded by actors of the digital economy. The latest iteration of neoliberalism has allied itself with what we call techno-rationality. This development is credited to the very institutions tasked with urban governance. Shining light on their operational logics is the purpose of this article.

3. Irish neoliberalism – background and key actors

3.1. *Historic context – Ireland, pre- and post-crisis*

Towards the end of the twentieth century, Ireland gained prominence as a small country successful in capitalizing on the logics of globalization. The country deregulated industries, embraced free-market philosophy, and learned to champion the entrepreneur (Kitchin et al., 2012; MacLaran & Kelly, 2014). Due to significant FDI, particularly from US corporations who saw Ireland as a suitable base to build from and extend their reach in Europe (O Riain & O’Connell, 2000), this small country, with a once ‘weak indigenous economy’ (Kitchin et al., 2012, p. 1302), turned into an economic success story. Ireland’s economic development brought forth the image of the ‘Celtic Tiger’.

Kitchin et al. (ibid.) discuss two forms of economic expansion that occurred during the Celtic Tiger period: the first (1993–2002) based on FDI-focused growth. The second (2002–2007) consisted of the property boom led by Irish developers borrowing from Irish and European banks. A low corporate tax rate of 12.5% in Ireland versus 34.4% in France and 38.9% in the US, saw notable FDI into Ireland for several decades (Calliano & Carpano, 2000). Much of this investment targeted areas around the periphery of cities, though less metropolitan areas received some interest. As there appeared to be little relenting in the neoliberal forces guiding development within Ireland (McDonough & Dundon, 2010), the onset of the millennium brought increasing financialization and an inflated property market.

The global financial crisis in 2007/2008 and the ensuing economic downturn of 2008–2011 had dramatic impacts on Ireland: a nationwide property market crash, recession, rising unemployment, emigration, slashing of state budgets, and the demolition of an already brittle welfare state. In light of stark realities regarding the ‘two twin pillars of the Irish crisis narrative: property and debt’ (O’Callaghan et al., 2015, p. 43), neoliberalization and financialization were exposed and seemed outmanoeuvred.

The bank bailout in 2008 not only rescued ailing banks, but also turned a financial crisis originating in the banking sector into a sovereign debt crisis. As responsibility was offloaded onto the public, the 2010 Economic Adjustment Programme for Ireland – the ‘Troika’ bailout worth €85 billion – locked Ireland into policies geared towards ‘regaining competitiveness’ (ibid.). It quickly became evident that the crisis would not upend neoliberal rationalities. Rather, it held tremendous potential to exacerbate tendencies towards budgetary cuts and austerity.

3.2. *Case site – the Silicon Docks*

The progression from de-industrialization, to Celtic Tiger, to recession, and now to a post-crisis playground for the technology sector has been vividly on display in the cycles of development in the Dublin Docklands. For decades, the Docklands were

consigned to decline and dereliction. The struggle for investment and the turn to entrepreneurial urban growth led to a dependence on local authorities to oversee development. In the late 1980s, this took the form of the Custom House Docks Development Authority (CHDDA) created to incentivize development on the western most portions of the Docklands. The CHDDA succeeded in developing a financial district centred on the International Financial Services Centre (IFSC), but critiques of its myopic focus on commercial and speculative growth negated regenerative development promises of housing and employment opportunities for all (Moore, 2008). Consequently, the Dublin Docklands Development Authority (DDDA) supplanted it in 1997. The DDDA expanded its remit to a 526-ha development zone. This new border included the IFSC catchment area, in addition to wastelands, brownfields, and old-industrial sites (see Figure 1). The DDDA remained lead developers of the new boundary until 2012, when planning powers shifted from An Bord Planeála, the national planning body, to Dublin City Council (DCC). This was coupled with the creation of a 66-ha Strategic Development Zone (SDZ) overlaid on the North Lotts and Grand Canal Dock Planning Scheme (*North Lotts and Grand Canal Dock: Planning Scheme, 2014*) (see Figure 2).

The new character and demographics of the area, owing to technology-related urban development, sustains a discerned separation from other parts of the city. Within the city of Dublin, there exists a striking difference between the average resident and worker of Dublin City versus the average resident and worker of the SDZ (see Table 1). The demographics of the SDZ contribute to a collective understanding that the Docklands, and even more starkly, the SDZ, stands as a separate entity from the remainder of the city.

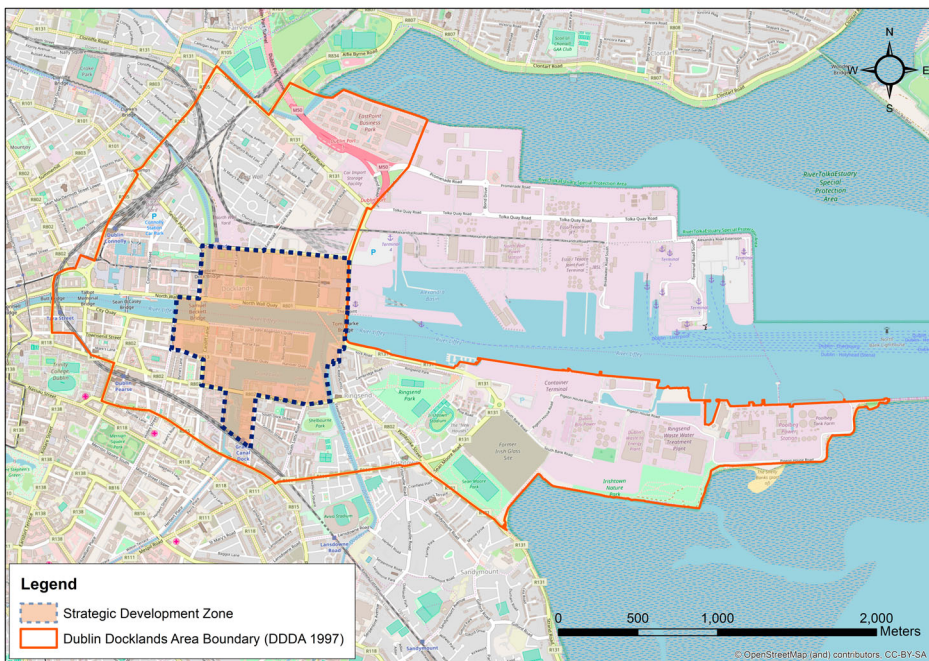


Figure 1. Dublin Docklands Area Boundary (DDDA Act 1997).

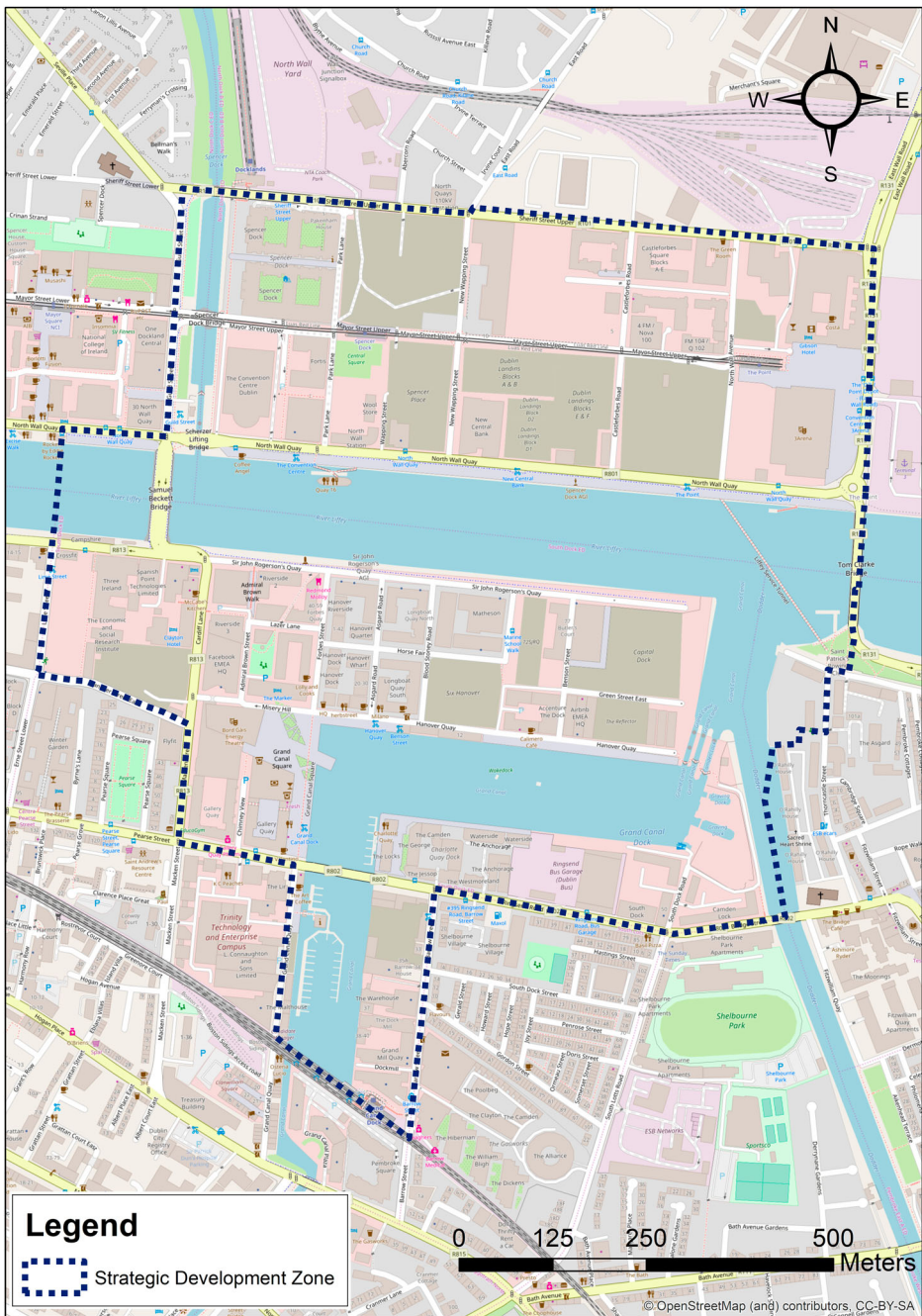


Figure 2. North Lotts and Grand Canal Dock Strategic Development Zone.

3.3. Key actors shaping the development of the Dublin Docklands

Three key institutions figure prominently in the economic development of the Dublin Docklands. Since providing a detailed history on each entity remains beyond the scope this article, we focus on their influence and impact.

Table 1. Demographic comparisons between Dublin City, Dublin Docklands, and the North Lotts and Grand Canal Dock Strategic Development Zone.

	Dublin City	Dublin Docklands	Strategic Development Zone
Age 65+	13%	9%	3%
Age 20–44	42%	56%	75%
Childless Households	64%	72%	85%
Non-Irish Residents	20%	25%	47%
<15 mins to work	19%	24%	25%
Occupy Professional Jobs	36%	35%	53%
3rd level (from bachelor's degree onwards)	35%	40%	63%

Source: Central Statistics Office, Census, 2016.

3.3.1. The Industrial Development Authority

One of the most dominant institutions in reinventing the image of the city and growing the tech sector in Ireland is the Industrial Development Authority (IDA). Since its establishment as part of the Department of Industry and Commerce in 1949, the IDA's responsibility is to promote efficiency in the economy. While today the organization highlights FDI as its principal remit, historically this was not the case. Through organizational restructuring, including ceding from central government to become an autonomous state-sponsored organization in 1969, the IDA developed an exclusive focus on high-quality FDI in 1994. This positioned the IDA to take a broad view of industrial activity to incorporate the software and high-tech sectors (Sager, 2011).

Prior to Ireland's financial crisis, efforts by the IDA to establish a tech presence existed but were geographically dispersed. Google's decision in 2003 to expand their European operations and base the company in the Docklands surprised IDA representatives, who worked hard to sell Google on the idea to settle in Ireland but did not expect the company to select the derelict space of the Grand Canal Docks. Time and experience working with tech companies finessed the IDA's strategies. As it became evident that technology companies favoured downtown proximity and could claim prime real estate in the city, the IDA tailored its messaging to leverage the emergence of the Docklands as an attractive site for potential suitors from the technology sector.

3.3.2. Dublin City Council

Dublin City Council emerged as a critical institution with the dissolution of the DDDA and the approved transfer planning power from An Bord Planeála to Dublin City Council, now established as the Development Authority. This transfer of master planning power was coupled with the designation of the SDZ and fast-track provision. The fast-track provision streamlines development by ensuring a standard all firms must meet and speeds up the process of eradicating blighted structures to render the land desirable for potential new firms. It also strips locals of voicing discontent and appealing a plan beyond the initial two-week opportunity allotted to approve the SDZ designation (*North Lotts and Grand Canal Dock: Planning Scheme, 2014*).

The SDZ process in Dublin is a strategic deregulatory tool to encourage development in particular parcels of land, which are projected to increase economic activity and generate employment (Fox-Rogers, Murphy, & Grist, 2011; Sager, 2011). In Ireland, such governance techniques are necessary due to local level constraints on authorities, particularly in relation to payment structures that limit their funding sources to commercial rates and

construction levies. Unless new techniques are innovated, local authorities are limited in their ability to influence economic policy directions and must instead heed to larger national objectives set by influential institutions (Bontje & Lawton, 2013). However, local authorities can influence planning decisions through zoning and the formulation of development plans (Lawton, Murhpy, & Redmond, 2010). Dublin City Council's mobilization for the SDZ strategy demonstrates the intent for the future development of the Dublin Docklands.

3.3.3. National Asset Management Agency

The National Asset Management Agency's (NAMA) principle remit to clear the massive debt accumulated during the financial crash is well documented (Byrne, 2016b, 2016a; Kitchin et al., 2012; Williams, 2014). The government's primary objective in setting up NAMA in 2009 – with oversight from the Finance Minister – was the stabilization of the banking sector. As asset manager, NAMA offered the Irish banking sector, rocked by the financial crisis, an expedient solution to address the crisis at the nexus of finance and real estate. NAMA's strategy included isolating problematic assets and replacing loans of a declining value with government guaranteed securities. It also provided direct liquidity and facilitated the availability of credit. NAMA's attempts to revive the property market necessitated investment, however with Irish developers and financial institutions still overstretched by the crisis, capital could only be attracted from outside Ireland. Consequently, NAMA used its position to effect investment-friendly planning provisions, especially in the Docklands. SDZ provisions broke up the Docklands into 20 development blocks of which NAMA held interest in 15 blocks, representing 75% of developable land area of the SDZ (*NAMA annual report and financial statements, 2016*). This positioned NAMA as a key player in the courting of global capital towards the Docklands. Its role as a dominant arbiter in Dublin's urban development might be regarded as an unintended, yet considerable consequence of the crisis.

4. Analysis and discussion: tech emphasis as masked version of old logics?

The 'Luck of the Irish' is an expression often heard in many parts of the globe about our natural ability to prosper against adversity. ConnectIreland invites you to read on and you will see that in fact Ireland's 'luck' is the result of our incredible work ethic, talent and creativity ensuring we leave nothing to luck or chance. Ireland is an impressive blend of talent and technology, which is backed up with a notable track record and a competitive tax environment. –Connect Ireland Marketing Campaign, (Connect Ireland homepage, 2018)
Ireland is incredible, in lots of ways, phenomenally incredible, because in the nineteenth century, because of the famine, and because of the huge need for emigration, we just completely overturned our culture to suit emigration, and to suit living in another country. And what exactly is that? We completely overturned our language and learned a new language, English, in a very short time. -Dublin City Council member, personal interview, August 31, 2016

Whether perceived as luck or perceived as hard work, as a small global economy susceptible to fluctuations in the market, the Irish have a proven history of surviving hardships through adaptation. In the most recent case, the mantra of technology-friendly development is a new phase of neoliberal restructuring of the economy enacted through visions of high-tech futures, smart city governance, and local government as venture capitalist.

Our points below do not follow a chronology, but play out simultaneously. They cannot be seen in isolation, but rather play out as a continuous stream of post-crisis reconfigurations.

4.1. Municipal statecraft: the SDZ and the technology sector

As vested authority of the SDZ, DCC can implement policies to facilitate and massage development in specific directions. The branding of Silicon Docks and the rapid transfer of land worked in tandem with planning tools and regulatory measures that facilitated the transformation of the space. The fast-track designation, not coincidentally set up in 2012, provided the most noticeable formula for a new place-based development strategy. Prior to the crash, entrepreneurial attempts to redevelop blighted land were evident from the development of the IFSC. Post-crash, however, as banks were rescued and debt was offloaded onto the public in the form of bailout loans and austerity programmes, economic aspirations needed to be rephrased and reformulated. The Silicon Docks became this formula, and aspirations could now be put on display for everyone to see. These new regulations allowed DCC to take over the planning apparatus, thereby giving it a more interventionist role and adopting ‘municipal statecraft status’ (Lauer-mann, 2016).

Writing the urban development policy that supports the construction of a ‘tech playground’ affords DCC the ability to engage in close collaborations with the private sector, inviting the latter to shape location, construction, and design decisions while spinning these new collaborations as experimental, cooperative, and beneficial to urban residents. DCC also succeeds in intervening on a global level through the branding of Silicon Docks, which first appears as a label in the master plan following the creation of the SDZ. Signifying the intent to create a competitive environment that resonates on a global scale, these branding techniques facilitate a growth agenda under the guise of bottom-up, all-inclusive experimentation. The language behind the plan for the Docklands strongly defines the space as innovative:

If you look at all the economic development plans, which designate Dublin as exemplar in terms of how innovation can be used to provide a competitive advantage for the city, and if you think that Dublin is a showcase for the country and the Docklands is a showcase for Dublin, then putting the pieces together it probably is understood very widely like that [innovative]. – (academic, personal interview, August 3, 2016)

The special regulations of the SDZ, in tandem with branding efforts, and in addition to the policies that promote local technology-related developments, designate the Silicon Docks as a premium location for global players of the technology sector. The concentration of these technology companies is encouraged by the DCC through narrowing previous boundaries to a concentrated administrative delineation where tax rates and land use regulations can be legally actuated.

DCC’s adoption of this technology-focused urban redevelopment strategy depoliticizes development through creating a space that is exempt from surrounding forms of governance, potentially including existing formulas of tax, redistribution and resource allocation policies. At the same time, the seductive appeal of an industry often affiliated with revolutionary and disruptive power, protects DCC and respective technology firms from critical scrutiny.

4.2. Reviving real estate: NAMA and the technology sector

Since Google's arrival in the Docklands, the technology sector has steadily increased its footprint in the Docklands. Much less affected by the global financial and economic crisis, the technology sector was uniquely positioned to provide liquidity and contribute to NAMA's efforts against the tandem of asset price collapse and dried-up credit. According to the NAMA Annual Report and Financial Statements (*ibid.*),

Section 10 of the NAMA Act requires NAMA to obtain the best achievable financial return for the State, deal expeditiously with the assets acquired by it and to protect or otherwise enhance the value of those assets. That is the core of NAMA's mandate.

NAMA consequently set itself the objective of facilitating the delivery of Grade A office accommodation in the Dublin Docklands SDZ (*NAMA annual report and financial statements, 2016*).

Recognizing the mutually reinforcing cycle of credit and urban real estate, NAMA used its close relationship with the IDA in order to identify suitable properties for FDI (*NAMA annual report and financial statements, 2016*) and played a role in the appeal process of the SDZ in the Dublin Docklands (Byrne, 2016a).

Emphasizing greater flexibility in terms of land use mix in the Docklands, NAMA's subsidiaries wanted planning provisions aimed at reference to a dominance of residential development and a 50:50 residential/commercial mix removed (Byrne, 2016a). Once passed, planning decisions within the SDZ cannot be contested so as to ensure planning certainty (*North Lotts and Grand Canal Dock: Planning Scheme, 2014*).

Besides building and selling Class A office space, the construction of student housing is another lucrative business (*Dublin Student Housing Report, 2017*; *GSA Annual Review, 2016*). Culturally, student housing with high turnover rates and tech-savvy, well-educated residents, contributes to the Docklands' modern urban imagination. Economically, building requirements for Class A office space and student housing both follow fixed templates. This ensures a quick and painless transaction for developers and international investors tied to global markets and transnational capital flows.

The combination of NAMA's attempts to kick-start Dublin's property market and the presence of a technology sector largely undisturbed by the crisis, amplified the transformation of the Docklands into the 'Silicon Docks'. Facebook, Google and other major tech firms have repeatedly expanded their office space, delivering necessary liquidity and, in a very literal sense, filling the void left by the crisis in the Dublin Docklands. In 2012, before the SDZ boundary, 12 firms were in the general area, while in 2017, the SDZ features over 69 tech related industries (see [Figures 3 and 4](#)).

In line with these developments, resources available to governance institutions are allocated to attracting outside investors rather than on local populations necessitating attention. In interviews, critical perspectives on technology sector-based growth strategies remained rare and, when present, interviewees uttered critiques mostly in the context of Dublin's housing crisis. Dublin is facing the largest housing crisis in its history (*Action Plan for Housing and Homelessness, 2016*; MacLaran & Kelly, 2014) yet, connections between a focus on the tech economy and an exacerbating housing crisis are, for the most part, not automatically recognized.

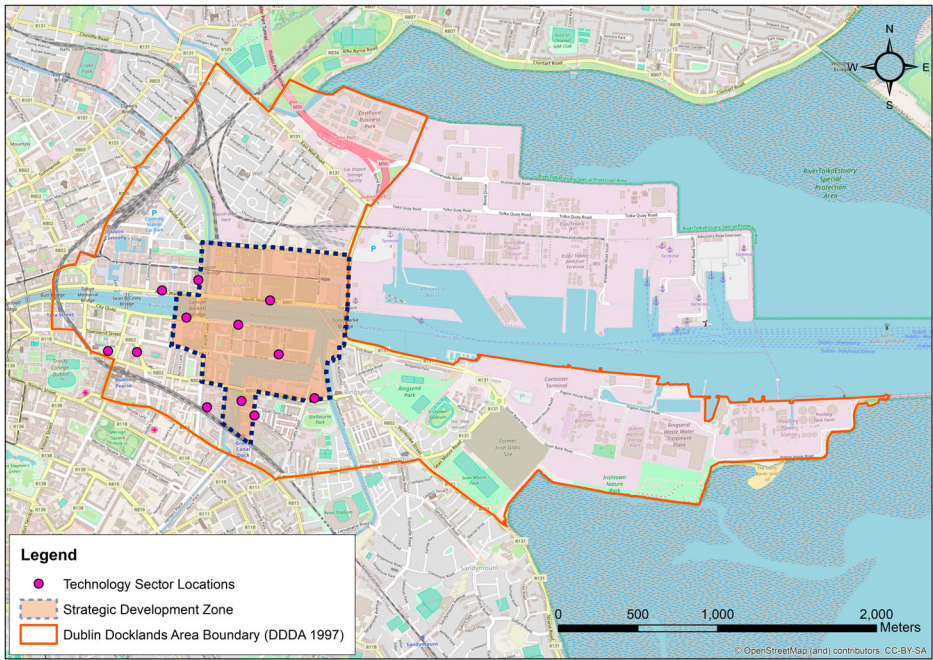


Figure 3. Technology locations prior to SDZ designation.

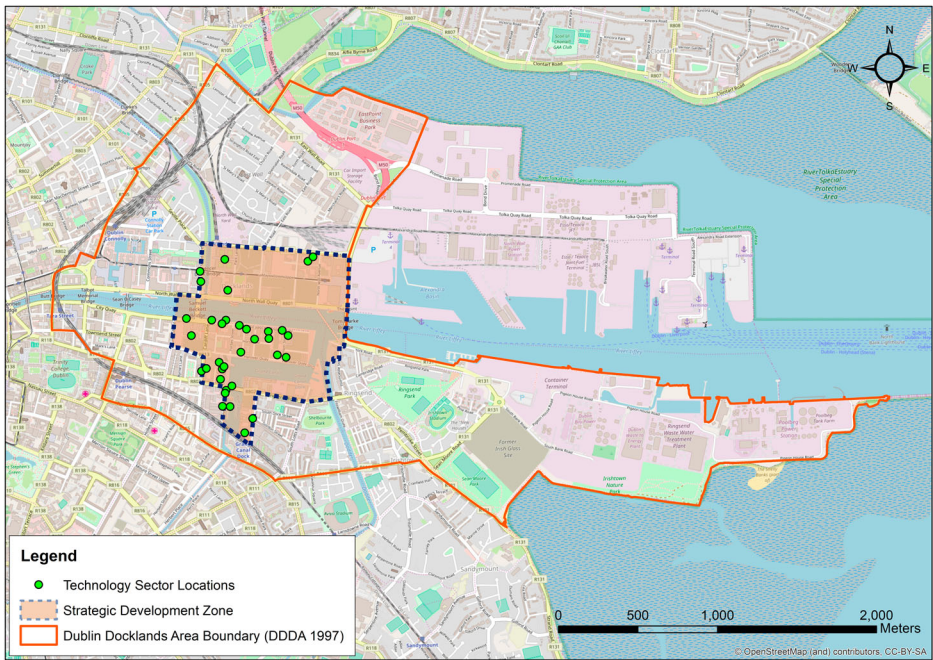


Figure 4. Technology locations after the SDZ designation.

As the December 2016 occupation of Apollo House (White, 2016) and the judicial standoff in subsequent months (Sheehan, 2017) have shown, NAMA cannot shed its responsibility for social, political and economic fragmentations in Dublin. The efforts of protesters to temporarily turn the NAMA-administered office building into accommodations for the homeless, reveal shortcomings at the heart of NAMA's mandate and speak to the contested nature of urban space more generally.

So long as technology sector-based growth strategies exert a price on local communities through their link with the mutually reinforcing cycle of finance and real estate, the question of class will remain a core struggle between the technology sector and local communities severely impacted by respective urban developments. Funnelling local and national resources into the creation of spaces traversed by transnational elites cannot be regarded as an equitable solution to the recent economic crisis. Vague promises of participation and inclusion of local communities will not suffice if that promise is in turn tied up with spending power.

4.3. Attracting investments: IDA and the technology sector

Following the crash, attracting FDI continued as a key focus for the Industrial Development Authority. With the establishment of the SDZ and a revived real estate market emerging in the Docklands, the IDA was able to tailor its activities to a particular geography. Branding the Silicon Docks as prime destination, the IDA was working in tandem with urban governance institutions trying to turn the crisis into opportunity. As a DCC member stated,

The whole country was just dying with economic recession, it created a huge opportunity effort [for] the IDA to go and sell Ireland as super competitive, great access to talent because people are looking for new jobs, and really cheap for office, it was, I think one of the most competitive sites for office. Gone from one of the most expensive to one of the most competitive in a very short period of time. (personal interview, September 1, 2016).

Consequently, the new concentration of technology firms was hugely important for IDA efforts portraying the Docklands as the 'Silicon Valley of Europe'. The IDA sells Ireland's tech story through a heavy investment in marketing material. During the height of the recession, the IDA spent €2 million on a campaign to market Ireland as an innovation and technology hub. Two such targeted messages funded by the IDA that ran in a variety of business publications in Europe include: 'Facebook found a space for people who think in a certain way. It's called Ireland'; and 'Google searched the planet for the perfect location for their business. They came up with Ireland' (Newenham, 2015).

Yet, the IDA is not the only institution selling this narrative. In 2011, as the country dealt with the aftermath of the recession, Enterprise Ireland, a government agency formed as a split from the IDA in 1994 to focus on indigenous and start-up activity, approved €10 million for an international start-up fund to encourage entrepreneurs to locate in Ireland. Expenses of this kind led one academic to claim,

They [entrepreneurs] were seen as really important in getting us out of the economic crisis. It was that rhetoric going on that we needed start-up hubs. In a country that had no money, there was a lot of investment in entrepreneurs and start-ups. – (personal interview, September 6, 2016)

The focus on start-ups and entrepreneurs is easier to spin as a bottom-up narrative. The focus on innovation and corresponding emphasis on openness and new forms of participation, lends the technology sector legitimacy – even while new forms of exclusion, marginalization and economic segregation are manifesting in the city. So far, efforts to attract foreign capital investment remain unimpeded by these considerations.

Dublin's position in an imaginary pecking order of inter-urban competition is likely to be impacted by developments across the Irish Sea – at least, this is the perspective adopted by key stakeholders in the Silicon Docks. Following the Brexit referendum in the UK, Ireland stands to benefit as the sole remaining English-speaking country in the European Union, should Britain indeed follow through with its plans of exiting the union. After the referendum, Irish media were reporting on various technology, real estate, and banking firms that would relocate from London to Dublin. Richard B. Salzman, chief of Colony NorthStar, a leading real estate investment trust, states it this way:

More recently we've been doing a lot in Ireland, which has been a combination of taking advantage of some of the distress that occurred during the financial crisis in Ireland, but also ... perhaps playing offence relative to what the world could look like in a post-Brexit scenario, where Dublin, which is a relatively small city, could disproportionately benefit. (Quinlan, 2017)

The willingness to re-embrace an agenda built on competitiveness and FDI certainly deserves highlighting. Furthermore, there seems to be a complementary logic between a 'top-down' approach hinging on the belief in trickle-down economics, evidenced by continuous efforts to attract FDI, and the 'bottom-up' allure of technology as a participatory, inclusive, and future-oriented sector. One non-profit director states it this way:

I don't think there is any backlash in the community. If anything we're all anxious for that [the tech-sector] to grow bigger, faster. I don't think there are concerns about money being funneled into it [the tech-sector]. I think there is awareness in the city being a tech city, there is awareness of the economy being more and more driven by digital enterprise, and I think people, particularly young people, but people in general, are excited about that. The more that we can be on the crest of the wave of new innovation, new types of jobs and education systems that are more integrated and open, and a society that is more diverse and welcoming, we're for all of that. – (non-profit director, personal interview, September 6, 2016)

4.4. Smart city experimentation

Urban governance institutions in Dublin have also endorsed efforts to turn Dublin into a 'Smart City'. One particular project led by DCC is Smart Arena, an effort in collaboration with representatives of area universities and tech companies such as Google, IBM, and Cisco. Smart Arena is based on the premise that arenas are a microcosm of urban life. During an event, the layout and management of an arena must facilitate ease of mobility amongst large crowds, ensure safety and security of the customers, accommodate customer consumption and waste disposal needs, and provide seamless, high-speed Wi-Fi access to all mobile carrying individuals, while also serving as the source of entertainment. The arena environment is envisioned as a 'work bench', an optimal space to experiment with new technologies and data tracking devices, which can later scale to the remainder of the city (Moran, 2016).

In 2018, the lessons learned in the context of Smart Arena were transferred to the Silicon Docks (Smart Docklands webpage: Ecosystem, 2018). DCC selected Silicon Docks because it houses the largest concentration of tech companies and their employees in Dublin. There is a collective understanding that the culture of the people residing in the Docklands is such that they would tolerate the nuisance of upgrading the space with urban interventions for cutting edge outcomes. The overarching assumption is that the technologically literate demographic of the Silicon Docks can withstand change and disruption. As an international trade consultant in Dublin put it:

We'll get them [infrastructure developments] sorted out on the small space where there is a tech population and a community that would recognize a) the value of it and b) probably tolerate any disruption to pavement being dug up to put a new cable or whatever. – (personal interview, September 7, 2016)

The excitement and hopeful potential of Dublin's smart city strategy is also evident in an increasingly technophile approach to governance.

I think what we are starting to see actually is some roles within the transport, starting to see job titles like smart this and smart that (laughter) emerge. –(Dublin City Council member, personal interview, September 7, 2016)

Dublin City Council also exploits the growth of an entrepreneurial and tech culture by functioning as a speculative venture capitalist. Entering the realm of venture capitalism, DCC has created early stage seed funding for social enterprises and diversified its own investment portfolio. DCC categorizes this new endeavour as a 'smart city accelerator' (Smart Dublin homepage, 2018). Urban residents can approach DCC for capital to solve issues that benefit the public. When DCC adopts the attitude of start-ups and creates venture capital competitions and funding mechanisms for start-ups, it does so with a focus on social entrepreneurship – a rhetoric that engenders and further justifies a technocratic approach to urban management.

5. Concluding thoughts

The crisis and collapse of the Celtic Tiger period created a vacuum at the heart of the Irish model narrative. Reliance on 'free markets', and deregulated, investment-friendly policy frameworks meant unmediated exposure of Ireland to the crisis and subsequently serious questions emerged about the viability of Irish neoliberalism. It is during and, as we argue, partially due to the period of multiple crises (debt, unemployment, etc.), that the technology sector was able to display its seductions most successfully and hold up promises of economic prosperity most visibly. In Dublin, the technology sector has come to fill the void left by the crisis. We have shown how institutions tasked with urban governance have played their part in a crisis response, which recommitted Dublin to the objective of 'competitiveness'. The Docklands mark a post-crisis reawakening, both symbolically and materially, in which a techno-rationality can flourish.

Understanding neoliberalism's capacity to mutate, or in Chun's (2016) words, 'updating to remain the same', requires research endeavours of various scales. Thus, extending the line of inquiry of this paper to the individual level is an important next step. The research at hand, with its focus on urban governance institutions, could be gainfully

accompanied by research on the various disciplinary techniques and regulatory strategies at work in the Docklands.

Through active interventions of urban governance institutions, and due to the capacity of tech playgrounds to elicit excitement and novelty, developments in the Dublin Docklands demonstrably attract political, financial, and popular support. Yet, as the financial and economic crisis has demonstrated, current support cannot serve as the yardstick against which to measure policy directions pursued in Dublin. The principal question remains whether resources could be diverted to more equitable and sustainable ends. This is not to suggest that the expansion of the technology companies does not accrue benefits in Dublin. Rather, we think what needs highlighting – and more research – is *who* stands to benefit and who does not.

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