Technology, Innovation and Neoliberalism in Post-Fordism

1. Introduction

(...) it is at precisely such times that the ideology of “high-tech” comes into its own, giving rise to a general appetite for certain kinds of public narrative in which there is a potent union of popular mythologies of science (“whizz-kids” and white-coated scientists making breakthroughs”) and of free enterprise (heroic thrusting entrepreneurs, unfettered by corporate or bureaucratic ties”

This passage is from Morgan and Sayer’s *Microcircuits of Capital: ‘Sunrise’ Industry and Uneven Development* (cited in Heffernan 2000, 42), a book published in 1988. A few months ago in an interview of *El País*, an interviewee was presented as an “enthusiast who never gives up”. One year ago in another interview in *La Vanguardia*, the leading newspaper in Catalonia, and this man was defined as a man with “lots of self-confidence and proactive passion”. The interviewee is Pau García-Milà, a 24-year-old Catalan entrepreneur, creator of eyeOS¹, who has become the face of success especially in Catalonia but also in Spain and the representation of future and optimism in the height of the current economic crisis. He has delivered speeches and conferences in numerous public and private institutions where he has praised the importance of ideas and entrepreneurship especially during these hard times. His thoughts and experiences are presented in a book titled *Tot està per fer. Quan el món s’ensorri fes-te emprendedor* (Garcia-Milà 2011) (freely translated as Everything is to be done. When the world goes under, become an entrepreneur), with a foreword in the Catalan edition written by Jordi Pujol (President of the Catalan Government 1980-2003) and in the Spanish edition written by Prince Felipe (Spanish

¹ EyeOS is an open source web desktop which allows any user to access desktop without having to install an operative system in every computer, laptop or iPhone. EyeOS is linked to the cloud computer concept.
Pau Garcia-Milà is the vivid representation of this narrative described in Morgan and Sayer’s book but a quarter of a century later. Pau Garcia-Milà is a contemporary hero, a “whiz-kid”, the enthusiast that transforms a costless idea into millions of euros, the common middle class youngster who thanks to his creativity builds up an empire in the high tech sector, the local Steve Jobs or Bill Gates. Garcia-Milà is another local hero emerging in the “high tech”, another example like the Swedish Niklas Zennström (Skype) or the Finnish Niklas Hed, Jarno Väkeväinen, and Kim Dikert (founders of Rovio Mobile, the company that created the game Angry Birds). Some of these “whiz-kids” are not so young anymore and these buzzwords neither. They have already been around for a few decades; they belong to a period of capitalism. A period of the history of capitalism where the symbiosis of idea, entrepreneurship, knowledge and high tech, is recurrent in the political economic debate in order to generate market profitable products in a permanent quest for innovations.

States are part of this quest and have articulated policies to promote innovations through a complex amalgam of institutions named innovation systems to consummate this symbiosis. This paper firstly attempts to place these political initiatives in their historical context (post-Fordism), which emerged in the late 1970s after the crisis of the Fordist regime of accumulation. Secondly, it strives to establish theoretically the relation between the emergence of neoliberalism in relation with the spread of new technologies and how this has shaped innovation policies and systems. This is part of my dissertation project which includes Estonia and Finland as cases of study. In this paper, though, Finland serves as the only example.

2. The crisis of Fordism

Fordism: In the pursuit for economic stability after a great turmoil

The several economic crises that capitalism suffered between the late 19th century and the early 20th century reaching its high watermark in the Great Depression and all the subsequent political social instability placed the problem of economic stability in the centre of the political debate. There was a general consensus in the Western World at the end of the Second World War shared by the political class and different social actors regarding the necessity to implement a set of
regulations in order to achieve long cycles of economic growth. The transition towards Fordism can be widely seen as a transition from laissez-faire to corporate capitalism. This set of regulations organised the economic, social and cultural life during the Postwar boom (the Golden Age of Capitalism) between 1945 and the early 1970s. This period is what is generally referred to as Fordism\(^2\) and it widely aimed at balancing mass production of goods and the mass consumption of those goods in order to avoid the tendency of overproduction and underconsumption, which had triggered the crises of the previous decades (Hefferman 2000, 3). Fordism stood on regulations implemented from the nation state which gave form to the Keynesian Welfare State. Fordism depended on the rational coexistence between nation-state level and the international level, and this could only be achieved by the parallel deployment of a strong institutional apparatus to regulate global economy which was provided by Bretton Woods. The disruption between the national and the international will be what ultimately would doom Fordism in the early 1970s (Hefferman 2000, 29-30; Peck & Tickell 1994, 289-290).

Bretton Woods’s model has largely been connected with the establishment of a new regulatory frame of the monetary and financial global system to escape the sequence of the growth cycles and crises of the capitalist system. This regulation of the global economy meant a major protection of the markets of the national economies, which made them more predictable allowing the intervention of the state. In addition to this, the geopolitics of the early Cold War context was also a determinant factor of this stability. Bretton Woods also meant the United States becoming the global financial hegemon. The United States, but also the Soviet Union\(^3\), was very careful in maintaining the stability of the monetary and financial systems in their spheres of influence. This meant maintaining the economic stability to avoid any major economic crisis that could create a context of political weakness that could, in turn, be taken as an advantage by the other block. Therefore, the Realpolitik of the Cold War also played an important role in this long period of economic stability (Jessop 2002 57-58; Marichal 2010, 138-139, 152-153; Peck & Tickell 1994, 290).

\(^2\) Fordism is named after Henry Ford (1863-1947). His car factories in Detroit employing thousands of people very well represented mass production based on high rates of productivity. At the same time, Ford represented mass consumption, since cars became accessible to a large part of American society.

\(^3\) The Soviet Union did not subscribe to Bretton Woods since it would have meant the practical subjugation to the US financial rules. Nevertheless, a parallel financial and monetary system was created for its sphere of influence.
The national regulatory leg that sustained Fordism was the Keynesian Welfare State which aimed at full employment with a less internationalised economy with a relatively high intervention of the state to redistribute part of the benefits. The aim of redistribution was to balance the relation between mass production and mass consumption by delivering to the consumer (demand side) part of the benefits in order to be reimbursed again in the consumption of goods. This was based on a rationalisation of the labour markets through corporatist regimes which was about the realisation of a “class compromise” between workers, employers and the state (tripartite consensus), which meant a strong institutionalisation of the wage bargaining, placing “central labour organisations in a role of agent of social control over the shop floor” (Lash 1985, 215). In essence, the Keynesian Welfare State was “the mode of social regulation and the accumulation existing in a dynamic relationship: the former is defined in the context of politico-economic parameters, but also plays a part in shaping the course of accumulation itself” (Peck & Tickie 1995, 285). As a consequence of these regulatory settlements, more equal societies emerged, which eased the social turmoil which had characterised capitalism until that moment. The impact of this new societal order prompted the emergence of a large consumer middle class and the Americanisation of the Western world by the exportation of the “American way of life” during the 1950s and the 1960s. Fordism was not only about political economy but also a model of society which had its evident impact on the cultural productions of the 1950s and 1960s with the emergence of Hollywood as the archetypical example (Hefferman 2000, 5; Jessop 2002, 59–60; Fontana 2011, 130–131).

The crisis of Fordism

Fordism was anchored in the stability provided by the Bretton Wood’s model, which allowed the control of the degree of internationalisation of the national economy. In the early 1970s, this global economic order began to crumble. From an international politics perspective, the effective downfall of the Bretton Woods system is the consequence of its own success: the successful economic recovery of the devastated economies of Western Europe (especially West Germany) and Japan created a new world economic context that was not predicted by Bretton Woods. When Western Europe and Japan began to be competitive economically vis-à-vis the United States, the rules established in Bretton Woods were no longer adequate in a multi-polar world economy (Marichal 2010, 170; Agnew 2005, 169; Cox 1987, 224). The option chosen was not to
reformulate the rules but to abandon them without building a similar institutional structure. Bretton Woods remained as a politically empty institutional framework incapable to rationalise world economy:

By the early 1970s its rules concerning gold parity and fixed exchange rates ceased to be operable and were abandoned, though the institutions continued as a framework for applying the residue of the system and for exploiting the possibilities for a reconstructed monetary order […] Henceforth, a series of issues beset the economic relations of the major capitalist powers: exchange rate policy, interest-rate policy, the surveillance of international indebtedness, access to markets, and protection of market shares. There seemed to be no longer any effective overall means of regulating the world economy. (Cox 1987 224)

The economic policies of the states would be tied to these “series of issues” whose fate was determined by the world markets effectively making the state a prisoner of this uncontrolled world economy (Cox 1987, 224). The state economic structure experienced a series of mutations on the very foundations of the Keynesian Welfare State. As a consequence of the inability of Bretton Woods to control the monetary circulation, capital became extremely mobile and soon a global credit system emerged. As a consequence, Transnational Corporations (TNCs) became actors that could escape the regulations of the Keynesian state especially regarding the tripartite consensus, critically important for the maintaining of corporatism: TNCs represented in the employer unions demanded more flexibility in the negotiations of wages as well as jobs, threatening to move parts of the production overseas. Consequently, real wages eventually began to decline affecting the demand side, which was one of the essentials of Fordism (Peck & Tickell 1995, 292–293). The result of all this turmoil opened a new global landscape characterised by very different conditions. The fragmentation of the core markets in the major capitalist economies and the subsequent impact on the production: new standards of efficiency, new models of management, new high valued sectors, new logic of production characterised by a far-reaching division of labour, de-industrialisation and booming of the service sector (Elam 1995, 44–45; Hassan 2010, 304). This new order is characterised by being poorly ordered: regulation was surpassed on the global scale as well as on the national scale by the new economic environment; the retreat of the political institutions from the global regulatory order seemed to be irreversible. This deregulated model of organisation of capitalism is what is identified as post-Fordism.
3. Post-Fordism: flexibility, technology and innovation

*Featuring post-Fordism*

The concept of post-Fordism is difficult to depict. From a regulatory perspective, many scholars have underlined that post-Fordism has not established an institutional fix to rationalise the accumulation process like Fordism did. Therefore, some authors like Jessop or Peck & Tickell suggest that perhaps it would be more precise to call it non-Fordism or after-Fordism (Jessop 2002, 97; Peck & Tickell 1995, 292). Hence, post-Fordism has not yet realised a stable model for economic growth which would be based on flexibility and permanent innovation:

Its virtuous circle would be based on flexible and networked production; growing productivity based on some combination of economies of scope, economies of networks and process innovations; rising incomes for skilled manual and intellectual workers (...) increased demand for differentiated goods and non-exportable (and hence also non importable) services favoured by the growing discretionary element in these incomes; increased based on technological and other innovation rents and the full utilisation of flexible capacity; reinvest in more flexible production equipment and techniques and/or new set of products; and a further boost to productivity owing to a new round of creatively destructive innovation, economies and economies of networks. (Jessop 2002, 99–100)

In order to boost this cycle based on flexibility and innovations, governments’ regulatory initiatives shifted from a demand to a supply side, to overcome many of the “rigidities” often rooted in the tripartite corporatist system that characterised the Keynesian state. These new governmental initiatives in search for the post-Fordist cycle have tried to bring together concepts such as innovation, ideas, creativity, knowledge, technology; a varied number of different ingredients for a cocktail that needed a new sort of statism in order to get a decent pairing. If the representation of Fordism on the state level is the Keynesian state; in post-Fordism this is represented by the Schumpeterian state.
The *Schumpeterian* state is characterised by the transference of sovereignty from the nation-state scale to the local scale. The necessity for flexibility imposed by the logic of coping with the constant production of innovations implies a regulatory reaction reflected in local initiatives, often presented in the forms of local clusters (university-technological parks milieus, known as technopoles) urban planning engineering among others. This engagement between the local and the global by outflanking the nation-state scale has been labelled as “glocalisation” and has often generated tensions originated by the regulations between the different political bodies and in the organisation of society. The shift from Keynesian to Schumpeterian is far reaching; it is a truly full scale reaccomodation of the social behaviour and institutions represented by the emergence of new types of governance (Amin 1995, 46; Swyngedouw 2004, 26; Peck & Tickell 1995, 299). Technology plays a central role in all this politico-economic and social reaccomodation of post-Fordism.

*Technology as a fundament for the process of production, as a new area of marketisation and as the fetish object of post-Fordism*

Technology represents a tool or vehicle needed for these new sorts of flexible production or as a new space for marketisation. As mentioned in Jessop’s passage above, technology provides the “equipment and techniques” required for a very flexible and segmented process of production were space has become laminated. The present financial system would not be able to function without the parallel development of advanced computer programmes. The creation of artificial transactions in today’s financial markets by enabling a large-scale derivative trading would have been impossible without technological advances in computer power. Derivatives are bought and sold within minutes in order to maximise the benefits: the speed of trading is so high that data is worthless after 15 minutes; only by automated trading programmes directly connected to the stock of the exchange system it is possible to keep with the pace (Treanor 2005). On the other

---

4 Joseph Schumpeter viewed the constant creation of new consumer goods, new methods of production and new markets carried out by enterprises as the fundamental impulse of the capitalist economy. From this notion of constant creation where the new (products, methods of production etc.) replaces the old, Schumpeter frames the concept of creative destruction as a natural process to catalyse economic prosperity (Schumpeter 1942/1994).
hand, technology represents a new succulent market for high added value products but also for the application of constant nuances to the same products which are sold as a completely new product: a new application, programme, game, for the Iphone can be worth a fortune with a very low cost of production.

Due to its centrality, both as an indispensable vehicle for production or for the service sector and as new space for marketisation, technology has become part of the societal and political everyday life. The need for knowledge for the use of new technological equipment in a constant environment of innovation has lead a new generation of professionals to master this expert knowledge. In this context, technology has gained an aureole of progress, liberation and a means for “social lift”. The beginning of the 2000s was the time of the hangover of the high-tech economic boom of the second half of the 1990s. I was in upper high school and I can perfectly recall how many of my classmates wanted to study something related to technology (telecommunication engineering, informatics, etcetera). Teachers recommended students to follow this professional path, full of interesting professional challenges and always changing; the future was bright. This example reflects that technology was not viewed as a vehicle for producing goods but much more than that: it was post-industrial, post-capitalist, environmentally clean and most importantly, it seemed like it had historically overcome what seemed to be the unmovable tensions of capitalism between labour and industrial production (Hefferman 2000, 36–39). This mood of progress is easily conducted by the segmented and flexible processes of production and the emergence of a new sort of services which have relapsed the space creating completely different working environments where the power relations between employer and worker have become more diffused. This apparent ideologically neutral narrative of progress has partly enacted the political legitimacy of the transition from Fordism to post-Fordism. In the next section this will be extended.

*Innovations and innovation systems*

Innovations are an indispensable element for post-Fordism, new products; services and complex machines are needed to keep the virtuous cycle of post-Fordism alive. The Schumpeterian competition state understands permanent innovation as the moving force of economic growth.
Subsequently, the state should capitalise the promotion of innovation (Jessop 2002, 122). But what exactly is an innovation?

The general definitions of innovation do not include the market dimension of innovation; an innovation is not *per se* a market product. Innovation derives from the Latin word *innovare*, which means to renew, to alter. The *Webster’s Encyclopaedic Unabridged Dictionary of the English Language* (1989) defines *innovation* as “something new or different introduced” and *to innovate* as “to introduce something new; make changes in anything established”. The *Cambridge Advanced Learners’ Dictionary* (2011) defines *innovation* as “(the use of) a new idea or method” and *to innovate* as “to introduce changes and new ideas”. Nevertheless, the most employed definitions of innovation come from business and words such as products, markets, technologies are often introduced and they have generally relied on Joseph Schumpeter’s notion of innovation. E.g., the *Business dictionary* (2010) defines *innovation* as “the process by which an idea or invention is translated into a good or service for which people will pay, or something that results from this process”. The Schumpeterian understanding of innovation is common in the definitions employed by governmental institutions worldwide. In the EU’s Lisbon Strategy (2000) “innovation consists of the successful production, assimilation and exploitation of novelty in the economic and social spheres”. OECD’s Oslo Manual⁶ (2005, 46) defines innovation as “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations”. Finland’s and Estonian’s governments, my two cases of study in my dissertation defined in similar fashion: The Finnish government defines innovation as ”all the measures which produce or aim at producing technologically new or essentially improved products or processes” (FIS website 2011), but in an evaluative report of the Finnish Innovation System the market oriented goal is inherent in the definition: “new creations of economic significance, primarily carried out by firms (but not in isolation). They include product innovations as well as process innovations” (Veugelers *et al.* 2009, 62). The Estonian government defines innovation as “utilisation of new ideas in order to: 1) market a competitive product or service; 2) rearrange internal processes of the organisation (production, marketing,

---

⁶ The Oslo Manual or “guidelines for collecting and interpreting innovation data” is considered the most respected source for measuring the evolution of innovations in relation to economic growth. From a theoretical perspective, the Oslo Manual attempts to rationalise from a market oriented mindset the nebulous concept of innovation. The Oslo Manual is the closest document to a global “innovation blueprint” since it also has developing countries in its scope.
delivery, management, etc); 3) utilising a new or significantly improved technology in industry, services or public sector” (Estonian Government 2011).

Innovation policies are initiatives to generate a good environment for the creation of innovations. Nevertheless, is there a clear path to follow for the creation of innovations when these are in constant change? This is not about facilitating the construction of new industries to produce certain products but something more blurry: it is about ideas, about knowledge and skills, and about entrepreneurship. Garcia-Milà’s eyeOS is the result that aims to be achieved, but Garcia-Milà was not beneficiated by anything related to innovation policies. EyeOS, however, is about bringing together all these elements. The innovation system is the institutional framework used to tackle the problem of the generation of innovations. Many states have innovation systems and they are organised differently. In some of them, the state has a more important role than in others, but all of them are a complex amalgam of different agencies (public and private) networking together. The Finnish innovation system (FIS) is firstly the government with all the ministries, but with the Ministry of Education, the Ministry of the Economy and the Ministry of Finance playing the central roles. Secondly, there are a group of specialised agencies for the promotion of innovation, such as Tekes and Tieke. Finally, the FIS directly involves universities, public research institutes, private companies and private research institutes. It operates both as a network for the correct application of the innovation policies and as a body for the generation of expert knowledge for the policy making (Finnish Innovation System Website 2012). It is an example of the new statism needed in post-Fordism; the Schumpeterian state often functions with this network governance in search for a technical expertise for governing.

---

7 EyeOS was invented in Olesa de Montserrat, a small town 60 km from Barcelona by a two people who were not financed by any government, company or venture capitalist. Their financing relied on the family and only when it was in motion it began to receive some capital flows from venture capitalists (Garcia-Milà, 2011)

8 Tekes or the Finnish Funding Agency for Technology and Innovation, Teknologian ja innovaatioiden kehittämiskeskus, is a public funded agency for financing research, development and innovation in Finland. Tekes is one of the agencies in the FIS and it grants 600 million euros every year to directly finance projects in companies, research centres and universities (Tekes website, 2012).

9 Tieke or the Finnish Information Society Development Centre, Tietoyhteiskunnan kehittämiskeskus. has as a main objective to bring together the various key players to facilitate the development of the Finnish Information Society. Tieke is especially active in the ICT sector. Tieke “operates at the crossroads where business and industry, public administration and individual citizens meet” (Tiekes website, 2012)
4. Neoliberalism

Consensus in Fordism and in post-Fordism

The social consensus of Fordism pivoted around corporatism. The Fordist deal was the tripartite consensus and collective bargaining which was based on the need to preserve social and economic stability:

They sought reforms that would enable corporations to exert greater control over markets and prices and bring stability and predictability to economic activity so that their increasingly large investments could be protected and future growth planned on a rational basis. Thus many influential capitalists came to accept that a degree of state regulation of business practices and ostensibly cooperative; rather than overtly confrontational, relations with labour at the point of production were integral to the achievement of greater economic stability, the long term growth and protection of profits, and, not incidentally, the extension of corporate capital’s social power (Heffernan 2000, 29 –30).

On the other hand, central labour unions accepted the corporatist deal instead of more confrontational tactics, such as strikes, which were ostensibly reduced in the Keynesian states. In the ideological spectrum, the Keynesian state is often linked with social democracy. The Keynesian model was, however, widely accepted by the majority of the conservative parties in the West, such as the German Christian Democrats and Gaullists, during decades as a positive form of organising the economy.

The Fordist consensus was not only built upon social justice but to a rational economic regime that proved to be stable and providing growth for decades. Its legitimacy began to crumble when it could not deliver the same results. The Schumpeterian state has, in the name of more flexibility, progressively broken the tripartite consensus and the collective bargaining defending a more efficient new model which could provide economic stability. Nevertheless, during the last three decades, there have not been long periods of economic nor social stability comparable to the 1945-70 period. In this context, neoliberalism emerged as the narrative for 1) shifting the
consensus towards economic liberalisation by naturalising or neglecting its weaknesses, its incapacity to provide economic and social stability, in order to legitimate and to give the state a policy roadmap in order to govern according to the post-Fordist model of capitalism and 2) as a firewall to block any political attempt which does not respond to market needs.

Neoliberalism is a nebulous concept difficult to handle: According to Plehwe, it “is anything but a succinct, clearly defined political philosophy” (Plehwe 2009, 1). There are several definitions of neoliberalism but they are not totally accurate and problematic to employ. David Harvey (2005) describes neoliberalism as a project to restore the power from the economic elites by an upward redistribution of wealth accumulation by dispossession. According to Crotty, neoliberalism “is built on deregulation, liberalization, privatization and ever tighter global integration” (Crotty 2003, 361). Jamie Peck’s definition of neoliberalism emphasises its unclear nature: “neoliberalism has always been about the capture and reuse of the state, in the interests of shaping a pro-corporate, freer-trading “market order”, even though this has never been a process of cookie-cutter replication of an unproblematic strategy” (Peck 2010, 8). What is clear is that neoliberalism’s raison d’être is the opposition to the Keynesian regime. Peck also framed as the political essence of the problem of instability with constant crisis and short growth cycles. Neoliberalism claims to be striving for stability but the measures given by neoliberal ideology aggravate the volatile nature of capitalism (Peck 1995, 281–282). However, neoliberal discourse has managed to become increasingly more dominant since the crisis of Fordism in the 1970s thanks to an effective and well aired narrative of opposition to Keynesianism based on labels and straightforward and frequently contradictory argumentations.

Neoliberal discourse deploys figures of liberty and freedom in opposition to regulation in order to justify de-regulations and a major internationalisation of the economies. Liberty is reduced to economic liberalisation since neoliberal thought assumes “that individual freedoms are guaranteed by freedom of the market and of trade” (Harvey 2005, 7). According to this logic, any regulation can be labelled an action against liberty. Liberty and freedom were also employed as mottos to justify the assault on corporatism: trade unions were described as old bureaucratic apparatuses which were coercing the liberty of their members (Hassan 2010, 304–305). These
biased interpretations of concepts often enter in contradiction with themselves. A good example are the neoliberal principles of non intervention and the high interventionism without any democratic control on key international institutions, such as the IMF, in order to block any possibility for the re-emergence of Bretton Woods (Harvey 2005, 70). The ideological liquidity of neoliberalism is a central feature of it: “Constructing a flexible creed of Neoliberalism would be a creative process, entailing the conscious production of new ideational and institutional networks, connecting islands of free-market thinking, and animating common threads of emergent thought-practice (Peck 2010, 39).” The dichotomy of intervention – non intervention is also related to progress and prosperity in opposition to the backwardness of the huge and inflexible and non-creative mass production industries (Moisio 2010, 7–8).

... technology and innovations

In post-Fordism, technology is not only useful as a means of production or as a new space for marketisation but it can also be easily connected to this narration of progress and creativity. One of the characteristics of the Schumpeterian state is that it is engaged in the production of innovations in a changing global economic environment represented in the constant segmentation of the production process and the emergence of several new services. The Schumpeterian cycle, though, also involves creative destruction or the constant substitution of products and services by newer ones. Technology and expert knowledge are supposed to constantly deliver all these high tech innovations. In this context, technology is used to relativise the problem of the uneven growth and the constant crises of neoliberalism: crises might have a brutal rejuvenating role, the needed creative destruction phase for the emergence of new high profitable innovations delivered by the high tech sector (Peck & Tickell 1995, 283). This discourse can be found in the book of García-Milà (2011) where he argues that his example of success in the pinnacle of the worst economic crisis Spain has experienced in decades proves that in these times is when the terrain is ready for new ideas and entrepreneur ventures with the required knowledge. These reflections of García-Milà also denote a particular understanding of knowledge and ideas: knowledge is portrayed as something purely technical. Ideas are moments of creativity and with the symbiosis of both, great creations arise; the characterisation of the high tech entrepreneur made by García-Milà resembles more that of a Renaissance man. The success of the creations, though, is evaluated according only to market results. Hence, technical knowledge is not a depoliticised
carrier of positive notions of progress but highly embedded in the logic of the narrative provided by neoliberalism.

4. Neoliberalism and innovation governance: the example of Finland

Background: the centrality of innovation in the market oriented shift of the Finnish Welfare State

The context of the Cold War and the legacies of the Civil War, the Interwar Period, the Winter War (1939-40) and the Continuation War (1941-44) were determinant factors for the building of the Finnish welfare state. The seeds of the socially tumultuous decades after the independence were still there at the end of the Second World War: social and territorial inequality and economic underdevelopment aggravated by the destruction of the Winter and Continuation Wars. Finland is most likely to be the state internally more affected by the Cold War. In this context, the development of a Fordist model of state and its subsequent Keynesian Welfare State was viewed as a matter of national security in a state that was forced to constantly maintain threatened neutrality between the East and the West blocks. (Moisio 2010, 19-20). The construction of the welfare state was driven by the national mindset as it is reflected in the development of the periphery through the spread of the state services all over the territory brought Finland very rapidly to the expected goals of territorial and class equality which effectively brought down social disparities. In the late 1970s, Finland was a welfare state comparable to the other Nordic countries, able to provide welfare all over the territory even for the inhabitants of the most peripheral areas. In parallel, a highly agricultural society turned into a typically industrialised society with the majority of people working in the tertiary and secondary sectors. The success of this model has been one of the “trademarks” of Finland and it is deeply rooted in Finnish identity (Moisio 2010, 19-20).

As many other states in the world during the first decades of the post-war period, Finland developed institutions dedicated to the research and creation of new technological assets. However, the logic of the Cold War placed security as a priority on economy with a clear control by the state on the innovation sector. Science was used by the states to reach political goals, such as improving the military or by using science developments as mere propaganda (Finnemore 1996, 36–37. Soete 2007, 276). The Finnish state planned the innovation structures largely
according to these principles which fit the notion of national mindset. The innovation framework generated to this period was then re-oriented.

In the 1980’s, after the capitulation of Bretton Woods, an important part of the legislation that entered into force in the 1980’s emphasised concepts like internationalisation and competition which echoed in the creation of new institutions. Therefore, the welfare state in Finland experienced a Schumpeterian manoeuvre: it shifted from a national scope targeting the equality and development of the territory to a global scope aiming at competitiveness in the global markets (Moisio 2010, 21). The creation of innovations as an asset for competitiveness in the global markets was a key aspect in the development of the knowledge based society project in the 1990’s. Consequently, new institutional frameworks with public-private partnerships became common in the development of innovation policies (Pelkonen 2008, 53).

The Finnish economy experienced a steady growth during the second half of the 1990’s and the beginning of the 2000’s. The parallel success in world economics of transnational corporations (TNCs) related with high tech and communications (especially Nokia) helped to portray the image of Finland as the example of success in world economics. The Finnish information society was based on the creation of a highly competitive society through education and the spread of the new technology throughout the society, the public sector playing an active role. The state lead the project and largely managed one the one hand to redistribute part of the benefits of the steady growth and on the other hand also to create a highly educated society based on egalitarian principles that proved to be competitive in the global markets (Castells & Himanen 2002). In the centre of this story of success there was the Finnish Innovation System (FIS), Suomen innovaatiojärjestelmä, which reflected the close relation between the capabilities of a nation to generate know-how and economic growth. In the last years though, the egalitarian principles of the Finnish information society of the 1990’s and early 2000’s have not been prioritised. The Finnish government has legislated for a recentralisation of the high tech sector in the capital region accompanied by a far reaching university reform that emphasises excellence over territorial equality. This shift is a result of the re-centralisation of competences from municipal to state level in combination with cuts in the funding of the general university budget and at the same time the construction of new Helsinki-based universities (Aalto University) research centres. In addition to this, the government launched an ambitious plan to “metropolise” Helsinki
in order to convert the capital region into a highly attractive economic region to successfully compete in the global arena (Pelkonen 2008, 39, 82. Moisio 2010, 22-23).

Innovation governance

As stated above, in the context of post-Fordism, neoliberalism operates in 1) shifting the consensus around economic liberalisation by naturalising or neglecting its weaknesses, its incapacity to provide economic and social stability, in order to legitimate and to give the state a policy roadmap in order to govern according to the post-Fordist model of capitalism, and 2) as a firewall to block any political attempt which does not respond to market needs. Innovation governance, through the Innovation System, closely follows this scheme in Finland. Nonetheless, this Nordic country poses a theoretical challenge: can a Nordic welfare state have a post-Fordist mindset and have internalised neoliberalism?

Neoliberalisation is perhaps a better term to avoid this theoretical impasse and is “the mobilisation of state power in the contradictory extension and reproduction of market(-like) rule” (Peck & Tickle 2012, 4). Therefore, neoliberalisation is a *contingently realised process*, not as an end-state or condition and it is variegated depending on the space and the moment where is applied (Peck & Tickell 2002). The different processes of neoliberalisation occurring worldwide are not based on a single neoliberal blueprint but they are in permanent adaptation to the contingencies they face (different institutional arrangements, societies etc). Therefore neoliberalisation sometimes is not only about deregulation but paradoxically it is about regulation or to re-regulate what has been de-regulated to secure locally specific strategies. Therefore, the answer is yes: the background of the Finnish case reflects that this is possible not by the decommissioning of the welfare state but by changing its scope via de-regulating some areas of government and re-regulating other ones. Innovation governance is a clear example of how this neoliberalising process meets the welfare state.

Innovation governance very well represents this double characterisation of neoliberalism. 1) It has internalised market orientation and a clear path towards it. As stated in section 2, the Finnish Innovation System also provides the expertise for the formulation of innovation policies. 2) The
FIS effectively safeguards this market oriented path although it is composed by a very different type of agencies, not only governmental but involving inclusively parts of the civil society reproducing Fordist corporatist models of the welfare state. How come this narrative is so preponderant if there are different societal actors with different interests involved? Because of the nature of the governance network which is not about corporatism and this is well represented by the FIS which contains a *hegemonic* understanding of how the innovation system is supposed to be.

**Epilogue: A Gramscian approach to the Finnish Innovation System?**

At this stage of my research, I cannot make a consistent theoretical description of why I think a Gramscian approach will be very useful for understanding how neoliberal narratives are reproduced throughout the FIS. Instead, I will just present a few hints. Gramsci introduced how the autonomy of civil society itself, through the development of state bureaucratic structures embracing many parts of the civil society, could be mutilated until its subsequent absorption due to the very hierarchical nature of bureaucracy. Embracing, in this context, does not mean including or arriving at a consensus – it means extending the tentacles (Anderson 1976, 12–13).

Davies’ (2011) critical approach to “network governance” places networks perfectly contained within the borders drawn by the state remaining under its control. Hence, network governance is a utopian stage that has never been reached: networks exist but they are subjugated to the state hierarchy and have been employed to transmit the hegemonic neoliberal project. It functions as a façade which represents the substitution of government for a more integrative form when it is not more than an updated form of government. This has an immediate connection to innovation systems which function largely under this contradiction: they largely employ the rhetoric umbrella of network governance integrating many different agencies, when at the same time are attached to the programmes and policies decided by the governments which do not leave much room for alternatives. Consequently, there is a shared discourse within the innovation systems which is about neoliberalisation.
References


Garcia-Milà, P. 2011. *Tot està per fer. Quan el món s’ensorri fes-te emprendedor*. Barcelona: Plataforma


http://web.inter.nl.net/users/Paul.Treanor/neoliberalism.html
