Alternative Learning Frameworks: Workplace Innovation Programmes and Smart Specialisation Policies in the Basque Country

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Abstract

The paper explores alternative learning frameworks addressing the adaptation of socio-economic institutions to emerging technological paradigms. Based on workplace innovation and development programmes, an exploratory model is presented considering multi-level governance issues. The framework can contribute to better policy implementation of smart specialisation strategies, considering workplace innovation programmes as institutional entrepreneurs. In this sense the framework is applied, in a constructivist way, to regional, sub-regional and organisational institutional contexts.

Key words: workplace innovation, development programmes, policy learning, programme learning, governance, experimental institutions, and technologicalrevolution.

Marcos de aprendizaje alternativos: programas de innovación en contextos de trabajo y políticas de especialización inteligente en el País Vasco.

Resumen

El artículo explora marcos de aprendizaje alternativos que permitan abordar la adaptación de las instituciones socioeconómicas a los paradigmas tecnológicos emergentes. Sobre la base de los programas de innovación y desarrollo en contextos de trabajo, se presenta un modelo exploratorio teniendo en cuenta la gobernanza multinivel. El marco pretende contribuir a una mejor implementación de políticas de estrategias de especialización inteligente considerando los programas de innovación en los contextos de trabajo como emprendedores institucionales. En este sentido, el marco se presenta, con un carácter constructivista, a contextos institucionales regionales, subregionales y organizacionales.

Palabras clave: innovación en contextos de trabajo, programas de desarrollo, aprendizaje de políticas, aprendizaje de programas, gobernanza, instituciones experimentales y revolución tecnológica.

1.   Introduction

Digitalisation is a central aspect of a wider economic transformation that includes robotisation, automation and new production processes. This phenomenon has been conceptualised as Industry 4.0. The term, used by the German government for the first time in 2011 refers to a high-tech strategy. After mechanisation, electrification and information, the 4.0 concept is considered as part ofthe so-called fourth industrial revolution. Phenomena like globalisation and technological change force public and private sector organisations to develop new products, new services and new forms of production.

Technological revolutions represent a paradigm shift for society, business and work that need to be analysedfrom a systemic perspective (Garmann Johnsen et al 2018). In particular amongst others, technological shifts attract political attention due to their direct implications on jobs, work-processes and skills demand and supply. These issues are included in the New Qualifications Agenda for Europe (European Commission 2016) stressing the need for the labour market and national vocational, education and training systems to be able to provide a skilled workforce for the digital transformation. Skill gaps are relevant for companies, as there may be significant shortages in the actual workforce (Fernandez-Macias 2012). In line with this, it is recognised that skill acquisition can be realised through a diverse variety of forms beyond formal initial education, which includes the workplace (Cedefop 2015; OECD 2010; European Commission 2001). Due to the technological transformation, the current societal context requires a new integration of theoretical and practical knowledge on the organisation (Dhondt & Van Hootegem 2015). Skills gaps can arise because workplaces are integrated in dynamic environments, an issue that addresses workplace and lifelong learning (Cedefop 2015, 85-87). For these reasons, workers adaptability throughout working life is considered to be a critical factor (European Commission 2001). In overall the globalisation of the economy, the introduction of disruptive technologies, demographic, social, cultural and environmental changes will shape working life in the next years. Thus two interlinked limitations are identified to mainstream policy (Lorenz et al. 2016): the first refers to tacit knowledge acquired in daily work and problem solving experience; and the second concerns the work organisation and the way this affects employees in their learning and skill development processes.

Technological unemployment represents a major area of concern in the academic and policy-making environments, but as pointed by Lundvall (2013, 51) few attempts can be identified concerning how innovation relates to work processes. Lundvall argues the importance of workplace learning as a factor in the understanding of the how work and innovation processes are linked. Following Lorenz (2013, 86-71) he concludes that in innovation studies research on work organisation and organisational design has been marginal, and points out the importance of institutional framework conditions for learning and innovation, also acknowledging the relevance of micro-policy initiatives, that focus on organisational change and innovation at workplace level.

An exception can be found in some experiences in the northern part of Europe, with workplace development programmes and initiatives launched in the 60's and the 70's. Main topics at that time were focused in the Scandinavian countries and Germany as part of the Quality of Working Life movement and the humanisation and democratisation of work. In

the last 40 years action research has played a dominant role in this area as Gustavsen (i.e. 1996, 2004) and Fricke (i.e. 1997, 2003) have documented.

In the present, Workplace innovation (WPI) is a good example of the growing interest in holistic approaches to work organisation (European Commission, 2014; OECD, 2010). WPI is an inherently social process, which creates self-sustaining development by learning from various sources and through experimentation (Pot et al. 2016).

The concept of WPI refer to "strategically induced and participatory adopted changes in an organization´s practice of managing, organising and deploying human and non-human resources that lead to simultaneous improved organizational performance and improved quality of working life" (Eeckelaert et al., 2012; 8).

In addition the concept refers to "collaboratively *constructed* changes that also supports other types of innovation" (Alasoini 2011, 25). As *constructed,* workplace innovations can be analysed by using three-dimensional approach based on the content, the process and the context in which it occurs. This view is important, considering that innovative practices derived from organisational or managerial change may include technology change, network relations and employment and labour relation (Alasoini, 2011, 35-36). These issues are of concern in the so-called fourth industrial revolution.

Thus, the main argument of this article addresses the issue of workplace innovation and its potential link to macro-industrial policies in the light of the technological transformation and regionally based specialisation strategies. For this purpose, regional policy and governance will be the central object of analysis. The paper focuses on the potential contribution of workplace development programmes, supporting the implementation of smart specialisation strategies by contributing to new forms of work organisation and innovation processes from a learning perspective. Thus, three major areas comprise this paper; skills and workplace learning, smart specialisation strategies and workplace development programmes. For this purpose, I will focus on the analysis of policies that are being developed in the Basque Country (Spain) with a special focus on the province of Gipuzkoa; one the three territories composing the Autonomous Community of the Basque Country.

The paper is organised in four conceptual parts; first, a framework of technological revolutions and its impact on social and economic institutions is explained (Perez 2004); the second partfocuses on workplace development theory programme (Alasoini 2016) and workplace innovation. Considering the above mentioned, the main focus on this paper explores the plausible potentiality of public initiated workplace innovation programmes able to produce learning aimed at better policy implementation, through alternative links between the macro (regional) and the micro (local organisations and stakeholders) policy spheres that can support adaptation to rapid changes through an entrepreneurial discovery process. In a constructivist way the paper explores how skills and competence building through workplace learning could be linked. For this purpose workplace innovation and its Programme Theory (Alasoini 2016) articulates the link to top-down policy of smart specialisation at regional level, and the bottom-up emergence of the entrepreneurial discovery process that happen at organisational level. Workplace innovation or development programmes are here identified as *meso*-level policy spheres of articulation capable of creating alternative and complementary learning spaces based on broad participation. The third part analyses the potential contribution of policies being developed

at provincial level (sub-regional) as complementary or alternatives to support the mentioned digital transformations. The fourth part summarises some findings about the WPI programme in Gipuzkoa through an analytical dimension in a context of multilevel governance. Data will show the potential of cumulative knowledge and its capabilities of expansion. Beside some conclusion on the general framework will be introduced.

2. Technological, economic and social transformations

Considering digital change is of interest to understanding how transformation happens in cyclical terms. Each technological revolution involves the replacement or modernisation of some technologies by others, in the so-called long waves covering a period of 50 years according to the Schumpeterian interpretation. Long waves of economic transformation can be divided in two interrelated dynamics of growth and recession of 20-30 years each (Perez 2004). According to Carlota Perez, based on T.S Kuhn's view of paradigms, the introduction of a new technological pattern is originated by the depletion of the older one. She argues that two operating subsystems can be identified in the capitalist model: the techno-economic and the socio-institutional. Each technological revolution is driven by a technological pattern, which generates changes at individual, organisational and societal level. A technological revolution is defined as a set of technologies, products and industries with the ability to boost waves of long-term development; therefore, each revolution is based on a set of interrelated technologies and organisational principles that leads to the modernisation of the productive system, giving entry to a new techno-economic paradigm (Perez 2004).

"A techno-economic paradigm is a model of optimal practice constituted by a set of technological and organizational, generic and ubiquitous principles, which represents the most effective way to apply the technological revolution and to use it to modernize the rest of the economy. When the adoption is generalised, these principles become the basis of common sense for the organization of any activity and the restructuring of any institution" (Perez 2004, 41).

In this context of transformation, individual actors and companies represent central subjects of change from which new organisational paradigms emerge. Considering this, the formal structures of organisations arise in highly institutionalised contexts (Meyer & Rowan 1977) characterised by rules and requirements to which organizations must adjust in order to receive support and legitimacy (DiMaggio & Powell 1983). With institutionalised frameworks, elements of the rational structure are deeply rooted in organisations. Thus organisations are influenced by normative, cognitive and cultural models, which are embedded in the organisational structure design (Meyer & Rowan 1977, DiMaggio & Power 1983, March & Olsen 1989). In these terms, the process of adopting certain practices are done independently of their effectiveness with regard to the particular organisational contexts where they operate. The homogenisation process that includes organisational structures and practices is defined by the term *institutional isomorphism* (DiMaggio & Powell 1983, Hannan & Freeman 1977).

Isomorphism "forces a unit of a population to resemble other units that face the same set of environmental conditions" (DiMaggio & Powell 1983: 149).

Based on this theory, once the organisational models become institutionalised they tend to spread, which means that the organisational structures become more and more similar to each other. DiMaggio and Powell (1983) theorise about the limitation that the adoption of these institutionalised behaviours have for the innovative capacity of the organisation, which brings on organisations to be trapped in institutionalised trajectories or path dependency issues(Mahoney 2000; Lagerholm & Malmberg 2009).

Institutionalised structures, once they have been developed and disseminated in a given organisational field, limit and constrain the ability to develop new structures to adapt change. When paradigm shift take place, occupations change in a dynamic manner originated by changes in the organisation of the production. The diffusion of new form of production models generates new types of qualifications, demanding new occupations able to create new products and services align to the new technological pattern, which means a change in the occupational structure.

These changes and adjustments are generally translated, as indicated in the introduction, into new demanded competencies and skills (having their origin in the process of dissemination and installation of new transformations) that are conceptualised as waves of development (Perez 2004, 46-47). In that sense the socio-institutional environment can facilitate the adoption of new paradigms that entail the need for new innovative skills (Fricke 1983, 2012), which flourish in a process of complex mechanisms of adaptation. For this purpose, social sciences need to pay attention to the changing tendencies of emerging technological patterns, in order to transform and align the socio-institutional system.

Without an effective transformation of the socio-institutional sphere, able to regulate and facilitate the installation and development of the emerging paradigm, this becomes de-aligned from the techno-economical sphere, which derives tension between both sub-systems; as the technological parading changes more obsolete, turns the socio-institutional sphere having an impact on social cohesion and sustainability. In the paradigm change new organisational designs emerge, which are conducive to new ways of interaction and networking.

Having explained how technological revolution impacts in the socio-economical setting, the actual 4.0 transformation represents a shift that entails the need to deepen into a better understanding of the installation and deployment processes, which can be translated in terms of a tension between the new and the old qualifications and an extension of occupation, organisational design and labour market structure.

3.   Learning, Participation and Innovative qualifications in the workplace

Conceptually competencies and skills can be generic or specific, and can be acquired through formal and informal learning processes. Formal learning refers to the acquisition of individual competencies, capabilities and skills within educational institutions, as informal education relates to the other processes, which occurs through embodied practices in non-educational settings such as workplaces. Traditionally, formal and informal learning are considered as separate spheres, considering the prevalence of formal learning over the

informal type (Malcolm et al. 2003). However, both formal and informal learning have a common denominator, based on the development and expansion of skills during working life (Cedefop 2015).

In this sense, a particular area of policy concern is associated with the underutilisation of skills (Green & Zhu, 2010) and the way digital transformation will impact on job quality (Warhurst et al. 2017). Werner Fricke (1983) argues that the innovative capacity of workers is often not realised, due to the many different types of obstacles that the worker cannot address. Some of these barriers can be identified in the hierarchical structure of companies, and their organisation and taylorisation of work within these structures. These conditions have been aggravated due to the influence of external experts, resulting in the isolation of workers with respect to the division of labour. All these relate to "factors in the work environment which determine the extent to which employees can make full use of their competencies and creative potential, thereby promoting job satisfaction and personal development (Totterdill & Hague 2004, 46).

In this context, the creative potential that occurs in the dialogical relations to which mutually responsive reactions can give rise are excluded (Gustavsen 1993; Shotter 2004), thus the capacity for participation and self-determination are often blocked. In a context emerging forms of work organisation, based on learning and experimentation workplace must address interdependent arenas able to stimulate knowledge and creativity, workplace partnership and employee participation, and job enrichment and team-working (Totterdill & Hague 2004) which enhances democracy at the workplace.

The participatory capacity of employees has been defined as innovative qualifications (Fricke 1983). Innovative qualifications are the basis of the workers´ ability to organise their working conditions according to their interest, which provides opportunities to act as subjects of their work (Fricke 2012, 162). Innovative qualifications must be distinguished in their origin and use as capacities for production and reproduction that are developed through a continuous process of learning and reflection. Two types of qualifications linked to the action (work) are identified in this approach: the vocational and the innovative. The former refers to qualifications required to fulfil the task and the objectives of the work; the later defines the creation of alternative elements in the labour situation, which responds to the workers' interest over the operational design of established work organisation patterns (Fricke 2012). It can be argued that search for convergence can be mean of a *new collective bargaining* (Cressey, Totterdill & Exton 2013) in which employees gain confidence, empowerment and intrinsic rewards, by making their tacit knowledge and creativity available as a resource for organisational improvement and innovation (Totterdill 2017). Overall, the institutional environment has significance for the evolution of practical solutions at organisational level. This reinforces the importance of actors in regards of workplace development (Alasoini 2009).

Considering the above mentioned, how organisations and individuals are constrained by institutional isomorphism and its effect on organisational practices having an impact on the potential contribution of workers knowledge and experience, in the next section a link that connects those emergent processes will be introduced in the context of new research and development policies.

4.   Workplace Innovation and development programmes

As pointed in the introduction, workplace innovation is a social process that can contribute to better policy implementation and the adjustment of social and economic institutions. Different policy approaches can be made to promote workplace innovation. A usual distinction is made between hard or legislative intervention, soft or non-binding or deregulation (Alasoini 2011; Alasoini, Ramstad & Totterdill 2017); this can be summarised in the policy matrix below.

Table 1: Policy Matrix in the promotion of workplace innovation

Hard/Indirect regulation Directives or binding rules which focus indirectly on workplace innovation through some other policy area		Hard/direct regulation Directive or binding rules which focus directly on workplace innovation	
Soft/ Indirect regulation General policy frameworks and recommendations	**Soft/Intermediate-stage regulation** Education and training programmes, research, learning networks, etc.	**Soft/Direct regulation** Subsidised consultancy, development and action-oriented research projects, tax credits, etc.	

Source: Alasoini 2011; Alasoini, Ramstad & Totterdil, 2017.

Development programmes have been a "widely used soft form of regulation to promote the development of working life in different countries" (Alasoini 2009; 2016, 27) "which generally utilise direct and intermediate-stage measures" (Alasoini 2016, 35) "launched and governed by key regime actors with an aim to support sociotechnical transitions" (Ibid. 2016, 39). Ideally a programme, as a soft form of policy intervention, means a fixed-term institutionalised activity (Alasoini 2011, 30). Thus a programme is understood as the conjunction of three aspects (Alasoini, 2008); first, several organisations participate in a development process guided by a shared framework; second, the content to be developed within the framework is agreed by the organisations, and other stakeholders groups like government, social partners, researchers, consultants and other experts; third, the development process requires interaction, co-operation and information exchange.

Chart 1:   Programme framework, subject, object and process of learning
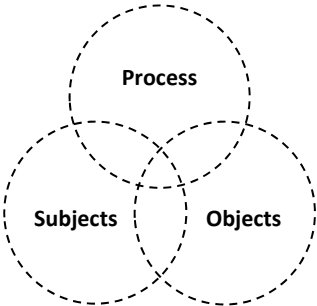
Source: adapted from Alasoini (2008).

In the analysis of the adaptation of emerging techno-economic paradigms and having in consideration organisational isomorphism, the modernisation of social institutions is identified as a driver for successful change. From a sociological perspective the tension between structure and agency has been explained using the concept of entrepreneurial institutions (Battilana et al. 2009; Garud et al. 2007) which refers to "agents who initiate changes that break with the prevailing institutional logic within a given context by actively participating in the implementation of these changes through the active mobilisation of resources". The concept of development programmes as institutional entrepreneurs has been introduced by Tuomo Alasoini (2016):

"Workplace development programmes represent a collective or distributed agency that typically comprises the parties involved in expanded triple helix co-operation." (Alasoini 2016, 29).

The European Commission is driving new policy concepts founded in Research and Innovation Strategies for Smart Specialisations (RIS3), aiming to reach Europe 2020 strategy objectives. In this framework all member state regions are required to have a strategy, in order to receive funding from the European Regional Development Fund. RIS3 are defined as integrated, place-based economic transformation agendas, which focus policy support and investments on key challenges and needs, for knowledge-based development as building regional/national strengths, competitive advantages and potential for excellence (European Commission 2012).

However specialisation must be interpreted as an exercise of diversification instead of pure specialisation (McCann & Ortega-Argilés 2011). Conceptually, the implementation process of the strategy marks regional priorities through an *entrepreneurial discovery process* in which all key stakeholders collectively seek and agree on strategic priorities (Foray et al 2012). Originally the concept refers to (Foray et al., 2009; Foray 2009) the learning process in which a region, driven by entrepreneurs, gradually discovers prioritisation areas in R&D and innovation linking the ability to transform current economic structure to a path of growth and employment. Entrepreneurs must be understood in a broad sense, including companies, higher education institutions, public research institutes, researchers and so on) gathering anyone who is in the best position to combine different approaches for new market opportunities in a creative manner (IPTS 2012).
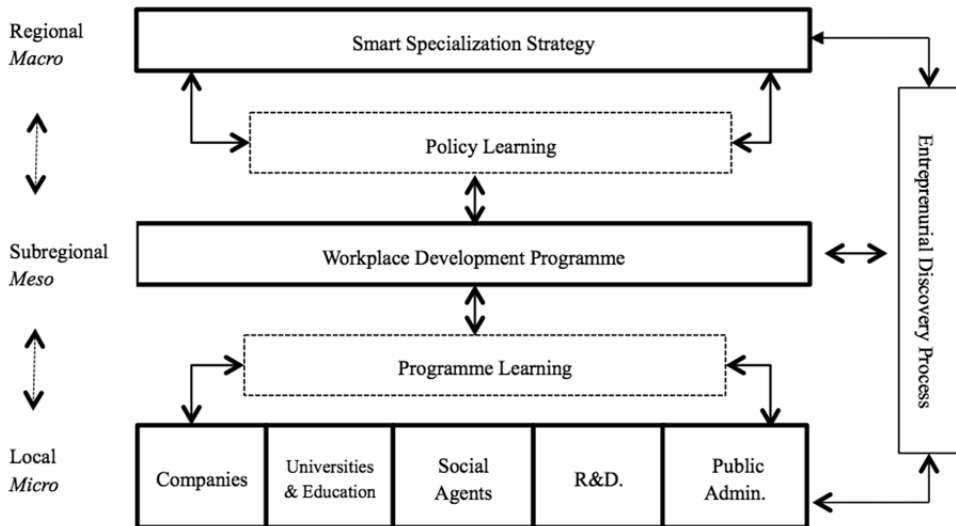
The rationale supporting RIS3 is based on coordination and governance as a key issue. Within the RIS3 framework interaction between institutions and actors can be linked to the perspective of regional learning (Lundvall 1996; Gustavsen, Nyhan & Ennals 2007). As pointed by OECD (1996) learning economy requires a rapid and continuous adaptation of skills. This addresses organisational arenas where research and participation (Gustavsen 2005; 2017; Fricke & Totterdil, 2004) can potentially contribute to the process of transformation (Totterdill 2018) and systemic change (Garmann Johnsen et al. 2018).

Considering the above mentioned, themain focus on this paper explores the plausible potentiality of public initiated Workplace Development Programmes able to produce links between the macro (regional) and the micro (local organisations and stakeholders) policy spheres that support adaptation to rapid changes through an entrepreneurial discovery process. For this purpose, the Programme Theory developed by Tuomo Alasoini (2016) articulates the link between the top-down policy of smart specialisation at regional level, and the bottom-up emergence of the entrepreneurial discovery process that happens at the

organisational level. Development Programmes are here identified as *meso* policy spheres of articulation.

Diagram 1: Integrated dynamic framework

Regional
Macro — Smart Specialization Strategy

Policy Learning

Subregional
Meso — Workplace Development Programme

Programme Learning

Local
Micro — Companies | Universities & Education | Social Agents | R&D. | Public Admin.

Entrepreneurial Discovery Process

Source: Own elaboration.

According to the systemic framework, Workplace Development Programmes should be understood as a production and development system:

"As production system a programme is called on to produce outcomes derived from the role and function of the programme (…). As a development system, on the other hand, a programme should produce programme learning and policy learning" (Alasoini 2008, 64).

Ideally a programme can act as an interactive learning space where learning and knowledge creation requires a shared and common space (Alasoini 2006) or a development coalition (Ennals & Gustavsen 1999) fostering joint learning and knowledge creation. In this framework programmes are introduced as dynamic systems capable to generate learning at programme and policy levels. The former: programme learning, refers to the learning during the implementation where subjects of learning are the programme implementers.The latter: policy learning,contributes to a broader context of learningincluding policy-makers (Alasoini 2008, 66).

"Programme learningrefers to learning that occurs *inside* the programme during its implementation, whereas policy learning*transcends* the programme and extends to the role and function of the next-generation programme" (Alasoini 2016, 84).

Publicly promoted development programmes focusing on workplace innovation have demonstrated improvements in terms of productivity and quality of working life (i.e. Gustavsen et al. 1996; Alasoini 2006). Gustavsen's ideas (2003, 2004) about programmes

as generative mechanisms for social change point out the challenge to create interactive and parallel processes in a variety of organisations simultaneously. Thus, the impact of programmes can be understood as cumulative and mutually supportive innovations able to produce change in Society. This change can be producde at regime level (i.e. national, regional, sectorial level) as new paradigms of work organisation. As noted before, workplace innovation also supports other types of innovations. Programmes to produce change at regime levels depend, not only by the programme's characteristics, but other economic and social benefits that this innovation can produce (Alasoini 2016, 105-106).

Based on a constructivist view, the next section exemplifies a potential regional learning approach in the Basque Country combining regional policy making addressed to companies and other stakeholders in a broad sense that pivots through sub-regional policy interventions based on workplace innovation. To do this, the institutional context of both regional and sub-regional (territorial) scenarios and how learning can be fostered will be explained.

5.   The institutional context in a nutshell

The institutional Basque system is highly de-centralized with respect to the Spanish State, with the capacity to establish its own self-governing bodies granted through the Statute of Autonomy, which is recognised constitutionally. This means rights over self-tax regulation, healthcare, public safety, education and territorial organisation. Within this institutional framework each province of the Basque Autonomous Community has its own public budget and tax regulations policy to manage public policies, in particular in areas related to social, knowledge and economic promotion areas. A more in deep analysis of the regional innovation systems and its institutional context have been describe elsewhere (i.e. Pomares et al. 2016).

From a European comparative perspective, the Basque Country excels in three dimensions: human resources, attractive research systems, and favourable environment to innovation (Eustat & European Commission – EIS 2017). In regards to the training of human resources, considered as key to innovation, the region stands out by exceeding the EU averages in three key areas; new graduate doctors between 25 and 34 years, population between 25 and 34 years with tertiary education, and the level of inhabitants comprised between 25 to 64 years participating in lifelong learning activities. Regional performance is also above the average of the EU (Eurostat, 2017-Eustat 2017).

Within the regional development approaches, the Basque Country has been characterised as a successful history of regional transformation (OECD 2011). The European Commission also determines the region as an example of good practice regarding the RIS3 (Aranguren, Morgan & Wilson 2016). The Basque RIS3 is included in the Innovation, Science and Technology Plan 2020 (Gobierno Vasco 2015), which has defined 3 priorities aimed at advanced manufacturing, energy and biosciences. Along with this, a series of opportunities have been identified, such as cultural and creative industries, urban planning & regeneration, nutrition and ecosystems (Gobierno Vasco 2014). Advanced manufacturing (aeronautical, naval and railway, automotive, machine tools, capital goods)

represents one of the areas of regional transformation regarding Industry 4.0 concept. How-However, the RIS3 implementation process brings some challenges (Navarro et al. 2012). One of them is considered to be multilevel governance (Morgan 2016). Multilevel governance is a key challenge, especially in the Basque Country, which is composed by three territories (provinces) with their own institutions (Provincial Councils) and its polycentric orientation (Pomares et al. 2016).

One of the distinguishing characteristics of the Basque RIS3 process is the appearance of emerging plans located at territorial levels, considered as local experimentation opportunities, aligned to the emerging models of experimental governance in the EU (Morgan 2016). Experimental governance (Sabel & Zeitlin 2012) has gained academic and political attention regarding its potential impact for learning in the public policy making of EU member states. The term refers to a multi-level architecture, which links in an iterative cycle oriented to learning processes broad framework goals, discretion to lower levels in the goal implementation, practices of regular reporting and assessment, and periodical revision of frameworks (Sabel & Zeitlin 2012, 169).

6.   Territorial approach to the Province of Gipuzkoa

With regard to the promotion of knowledge, innovation and economic policies, the Territory of Gipuzkoa has been aligning its development to the EU Lisbon Strategy. First lifelong learning public programmes were launched in the mid 80's along with information and technology-based investment initiatives. Since 2014 the Territory has been active in policy-making focusing on participation. First workplace innovation programmes in this period promoted workers' participation in management, strategic decision-making, results and capital. In 2016 a provincial tax rule was introduced to support workers participation in the capital of company level, which can be understood as a policy mix complementing development programmes.

Workers participation has gained importance in the political agenda as a driver for competitiveness and social cohesion. An example of this political interest can be found in the Strategic Management Plan (2015-2019) and the *Etorkizuna Eraikiz* (Building the Future, in Basque language) Programme, which focuses on the institutionalisation of a new collaborative governance model oriented to the strengthening of the endogenous capacities of the Territory (Barandiaran & Luna 2018). Considering the Territory as a system of action (Luhman 1995) public policy-making has turned from traditional to more open and innovative design that can be conceptualised as meta-governance (Jessop 2003; Kooiman 2003; Sorensen & Torfing 2005, 2007). In this scenario, meta governance refers to the analysis of policy actions which integrates diverse collaboration through different experimental and strategic programmes on economic, social, political and cultural arenas, including climate change, active aging, employment, cyber security, education, gender, work and family balance and workplace innovation among others (Barandiaran & Luna 2018). In regards to policymaking, Gipuzkoa has experiencedactionresearch and its contribution policy learning (Karlsen & Larrea 2014a; Karlsen & Larrea 2014b), a feature that reinforces the open and collaborative character of the territory and its institutions.

Understanding the multi-level governance of the Basque Country and considering sub-regional (territorial) policy spheres, the potential contribution of the experimental institutions, such as workplace innovation programmes, can support the entrepreneurial discovery process in an alternative strategy. In this sense, workplace innovation can result as a driver to promote learning arenas aimed at productivity and quality of working life.

7.   Workplace Innovation Programme´s Analytical dimensions

The purpose of this section is oriented to locate the territorial Workplace Development Programme promoted by the Economic and Knowledge Promotion Directorate of the Provincial Government of Gipuzkoa. Based on previous research more information on the programme can be found elsewhere (Pomares et al. 2016; Alasoini, Ramstad & Totterdill 2017)). To do this in a complementary manner, the methodologically revised F. Naschold´s framework, designed by Tuomo Alasoini (2009, 2016, 115-118) as a learning oriented model will be applied.

Both the original and the revised model are based in six generic principles considered as crucial for the social impact of programmes (Alasoini, 2009): policy context, orientation, participation, horizontal networking, aim and resources and infrastructure.

– *Policy Context*: Based on the programme description on the aim is addressed to workers participation (capital, results, strategic decision making and management) by the promotion of people´s centred approaches, learning, territorial development and social cohesion. The programme´s strategic justification relies primarily on sustainability territorially rooted decision-making power and lifelong learning to improve productivity and better quality of working life. Macro-industrial policy issues such as digitalisation, robotisation, automatisation, globalisation, competition and de-localisation must be considered as underlying external pressures in the territory. This links programme and company or workplace levels by guiding development activities. Integrated into a broader knowledge promotion policy of Gipuzkoa, the programme supports other policies at the macro-level (Basque Country) as smart specialisation strategies, which aims to impact on territorial socio-economic performance. As a special feature, the strategy relies on the promotion of participated business structures as a key driver for endogenous socio-economic development. Thus the social legitimacy addresses territorial industrial relations and social dialogue at company level. Research is contained in the aim of the programme as a foundation to explore new formulas on participation and work organisation including territorial research system. The design of the programme emerges from the Provincial Government, and involves in its implementation to businesses, research organisations of STI network, higher education institutions and training centres, social partners and other strategic organisations. The focus of the programme is based on the sub-regional level.
– *Orientation*: The programme´s goal setting is focused on strengthening the territorial business ecosystem, through workplace innovations and people's centred systems, skills and competence building, organisational or individual learning and networking between participants. In the light of the programme this means of new forms of work

organisation to be developed by research, new methodologies, instruments, evaluation models, and the diffusion, socialisation and experimentation. Overall, the orientations mainly aim at fostering emerging objects for development based on local reinvention as "useful practices" more than "best practices" (Alasoini 2016, 116).

– *Participation:* Workers participation at workplace and company level is contained in a broad way. Gender and age issues are central, which are embedded on sustainable and more cohesive formulas of territorial development policies. The programme is more process than design oriented, as it promotes research on new formulas for workers participation at broad company level issues.The process driven dimension is contained in the goal of the programme by the promotion of participation among managers, workers, researches, social agents and education or training institutions (mobilisation), the inclusion of gender and ageing issues in regards of business continuation and sustainability (social inclusion), and the openness of different partners considering a right balance, able to include different interest and aspirations of a variety of actors (dialogue) (Alasoini 2016, 117).

– *Aim and Resources:* Main objectives can be identified on economic and social development on a sustainable territorial transition, which are integrated in the Programme's vision and guidelines as described before (intellectual resource) (Pomares et al. 2016). For this purpose, the programme resources are primarily based on economic funding (material resources) for learning based R&D and diffusion activities. The programme has an annual periodicity where participating players (individually or by association in networks) submit development projects (R&D or Diffusion), which are funded. The cost susceptible to being financially covered depends on eligibility criteria such as the innovative nature of activities, the coherence of project activities and methodologies, with the programme goal setting, and the impact, quality and intensity of cooperation in participatory processes (Pomares et al 2016, 119). Other types of resources such as the participation in new or established networks, and the dissemination are also included (social resources), but this depends on implementers and the purposed projects by participants. The programme includes diffusion-and-extension-based activities to sustain or create intermediate or cross-organisational learning networks for dissemination of practices (Alasoini 2016, 118).

– *Networking:* Based on the territorial axis, the programme focuses on the organisational and/or workplace level based on learning by interaction, co-operation and participation, which includes a diverse class of players. This includes individual workplaces, business organisations, social agents, research centre or higher education or training centres. Learning and networking is promoted through research and development projects or diffusion activities.

– *Infrastructure:* The programme is oriented to promote territorially based cooperation and interaction as a vehicle to strengthening social and economic development based on knowledge. For this purpose, in order to be addressed exclusively to business or private organisations it comprises also other actors from the social, economic and knowledge areas, such as research centres, education and social agents.

8.   Findings

This section focuses on programme-level issues: Workplace Innovation programmes. To understand the effectiveness it is important to consider programme design and implementation (Alasoini 2016, 40). However, this paper, as driven by a constructivist view, focuses on the potential and integrated framework that Workplace Innovation Programmes are able to support considering other regional policies. The main objective is therefore in describing the contextual factors capable of producing this approach instead of doing an evaluation. In particular, the purpose is to increase the capacity of companies' capacity for learning and adapt (Alasoini 2016, 27) by using broad based participation supporting other regional policies such as smart specialisation. In spite of the supportive capacity of the programme to support other policy spheres aiming at socio-economic development, each programme has its own goals. Ideally, four types of different goals can be addressed in terms of assessment (Alasoini 2006):

–   *Public policy goals* addressing the rationale such as i.e. socio-economic development, productivity growth, working life reform, regional development, cooperation or development of networks or clusters.
–   *Programme level goals*, which refer to the alignment to the way programme is implemented and resourced to realise, desired change and determined policy goals.
–   *Generative results* or external effects mean the capacity of developed activities to be transferred from individual workplace and organisations and benefit to other spheres.
–   *Workplace level* results consist on the outcomes generated by the development carried out inside the programme.

Having this in mind, for the purpose of this paper, in this section the main focus will be to describe a combined approach to the way the programme has been implemented.With minor changes (i.e. the title of the programme) since its launching in 2014 workplace innovation has been described as the integration of people, skills and technology based on innovative forms of work organisation through autonomy and learning as a source of productivity and quality of working life (Pomares et al., 2016). In regards of public budgeting, the programme has an annual investment of 3M. In overall between 2014 and 2017 the expenditure reached 13.4 million euros. The total investmentin the programme considering the annual public budget of the Economic Promotion Directorate reaches almost 15%. It has to be considered that the Economic Promotion Department is composed by 5 Directorates: Economic Promotion DG, Innovation and Internationalisation DG, Agriculture and Rural Development DG, Mountains and Nature DG, Territorial Balance DG.

Table 2:   Budget and programme funding.

	2014	2015	2016	2017	Total
Total Funding (million Euros)	3.3 M. €	3.2 M. €	3.4 M. €	3.4 M. €	**13.4M. €**
% Of theEconomyDG Budget	15,35%	21,31%	11,68%	11,39%	14,93%

% Of the Government Budget	0,44%	0,44%	0,43%	0,41%	0,43%

Source: Government of Gipuzkoa. Own Elaboration.

The WPI Programme policy goal is set on socio-economic endogenous development as it contributes to other programme and policy spheres in different levels. The unit of analysis in this frameworkis the number of approved projects in the WPI programme. Following Alasoini, different type of activities can be developed in this framework. In theory programmes can address desirable effects and changes by developing three types of projects: user oriented projects, method based project and learning networks. Each of development projects (potentially) can generate different types of outcomes. In example, three main types of projects are identified within the WPI Programme Theory (Alasoini 2008): user oriented, method based and learning network projects. Each of these development activities differs in terms of the capacity to generate results. User oriented projects generate new design or development systems able to be extended and transferred to others. Method based projects refers to implementation of standards reducing the customised developments. Learning networks represent a hybridisation of user oriented and method based developments, which can contribute to broader learning effects.

In focus, within the WPI Programme of analysis participants can propose several projects for each programme period. In the table below a resume of the approved projects is shown. In overall during 2014 and 2017 a total of 430 projects have been developed. The three types of development activities above can be included, but with regard to available data and the aim of this research, the focus is set on the nature of funded activities. For this purpose a further division between research & development or diffusion projects can be made. Data shows a total of 430 projects, with up to one hundred funded projects per year (see table n. 3). In regards of the type of activities funded within projects, R&D project represent 47,1% and Diffusion activities are 52,9%.

Table 3: Participating Projects.

	2014	**2015**	**2016**	**2017**	**Total**
Total Projects	103	116	115	96	**430**
R&D	45,63%	49,57%	47,83%	45,26%	**47,10%**
Diffusion	54,37%	50,43%	52,17%	54,74%	**52,90%**

Source: Government of Gipuzkoa. Own Elaboration.

Major players in the programme (over the period 2014-2017) are projects led by Business (66%) and followed by projects of Strategic Associations (15%), such as county economic development agencies. Minor players are Universities and Education Centres (9%), Employers Associations (6%) and Science Technology and Innovation Agents (4%). There was only one project by Trade Unions in the first year of the programme.

Chart 2:   Percentage of participating projects (2014-2017) by player type.
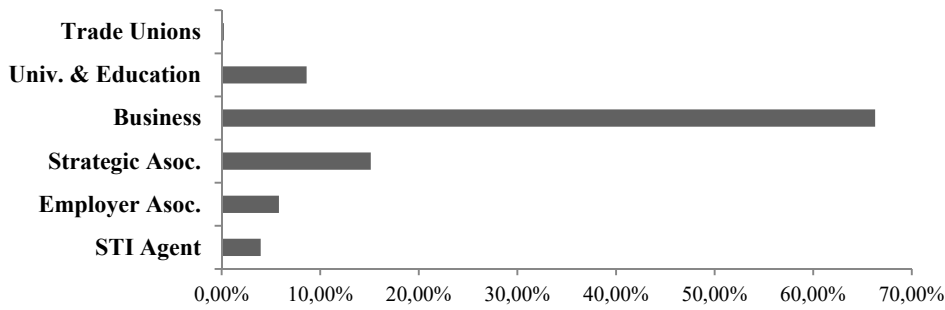
Source: Government of Gipuzkoa. Own elaboration.

In the chart a detailednumber of participant projects classified by agents shows that more than half of the funded projects are led directly by companies. As pointed out above, territorially based strategic associations, followed by universities, training and education centres, employer associations and STI agents, take part in less substantial mode. Trade Union project representation is symbolic. However, using the project as a unit of analysis does not describe the nature and goal of approved project. Many of the projects developed by minor agents can be addressed to a large number of activities or companies (i.e. County economic development agencies which gather country-based organisation networks, or universities and ST agents developing activities and projects addressing infrastructure or territorial capacity building).

Chart 3:   Number of participating projects by player type and per year.
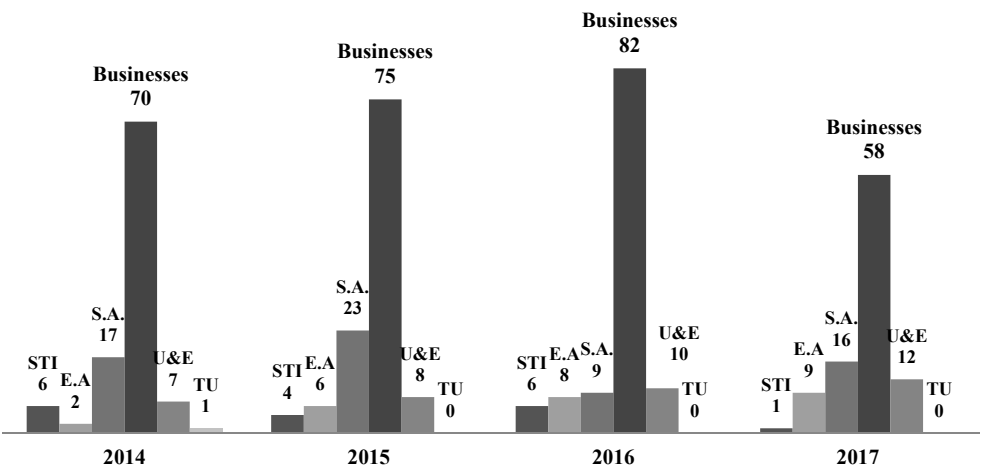
STI=Science, Technology and Innovation Agents; **E.A**=Employer Associations; **S.A.**=Strategic Associations; **B**=Business; **U&E**=University and Education Centres; **TU**=Trade Unions
Source: Government of Gipuzkoa. Own elaboration.

9.   Conclusion

Strategic justifications for WPI Public Programme originally were set on working life reform, participation and industrial democracy. As part of the socio-technological school, workplace innovation has been described as *constructed* and *participatory* changes able to produce simultaneous improvements in productivity and quality of working life, but also supporting other type of innovations. Technological shifts require rapid adaptation at workplace level, which should be supported by the modernization of socio-economic institutions (Perez 2004) in order to reach well-balanced transformation of work, organisations and society. Workplace Innovation Programmes as Institutional Entrepreneurs (Alasoini 2016) are examples of alternative modes for learning able to produce better policy implementation. In particular, the regional setting gains importance in terms of the experimental character of institutions and multi-level governance structures as they create complementary routes linking micro, meso and macro spheres. In this sense "causation is contingent on the context" so "produced Programme and Policy learning must be understood as dependant on the content" (Alasoini 2016, 116).

Workplace Innovation and public promoted Programmes can be pivotal, contributing to broad innovation strategies able to produce better understanding when complex objects (i.e. work organisation, new technology implementation, technological disruption, working life reform, job quality or welfare state and tax systems) require integrated approaches. To reach desirable social changes, broad based participation is required, including a wide range of actors that simultaneously work with shared complex object can interact, co-operate and exchange knowledge and experience. For this reason, it is important to consider Programmes as (learning) mechanisms to transform social institutions as working life.

Within the particular scenario of Gipuzkoa and the Basque Country, a four-year period of investment in areas focused on work-organisation, participation and learning shows that alternative institutional learning frameworks can be designed. The vision of the Government in Gipuzkoa (since the 80's) and its learning and sustainability based policy orientation is an example of that.

The challenge now is set on creating (social and political) awareness on the potential complementarity of these programmes, in regards of social transformation, as they can produce niche innovations and cumulative knowledge. As shown in the findings, more than 13 M. euros investment and 430 projects have been developed by a large number of companies, territorially based strategic associations, universities and education centres, employer associations. Trade Unions participation still remains low. For this reason, future research must be guided to the analysis of the results and the generative capacity of the Programme to reach policy and programme goals. This can contribute to a better understanding of new ways for cooperation, learning and new forms of work organisation within local contexts able to be expanded in regional contexts.

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