



Towards a conceptual framework to monitor convergence in the European Union – evidence from desk research and expert workshop

This working paper supports the forthcoming report:
[Upward convergence in the EU: concepts, measurements, indicators](#)

Contents

Introduction	1
Convergence, an unclear concept	2
Convergence in the Treaties	5
Renewed interest in convergence: from nominal to social.....	7
Convergence and the European Pillar of Social Rights.....	9
Eurofound Strategic Area of Intervention on Monitoring Convergence in the European Union...10	
Experts' reflections on the Monitoring Convergence.....	17
The preliminary framework of Eurofound investigation on convergence.....	27
Next steps	33
References	35
ANNEX 1	37
ANNEX 2	39
ANNEX 3	43

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Eurofound reference number: WPEF17041

Related report: Monitoring Convergence in the European Union: concepts, measurements, indicators

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The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite European Union Agency, whose role is to provide knowledge in the area of social, employment and work-related policies. Eurofound was established in 1975 by Council Regulation (EEC) No. 1365/75 to contribute to the planning and design of better living and working conditions in Europe.

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Introduction

The European Union is committed to economic, social and territorial cohesion, balanced economic growth and upward economic convergence. Convergence trends between Member States have been achieved over the last decades in both the economic and social dimension. Suddenly, the crisis halted these trends and since 2008, stalling or divergent patterns marked the performance of the European Union Member States.

Diverging performances among Member States and increasing inequalities within Member States warrant common concern, firstly, because they contradict the expectation that deepening European integration leads to growing cohesion at national and pan-European level, secondly because they may spread the feeling of social injustice and unfairness among citizens, hence fuelling anti-European sentiment and undermining solidity and legitimacy of the European project.

Eurofound's strategic objective for the programming period 2017–2020 is 'To provide scientifically sound, unbiased, timely and policy-relevant knowledge that contributes to better informed policies for upward convergence of living and working conditions in Europe'

In order to achieve this strategic objective and to support policymakers to address possible diverging trends and to investigate whether or not these trends signal a general lowering of living and working conditions, Eurofound has designed a new strategic area of intervention entitled "Monitoring Convergence in the European Union".

In this multiannual activity designed for the period 2017-2020, Eurofound will monitor convergence and divergence among Member States and when possible, at regional level in a range of dimensions: employment, social protection, working conditions, social cohesion and quality of life and socio-economic factors. The investigation will be performed through internal and external consultation, desk research and literature review as well as statistical analysis of indicators drawn from several data sources.

The first project of this new strategic area is entitled "Developing a Conceptual Framework to Monitor Convergence in the European Union". The project aims at providing an overview of the policy debate around convergence, defining convergence conceptually and specifying the dimensions of investigation and the set of indicators to measure them.

To accomplish the objectives of this project an extensive literature review of policy documents and academic articles has been carried out. Desk research was essential in order to understand how the concept of convergence entered in the policy debate, which statistical tools are used to measure it and which indicators are commonly used to measure Member States performances in the relevant dimensions.

In order to discuss the first findings of this work, an expert workshop was organised on 13 and 14 of June, 2017 in Dublin. The workshop aimed at discussing the concept of convergence in the European union agenda and how to measure it. Over 30 European academic experts in the fields of employment, working and living conditions participated as well as the European Commission and ILO. The expert workshop was an unique opportunity to enrich the research and, most importantly, to clarify how Eurofound could contribute most effectively to the debate.

An additional and important source of information on convergence was the Foundation Forum entitled “Converging economies, diverging societies”. The Foundation Forum is the Eurofound flagship event and took place in Dublin on 14,15 November 2017. It brought together 200 high-level participants to debate the various perspectives of convergence in Europe. The Forum 2017 included several plenary sessions and four parallel workshops and provided an opportunity for a well-informed debate around convergence and the European Pillar of Social Rights.

This working paper is an intermediate step towards the 2018 Eurofound report ‘Monitoring Convergence in the European Union: concepts, measurements and indicators’. It aims at explaining the concept of convergence and offering a brief history of the concept of convergence from the Treaty of Rome of 1957 to the European Pillar of Social Rights. It also aims at discussing from an operational point of view the work carried out in 2017 in the framework of this Eurofound research activity as well as the preliminary set of dimensions to monitor convergence in the European Union.

This working paper is structured in two main parts. In the first part the policy context of convergence is discussed while in the second part Eurofound activity on monitoring convergence in the European Union is described from a more operational point of view. More in detail, this working paper is organised as follows: the first section provides a short discussion of the definition and meaning of the term convergence, then the second and third sections describes the policy context and how the concept of convergence emerged in the European Union agenda and in the European treaties. Then Section 4 describes the Eurofound activity on Monitoring Convergence in the European Union. This section discusses how to measure convergence and it will define upward convergence. Section 5 presents a short summary of the main discussion at the expert workshop while section 6 provides a preliminary framework for the set of dimensions that will be investigated throughout the Eurofound activities on Monitoring Convergence in the European Union. Finally, an overview of the next steps and further research concludes the paper.

Convergence, an unclear concept

The global financial and economic crisis that started in 2008 in the United States shook Europe to its core. GDP fell abruptly in several Member States, participation in the labour market decreased dramatically in most of the Member States and living conditions deteriorated considerably for certain parts of the EU population.

Almost a decade later, the EU economy is now back on a more stable footing and in the last quarter of 2016, for the first time since 2008, all EU member states have recorded a positive growth in GDP with employment finally growing again in all Member States. Still, the recovery is unevenly distributed across society and regions and addressing the legacy of the crisis remains a urgent priority (European Commission, 2017a).

One adverse effect of the crisis was to amplify differences among Member States in social and economic outcomes: Portugal’s debt to GDP ratio as twice as high than that of the Netherlands, Greece’s unemployment is more than seven times higher than that of Czech Republic, Italy’s long term unemployment of youth is more than twenty times higher that of Denmark and of the incidence of self-reported unmet need for medical care is more than one hundred times higher in Estonia than in the Netherlands and Austria.

While European Member States have often been proud of their differences, these differences in performances are too high to be sustainable in the European Union of today.

Member States' economic and social convergence matters for the European Union and for its political acceptability. In fact, economic divergence undermines the promise of shared economic prosperity, which was central to the European project and the creation of the Euro in the first place. In addition, social divergence among Member States and increasing inequalities within Member States weaken the ultimate vital goal of the European integration project of improving living and working conditions.

Great emphasis is now given to the need to promote Member States' convergence through European and national actions and initiatives with the shared idea that the key to the future of the European Union lies in preserving diversity and in correcting, through convergence, the asymmetries. In fact, the ultimate goal of the newly proclaimed European Pillar of Social Rights to promote and achieve upward convergence among Member States while restoring convergence of Member States in economic and social outcomes is central to the discussion of reforming the Economic and Monetary Union. (European Commission 2017b, 2017c).

While this renewed interest for convergence in the European agenda will be discussed in the next sections, it should be noted that despite the increase in the popularity of the term convergence, there is still lack of clarity over its meaning.

Definition and meaning of 'convergence'

The origin of the term *convergence* trace back to the Latin language and it derives from the term *con-vergere*, namely having a common direction¹. According to the Merriam Webster dictionary², in modern English, it means "the act of moving toward union or uniformity". A similar definition of moving toward the same point while becoming gradually similar is described also by Cambridge Dictionary³.

Convergence is rather a technical term, often used in mathematics and in probability theory. to indicate a *process* of moving toward the same point while gradually reducing differences or disparities. In the European policy debate the term is used with different meanings in different contexts. Generally speaking, the meaning of convergence varies along two axes: convergence *of what* and convergence *to where*.

In this regard, while the 'convergence *of what*' is almost always intended as convergence of geographical entities, such as Member States or regions, the meaning of 'convergence *to where*' is far less univocal. There are several types of convergence identified in the European policy debate. They can broadly be differentiated in two main types: 'outcome convergence' and convergence needed for other matters. An example of the latter type includes convergence related to the Maastricht criteria or structural convergence. The types of convergence that have recently gained more importance in the European policy debate are:

- **Nominal convergence:** Fulfilling the requirements established by the Maastricht Treaty for accession to the European Monetary Union (EMU, hence it focuses on the

¹ Vocabolario Treccani - <http://www.treccani.it/vocabolario/>

² <https://www.merriam-webster.com/dictionary/convergence>

³ <https://dictionary.cambridge.org/dictionary/english/converge>

evolution of the inflation rate, nominal interest rate, exchange rate variability and fiscal variables, such as public deficit and debts (EPSC, 2015).

- **Structural convergence:** Changes in the structure of the economy or welfare systems of Member States towards some common standards or specific policy input (Vandenbrouke, 2017).
- **Cyclical convergence:** Countries are in the same stage of the business cycle, such as an up or down swing. It is achieved when countries move in parallel along the economic cycle (European Commission, 2017c).
- **Real convergence:** Convergence in economic and social performances in terms of real variables and it includes different aspects such as convergence in GDP per head, incomes, productivity and competitiveness, labour market outcomes etc, (Marelli and Signorelli, 2010).
- **Social convergence:** Member States convergence in social dimension which usually refers to improving working conditions, living standards and gender equality, (European Commission, 2017d).
- **Upward convergence:** Convergence of Member States towards better working and living conditions and/or economic outcomes (European Commission, 2017b).
- **Convergence to Resilient structures:** Member states convergence to economic and social structures with stronger absorption capacity, transformation and recovery from shocks (European Commission 2017e).

Notwithstanding all these initiatives, the focus of Eurofound work on monitoring convergence will be on convergence of Member States towards better working and living conditions and economic outcomes.

The term ‘convergence’ has been used predominantly in the macro-economic context, especially in the context of the Economic and Monetary Union and the criteria to access the common currency. However, as will be shown in the next sections, in recent years it has started to be used also in reference to the social dimension.

Although used sometimes mistakenly as synonyms, convergence should not be confused with cohesion or divergence with inequalities. The main difference lies in the fact that convergence is a process while the other two are statuses.

The term ‘convergence’ indicates a process toward something. In contrast, the term ‘cohesion’ derives from the Latin term *cohaesus*⁴ which means the fact of forming a united whole, namely a status. In this regard, Eurofound(2017) highlights that while cohesion is the capacity of the European Union to hold together, cohesion do not necessarily imply convergence although , some degree of equality (or at least a tendency to converge) between the Member States is probably necessary for the cohesion of the Union.

The difference between inequality and divergence follows a similar logic. Inequality, from the Latin term *inaequalis*, indicates a status of difference of rank or dignity and being unlike or different, while divergence, as opposite of convergence, is a process towards dissimilarity. Moreover, in the policy discourse convergence and inequalities are often related to different levels. While inequality often refers to the individual level, i.e. inequality among citizens in income distribution, convergence mainly refers to geographical units, i.e. Member States or regions. The relationship between convergence and inequalities is rather unclear. While one could expect that convergence among Member States results in some

⁴ Vocabolario Treccani - <http://www.treccani.it/vocabolario/>

reduction of inequality among citizens, this is not necessarily true. In fact, mathematically, the level (average) of performance of a Member State could increase while inequality (variance) within this Member State could also increase.

Convergence in the Treaties

The concept of convergence, and its synonymises, are at the heart of the European Union and embedded in the European treaties along the economic, monetary and social dimensions.

The 1992 Maastricht Treaty on European Union (TEU) explicitly introduced the terminology of convergence, calling at Member States “to achieve the strengthening and the convergence of their economies and to establish an economic and monetary union including ... a single and stable currency”.⁵ As such, the term convergence tends to be associated with economic performance as opposed to social conditions in the EU legal framework.

The “euro convergence criteria”, or the Maastricht criteria, ensure that a Member State is ready to adopt the euro and that its joining the euro area is not going to cause economic risks for the member state itself or for the entire euro area. The criteria are set out in Article 140 (1) of the Treaty on the Functioning of the European Union.. These criteria which define the so called *nominal convergence*, include the area of price stability, government finances, exchange rate, long term interest rates (Council of the European Union, 2017b).

While in the treaties the term is explicitly mentioned only in reference to the common currency, for a full history of the convergence concept in the European Union, one needs to go back to the very origins of the European project. The Schuman Declaration of 9/11/1950 , for example, after stating that a federal integration is necessary to preserve peace in Europe, outlined not only how production of and trade in coal and steel should be organised, but also highlighted the need for “the equalization and improvement of the living conditions of workers in these industries.” Equalization is a very important concept here and this sentence affected subsequent key documents.

The founding fathers of the European project were convinced that ‘social’ convergence would arise spontaneously through ‘economic’ convergence. However, already in 1957, in the founding treaty, Member States created of the European Social Fund and ‘agreed upon the necessity to promote improvement of living and working conditions of labour so as to permit equalization of such conditions in an upward direction’, (Vanderbrouke, 2017b, Article 117 EEC Treaty). The treaty also includes the right to free movement of workers, the abolition of any discrimination based on nationality as regards employment, remuneration and other conditions of work and employment, including gender equality for equal pay and equal work. (Article 48; article 119 EEC treaty).

In spite of this start, the EU social *aquis* was the result of a long process that gradually evolved over time. Important steps were taken from the 1980s onward through the European Single Act (1986) and the above mentioned Maastricht Treaty, often as a need of completing the single market.

⁵ Preamble to the Treaty on European Union. Official Journal of the European Union.

Furthermore, the Treaty establishing the European Community advocates that economic prosperity and improved living and working conditions among and within Member States are one of the main priorities of the Union. These goals are to be achieved through the promotion of growth-enhancing conditions and the reduction of disparities between the levels of development of EU regions and Member States, which are key targets of the European Cohesion Policy. In this regard, Leonardi (2006) indicates that convergence is a policy process towards cohesion, and this is the political objective of convergence.

The objective of European Cohesion Policy is defined in Articles 2 and 4 and Title XVII of the Treaty establishing the European Community. According to Article 2, Cohesion Policy should ‘promote economic and social progress as well as a high level of employment, and achieve balanced and sustainable development’. Article 158 adds, ‘in particular, the Community aims to reduce the disparities between the levels of development of the different regions and the backwardness of the least favoured regions or islands, including rural areas’. Since the inception of the policy and the first programming period (1989-1993), this objective has often been translated as the promotion of convergence between EU regions and specifically their regional levels of GDP.

In order to promote harmonious development, cohesion policies are being delivered through the European Structural and Investment Funds, comprising the European Regional Development Funds, the Cohesion Fund, the European Social Funds, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund. By directing these funds to areas, sectors and less developed regions, cohesion policies aim at reducing the significant economic, social and territorial disparities between European regions and ultimately, Member States.

Furthermore, Article 121(3) of the Treaty on the Functioning of the European Union (TFEU) outlines the EU’s commitment to achieving “closer coordination of economic policies and sustained convergence of the economic performance of the Member States” as one of the main operational priorities of the EU.⁶

More recently, the 2007 Lisbon Treaty introduced a ‘Horizontal Social Clause’ (Article 9 of the TFEU)⁷ which integrates a social dimension in all EU policies, stating that in all of its policies and activities, “the Union shall take into account requirements linked to the promotion of a high level of employment, the guarantee of adequate social protection, the fight against social exclusion, and a high level of education, training and protection of human health”.⁸ Moreover, with the Europe 2020 strategy the Heads of Governments and States for the very first time committed to quantified goals in the social dimension, the employment dimension and the environmental dimension. Tracking progress of Member States not only in the macro-economic dimension is the first step to monitor their performance and to observe convergence or divergence trends also in the social dimension.

⁶ *Consolidated Version of the Treaty on the Functioning of the European Union*, Article 9 (2012). C 326/47. Official Journal of the European Union.

⁷ *Consolidated Version of the Treaty on the Functioning of the European Union*, Article 9 (2012). C 326/47. Official Journal of the European Union.

⁸ *Treaty of Lisbon: Amending the Treaty on European Union and the Treaty Establishing the European Community*, Article 5a (2007). C 306/1. Official Journal of the European Union.

Renewed interest in convergence: from nominal to social.

Upward convergence between Member States has been achieved over the last decades across both real economic and social dimensions. As shown by Eurofound 2017, EU membership has led to an improvement in the average standard of living across all Member States and even with different pace and timing, the catch-up process of less developed new members always happened, turning low-income European countries into middle-income and high-income economies.

However, the crisis halted, or even reversed, these converging trends among Member States, leaving room for the accumulation of dramatic social and economic imbalances among Member States. Unemployment rate and the share of young people Not in Employment, Education and Training increased asymmetrically among Member States while diverging trends were observed in the distribution of GDP per capita (Eurofound, 2017). It should be noticed that the problem of social imbalances is cross-national whose effects spread across countries: a sharp increase in unemployment and poverty rate in some country could result in an increased inflows of labour mobility and decrease of exports in other countries. If these imbalances are persistent, the combination of their effects may undermine the sustainability of the EMU and of the European Union as a whole.

It needs to be recognised that an integrated system like the Economic and Monetary Union can live with some imbalances but it may not survive with large scale divergence. Convergence does not have to happen all the time in all accounts, but lasting divergence in major outcomes should be prevented. For this reason, any consideration on the sustainability of the Monetary Union had to address the concept of convergence (or preventing divergence) one way or another, (Andor, 2017).

As a result of these considerations, with a focus initially restricted on nominal and structural convergence and on the Economic Monetary Union later extended also to social convergence and all the European Union, the renewed debate around convergence started with the so called Four President Report (4PR) (Council of the European Union, 2012). This report represents an important paradigm shift in the policy debate as it recognized that the EMU has to be reformed in order to sustain the Euro and to reconcile its functioning with the broader objectives of the Union.

The 4PR outlined the need for banking, fiscal and political union in order to make monetary integration sustainable. It talks about imbalances that are not only strictly related to economic imbalances but more general economic, social and structural imbalances. *“In an economic union, national policies should be orientated towards strong and sustainable economic growth and employment while promoting social cohesion. Stronger economic integration is also needed to foster coordination and convergence in different domains of policy between euro area countries, address imbalances, and ensure the capacity to adjust to shocks and compete in a globalised world economy”*. The report emphasized also that maintaining an appropriate level of competitiveness, coordination and convergence is essential in order to ensure sustainable growth without large imbalances.

Simultaneously with the 4PR, the European Commission produced a Blueprint for a Deep and Genuine Economic and Monetary Union (European Commission, 2012). The Blueprint was quite technical and had a strong macroeconomic focus. However, in October 2013 a separate initiative was launched to monitor Member States performances and to strengthen the social dimension of the EMU. This was the very first occasion when a scoreboard of key employment and social indicators was introduced in order to measure and monitor social

divergence in the Monetary Union. Results were immediately used in the Joint Employment Report and the European Semester in general (European Commission, 2013).

The debate around convergence received a further input with the election of the Juncker Commission in 2014. The concept of economic and social convergence became part of the Juncker's agenda "A new start for Europe". The agenda highlights the need of continuing the reform of the EMU in order to preserve stability of the common currency and to enhance convergence of economic, fiscal and labour market policies of Member States sharing the common currency. Moreover, the concept of upward convergence in the social dimension became explicit in many President Juncker's speeches since 2015, when the follow-up of the 4PR is produced: the 5 President Report (5PR) (European Commission 2015).

As compared to the 4PR, the 5PR presented a less ambitious reform agenda but it deepened the analysis on convergence and explained why divergence was a problem. In fact, the concept of convergence was thoroughly quoted in the report and it was central to all the document. In particular, the report discussed the need of achieving economic and structural convergence in order to achieve social cohesion and avoid social imbalances. Although briefly, for the first time the need of convergence in the social and the economic dimensions of the European Union and of the EMU were discussed together as part of the same agenda.

The 5PR was followed in 2017 by the White Paper on the Future of Europe (WPFE), (European Commission 2017a). This White Paper provides different scenarios of the future of Europe. Although it quotes convergence only one time, the quotation is crucial as it gives economic and social convergence equal dignity highlighting "*the need to complete the Economic and Monetary Union and strengthen the convergence of economic and social performances.*"

The WPFE is accompanied by a series of reflections paper. Among them, one discusses deepening the EMU while another one specifically focuses on the social dimension (European Commission, 2017c, 2017d). The concept of economic and social convergence is central to both papers. In the reflection paper on deepening the EMU, the term convergence is quoted 54 times. The paper states that economic and social convergence needs to be fully aligned. This is also clearly indicated in the proposed possible roadmap for the completion of the EMU. Similarly, the reflection paper on the social dimension of the European Union discusses explicitly the need for convergence to higher standards of living as well as convergence in social conditions and social standards.

The need for economic and social convergence has been highlighted also by the Rome Declaration. The declaration was signed on 25 March 2017 by the leaders of all EU Member States, the European Council, the European Parliament and the European Commission. It calls for an EU "based on sustainable growth" that "promotes economic and social progress as well as cohesion and convergence". The Declaration also sets out to "make the European Union stronger and more resilient, through even greater unity and solidarity".(Council of the European Union, 2017)

The 2017 Rome declaration precedes by one month the launch of the European Pillar of Social Rights. Proposed on April 26th 2017, the European Pillar of Social Rights sets out a number of key principles and rights to support fair and well-functioning labour markets and welfare systems. The aim of the pillar is to serve as a compass for a renewed process of upward convergence towards better working and living conditions among participating Member States. Upward convergence will be achieved through the implementation of the

principles included in the pillar, which serve as a protection against divergence and social imbalances, (European Commission, 2017f).

Convergence and the European Pillar of Social Rights

Restoring and promoting ‘upward convergence’ in the social and economic dimensions is extremely important for the European Union for several reasons.

Firstly, upward convergence is fundamental in order to sustain political cohesion and legitimacy of the Union. In fact, on the one hand, economic divergence undermines the promise of shared economic prosperity, which was central to the creation of the European Union in the first place. On the other hand, social divergence between Member States and increasing inequalities within Member States undermine the ultimate vital goal of the European integration project of improving living and working conditions. It is a legitimate expectation of Member States and their citizens to see the European Union help them in reaching various economic and social objectives. The explosion of economic and social imbalances among Member States contradicts these expectations and, although many of these phenomena derive from Member States decisions, citizens have started to equate the declining living standards and low disposable income with the European Union and the Economic and Monetary Union with some of them questioning the validity of the European Project (EPSC,2015).

In fact, Pareto improvements do not work in the EU. If a few countries do well out of the Single Market and the EMU while others lose (or suffer), the EU stops being a win-win game and trends of disintegration set in. If there is a feeling that the Single Market does not allow all members to grow and the low-income countries to catch-up, overt or covert efforts will be made to undermine the functioning of the Single Market and unwind it at the end (Andor, 2017). For this reason, the European Union should embrace the logic of upward convergence while embedding the social component at the very core of its policy action.

The business cycle is the pattern of expansion, contraction and recovery in the economy. As things cannot grow forever, there will come a time when the uptrend ends and the downtrend begins. Thus, recessions are inevitable and sooner or later another shock will hit Member States. The European Union cannot afford to see another explosion of social and economic imbalances. In order to avoid this situation, preparation is needed. Proper initiatives for promoting upward convergence in the economic and social dimensions need to be put in place and trends among Member States monitored in order to promote further actions and initiatives in case of unwanted divergence (Mascherini, 2017).

The recently proclaimed European Pillar of Social Rights enshrines twenty principles in the form of rights and its aim is to ensure upward convergence in terms of sustainable economic and social performance between EU Member States. The Pillar does not aim at harmonizing welfare systems but at improving them and making them ready for the new challenges that Europe and its Member States are facing, these include globalisation, the digital revolution, changing patterns of work, migrations and demographic ageing, (European Commission, 2017f).

The Pillar builds on principles and rights which were set at different times, in different ways and in different forms. It aims to make them more visible and explicit for citizens and actors at European, national, regional and local level. These principles range around three areas:

- **Equal Opportunities and access to labour market:** which includes education, training, lifelong learning, gender equality, non-discrimination and active support to employment;
- **Fair Working Conditions:** including secure and adaptable employment; wages; information about employment conditions and protection in case of dismissals; social dialogue and involvement of workers; work-life balance and occupational health and safety;
- **Social protection and inclusion:** including childcare and support to children; social protection; unemployment benefits; minimum income; old age income and pensions; health care; inclusion of people with disabilities; long-term care; housing and assistance for the homeless and access to essential services;

The Pillar represents an important paradigm shift, (Vandenbrouke, 2017) with economic and social performances seen now as interdependent, as two sides of the same coins, rather than the traditional thinking that economic performance is a precondition for social developments. With this underlying philosophy of the Pillar of Social Rights, social policies are seen as an investment. A social investment on citizens which will bring fruits and returns both in terms of social inclusion and economic growth.

In order to monitor Member States performance, the Pillar of Social Rights comes with an on-line social scoreboard which presents data and analyses. The social scoreboard is composed of 14 headline indicators and an additional 28 indicators to picture the situation among Member States in the three dimensions of the Pillar, (European Commission, 2017g). The scoreboard is intended to feed into the annual European Semester process of economic policy coordination generating input for country specific recommendations.

Eurofound Strategic Area of Intervention on Monitoring Convergence in the European Union.

This second part of the paper presents more details on the Eurofound research activity on Monitoring Convergence in the European Union. In particular, this section provides a general description of the activity, it discusses its link with the European Pillar of Social Right and then it provides an operational discussion on how to measure convergence and upward convergence. Following a summary of the discussion at the expert workshop organised in Dublin on June 13/14 will be presented and then the preliminary framework of the set of dimensions to be investigated throughout the Eurofound project will conclude the paper.

As diverging patterns across Europe warrant common concerns, policy makers require evidence on whether these trends exist both within and between Member States and regions and whether or not they signal a general deterioration of living and working conditions.

For these reasons, Eurofound has designed a four years research activity entitled “Monitoring convergence in the European Union”. The aim of this research activity is to contribute to the debate on convergence by providing evidence, facts and figures to support policymakers in their understanding on upward convergence.

Given Eurofound expertise and knowledge on working and living conditions in Europe, the investigation of convergence will focus mainly on outcome indicators and Member States performance related to the following four main research areas:

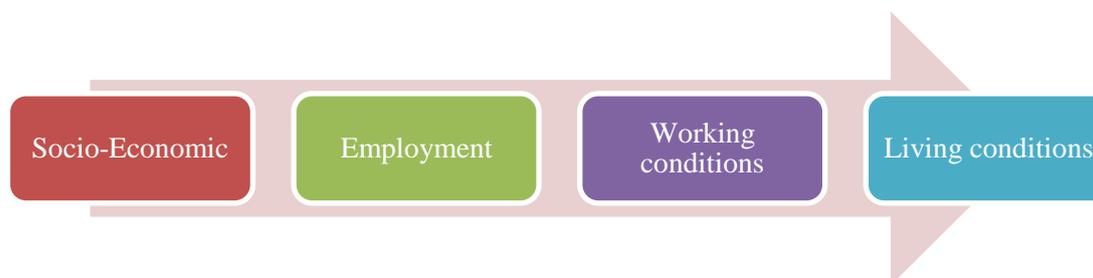


Figure 1 – Areas in which convergence will be investigated by Eurofound.

Each area will be structured in a set of dimensions which will be investigated through one or more indicators. While a preliminary set of dimensions will be discussed in more detail later in the paper, briefly the socio-economic area will include the investigation of real convergence, as well as access to services and social protection. The analysis of convergence in employment will be based mainly on the historical development of employment participation. The exploration of convergence in working conditions will focus on the concept of job quality measured through the European Working Conditions Survey and other statistical sources. The investigation of living condition will include objective and subjective indicators, including data drawn from the European Quality of Life Survey, and will cover quality of society, living conditions and general wellbeing. The feasibility of creating aggregated measures for each dimension will be considered and tested.

The research activity is organised along three main strands. Firstly, monitoring Member States convergence and divergence trends and performances in the economic and social dimensions. The analysis of patterns over time will be helpful to identify different trends and dynamics within European Union and, where possible, within Member States. Then, taking an overarching approach, the research activity aims at understanding the drivers of convergence and divergence trends across Member States. This will include the analysis of institutional, macro and micro level characteristics. Finally, the activity will produce evidence in order to inform the debate regarding initiatives and options to foster economic and social convergence at the European level. This includes analysis on how common EU level initiatives and actions may shape the direction of change.

The analysis of convergence will consider various time horizons. While the investigation of one or two years' volatility may be important, more critical is the question on how trends converge or diverge through a full business cycle and beyond. For this reason, along with assessing short time changes, whenever possible, the analysis of long-term (15-25 year) trends will be performed in order to establish what is temporary and what is lasting.

Wherever relevant the analysis will be presented by gender and age groups in order to capture different trends within the population. In terms of geographical coverage, the investigation of convergence will monitor trends at Member State level and, when possible, at the regional level as well. It will investigate dynamics for the European Union as well as for the Economic and Monetary Union.

Eurofound Convergence Activity and the European Pillar of Social Rights with its accompanying Social Scoreboard.

The aim of Eurofound's activity is to monitor convergence in the economic and social dimensions. For this reason, there is a natural link between the European Pillar of Social Rights, (hereafter 'the Pillar') the social scoreboard, and Eurofound's activity of monitoring convergence in the European Union.

Eurofound's research activity will contribute to the debate on 'upward convergence' by complementing and going beyond the Pillar, and its accompanying scoreboard: additional dimensions of investigation and indicators, will provide a more detailed picture of working and living conditions in Europe. Each of the four areas of Eurofound's activity (see Figure 1) will be organised in several dimensions in order to capture the various aspects of the complex social and economic situation in Europe.

Moreover, and most importantly, the aim of Eurofound research activity is to investigate convergence and divergence trends over time, not only between Member States, but also among regions. This goes beyond the aim of the social scoreboard which is to monitor Member States performance.

For these reasons, Eurofound's activity will provide original and additional evidence to policymakers on 'upward convergence', on whether Member States are growing while reducing disparities, or should further initiatives and actions need to be launched in order to achieve this indispensable objective. With its overarching approach Eurofound's work allow a more detailed understanding of drivers of convergence across the European Union and its regions, as well as documenting the consequences of divergence.

Measuring Convergence

In order to monitor upward convergence, the first consideration is how to measure convergence and to define upward convergence.

Just as there are different ways of defining the concept of convergence, there are also various ways of measuring it. In order to monitor convergence, it is important to have a clear understanding of what is captured with the various existing statistical measures of convergence. There is no convergence measure capable of capturing all relevant aspects of the convergence process, so it is therefore important to know what the specificities and the limitations of the existing measures are.

According to Heichel et al. (2005), researchers conceptualize convergence in policy analysis in at least four ways:

- **Beta-convergence**, in which laggards catch up to leaders in regard to a specific outcome or policy objective;
- **Sigma-convergence**, defined as a decrease in variation of outcomes or performances;
- **Gamma-convergence**, which examines changes in country rankings with respect to a particular outcome or policy objective;

- **Delta-convergence**, which analyses countries' distance from an exemplary model or group of countries.

Beta and Sigma convergence are probably the best known statistical measures of convergence; they derive from the economic growth theory literature.

Beta-convergence refers to a catching-up process in which poorer countries grow faster than the rich ones. According to the neoclassical growth theory (Solow, 1956), economies which possess the same structural parameters (technology level, saving propensity, population growth and capital depreciation) experience an “absolute” (or unconditional) beta convergence such that all countries eventually converge to the same steady-state level of capital per worker and GDP per capita. Beyond the purpose of testing this classical hypothesis of income convergence, the analysis of beta-convergence can be applied to other variables of interest to assess if poorer countries or regions catch-up with better performing ones (see for instance Signorelli, 2005 for an analysis of convergence of employment rates).

While the unconditional beta convergence model can be reasonably applied for homogenous group of countries, it does not take into account cross-country differences which may affect the convergence process. **Conditional convergence** takes into account the different initial conditions and predicts that a country will grow faster the further it is from its own steady-state but in the long-run income per capita does not necessarily equalise across countries. This is because convergence is conditional on a series of other explanatory variables, namely factor endowments and institutions, which can differ across countries even in the long-run. A compromise between the two approaches of absolute and conditional convergence is the **convergence clubs** hypothesis. Convergence clubs are regions with similar initial conditions which converge to the same steady state and growth trajectories. (Eckey and Turk, 2007).

The concept of **Sigma convergence** refers to a reduction of disparities between countries, or regions, over time. Convergence so defined is often identified by a decrease in the coefficient of variation over time, demonstrating that some variable of investigation, e.g. employment rate, is becoming increasingly homogeneous cross-nationally. The coefficient of variation is a scale-invariant measure that allows us to compare dispersion across time periods; it has been cited as the best quantitative measure of homogeneity (Kenworthy, 1999). In order to investigate if there is convergence the coefficient of variation of the variable of interest, e.g. employment rate, is calculated for each year (indicated by the subscript t) in the time-series as the standard deviation divided by the mean.

$$CV_t = \frac{\sigma_t}{\mu_t}$$

If the coefficient of variation decreases over time, it is evidence of sigma-convergence. An increase in the coefficient of variation over time suggests that countries are diverging, or becoming less similar. A primary benefit of this measure of convergence is that sigma-convergence is simple to understand and it is fundamentally consistent with the way we understand convergence: it is a measure of how countries, or other units, are becoming similar to each other. As such, it is a strong quantitative measure of whether convergence is in fact occurring.

While generally beta-convergence implies sigma-convergence, the presence of country specific shocks can increase dispersion. So beta-convergence is a necessary but not sufficient condition for sigma-convergence (for an early acknowledgment of this idea see Barro and Sala-i-Martin 1992, pp. 227–28; for a more recent discussion Young et al., 2013). Overall,

while the analysis of beta-convergence is almost exclusively covered in the academic literature, Sigma-convergence is utilized widely in the policy literature, and is particularly well-suited to look at real convergence variables, such as GDP per capita. (European Commission, 2014, 2016)

The concept of **Gamma Convergence** aims at capturing movements of countries and it was developed as a variant to beta convergence which has been criticized for not capturing sufficient aspects of cross-country dynamics (Boyle and McCarthy 1999). For the analysis of gamma-convergence, country rankings for different points in time are compared to assess the mobility of countries. If countries in the first ranks fall behind or catch up over time, convergence occurs. Changes in outcomes are analysed by simple measures of association, like the Kendall index of rank concordance (Boyle and McCarthy 1999). A low degree of similarity between rankings indicates high mobility of countries over time. Gamma convergence adds an additional perspective to the study of convergence and allows to capture movements that are not captured by other indices. According to Heichel et al, (2005), country rankings may, for example, change without a significant decrease of cross-country variation or without an approximation towards an exemplary model. Although the use of gamma-convergence is not so common yet, it nonetheless represents a promising tool for policy studies, as the idea of comparing ordinal classifications is also compatible with a qualitative research design.

Finally, the term **Delta convergence** was coined by Heichel et al (2005) to describe the analysis of countries' distance from an exemplary model, such as the best performer for example. Minimization of distance from the frontrunner over time implies convergence. Originally, delta-convergence referred to the qualitative study of changes in spending and/or policies in a small group of countries (Heichel et al., 2005). Such studies serve to shed light on the ways in which policies change qualitatively over time. However, they are often limited by their sample sizes, examining one, two, or a few countries, rather than providing a regional or larger group overview and comparison. Existing studies utilizing delta-convergence do not generally employ an explicit measure of distance. They rather tend to be qualitative studies, not necessarily focused on the issue of convergence as much as at understanding underlying processes and trajectories, (Noy and Sprague-Jones, 2016).

Measuring upward convergence

It is important to notice that EU documents speak not only about convergence in general but upward convergence in particular. The concept of upward convergence recently entered in the policy discourse as the leitmotif of Economic and Monetary Union (EPSC, 2015) and a goal of the of the European Pillar of social rights, (European Commission, 2017f). The importance of upward convergence also reflects to the concerns about convergence taking place downwards in a single market system. This is clearly the concern of some Member States with higher social standards which fear that a greater role for the EU in the social dimension and an enforcement capacity for convergence would actually mean downward convergence for them (or at least create such risk). For this reason, the concept of upward convergence, and not only convergence, is at the core of the current policy debate.

The concept of upward convergence is the union of two concepts, the first one is growth, or increase in performances and outcomes, the second one is convergence, or the reduction of disparities. The idea that 'upward convergence' means upward movement alone, i.e. growth or increase in performances, is not sufficient. Growth per se does not imply convergence. A group of countries may have increased their performance, but it cannot be said that there was 'upward convergence' as disparities could have increased as well. Conversely, countries can

convergence while decreasing their performance. In this case downward convergence is observed.

Measuring upward convergence means to measure both concepts: improvement and convergence in performances. For this reason, the indicators presented so far are not enough to investigate upward convergence as they need to be complemented with measures of growth and mobility among Member States. This can be for example the simple change in performances in comparison with the previous year.

While several methodologies can be applied to monitor convergence and assess the direction of a trend, it is our understanding that the term ‘upward convergence’ has not been formally defined in literature. For this reason, using a mathematical language, in this working paper we define upward convergence as follow:

Definition

Let $j=1..n$ be the observations, let $t=1..k$ be the time, let i be and integer so that $0 \leq i \leq k$, let $X(t,j)$ be a continuous random variable (indicator), let $g(X)$ be a monotonically increasing function of dispersion, let $\mu(X(t))$ the average of X at time t .

we say that there is weak upward convergence between t and i , if

$$\begin{cases} g(X_t) < g(X_{t-i}) \\ \mu(X(t)) \geq \mu(X(t-i)) \end{cases}$$

we say that there is strict upward convergence between t and i , if

$$\begin{cases} g(X_t) < g(X_{t-i}) \\ X(t,j) \geq X(t-i,j) \quad \forall j = 1..n \end{cases}$$

we say that there is weak downward convergence between t and i , if

$$\begin{cases} g(X_t) < g(X_{t-i}) \\ \mu(X(t)) < \mu(X(t-i)) \end{cases}$$

we say that there is strict downward convergence between t and i , if

$$\begin{cases} g(X_t) < g(X_{t-i}) \\ X(t,j) \geq X(t-i,j) \quad \forall j = 1..n \end{cases}$$

Adopting this definition, weak upward convergence between t and i , is defined as the reduction of the function of dispersion accompanied with an average increase of performances of the unit of observations. Then, strict upward convergence between t and i , is defined as the reduction of the function of dispersion accompanied with an increase of performances of all the unit of observations.

Similarly, weak downward convergence between t and i , is defined as the reduction of the function of dispersion accompanied with an average decrease of performances of the unit of observations between year t and year i . Then, strict downward convergence between t and i , is defined as the reduction of the function of dispersion accompanied with a decrease of performances of all the unit of observations between t and i .

The function of dispersion could be one of the four types of convergences measures described above. Assuming that sigma convergence (coefficient of variation) is adopted as function of dispersion, we say that there is weak upward convergence in employment rate between 2016 and 2015 if:

$$\begin{cases} CV(\text{Employment rate}_{2016}) < CV(\text{Employment rate}_{2015}) \\ \mu_{2016}(\text{Employment rate}) \geq \mu_{2015}(\text{Employment rate}) \end{cases}$$

While we say that there is strict upward convergence between 2016 and 2015 if:

$$\begin{cases} CV(\text{Employment rate}_{2016}) < CV(\text{Employment rate}_{2015}) \\ X_{2016,j}(\text{Employment rate}) \geq x_{2015,j}(\text{Employment rate}) \forall j = 1..n \end{cases}$$

The concept of upward convergence defined here, comes with some properties attached. The same properties holds for downward convergence.

Property 1

Upward convergence in the strict sense between time t and i, implies upward convergence in the weak sense during the same period.

Demonstration.

Assuming that the condition of strict upward convergence is respected, this means that for each $j=1..n$ we have that $X(t,j) \geq X(t-i,j)$. So, summing all the observations we have:

$$\sum_{j=1}^n X(t, j) \geq \sum_{j=1}^n X(t - i, j),$$

$$\text{so that } \mu(X(t)) = \frac{1}{n} \sum_{j=1}^n X(t, j) \geq \frac{1}{n} \sum_{j=1}^n X(t - i, j) = \mu(X(t-i))$$

hence $\mu(X(t)) \geq \mu(X(t - i))$. And the condition of weak upward convergence is verified.

Property 2

Upward convergence in the weak sense between time t and i, it necessary but not sufficient condition for upward convergence in the strict sense during the same period.

Demonstration

If upward convergence in the strict sense holds between t and i, for property 1 we know that also upward convergence in the weak sense holds. Hence the necessary condition is satisfied.

However, this condition is not sufficient because it can exist a j such as $X(t,j) < X(t,j-i)$ but that still $\mu(X(t)) = \frac{1}{n} \sum_{j=1}^n X(t, j) \geq \frac{1}{n} \sum_{j=1}^n X(t - i, j) = \mu(X(t-i))$

Similar properties can be drawn for downward convergence.

Example

The proportion of early school leavers rate is an indicator part of the Social Scoreboard. Reduction of the early school leavers rate is a traditional objective of the European Union and the reduction of the rates of early school leavers below 10% is one of the goal of the Europe 2020 agenda (European Commission 2010). A reduction of disparities accompanied with a reduction of the rates is the desirable objective for this indicator.

Assuming that the sigma convergence (coefficient of variation) is chosen as function of dispersion, during the period 2005-2016 a general decrease of dispersion is observed among European Member States. During the same period the EU28 average rate decreased from 15.7% to 10.7%. So, weak upward convergence is observed. However, as this decrease was observed in all countries but Czech Republic and Slovakia, that unfortunately recorded an increased in the early school leavers' rate in that period, the condition of strict upward convergence was not recorded.

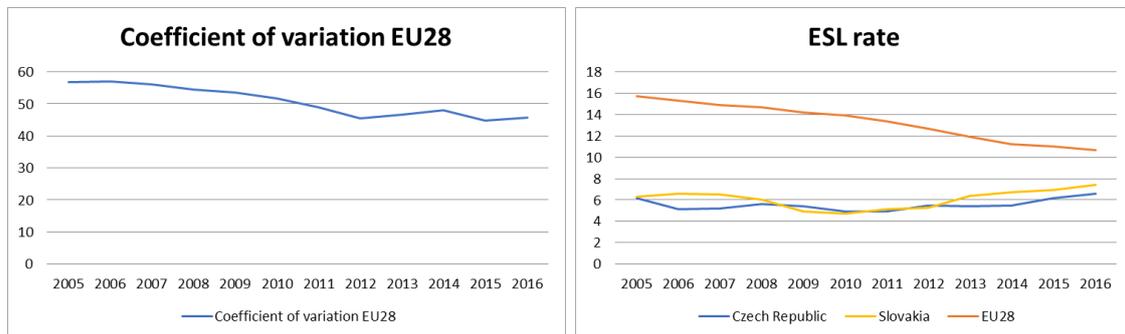


Figure 2- Coefficient of Variation on unweighted averages and ESL rate, 2005-2016. Source: Eurostat and Eurofound elaboration.

Experts' reflections on the Monitoring Convergence.

The Expert Workshop organised in Dublin on 13/14 of June 2017 provided a unique venue to discuss and elaborate the conceptual framework of Eurofound activity on Monitoring Convergence in the European Union. The workshop gathered together more than 30 high level experts from 19 different countries affiliated to European universities, research centres and think tanks. International organizations such as the European Commission and the ILO participated at the meeting and provided their feedback. The areas of expertise of the participants ranged from macro-economic to working conditions, from employment to quality of life and living conditions. Hence, all the research areas of investigation of the Eurofound activity on Monitoring Convergence in the European Union were fully covered.

The aim of the expert workshop was to discuss the concept of convergence in the European Union agenda and how to measure it. Two specific sessions were also organized to discuss the role of composite indicators in measuring convergence and the policy options to be considered in order to restore convergence. Most importantly, the workshop was an opportunity to brainstorm on the areas and dimensions of investigation in which convergence should be monitored. The following sub-sections highlight the main discussion of the workshop which were a useful input for the development of the project.

The concept of convergence

The first topic discussed during the workshop was the concept of convergence itself. All experts were asked to define upward convergence from their perspective and why it was important. Most experts agreed that upward convergence indicated a sense of performance and outcomes “moving upwards” and “closer together” in the same direction, both within and between Member States. Ultimately, this would lead to economic and social conditions which are similar, though not necessarily identical. It was also highlighted that convergence was about commitment and solidarity, by achieving a reduction in disparities and inequality, and creating equal opportunities for all citizens.

When asked why convergence was important, experts expressed that it “creates a shared purpose and capacity to stand in front of global challenges”. According to some experts, economic convergence is considered to be important as it is a signal that the EU is not disproportionately benefitting some countries at the expense of others. Furthermore, social convergence is essential to ensure that growth should contribute to improve all aspects of life of every citizen. Furthermore, in general, experts considered convergence as an essential foundation for EU integration and cohesion, which in turn are essential to the achievement of the commitments outlined in Article 9 of the TFEU, and reaffirmed in key documents such as the Lisbon Strategy and Europe 2020.

The four thematic sessions.

In order to discuss the structure of the four areas of investigation (socio-economic, employment, working conditions and living conditions and quality of life), four thematic sessions, one per area of investigation, were organised and experts were grouped in these sessions according to their expertise. The aim of each thematic session was to discuss a possible working definition of the different areas and to examining dimensions and indicators that could better describe and measure these areas. In this section, the main suggestions of the experts on which dimensions should be covered are presented. Moreover, experts also discussed which indicators could best measure these dimensions. The list of those indicators that were supported by at least half of the group are reported in the annex.

Thematic session 1: Measuring Socio-Economic convergence

The initial working definition for the socio-economic area was quite broad and covered access to civil rights and public goods for all citizens, the provision of support for those that cannot participate and fair and equal distribution of growth and income. Experts highlighted their concern that many of the issues that would normally fall within the socio-economic area may overlap with other areas, such as, most notably, employment and working conditions. For this reason, their recommendation was to address these overlaps when drafting the final framework.

Dimensions that best describe the socio-economic research area

Following the discussion over the definition, experts identified the following dimensions as important for the socio-economic area:

<ul style="list-style-type: none"> • Real Convergence and Inequality: This dimension should include variables such as GDP, income pro capita, , distribution of wealth and income within a Member State (real wealth, s20/s80), and the level of minimum wages • Access to services: including for example health, housing, social services, public services in general including an assessment of quality • Social inclusion and exclusion: including monetary and non-monetary indicators, such as poverty, social exclusion indicators as well as citizenship and civil participation • Labour market access and support: This dimension should include for example access to and spending on public employment services, spending on Labour Market Policies and support for individuals with disabilities • Demography: including birth rates, mortality, and migration issues 	<ul style="list-style-type: none"> • Productivity: including measures of productivity, productivity adjusted wages, and the value of the contribution of public services • Innovation: including access to broadband, level of spending on R&D, level of ICT skills, number of patents. • Employment relations: including level of collective bargain and quality of social dialogue. • Government: including tax receipts, the level of total government spending, spending on social investment • Environment: including the quality of the environment and the availability of and investment in skills in greening
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During the session, a rich discussion evolved about the question on how far Member States should be equal, particularly regarding equal opportunities or equal outcomes.(i.e. equal opportunities to access services and the labour market, rather than equal employment rates).

The discussion also covered the most appropriate geographical level to assess socio-economic convergence. It was agreed that the analysis should be conducted at Member States level with specific Member State information used as explanatory factors. It was also suggested that the analysis of convergence at a regional level, ideally at a NUTS3, should complement the study. e. This would prevent that convergence between Member States hides divergence within a Member State.

Alignment of Eurofound work with the Social Pillar and the Social Scoreboard was also discussed. The general consensus was that Eurofound work needed to be aligned with the Social Pillar, but that additional dimensions could be considered. In particular these should go beyond the economic approach followed by the pillar taking on board wider social factors and, if possible, environmental aspects.

Thematic Session 2: Measuring convergence in Employment

The initial definition for the area of employment covered quantity and quality of jobs, job creation, unemployment protection, transitions and mismatches. During the discussion about the working definition, the experts debated the possible overlap between the employment and working conditions areas. It was noted that the two areas needed to be more clearly defined to avoid confusion.

This discussion also covered the “extensive” and “intensive” margins of labour supply, with the former referring to the overall level of employment, i.e. the number of people working) and the latter referring to the intensity of employment, i.e. the number of hours worked, on average,(Blundell et al, 2011). Practically, it was proposed that all measures falling within the extensive margin, i.e. referring to the extent of employment, could be included in the employment area (e.g. the employment rate), whereas other more detailed employment related indicators referring to the intensity of work under the intensive margin should be placed in the working conditions area (e.g. measures related to work-life balance).

Dimensions that best describe the Employment research area

Having clarified the potential overlap between the employment and working conditions areas, experts were asked to consider the dimensions that would best describe convergence in employment. The following dimensions were identified:

<ul style="list-style-type: none"> • Labour market inclusion/access/participation • Labour market segmentation • Labour inputs • Labour market segregation 	<ul style="list-style-type: none"> • Labour market mismatches • Labour market resilience (flexibility)/mobility • Gender/ age equal opportunities
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The following dimensions were also suggested, but were considered to be more appropriate to be included in the working condition area:

- Wages/ earnings
- Sustainable employment (work-life balance, ageing)
- Access to training/ lifelong learning (human capital/employability)

The discussion then focused on how to measure these dimensions with the purpose of monitoring convergence, and an assessment of the strengths and weaknesses of these measurements. It was important to measure both labour market participation and outcomes to understand trends and put them into some context (e.g. it is possible to record good labour market outcomes across some indicators, while labour market participation remains low and/ or a gender wage gap is maintained). Finally, it was discussed that convergence will need to be measured across regions, possibly at the NUTS2 level, in order to capture cases where convergence between countries is achieved at the expense of divergence within a country. Experts suggested several indicators to measure these dimensions. Those suggestions that were shared by at least half of the group are reported in the annex.

Measuring convergence in Working Conditions

In this thematic session the Eurofound job quality indices that had been developed in the European Working Conditions Survey (EWCS) were used as the starting point and working definition for this research area (Eurofound 2012). A consensus quickly developed among the experts that the job quality concept provided a good proxy for measuring the working conditions dimension. Consequently, the view of the experts was that any additional efforts from Eurofound in terms of measuring convergence in this dimension should focus on adding value to the existing dimensions and indicators included in the job quality concept.

Dimensions that best describe the working conditions research area

The job quality concept highlights the multidimensional nature of working conditions. It is operationalised by seven independent dimensions, each of which has been found to have a positive or negative influence on health and wellbeing of workers. The seven dimensions included in the job quality concept are:

<ul style="list-style-type: none"> • Physical environment: including biological and chemical exposure, noise, temperature and ergonomic issues. • Work intensity: including quantitative and emotional demands, pace determinants and interdependency. • Working time quality: including duration, arrangements, flexibility and type of working time. 	<ul style="list-style-type: none"> • Skills and discretion: including cognitive dimension, training and organizational participation, decision latitude. • Prospects: status and career prospects, job security and downsizing. • Social Environment: social behaviour, social support and quality of management. • Earnings
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The discussion largely focussed on earnings and working time quality. In terms of earnings it was noted that they needed to be adjusted for relative purchasing power parity (or PPP). The Atkinson index was also mentioned as a valuable measure for income inequality which could complement the earnings sub-dimension. It was also noted that earnings data could be taken from other sources than the EWCS. Furthermore, a gender and possibly a generational equality dimension should be included.

With regards to working time quality, it was highlighted that some of the indicators (such as number of working hours) did not provide a clear-cut normative position and thus may not be useful for measuring convergence. Nevertheless, by using different coefficients for different bands of working time, some of these constraints can be overcome. For example, excessive working hours (i.e. above 48 hours) or very low working hours should be considered as negative from the working conditions/ job quality point of view. This is however an arbitrary choice and should be fully explained and documented.

The main additional sub-dimension that could be considered was the broader area of social dialogue/ collective bargaining/ industrial relations (partly covered by organisational participation indicator in the job quality concept). However, it was argued that social dialogue could be a stand-alone dimension or could fit also in the employment dimension, or even the socio-economic dimension. Furthermore, the discussion concerning the potential overlap between the working conditions and the employment dimension went beyond the social dialogue/ collective bargaining and it was highlighted that a clear definition of these two dimensions would be needed.

Experts further discussed whether indicators needed to be adjusted for country differences in occupational and industrial composition. Indeed, some experts felt that the occupational and industrial composition would need to be controlled for when measuring convergence, while others supported the view that such differences did not have a material impact on the measurement of convergence. Evidence from the job quality index shows that cross-country patterns are very similar, even after controlling for differences in industrial composition. (Eurofound, 2012).

Measuring convergence in Living Conditions and Quality of Life

In order to avoid overlaps, the working definition of the quality of life research area excludes the monetary and the working dimensions which would be covered by employment, working conditions and the socio-economic dimensions. In this way, quality of (non-working and non-monetary) life was defined as “the freedom and opportunity people have to live a life that they value and would choose, excluding those related to their work (job status or working conditions) and income (including monetary benefits)”.

Dimensions that best describe the living conditions and quality of life research area

On the basis of the above definition, experts initially identified the following dimensions to be considered in the measurement of convergence in living conditions and quality of life:

<ul style="list-style-type: none"> • Quality of society • Public services • Social security • Social cohesion • Social inclusion • Empowerment • Material Hardship • Happiness • Health 	<ul style="list-style-type: none"> • Education • Human capital • Natural environment • Political freedom • Perception of freedom • Human rights • Fairness • Trust in governments, in people, in institutions
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The subsequent debate focused on Eurostat’s dimensions of quality of life⁹ adjusted to the non-working and non-monetary aspects:

- Health
- Education
- Leisure and social interactions
- Governance and basic rights
- Physical safety
- Overall experience of life
- Natural and living environment
- Unpaid productive activities

Considering that Eurofound is not limited to official statistics, it was noted by the experts that there was more freedom in selecting the best possible dimensions and sub-dimensions and indicators. However, it was also highlighted that, when selecting dimensions and indicators, there was a need to link the measurement of convergence to the existing EU policy agenda, and to be responsive to future developments at the EU level.

⁹ <http://ec.europa.eu/eurostat/web/gdp-and-beyond/quality-of-life/data/overview>

Comparing the initial discussion with the Eurostat dimensions of quality of life, experts suggested that emphasis should be placed on the following sub-dimensions:

Level	Sub-dimensions to emphasise
Macro level (quite well covered by Eurostat)	Quality of society Freedom Identity
Organisational level (not well covered by Eurostat)	Governance and quality of government Public services
Micro level (not well covered by Eurostat)	Social support Family Self-perceived freedom

Other aspects that emerged during the discussion were related to more general considerations. As for example economic and social cohesion among regions is a top EU policy priority, it was mentioned that there was a need to include a regional dimension to the measurement of convergence. In addition, experts discussed the importance of introducing a gender perspective to the measurement of convergence. This approach would ensure that women’s and men’s realities were taken into consideration, in order to allowing identifying the main causes of inequalities among them. Finally, it was mentioned that it would be useful to identify an external variable not included in the dashboard that allows for an assessment of the framework as a whole. An example could be to study the relationship between the improvement in the domains and the improvement of wellbeing or happiness.

The use of composite indicators for monitoring convergence in the European Union

The expert workshop constituted a good venue to discuss whether to use a composite indicator for monitoring convergence and its feasibility. There was large agreement that when proposing a composite indicator, it is important to be clear on its definition and objectives. A composite indicator is a summary of a complex reality obtained when individual indicators are combined into a single measure. This combination of indicators has its advantages and disadvantages. The experts highlighted many of the traditional advantages and disadvantages of composite indicators:

Advantages	Disadvantages
<ul style="list-style-type: none"> • Easier to interpret than a set of individual indicators • Enables users to compare complex dimensions effectively • Can support decision-making • Can assess progress of countries over time • Places issues of country performance and progress at the centre of the policy agenda • Facilitates communication with general public, raise awareness and promote accountability 	<ul style="list-style-type: none"> • May send misleading policy messages if poorly constructed or misinterpreted • May invite simplistic policy conclusions • The selection of indicators and weights could be the subject of dispute • Obscures important differences between dimensions

While a headline composite indicator can be useful for raising awareness and/ or as a warning mechanism, it is less helpful for informing policy making, (Nardo et al, 2008). For example, one expert noted that the Human Development Index (HDI) was a useful and talked about measure but it was not very effective in terms of influencing policy. In order to overcome this limitation, it is important that the conceptual framework for monitoring convergence is directly linked to the EU policy priorities; and that the definition of the indicators, as well as the overall objective of any composite indicator(s), is clearly explained to policy makers and other users.

Many experts argued that the specification of weights is a possible problem as those used in calculating composite indicators are often derived arbitrarily. Indeed, composite indices tend to be based on consensus or pragmatism including subjective value judgements (Saisana and Saltelli, 2011). In the discussion between the experts many agreed that indices which are not weighted appropriately tend to ‘mash up’ related indicators. This highlights the importance of making weights explicit and testing them by means of uncertainty and sensitivity analysis. When such a measure is used, it is therefore important to be transparent in the construction process as well as in the use of a robust statistical methodology. .

An additional concern raised by the experts was that aggregating different indicators in a single index would not do justice to the diversity between and within countries regarding their performance across different indicators. As such, there is a risk that policy makers focus too much on the headline composite score rather than the underlying measures (e.g. a particular indicator or a region within a country). A compromise would be to use a scoreboard (with individual, unweighted indicators) or multiple composite indices for different research areas/ dimensions. The advantage of composite indicators is that, by aggregating individual indicators, they are able to capture the multidimensional concept that is being measured (convergence in this case) in a single indicator, while scoreboards capture such multidimensionality across a set of indicators. However, it is important to mention that these tools are not mutually exclusive. In fact a common practice in the interpretation of the scores of an index is to use the individual indicators as an additional instrument.

Finally, another sensitive issue identified by the experts is the country ranking that is linked to the use of scoreboards and composite indicators. Some experts pointed out that a ranking of countries would not be relevant when measuring convergence. Convergence should be measured at the EU level rather than on a national/ sub-national level (although national/ sub-national level data would still be needed for individual indicators that feed into the convergence measure).

During the expert Workshop, the experts were specifically asked, using a live polling system (Poll Everywhere), whether they thought it useful and feasible to develop a composite indicator, either for all dimensions combined, or for each dimension (Figure 3). While a majority of experts agreed that a composite indicator for all dimensions combined and for each dimension separately would be useful and feasible, overall the response was strongly in favour of creating a composite index for each dimension (71% said yes, of whom 39% without any reservations).

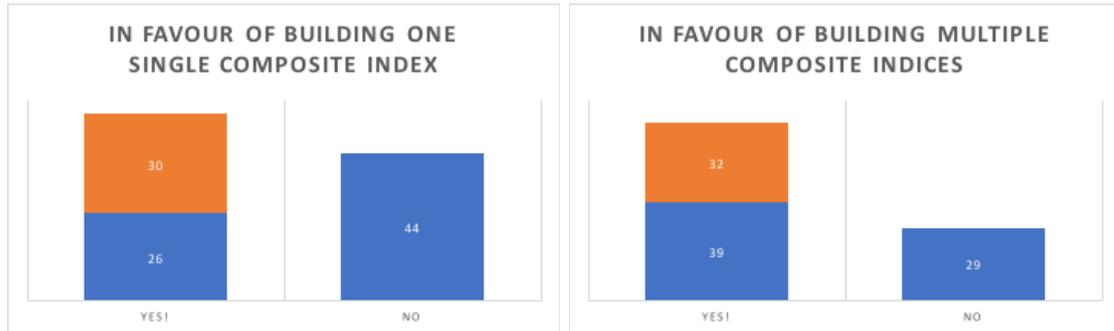


Figure 3 - Would you be in favour of composite indicators – Source: Based on an interactive poll during the Experts’ Workshop (n=27 for all dimensions combined; n=28 for each dimension) – orange: yes but...

Experts’ views on Eurofound role in complementing the Social Scoreboard

The expert workshop was also an opportunity to perform an option appraisal exercise on which would be the way for Eurofound to better contribute to the convergence debate. In this regard experts discussed two possible options: the first one, which was the initial Eurofound approach, was to add to the convergence debate by measuring and monitoring economic and social progress in the EU. The second one was to contribute by complementing the Pillar and the social scoreboard with additional dimensions and indicators.

The first option (contributing to the debate by measuring and monitoring economic and social progress) seems not to be appropriate. In particular, experts raised concerns that the work of Eurofound may duplicate the work of other measures of economic and social progress while not having enough political capital. As such, with an overall agreement, the experts expressed a need for the Eurofound work to complement or to add value to existing frameworks and measurements, including most notably the Social Pillar and its social scoreboard.

Reflecting upon the areas of the Social Pillar and the indicators of the Social Scoreboard, experts were therefore asked to identify in which additional sub-dimensions it would be desirable or necessary to achieve convergence in the economic and social dimension of the European Union. They were also asked to identify additional indicators to measure them. Experts particularly mentioned the following:

Equal opportunities and access to labour market	Dynamic labour markets and fair working conditions	Social protection and inclusion	Other
<ul style="list-style-type: none"> • Gender pay gap • Income/ wealth inequality (Gini coefficient) • Accessibility of life-long learning opportunities 	<ul style="list-style-type: none"> • Job quality • Participation/ inactivity rate • Hours worked • Long-term unemployment • Underemployment 	<ul style="list-style-type: none"> • Pre-school and after school child care provision • Child well-being • Total weeks of paid leave available for mothers 	<ul style="list-style-type: none"> • Living conditions (health and social care, housing, culture, recreation, natural environment, etc.)

Equal opportunities and access to labour market	Dynamic labour markets and fair working conditions	Social protection and inclusion	Other
<ul style="list-style-type: none"> • Workforce skills • Educational attainment • Education expenditure • Quality of education 	<ul style="list-style-type: none"> / part-time employment • Temporary/ precarious employment • Unemployment benefits • Quality of ALMP or public expenditure on ALMP • Income per hour worked • Labour mobility • Transition from unemployment/in activity to employment • Labour market transition rate (part-time to full-time; temporary to permanent) • Transition from school to work 	<ul style="list-style-type: none"> • Total weeks of paid leave for exclusive use of fathers • Maternity and paternity leave payment • Digital access in geographical areas • Free public digital access • Pensions (replacement rate and inequality) • Subjective feeling of social exclusion 	<ul style="list-style-type: none"> • Subjective wellbeing/ life satisfaction • Macroeconomic and Real Economic Variables.

Additionally, with convergence not only being a cross-country matter, and regional differences within countries sometimes being much larger, several experts highlighted again the need to collect/use data at sub-national level. Moreover, in order to analyse equal opportunities, the experts also saw value in disaggregating the data by gender, age and educational attainment where possible. It was also mentioned by a few experts that an international comparison beyond the EU would be useful. In particular, this would allow for an assessment of the extent to which the EU is converging more than other groups of countries or continents.

The preliminary framework of Eurofound investigation on convergence.

Desk research, the expert workshops and the Foundation Forum were three important steps to develop our knowledge on convergence and to draft a preliminary theoretical framework to monitor convergence in the European Union. This framework populates the four research areas (Socio-economic, employment, working conditions and quality of life) with the set of dimensions and sub dimensions that will be investigated in the Eurofound activity. The framework presented here is intended a preliminary version to stimulate discussion and to receive additional feedback. The final version of the framework will be presented, jointly with statistical analysis, in the forthcoming report “Monitoring Convergence in the European Union: concepts, measurement and indicators”, with publication is expected in 2018.

As discussed earlier, Eurofound will investigate four main research areas. The possible overlap of some dimensions and sub-dimensions across the areas will be addressed through multivariate statistical analysis and clarified in the final version of the framework. The four areas will be organised in dimensions and sub dimensions as described in figure 4 and below.

Socio-Economic Area.

The socio-economic area of investigation will be organised as follows:

Dimension 1: Macro-economic.

The macro-economic dimension will include interrelated aspects of real economic convergence. These include economic aspects, consumption and wage-level indicators as well as indicators measuring the sustainability of the macroeconomic situation. These dimensions are essential for convergence in employment and social aspects as well as to sustain to sustain real economic convergence per se. . This dimension is organised in three sub-dimensions:

Subdimensions 1: Economic.

This sub-dimension refers to various real economic variables which are instrumental for the other dimensions. Indicators in this dimension include income and productivity related variables. These may include the level of income as well as the level of labour productivity, the level of consumption and the disposable household income.

Subdimension 2: Wages and income distribution.

This sub dimension refers to wage related variables. It includes compensation per employee and net wages. It will include also distributional variables such as the Gini coefficient of income distribution.

Subdimension 3: Debts.

Public debt can undermine the sustainability of the macroeconomic situation and can affect speed and direction of the convergence process in many areas. Indicators on gross debit public and foreign debt as a share of GDP can be considered to measure this sub-dimension.

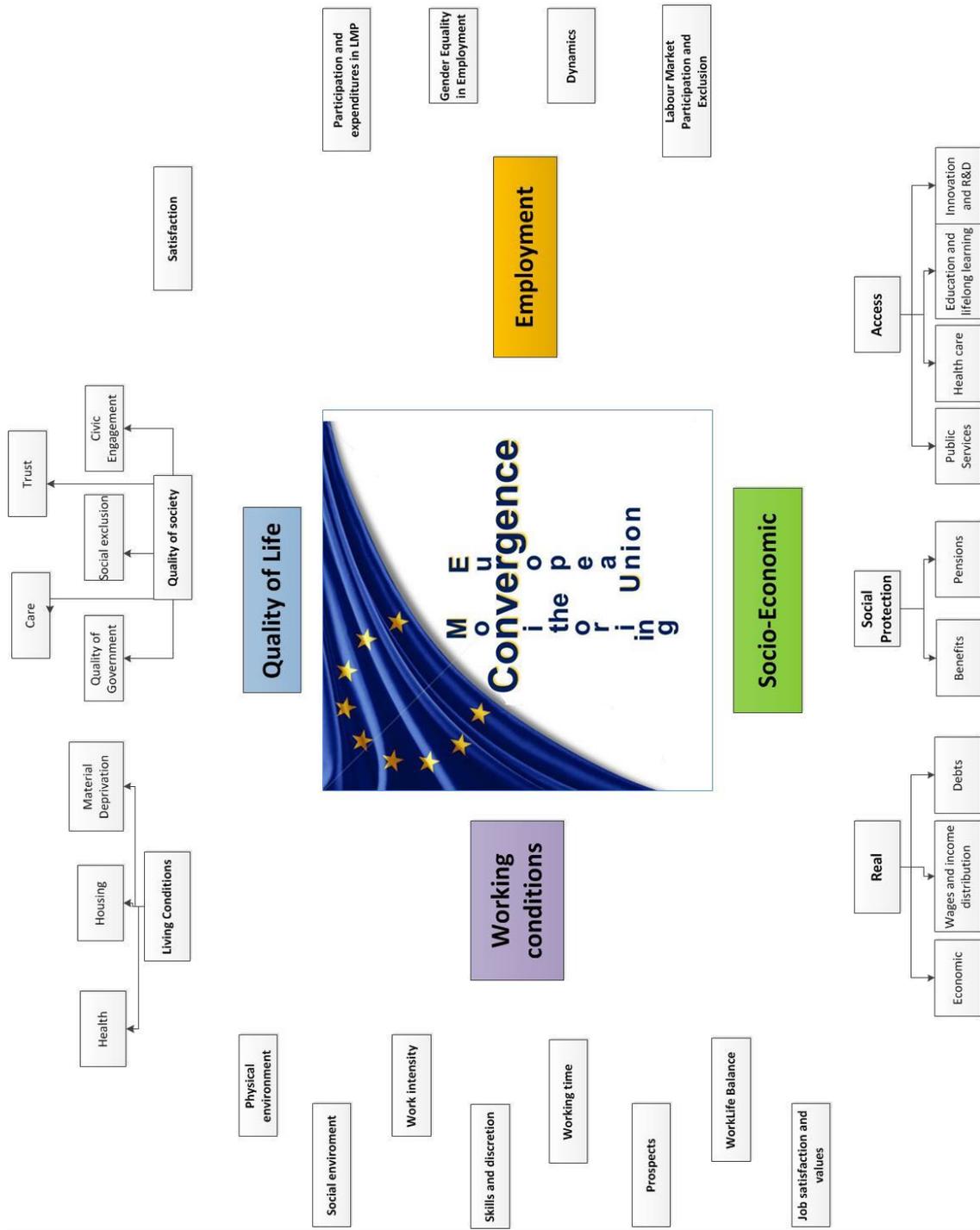


Figure 4 - preliminary framework of investigation

Dimension 2: Social protection.

The dimension of social protection will contain indicators related to welfare transfers to citizens to protect them against unemployment, illness and other risks. This will include pensions, unemployment benefits, family allowances, etc. Moreover, as, old-age pensions are the most important income source to provide adequate living conditions after retirement for a large part of the population, indicators related to pensions will be included as well. This dimension is organised in two sub-dimensions:

Subdimension 1: Benefits.

this sub-dimension refers to indicators related to unemployment benefits, family and housing allowances.

Subdimension 2: Pensions.

this sub dimension refers to indicators related to pensions and their adequacy. It will include expenditures for pensions as share of GDP, pension generosity and their anti-poverty function.

Dimension 3: Access.

The dimension of access investigates the level of access of citizens to a set of services including education, healthcare, public services and access to innovation.

Sub-dimension 1: Education, Training and Lifelong learning.

this sub-dimension groups indicators related to human capital accumulation through formal education. It includes the share of children aged 3 in formal education, the early school leavers rate, tertiary educational attainment and expenditure for education as a share of GDP.

Sub-dimension 2: Healthcare.

this sub dimension includes indicators related to access of health services. This includes expenditure for health services as a share of GDP and other indicators.

Sub-dimension 3: Innovation and R&D.

This includes indicators related to access to innovation in the broader sense. It includes the number of households and enterprises with broadband access, the average speed connection, the level of digital skills, the expenditure for R&D as a share of GDP as well as the total R&D personnel.

Sub-dimension 4: public services.

This sub dimension includes indicators related to the expenditure, performances and quality of public services.

Employment Area.

The area of employment will be covered by the following dimensions and indicators.

Dimension 1: Labour market participation and exclusion.

This dimension includes both indicators related to labour market participation, such as employment and activity rates, as well as those referring more explicitly to labour market exclusion, like (long-term) unemployment and NEET's rate. The employment rate is certainly one of the most important indicators since it essentially measures the extent to which people available to work are actually working. It also tends to be the primary focus from a policy perspective, notably the Europe 2020 strategy. In this context, the importance of adjusting the employment rate by working hours will be taken into account. Furthermore, an analysis of self-employment could be included to explore potential differences in trends. Finally, the activity rate will complement the employment rate, indicating the number of people actively looking for work as well as those working. The unemployment rate instead indicates those not working who are actively looking for work and is a measure of exclusion from employment. The duration of unemployment spells is also a very relevant aspect, reflecting the ease or difficulty of finding a job.

Dimension 2: Labour market dynamics.

This dimension covers different aspects related to labour market dynamics, such as transitions from temporary to permanent jobs, involuntary part-time and employment duration. The analysis of these key aspects of labour market functioning is particularly relevant in the context of the economic crisis and its aftermath. The transition from a temporary to a permanent contract is an important measure of improved labour market conditions in terms of contractual arrangements. As regards working hours, looking at involuntary part-time is useful to capture the extent to which people have a part-time job simply because a full-time job is not available. Finally, analysing the distribution of people in employment by job duration is informative of the degree of employment stability or mobility.

Dimension 3: Gender equality in employment.

This dimension explicitly focuses on differences and inequalities in the situation of women and men in the area of employment. Although gender equality will be mainstreamed by disaggregating all indicators by gender, whenever possible, it is important to deepen the analysis with respect to some specific issues. While the difference between the employment rate of men and that of women is accordingly important to monitor, a further issue of importance is the difference in the extent of part-time work between women and men. In addition to gaps in employment rates and hours worked, there are also significant differences in the kind of jobs which men and women do and also in their relative concentration of women in managerial and decision-making positions. Finally, the principle of equal pay for equal work is a fundamental value since the Treaty of Rome and EU institutions regularly reaffirm the principle. Therefore, the issue of gender pay gap will also be covered in this dimension.

Dimension 4: Participation in and expenditure on labour market policy interventions (LMP).

Providing adequate and targeted support measures for (re)entering work is essential to prevent labour market exclusion and fight unemployment among disadvantaged groups. This dimension will include indicators on those public labour market interventions where the main activity of participants is other than job-search related and where participation usually results in a change in labour market status. These government interventions are explicitly targeted at groups of persons with difficulties in the labour market: the unemployed, persons employed but at risk of involuntary job loss and persons currently considered as inactive but who would

like to enter the labour market. Both indicators on participation in labour market policy interventions, as a stock of participants in regular activation measures, and expenditure on these interventions will be considered.

Working Conditions Area.

This area will investigate working conditions in the European Union through use of the European Working Conditions Survey and additional indicators.

Dimension 1: Physical environment.

The absence of physical hazards that pose a risk to health and well-being is an acknowledged feature of job quality. Eliminating or minimising these risks is at the core of occupational health and safety policy in EU Member States. The dimension includes posture-related (ergonomic), ambient (vibrations, noise, temperature) and biological and chemical risks and will be monitored through 13 indicators drawn from EWCS.

Dimension 2: Social environment.

Work is a fundamental activity for individuals, providing opportunities for interacting with people and developing a social network, becoming integrated into the workplace or team, and developing their capacities and skills. The quality of the social environment at work is critical for personal growth and development but also facilitates workplace integration and the development of self-esteem through receiving recognition from peers and superiors. On the other hand, the negative effects of adverse social behaviour (bullying, harassment, violence) at work are well-known and documented: they are strongly related to increased staff turnover and absenteeism. The dimension includes social support and adverse social behaviour at the workplace and will be monitored through EWCS indicators..

Dimension 3: Work intensity.

While work intensity can be presented as a way to maintain and develop workers' interest in their activity, high work intensity is associated with a negative impact on health and well-being. Moreover, work intensity is not necessarily linked to better performance for companies. Work intensity can lead to poor planning and preparation of tasks at hand, and to delay and defects in quality. High work intensity can therefore be considered to make a negative contribution to job quality. The dimension includes quantitative demands, pace determinants and interdependency as well as emotional demands and will be investigated through the EWCS.

Dimension 4: Working time quality.

Working time – its duration and organisation – is important for job quality in two ways. On the one hand, working time plays a role in workers' health and well-being. For example the extent to which workers are exposed to workplace risks increases with the duration of work, while the availability of sufficient periods for rest is crucial for a proper recovery. On the other hand, a good fit between working time and non-working time throughout the life course is essential for workers to be able to work and to continue working. The dimension includes duration, atypical working time, working time arrangements and time flexibility. This dimension will be investigated through EWCS indicators.

Dimension 5: Skills and discretion.

‘Skills use and discretion’ is a dimension of work allowing workers to develop and grow through the experience of work. The concept comprises the skills required in the job, as well as the autonomy given to the workers to apply them. A low level of discretion has been found to be associated with an increased risk of cardiovascular disease, musculoskeletal disorders and health issues. The dimension contains cognitive skills, decision latitude, organisational participation and training. This dimension will be investigated through EWCS indicators.

Dimension 6: Prospects.

This dimension relates to those aspects of the job that contribute to a person’s need for employment, both the material necessity for an income and the psychological need associated with a person’s self-esteem and identity. The dimension includes employment status, career prospects and job security. This dimension will be investigated through EWCS indicators.

Dimension 7: satisfaction and values.

Job satisfaction is very important in building the motivation of a person in the workplace. Moreover norms and values of work are very important to shape the person, not just as a worker but also a citizen. In this regard, this dimension will investigate subjective indicators related to satisfaction and motivational aspect of participating to the labour market. This dimension will be investigated with EWCS as well as with the European Social Survey and the European Value Survey.

Quality of Life Area.

The dimensions related to Quality of Life will be mainly investigated through the European Quality of Life Survey and with Eurostat data. The Quality of Life area is divided into the following three dimensions:

Dimension 1: Living Conditions.

The dimension of living condition investigates material and non-material living standards of European citizens. Some people may not have problems making ends meet but experience a low standard of living, and –vice versa- someone may have difficulties making ends meet, but experience no lack of essential goods. For this reason, this dimension is organised in three sub-dimension covering material deprivation, housing and health.

Sub-dimension 1: Deprivation.

This sub-dimension includes monetary-related deprivation indicators such as the deprivation index and the difficulties to ends meet, as well as the at-risk-of-poverty-and-social-exclusion (AROPE) indicator. All these indicators are well-tested to capture such more objective living conditions.

Sub-dimension 2: Housing.

This sub-dimension aims at capturing housing problems among citizens. It includes Eurostat indicators on housing conditions as well as on government expenditure on housing.

Sub-dimension 3: Health.

The dimension of health investigates the self-perceived health status of European citizens satisfaction with the quality of the health system and other relevant variables.

Dimension 2: Quality of Society.

The dimension of quality of society encompasses various sub-dimensions. The first group involves those related to government and institutions. The second set of sub-dimensions concerns more inter-personal aspects.

Sub-dimension 1: Quality of Government.

This sub-dimension includes indicators investigating the quality of government such as the World Bank's government effectiveness index.

Sub-dimension 2: Trust..

Trust is the glue that holds our societies together. Trust in institutions indicators are clustered in this dimension and will include indicators on trust in government, national or local, as well as trust in the European Union, parliament in other institutions.

Sub-dimension 3: Civic Participation.

This sub-dimension investigates social and civic participation of citizens. It will monitor their volunteering activities as well as their participation and engagement in political parties.

Sub-dimension 4: Social Exclusion.

Related to interpersonal aspects, this sub-dimension investigates the perception of social exclusion of individuals through the perception of social exclusion index and other additional indicators.

Sub-dimension 5: Care.

Related to the interpersonal aspects, this sub-dimension investigates whether people can rely on each other for care and the availability of formal care arrangements.

Dimension 3: Well-being

This dimension investigates the overall experience of life, following the inclusion of this overall quality of life indicator by Eurostat's task force on quality of life and Stiglitz et al (2009) . This is measured by life satisfaction, as it captures overall life experience better than for instance happiness.

Next steps

Eurofound's strategic objective for the programming period 2017–2020 is *'To provide scientifically sound, unbiased, timely and policy-relevant knowledge that contributes to better informed policies for upward convergence of living and working conditions in Europe'* In order to achieve this strategic objective and to support policymakers to address possible diverging trends and to investigate whether or not these trends signal a general deterioration of living and working conditions, Eurofound has designed a new strategic area of investigation entitled "Monitoring Convergence in the European Union".

As part of this research activity, Eurofound will monitor convergence among Member States and when possible, at regional level in four research areas: socio-economic, employment, working conditions, quality of life and living conditions. The first project of this research

activity is entitled “Developing a Conceptual Framework to Monitor Convergence in the European Union”. The project aims at providing an overview of the policy debate around convergence, defining convergence conceptually and identifying the dimensions of investigation and the set of indicators to measure them.

This working paper has presented the work carried out in 2017 through desk research and expert workshop in the framework of the Eurofound activity on Monitoring Convergence in the European Union. The paper tried to clarify the concept of convergence and presented a brief history of convergence from the Treaty of Rome of 1957 to the European Pillar of Social Rights. It explained why convergence is important for the sustainability of the European Union and it provided an overview of selected statistical tools to measure convergence. The paper then presented the main outcome of the expert workshop on monitoring convergence in the European Union and has outlined the preliminary set of dimensions and sub-dimensions that will be monitored in the course of the project.

This working paper is an intermediate step toward the Eurofound report entitled “Monitoring Convergence in the European Union: Concepts, measures and indicators”. In the next months the set of dimensions of investigation will be finalised as well as the list of indicators to measure them. Through multivariate analysis the statistical structure of the framework will be tested and validated. Then, upward convergence will be tested for in the indicators part of the framework and the results interpreted.

The Eurofound report on “Monitoring Convergence in the European Union: Concepts, measures and indicators”, first output of this research activity, is expected to be published in the third quarter of 2018.

References

All Eurofound publications are available at www.eurofound.europa.eu

Andor, L. (2017), presentation at the Expert workshop on Convergence in the European Union, Dublin 13/14 June 2017

Barro, R. J., and Sala-i-Martin, X., (1992), Convergence. *Journal of Political Economy* 100(2): 223-251

Blundell et al (2011). Extensive and Intensive Margins of Labour Supply: Working Hours in the US, UK and France. IZA DP No. 6051. Available at: <http://ftp.iza.org/dp6051.pdf>

Boyle, G.E. & McCarthy, T.E., (1999), Simple Measures of Convergence in per Capita GDP: A Note on Some Further International Evidence, *Applied Economics Letters*, Vol. 6, 343-347.

Council of the European Union, (2012), Towards a genuine economic and monetary union – EUCO120/12

Council of the European Union, (2017). The Rome Declaration. Press Release.

Council of the European Union, (2017b). Conditions for joining the euro area: convergence criteria - <https://goo.gl/ZE9tU4>

Eckey, H.F. and Turk, M., (2007), Convergence of EU-Regions. A Literature Report - *Investigaciones Regionales*. 10.

Eurofound, (2012), Trends in job quality in Europe, Publications Office of the European Union, Luxembourg.

Eurofound, (2017), Converging economies, diverging societies? Upward convergence in the EU - Foundation Forum 2017: Background paper.

European Commission, (2010), Europe 2020 A European strategy for smart, sustainable and inclusive growth.

European Commission, (2012), A blueprint for a deep and genuine economic and monetary union - Launching a European Debate - COM(2012) 777 final/2

European Commission, (2013), Scoreboard of key employment and social indicators

European Commission, (2014), Employment and Social Development in Europe 2014

European Commission, (2015), Completing Europe's Economic and Monetary Union

European Commission, (2016), Employment and Social Development in Europe 2016

European Commission, (2017a), White paper on the future of Europe and the way forward.

European Commission, (2017b), Commission presents the European Pillar of Social Rights – press release

European Commission, (2017c), Reflection Paper on the deepening of the Economic and Monetary Union.

European Commission, (2017d), Reflection Paper on the social dimension of the European Union.

European Commission, (2017e), European Economic Forecast Institutional paper 063 - November 2017

European Commission, (2017f), Commission recommendation establishing the European Pillar of social rights

European Commission, (2017g), Social Scoreboard 2015

- EPSC - European Political Strategy Centre, (2015) - The Social Dimension of Economic and Monetary Union Towards Convergence and Resilience.
- Hackl, E., (2001), Towards a European area of higher education: change and convergence in European higher education. San Domenico, , Italy: EUI. Working Paper RSC No. 2001/09
- Harcourt, A., (2002), Engineering Europeanization: the role of the European institutions in shaping national media regulation. *Journal of European Public Policy*, 9(5): 736–55
- Heichel, S., Pape, J., Sommerer, T., (2005), Is there convergence in convergence research? an overview of empirical studies on policy convergence - *Journal of European Public Policy* Volume 12, 2005 - Issue 5: Cross-national Policy Convergence: Causes, Concepts and Empirical
- Kenworthy L, (1999), Economic integration and convergence: A look at the US States. *Social Science Quarterly* 80(4): 858–869
- Leonardi, R, (2006), Cohesion in the European Union - *Regional Studies* 40, 155–166. Taylor & Francis
- Marelli E. and Signorelli, M., (2010), Employment, productivity and models of growth in the EU, *International Journal of Manpower* , Vol. 31 Issue: 7, pp.732-754
- Mascherini M., (2017) – speech at the Eurofound Foundation Forum ‘Converging Economies, Diverging Societies’ - <https://goo.gl/KGFWTu>
- Nardo, M. M., Saisana, A., Saltelli, Tarantola, S., Hoffman, A. and E. Giovannini, (2008), *Handbook on Constructing Composite Indicators: Methodology and User Guide*, OECD, European Commission, Joint Research Centre
- Noy, S., and Sprague-Jones, J., Comparative dynamics of public health spending: Re-conceptualizing delta-convergence to examine OECD and Latin America. *International Journal of Comparative Sociology* 2016, Vol. 57(6) 425–448
- Saisana, M. and Saltelli, A. , (2011), *Rankings and Ratings: Instructions for Use* - *Hague Journal on the Rule of Law* - 3: 247-268 – 2011
- Schmid, G., (2010), *Non-Standard Employment and Labour Force Participation : A Comparative View of the Recent Development in Europe*, IZA DP No. 5087.
- Signorelli, M., (2005). *Growth and Employment: Comparative Performance, Convergences and Co-movements*, University of Perugia, Quaderni del Dipartimento di Economia, Finanza e Statistica.
- Solow, R., (1956), A Contribution to the Theory of Economic Growth, *The Quarterly Journal of Economics*, Vol. 70, No. 1, pp. 65-94.
- Vandenbroucke, F., (2017a), *Structural Convergence versus Systems Competition: Limits to the Diversity of Labour Market Policies in the European Economic and Monetary Union - Economic and Financial Affairs- Discussion Paper 065*. July 2017. Brussels.
- Vandenbroucke, F., (2017b), *The idea of A European Social Union: a normative introduction*. In *A European Social Union after crisis*, edited by Vandebrouke, F., Barnard, C., De Baere, G. – Cambridge University Press – 2017.
- Vandenbroucke, F., (2017c) - *From The Gothenburg Social Summit To A European Social Union – Social Europe*
- Young, A.T., Higgins, M.J. and Levy, D., (2013), *Heterogeneous convergence* - *Economics Letter* - Volume 120, Issue 2, August 2013, Pages 238-241

ANNEX 1

List of Participants at the Dublin Expert workshop

Surname	First name	Organisation
ANDOR	Laszlo	Calvinus Univeristy Budapest
ARRANZ	Jose Maria	University of Alcalá
BENCZUR	Peter	European Commission - JRC
BONTOUT	Olivier	European Commission - DG EMPL
COURTEILLE-MULDER	Claire	ILO
DRAGOLOV	Georgi	Bremen International Graduate School of Social Sciences
FEIGL	George	Chamber of Labour – economics & statistics department
GEBEL	Michael	University of Bamberg
GREEN	Francis	UCL Institute of Education
HOLMAN	David	University of Manchester
KUC	Marta	Gdansk University of Technology
LESCHKE	Janine	Copenhagen University
LUCIFORA	Claudio	Università Cattolica
MAGGINO	Filomena	University of Rome "La Sapienza"
MILASI	Santo	ILO
MONFORT	Philippe	European Commission - DG REGIO
O'CONNOR	Julia	University of Belfast
RINALDI	David	CEPS
SALTELLI	Andrea	University of Bergen
SAPSFORD	Roger	University of Aberdeen
SCANDELLA	Fabienne	ETUI
TILL	Mathias	Statistic Austria
VEENHOVEN	Ruut	Erasmus School of Economics
VIDONI	Daniele	European Commission - DG REGIO

Surname	First name	Organisation
VIVIANO	Eliana	Bank of Italy
MENENDEZ-VALDES	Juan	Eurofound
MEZGER	Erika	Eurofound
ANDERSON	Robert	Eurofound
MASCHERINI	Massimiliano	Eurofound
BISELLO	Martina	Eurofound
EIFFE	Franz	Eurofound
DUBOIS	Hans	Eurofound
MILIO	Simona	ICF
WIHLBORG	Mattias	ICF
RIOBOO LESTON	Irene	King Juan Carlos University
KEARNEY	James	ICF
PUTS	Elbereth	ICF

ANNEX 2

Agenda of the Experts workshop held in Dublin on 13/14 June 2017.

PROGRAMME

Monitoring Convergence in the European Union

Expert workshop

Eurofound

13 – 14 June 2017

Day 1 – Tuesday 13 June 2017

Venue: Eurofound Conference Center

- 09.00 – 09.15** **Welcome by Erika Metzger, Deputy Director, Eurofound.**
- 09.15 – 09.30** **Introduction to Eurofound’s Strategic Area of Intervention - Monitoring Convergence in the European Union**
Massimiliano Mascherini, Senior Research Manager, Social Policies, Eurofound
- 09.30 – 10.00** **Tour de Table and Interactive exercise.**
- 10.00 -11.15** **Setting the Scene: Convergence in the European Union agenda.**
The session aims at discussing the concept of convergence in the European Union agenda and why it is important. It will provide a historical evolution and overview from Treaty of Rome and will highlight the relatively good progress, fall off and why social convergence is necessary for the European Union.
- Thematic presentation: Convergence trends in Europe: evidence and lesson learned - Claire Courteille-Mulder and Santo Milasi, ILO.
- Chair/presenter: Massimiliano Mascherini, Eurofound*
- 11.15 – 11.45** **Coffee break - Conference Centre Foyer**
- 11.45 - 13.00** **Convergence in the European Union: economic and social progress**

The Rome declaration, which was signed on March 25th 2017 by the leaders of 27 Member States and of the European Council, the European Parliament and the European Commission, explicitly calls for a Union based on sustainable growth that promotes economic and social progress as well as cohesion and convergence. The session will seek participants' contribution in discussing the concept of economic and social progress and how to measure it.

Thematic presentation: Economic and Social Progress in the European Union agenda – Massimiliano Mascherini, Eurofound.

Chair: Hans Dubois, Eurofound

13.00 – 14.00 Lunch - Eurofound canteen

14.00 - 14.15 Measuring Convergence in Employment; Working Conditions; Living Conditions and Quality of Life; and Socio-Economic Convergence dimensions - Introduction to thematic sessions

Eurofound's strategic area of intervention - Monitoring Convergence in the European Union - aims at investigating and monitoring convergence in several dimensions: Employment; Working Conditions; Living Conditions and Quality of Life; and Socio-Economic Convergence.

The aim of the four parallel thematic sessions that follow is to discuss the working definitions of these dimensions and their potential sub-dimensions; existing concepts and measures of convergence across these dimensions/sub-dimensions; appropriate indicators that can be used for monitoring and that are representative of the main dimensions/sub-dimensions. The second part of the thematic sessions will be dedicated to a more in-depth discussion on indicators, including in relation to the various quality criteria. The aim is to identify and select a set of core indicators that can be taken forward by the Eurofound convergence project.

Chair: Franz Eiffe, Eurofound

- 14.15 – 16.00** **Thematic Session 1: Convergence in Employment**
Chair: Martina Bisello, Eurofound.
- Thematic Session 2: Convergence in Working Conditions**
Chair: Franz Eiffe, Eurofound.
- Thematic Session 3: Convergence in Living Conditions and Quality of Life**
Chair: Hans Dubois, Eurofound.
- Thematic Session 4: Socio-Economic Convergence.**
Chair: Massimiliano Mascherini, Eurofound.
- 16.00 - 16.30** **Coffee break - Conference Centre Foyer**
- 16.30 – 17.30** **Thematic Session 1: Convergence in Employment**
Chair: Martina Bisello, Eurofound.
- Thematic Session 2: Convergence in Working Conditions**
Chair: Franz Eiffe, Eurofound.
- Thematic Session 3: Convergence in Living Conditions and Quality of Life**
Chair: Hans Dubois, Eurofound.
- Thematic Session 4: Socio-Economic Convergence.**
Chair: Massimiliano Mascherini, Eurofound.
- 17.30 - 18.30** **Key messages from the discussions in the four parallel thematic sessions.**
On the basis of the discussion in the thematic sessions, a summary of the results will be discussed.
- Chair: Rob Anderson, Eurofound*

Day 2 – Wednesday 14 June 2017

Venue: Eurofound Conference Centre

9.00 – 10:45 **Toward a composite index on economic and social progress?**

How does the concept of social progress match with the conceptual framework and the indicators proposed in this activity? Is there room and value added for the creation of an aggregated index?

Thematic presentation: Mashup or social discovery? Composite indicators in the fray – Andrea Saltelli, European Centre for Governance in Complexity (University of Bergen)

Interactive poll

Chair: Martina Bisello, Eurofound

10:45 – 11.15 **Coffee Break – Conference Centre Foyer**

11.15 – 13.00 **Policy implications of convergence**

What actors, factors and policies can succeed in restoring upward convergence and promote the concept of socio-economic convergence in the European Union?

Thematic presentation: Cohesion and Convergence in Europe – Laszlo Andor - Corvinus University of Budapest

Chair: Massimiliano Mascherini, Eurofound

13:00-13:15 **Conclusions and next steps.** **Juan Menéndez-Valdés, Director, Eurofound.**

13:15 **End of workshop.**

ANNEX 3

List of indicators suggested by the experts.

Table 1 - Socio-Economic Area.

Three quarters or more of the group recommended inclusion; indicator rated as high importance	At least half of the group recommended inclusion; indicator rated as high importance
<ul style="list-style-type: none"> • Gross disposable household income • Adult participation in lifelong learning • At risk of poverty or Social exclusion rate • Children aged less than 3 years in formal childcare • Early leavers from education • Expenditure on research and development • Individuals' level of digital skills – basic or above basic overall digital skills • Corruption index 	<ul style="list-style-type: none"> • Access to education • Access to health • Activity rate • Adult participation in learning • Aggregate replacement ratio for pensions • At-risk-of-poverty-rate • Employment rate • Expenditure on education • Fertility rate • GDP pro capita • Gender employment gap • General government expenditure in social protection • Healthy life years at the age of 65 (females) • Healthy life years at the age of 65 (males) • Impact of social transfers (other than pensions) on poverty reduction • Income inequality • Income quintile share ratio • In-work at-risk-of-poverty rate • Labour productivity per person employed and hour worked • Minimum income • Out-of-pocket expenditure on health care • Severe Housing Deprivation • Skills structures • Tertiary educational attainment
Three quarters or more of the group recommended inclusion; indicator rated as medium importance	At least half of the group recommended inclusion; indicator rated as medium importance
<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Early leavers from education and training • Public debt to GDP ratio • Ratio pupils to teachers • Severe material deprivation rate (SMD)

Table 2 - Employment Area

Three quarters or more of the group recommended inclusion; indicator rated as high importance	At least half of the group recommended inclusion; indicator rated as high importance
<ul style="list-style-type: none"> • Unemployment rate • Youth unemployment rate • NEET rate • Long-term unemployment rate • Employment rate • Gender gap in employment • Temporary employees as a percentage of the total number of employees 	<ul style="list-style-type: none"> • Activity rate • Overall employment growth • Part-time employment rate • Job vacancy rate • Labour productivity per person employed and hour worked
Three quarters or more of the group recommended inclusion; indicator rated as medium importance	At least half of the group recommended inclusion; indicator rated as medium importance
<ul style="list-style-type: none"> • Youth employment rate • Employment rate of older workers • Employment rate of low skilled persons • Job vacancy rate 	<ul style="list-style-type: none"> • Foreign-born to native employment • Incidence of self-employment • Inactivity and part-time work due to personal and family responsibilities • Low wage employment

Table 3 - Living Conditions and Quality of Life Area

Three quarters or more of the group recommended inclusion; indicator rated as high importance	At least half of the group recommended inclusion; indicator rated as high importance
<ul style="list-style-type: none"> • Life satisfaction and happiness • Self-perceived health satisfaction • Life expectancy at birth • Quality of the dwelling: shortage of space; rot in windows; damp; lack of indoor toilet; lack of bath... • Problems in the local neighbourhood: physical violence; rubbish on the street; noise; traffic congestion • Water quality and air quality • Source of support in case of: illness; personal problems; trying to find a job; feeling low and needing someone to talk to; needing to urgently raise sum of money 	<ul style="list-style-type: none"> • N/A

<p>Three quarters or more of the group recommended inclusion; indicator rated as high importance</p>	<p>At least half of the group recommended inclusion; indicator rated as high importance</p>
<ul style="list-style-type: none"> • Perceived social exclusion • Trust in institutions and trust in others 	
<p>Three quarters or more of the group recommended inclusion; indicator rated as medium importance</p>	<p>At least half of the group recommended inclusion; indicator rated as medium importance</p>
<ul style="list-style-type: none"> • Quality health care • (In)ability to balance work and family life • Time devoted to leisure and personal care • Rooms per person • Presence of neighbourhood services (and access): theatres, cinemas or cultural centre; recreational or green areas; postal and banking services • Quality of the education system • Frequency of the contact with family, friend, neighbours... • Perceived tensions between different social groups 	<ul style="list-style-type: none"> • Optimism about the future

WPEF17041



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