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DOI

[10.5278/ijsepm.3502](https://doi.org/10.5278/ijsepm.3502)

Publication date

2019

Document Version

Final published version

Published in

International Journal of Sustainable Energy Planning and Management

Citation (APA)

Maestosi, P. C., Berkowitz, P., Brezet, H., Bylund, J., & Vetrutto, G. (2019). Virtual round table on innovation for smart and sustainable cities. *International Journal of Sustainable Energy Planning and Management*, 24, 163-178. <https://doi.org/10.5278/ijsepm.3502>

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Virtual round table on innovation for smart and sustainable cities

Paola Clerici Maestosi*, Peter Berkowitz, Han Brezet, Jonas Bylund and Giovanni Vetrutto

URL: <http://doi.org/10.5278/ijsepm.3502>

INTRODUCTION: *Why a Virtual Round Table on Innovation for Smart and Sustainable Cities?*

by Paola Clerici Maestosi

Innovation is, according to the definition given in *Innovation in Firms: A Microeconomic Perspective*, OECD, 2009, the “*implementation of a new significantly improved product, good, service, or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations*”.

We know that innovation can be incremental – in terms of optimization of existing products, services or systems - or radical such as innovations which dramatically change social and business practices, and create new markets.

Concerning the urban dimension, specifically sustainable urban development, it appears clear that incremental improvement, whilst potentially important, could not be sufficient to bring the required structural change.

Cities are indeed the best place to experiment innovation as its societal dimension is characterized by a combination of technology, infrastructure, production systems, policy, legislation, user practices and cultural meaning.

Moreover cities are interconnected social, technical and ecological systems made by people, infrastructures, buildings, flows, functions and services.

Cities are the principle engines of innovation and economic growth.

However, urban activities consume a significant amount of resources, generate waste and pollution, and cause structural depreciation.

Due to our increasingly globalised production and consumption systems, negative environmental impacts are felt locally and globally.

To achieve sustainable urban development, targeted growth in key technology sectors, is required to provide the infrastructure and solutions that support operations and behaviours which reduce the negative environmental impact caused by urban life and urban development.

It is a shared opinion that sustainability challenges cities are facing cannot be approached and supported by traditional disciplinary modes of research, innovation and funding as the limitation due to working with the silos approach is misleading.

This does not mean that there is only one pathway to support the transition to sustainable urban development.

This Virtual Round Table on innovation for Smart and Sustainable Cities compares pathways experimented in three different country in Europe: Netherlands thanks to the point of view of Han Brezet, Sweden thanks to Jonas Bylund, and las but not least Italy thanks to the contribution of Giovanni Vetrutto.

Added value is the foreword provided by Peter Berkowitz Head of Unit - Smart and Sustainable Growth, Directorate General for Regional and Urban Policy, European Commission.

I would like to thank all of them and express my sincere appreciation for their contribution.

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FOREWORD

by *Peter Berkowitz*

Head of Unit - Smart and Sustainable Growth
Directorate General for Regional and Urban Policy
European Commission

The European Union needs to reach net-zero greenhouse gas emissions by 2050 if it is to contribute to stabilising the climate this century, as reflected in recent IPCC reports. A communication from the European Commission last November (European Commission 2018) showed that this is challenging but feasible from a technological, economic, environmental and social perspective. As such, the UN Sustainable Development Goals (SDGs) provide a guiding framework to address both the environmental and social dimension of moving to net zero-carbon societies.

However, there are many uncertainties regarding potential pathways towards the achievement of deep societal and economic transformations necessary to achieve this shift. Indeed, given the diverse starting points and the magnitude of the changes for our economies and societies, this will affect unevenly citizens, regions and sectors across Europe.

For instance, many parts of Europe need to diversify their economies as they move out of carbon-intensive or coal activities. Fast growing regions face different types of challenges, such as increasing congestion, growing energy demand and population pressures. With increasing urbanisation, cities and urban areas will even play an increased role in this transition. At the same time, the involvement of rural areas will be essential, notably as regards the sustainable production of food and renewable energy sources.

Public, private and civil society actors at local level will deliver these changes on the ground. The European Union will play an important role in supporting them to deliver a just and inclusive transition. This means a process of transition that is good for people, manageable at local level, benefits our businesses whilst at the same

time leads to the necessary greenhouse gas emissions reductions and less pressure on the environment.

Deep transition requires new solutions

In order to facilitate a process of deep transition, Europe needs new policy approaches to promote emerging industries and new value chains, based on breakthrough technologies. Businesses need access to technical knowledge and the expertise of other actors to develop innovative solutions and participate in new value-chains. Further action is therefore needed to facilitate deeper strategic inter-regional collaboration along industrial value chains. By building on investment in areas identified as part of smart specialisation strategies, participants in the quadruple helix can identify new areas of potential collaboration.

Smart specialisation strategies within the EU's Cohesion Policy ensures that industry, researchers, public sector and civil society work together to identify business needs and local opportunities for investment in innovation. These strategies are a pre-condition for Cohesion policy support – €41 billion for the 2014–2020 period – to areas of innovation-led growth potential. Energy has been one of the most common areas chosen in these national and regional smart specialisation strategies. This means that significant funding in the area will also be available and more importantly opportunities for cooperation. To support the cooperation and have real projects across the energy innovation chain, the Commission is promoting the creation of partnerships between the interested regions. These partnerships aim at connecting regions with similar smart specialisation priorities and helping them realise innovative projects across the value chain. So far, five partnerships have launched in the area of energy – on marine renewable energy, on bioenergy, on sustainable construction, on smart grids, and on solar energy.

In order to test new approaches to developing innovative solutions to transition, the Commission has launched two pilots (European Union 2018). One of the pilots is



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aimed to help interregional innovation projects across value chains, including on energy (for sustainable construction and for marine renewable energy). The other pilot supports the industrial transition of regions that are experiencing specific structural challenges linked to technological change and the transition to a low-carbon economy. The results of these pilots will feed into the development of smart specialisation strategies post-2020.

The role of cities needs to be further strengthened in managing the low carbon transition

Engaging stakeholders in regional and city planning and economic development processes increases the ownership and better embeds action in the local setting. Many cities have organised public consultations and citizen involvement in projects with EU funds and the partnership principle is, for example, a cohesion policy requirement. However, more can be done to increase the role of cities and to engage citizens across Europe.

An example of such engagement is the Urban Agenda for the EU, which aims to strengthen the urban dimension in EU policies and to improve the involvement of urban authorities in their design and implementation. The agenda represents a new multi-level working method promoting cooperation between Member States, cities, the European Commission and other stakeholders through thematic partnerships. Work on the fourteen partnerships is currently ongoing covering key urban and related low-carbon transition themes¹. It shows that collaboration between different levels and broad engagement of stakeholders can give a multitude of solutions to concrete problems cities face that are tailored to the needs of these cities.

EU funds to support deployment of new solutions

The EU funds – although small compared to the investment needs – play an important role in stimulating the

change on the ground. In particular, EU cohesion policy has a long experience in supporting industrial and environmental transition of Europe's regions. It provides financial support for investments in a wide range of areas that contribute to smart, sustainable and inclusive growth and jobs. More importantly, Cohesion policy also represents a policy framework for integrated territorial development and is particularly well suited to address issues related to structural change, working in partnership with actors on the ground in a place-based and holistic approach.

For example, in the current 2014–2020 funding period, EU cohesion policy provides substantial support for the realisation the Energy Union on the ground. This includes significant funding of EUR 69 billion – or around EUR 92 billion with national public and private co-financing – for investments in a variety of projects across the five Energy Union dimensions. Implementation is progressing well, with 71% of the total funding allocated to projects by end 2018. Importantly, this support goes beyond funding and cohesion policy provides Member States, regions and cities with administrative capacity building and technical assistance and cross-border cooperation possibilities, so that investments actually contribute to a real and lasting transition.

For the 2021–2027 period, Cohesion policy will continue to put a strong emphasis on supporting a clean and fair energy transition, by supporting innovation and the deployment of new solutions. It will do so by supporting Europe's cities and regions to anticipate and manage the energy transition in a targeted and tailored manner. The regulatory proposals offer a shorter, modern menu of priorities to build smart, green, low-carbon and more social Europe. Urban and territorial aspects are given more prominence with a separate priority objective. Finally, the Commission has proposed a dedicated instrument to support the development of interregional value chains as well as reinforcing the commitment to the Urban Agenda with the European Urban Initiative.

¹ e.g. energy transition, climate adaptation, jobs and skills in the local economy, mobility, urban poverty, housing, air quality. For more info: (European Commission 2019), (European Commission n.d. A)



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Concluding remarks

Europe must accelerate its transition towards a carbon-neutral economy. This can only be achieved by the full engagement of regions and cities in a process of deep transition. Through Cohesion policy, the European Union will strengthen its support to this process, notably through support to smart specialisation,

deployment of new solutions and development of value chains. However, success will depend on engaging all relevant actors at all levels. This will require new ways of working, the development of new models of public sector management and a deeper understanding of the policies that can facilitate system change at subnational level.



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POINTS OF VIEW

A dialogue between Paola Clerici Maestosi, Han Brezet (NL), Jonas Bylund (SE) and Giovanni Vetrutto (IT)

Paola Clerici Maestosi: *The shift from New Public Management to Multilevel Public Governance lies on promoting innovation in public administration. Has this process taken place in your country?*

Han Brezet: The developments of the last ca. 50 years in The Netherlands cannot be well understood without the history model of Braudel, distinguishing between three type of waves in societal development: the longer term, conjuncture waves and events (Smith, 1992). In our case, without the “House of Europe”, and its institutionalization including innovation aimed policies and instruments such as the different innovation related directorates and R&D programs, which could be seen as part of the longer-term wave, developments in the national innovation ecosystem cannot be well explained. However, *ceteris paribus*, here we will focus mainly on the conjunctural waves, with events mostly as their illustrations. We argue that in The Netherlands within the conjuncture a ‘polder (wetland) paradox’ exists in which at the same time NPM models survive and new forms of MPG pop up, living in co-existence (Celik, 2018)

In The Netherlands this goes back to the creation of large parts of the country -the long-term wave- of land reclamation, dike building and water works engineering and management. From its’ origin, this required on the one hand village level initiative, entrepreneurship, skills and local co-design and cooperation but on the other hand governance within the region and country, leading to the establishment of regional Water Board bodies, as multi-stakeholder entities, including representatives from the higher national levels. (Mostert, 2017) This historically grown governance model -partly due to its geographical position below the sea-level and

experienced flooding danger from both rivers and the sea- is still at the core of today’s approach of innovation in the country: while the Water Boards can be regarded as examples of semi-self-steering NPM agencies, using a decentralized service delivery model, at the same time their daily program consists of co-developing and co-managing their waterworks related activities with a variety of actors, using a MPG-like multi-stakeholder approach: the Dutch innovation governance paradox.

Therefore, both developments can be observed during the last decades. In areas such as health care, social care (elderly, youth), social building sector, energy sector and education definitely the private-style corporate governance model has been dominant. However, this has lead in various cases to lower quality of public goods’ services and personnel dissatisfaction in many ways and areas, due to too intensive competition on common good markets, where instead cooperation and joint planning would make sense, like in the care for the elderly.

A NPM-adapting movement can now be observed in The Netherlands, building theoretically strongly on the model of Mazzucato (Mazzucato, 2018), which acknowledges a crucial guiding and facilitating role for governments in societal relevant innovation in stead of leaving this to business and privatized government agencies. Such an approach has to bring back responsibilities close to governments or avoid market competition in common good areas.

A less shock wise and more insidious, though very significant MPG-related trend in the Netherlands’ innovation ecosystem stems from the design disciplines. Starting 50 years ago at the Delft University of Technology as the new discipline ‘industrial form giving’, today design thinking and industrial design disciplines have reached all capillaries of society, not only in higher



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education institutes, industries, but also in governments at all levels, within consultancies and other members of the quadruple helix. By joining forces with the art disciplines, a new and powerful business sector has emerged, the ‘Creative Industry’, which is now cooperating intensively with the more traditional R&D and technology oriented industry and innovation sectors. Nearly all higher education institutes in the country have a department for design, or have design thinking in their missions and programs, leading to a significant change in innovation paradigm, where user involvement, multi-stakeholder engagement, out-of-the-box solutions, creativity tools and methods, and common good -United Nations (UN, 2017)- goals orientation are becoming standard. Top-down, government is stimulating this with both institutionalization and Creative Industry aimed programs. Furthermore, this trend is supported by the philosophy of Richard Florida on the creative class (Florida, 2012) and by Dutch -mostly sustainability driven- innovation thinkers’ theories, conceptualized as Transitions Theory or Sociotechnical Transitions Theory (Geels, Elzen & Green, 2004. Sovacool, 2017. Ceschin & Gaziulusoy, 2019). This philosophy, which is quite influential in the country, suggests that -radical- societal transitions can occur via interactions among three levels: the niche, the regime and the landscape.

Here, the Dutch Paradox is expressed quite clearly: a hybrid governance model, top-down oriented at creating new rules and entities at a distance -regimes- for -sustainable- innovation, with their semi-private mission and tasks, while at the same time design thinking=joint product- and service development and management notions and practices infiltrate all levels of society, starting bottom-up in niches.

Jonas Bylund: Yes and no. There is an increasing awareness not just in planning and organisational studies but also in public sector and administration development circuits that the New Public Management (NPM)

approach perhaps did not lead to the anticipated – or promised – effects.

The point of departure for NPM in Sweden was tied up in a push for devolution and increased local democracy in local democratic settings, i.e. municipalities. The effects were rather ‘headless chicken’ (Barrett 2004) and that more and more issues and challenges in the everyday work of local urban governance falls between chairs. The need stems from a sense that current issues and concerns, particularly challenges around the UN Agenda 2030 and the Sustainable Development Goals, escape the current sectoral and silo organisation of most public administrations. In a way, it is a kind of emergent public, although with a focus on public administrative persons and capacities rather than the typical civil society and other in the neo-pragmatic resurgence over the last decades (cf. Marres 2010).

Hence, after a couple decades with NPM reforms: ‘What we can see, then, is that an administration that was initially relatively independent has become even more “bottom heavy” since the 1980s...’ (Hall 2013: 409); since

‘Public-sector management in Sweden used to be characterised by its relatively detailed, hands-on nature, while at the same time allowing a certain latitude: within their budgetary frameworks and outside areas that were regulated in detail, public authorities could, in principle, do what they liked...’ (Hall 2013: 408) Of course, Swedish municipalities still retains their ‘planning monopoly’ on land-use (except areas of national interest in terms of e.g. military or biotope importance). This means that there is less to vertically integrate from a municipal local governance point of view. (On the Swedish territorial administrative set up, see e.g Bäck 2003).

By NPM and its role in European planning and policy, I rely mainly on the understanding conveyed by Barrett’s (2004, pp. 257) more than a decade old synthesis on the field of policy implementation. Here, the sense of NPM is the transfer (and not really translation) of business and industry management principles and practices onto



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public administrations, with accompanying new or re-mixes of centralisation/decentralisation balances as well as a discursive change around policy implementation and meaningfulness.

In Sweden, then, the sense at the moment is not that multi-level public governance simply succeeds NPM. Firstly, since NPM is also an effect of the rise of governance (as a political science concept) in contrast to mid-20th Century understandings of government in the West.

Secondly, because multi-level public governance as a counter-movement to NPM (if it can be characterised as such given the general governance characteristics just mentioned) is probably better understood in Sweden as New Public Governance (NPG). Although NPG is not strictly a counter-movement, there seems to be a non-linear move from the one to the other, and in parallel by a rather more focus on what we might call New Public Services (NPS) to stem and rectify the effects of NPM – and which has been around simultaneously as NPM proper. A contrast between NPG and NPS might be seen in the former's focus on organisational capacity whereas the latter is more focused on the product and delivering the service, so to speak. The former, in terms of promoting innovation, works more in terms of Public Innovation Governance, whereas the latter is more about Public Service Innovation.

However, it's never that easy. The shift is not a clear-cut one and it seems, when talking to colleagues out in 'the system' that all three occur at the same time and are currently active ways of structuring everyday urban planning and management, in different degrees in various municipalities.

There is, of course, a distinction to be made on innovating public services, on the one side, and innovation governance, on the other. The former has more to do with the products and services the Swedish public sector is to provide in some or the other way and where e.g. schools, primary education, transport and mobility, public utilities and housing was privatised in different

and varied degrees during NPM reforms. The latter, public innovation governance, has more to do with the capacity to enable, support, and innovate in complex governance situations. (cf. OECD 2011; EC 2011)

However, the multilevel governance aspects may be more appropriate to understand as NPG?

Giovanni Vetrutto: The sunset of NPM comes from a functional and theory point and not from a technological point; nevertheless, ICT gave the main instruments to overcome its impasse world (Osborne & Gaebler, 1992; OECD, 2005).

The prevalent address of NPM from the late 1980s to the early 1990s (Pollitt & Bouckaert, 2004), led lately to a general disaffection with that approach, especially in the countries that experimented it in a deeper and pervasive way (like New Zealand and Great Britain); then the new paradigm of MPG rose on totally different socio-economic and organizational principles (Vetrutto, 2010).

In the context of a strong revival of the free market neoclassical approach, NPM inspired reforms that were reduced to the logic of microeconomic efficiency. The only admitted public value to be produced was the sum of separate single microeconomic efficient services. As a consequence, a number of quasi-markets for single administrative services or products were enabled.

As a matter of fact, NPM was not the adoption of managerial technicalities in the skills matrix of public managers; it was a comprehensive organizational and institutional rebuilding that gave start to the so-called process of agencification (Christensen & Laegreid, 2006; Verhoest, 2017): the outsourcing of public single-product bodies with business goals and models.

The most ambitious reform in this sense was realized in New Zealand during the '90s, and since the early years of the new century saw dissatisfaction and changes of address, because, on the one hand, the fixing of medium and long term microeconomic performance goals in separate agencies precluded wider, integrated



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and horizontal policies with more ambitious goals; on the other hand, the “business oriented” approach came to predominate in the electoral circuit (citizens – parliaments – governs) in the pursuit of more complex goals, other than the saving of resources, for example in the changing of socioeconomic conditions considered unequal or in any sense not approved by the majority of the electoral body (Rennie, 2005).

The most important criticism to the NPM model, anyway, moved on a different level: it implied the inadequacy of the “quasi-market” logic on a conceptual and cognitive basis.

NPM was based on the wrong assumption of considering means and goals of the administrative (and political) action as known. That was barely possible in the small number of years that saw the prevalence of the neoclassic revenge, of the minimal State and of the self-regulation of rationale social actors disputed. Until then the simple contractual or quasi-contractual logic was considered sufficient to solve the main collective problems and challenges.

When this prevalence started to unravel, long before the major crisis of 2008, preferences and orientations of the majority of citizens started moving to the request of more demanding and integrated policies, which the contractual and business-oriented model couldn't afford to give (Guy Peters & Pierre, 1998).

For a number of years, the world blindly believed only in the return to the logic of the invisible hand and of the pull of efficiency. The technological revolution that started at the end of the last century gave to the economic actors more and more room for efficiency gains and organizational rationalizations, leading to the overcoming of Fordism. In more recent years, the same technologies have given the economic actors a new awareness about the chance to reconsider transactional, organizational and operational choices using the network model, the “coopetition” dynamics, and more interconnected relations between private and public sector: the referring is to the concept of milieu innovateur theorized in the nineties by Manuel Castells (2010). On a territorial

level, there has been a rediscovery (Hidalgo, Klinger, Barabási & Hausmann, 2007) of the Hirschmanian economic theory of agglomerations (Hirschman, 1958, 1963, 1967), highlighting the basic value of social capital and distributed knowledge (Dahrendorf, 1959, 2003).

The revenge of the market versus the State left progressively room to a new awareness about the inextricable connection of the public and private sectors, especially by means of the new “connective” and “cooperative” ICT technologies. What once, in the words of the most important Italian political scientist of the last century, was the “great dichotomy” between “public” and “private” became a syncretism of both (Bobbio, 1974).

A number of cultural developments stemmed from this change of attitude in policy making: from the new success of the theory of capitalism of Karl Polanyi (2013), to the Nobel prize of a thinker like Elinor Ostrom (2007), who dedicated her entire research life tearing down the enemy's myths of the Leviathan State and of the self-regulating invisible hand market. Ten years ago important scholars already declared the NPM overcome (Dunleavy, Margetts, Bastow & Tinkler, 2006); the reason for that is the more useful and elastic methodology offered by the MPG in shaping and conducting public policies in the era of new digital means; an era characterized exactly by being digital.

Paola Clerici Maestosi: *Which are the most innovative instruments and fields/domain of application?*

Han Brezet: The shift from an at first instance institutional and NPM-oriented innovation policy is now more and more enriched with and based upon MPG-elements.

Good illustrations of modern MPG approaches can be for instance found in the higher education and sustainable innovation area.

The Dutch science agenda is now aligned with general public participation on urgent societal issues: via an intensive consultation of the general public's opinion by means of questionnaires, interviews and group



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meetings as well as modern digital media, during the period 2015–2018, 11.700 research questions have been gathered from the Dutch population as relevant inputs for the national science agenda. Via a joint design process of scientists, policy makers and government departments, knowledge users, industry sectors and civil society, these issues have been translated into 140 clustered problem areas and 25 ‘grand challenges’ knowledge routes, including structural funding of more than € 130 million per year. This national science agenda is shared with regional science programs from one or more provinces and with innovation strategy agenda’s of cities. (Ministerie OCW, 2018.)

In line with this development, new programs with enlarged bottom-up project options have been designed for polytechnics and SMEs as well as local Innovation Labs, Design Factories and incubators intensively promoted and facilitated. But a major role also can be distinguished here for the universities and other higher education institutes, who during the last decades very successfully, bottom up, are stimulating innovation via spin offs and new ventures at their campuses, both with a low- and high-tech character.

From these and other examples, various lessons also can be learned with respect to orchestration and governance in digital platform ecosystems (Mukhopadhyay & Bouwman, 2019).

Jonas Bylund: The applications or, rather, exploratory settings to develop public administrative innovation in Sweden does not necessarily follow the multilevel public governance recipe, but rather starts to organise around innovation capacities and around ‘boundary spanners’ and supporting mechanisms such as the Project Studio in Borås² or issue-oriented approaches like trust based governance by task-forces in Ängelholm.³ These counter measures are seen as a capacity building to regain and reinvent what has been lost during NPM – which is still operational – and to shape

organisations that are dynamically more robust in terms of organisational learning and tackling wicked issues in complex situations such as urban planning etc. This is in line with the ultimate objective to both increase skills and enable UN Agenda 2030 as well as safeguard basic public services provision. These boundary spanners are not sufficiently captured in any conventional vertical/horizontal axis understanding.

The shift or, rather, the approaches to tackle these issues in complex municipal development and systemic innovation has been flocking around (explicit, intentional) experimental approaches, many times by approaches similar to urban living labs. In this regard, particularly a growing interest in boundary spanners, congruent with the intermediaries seen as crucial for transformation capacity building (e.g. Wolfram 2018) has been noticeable lately.

Giovanni Vetrutto: The most relevant projects that led to MPG frameworks came not from a direct central intervention more from a pure local initiative.

In 2006 a complex center-periphery program, named ELISA, was launched and produced the best results using a simple but effective scheme: the center (a department of Prime Minister’s offices entitled about local government) addressed threats and goals, and a combination of regional and local authorities proposed the solutions, gaining the financial instruments to realize its plane, tool and platform (Conti, Vetrutto, 2018).

The ELISA funding program (Enti Locali – Innovazioni di Sistema, Local Authorities – System Innovation) was introduced in 2006 as an instrument to create a national fund for the investment and the innovation in the local authorities and in its decade of operation, it gave an important contribution to the organizational and technological modernization of the Local Authorities. This attempt can be considered as a precursor with respect to what would later be the prevailing attitude of those European policies which, in view of the challenges of the international economic crisis, responded favoring the local dimension of development. In practice, this has

² <https://www.innovationsplattformboras.se/projekt/projektstudio>

³ https://portal.research.lu.se/ws/files/48486503/SOU_2018_38_Final3.pdf



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resulted in financing fewer but major projects, investing in innovation and Local Authorities, where technological innovation has fully shown it can be the lever for streamlining and enhancing public functions.

The three main fields that were innovated through this program were:

- **INFO-MOBILITY:** integrated management of logistics and info-mobility in local public transport in the urban and suburban public and private mobility. This means new systems for monitoring and managing fleets, for traffic control and regulation of traffic light cycles, for air pollution detection, management of gates in the ZTLs (Controlled Traffic Zone), for integrated ticketing, for the improvement of information available to users by exploiting the potential of the web and the mobile.
- **QUALITY OF SERVICES:** measuring systems based on ICT technologies so as to assess the quality of the services provided by Local Authorities. The goal is to improve services for users and the efficiency of its internal processes throughout advanced systems of Citizen Relationship Management (CiRM), highly interactive web portals, implementations to support the annual and multiannual programming, solutions for measuring organizational and individual performances, integration and upgrading of labour information systems (at the beginning, even though the labour-related projects were in a stand-alone group, then, during the assessment of the projects, they were absorbed by the quality of services field.).
- **TAXATION AND CADASTRE:** integrated digital management of local services concerning taxation and cadastre through cooperative application models. The aim is to increase the ability of overseeing and monitoring the territory, countering tax evasion and promoting tax equalization. Tax, civil registry services, construction industries: all

these fields of application are now the backbone of the organizations that adopted them.

Apart from the innovation communities born from the ELISA program, there's only another single MPG scheme that had a great success and that is worth citing, the COMMONWEB platform for civic engagement, services deployment and intercommunal collaboration, enacted without any help or involvement from central authorities by a "Conorzio" of all the local authorities of the Trentino Autonomous Province.

Paola Clerici Maestosi: *Innovation Communities and sustainable/innovative management models: what's going on in your country?*

Han Brezet: Nowadays, the MPG inspired approach in the Netherlands is not restricted to areas, in which the country performs already good, in the top-3, like measured in the European DESI-index (DESI, 2019). These scores include areas like connectivity, human capital, use of internet services, integration of digital technology and digital public services, all in relation to the Digital Economy and Society.

Also the poor sustainable development situation in the Netherlands, with for instance low scoring European positions in the energy transition and nature protection fields, has undergone an MPG impulse in recent years.

For instance, the energy transition area has adopted the new élan of co-design and co-makership in 'National Transition Agenda's', in which climate tables of involved stakeholders from all quadruple helix backgrounds have co-formulated future missions and goals of energy efficiency in production and consumption as well as renewable energy contribution. Specific roadmaps are envisaged and developed for each subsector, and the interim-results are promising so far (PBL, 2019a). A similar approach has been chosen for the National Agenda for the Circular Economy (PBL, 2019b). Again, these programs know their bottom-up



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counterparts in cities and regions, and meet each other often at provincial -intermediary- level.

They still are -via the old NPM-line of thinking-side-supported with special, newly established institutes, such as the New Energy Coalition and the European Energy Academy in Groningen, Climate Adaptation Labs (in Rotterdam and Groningen) and the EBN (Energie Beheer Nederland) entity, calling itself ‘an entrepreneur in Dutch subsurface on behalf of the State’, at proper distance from the national government. (EBN, 2019).

Jonas Bylund: What we see is less of a programme, but more of ‘swarm intelligence’ forming around what we might call the necessity of boundary spanners. Similar to the notion of boundary objects, these are actors who works a lot ‘in between’, they are intermediaries that translate and connect between sectoral approaches, silos, between departments, public private and civil society, etc. This is also in-between the so-called vertical as well as so-called horizontal lines. Since most of any innovation and the challenges in public administration and urban governance faces ‘falls between the chairs’ nowadays, this figure is identified as at times already working in practice. But also as a resource, capacity, that we arguably need much more of – without having to ‘destroy the silos’ as we hear a lot in policy circles. Their work effects a kind of institutional thickness or density⁴ that is required to coordinate quite complex urban developments full of wicked issues.

Then, of course, in Sweden, as in many other European settings, we still have a kind of ecological modernisation attitude lingering in these matters. A remnant of 1980s–1990s technocratic approaches to urban sustainability, the ecological modernization approach means that, at times, required systemic transitions are still understood as technological feats to be performed ‘under the hood’ rather than by co-creation with affected actors

⁴ A notion that, if not coined by him, is used by Heiti Ernits to describe the ecologies needed for public administrations to tackle complex issues.

and that if anything threatens the comfort of the consumer, ‘acceptance’ has to be sought. This is of course in stark contrast to the approach in challenge-driven innovation to shape more robust solutions by early-on and transparent co-creation with multi-actor stakeholder groups, for example in urban living lab settings.

Giovanni Vetrutto: All the examples mentioned above give a very clear view on how much can be realized with an effective collaboration among different levels of government even in a country like Italy, that is at the last positions in the European DESI index (European Commission, 2018).

A report from the Politecnico of Milan University already showed some years ago that the small size of most local and regional authorities in Italy is not sufficient as economy scale level; and that an effective collaboration is needed to reach the pervasive goal that the new ICT models can assure in terms of administrative modernization (Department for Regional and Local Affairs & Politecnico di Milano - School of Management, 2014).

What is still missing in Italy is a systematic and comprehensive and conscious national strategy agreed among different levels of government, from the State down to the local authorities, in all the major fields of innovation.

What is happening, instead, is that in a lot of situations there are different arrangements of local, provincial, regional and rarely ministerial authorities to produce single projects and limited efficiency and effectiveness gains (Vetrutto, 2017).

Paola Clerici Maestosi: *Which is the relationship, in your country, between local authorities and central administration?*

Han Brezet: Historically speaking, the larger, strong cities (Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven), together with the region oriented



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Provinces are the strong players in the intermediary innovation field.

Today, in most cities and provinces one will find Creative Councils and Innovation Boards who are (pro-) actively addressing local opportunities with local strengths, but also participating in the Government innovation agenda setting while creating their own programs, with support from the national government. Particularly, during the last ten years, a variety of new regional initiatives successfully have taken off, which align stakeholders from different perspectives and organizations, such as the RDM labs and facilities in the harbour area of Rotterdam, the 'de Waag' maker space in Amsterdam, the AMS (Amsterdam Metropolitan Solutions institute. (AMS, 2018)), a joint venture of MIT Boston, Delft University of Technology and Wageningen Research University, the high-tech campus with Philips and others in Eindhoven and the Water Campus and Alliance in the Province of Fryslan.

These local and regional lighthouses, including the Wadden Islands as testbeds for sustainable innovation have a relevant new role for the development of Dutch innovations. (Brezet, Belmane and Tijsma, 2019).

Jonas Bylund: Strained. With a tradition or cultivation of a rather weak regional (county) level for the last 500 years. Although much of sustainability is, from a national government point of view, thought to happen by the regional catalyst, this territorial scale of administration is more of an outline than a substantial driving force in governance (apart from the management and delivery of specific services such as health care and police). This may account for a kind of constant question-mark and even mismatch in general in Sweden towards the logic in the EU around structural funds and programmes aimed at supporting regional development. The municipalities, then, closely guards and covets their almost sovereign mandate to rule/manage land-use issues (again, barring issues of national interest/importance). So, for a country that politically and administratively during large parts of the 20th Century has been managed by strongly

consensus-oriented procedures, there is a kind of peculiar local governance individualism and fragmentation that the regional county level cannot always be very effective facilitating and coordinating towards functional regional sustainable development.

Giovanni Vetrutto: In Italy there has been, especially from the late 90's, a strong preference of political parties and governments for the empowerment of regions and not of local authorities; that preference came from political and tactical reasons and produced a number of limits in territorial policies in Italy; the most important one is the absence of a clear and organic urban strategy (Vetrutto 2019).

Each region has a sort of limited but strong autonomy in leading reform projects for their local authorities; in a very small country with a high number of regions, in many cases very little, this is definitely a problem (Caporossi 2019).

When a strong attempt to reform the juridical basis of all the administrative system of local, provincial and regional authorities, with an important law of April 2014, it produced very limited results, due to a very faint implementation attempt (Vetrutto 2016).

Paola Clerici Maestosi: *In which way European structural Funds contribute to shift from New Public Management to Multilevel Public Governance?*

Han Brezet: In the Netherlands, the role of European Structural Funds has been particularly strong in the more remote regions, like in the North of the country. Special organizations, overarching more provinces and smaller cities, have been set up, to deal with the ESF in regions. For instance the SNN (Samenwerkende Noord-Nederlandse instellingen) program covers three provinces, a number of regional cities and representatives of the quadruple helix in its board. Compared to a number of years ago, the ESF-programs are modernized, following MPG insights. For instance, the Operational Program North (OP Noord)



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promotes innovation and entrepreneurship in the context of societal -smart RIS-specialisation- challenges like climate change, health, food security, water, energy. It stimulates participative innovation and living labs to establish the region as a test bed for innovation. Compared to the traditional approach of taking winners and sectors as starting point, the North ESF program starts with challenges, “willers” and is mission-oriented, following Mazzucato (Mazzucato, 2018). Moreover, a programmatic approach is considered essential compared to the regular project-to-project improvisation, building a systematic knowledge position and helping to strengthen the regional innovation eco-infrastructure. (Brezet, Belmane and Tijmsa, 2019.)

Jonas Bylund: As just mentioned, in Sweden, the role of European Structural Funds has been a question-mark and even mismatch in general towards transnational programmes aimed at supporting regional development for the first decades of joining the EU. However, the Swedish regions and municipalities are learning how to handle them more and more.

Giovanni Vetrutto In Italy the contribution of European Structural Funds to the reshaping of the different public administration territorial levels has been very weak.

The effective and quick use, in strategically orientated way, of these funds has never been a reality.

In the last two septennial periods of European programming Italy has shifted to the last positions on every classification, becoming late on its own standards for the amount of resources spent, for the time of spending, for the effectiveness of results produced (Barca 2011; Barca 2018).

In this context, the policies funded with the national operational program on governance were in line with this ineffective trend.

Acknowledgement

This article is a part of the EERA Joint Programme on Smart Cities’ Special issue on Tools, technologies and

systems integration for the Smart and Sustainable Cities to come (Østergaard and Maestosi 2019)

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