

EUROPEAN UNION AT A GLANCE

**Statistical portrait with innovative
table-graphs for 30 selected indicators
over 28 countries in time perspective**



Pavle Sicherl

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FOREWORD

European Union at a Glance presents an easily understandable overview of 30 selected indicators over 28 EU countries in time, being probably the most condensed summary picture of disparities and dynamics in the EU over many domains over time.

This Gaptimer Report No. 3 is timely publication very useful for discussion of the situation in the EU in light of the forthcoming new European Commission and European Parliament and at the occasion of the 10th Anniversary of the largest EU expansion in 2004.

Its two main characteristics are the innovative table-graphs for visual presentation of the 30 selected indicators over 28 countries in time, on the one hand, and selection of indicators from many domains in the spirit of Beyond GDP initiatives, on the other.

Time and money are two most important comparators in modern society. Time distance is an innovative approach for looking at time series data. Expressed in time units, the approach is easy to understand and provides a useful complement to existing methods. The time distance approach compares time series in the horizontal dimension, i.e. for a given level of the variable, based on two novel generic statistical measures: S-time-distance and S-time-step. These measures can be derived also from a time matrix that summarises information and that provides a first-level visualization tool. It is this innovative time matrix presentation that enables condensed summary visual presentation over many countries and over time. Secondly, 30 selected indicators from many Eurostat indicators systems like Quality of life; Sustainable Development Indicators, Headline Indicators, Digital Agenda, etc. follow the orientation of Beyond GDP. Time distance method can contribute also to the two of the EU projects: e-Frame and BrainPool.

The 30 time matrices give rich food for thought and imaginative readers can find numerous comparisons and stories in the material. One of them is that the damage done to EU countries by the world financial crisis is much greater when for 28 countries we look also at employment, investment share, risk of poverty, income distribution, health, etc. rather than at GDP alone.

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INTRODUCTION

Better governance needs many things but also better data and tools for fact based decision making. The art of handling different views of data is crucial for discovering the relevant patterns and for providing a broader framework for policy and business analysis. Sustainable development is by definition a long-run and multi-dimensional phenomenon. Semantics of discussing the issues, in setting the targets and in the implementation should not be based only on static measures; it needs to be complemented by dynamic measures.

One way of presenting and visualising of the time series data for 30 indicators listed below is the time matrix as an innovative complementary approach for looking at time series data. The time matrix provides a good summary overview over many units and years and also a first-level visualisation tool.

Time matrix is an original possibility of additional presentation of time series data. In the usual time series table data of the indicator (e.g. life expectancy) are organised in relation to the descriptors, like units (e.g. countries) and time (e.g. years). The time matrix presents the original data (or some approximations) in an alternative way: descriptors are units and levels of the indicator and the value in the field of the table are times when such levels were attained. Calculating these times by interpolations may pose a small problem of the degree of accuracy compared to the original data, but it offers additional understanding about the time dimension of disparities and a good summary overview.

It is defined for selected levels of a given variable and shows in which year various units (countries, regions, etc.) achieved these levels. The first example of time matrix for indicator 1 life expectancy below condenses information for the period of more than 50 years (1960-2012), which in the Eurostat extended database amounts to more than 1000 entries; in this time matrix it is condensed to much smaller number of entries (228), i.e. nearly five times smaller. This presents a first level visualisation that usefully complements the details in the original database by showing the easily understandable summary dynamic overview.

In short, time distance concept organises the same data from Eurostat databases in a way that data are arranged by selected levels of indicators showing in which year these levels of the indicators were achieved by given country. The result is a LEVEL-TIME MATRIX, which is easily understood by everybody.

One can immediately observe several stories:

1. The observed level-time table-graph in yellow colour shows the range of values achieved for a given country over the period from available data.

This allows for a quick level comparison for time matrices for all 30 indicators:

- vertically comparing levels between countries shows the situation and disparities across the EU countries over time
- comparing horizontally in the row for each country shows how many steps over levels of indicators were achieved (which is an additional indication of the dynamics in the country)

2. Technical comments important for understanding (see also ANNEX with available software Time Matrix Calculator to calculate time matrix from your own data).

The year presented in **bold** show the latest presented year of the indicator for the given country. It can help to quickly observe whether there was a noticeable decrease in the observed period. Technically, if there are more intersections for a given level of the indicator the last year is shown.

As shown below, a time matrix condenses time series information in much smaller number of entries, which is a great advantage for presentation. Statistical offices of international organisations as well as national statistical offices could also use the time matrix presentation to complement their usual time series data tables covering many years and units. By itself (i.e. even without calculating the two new generic statistical measures S-time-distance and S-time-step as shown in matrices 1a, 1b, 2a, and 2b) it can be used in publications, web pages and other software as a first-level visualisation tool to ‘turn statistics into knowledge’. The time matrix allows an introductory visualisation of what issues and hypothesis could be best suited for presentation through other visualisation tools such as OECD eXplorer, Google Public Data Explorer and Gapminder.

S-time-matrix can be also used as one possibility of deriving values of S-time-distance and S-time-step as shown in examples 1a and 2a for time distance and 1b and 2b for time step. In these cases S-time-distance between two series can be derived by subtracting vertically the respective times for a given level in the time matrix. Conversely, subtracting the years in the time matrix for consecutive levels of the variable for each row horizontally allows deriving the S-time-step.

A VISUAL OVERVIEW OF DEVELOPMENT IN ALL CURRENT EUROPEAN UNION COUNTRIES BASED ON TIME DISTANCE METHODOLOGY

List of 30 selected indicators

| | Indicators | Data range | Top country (last year) |
|----|-----------------------------------------------------------------------|------------|-------------------------|
| 1 | Life expectancy at birth | 1960-2012 | Spain |
| 2 | Human Development Index | 1980-2012 | Netherlands |
| 3 | GDP per capita in PPS | 1995-2012 | Luxembourg |
| 4 | Median income in PPS | 1995-2013 | Luxembourg |
| 5 | Employment rate (15 to 64 years) | 1992-2012 | Netherlands |
| 6 | Activity rate (15 to 64 years) | 1992-2012 | Sweden |
| 7 | Share of gross fixed investment in GDP | 1954-2013 | Estonia |
| 8 | R&D expenditure (GERD), percent of GDP | 1981-2012 | Finland |
| 9 | Summary Innovation Index | 2008-2012 | Sweden |
| 10 | Tertiary attainment for age group 15-64 | 2000-2013 | Ireland |
| 11 | Proportion of population aged 65 years and more | 1961-2013 | Italy |
| 12 | Old age dependency ratio, projections 2013-2080 | 2013-2080 | Slovakia |
| 13 | Population growth rates, total | 1961-2013 | Luxembourg |
| 14 | Persons killed in road accidents per million inhabitants | 1990-2012 | United Kingdom |
| 15 | Death due to homicide, standardised death rate by 100 000 inh. | 1994-2010 | United Kingdom |
| 16 | Infant mortality rate | 1960-2012 | Slovenia |
| 17 | At-risk-of-poverty (percent of total population) | 1995-2012 | Czech Republic |
| 18 | At-risk-of-poverty (percent of elderly population) | 1995-2013 | Hungary |
| 19 | Income quintile share ratio S80/S20 | 1995-2013 | Slovenia |
| 20 | GINI coefficient | 1995-2013 | Slovenia |
| 21 | Early leavers from education and training | 1992-2013 | Croatia |
| 22 | Healthy life years at birth - females | 1995-2012 | Malta |
| 23 | Healthy life years at birth - males | 1999-2012 | Malta |
| 24 | Households with broadband access | 2003-2013 | Finland |
| 25 | Regular Internet use | 2003-2013 | Luxembourg |
| 26 | Share of energy from renewable sources | 2004-2012 | Sweden |
| 27 | Urban population exposure to air pollution by particulate matter PM10 | 1997-2011 | Denmark |
| 28 | Publications per million inhabitants | 1994-2010 | Denmark |
| 29 | Proportion of seats in national parliaments held by women | 2000-2013 | Sweden |
| 30 | Current account balance in % of GDP | 1975-2013 | Netherlands |

AN ADDITIONAL WAY OF PRESENTATION ACROSS MANY UNITS AND MANY YEARS

Indicator 1. Life expectancy at birth

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 |
|------------------------|------|------|------|------|------|------|------|------|------|------|-------------|-------------|-------------|-------------|-------------|-------------|------|-------------|-------------|-------------|
| Spain | | | | | | | | | | | | 1977 | 1979 | 1981 | 1990 | 1994 | 1999 | 2003 | 2006 | 2009 |
| Italy | | | | | | | | | | | | | | 1986 | 1989 | 1994 | 1997 | 2000 | 2005 | 2010 |
| France | | | | | | | | | | | | | | 1987 | 1990 | 1994 | 1999 | 2004 | 2006 | 2010 |
| Sweden | | | | | | | | | | | | 1968 | 1976 | 1981 | 1986 | 1992 | 1995 | 2002 | 2006 | |
| Luxembourg | | | | | | | | 1971 | 1976 | 1978 | 1982 | 1985 | 1989 | 1993 | 1997 | 2003 | 2004 | 2007 | 2011 | |
| Netherlands | | | | | | | | | | | | | | | 1990 | 1999 | 2004 | 2006 | 2010 | |
| Austria | | | | | | | | | 1973 | 1977 | 1981 | 1985 | 1987 | 1992 | 1996 | 1999 | 2003 | 2006 | 2011 | |
| Cyprus | | | | | | | | | | | | | | | | 2000 | 2005 | 2007 | 2009 | |
| Germany | | | | | | | | 1962 | 1971 | 1976 | 1979 | 1983 | 1987 | 1992 | 1996 | 1999 | 2004 | 2007 | 2012 | |
| United Kingdom | | | | | | | | | | | | | | | 1996 | 2000 | 2004 | 2008 | 2012 | |
| Ireland | | | | | | | | | | | | 1987 | 1991 | 1997 | 2001 | 2003 | 2005 | 2008 | | |
| Malta | | | | | | | | | 1981 | 1982 | 1985 | 1987 | 1990 | 1992 | 1995 | 2000 | 2003 | 2008 | 2011 | |
| Finland | | | | | | | | | | | | 1981 | 1989 | 1993 | 1996 | 2001 | 2004 | 2009 | | |
| Greece | | | | | | | | | | 1964 | 1969 | 1973 | 1978 | 1985 | 1992 | 1999 | 2002 | 2008 | | |
| Portugal | 1961 | 1962 | 1964 | 1969 | 1971 | 1974 | 1976 | 1977 | 1979 | 1981 | 1985 | 1988 | 1993 | 1998 | 2001 | 2004 | 2006 | 2010 | | |
| Belgium | | | | | | | | 1960 | 1970 | 1975 | 1978 | 1983 | 1986 | 1990 | 1995 | 2001 | 2004 | 2009 | | |
| EU 28 | | | | | | | | | | | | | | | | 2003 | 2007 | 2010 | | |
| Slovenia | | | | | | | | | 1983 | 1985 | 1988 | 1994 | 1996 | 2000 | 2004 | 2006 | 2008 | 2011 | | |
| Denmark | | | | | | | | | | | | 1976 | 1990 | 1997 | 2001 | 2004 | 2009 | 2011 | | |
| Czech Republic | | | | | | | | 1971 | 1984 | 1991 | 1993 | 1996 | 2000 | 2005 | 2007 | 2011 | | | | |
| Croatia | | | | | | | | | | | | | 2004 | 2008 | 2011 | | | | | |
| Poland | | | | | | | | | 1992 | 1995 | 1998 | 2001 | 2005 | 2009 | | | | | | |
| Estonia | | | | | 1994 | 1995 | 1996 | 1998 | 2001 | 2003 | 2005 | 2008 | 2009 | 2010 | | | | | | |
| Slovakia | | | | | | | | 1973 | 1986 | 1993 | 1999 | 2004 | 2008 | 2011 | | | | | | |
| Hungary | | | | | | 1962 | 1983 | 1995 | 1998 | 2000 | 2005 | 2008 | 2011 | | | | | | | |
| Romania | | | | | | 1970 | 1997 | 1998 | 2002 | 2004 | 2006 | 2010 | | | | | | | | |
| Bulgaria | | | | | | | | 1962 | 1998 | 2002 | 2007 | 2011 | | | | | | | | |
| Latvia | | | | | | | | | 2007 | 2008 | 2010 | 2012 | | | | | | | | |
| Lithuania | | | | | | | 1995 | 1996 | 2007 | 2008 | 2009 | 2012 | | | | | | | | |
| International frontier | | | | | | | | | 1955 | 1961 | 1969 | 1974 | 1978 | 1983 | 1988 | 1993 | 1998 | 2002 | 2006 | 2012 |
| China | | | | | 1980 | 1984 | 1988 | 1993 | 1999 | 2004 | 2009 | | | | | | | | | |

Life expectancy at birth has been increasing in all countries over time. This is easily observed as the years in bold refer to the latest available observation available for each country and they are on the right hand side for all of them. Horizontal lines show how many steps of life expectancy were achieved in a given country. Portugal has experienced even increase from 63 years in 1961 to 80 years in 1980.

There are substantial differences between countries; the largest difference is between 82 years in the three leading countries and 74 years in the four countries with the lowest life expectancy. China is closing fast to reach and possibly surpass the life expectancy in these countries. International frontier represents the average of values of life expectancy for the top 10 performers in the world. Only three of the EU countries are higher than that international benchmark.

1a. S-time-distance for life expectancy at birth

S-time-distance: time lead (-) or time lag (+) from benchmark international frontier

| LEVEL | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 |
|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Spain | | | | | | | | | | | | 2 | 1 | -1 | 2 | 1 | 1 | 2 | 0 | -3 |
| Italy | | | | | | | | | | | | | | 4 | 1 | 1 | -1 | -2 | -1 | -3 |
| France | | | | | | | | | | | | | | 4 | 2 | 1 | 1 | 2 | 0 | -2 |
| Sweden | | | | | | | | | | | | -6 | -2 | -2 | -2 | -2 | -3 | 0 | 0 | |
| Luxembourg | | | | | | | | | 21 | 17 | 13 | 11 | 11 | 10 | 9 | 10 | 6 | 6 | 4 | |
| Netherlands | | | | | | | | | | | | | | | 2 | 6 | 6 | 4 | 4 | |
| Austria | | | | | | | | | 18 | 16 | 12 | 10 | 9 | 9 | 8 | 5 | 5 | 4 | 4 | |
| Cyprus | | | | | | | | | | | | | | | | 7 | 7 | 5 | 3 | |
| Germany | | | | | | | | | 17 | 15 | 10 | 9 | 8 | 9 | 8 | 6 | 6 | 5 | 6 | |
| United Kingdom | | | | | | | | | | | | | | | 8 | 7 | 6 | 7 | 6 | |
| Ireland | | | | | | | | | | | | 12 | 13 | 14 | 13 | 10 | 7 | 6 | | |
| Malta | | | | | | | | | 26 | 22 | 16 | 13 | 11 | 9 | 7 | 7 | 5 | 7 | 4 | |
| Finland | | | | | | | | | | | | 7 | 11 | 11 | 8 | 7 | 6 | 7 | | |
| Greece | | | | | | | | | | 4 | 0 | -2 | -1 | 2 | 4 | 6 | 4 | 6 | | |
| Portugal | | | | | | | | | 24 | 21 | 16 | 14 | 15 | 15 | 13 | 10 | 8 | 8 | | |
| Belgium | | | | | | | | | 15 | 14 | 9 | 9 | 8 | 7 | 7 | 7 | 6 | 7 | | |
| EU 28 | | | | | | | | | | | | | | | | 10 | 9 | 8 | | |
| Slovenia | | | | | | | | | 28 | 25 | 19 | 20 | 17 | 17 | 16 | 13 | 10 | 9 | | |
| Denmark | | | | | | | | | | | | 2 | 12 | 14 | 13 | 11 | 11 | 10 | | |
| Czech Republic | | | | | | | | | 30 | 30 | 24 | 22 | 21 | 22 | 19 | 18 | | | | |
| Croatia | | | | | | | | | | | | | 25 | 25 | 23 | | | | | |
| Poland | | | | | | | | | 37 | 34 | 29 | 26 | 27 | 27 | | | | | | |
| Estonia | | | | | | | | | 46 | 43 | 36 | 33 | 30 | 27 | | | | | | |
| Slovakia | | | | | | | | | 31 | 32 | 29 | 29 | 30 | 28 | | | | | | |
| Hungary | | | | | | | | | 43 | 40 | 36 | 33 | 32 | | | | | | | |
| Romania | | | | | | | | | 47 | 44 | 37 | 36 | | | | | | | | |
| Bulgaria | | | | | | | | | 43 | 41 | 38 | 36 | | | | | | | | |
| Latvia | | | | | | | | | 52 | 47 | 41 | 37 | | | | | | | | |
| Lithuania | | | | | | | | | 53 | 48 | 40 | 37 | | | | | | | | |
| International frontier | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| China | | | | | | | | | 44 | 44 | 40 | | | | | | | | | |

Using the novel generic statistical measure S-time-distance (see Annex) it is possible to describe the disparities between different units by the distance in time when the two compared units reached the same level of the indicator. S-time-matrix above shows that life expectancy of about 81 years was reached in the United Kingdom in 2012; this level was reached by the international frontier in 2006, with S-time-distance lead of 6 years or lag of 6 years for the UK. The approach is universal, understandable, and applicable to a wide variety of fields at both the macro and micro levels.

In the EU there are large differences in life expectancy. There is a wealth of information in these tables not discussed here. Four EU countries are among the 10 best countries in the world, 13 countries from Luxembourg to Slovenia are lagging up to 10 years, five at the bottom even more than 30 years.

1b. S-time-step for life expectancy at birth

S-time-step: time needed to achieve next level of the indicator

| LEVEL | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 |
|------------------------|----|-----|-----|-----|-----|-----|------|------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| Spain | | | | | | | | | | | | | 2.4 | 2.4 | 8.6 | 3.8 | 5.7 | 4.0 | 2.5 | 3.3 |
| Italy | | | | | | | | | | | | | | | 2.8 | 5.0 | 3.0 | 3.3 | 5.0 | 4.3 |
| France | | | | | | | | | | | | | | | 3.5 | 4.0 | 5.3 | 4.3 | 2.4 | 4.3 |
| Sweden | | | | | | | | | | | | | 8.0 | 4.7 | 5.3 | 5.5 | 3.5 | 7.0 | 4.0 | |
| Luxembourg | | | | | | | | | 4.9 | 1.8 | 4.4 | 2.8 | 3.9 | 3.9 | 3.7 | 6.4 | 0.8 | 3.6 | 3.3 | |
| Netherlands | | | | | | | | | | | | | | | | 9.5 | 4.5 | 2.5 | 4.0 | |
| Austria | | | | | | | | | | 3.9 | 4.5 | 3.5 | 2.5 | 4.5 | 4.0 | 3.0 | 4.9 | 2.4 | 4.7 | |
| Cyprus | | | | | | | | | | | | | | | | | 5.0 | 2.0 | 1.8 | |
| Germany | | | | | | | | | 9.3 | 4.7 | 3.0 | 4.0 | 3.5 | 5.1 | 4.4 | 3.0 | 4.6 | 2.9 | 5.5 | |
| United Kingdom | | | | | | | | | | | | | | | | 4.0 | 4.0 | 4.3 | 3.7 | |
| Ireland | | | | | | | | | | | | | 4.4 | 6.0 | 3.7 | 1.9 | 2.4 | 2.6 | | |
| Malta | | | | | | | | | | 1.7 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 5.1 | 3.8 | 5.0 | 2.4 | |
| Finland | | | | | | | | | | | | | 8.0 | 4.1 | 2.9 | 4.5 | 3.5 | 4.5 | | |
| Greece | | | | | | | | | | | 4.7 | 3.7 | 4.8 | 7.5 | 7.0 | 7.3 | 2.7 | 5.6 | | |
| Portugal | | 0.7 | 2.2 | 4.9 | 2.3 | 2.4 | 2.3 | 0.9 | 1.7 | 2.7 | 3.7 | 3.3 | 5.1 | 4.6 | 2.5 | 3.1 | 2.4 | 3.8 | | |
| Belgium | | | | | | | | | 9.6 | 5.0 | 3.4 | 4.8 | 3.2 | 3.3 | 5.4 | 5.5 | 3.5 | 4.7 | | |
| EU 28 | | | | | | | | | | | | | | | | | 3.2 | 3.8 | | |
| Slovenia | | | | | | | | | | 2.2 | 2.7 | 6.1 | 1.6 | 4.0 | 4.2 | 1.9 | 2.2 | 2.8 | | |
| Denmark | | | | | | | | | | | | | 14.0 | 6.5 | 4.3 | 3.4 | 4.6 | 2.3 | | |
| Czech Republic | | | | | | | | | 12.9 | 6.7 | 2.3 | 2.7 | 3.5 | 5.0 | 2.5 | 4.0 | | | | |
| Croatia | | | | | | | | | | | | | | 4.5 | 2.6 | | | | | |
| Poland | | | | | | | | | | 3.0 | 2.8 | 2.8 | 4.5 | 4.2 | | | | | | |
| Estonia | | | | | | 0.8 | 0.4 | 2.7 | 2.9 | 2.0 | 1.8 | 2.7 | 1.0 | 1.3 | | | | | | |
| Slovakia | | | | | | | | | 12.5 | 7.5 | 5.5 | 5.0 | 4.8 | 2.5 | | | | | | |
| Hungary | | | | | | | 20.9 | 12.0 | 3.0 | 2.2 | 4.8 | 2.7 | 3.1 | | | | | | | |
| Romania | | | | | | | 26.9 | 1.5 | 3.9 | 2.3 | 2.2 | 3.8 | | | | | | | | |
| Bulgaria | | | | | | | | | 35.7 | 3.4 | 5.5 | 3.5 | | | | | | | | |
| Latvia | | | | | | | | | | 0.8 | 1.8 | 1.8 | | | | | | | | |
| Lithuania | | | | | | | | 1.0 | 11.6 | 1.0 | 1.0 | 2.5 | | | | | | | | |
| International frontier | | | | | | | | | | 5.9 | 8.4 | 5.2 | 4.0 | 4.3 | 5.1 | 5.4 | 4.9 | 3.8 | 4.5 | 5.6 |
| China | | | | | | 4.2 | 4.2 | 5.0 | 5.6 | 5.5 | 4.6 | | | | | | | | | |

The three basic constituents of time distance methodology are S-time-matrix, S-time-distance and S-time-step. The values of S-time-step show the number of years needed in the past to reach the next consecutive level of life expectancy. In the row for EU28 it is 3.8 years, i.e. nearly 4 years were needed for increase in 1 year of life expectancy from level of 79 to the level of 80 years. When expressing dynamics in percentage terms this change would be expressed as growth rate of 0.3% per year. Both statistical measures are valid, 3.8 years and/or 0.3% growth rate per year can add information.

Portugal shows the highest dynamics from countries with data from 1960; from the level of 63 years in 1961 to the level of 80 years in 2010. Bulgaria needed over three decades to move from about 70 years in 1962 to about 71 years in 1998. The matrix provides summary of dynamics over all countries.

Indicator 2. Human Development Index

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 0.70 | 0.71 | 0.72 | 0.73 | 0.74 | 0.75 | 0.76 | 0.77 | 0.78 | 0.79 | 0.80 | 0.81 | 0.82 | 0.83 | 0.84 | 0.85 | 0.86 | 0.87 | 0.88 | 0.89 | 0.90 | 0.91 | 0.92 |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Netherlands | | | | | | | | | | | 1980 | 1983 | 1985 | 1987 | 1990 | 1992 | 1994 | 1996 | 1998 | 2000 | 2005 | 2007 | 2011 |
| Germany | | | | | 1980 | 1982 | 1983 | 1985 | 1986 | 1988 | 1990 | 1991 | 1993 | 1994 | 1996 | 1997 | 1999 | 2000 | 2002 | 2003 | 2005 | 2008 | 2012 |
| Ireland | | | | | | 1981 | 1983 | 1985 | 1987 | 1989 | 1991 | 1992 | 1993 | 1994 | 1995 | 1997 | 1998 | 1999 | 2000 | 2002 | 2004 | 2006 | |
| Sweden | | | | | | | | | | | 1983 | 1986 | 1989 | 1991 | 1992 | 1993 | 1995 | 1996 | 1997 | 1998 | 2000 | 2010 | |
| Denmark | | | | | | | | | 1980 | 1984 | 1988 | 1991 | 1993 | 1995 | 1996 | 1998 | 2000 | 2002 | 2004 | 2011 | | | |
| Belgium | | | | | | | | 1981 | 1983 | 1985 | 1987 | 1989 | 1990 | 1992 | 1993 | 1995 | 1996 | 1998 | 1999 | 2007 | | | |
| Austria | | | | | | 1981 | 1983 | 1985 | 1987 | 1989 | 1991 | 1993 | 1995 | 1996 | 1998 | 2001 | 2003 | 2005 | 2007 | 2010 | | | |
| France | | | | 1980 | 1982 | 1984 | 1986 | 1988 | 1989 | 1991 | 1992 | 1994 | 1995 | 1997 | 1998 | 2000 | 2001 | 2004 | 2006 | 2010 | | | |
| Finland | | | | | | | | 1981 | 1984 | 1987 | 1990 | 1992 | 1994 | 1997 | 1999 | 2001 | 2002 | 2003 | 2005 | 2010 | | | |
| Slovenia | | | | | | | | | | | | | | | | 2001 | 2003 | 2004 | 2006 | 2009 | | | |
| Spain | 1980 | 1982 | 1984 | 1986 | 1987 | 1989 | 1990 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2001 | 2004 | 2006 | 2009 | | | | |
| Italy | | | | 1981 | 1984 | 1986 | 1988 | 1990 | 1991 | 1993 | 1995 | 1996 | 1998 | 2000 | 2001 | 2002 | 2004 | 2005 | 2010 | | | | |
| Luxembourg | | | | | 1981 | 1982 | 1984 | 1986 | 1987 | 1989 | 1991 | 1992 | 1994 | 1995 | 1997 | 1998 | 2000 | 2009 | | | | | |
| United Kingdom | | | | | | 1981 | 1983 | 1986 | 1989 | 1991 | 1993 | 1995 | 1996 | 1998 | 2000 | 2002 | 2004 | 2008 | | | | | |
| Czech Republic | | | | | | | | | | | | | | 2001 | 2002 | 2003 | 2005 | 2009 | | | | | |
| Greece | | | | 1981 | 1983 | 1985 | 1987 | 1990 | 1992 | 1995 | 1997 | 2000 | 2001 | 2002 | 2003 | 2004 | 2012 | | | | | | |
| Cyprus | | | 1981 | 1982 | 1984 | 1985 | 1987 | 1989 | 1990 | 1994 | 1997 | 2001 | 2006 | 2007 | 2009 | | | | | | | | |
| Malta | | | 1982 | 1984 | 1986 | 1988 | 1991 | 1993 | 1995 | 1998 | 2000 | 2002 | 2004 | 2007 | 2010 | | | | | | | | |
| Estonia | | | | 1990 | 1992 | 1994 | 1996 | 1997 | 1999 | 2000 | 2002 | 2003 | 2004 | 2005 | 2010 | | | | | | | | |
| Slovakia | | | | | | 1992 | 1995 | 1998 | 2001 | 2003 | 2004 | 2006 | 2007 | 2012 | | | | | | | | | |
| Hungary | | 1982 | 1991 | 1992 | 1993 | 1995 | 1996 | 1997 | 1999 | 2000 | 2002 | 2003 | 2005 | 2011 | | | | | | | | | |
| Poland | | | | | | | | | 2001 | 2003 | 2006 | 2008 | 2012 | | | | | | | | | | |
| Lithuania | | | | | 1993 | 1998 | 2000 | 2002 | 2003 | 2004 | 2005 | 2010 | | | | | | | | | | | |
| Portugal | 1988 | 1989 | 1991 | 1992 | 1994 | 1995 | 1997 | 1998 | 2000 | 2003 | 2006 | 2008 | | | | | | | | | | | |
| Latvia | 1990 | 1993 | 1995 | 1998 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2011 | | | | | | | | | | | |
| Romania | | 2000 | 2001 | 2002 | 2003 | 2004 | 2006 | 2007 | 2008 | | | | | | | | | | | | | | |
| Bulgaria | 1989 | 1994 | 1999 | 2001 | 2003 | 2004 | 2006 | 2008 | 2011 | | | | | | | | | | | | | | |
| Very high human dev. | | | | | | | | | 1982 | 1984 | 1986 | 1988 | 1991 | 1993 | 1995 | 1997 | 1999 | 2001 | 2003 | 2005 | 2010 | | |

The Human Development Index (HDI) published by UNDP is a composite indicator with well documented database and continuous improvements, combining health index, education index, and income index giving a broad vision of the advance of countries in furthering capabilities. EU countries with respect to the HDI were in the very high human development group occupying positions from 4 to 47 in the world ranking, except Romania and Bulgaria occupying positions 56 and 57.

There was a continuous increase in the HDI in all analysed countries as increase in health and education components compensated possible problems in the income index. In non-income HDI the best five EU countries were positioned in the world table Ireland at rank 4, Germany rank 7, Netherlands rank 8, Sweden rank 12, and Slovenia rank 13.

2a. S-time-distance for Human Development Index

S-time-distance: time lead (-) or time lag (+) from benchmark average for very high human development

| LEVEL | 0.70 | 0.71 | 0.72 | 0.73 | 0.74 | 0.75 | 0.76 | 0.77 | 0.78 | 0.79 | 0.80 | 0.81 | 0.82 | 0.83 | 0.84 | 0.85 | 0.86 | 0.87 | 0.88 | 0.89 | 0.90 | 0.91 | 0.92 |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Netherlands | | | | | | | | | | | -6 | -6 | -6 | -5 | -5 | -5 | -5 | -5 | -5 | -6 | -4 | | |
| Germany | | | | | | | | | 5 | 4 | 3 | 3 | 2 | 1 | 1 | 0 | 0 | -1 | -1 | -2 | -5 | | |
| Ireland | | | | | | | | | 6 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | -1 | -2 | -3 | -3 | -6 | | |
| Sweden | | | | | | | | | | | -4 | -3 | -2 | -2 | -2 | -3 | -4 | -5 | -6 | -7 | -10 | | |
| Denmark | | | | | | | | | | -4 | -2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 | 1 | | |
| Belgium | | | | | | | | | 1 | 1 | 1 | 0 | 0 | -1 | -1 | -2 | -2 | -3 | -4 | 1 | | | |
| Austria | | | | | | | | | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | | | |
| France | | | | | | | | | 8 | 7 | 6 | 5 | 5 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | | | |
| Finland | | | | | | | | | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 5 | | | |
| Slovenia | | | | | | | | | | | | | | | | 5 | 4 | 3 | 3 | 4 | | | |
| Spain | | | | | | | | | 11 | 10 | 9 | 8 | 6 | 6 | 5 | 4 | 5 | 5 | 6 | | | | |
| Italy | | | | | | | | | 10 | 9 | 9 | 8 | 7 | 7 | 6 | 6 | 5 | 5 | 7 | | | | |
| Luxembourg | | | | | | | | | 6 | 5 | 4 | 4 | 3 | 3 | 2 | 2 | 1 | 8 | | | | | |
| United Kingdom | | | | | | | | | 7 | 7 | 7 | 6 | 6 | 5 | 5 | 5 | 5 | 7 | | | | | |
| Czech Republic | | | | | | | | | | | | | | 8 | 8 | 7 | 6 | 8 | | | | | |
| Greece | | | | | | | | | 11 | 11 | 11 | 12 | 10 | 9 | 8 | 7 | 13 | | | | | | |
| Cyprus | | | | | | | | | 9 | 10 | 11 | 13 | 15 | 15 | 14 | | | | | | | | |
| Malta | | | | | | | | | 14 | 14 | 14 | 13 | 13 | 15 | 15 | | | | | | | | |
| Estonia | | | | | | | | | 17 | 17 | 15 | 14 | 13 | 12 | 16 | | | | | | | | |
| Slovakia | | | | | | | | | 17 | 17 | 16 | 16 | 15 | 14 | 17 | | | | | | | | |
| Hungary | | | | | | | | | 17 | 16 | 16 | 15 | 14 | 18 | | | | | | | | | |
| Poland | | | | | | | | | 19 | 19 | 19 | 19 | 21 | | | | | | | | | | |
| Lithuania | | | | | | | | | 21 | 20 | 19 | 22 | | | | | | | | | | | |
| Portugal | | | | | | | | | 18 | 19 | 20 | 19 | | | | | | | | | | | |
| Latvia | | | | | | | | | 22 | 21 | 20 | 23 | | | | | | | | | | | |
| Romania | | | | | | | | | 26 | | | | | | | | | | | | | | |
| Bulgaria | | | | | | | | | 29 | | | | | | | | | | | | | | |
| Very high human dev. | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

The lead or lag from the benchmark of the average value of the HDI for the very high human development group indicates that four EU countries were ahead of that benchmark, for six further countries from Denmark to Slovenia the time lag was up to five years, for next five countries the lag was below 10 years, for next five between 13 and 18 years, and for six countries between 21 and 29 years.

This ordering also indicates that there were large differences between EU countries in the analysed period of three decades. The largest difference is between Netherlands and Bulgaria, the absolute difference in HDI is 0.139, in percentage terms Bulgaria is 15.1 percent lower than Netherlands, and the time distance was more than 32 years. Similar results are shown also for Romania, for Latvia the corresponding values are 0.107, 11.6 percent, and S-time-distance around 29 years.

2b. S-time-step for Human Development Index

S-time-step: time needed to achieve next level of the indicator

| LEVEL | 0.7 | 0.71 | 0.72 | 0.73 | 0.74 | 0.75 | 0.76 | 0.77 | 0.78 | 0.79 | 0.8 | 0.81 | 0.82 | 0.83 | 0.84 | 0.85 | 0.86 | 0.87 | 0.88 | 0.89 | 0.9 | 0.91 | 0.92 |
|----------------------|-----|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|-----|------|------|
| Netherlands | | | | | | | | | | | | 2.3 | 2.3 | 2.3 | 2.3 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 5.4 | 1.7 | 3.7 |
| Germany | | | | | | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 3.4 | 3.8 |
| Ireland | | | | | | | 2.1 | 2.1 | 2.1 | 2.1 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.8 | 1.8 | 1.8 | |
| Sweden | | | | | | | | | | | | 3.2 | 3.2 | 1.9 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 9.9 | |
| Denmark | | | | | | | | | | | 3.8 | 3.8 | 3.1 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.1 | 2.1 | 6.1 | | |
| Belgium | | | | | | | | | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 7.3 | | | |
| Austria | | | | | | | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.6 | 2.3 | 1.7 | 2.3 | | | |
| France | | | | | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.5 | 1.9 | 2.1 | 2.2 | 3.9 | | | |
| Finland | | | | | | | | | 2.9 | 2.9 | 2.9 | 2.3 | 2.3 | 2.3 | 2.3 | 1.8 | 1.3 | 1.4 | 1.3 | 5.3 | | | |
| Slovenia | | | | | | | | | | | | | | | | | 1.5 | 1.5 | 1.6 | 3.7 | | | |
| Spain | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.5 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.6 | 2.8 | 2.4 | 3.0 | | | | |
| Italy | | | | | 2.1 | 2.1 | 2.1 | 2.1 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.4 | 1.4 | 1.5 | 4.5 | | | | |
| Luxembourg | | | | | | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 9.2 | | | | | |
| United Kingdom | | | | | | | 2.8 | 2.8 | 2.8 | 2.2 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 2.1 | 2.1 | 4.0 | | | | | |
| Czech Republic | | | | | | | | | | | | | | | 1.3 | 1.3 | 1.3 | 4.3 | | | | | |
| Greece | | | | | 2.2 | 2.2 | 2.2 | 2.2 | 2.5 | 2.6 | 2.6 | 2.6 | 1.0 | 1.0 | 1.0 | 1.0 | 8.2 | | | | | | |
| Cyprus | | | | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.8 | 3.5 | 3.5 | 3.9 | 4.5 | 1.8 | 1.1 | | | | | | | | |
| Malta | | | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.0 | 1.9 | 3.5 | 2.3 | | | | | | | | |
| Estonia | | | | | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.5 | 1.1 | 1.1 | 1.1 | 1.1 | 5.2 | | | | | | | | |
| Slovakia | | | | | | | 3.2 | 3.2 | 2.5 | 1.7 | 1.7 | 1.5 | 1.1 | 5.0 | | | | | | | | | |
| Hungary | | | 8.8 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.7 | 1.7 | 1.7 | 6.0 | | | | | | | | | |
| Poland | | | | | | | | | | 2.5 | 2.5 | 2.3 | 3.7 | | | | | | | | | | |
| Lithuania | | | | | | 4.2 | 2.9 | 1.1 | 1.1 | 1.1 | 1.1 | 5.2 | | | | | | | | | | | |
| Portugal | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.5 | 3.1 | 3.6 | 1.5 | | | | | | | | | | | |
| Latvia | 4.0 | 2.6 | 2.6 | 2.6 | 2.2 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.2 | 5.2 | | | | | | | | | | | |
| Romania | | | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 0.9 | | | | | | | | | | | | | | |
| Bulgaria | 3.2 | 4.8 | 5.9 | 1.9 | 1.4 | 1.4 | 1.9 | 1.6 | 3.4 | | | | | | | | | | | | | | |
| Very high human dev. | | | | | | | | | | 2.3 | 2.3 | 2.3 | 2.2 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.3 | 2.4 | 4.2 | | |

The matrix for S-time-step indicates the magnitude of HDI dynamics over the three decades (1980-2012) by the selected levels. At a glance one can see many improvements in the HDI level, though for some countries with missing HDI data (i.e. time series in the UNDP database starting later than in 1980) the progress can be underestimated by the visual impression in the picture. The highest number of increase in the HDI level was in Germany and Spain.

For the average of the very high human development group S-time-step between levels 0.89 and 0.90 was 4.2 years. Again in percentage terms it would be around 0.3% per year. Both measures are valid description of the dynamics of change. For general public it might be even easier to understand that in the current past in HDI about 4.2 years were needed to achieve one step of 0.01 in the HDI.

Indicator 3. GDP per capita in PPS

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 4000 | 6000 | 8000 | 10000 | 12000 | 14000 | 16000 | 18000 | 20000 | 22000 | 24000 | 26000 | 28000 | 30000 | 32000 | 34000 | 36000 | 38000 | 40000 | ... | 66000 | 68000 |
|----------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|
| Luxembourg | | | | | | | | | | | | | | | | 1996 | 1998 | 1998 | 1999 | | 2011 | 2007 |
| Austria | | | | | | | | | 1995 | 1998 | 1999 | 2002 | 2005 | 2009 | 2011 | | | | | | | |
| Ireland | | | | | | | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2011 | 2008 | 2007 | | | | | |
| Netherlands | | | | | | | | | 1997 | 1998 | 1999 | 2001 | 2004 | 2005 | 2010 | | | | | | | |
| Sweden | | | | | | | | | 1997 | 1999 | 2000 | 2003 | 2005 | 2010 | 2012 | | | | | | | |
| Denmark | | | | | | | | | 1996 | 1998 | 1999 | 2003 | 2005 | 2009 | 2012 | | | | | | | |
| Germany | | | | | | | | | 1997 | 2000 | 2003 | 2005 | 2009 | 2011 | | | | | | | | |
| Belgium | | | | | | | | | 1997 | 1999 | 2000 | 2004 | 2009 | 2011 | | | | | | | | |
| Finland | | | | | | | 1995 | 1997 | 1999 | 2000 | 2003 | 2005 | 2010 | | | | | | | | | |
| EU 15 | | | | | | | | 1996 | 1998 | 2000 | 2004 | 2009 | | | | | | | | | | |
| France | | | | | | | | 1996 | 1999 | 2000 | 2004 | 2009 | | | | | | | | | | |
| United Kingdom | | | | | | | | 1996 | 1998 | 1999 | 2001 | 2003 | 2008 | | | | | | | | | |
| Italy | | | | | | | | 1995 | 1998 | 2000 | 2005 | 2008 | | | | | | | | | | |
| EU 28 | | | | | | | 1997 | 1999 | 2001 | 2005 | 2010 | | | | | | | | | | | |
| Spain | | | | | 1996 | 1998 | 2000 | 2002 | 2004 | 2006 | 2008 | | | | | | | | | | | |
| Cyprus | | | | | 1997 | 1999 | 2002 | 2004 | 2006 | 2009 | | | | | | | | | | | | |
| Malta | | | | | | 1998 | 2000 | 2005 | 2009 | | | | | | | | | | | | | |
| Slovenia | | | | | 1996 | 1999 | 2001 | 2004 | 2005 | 2008 | | | | | | | | | | | | |
| Czech Republic | | | | | 1996 | 2001 | 2003 | 2005 | 2011 | | | | | | | | | | | | | |
| Portugal | | | | | 1996 | 1999 | 2001 | 2005 | | | | | | | | | | | | | | |
| Slovakia | | | 1997 | 2001 | 2004 | 2005 | 2007 | 2010 | | | | | | | | | | | | | | |
| Greece | | | | | 1997 | 1999 | 2000 | 2002 | 2011 | 2009 | | | | | | | | | | | | |
| Lithuania | | 1997 | 2001 | 2003 | 2005 | 2009 | 2011 | 2012 | | | | | | | | | | | | | | |
| Estonia | | 1996 | 1999 | 2002 | 2004 | 2005 | 2010 | 2012 | | | | | | | | | | | | | | |
| Poland | | | 1998 | 2003 | 2006 | 2008 | 2011 | | | | | | | | | | | | | | | |
| Hungary | | | 1996 | 2000 | 2002 | 2005 | 2010 | | | | | | | | | | | | | | | |
| Latvia | | 1998 | 2002 | 2004 | 2006 | 2010 | 2012 | | | | | | | | | | | | | | | |
| Croatia | | | 1997 | 2001 | 2004 | 2006 | | | | | | | | | | | | | | | | |
| Romania | | 2002 | 2005 | 2007 | 2011 | | | | | | | | | | | | | | | | | |
| Bulgaria | 1997 | 2001 | 2005 | 2007 | 2012 | | | | | | | | | | | | | | | | | |

The step in level of GDP per capita (at purchasing power standard) was set at difference of 2,000 euro to shorten the matrix for presentation. In the current depression only three countries decreased GDP per capita for this amount or more: Greece as expected and Luxembourg from the extraordinarily high value, Ireland for two steps. The time matrix does not convey the message of the setback and damage done by existing world financial system in the current depression.

Smaller level step of 500 or 1,000 Euro could look into the situation in more detail but it could not in one simple table provide also the perception of the great disparities between countries. Values for Austria, Ireland, Netherlands, Sweden, and Denmark are in the range of 32,000, for Romania and Bulgaria in the range of 12,000, a ratio of about 2.7.

Indicator 4. Median income in PPS

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 3000 | 4000 | 5000 | 6000 | 7000 | 8000 | 9000 | 10000 | 11000 | 12000 | 13000 | 14000 | 15000 | 16000 | 17000 | 18000 | 19000 | 20000 | ... | 26000 | 27000 |
|----------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|
| Luxembourg | | | | | | | | | | | | | | | | | 1996 | 1997 | | 2004 | 2009 |
| Austria | | | | | | | | | | | 1996 | 1999 | 2000 | 2004 | 2005 | 2007 | 2010 | 2011 | | | |
| Sweden | | | | | | | | | | | | | 2006 | 2007 | 2008 | 2008 | 2011 | | | | |
| Finland | | | | | | | | | 1997 | 2000 | 2003 | 2005 | 2006 | 2008 | 2009 | 2012 | 2013 | | | | |
| Cyprus | | | | | | | | | | | | | 2005 | 2006 | 2006 | 2007 | 2011 | | | | |
| Netherlands | | | | | | | | | 1996 | 1997 | 1998 | 2001 | 2003 | 2005 | 2006 | 2007 | 2012 | | | | |
| Germany | | | | | | | | | | 1995 | 1997 | 1999 | 2000 | 2006 | 2007 | 2011 | | | | | |
| France | | | | | | | | | | 1997 | 1998 | 2004 | 2006 | 2007 | 2008 | 2011 | | | | | |
| Denmark | | | | | | | | | | | | | | 2006 | 2007 | 2010 | | | | | |
| Belgium | | | | | | | | | | | 1996 | 1998 | 2004 | 2006 | 2008 | 2011 | | | | | |
| United Kingdom | | | | | | | | | | 1996 | 1999 | 2000 | 2001 | 2003 | 2011 | 2008 | | | | | |
| Ireland | | | | | | | 1995 | 1997 | 1998 | 2000 | 2001 | 2004 | 2005 | 2006 | 2009 | 2008 | | | | | |
| Italy | | | | | | | 1995 | 1998 | 1999 | 2002 | 2004 | 2006 | 2008 | | | | | | | | |
| Malta | | | | | | | | | | 2006 | 2008 | 2011 | | | | | | | | | |
| Slovenia | | | | | | | | | | 2006 | 2007 | 2012 | | | | | | | | | |
| Spain | | | | | | 1997 | 1999 | 2000 | 2001 | 2006 | 2010 | | | | | | | | | | |
| Czech Republic | | | | | | 2006 | 2007 | 2011 | | | | | | | | | | | | | |
| Greece | | | | | 1996 | 1999 | 2001 | 2012 | 2011 | 2011 | | | | | | | | | | | |
| Slovakia | | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | | | | | | | | | | | | | | |
| Portugal | | | | | 1998 | 2000 | 2007 | | | | | | | | | | | | | | |
| Poland | | | 2006 | 2007 | 2008 | 2011 | | | | | | | | | | | | | | | |
| Estonia | | | 2005 | 2006 | 2007 | 2009 | | | | | | | | | | | | | | | |
| Hungary | | | | 2006 | 2011 | | | | | | | | | | | | | | | | |
| Croatia | | | | | 2010 | | | | | | | | | | | | | | | | |
| Lithuania | | 2005 | 2006 | 2011 | 2009 | | | | | | | | | | | | | | | | |
| Latvia | | 2005 | 2006 | 2012 | 2009 | | | | | | | | | | | | | | | | |
| Bulgaria | | 2007 | 2008 | | | | | | | | | | | | | | | | | | |
| Romania | 2008 | | | | | | | | | | | | | | | | | | | | |

Median income shows more declines in the depression. For United Kingdom, Ireland, Lithuania, Latvia the fall was at least of 1,000 euro, for Greece at least 2,000 euro. Also, Portugal did not move by this step beyond the approximate 2007 level, Italy, Bulgaria, Romania did not move for one step beyond the 2008 level, and Estonia not beyond 2009 level. For countries at higher values it is easier to increase by the absolute 1,000 euro step because of their higher starting value but same absolute increase would show lower percentage increase, ceteris paribus.

The perception of the great disparities between countries is confirmed also at the median income levels. Austria at approximate level 20,000, on the one hand, and Romania with 3,000, on the other, show a ratio of about 6.7 – a tremendous gap that can be analysed also between other countries.

Indicator 5. Employment rate (15 to 64 years)

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Netherlands | | | | | | | | | | | | | | 1994 | 1995 | 1996 | 1996 | 1997 | 1997 | 1998 | 1999 | 1999 | 2000 | 2006 | 2012 | 2009 | 2009 |
| Sweden | | | | | | | | | | | | | | | | | | | | 1998 | 1999 | 1999 | 2011 | 2008 | 1992 | | |
| Germany | | | | | | | | | | | | | | 1998 | 2004 | 2005 | 2006 | 2006 | 2007 | 2008 | 2010 | 2011 | | | | | |
| Denmark | | | | | | | | | | | | | | | | | | | | | | | 2011 | 2010 | 2009 | 2009 | 2008 |
| Austria | | | | | | | | | | | | | | | | | | 2004 | 2005 | 2006 | 2007 | 2011 | | | | | |
| United Kingdom | | | | | | | | | | | | | | | | | | 1994 | 1996 | 2012 | 2008 | | | | | | |
| Finland | | | | | | | | | | | 1995 | 1996 | 1997 | 1998 | 1998 | 1999 | 2000 | 2005 | 2011 | 2008 | 2008 | | | | | | |
| Estonia | | | | | | | | | | | 2010 | 2010 | 2010 | 2011 | 2011 | 2011 | 2012 | 2008 | 2008 | | | | | | | | |
| Czech Republic | | | | | | | | | | | | | | | | 2010 | 2011 | 1998 | | | | | | | | | |
| Luxembourg | | | | | | | | | | 1996 | 1997 | 1998 | 1999 | 2004 | 2008 | 2011 | | | | | | | | | | | |
| EU 15 | | | | | | | | | | 1995 | 1997 | 1999 | 2000 | 2001 | 2004 | 2009 | 2008 | | | | | | | | | | |
| Cyprus | | | | | | | | | | | | | | | 2012 | 2012 | 2011 | 2011 | 2009 | 2008 | 2007 | | | | | | |
| EU 28 | | | | | | | | | | | | | 2004 | 2010 | 2009 | | | | | | | | | | | | |
| Slovenia | | | | | | | | | | | | 1996 | 2003 | 2004 | 2011 | 2010 | 2009 | 2009 | | | | | | | | | |
| France | | | | | | | | | | | 1998 | 1999 | 2000 | 2002 | 2009 | | | | | | | | | | | | |
| Latvia | | | | | | | | 2000 | 2001 | 2010 | 2011 | 2012 | 2012 | 2009 | 2008 | 2008 | 2008 | 2008 | | | | | | | | | |
| Lithuania | | | | | | | | 2010 | 2011 | 2011 | 2011 | 2012 | 2008 | 2008 | | | | | | | | | | | | | |
| Belgium | | | | | | 1995 | 1997 | 1998 | 1999 | 2004 | 2006 | 2010 | | | | | | | | | | | | | | | |
| Portugal | | | | | | | | | | | | 2012 | 2012 | 2011 | 2010 | 2009 | 2009 | 2008 | 2001 | | | | | | | | |
| Poland | | 2004 | 2005 | 2006 | 2006 | 2007 | 2007 | 2007 | 2010 | | | | | | | | | | | | | | | | | | |
| Slovakia | | | | | | | 2004 | 2005 | 2010 | 2009 | 2009 | 2008 | | | | | | | | | | | | | | | |
| Romania | | | | | | | | 2005 | 2012 | 2002 | 2001 | 2001 | 2000 | 1998 | 1997 | | | | | | | | | | | | |
| Malta | | | | 2006 | 2009 | 2010 | 2011 | 2011 | 2012 | | | | | | | | | | | | | | | | | | |
| Bulgaria | 2002 | 2003 | 2003 | 2004 | 2005 | 2005 | 2005 | 2006 | 2011 | 2010 | 2010 | 2009 | 2009 | 2008 | | | | | | | | | | | | | |
| Ireland | | 1993 | 1994 | 1995 | 1996 | 1996 | 1997 | 1997 | 2011 | 2010 | 2009 | 2009 | 2009 | 2009 | 2008 | 2008 | 2008 | 2008 | 2007 | | | | | | | | |
| Hungary | | | 1997 | 1998 | 1999 | 2011 | 2012 | | | | | | | | | | | | | | | | | | | | |
| Italy | 1995 | 1998 | 1999 | 2000 | 2001 | 2003 | 2010 | 2009 | | | | | | | | | | | | | | | | | | | |
| Spain | 1998 | 1998 | 1999 | 1999 | 1999 | 2012 | 2011 | 2011 | 2010 | 2009 | 2009 | 2009 | 2008 | 2008 | 2007 | | | | | | | | | | | | |
| Greece | | 2012 | 2012 | 2011 | 2011 | 2011 | 2011 | 2010 | 2010 | 2010 | 2009 | | | | | | | | | | | | | | | | |
| Croatia | 2012 | 2011 | 2011 | 2010 | 2010 | 2009 | 2009 | | | | | | | | | | | | | | | | | | | | |

Employment rates show vast differences among EU countries, ranging in 2012 between 75 percent in Netherlands to 51 percent in Croatia. According to these figures from Eurostat obviously other forms of labour utilisation must be important and employment policies must deal with such vast differences.

Only eight countries did not experience a drop in the employment rate for the whole one point or more. Both for the EU28 and EU15 averages there was a fall in the employment rate indicating that these eight countries were not able to compensate the decrease in other 20 EU countries during the recent crisis. In Netherlands, Czech Republic, Slovenia, and Italy the fall was about one point in the rate, the highest hit were Ireland (10), Greece and Spain (9), Portugal (7), Cyprus and Croatia (6). It is the fall in the employment rate that shows the magnitude of the blow of the financial crisis in developed world to the EU (and USA); the fall in the GDP per capita undervalues the severity of the current depression.

Indicator 6. Activity rate (15 to 64 years)

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sweden | | | | | | | | | | | | | | | | | | | | 1999 | 2005 | 2010 | 2011 | | |
| Netherlands | | | | | | | | | | | 1993 | 1994 | 1996 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2005 | 2007 | 2012 | | | |
| Denmark | | | | | | | | | | | | | | | | | | | | | | 2011 | 2009 | 1993 | 1992 |
| Germany | | | | | | | | | | | | | | 1999 | 2003 | 2004 | 2005 | 2006 | 2008 | 2011 | | | | | |
| United Kingdom | | | | | | | | | | | | | | | | | | | 2012 | | | | | | |
| Austria | | | | | | | | | | | | | | 2001 | 2005 | 2005 | 2006 | 2008 | | | | | | | |
| Finland | | | | | | | | | | | | | | | 1994 | 1998 | 1999 | 2011 | 2008 | | | | | | |
| Estonia | | | | | | | | | | | | | 2004 | 2005 | 2006 | 2007 | 2010 | | | | | | | | |
| Latvia | | | | | | | | | | | 2001 | 2003 | 2005 | 2006 | 2006 | 2011 | 2012 | | | | | | | | |
| Spain | | 1995 | 1995 | 1996 | 1997 | 1998 | 1999 | 2001 | 2002 | 2003 | 2003 | 2004 | 2005 | 2006 | 2007 | 2009 | 2012 | | | | | | | | |
| Portugal | | | | | | | | | | | | 1995 | 1997 | 1999 | 2001 | 2004 | 2012 | | | | | | | | |
| Cyprus | | | | | | | | | | | | | 2001 | 2002 | 2003 | 2009 | | | | | | | | | |
| EU 15 | | | | | | | | | | | 1997 | 1999 | 2003 | 2005 | 2007 | 2012 | | | | | | | | | |
| Lithuania | | | | | | | | | | | 2007 | 2008 | 2010 | 2011 | 1999 | | | | | | | | | | |
| EU 28 | | | | | | | | | | | | 2003 | 2006 | 2011 | | | | | | | | | | | |
| Czech Republic | | | | | | | | | | | | | 2009 | 2011 | 1999 | | | | | | | | | | |
| France | | | | | | | | | | | 1996 | 2002 | 2008 | 2012 | | | | | | | | | | | |
| Slovenia | | | | | | | | | | 1997 | 2003 | 2004 | 2004 | 2010 | | | | | | | | | | | |
| Luxembourg | | | | 1996 | 1998 | 1999 | 2000 | 2003 | 2004 | 2008 | 2011 | 2012 | | | | | | | | | | | | | |
| Slovakia | | | | | | | | | | | | 2011 | 2003 | | | | | | | | | | | | |
| Ireland | | | | 1993 | 1995 | 1996 | 1997 | 1998 | 1998 | 1999 | 2000 | 2003 | 2010 | 2009 | 2008 | | | | | | | | | | |
| Greece | | 1993 | 1994 | 1996 | 1997 | 1998 | 2002 | 2003 | 2004 | 2007 | 2010 | | | | | | | | | | | | | | |
| Bulgaria | | | | 2003 | 2005 | 2005 | 2006 | 2006 | 2011 | 2012 | | | | | | | | | | | | | | | |
| Belgium | | | | 1993 | 1995 | 1997 | 1998 | 2003 | 2004 | 2011 | | | | | | | | | | | | | | | |
| Poland | | | | | | | 2008 | 2010 | 2011 | | | | | | | | | | | | | | | | |
| Hungary | 1997 | 1998 | 2002 | 2005 | 2010 | 2011 | 2012 | | | | | | | | | | | | | | | | | | |
| Romania | | | | | | 2009 | 2012 | 2002 | 2001 | 2001 | 2000 | 1998 | | | | | | | | | | | | | |
| Italy | 1996 | 1998 | 2000 | 2002 | 2003 | 2012 | | | | | | | | | | | | | | | | | | | |
| Malta | 2007 | 2009 | 2010 | 2011 | 2011 | 2012 | | | | | | | | | | | | | | | | | | | |
| Croatia | | | | 2011 | 2009 | 2008 | | | | | | | | | | | | | | | | | | | |

Activity rates differ less than employment rates but there are still large differences in level as well as in the dynamic of change in time. Netherlands, Spain, Ireland and Greece increased activity rate over many levels. For the last three of them most of the increase in the activity rate was taking place before the crisis, which was the general characteristic also for most of other countries.

During the current depression for seven countries activity rate decreased, for one level in Finland, Lithuania, Czech Republic, Slovakia, for two levels in Ireland and Croatia, and for three levels in Denmark.

Disparities remain high also for activity rates, in the range of approximate 80 percent for Sweden and 61 percent for Croatia, with a ratio of 1.31.

Indicator 7. Share of gross fixed investment in GDP

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Estonia | | | | | | | | | 1995 | 1996 | 1996 | 1996 | 2010 | 2010 | 2011 | 2011 | 2011 | 2011 | 2012 | 2008 | 2008 | 2008 | 2008 | 2008 | 2008 | 2007 |
| Romania | | | | | | | | | 1996 | 2000 | 2002 | 2003 | 2004 | 2005 | 2005 | 2005 | 2006 | 2013 | 2012 | 2009 | 2009 | 2008 | 2008 | 2008 | 2008 | 1995 |
| Czech Republic | | | | | | | | | | | | | 1993 | 1994 | 2012 | 2011 | 2009 | 2008 | 1996 | | | | | | | |
| Bulgaria | 1997 | 1998 | 1998 | 1999 | 1999 | 2000 | 2000 | 2001 | 2001 | 2002 | 2003 | 2004 | 2013 | 2010 | 2010 | 2010 | 2010 | 2009 | 2009 | 2009 | 2009 | 2008 | 2008 | | | |
| Croatia | | | | | 1995 | 1995 | 1996 | 1996 | 1996 | 2001 | 2002 | 2002 | 2011 | 2010 | 2010 | 2009 | 2009 | 2009 | 2008 | | | | | | | |
| Lithuania | | | | | | 1995 | 1996 | 1996 | 1997 | 2010 | 2012 | 2013 | 2009 | 2008 | 2008 | 2008 | 2008 | 2008 | 2007 | | | | | | | |
| Luxembourg | | | | | | | | | 1995 | 1997 | 2010 | 2011 | 2012 | 2008 | | | | | | | | | | | | |
| Austria | | | | | | | | | | | 2010 | 2008 | 2005 | 2001 | 1997 | 1977 | | | | | | | | | | |
| Poland | | | | | | | 1995 | 1996 | 2005 | 2006 | 2006 | 2012 | 2009 | | | | | | | | | | | | | |
| Latvia | | | 1995 | 1996 | 1996 | 1997 | 1997 | 1997 | 2010 | 2010 | 2011 | 2013 | 2012 | 2009 | 2009 | 2008 | 2008 | 2008 | 2008 | 2008 | 2008 | 2007 | 2007 | | | |
| Slovakia | | | | | | | | | | | | 2012 | 2012 | 2011 | 2011 | 2008 | 2007 | 2001 | 1999 | 1999 | 1999 | 1998 | 1998 | 1998 | | |
| Spain | | | | | | | | | 1984 | 1985 | 2012 | 2011 | 2010 | 2009 | 2009 | 2009 | 2009 | 2008 | 2008 | 2008 | 2007 | | | | | |
| Belgium | | | | | | | | | 2003 | 2011 | 2008 | | | | | | | | | | | | | | | |
| Finland | | | | | | | | 1995 | 1995 | 2013 | 2008 | 1991 | 1991 | 1991 | 1990 | 1990 | 1989 | 1976 | 1975 | | | | | | | |
| Sweden | | | | | | 1994 | 1995 | 2004 | 2010 | 2013 | 2008 | 1967 | | | | | | | | | | | | | | |
| Hungary | | | | | | | | | 2012 | 2010 | 2010 | 2009 | 2009 | | | | | | | | | | | | | |
| Denmark | | | 1981 | 1983 | 1984 | 1994 | 1995 | 1996 | 2011 | 2009 | 2008 | 2007 | | | | | | | | | | | | | | |
| France | | | | | | 1954 | 1956 | 1997 | 1999 | 2011 | 2008 | 1975 | 1973 | | | | | | | | | | | | | |
| Slovenia | | | | | | 1992 | 1993 | 1994 | 2013 | 2011 | 2010 | 2010 | 2010 | 2009 | 2009 | 2009 | 2009 | 2008 | 2008 | 2008 | | | | | | |
| Germany | | | | | | | | | 2008 | 2001 | 1992 | | | | | | | | | | | | | | | |
| Italy | | | | | | | | | 2012 | 2010 | 2008 | 2007 | | | | | | | | | | | | | | |
| Netherlands | | | | | | | | 2013 | 2009 | 2009 | 2008 | 2000 | 1972 | 1972 | 1971 | | | | | | | | | | | |
| Portugal | | | | | | | 2012 | 2012 | 2011 | 2011 | 2010 | 2009 | 2008 | 2005 | 2003 | 2002 | 2001 | | | | | | | | | |
| United Kingdom | | | | 1981 | 1984 | 2009 | 2008 | 2008 | | | | | | | | | | | | | | | | | | |
| Ireland | | | | 2011 | 2010 | 2010 | 2010 | 2009 | 2009 | 2009 | 2009 | 2009 | 2008 | 2008 | 2008 | 2008 | 2007 | | | | | | | | | |
| Greece | | | | 2013 | 2012 | 2011 | 2011 | 2011 | 2010 | 2010 | 2009 | 2009 | 2008 | 2008 | 2008 | 2007 | 2007 | | | | | | | | | |
| Cyprus | | | | 2013 | 2012 | 2012 | 2012 | 2011 | 2011 | 2010 | 2010 | 2009 | 2008 | | | | | | | | | | | | | |
| Malta | | | 2012 | 2011 | 2011 | 2011 | 2010 | 2010 | 2008 | 2007 | 2007 | 2005 | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EU 28 | | | | | | | | | 2012 | 2009 | 2008 | 2007 | | | | | | | | | | | | | | |
| EU 15 | | | | | | | | | 2011 | 2009 | 2008 | | | | | | | | | | | | | | | |
| United States | | 1976 | 1993 | 1994 | 1994 | 1995 | 1995 | 1996 | 1998 | 2011 | 2008 | 2008 | 2007 | | | | | | | | | | | | | |
| Japan | | | | | | | | | | | 2013 | 2008 | 2007 | 2003 | 2001 | 2000 | 1998 | 1997 | 1993 | 1992 | 1991 | | | | | |

Share of gross fixed investment in GDP indicates the relative effort to increase the fixed capital as one of the factors of production and together with the productivity of capital determines the medium/long-term rate of growth of GDP. The S-time-matrix for this share provides really at a glance the disastrous effects of the world financial system in the current depression on the GDP growth rates. In all 28 EU countries without exception the investment share decreased, for EU15 average and the USA for 3 steps. Ireland and Greece had the largest drops for even 13 steps (from share of 26 percent in 2007 to 13 percent in 2013), followed by Latvia and Slovenia with 11 steps, Bulgaria 10, Spain and Cyprus 9, Malta 8, Estonia, Lithuania, and Romania 7, Croatia 6, Slovakia 5, Hungary 4, etc. Stories in this time matrix demonstrate in excellent way very clearly the disaster in the current depression.

Indicator 8. R&D expenditure (GERD), percent of GDP

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 0.3 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 1.5 | 1.7 | 1.9 | 2.1 | 2.3 | 2.5 | 2.7 | 2.9 | 3.1 | 3.3 | 3.5 | 3.7 | 3.9 | 4.1 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Finland | | | | | | 1983 | 1985 | 1987 | 1990 | 1992 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2007 | 2011 | 2010 | |
| Sweden | | | | | | | | | | | 1982 | 1984 | 1991 | 1992 | 1993 | 1995 | 2010 | 2008 | 2002 | 2001 |
| Denmark | | | | | 1982 | 1986 | 1989 | 1993 | 1997 | 1998 | 2000 | 2006 | 2007 | 2008 | 2009 | | | | | |
| Germany | | | | | | | | | | | 1998 | 2004 | 2008 | 2011 | | | | | | |
| Austria | | | | | 1981 | 1988 | 1994 | 1997 | 1999 | 2002 | 2004 | 2007 | 2009 | | | | | | | |
| Slovenia | | | | | | 2003 | 2007 | 2008 | 2009 | 2010 | 2011 | 2011 | 2012 | | | | | | | |
| France | | | | | | | | | 1981 | 2008 | 1994 | | | | | | | | | |
| Belgium | | | | | | | | 1995 | 2007 | 2010 | | | | | | | | | | |
| Estonia | | | 2001 | 2005 | 2007 | 2008 | 2009 | 2010 | 2010 | 2011 | 2011 | | | | | | | | | |
| Netherlands | | | | | | | | | 2010 | 2012 | | | | | | | | | | |
| EU 15 | | | | | | | | | 2005 | 2010 | | | | | | | | | | |
| EU 28 | | | | | | | | | 2008 | | | | | | | | | | | |
| Czech Republic | | | | | 1999 | 2008 | 2010 | 2011 | | | | | | | | | | | | |
| Ireland | | | | | 2002 | 2007 | 2008 | 2012 | | | | | | | | | | | | |
| United Kingdom | | | | | | | | 2005 | 1995 | 1989 | 1982 | | | | | | | | | |
| Luxembourg | | | | | | | | 2009 | | | | | | | | | | | | |
| Portugal | | | 1999 | 2006 | 2007 | 2007 | 2012 | | | | | | | | | | | | | |
| Hungary | | | 1999 | 2004 | 2009 | 2012 | | | | | | | | | | | | | | |
| Spain | | 1984 | 1988 | 2000 | 2005 | 2012 | | | | | | | | | | | | | | |
| Italy | | | | | 2005 | | | | | | | | | | | | | | | |
| Lithuania | | 1999 | 2003 | 2012 | | | | | | | | | | | | | | | | |
| Poland | | | 2009 | 2012 | | | | | | | | | | | | | | | | |
| Malta | 2003 | 2004 | 2011 | | | | | | | | | | | | | | | | | |
| Slovakia | | 2009 | 2011 | 1998 | 1994 | 1993 | | | | | | | | | | | | | | |
| Croatia | | | | 2008 | | | | | | | | | | | | | | | | |
| Greece | | 1996 | | | | | | | | | | | | | | | | | | |
| Latvia | | 2009 | 2011 | | | | | | | | | | | | | | | | | |
| Bulgaria | | 2009 | 1995 | 1994 | 1993 | 1993 | 1992 | 1991 | 1991 | 1990 | 1990 | | | | | | | | | |
| Cyprus | 2002 | 2011 | | | | | | | | | | | | | | | | | | |
| Romania | | 2011 | 1996 | | | | | | | | | | | | | | | | | |

The share of GDP devoted to R&D expenditures differs greatly among EU countries. The values in Finland and Sweden were 5 times higher than in seven countries (Malta, Slovakia, Greece, Latvia, Bulgaria, Cyprus, and Romania). The average for the EU is below 2 percent, with 10 countries above the average and 18 countries below that. Of the countries that joined in 2004 or later only Slovenia with 2.7 percent and Estonia with about 2.3 percent belong to the above the average group.

There are several factors behind the differences, among them the structure of the economy and development targets. In general the trend towards higher shares has been observed in the analysed period, with exception of United Kingdom, Slovakia, and Bulgaria that were enjoying higher values in the previous century. The fact that the EU average is below 2 percent means that EU is considerably below USA and Japan, much below the desired 3 percent aimed at already in the Lisbon Strategy.

Indicator 9. Summary Innovation Index

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 0.20 | 0.24 | 0.28 | 0.32 | 0.36 | 0.40 | 0.44 | 0.48 | 0.52 | 0.56 | 0.60 | 0.64 | 0.68 | 0.72 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sweden | | | | | | | | | | | | | | 2008 |
| Germany | | | | | | | | | | | | | 2008 | 2012 |
| Denmark | | | | | | | | | | | | | 2010 | |
| Finland | | | | | | | | | | | | | 2011 | |
| Netherlands | | | | | | | | | | | 2011 | 2012 | | |
| Luxembourg | | | | | | | | | | | 2011 | | | |
| Belgium | | | | | | | | | | | 2009 | | | |
| United Kingdom | | | | | | | | | | | 2009 | | | |
| Austria | | | | | | | | | | | 2012 | | | |
| Ireland | | | | | | | | | | 2010 | | | | |
| France | | | | | | | | | 2008 | 2011 | | | | |
| EU 27 | | | | | | | | | 2009 | | | | | |
| Slovenia | | | | | | | | 2009 | | | | | | |
| Cyprus | | | | | | | | 2010 | | | | | | |
| Estonia | | | | | | | 2009 | 2011 | | | | | | |
| Italy | | | | | | 2008 | 2012 | | | | | | | |
| Spain | | | | | | 2012 | | | | | | | | |
| Portugal | | | | | | 2009 | | | | | | | | |
| Czech Republic | | | | | | 2010 | | | | | | | | |
| Greece | | | | | 2010 | | | | | | | | | |
| Slovakia | | | | 2012 | | | | | | | | | | |
| Hungary | | | | 2010 | | | | | | | | | | |
| Malta | | | | 2010 | | | | | | | | | | |
| Lithuania | | | 2012 | | | | | | | | | | | |
| Poland | | | 2011 | | | | | | | | | | | |
| Latvia | 2009 | | | | | | | | | | | | | |
| Romania | | 2011 | | | | | | | | | | | | |
| Bulgaria | 2012 | | | | | | | | | | | | | |

This time matrix is an excellent example of how time matrices can really at a glance provide the perception of vast differences in Summary Innovation Index as a composite indicator from Innovation Union Scoreboard. It is true that the time series of the composite indicator are very short, 2008-2012. Yet there are only five countries, Germany, Netherlands, France, Estonia and Italy that were able increase the one step in the summary innovation index in that period – the step was to increase it by 0.04.

Such step in the matrix was chosen so that such a large range of values from 0.2 for Latvia and Bulgaria to 0.72 in Sweden and Germany could be presented in one matrix. Of course, one could make the steps smaller to see the situation in countries in more detail (and use the Time Matrix Calculator in the Annex). Yet this compressed S-time-matrix delivers immediately visually with time and with levels the message of the vast differences and ordering of individual countries.

Indicator 10. Tertiary attainment for age group 15-64

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Ireland | | | | | | | | | 2000 | 2001 | 2002 | 2003 | 2003 | 2004 | 2005 | 2006 | 2006 | 2007 | 2008 | 2009 | 2009 | 2011 | 2012 | 2012 | 2013 |
| United Kingdom | | | | | | | | | | | | | | | 2004 | 2005 | 2006 | 2008 | 2009 | 2010 | 2010 | 2011 | 2012 | 2012 | |
| Cyprus | | | | | | | | | | | | 2001 | 2001 | 2002 | 2005 | 2006 | 2006 | 2007 | 2007 | 2009 | 2010 | 2011 | 2011 | 2012 | |
| Luxembourg | | 2003 | 2003 | 2003 | 2003 | 2004 | 2004 | 2004 | 2004 | 2006 | 2007 | 2007 | 2008 | 2008 | 2008 | 2009 | 2009 | 2009 | 2009 | 2011 | 2011 | 2012 | 2012 | 2013 | |
| Finland | | | | | | | | | | | | | | | | 2002 | 2004 | 2006 | 2007 | 2009 | 2010 | 2012 | | | |
| Estonia | | | | | | | | | | | | | | 2002 | 2004 | 2005 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | | | |
| Belgium | | | | | | | | | | | | | 2000 | 2002 | 2003 | 2005 | 2007 | 2009 | 2009 | 2012 | | | | | |
| Sweden | | | | | | | | | | | | 2002 | 2003 | 2004 | 2006 | 2008 | 2010 | 2011 | 2012 | 2013 | | | | | |
| Spain | | | | | | | | | | | 2001 | 2003 | 2004 | 2005 | 2006 | 2009 | 2010 | 2011 | 2012 | | | | | | |
| Lithuania | | | | | | | | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | | | | | | |
| Netherlands | | | | | | | | | | 2001 | 2002 | 2003 | 2003 | 2004 | 2005 | 2007 | 2011 | 2013 | | | | | | | |
| Denmark | | | | | | | | | | | 2000 | 2000 | 2001 | 2002 | 2007 | 2009 | 2011 | 2013 | | | | | | | |
| France | | | | | | | | | 2000 | 2001 | 2003 | 2004 | 2006 | 2008 | 2009 | 2011 | 2012 | | | | | | | | |
| Latvia | | | | | 2004 | 2005 | 2006 | 2007 | 2008 | 2008 | 2009 | 2010 | 2011 | 2012 | 2012 | 2013 | | | | | | | | | |
| EU 15 | | | | | | | | 2001 | 2003 | 2004 | 2007 | 2008 | 2010 | 2011 | 2012 | | | | | | | | | | |
| EU 28 | | | | | | | 2003 | 2004 | 2006 | 2008 | 2009 | 2010 | 2011 | 2013 | | | | | | | | | | | |
| Germany | | | | | | | | 2002 | 2003 | 2008 | 2009 | 2010 | 2011 | 2013 | | | | | | | | | | | |
| Slovenia | 2002 | 2002 | 2003 | 2003 | 2004 | 2005 | 2006 | 2008 | 2010 | 2011 | 2011 | 2012 | 2013 | | | | | | | | | | | | |
| Greece | | | | 2002 | 2003 | 2004 | 2005 | 2007 | 2009 | 2010 | 2011 | 2012 | 2013 | | | | | | | | | | | | |
| Poland | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2012 | | | | | | | | | | | | | | |
| Bulgaria | | | | | 2000 | 2001 | 2006 | 2008 | 2011 | 2012 | 2013 | | | | | | | | | | | | | | |
| Hungary | 2002 | 2003 | 2004 | 2006 | 2008 | 2009 | 2011 | 2012 | | | | | | | | | | | | | | | | | |
| Czech Republic | 2008 | 2009 | 2010 | 2010 | 2011 | 2012 | 2013 | | | | | | | | | | | | | | | | | | |
| Austria | | | | 2008 | 2009 | 2012 | | | | | | | | | | | | | | | | | | | |
| Portugal | 2007 | 2009 | 2010 | 2011 | 2011 | 2012 | | | | | | | | | | | | | | | | | | | |
| Slovakia | 2007 | 2009 | 2009 | 2010 | 2011 | 2012 | | | | | | | | | | | | | | | | | | | |
| Malta | 2008 | 2010 | 2011 | 2012 | 2013 | | | | | | | | | | | | | | | | | | | | |
| Croatia | | | 2008 | 2009 | 2012 | | | | | | | | | | | | | | | | | | | | |
| Italy | 2007 | 2010 | 2012 | | | | | | | | | | | | | | | | | | | | | | |
| Romania | 2010 | 2011 | | | | | | | | | | | | | | | | | | | | | | | |

Tertiary attainment for the age group 15-64 years is constantly increasing with entries of the younger population with higher attainment rates. Dynamics is high but disparities remain large. Nine countries surpassed level of 30 percent of tertiary attainment but even the best EU countries are below the values attained e.g. in Canada, Israel, Japan, and in the USA.

According to Eurostat data there were 9 countries with levels below 20 percent of tertiary attainment with some surprising cases (Hungary, Czech Republic, Austria, Portugal, Slovakia, Malta, Croatia, Italy, and Romania).

There is not much difference between the average values for EU15 and EU28, with about 26 percent and 25 percent in 2011, respectively.

Indicator 11. Proportion of population aged 65 years and more (percent)

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Italy | | | | | 1966 | 1971 | 1975 | 1985 | 1988 | 1991 | 1994 | 1996 | 2000 | 2003 | 2007 | 2013 |
| Germany | | | | | | | 1963 | 1967 | 1972 | 1993 | 1999 | 2002 | 2004 | 2006 | 2008 | |
| Greece | | | 1963 | 1969 | 1970 | 1971 | 1975 | 1979 | 1992 | 1995 | 1998 | 2001 | 2004 | 2010 | 2013 | |
| Portugal | | | 1962 | 1969 | 1975 | 1979 | 1986 | 1990 | 1992 | 1996 | 2000 | 2004 | 2009 | 2012 | | |
| Bulgaria | | | 1964 | 1968 | 1972 | 1976 | 1988 | 1990 | 1993 | 1995 | 1999 | 2003 | 2009 | 2013 | | |
| Sweden | | | | | | | 1962 | 1967 | 1972 | 1975 | 1979 | 1985 | 2010 | 2013 | | |
| Finland | | | 1966 | 1970 | 1974 | 1977 | 1981 | 1989 | 1995 | 2001 | 2006 | 2010 | 2012 | | | |
| Latvia | | | | | | | 1991 | 1994 | 1997 | 2001 | 2004 | 2006 | 2010 | | | |
| EU 28 | | | | | | | | | | | 2002 | 2007 | 2012 | | | |
| Lithuania | | | | | 1970 | 1991 | 1994 | 1998 | 2001 | 2003 | 2005 | 2008 | 2012 | | | |
| Austria | | | | | | | | 1965 | 1970 | 1994 | 2005 | 2008 | 2013 | | | |
| Croatia | | | | | | | | | | | | 2004 | 2013 | | | |
| Estonia | | | | | | | 1992 | 1994 | 1997 | 2000 | 2004 | 2006 | 2013 | | | |
| Denmark | | | | | | 1963 | 1969 | 1974 | 1978 | 2005 | 2009 | 2011 | | | | |
| France | | | | | | | 1965 | 1986 | 1991 | 1995 | 2000 | 2011 | | | | |
| Spain | | | | 1967 | 1974 | 1981 | 1985 | 1989 | 1992 | 1995 | 1998 | 2011 | | | | |
| Belgium | | | | | | | 1961 | 1968 | 1986 | 1991 | 1996 | 2003 | | | | |
| Hungary | | | | 1961 | 1964 | 1968 | 1973 | 1989 | 1995 | 2000 | 2007 | 2012 | | | | |
| Malta | | | 1982 | 1985 | 1988 | 1995 | 1999 | 2004 | 2008 | 2010 | 2011 | 2013 | | | | |
| United Kingdom | | | | | | | 1963 | 1971 | 1976 | 1985 | 2009 | 2013 | | | | |
| Slovenia | | | | | | 1992 | 1995 | 1997 | 2001 | 2004 | 2007 | 2013 | | | | |
| Czech Republic | | | | | 1963 | 1967 | 1987 | 1994 | 2004 | 2009 | 2012 | | | | | |
| Netherlands | | | | 1961 | 1969 | 1977 | 1985 | 1993 | 2005 | 2009 | 2012 | | | | | |
| Romania | | | | 1973 | 1989 | 1992 | 1996 | 1999 | 2002 | 2005 | 2010 | | | | | |
| Poland | 1961 | 1966 | 1969 | 1973 | 1990 | 1995 | 2000 | 2004 | 2013 | | | | | | | |
| Luxembourg | | | | | | 1962 | 1968 | 1975 | 2013 | | | | | | | |
| Cyprus | | 1963 | 1967 | 1971 | 1976 | 1996 | 2005 | 2013 | | | | | | | | |
| Slovakia | | 1961 | 1966 | 1970 | 1989 | 1997 | 2007 | 2013 | | | | | | | | |
| Ireland | | | | | | 2009 | 2012 | | | | | | | | | |

On the demographic side it is interesting to look at the aging of the population in the last five decades. Italy, Germany, and Greece already surpassed the 20 percent share of the population aged 65 years or more. The next group is formed by Portugal, Bulgaria, and Sweden; next seven countries reached the share of 17 percent, eight countries 16 percent, and three countries 15 percent share. The lowest value was reached in five countries with below 15 percent, with Ireland at 12 percent. The world average at less than 10 percent is much lower than that for the EU.

The trend towards higher share in the total population is very clear. Time distance estimates indicate that the differences within EU are large and changing very slowly. For instance, time distance between Ireland and Italy at level 12 percent was 37 years (2012-1975).

Indicator 12. Old age dependency ratio, projections 2013-2080

S-time-matrix: time when specified level of the indicator was achieved

| LEVEL | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | 62 | 64 | 66 | 68 |
|----------------|-----------|------|------|-----------|------|------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Slovakia | 2015 | 2017 | 2020 | 2022 | 2024 | 2027 | 2029 | 2032 | 2035 | 2037 | 2040 | 2041 | 2043 | 2044 | 2046 | 2047 | 2048 | 2050 | 2052 | 2053 | 2055 | 2057 | 2058 | 2070 | 2077 |
| Portugal | | | | | | 2014 | 2017 | 2020 | 2022 | 2024 | 2026 | 2029 | 2031 | 2032 | 2034 | 2036 | 2038 | 2039 | 2041 | 2043 | 2045 | 2048 | 2061 | 2070 | 2079 |
| Spain | | | | | 2016 | 2019 | 2022 | 2024 | 2026 | 2028 | 2030 | 2032 | 2033 | 2035 | 2078 | 2065 | 2062 | 2060 | 2057 | 2055 | 2053 | 2051 | | | |
| Greece | | | | | | | 2015 | 2019 | 2023 | 2025 | 2028 | 2031 | 2032 | 2034 | 2036 | 2037 | 2039 | 2041 | 2043 | 2066 | 2062 | 2056 | | | |
| Poland | | 2015 | 2017 | 2019 | 2021 | 2024 | 2026 | 2028 | 2031 | 2036 | 2040 | 2042 | 2043 | 2045 | 2047 | 2048 | 2050 | 2052 | 2055 | 2057 | 2065 | | | | |
| Germany | | | | | | | 2014 | 2017 | 2020 | 2022 | 2024 | 2026 | 2027 | 2029 | 2031 | 2034 | 2036 | 2038 | 2043 | 2054 | | | | | |
| Bulgaria | | | | | | 2015 | 2018 | 2021 | 2025 | 2028 | 2032 | 2035 | 2038 | 2041 | 2043 | 2045 | 2048 | 2068 | 2065 | 2061 | | | | | |
| Italy | | | | | | | | 2017 | 2022 | 2025 | 2029 | 2031 | 2034 | 2036 | 2038 | 2040 | 2047 | 2071 | 2078 | | | | | | |
| Estonia | | | | | 2014 | 2017 | 2019 | 2022 | 2025 | 2028 | 2031 | 2034 | 2038 | 2041 | 2045 | 2077 | 2064 | 2061 | | | | | | | |
| Croatia | | | | | 2014 | 2017 | 2020 | 2023 | 2026 | 2029 | 2032 | 2036 | 2041 | 2044 | 2048 | 2053 | 2059 | 2075 | | | | | | | |
| Austria | | | | | 2016 | 2021 | 2023 | 2026 | 2028 | 2031 | 2034 | 2037 | 2040 | 2047 | 2054 | 2059 | 2068 | 2079 | | | | | | | |
| Hungary | | | | 2014 | 2017 | 2019 | 2024 | 2029 | 2033 | 2037 | 2040 | 2043 | 2046 | 2048 | 2051 | 2055 | 2059 | | | | | | | | |
| Slovenia | | | | 2014 | 2016 | 2018 | 2020 | 2023 | 2025 | 2027 | 2029 | 2032 | 2035 | 2038 | 2041 | 2066 | 2062 | | | | | | | | |
| Netherlands | | | | 2014 | 2016 | 2019 | 2021 | 2023 | 2026 | 2028 | 2030 | 2033 | 2036 | 2038 | 2061 | 2068 | 2078 | | | | | | | | |
| Czech Republic | | | | 2014 | 2017 | 2019 | 2022 | 2027 | 2032 | 2036 | 2040 | 2042 | 2045 | 2072 | 2065 | 2061 | | | | | | | | | |
| Romania | | | 2013 | 2016 | 2019 | 2024 | 2028 | 2032 | 2034 | 2036 | 2038 | 2041 | 2044 | 2047 | 2049 | 2070 | | | | | | | | | |
| EU 28 | | | | | 2014 | 2017 | 2020 | 2023 | 2026 | 2029 | 2031 | 2034 | 2037 | 2040 | 2046 | 2074 | | | | | | | | | |
| Malta | | | | 2014 | 2016 | 2018 | 2019 | 2022 | 2024 | 2027 | 2029 | 2043 | 2048 | 2052 | 2055 | 2074 | | | | | | | | | |
| Finland | | | | | | 2014 | 2016 | 2018 | 2020 | 2024 | 2028 | 2050 | 2057 | 2065 | 2073 | | | | | | | | | | |
| Cyprus | 2015 | 2017 | 2020 | 2023 | 2025 | 2028 | 2031 | 2035 | 2039 | 2043 | 2046 | 2049 | 2067 | 2062 | | | | | | | | | | | |
| Denmark | | | | | 2014 | 2017 | 2021 | 2025 | 2029 | 2034 | 2053 | 2061 | 2067 | 2075 | | | | | | | | | | | |
| France | | | | | 2014 | 2016 | 2019 | 2022 | 2025 | 2028 | 2032 | 2036 | 2068 | 2078 | | | | | | | | | | | |
| Ireland | 2015 | 2018 | 2021 | 2024 | 2027 | 2030 | 2032 | 2074 | 2078 | 2058 | 2055 | 2053 | 2051 | | | | | | | | | | | | |
| Belgium | | | | | 2016 | 2021 | 2025 | 2029 | 2036 | 2050 | 2061 | 2070 | 2077 | | | | | | | | | | | | |
| United Kingdom | | | | | 2017 | 2021 | 2025 | 2028 | 2033 | 2037 | 2046 | 2057 | 2077 | | | | | | | | | | | | |
| Sweden | | | | | | 2013 | 2018 | 2024 | 2033 | 2051 | 2056 | 2070 | 2078 | | | | | | | | | | | | |
| Luxembourg | | 2021 | 2026 | 2031 | 2037 | 2043 | 2051 | 2056 | 2061 | 2065 | 2069 | 2075 | 2080 | | | | | | | | | | | | |
| Legend | 2013-2030 | | | 2031-2050 | | | | 2051-2080 | | | | | | | | | | | | | | | | | |

Eurostat prepared projections for the old age dependency ratio for the period 2013-2080. This time matrix is an example how projections over the period of 67 years and 28 countries (with some interpolations encompassing potential 1876 entries) can be presented in a compressed single one page table. The colours distinguish the three sub-periods: 2013-2030, 2031-2050, and 2051-2080.

Looking by sub-periods it is seen that by 2030 Germany will be the country with the highest old age dependency ratio reaching ratio of 46 by about 2029. Yet, by 2080 Germany will not be the country with the highest ratio, in that decade Slovakia and Portugal would have the highest ratio of about 68.

By 2030 behind Germany Portugal will follow, other countries with the highest values will be the group of Finland, Greece, Malta, Slovenia, Italy, and Netherlands. Slovakia, which is projected by 2030 to be in a group with much smaller value of the ratio, is expected to increase the ratio especially after 2050. The average for EU28 is expected to grow fast by 2030, but not much beyond 2050.

12a. S-time-distance for old age dependency ratio, projections 2013-2080

S-time-distance: time lead (-) or time lag (+) from benchmark Germany

| LEVEL | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | 62 | 64 | 66 | 68 |
|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|
| Slovakia | | | | | | | 15 | 15 | 14 | 15 | 16 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 9 | 0 | | | | | |
| Portugal | | | | | | | 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | -1 | -10 | | | | | |
| Spain | | | | | | | 8 | 7 | 6 | 6 | 7 | 6 | 6 | 5 | 47 | 32 | 26 | 21 | 15 | 1 | | | | | |
| Greece | | | | | | | 1 | 2 | 2 | 3 | 4 | 5 | 5 | 5 | 4 | 4 | 3 | 3 | 0 | 13 | | | | | |
| Poland | | | | | | | 12 | 11 | 11 | 14 | 16 | 16 | 16 | 16 | 15 | 15 | 14 | 14 | 12 | 3 | | | | | |
| Germany | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| Bulgaria | | | | | | | 4 | 4 | 4 | 6 | 8 | 9 | 11 | 12 | 12 | 12 | 12 | 30 | 22 | 8 | | | | | |
| Italy | | | | | | | | 0 | 2 | 3 | 5 | 6 | 6 | 7 | 7 | 7 | 11 | 33 | 35 | | | | | | |
| Estonia | | | | | | | 5 | 5 | 5 | 6 | 7 | 9 | 10 | 12 | 13 | 43 | 28 | 23 | | | | | | | |
| Croatia | | | | | | | 6 | 6 | 6 | 7 | 8 | 11 | 13 | 15 | 17 | 19 | 24 | 37 | | | | | | | |
| Austria | | | | | | | 9 | 9 | 8 | 9 | 10 | 11 | 12 | 18 | 22 | 25 | 32 | 41 | | | | | | | |
| Hungary | | | | | | | 10 | 12 | 13 | 15 | 16 | 17 | 18 | 19 | 20 | 22 | 23 | | | | | | | | |
| Slovenia | | | | | | | 6 | 5 | 5 | 5 | 6 | 6 | 8 | 9 | 10 | 32 | 26 | | | | | | | | |
| Netherlands | | | | | | | 7 | 6 | 5 | 6 | 6 | 7 | 8 | 9 | 30 | 35 | 43 | | | | | | | | |
| Czech Republic | | | | | | | 8 | 10 | 11 | 14 | 16 | 17 | 17 | 43 | 34 | 27 | | | | | | | | | |
| Romania | | | | | | | 14 | 14 | 14 | 14 | 15 | 15 | 16 | 17 | 18 | 36 | | | | | | | | | |
| EU 28 | | | | | | | 6 | 6 | 6 | 7 | 8 | 9 | 10 | 11 | 15 | 40 | | | | | | | | | |
| Malta | | | | | | | 5 | 4 | 4 | 5 | 6 | 18 | 21 | 23 | 24 | 40 | | | | | | | | | |
| Finland | | | | | | | 2 | 1 | 0 | 2 | 4 | 25 | 30 | 36 | 42 | | | | | | | | | | |
| Cyprus | | | | | | | 16 | 18 | 19 | 21 | 22 | 24 | 40 | 32 | | | | | | | | | | | |
| Denmark | | | | | | | 7 | 8 | 9 | 12 | 29 | 36 | 40 | 45 | | | | | | | | | | | |
| France | | | | | | | 5 | 5 | 5 | 6 | 8 | 10 | 41 | 49 | | | | | | | | | | | |
| Ireland | | | | | | | 18 | 56 | 58 | 36 | 32 | 28 | 23 | | | | | | | | | | | | |
| Belgium | | | | | | | 11 | 12 | 15 | 28 | 37 | 45 | 49 | | | | | | | | | | | | |
| United Kingdom | | | | | | | 11 | 11 | 13 | 15 | 22 | 31 | 49 | | | | | | | | | | | | |
| Sweden | | | | | | | 4 | 7 | 13 | 29 | 33 | 45 | 51 | | | | | | | | | | | | |
| Luxembourg | | | | | | | 37 | 39 | 41 | 43 | 46 | 49 | 52 | | | | | | | | | | | | |

In the matrix 12a the possible magnitude of time distance lead and lag against the benchmark Germany are calculated. There are several interpolations, both in the values for each decade as presented in projections itself, as well as interpolations by the years in the time matrix calculation. Therefore, one should not form very precise statements from the values in the table.

Portugal and Greece have very small time distance delays behind Germany in the earlier years, there are very many countries that are following Germany to about value of the ratio at 40 with reasonably small time lag.

There are several countries at the bottom of the table which seem to be reaching and surpassing this level in the period after 2050, notably Denmark, Ireland, Belgium, Sweden, and Luxemburg, very close to this countries are United Kingdom and France. This group of countries are those which will by 2080 display the lowest values for old age dependency ratio in the EU.

Indicator 13. Population growth rates (percent)

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | -4.4 | -4 | -3.6 | -3.2 | -2.8 | -2.4 | -2 | -1.6 | -1.2 | -0.8 | -0.4 | 0 | 0.4 | 0.8 | 1.2 | 1.6 | 2 | 2.4 | 2.8 | 3.2 | 3.6 | 4 | 4.4 | 4.8 |
|----------------|------|------|------|------|------|------|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|------|-------------|------|------|------|------|------|------|
| Luxembourg | | | | | | | | | | | | 1983 | 1986 | 1989 | 2003 | 2008 | 2011 | 2013 | | | | | | |
| Malta | | | | | | | | | | 1984 | 1984 | 1984 | 2011 | 2013 | 2002 | 2002 | 2001 | 2001 | 2001 | 1983 | 1983 | | | |
| Sweden | | | | | | | | | | | | | 2005 | 2011 | | | | | | | | | | |
| United Kingdom | | | | | | | | | | | | 1983 | 2002 | 2011 | | | | | | | | | | |
| Belgium | | | | | | | | | | | | 1985 | 2004 | 2012 | 2011 | | | | | | | | | |
| Austria | | | | | | | | | | | | 1985 | 2013 | 1994 | | | | | | | | | | |
| Italy | | | | | | | | | | | | 1996 | 2013 | 1966 | | | | | | | | | | |
| Finland | | | | | | | | | | | 1970 | 1971 | 2007 | | | | | | | | | | | |
| Cyprus | | | | | | | | | | 1976 | 1977 | 1977 | 1977 | 1983 | 2013 | 2013 | 2012 | 2012 | 2012 | | | | | |
| France | | | | | | | | | | | | | 1999 | 1974 | 1964 | 1964 | 1963 | 1963 | | | | | | |
| Denmark | | | | | | | | | | | | 1985 | 2012 | 1971 | | | | | | | | | | |
| Netherlands | | | | | | | | | | | | | 2012 | 1981 | 1971 | | | | | | | | | |
| Germany | | | | | | | | | | | | 1977 | 2011 | 1994 | 1993 | | | | | | | | | |
| EU 28 | | | | | | | | | | | | | 2008 | | | | | | | | | | | |
| Ireland | | | | | | | | | | | 1989 | 1990 | 2011 | 2010 | 2009 | 2009 | 2009 | 2008 | 2008 | | | | | |
| Slovenia | | | | | | | | | | | | 2008 | 2011 | 2010 | 1988 | 1987 | 1987 | | | | | | | |
| Slovakia | | | | | | | | | | | | 2005 | 1994 | 1981 | 1962 | 1962 | 1962 | 1962 | 1962 | 1961 | 1961 | 1961 | 1961 | 1961 |
| Czech Republic | | | | | | | | | | 1971 | 2001 | 2004 | 2010 | 2009 | | | | | | | | | | |
| Poland | | | | | | | | | | 2000 | 2001 | 2013 | 2012 | 2011 | 1965 | | | | | | | | | |
| Spain | | | | | | | | | | | | 2013 | 2011 | 2010 | 2009 | 2009 | | | | | | | | |
| Hungary | | | | | | | 1990 | 1990 | 1990 | 1991 | 2012 | 1992 | 1978 | | | | | | | | | | | |
| Croatia | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2002 | 2002 | 2002 | 2002 | 2002 | 2007 | 1995 | 1995 | 1994 | 1994 | | | | | | | | |
| Romania | | | | | | 2002 | 2008 | 2009 | 2009 | 2010 | 2013 | 1991 | 1990 | 1979 | 1977 | | | | | | | | | |
| Estonia | | | | 1993 | 1994 | 1995 | 1996 | 1997 | 1999 | 2008 | 2001 | 2001 | 2000 | 2000 | | | | | | | | | | |
| Portugal | | | | | | | | | 1970 | 1971 | 2012 | 2011 | 2003 | 1982 | 1977 | 1977 | 1977 | 1977 | 1976 | 1976 | 1976 | 1976 | 1976 | 1976 |
| Greece | | | | | | | | | | | 2013 | 2010 | 2000 | 1995 | 1992 | 1979 | | | | | | | | |
| Bulgaria | | | | | 2002 | 2002 | 2002 | 2007 | 2008 | 2008 | 1995 | 1989 | 1981 | 1969 | | | | | | | | | | |
| Latvia | | | | | | | 2011 | 2012 | 2013 | 2008 | 1991 | 1990 | 1990 | 1989 | 1965 | 1961 | | | | | | | | |
| Lithuania | | | | | 2011 | 2011 | 2012 | 2012 | 2013 | 2003 | 1993 | 1992 | 1990 | 1990 | 1972 | 1962 | | | | | | | | |

Looking at the yearly rates of growth of population there was in the past great variation between the countries. Negative growth rate was exceptional in Croatia due to the war circumstances. In the most recent years (visually noted by the bold figures) with three exceptions all EU countries are in the range from – 0.8 to +0.8 percent growth rate, i.e. in a small range.

The only high increase is in Luxembourg (2.4%), on the negative side Latvia and Lithuania (-1.2 %). There are eight countries with negative rates and 16 countries with positive population growth rates; for EU28 the average growth rate is positive, but at 0.4% not indicating a very large magnitude of immigration effect.

Indicator 14. Persons killed in road accidents per million inhabitants

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 240 | 230 | 220 | 210 | 200 | 190 | 180 | 170 | 160 | 150 | 140 | 130 | 120 | 110 | 100 | 90 | 80 | 70 | 60 | 50 | 40 | 30 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| United Kingdom | | | | | | | | | | | | | | | | | | | 2003 | 2007 | 2009 | 2011 |
| Sweden | | | | | | | | | | | | | | | | | | | 2003 | 2007 | 2009 | 2010 |
| Denmark | | | | | | | | | | | | | | | | 2000 | 2003 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Malta | | | | | | | | | | | | | | | | | | | | | 2005 | 2009 |
| Netherlands | | | | | | | | | | | | | | | | | | | 2003 | 2004 | 2009 | |
| Spain | | | | | | | | | | 2001 | 2002 | 2004 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | | | |
| Ireland | | | | | | | | | | | | | 2000 | 2002 | 2006 | 2007 | 2008 | 2008 | 2009 | | | |
| Finland | | | | | | | | | | | | | | | | | 2002 | 2007 | 2008 | 2012 | | |
| Germany | | | | | | | | | | | | | | | | 2000 | 2003 | 2004 | 2007 | 2009 | | |
| France | | | | | | | | | | | 2000 | 2002 | 2002 | 2003 | 2003 | 2004 | 2006 | 2008 | 2012 | | | |
| Cyprus | | | | | | | | | 2004 | 2005 | 2005 | 2006 | 2007 | 2008 | 2008 | 2009 | 2011 | 2012 | 2012 | | | |
| Hungary | | | | | | | | | | | 2002 | 2003 | 2007 | 2008 | 2008 | 2009 | 2009 | 2010 | | | | |
| Austria | | | | | | | | | | | | 1999 | 2001 | 2004 | 2005 | 2006 | 2008 | 2010 | | | | |
| Luxembourg | | | | | | | | 2000 | 2001 | 2001 | 2002 | 2002 | 2003 | 2004 | 2005 | 2009 | 2010 | 2010 | | | | |
| Portugal | | | | | 1999 | 2000 | 2001 | 2002 | 2003 | 2003 | 2004 | 2005 | 2005 | 2006 | 2007 | 2011 | 2012 | | | | | |
| Slovenia | | | | | | | | | | 2000 | 2007 | 2007 | 2008 | 2008 | 2008 | 2009 | 2009 | 2010 | | | | |
| Slovakia | | | | | | | | | | | | | 2007 | 2008 | 2008 | 2009 | 2009 | 2010 | | | | |
| Italy | | | | | | | | | | | | | 2002 | 2004 | 2005 | 2007 | 2008 | 2010 | | | | |
| Czech Republic | | | | | | | | | | | 2003 | 2005 | 2005 | 2008 | 2008 | 2009 | 2010 | | | | | |
| Estonia | | | | | | | | | 2002 | 2006 | 2007 | 2007 | 2008 | 2008 | 2008 | 2008 | 2009 | 2009 | | | | |
| Belgium | | | | | | | | | | | 2001 | 2002 | 2003 | 2004 | 2007 | 2008 | 2010 | | | | | |
| Latvia | 2002 | 2003 | 2004 | 2005 | 2005 | 2005 | 2007 | 2007 | 2008 | 2008 | 2008 | 2009 | 2009 | 2010 | 2010 | 2011 | | | | | | |
| Croatia | | | | | | | | | | 2008 | 2009 | 2009 | 2009 | 2010 | 2010 | | | | | | | |
| Poland | | | | | | | | | 2000 | 2003 | 2008 | 2009 | 2009 | 2010 | 2010 | 2012 | | | | | | |
| Romania | | | | | | | | | | | 2009 | 2009 | 2010 | 2010 | 2011 | | | | | | | |
| Greece | | | | | | 2000 | 2000 | 2001 | 2002 | 2005 | 2008 | 2009 | 2010 | 2010 | | | | | | | | |
| Bulgaria | | | | | | | | | | | | 2007 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| United States | | | | | | | 1990 | 1991 | 1991 | 2000 | 2006 | 2007 | 2008 | 2009 | | | | | | | | |
| Korea | | 1999 | 2000 | 2000 | 2000 | 2001 | 2001 | 2001 | 2002 | 2003 | 2004 | 2006 | 2009 | | | | | | | | | |

Persons killed in road accidents per million inhabitants are showing continuous improvement but also very large differences among countries in the EU and two comparators USA and Korea. Except for Bulgaria and Greece all EU countries show less fatal road accidents than the USA and Korea. These are the countries which in the trend towards decreasing fatalities did not pass the 100 mark. The ranking might change if the indicator would also consider millions of kilometres travelled in the country.

The best EU countries have already fallen below the 30 persons killed per 1,000,000 inhabitants: United Kingdom, Sweden, and Denmark. In the world, broadly speaking 80-90 people per 1,000,000 inhabitants more are killed on roads in USA and Korea than in the best EU countries. Similarly, 100 more deaths are shown for Bulgaria, 80 for Greece, 70 for Croatia, Poland, and Romania, etc. Germany, Ireland, Spain, and Finland are in terms of time distance lag 2 to 5 years behind the general trend of improvement in the leaders United Kingdom and Sweden.

Indicator 15. Death due to homicide, standardised death rate by 100 000 inhabit.

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6.5 | 6 | 5.5 | 5 | 4.5 | 4 | 3.5 | 3 | 2.5 | 2 | 1.5 | 1 | 0.5 | |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| United Kingdom | | | | | | | | | | | | | | | | | | | | | | 1994 | 2004 | |
| Cyprus | | | | | | | | | | | | | | | | | | | | 2009 | 2009 | 2010 | 2010 | |
| Slovenia | | | | | | | | | | | | | | | | | | | 1997 | 1997 | 2004 | 2007 | 2010 | |
| Austria | | | | | | | | | | | | | | | | | | | | | | 2001 | | |
| France | | | | | | | | | | | | | | | | | | | | | | 1997 | | |
| Germany | | | | | | | | | | | | | | | | | | | | | | 1997 | 2009 | |
| EU 15 | | | | | | | | | | | | | | | | | | | | | | 2000 | | |
| Italy | | | | | | | | | | | | | | | | | | | | | 1994 | 2005 | | |
| Spain | | | | | | | | | | | | | | | | | | | | | | 2005 | | |
| Czech Republic | | | | | | | | | | | | | | | | | | | | 1995 | 2000 | 2007 | | |
| Denmark | | | | | | | | | | | | | | | | | | | | | | 2005 | | |
| Ireland | | | | | | | | | | | | | | | | | | | | | | 2007 | 2004 | |
| EU 28 | | | | | | | | | | | | | | | | | | | | | | 2008 | | |
| Netherlands | | | | | | | | | | | | | | | | | | | | | | 2005 | | |
| Poland | | | | | | | | | | | | | | | | | | 1996 | 1999 | 2001 | 2006 | 2010 | | |
| Sweden | | | | | | | | | | | | | | | | | | | | | | 2008 | | |
| Malta | | | | | | | | | | | | | | | | | | | | 2001 | 2002 | 2010 | 2005 | |
| Belgium | | | | | | | | | | | | | | | | | | | 1999 | 2001 | 2007 | | | |
| Portugal | | | | | | | | | | | | | | | | | | | | | | 2006 | 2009 | |
| Slovakia | | | | | | | | | | | | | | | | | | | 2000 | 2003 | 2006 | | | |
| Croatia | | | | | | | | | | | | | | | | | | | | | | 2009 | | |
| Greece | | | | | | | | | | | | | | | | | | | | | 1998 | 2007 | | |
| Hungary | | | | | | | | | | | | | | | | | 1997 | 1999 | 2002 | 2008 | 2010 | | | |
| Bulgaria | | | | | | | | | | | | | | 1996 | 1997 | 1998 | 2000 | 2002 | 2005 | 2009 | | | | |
| Finland | | | | | | | | | | | | | | | | | | 1996 | 2002 | 2009 | | | | |
| Luxembourg | | | | | | | | | | | | | | | | | | | | | 2010 | 2009 | 2009 | 2004 |
| Romania | | | | | | | | | | | | | | | | 2003 | 2004 | 2005 | 2009 | | | | | |
| Estonia | 2000 | 2001 | 2001 | 2002 | 2002 | 2003 | 2003 | 2005 | 2006 | 2007 | 2008 | 2009 | 2009 | 2010 | | | | | | | | | | |
| Lithuania | | | 1994 | 1995 | 1995 | 1996 | 2003 | 2005 | 2006 | 2009 | 2009 | 2009 | | | | | | | | | | | | |
| Latvia | 1997 | 1998 | 1998 | 2000 | 2002 | 2003 | 2006 | 2007 | 2008 | 2009 | | | | | | | | | | | | | | |

Time matrix for indicator 15 is another proof of the old saying that picture says more than thousand words. While Estonia, Lithuania, and Latvia have been considerably decreasing the death rate due to homicide, their current values are still very much higher than in other EU countries. This death rate in the best three countries (United Kingdom, Cyprus, and Slovenia) is 10 times lower than that in Estonia; 0.5 per 100,000 inhabitants against 5 in Estonia. The average values for EU15 and EU28 are around 1, i.e. 5 times lower than in Estonia, and even more times lower than in Lithuania and Latvia.

Luxembourg and Ireland showed increase in the death rates due to homicide, which is contrary to the direction of general trend in other countries.

Indicator 16. Infant mortality rate

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 80 | 70 | 60 | 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Slovenia | | | | | | | 1960 | 1962 | 1971 | 1974 | 1980 | 1982 | 1985 | 1986 | 1987 | 1988 | 1989 | 1992 | 1993 | 1995 | 1998 | 2005 | 2007 | 2012 |
| Finland | | | | | | | | | | 1962 | 1966 | 1969 | 1970 | 1972 | 1974 | 1975 | 1977 | 1978 | 1981 | 1989 | 1992 | 1998 | 2005 | |
| Luxembourg | | | | | | | | 1962 | 1966 | 1971 | 1976 | 1977 | 1981 | 1982 | 1984 | 1985 | 1991 | 1992 | 1993 | 1993 | 2003 | 2011 | 2012 | 2008 |
| Czech Republic | | | | | | | | | | 1971 | 1982 | 1984 | 1985 | 1987 | 1988 | 1992 | 1993 | 1994 | 1995 | 1996 | 1998 | 2003 | 2007 | |
| Sweden | | | | | | | | | | | 1963 | 1964 | 1968 | 1969 | 1971 | 1973 | 1975 | 1977 | 1983 | 1991 | 1993 | 1996 | 2004 | |
| Greece | | | | | | | 1962 | 1965 | 1970 | 1973 | 1977 | 1982 | 1985 | 1986 | 1988 | 1989 | 1991 | 1995 | 1996 | 2000 | 2002 | 2004 | 2012 | |
| Italy | | | | | | | 1963 | 1966 | 1970 | 1973 | 1976 | 1980 | 1981 | 1982 | 1983 | 1984 | 1987 | 1989 | 1991 | 1993 | 1996 | 1999 | 2003 | 2011 |
| Spain | | | | | | | | 1961 | 1965 | 1968 | 1970 | 1978 | 1979 | 1980 | 1981 | 1983 | 1984 | 1987 | 1988 | 1992 | 1994 | 1997 | 2003 | |
| Austria | | | | | | | | 1961 | 1964 | 1972 | 1975 | 1978 | 1980 | 1981 | 1983 | 1985 | 1987 | 1987 | 1990 | 1993 | 1994 | 1996 | 2005 | |
| France | | | | | | | | | | 1963 | 1969 | 1974 | 1975 | 1976 | 1976 | 1978 | 1980 | 1983 | 1986 | 1992 | 1994 | 1995 | 2003 | |
| Germany | | | | | | | | 1960 | 1962 | 1965 | 1974 | 1977 | 1978 | 1979 | 1981 | 1982 | 1984 | 1985 | 1988 | 1990 | 1993 | 1996 | 2005 | |
| Denmark | | | | | | | | | | | 1962 | 1969 | 1970 | 1971 | 1972 | 1974 | 1976 | 1977 | 1989 | 1991 | 1993 | 2001 | 2008 | |
| Portugal | 1962 | 1964 | 1968 | 1971 | 1972 | 1974 | 1976 | 1977 | 1980 | 1982 | 1987 | 1987 | 1988 | 1989 | 1990 | 1992 | 1992 | 1994 | 1996 | 1998 | 2002 | 2003 | 2011 | |
| Cyprus | | | | | | | 1961 | 1964 | 1966 | 1971 | 1974 | 1978 | 1986 | 1988 | 1991 | 1992 | 1992 | 1993 | 1997 | 1998 | 1999 | 2001 | 2005 | |
| Ireland | | | | | | | | | 1961 | 1966 | 1970 | 1978 | 1978 | 1979 | 1979 | 1980 | 1983 | 1985 | 1990 | 1992 | 2000 | 2003 | 2005 | |
| Croatia | | 1960 | 1962 | 1965 | 1966 | 1968 | 1970 | 1971 | 1974 | 1980 | 1986 | 1987 | 1988 | 1989 | 1992 | 1994 | 1995 | 1998 | 2002 | 2004 | 2009 | 2012 | | |
| Estonia | | | | | | | | 1960 | 1964 | 1966 | 1994 | 1995 | 1995 | 1996 | 1996 | 1997 | 2000 | 2001 | 2003 | 2004 | 2008 | 2009 | 2011 | |
| Netherlands | | | | | | | | | | | 1964 | 1967 | 1969 | 1971 | 1974 | 1977 | 1979 | 1985 | 1990 | 1993 | 2002 | 2007 | | |
| Belgium | | | | | | | | 1960 | 1964 | 1971 | 1976 | 1977 | 1978 | 1980 | 1982 | 1984 | 1988 | 1993 | 1994 | 1995 | 1999 | 2006 | | |
| EU 28 | | | | | | | 1962 | 1964 | 1970 | 1976 | 1981 | 1983 | 1984 | 1987 | 1988 | 1991 | 1993 | 1994 | 1997 | 2000 | 2005 | 2010 | | |
| Lithuania | | | | | | | | 1963 | 1964 | 1965 | 1970 | 1993 | 1994 | 1995 | 1995 | 1996 | 1997 | 1999 | 2004 | 2006 | 2007 | 2010 | 2012 | |
| United Kingdom | | | | | | | | | | 1965 | 1979 | 1980 | 1981 | 1983 | 1985 | 1986 | 1988 | 1990 | 1992 | 1996 | 2006 | | | |
| Poland | | | | 1964 | 1965 | 1966 | 1970 | 1971 | 1981 | 1988 | 1994 | 1995 | 1995 | 1996 | 1997 | 1997 | 1999 | 2000 | 2003 | 2007 | 2010 | | | |
| Hungary | | | | | 1963 | 1964 | 1971 | 1976 | 1978 | 1985 | 1991 | 1992 | 1993 | 1994 | 1995 | 1997 | 2000 | 2001 | 2003 | 2005 | 2011 | | | |
| Malta | | | | | | | 1962 | 1966 | 1971 | 1974 | 1980 | 1985 | 1985 | 1986 | 1986 | 1996 | 1996 | 2008 | 2009 | 2011 | 2006 | 2006 | | |
| Slovakia | | | | | | | | | | 1973 | 1981 | 1986 | 1987 | 1991 | 1992 | 1995 | 1996 | 1997 | 2000 | 2005 | 2008 | 2011 | | |
| Latvia | | | | | | | | | | 1963 | 1976 | 1998 | 1998 | 1999 | 1999 | 2001 | 2002 | 2004 | 2007 | 2009 | 2010 | | | |
| Bulgaria | | | | | 1960 | 1961 | 1963 | 1969 | 1974 | 1980 | 1998 | 2001 | 2002 | 2003 | 2005 | 2006 | 2010 | 2012 | | | | | | |
| Romania | | 1961 | 1962 | 1970 | 1971 | 1972 | 1974 | 1980 | 1990 | 1998 | 2005 | 2006 | 2006 | 2007 | 2008 | 2009 | 2012 | | | | | | | |

Infant mortality rate time matrix clearly shows enormous improvements in the last 50 years. The time matrix is divided into three parts with respect to the arrangement of the levels of the infant mortality rate. From the left steps are first changing by 10 values from values 80 to 50 to accommodate the presentation of large improvements in countries where starting values from the 1960's were above 50 (Portugal, Croatia, Poland, and Romania). From levels 50 to 15 the step was changing by 5 values, below 15 by value 1 to accommodate the presentation of additional progress done at best values.

Slovenia is having the lowest rate of infant mortality, followed by a group of six countries from Finland to Italy. However, the dynamics of improvement has been changing over time. For instance, the level of 10 was first reached By Sweden in 1973, followed by Finland in 1975, Denmark 1976, and Netherlands in 1977; Slovenia reached that level only in 1988 but accelerated the progress after that.

Indicator 17. At-risk-of-poverty (percent of total population)

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 |
|----------------|------|------|------|-------------|-------------|-------------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|-------------|------|-------------|------|
| Czech Republic | | | | | | | | | | | | | | | | | 2006 | 2010 | 2001 |
| Netherlands | | | | | | | | | | | | | | | 2003 | 2011 | 2007 | | |
| Denmark | | | | | | | | | | | | | | 2011 | 2008 | 2004 | 2001 | | |
| Finland | | | | | | | | | | | | | | 2007 | 2005 | 2004 | 1999 | 1998 | 1997 |
| Slovakia | | | | | | | | | | | | | | 2011 | 2010 | 2009 | | | |
| Slovenia | | | | | | | | | | | | | | 2010 | 2010 | 2004 | 2003 | | |
| France | | | | | | | | | | | 2000 | 2000 | 2011 | 2009 | 2003 | | | | |
| Sweden | | | | | | | | | | | | | 2011 | 2010 | 2008 | 2007 | 2005 | 2001 | 1999 |
| Hungary | | | | | | | | | | | | 2006 | 2012 | 2010 | 2003 | 2003 | 2002 | | |
| Austria | | | | | | | | | | | | | 2012 | 2011 | 2009 | | | | |
| Cyprus | | | | | | | | | | | 2005 | 2011 | | | | | | | |
| Belgium | | | | | | | | | | | 1995 | 2012 | 2002 | 2001 | | | | | |
| Luxembourg | | | | | | | | | | | | 2012 | 2011 | 2004 | 2003 | 1997 | | | |
| Malta | | | | | | | | | | | | 2009 | | | | | | | |
| Ireland | | | | | | 2001 | 2005 | 2006 | 2006 | 2007 | 2008 | 2009 | | | | | | | |
| Germany | | | | | | | | | | | 2012 | 2007 | 2007 | 2006 | 2004 | 2001 | 2000 | | |
| United Kingdom | | | | | | | 1995 | 2006 | 2009 | 2010 | | | | | | | | | |
| EU 15 | | | | | | | | | | 2004 | 2007 | 2003 | | | | | | | |
| EU 28 | | | | | | | | | | 2012 | | | | | | | | | |
| Poland | | | | | | | 2005 | 2006 | 2007 | 2009 | 2001 | | | | | | | | |
| Estonia | | | | | | | 2004 | 2009 | 2009 | 2011 | 2010 | | | | | | | | |
| Portugal | | | | 1995 | 1997 | 2000 | 2004 | 2005 | 2011 | | | | | | | | | | |
| Lithuania | | | | | | | 2010 | 2011 | 2002 | 2001 | | | | | | | | | |
| Italy | | | | | | | 1996 | 2011 | 2000 | | | | | | | | | | |
| Latvia | 2009 | 2009 | 2009 | 2010 | 2010 | 2010 | 2010 | 2011 | 2003 | 2001 | 2000 | | | | | | | | |
| Croatia | | | | | | 2011 | 2010 | 2009 | 2009 | 2006 | | | | | | | | | |
| Bulgaria | | | | | 2011 | 2010 | 2006 | 2006 | 2006 | 2006 | 2005 | 2005 | 2005 | | | | | | |
| Spain | | | | | 2011 | 2010 | 2007 | 2003 | 2000 | | | | | | | | | | |
| Romania | | | 2008 | 2008 | 2011 | 2005 | 2005 | 2004 | 2004 | 2003 | | | | | | | | | |
| Greece | | | | 2012 | 2011 | 2011 | 2010 | | | | | | | | | | | | |

Eurostat is for recent years providing data on percentage of population at risk of poverty. The great diversity is obvious, from about 9-11 percent at the lower end of two best countries (Czech Republic and Netherlands) to about 23 percent in Greece, 22 percent in Romania, Bulgaria, Spain, and 21 percent in Croatia.

Unfortunately for majority of the countries the most recent values in bold are not the lowest values in the analysed period, i.e. rather more oriented on the left in the rows than to the right hand side. Only four countries in the middle showed clear improvement over time. Visually it is clear that the general tendency was towards increasing risk of poverty.

For a similar indicator 'At-risk-of-poverty or social exclusion' available time series are very short but the percentages of the risk are even higher.

Indicator 18. At-risk-of-poverty (percent of elderly population)

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 50 | 48 | 46 | 44 | 42 | 40 | 38 | 36 | 34 | 32 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 | 4 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Hungary | | | | | | | | | | | | | | | | | | | | 2001 | 2003 | 2006 | 2012 | |
| Netherlands | | | | | | | | | | | | | | | | | | | | | | 2009 | 2012 | 1998 |
| Czech Republic | | | | | | | | | | | | | | | | | | | | | | | 2012 | |
| Luxembourg | | | | | | | | | | | | | | | | | | | | 1995 | 2003 | 2005 | 2012 | |
| Slovakia | | | | | | | | | | | | | | | | | | | | | 2009 | 2010 | | |
| France | | | | | | | | | | | | | | | | | 2000 | 2006 | 2007 | 2008 | 2010 | | | |
| Ireland | | | | 2001 | 2002 | 2003 | 2004 | 2004 | 2005 | 2005 | 2005 | 2007 | 2007 | 2008 | 2008 | 2008 | 2009 | 2009 | 2009 | 2010 | 2010 | | | |
| Poland | | | | | | | | | | | | | | | | | | | | 2012 | 2008 | 2008 | 2007 | |
| Denmark | | | | | | | | | | | | | | 2001 | 2002 | 2009 | 2010 | 2011 | | | | | | |
| EU 15 | | | | | | | | | | | | | | | | 1996 | 2009 | 2011 | | | | | | |
| EU 28 | | | | | | | | | | | | | | | | | | | | 2010 | | | | |
| Spain | | | | | | | | | | | | 2006 | 2008 | 2009 | 2009 | 2011 | 2011 | 2012 | 1996 | | | | | |
| Germany | | | | | | | | | | | | | | | | | | 2007 | 2006 | 2001 | 2000 | | | |
| Austria | | | | | | | | | | | | | | 2001 | 2001 | 2002 | 2002 | 2011 | 2007 | | | | | |
| Romania | | | | | | | | | | | 2007 | 2008 | 2008 | 2008 | 2009 | 2009 | 2010 | 2010 | | | | | | |
| United Kingdom | | | | | | | | | | 1995 | 1996 | 1996 | 2008 | 2009 | 2009 | 2011 | 2012 | | | | | | | |
| Italy | | | | | | | | | | | | | | | 2006 | 2009 | 2010 | 2001 | 2000 | | | | | |
| Estonia | | | | | | | 2008 | 2009 | 2009 | 2009 | 2009 | 2009 | 2009 | 2010 | 2010 | 2010 | 2010 | 2012 | 2011 | | | | | |
| Greece | | | | | | | | | 1999 | 2002 | 2003 | 2005 | 2006 | 2007 | 2011 | 2012 | 2012 | | | | | | | |
| Malta | | | | | | | | | | | | | | 2008 | 2009 | 2009 | 2010 | | | | | | | |
| Portugal | | | | | | | 1995 | 1998 | 1999 | 2000 | 2001 | 2005 | 2006 | 2007 | 2008 | 2011 | 2012 | | | | | | | |
| Latvia | 2008 | 2009 | 2009 | 2009 | 2009 | 2009 | 2009 | 2009 | 2009 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2010 | 2013 | 2012 | 2012 | 2011 | 2001 | 2000 | |
| Sweden | | | | | | | | | | | | | | | | | | 2011 | 2010 | 2008 | 2007 | 2007 | | |
| Belgium | | | | | | | | | | | | | 2001 | 2002 | 2008 | 2011 | 2012 | | | | | | | |
| Finland | | | | | | | | | | | | | | | 2009 | 2010 | 2005 | 1999 | 1998 | 1997 | | | | |
| Lithuania | | | | | | | | | | | | 2008 | 2009 | 2009 | 2009 | 2009 | 2012 | 2012 | 2011 | 2011 | 2011 | | | |
| Slovenia | | | | | | | | | | | | | | | | 2012 | | | | | | | | |
| Croatia | | | | | | | | | | 2004 | 2010 | 2011 | | | | | | | | | | | | |
| Bulgaria | | | | | | | 2009 | 2009 | 2010 | 2010 | 2011 | 2007 | 2007 | 2007 | 2007 | 2006 | 2005 | 2004 | 2003 | | | | | |
| Cyprus | 2007 | 2008 | 2009 | 2009 | 2010 | 2010 | 2010 | 2011 | 2011 | 2012 | 2012 | | | | | | | | | | | | | |

Risk of poverty of elderly population is in general higher than the risk of poverty for total population. For elderly population the range of risk in the latest years is from 6 percent for Hungary, Netherlands, Czech Republic, and Luxembourg to the highest values of 30 percent Cyprus and Bulgaria, and 28 percent in Croatia. Data show that in Latvia and Cyprus the risk was even at the level of 50 percent in 2008 and 2007. For these two countries and for Ireland there was very considerable decrease in the risk of poverty of elderly population.

Though there were some deterioration in the current crisis this was not as overwhelming as in the case for the case of risk of poverty for total population. On the other hand, at the country level there are several case when the risk of poverty for elderly population is higher than that for total population and cases in the other direction. Detailed examination of individual cases is necessary.

Indicator 19. Income quintile share ratio S80/S20

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 7.8 | 7.6 | 7.4 | 7.2 | 7 | 6.8 | 6.6 | 6.4 | 6.2 | 6 | 5.8 | 5.6 | 5.4 | 5.2 | 5 | 4.8 | 4.6 | 4.4 | 4.2 | 4 | 3.8 | 3.6 | 3.4 | 3.2 | 3 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Slovenia | | | | | | | | | | | | | | | | | | | | | | | 2012 | 2009 | |
| Czech Republic | | | | | | | | | | | | | | | | | | | | | | 2006 | 2008 | | |
| Netherlands | | | | | | | | | | | | | | | | | 1996 | 1996 | 2009 | 2011 | | | | | |
| Finland | | | | | | | | | | | | | | | | | | | | | 2008 | 2010 | 2000 | 1998 | 1997 |
| Slovakia | | | | | | | | | | | | | | | | | | | | 2006 | 2011 | 2009 | 2008 | | |
| Sweden | | | | | | | | | | | | | | | | | | | | | | 2011 | 2008 | 2000 | 1997 |
| Belgium | | | | | | | | | | | | | | | | | | 1995 | 2006 | 2009 | | | | | |
| Malta | | | | | | | | | | | | | | | | | 2000 | 2001 | 2010 | 2011 | | | | | |
| Luxembourg | | | | | | | | | | | | | | | | | | | 2010 | 2011 | 2001 | 1997 | | | |
| Austria | | | | | | | | | | | | | | | | | | | 2012 | 2012 | 2011 | 2001 | 2000 | | |
| Hungary | | | | | | | | | | | | | 2006 | 2006 | 2006 | 2006 | 2007 | 2007 | 2013 | 2012 | 2011 | 2010 | 2010 | 2003 | 2002 |
| Germany | | | | | | | | | | | | | | | | 2008 | 2009 | 2012 | 2006 | 2006 | 2005 | 2001 | | | |
| Denmark | | | | | | | | | | | | | | | | | 2009 | 2011 | 2009 | 2008 | 2008 | 2008 | 2006 | 2002 | 2001 |
| France | | | | | | | | | | | | | | | | | 2011 | 2010 | 2008 | 2007 | 2003 | | | | |
| Ireland | | | | | | | | | | | | | | 1998 | 2005 | 2007 | 2011 | 2009 | 2009 | | | | | | |
| Cyprus | | | | | | | | | | | | | | | | | 2012 | 2011 | 2004 | | | | | | |
| Poland | | | | | | | 2005 | 2005 | 2005 | 2006 | 2006 | 2006 | 2007 | 2008 | 2011 | 2001 | | | | | | | | | |
| EU 15 | | | | | | | | | | | | | | | 2010 | 2007 | 2003 | | | | | | | | |
| EU 28 | | | | | | | | | | | | | | | 2010 | | | | | | | | | | |
| Lithuania | | | | 2010 | 2010 | 2010 | 2010 | 2011 | 2011 | 2011 | 2011 | 2011 | 2012 | 2002 | 2001 | | | | | | | | | | |
| Croatia | | | | | | | | | | | | | 2012 | 2010 | 2010 | 2009 | 2009 | 2009 | | | | | | | |
| Estonia | | | | 2004 | 2004 | 2004 | 2004 | 2005 | 2005 | 2005 | 2005 | 2006 | 2012 | 2011 | 2010 | | | | | | | | | | |
| United Kingdom | | | | | | | | | | | 2005 | 2008 | 2012 | 2000 | 1998 | 1997 | | | | | | | | | |
| Italy | | | | | | | | | | | 1995 | 2011 | 2011 | 2010 | 2002 | 2001 | | | | | | | | | |
| Portugal | | | 2003 | 2004 | 2005 | 2006 | 2007 | 2007 | 2008 | 2009 | 2012 | 2010 | | | | | | | | | | | | | |
| Bulgaria | | | | | 2007 | 2007 | 2008 | 2011 | 2012 | 2010 | 2006 | 2006 | 2006 | 2006 | 2006 | 2006 | 2006 | 2006 | 2005 | 2005 | 2005 | 2003 | | | |
| Latvia | 2006 | 2006 | 2009 | 2009 | 2010 | 2010 | 2011 | 2013 | 2003 | 2002 | 2001 | 2000 | | | | | | | | | | | | | |
| Romania | 2007 | 2007 | 2008 | 2008 | 2008 | 2009 | 2009 | 2009 | 2011 | 2010 | 2006 | 2006 | 2006 | 2006 | 2005 | 2004 | 2003 | | | | | | | | |
| Greece | | | | | | | 2012 | 2012 | 2011 | 2011 | 2011 | 2010 | | | | | | | | | | | | | |
| Spain | | | | 2012 | 2010 | 2010 | 2009 | 2009 | 2009 | 2008 | 2008 | 2008 | 2005 | 2004 | | | | | | | | | | | |

The income inequality is measured by two indicators; one of them is Income quintile share ratio S80/S20. The range between countries is again very large, from ratio of 3.4 in best countries Slovenia and Czech Republic to more than twice higher ratio of 7.2 in Spain. We have only six countries with the ratio below 4: Slovenia, Czech Republic, Netherlands, Finland, Slovakia, and Sweden. There were 13 countries with ratio 5 or above: Poland, Lithuania, Croatia, Estonia, United Kingdom, Italy, Portugal, Bulgaria, Latvia, Romania, Greece, and Spain; a strange mixture of EU15 countries and later accessions.

Again, also for the income inequality the situation worsened in the recent years, with only about three exceptions. Spain and Greece at the bottom of the matrix are showing very strong deterioration, but there were also deterioration in some higher income EU countries.

Indicator 20. GINI coefficient

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 38 | 37 | 36 | 35 | 34 | 33 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Slovenia | | | | | | | | | | | | | | | | 2009 | 2003 | | |
| Sweden | | | | | | | | | | | | | | | 2008 | 2004 | 1999 | 1997 | |
| Czech Republic | | | | | | | | | | | | | 2005 | 2012 | | | | | |
| Slovakia | | | | | | | | | | | 2006 | 2006 | 2007 | 2009 | 2008 | | | | |
| Netherlands | | | | | | | | | | 2000 | 2001 | 2009 | 2010 | 1998 | | | | | |
| Finland | | | | | | | | | | | | 2001 | 2009 | 2000 | 2000 | 1999 | 1998 | | |
| Belgium | | | | | | | | | 2000 | 2001 | 2005 | 2008 | | | | | | | |
| Malta | | | | | | | | | 2000 | 2002 | 2010 | 2007 | | | | | | | |
| Austria | | | | | | | | | | | | 2012 | 2010 | 2002 | 2001 | | | | |
| Hungary | | | | | | 2006 | 2006 | 2006 | 2006 | 2007 | 2013 | 2012 | 2011 | 2010 | 2002 | | | | |
| Luxembourg | | | | | | | | | | 2009 | 2012 | 2005 | 2000 | 1997 | | | | | |
| Denmark | | | | | | | | | | | 2012 | 2010 | 2009 | 2007 | 2006 | 2002 | 2001 | 1999 | 1997 |
| Germany | | | | | | | | | 2008 | 2011 | 2006 | 2006 | 2005 | 2001 | | | | | |
| Ireland | | | | | 1998 | 1999 | 1999 | 2007 | 2011 | 2009 | | | | | | | | | |
| Croatia | | | | | | | | 2011 | 2010 | 2009 | 2009 | 2009 | | | | | | | |
| France | | | | | | | | | 2010 | 2008 | 2007 | 2007 | | | | | | | |
| EU 28 | | | | | | | | | 2010 | | | | | | | | | | |
| EU 15 | | | | | | | | 1995 | 2007 | 2001 | | | | | | | | | |
| Poland | | | | 2005 | 2006 | 2006 | 2008 | 2012 | 2001 | | | | | | | | | | |
| Cyprus | | | | | | | | 2012 | 2011 | 2008 | 2004 | 2003 | | | | | | | |
| Italy | | | | | | 2005 | 2007 | 2008 | 2002 | 2001 | | | | | | | | | |
| Lithuania | | 2010 | 2010 | 2011 | 2011 | 2011 | 2012 | 2001 | | | | | | | | | | | |
| Estonia | | 2004 | 2004 | 2005 | 2005 | 2007 | 2011 | 2008 | | | | | | | | | | | |
| United Kingdom | | | | 2002 | 2005 | 2011 | 2000 | 1998 | 1997 | | | | | | | | | | |
| Romania | | 2007 | 2008 | 2009 | 2010 | 2006 | 2006 | 2005 | 2003 | 2000 | | | | | | | | | |
| Bulgaria | | | | 2011 | 2012 | 2006 | 2006 | 2006 | 2006 | 2006 | 2005 | 2005 | 2005 | 2005 | 2003 | | | | |
| Greece | | | | 1998 | 2012 | 2010 | | | | | | | | | | | | | |
| Portugal | 2005 | 2007 | 2008 | 2009 | 2011 | | | | | | | | | | | | | | |
| Spain | | | | 2012 | 2010 | 2009 | 2008 | 2004 | | | | | | | | | | | |
| Latvia | 2006 | 2009 | 2010 | 2002 | 2000 | | | | | | | | | | | | | | |

The income inequality is measured also by the Gini coefficient. The range between countries is again very large, from the lowest value of 0.23 in Slovenia to the highest values in the range of 0.33-0.36 from United Kingdom, Romania, Bulgaria, Greece, Portugal, Spain, and Latvia. The six best countries with income quintile ratio below 4: Slovenia, Czech Republic, Netherlands, Finland, Slovakia, and Sweden are in the range of 0.23-0.26 confirming the lowest income inequality.

Again, also for Gini coefficient indicator of the income inequality the situation worsened in the recent years, with only about three examples. The detrimental effect of the world financial and socio-economic system on the GDP level and on the GDP growth rate, that is in the focus in the literature and in media, is observed and felt even with greater intensity in the deterioration of employment rates, investment share in the GDP, in the increasing risk of poverty and increasing income inequality.

Indicator 21. Early leavers from education and training

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 50 | 48 | 46 | 44 | 42 | 40 | 38 | 36 | 34 | 32 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 | 4 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Croatia | | | | | | | | | | | | | | | | | | | | | | 2002 | 2004 | 2013 |
| Slovenia | | | | | | | | | | | | | | | | | | | | | | | 2001 | |
| Czech Republic | | | | | | | | | | | | | | | | | | | | | | | 2005 | |
| Poland | | | | | | | | | | | | | | | | | | | | | | | 2003 | |
| Lithuania | | | | | | | | | | | | | | | | | | 2000 | 2002 | 2003 | 2004 | 2010 | | |
| Luxembourg | | | | | 1992 | 1992 | 1993 | 1993 | 1996 | 1997 | 1997 | 1997 | 1998 | 1998 | 1999 | 1999 | 2001 | 2002 | 2006 | 2008 | 2009 | 2012 | | |
| Slovakia | | | | | | | | | | | | | | | | | | | | | | | 2013 | |
| Sweden | | | | | | | | | | | | | | | | | | | | | 2005 | 2007 | | |
| Austria | | | | | | | | | | | | | | | | | | | | 1996 | 2008 | 2011 | | |
| Denmark | | | | | | | | | | | | | | | | | | | 1992 | 2008 | 2011 | 1995 | | |
| Ireland | | | | | | | | | | | | | 1992 | 1993 | 1995 | 1996 | 1998 | 2000 | 2002 | 2006 | 2012 | | | |
| Netherlands | | | | | | | | | | | | | | | | | | 1999 | 2004 | 2007 | 2010 | | | |
| Finland | | | | | | | | | | | | | | | | | | | | | 2011 | 1998 | | |
| Cyprus | | | | | | | | | | | | | | | | 2004 | 2005 | 2006 | 2006 | 2011 | 2013 | | | |
| Germany | | | | | | | | | | | | | | | | | | | 2000 | 2008 | 2013 | | | |
| Greece | | | | | | | | | | | | | 1994 | 1995 | 1998 | 2000 | 2003 | 2010 | 2012 | | | | | |
| Estonia | | | | | | | | | | | | | | | | | | | 2008 | 2010 | | | | |
| Latvia | | | | | | | | | | | | | | | | | 2003 | 2004 | 2009 | 2011 | | | | |
| Belgium | | | | | | | | | | | | | | | | | 1992 | 1994 | 2003 | 2012 | | | | |
| France | | | | | | | | | | | | | | | | | | 1994 | 2000 | 2011 | | | | |
| Hungary | | | | | | | | | | | | | | | | | | 1998 | 1999 | 2007 | | | | |
| EU 28 | | | | | | | | | | | | | | | | | | 2004 | 2010 | 2013 | | | | |
| Bulgaria | | | | | | | | | | | | | | | | 2005 | 2006 | 2007 | 2010 | 2011 | | | | |
| United Kingdom | | | | | | | | 1993 | 1994 | 1994 | 1995 | 1996 | 1997 | 1997 | 1998 | 1999 | 2001 | 2009 | 2012 | 2006 | | | | |
| EU 15 | | | | | | | | | | | | | 1995 | 1995 | 1999 | 1999 | 2003 | 2009 | 2012 | | | | | |
| Italy | | | | | | | | 1994 | 1994 | 1996 | 1997 | 1998 | 2000 | 2002 | 2005 | 2007 | 2011 | | | | | | | |
| Romania | | | | | | | | | | | | | | | 2004 | 2005 | 2010 | 2008 | | | | | | |
| Portugal | 1992 | 1993 | 1998 | 2002 | 2003 | 2004 | 2007 | 2008 | 2008 | 2009 | 2009 | 2010 | 2010 | 2011 | 2012 | 2013 | | | | | | | | |
| Malta | 2003 | 2003 | 2004 | 2004 | 2004 | 2004 | 2004 | 2005 | 2005 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | | | | | | | | |
| Spain | | | | | | 1992 | 1993 | 1994 | 1995 | 2004 | 2009 | 2010 | 2011 | | | | | | | | | | | |

Early leavers from education and training as percentage of the age group 18-24 years show the stability of the education and training system in offering the opportunities to younger generation in this respect. The best performers are Croatia by around 4 percent, closely followed by Slovenia, Czech Republic, Poland, and Slovakia at around 6 percent. On the other side of the range there was Spain with 26, Malta with 22, and Portugal with 20 percent.

In a large group of 15 countries the share of early leavers did not fall below 10 percent, including very large EU15 countries as France, United Kingdom, Italy, and Spain. However, the trends have been favourable, with three small exceptions we can see the moment to the right in the rows indicating continuous decrease in the share of early leavers. This trend is different than the worsening situation with employment and inequality trends.

Indicator 22. Healthy life years at birth - females

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Malta | | | | | | | | | | | | | | 2002 | 2003 | 2003 | 2004 | 2006 | 2011 | 2012 | | |
| Sweden | | | | | | | | 1997 | 2004 | 2005 | 2005 | 2005 | 2005 | 2006 | 2007 | 2008 | 2008 | 2009 | 2010 | | | |
| Ireland | | | | | | | | | | | | 2005 | 2008 | 2009 | 2010 | 2011 | | | | | | |
| Luxembourg | | | | | | | | | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | | | | | | | |
| Bulgaria | | | | | | | | | | | | | | 2011 | 2010 | 2008 | 2008 | 2007 | 2007 | 2007 | 2007 | |
| Spain | | | | | | | | | | | 2009 | 2010 | 2011 | 2004 | 2003 | 2003 | 2003 | 2003 | | | | |
| Belgium | | | | | | | 2004 | 2004 | 2005 | 2005 | 2010 | 2011 | 2012 | 2003 | 2003 | 2003 | 2003 | | | | | |
| Greece | | | | | | | | | | | | | 2012 | 2011 | 2011 | 2006 | 1999 | | | | | |
| Croatia | | | | | | | | | 2010 | 2011 | 2011 | 2012 | | | | | | | | | | |
| United Kingdom | | | | | | | | | 2003 | 2003 | 2004 | 2004 | 2011 | 2009 | | | | | | | | |
| Czech Republic | | | | | | | | 2006 | 2006 | 2007 | 2009 | 2012 | | | | | | | | | | |
| Cyprus | | | | | | | 2005 | 2005 | 2011 | 2011 | 2012 | 2012 | 2009 | 2004 | 2003 | 2003 | 2003 | | | | | |
| France | | | | | | | | | | | 1998 | 2009 | | | | | | | | | | |
| Poland | | | | | | | | | | 2007 | 2012 | 2006 | 2005 | 2005 | 2005 | 2003 | | | | | | |
| Austria | | | | | | | | 2008 | 2011 | 2012 | 2004 | 2004 | 2004 | 2003 | 2003 | 2003 | 2003 | | | | | |
| EU 28 | | | | | | | | | | 2012 | | | | | | | | | | | | |
| Lithuania | | | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2009 | 2011 | | | | | | | | | | | | |
| Italy | | | | | | | | | | 2012 | 2011 | 2011 | 2011 | 2010 | 2010 | 2005 | 2005 | 2004 | 2004 | 2004 | 2003 | 2003 |
| Denmark | | | | | | | | 2011 | 2012 | 2008 | 2008 | 2008 | 2007 | 2007 | 2007 | 2005 | 2004 | | | | | |
| Hungary | | | 2005 | 2006 | 2006 | 2007 | 2011 | 2012 | | | | | | | | | | | | | | |
| Latvia | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | 2012 | | | | | | | | | | | | | | | |
| Netherlands | | | | | | | 2011 | 2010 | 2008 | 2008 | 2007 | 2007 | | | | | | | | | | |
| Portugal | 2004 | 2004 | 2005 | 2005 | 2010 | 2011 | 2003 | 2003 | 2003 | 2002 | 1995 | | | | | | | | | | | |
| Germany | | | 2005 | 2005 | 2006 | 2012 | 2004 | 2004 | 2004 | 2004 | 2003 | 2003 | | | | | | | | | | |
| Romania | | | | | 2011 | 2010 | 2010 | 2009 | 2009 | 2009 | | | | | | | | | | | | |
| Estonia | 2005 | 2006 | 2007 | 2007 | 2008 | 2011 | 2009 | | | | | | | | | | | | | | | |
| Finland | 2006 | 2006 | 2006 | 2007 | 2012 | 2011 | 2009 | | | | | | | | | | | | | | | |
| Slovenia | | 2011 | 2012 | 2010 | 2010 | 2010 | 2009 | 2009 | 2009 | 2007 | | | | | | | | | | | | |
| Slovakia | 2012 | 2008 | 2007 | 2007 | | | | | | | | | | | | | | | | | | |

Healthy life years at birth intend to add also the information on number of years that a person is expected to live in a healthy condition. It combines information both on the quality and length of life for newly born population (as well as for elderly population in another indicator for healthy life years at the age of 65). Eurostat considers that comparisons between countries might be influenced by cultural differences so without going into details the comparisons over time are more relevant.

In such comparisons over time for a given country there were 10 countries where the indicator was improving in the sense that the most recent value in bold was the highest level achieved. In the other 18 countries the direction of change in the last year(s) was in the direction of lowering the healthy life years for females. In most of these countries these deteriorations were again very much related to the period of the recent depression.

Indicator 23. Healthy life years at birth - males

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 |
|----------------|------|------|------|------|-------------|-------------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|------|------|------|-------------|
| Malta | | | | | | | | | | | | | | | | | | 2003 | 2004 | 2004 | 2008 | 2010 | 2011 |
| Sweden | | | | | | | | | | | | | | 2004 | 2004 | 2005 | 2005 | 2006 | 2006 | 2007 | 2008 | 2008 | 2012 |
| Ireland | | | | | | | | | | | | | | | 2007 | 2009 | 2010 | 2011 | | | | | |
| Luxembourg | | | | | | | | | | | | 2004 | 2005 | 2007 | 2007 | 2008 | 2010 | | | | | | |
| Greece | | | | | | | | | | | | | | | | 2004 | 2012 | 2011 | | | | | |
| Spain | | | | | | | | | | | | | | | 2009 | 2010 | 2012 | 2003 | | | | | |
| United Kingdom | | | | | | | | | | | | | 1999 | 2003 | 2004 | 2005 | 2011 | | | | | | |
| Belgium | | | | | | | | | | | 2004 | 2004 | 2005 | 2005 | 2006 | 2012 | 2003 | 2003 | 2003 | | | | |
| Netherlands | | | | | | | | | | | | | | 2010 | 2011 | 2011 | 2007 | 2007 | | | | | |
| Cyprus | | | | | | | | | | | | 2005 | 2005 | 2011 | 2012 | 2010 | 2010 | 2004 | 2003 | 2003 | | | |
| France | | | | | | | | | | | | 1999 | 2003 | 2010 | | | | | | | | | |
| Czech Republic | | | | | | | | | | 2006 | 2006 | 2007 | 2007 | 2010 | | | | | | | | | |
| Bulgaria | | | | | | | | | | | | | | | | 2010 | 2008 | 2007 | 2007 | 2007 | | | |
| Italy | | | | | | | | | | | | | | | | 2011 | 2011 | 2011 | 2010 | 2010 | 2004 | 2004 | 2003 |
| Croatia | | | | | | | | | | 2010 | 2011 | 2011 | 2012 | 2012 | | | | | | | | | |
| EU 28 | | | | | | | | | | | | | 2010 | | | | | | | | | | |
| Portugal | | | | | | | | 2004 | 2005 | 2005 | 2010 | 2011 | | | | | | | | | | | |
| Denmark | | | | | | | | | | | | | | 2012 | 2012 | 2011 | 2008 | 2007 | 2007 | 2007 | 2006 | | |
| Austria | | | | | | | | | | | 2009 | 2012 | 2004 | 2004 | 2003 | 2003 | 2003 | 2003 | | | | | |
| Hungary | | | | | 2005 | 2006 | 2008 | 2009 | 2011 | 2011 | 2012 | | | | | | | | | | | | |
| Poland | | | | | | | | | | 2007 | 2011 | 2005 | 2005 | 2003 | | | | | | | | | |
| Romania | | | | | | | | | | 2010 | 2009 | 2009 | | | | | | | | | | | |
| Germany | | | | | | | 2005 | 2005 | 2009 | 2007 | 2007 | 2004 | 2004 | 2004 | 2003 | 2003 | 2003 | | | | | | |
| Finland | | | | 2005 | 2006 | 2006 | 2007 | 2007 | 2007 | 2011 | | | | | | | | | | | | | |
| Lithuania | | | | 2006 | 2006 | 2007 | 2008 | 2009 | 2011 | | | | | | | | | | | | | | |
| Slovenia | | | | | | 2011 | 2011 | 2012 | 2010 | 2009 | 2009 | 2009 | | | | | | | | | | | |
| Latvia | | | 2007 | 2008 | 2009 | 2011 | | | | | | | | | | | | | | | | | |
| Slovakia | | | | | 2012 | 2007 | 2007 | | | | | | | | | | | | | | | | |
| Estonia | 2006 | 2007 | 2007 | 2008 | 2008 | 2011 | 2009 | | | | | | | | | | | | | | | | |

Discussing the situation for healthy life years for males we follow the Eurostat comment above that comparisons between countries might be influenced by cultural differences and therefore we shall concentrate on comments about the comparisons over time rather than that between countries.

In such comparisons over time for males there were 13 countries where the indicator was improving in the sense that the most recent value in bold was the highest level achieved in the analysed period. In the other 15 countries the direction of change in the last year(s) was in the direction of lowering the healthy life years for males, in most of these countries the deterioration happened again in the period of crisis.

The situation with respect to healthy life years for female and males in an important way adjusts the view of continuous improvements in the life expectancy in indicator 1 to consider also the decrease in the healthy life expectancy for both females and males especially in some years of the crisis.

Indicator 24. Households with broadband access

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 3 | 8 | 13 | 18 | 23 | 28 | 33 | 38 | 43 | 48 | 53 | 58 | 63 | 68 | 73 | 78 | 83 | 88 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Finland | | | 2003 | 2004 | 2004 | 2004 | 2005 | 2005 | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | 2012 | 2013 |
| Denmark | | | | | | 2003 | 2004 | 2004 | 2004 | 2005 | 2005 | 2006 | 2006 | 2007 | 2008 | 2010 | 2011 | |
| Netherlands | | | | | 2003 | 2004 | 2004 | 2004 | 2005 | 2005 | 2005 | 2006 | 2006 | 2006 | 2007 | 2009 | 2011 | |
| Sweden | | | | | | | | | 2005 | 2006 | 2006 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | |
| United Kingdom | | | 2003 | 2004 | 2004 | 2005 | 2005 | 2006 | 2006 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | |
| Germany | | | 2003 | 2004 | 2005 | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2008 | 2009 | 2009 | 2010 | 2011 | 2012 | |
| Austria | | | 2004 | 2004 | 2005 | 2006 | 2006 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 | 2011 | 2012 | | |
| Belgium | | | | | | | | | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2011 | 2013 | |
| Estonia | | | | | 2004 | 2005 | 2005 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2012 | 2013 | |
| Malta | | | | | 2005 | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2008 | 2009 | 2010 | 2011 | 2011 | 2013 | |
| EU 15 | | | | 2004 | 2005 | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2012 | 2013 | |
| France | | | | | | | 2006 | 2006 | 2007 | 2007 | 2008 | 2008 | 2009 | 2011 | 2011 | 2011 | 2013 | |
| EU 28 | | | | | | | | | 2007 | 2008 | 2009 | 2009 | 2010 | 2011 | 2012 | | | |
| Slovenia | | | 2004 | 2005 | 2005 | 2006 | 2006 | 2006 | 2007 | 2008 | 2009 | 2009 | 2010 | 2011 | 2012 | | | |
| Hungary | | 2004 | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2008 | 2009 | 2010 | 2011 | 2011 | 2012 | | | | |
| Latvia | | 2004 | 2005 | 2005 | 2006 | 2007 | 2007 | 2008 | 2008 | 2009 | 2010 | 2011 | 2012 | 2012 | | | | |
| Luxembourg | | 2003 | 2004 | 2004 | 2004 | 2005 | 2005 | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2012 | | | | |
| Slovakia | | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2008 | 2009 | 2010 | 2011 | 2011 | 2011 | 2012 | | | | |
| Czech Republic | 2004 | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2008 | 2009 | 2009 | 2010 | 2010 | 2012 | 2013 | | | | |
| Poland | | 2004 | 2005 | 2005 | 2006 | 2007 | 2007 | 2008 | 2008 | 2009 | 2009 | 2010 | 2011 | 2013 | | | | |
| Spain | | | | 2005 | 2005 | 2006 | 2006 | 2007 | 2008 | 2009 | 2009 | 2010 | 2011 | 2013 | | | | |
| Italy | | | 2005 | 2006 | 2007 | 2008 | 2008 | 2009 | 2009 | 2010 | 2011 | 2012 | 2013 | 2013 | | | | |
| Ireland | 2004 | 2005 | 2006 | 2006 | 2007 | 2007 | 2007 | 2008 | 2008 | 2008 | 2009 | 2010 | 2011 | | | | | |
| Croatia | | | | | 2007 | 2008 | 2009 | 2009 | 2009 | 2010 | 2011 | 2012 | 2013 | | | | | |
| Cyprus | 2005 | 2006 | 2006 | 2007 | 2007 | 2008 | 2008 | 2008 | 2009 | 2009 | 2010 | 2011 | 2013 | | | | | |
| Lithuania | 2004 | 2005 | 2005 | 2006 | 2006 | 2007 | 2007 | 2007 | 2008 | 2009 | 2010 | 2012 | 2013 | | | | | |
| Portugal | | 2003 | 2004 | 2005 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | 2010 | 2011 | | | | | | |
| Romania | | 2007 | 2008 | 2008 | 2010 | 2011 | 2011 | 2011 | 2012 | 2012 | 2013 | 2013 | | | | | | |
| Greece | 2006 | 2007 | 2007 | 2008 | 2008 | 2009 | 2009 | 2010 | 2011 | 2012 | 2013 | | | | | | | |
| Bulgaria | | 2005 | 2007 | 2008 | 2008 | 2010 | 2011 | 2011 | 2011 | 2012 | 2013 | | | | | | | |

The percentage of household with broadband access as one of the ICT indicators shows the very important characteristic of extremely high dynamics in this field. In the leading country Finland the share of households with this access increased from about 13 percent in 2003 to 88 percent in 2013, i.e. in a single decade. The much higher growth rate of increase than that in the indicators from other domains means that some high static measures for evaluation of differences between countries do not tell the whole story. The static ratio in 2013 between Finland, on one hand, and Romania, Greece, and Bulgaria, on the other, of 1.66 (88/53) must be accompanied by time distance assessment that at level of 53 percent of access Finland had only 7 years of time lead (2006 vs. 2013). The perception of the degree of disparity is rather different if one uses the measures of 66 percent or 7 years. For realistic assessment we need both static and time distance measures.

Indicator 25. Regular Internet use

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Luxembourg | | | | | | | | | 2003 | 2004 | 2004 | 2006 | 2007 | 2008 | 2009 | 2010 | 2012 |
| Netherlands | | | | | | | | | | | | | | 2006 | 2007 | 2009 | 2011 |
| Sweden | | | | | | | | | | | | | 2003 | 2007 | 2008 | 2009 | 2011 |
| Denmark | | | | | | | | | | | | 2003 | 2004 | 2005 | 2008 | 2010 | 2013 |
| Finland | | | | | | | | | | | 2003 | 2005 | 2006 | 2007 | 2009 | 2011 | |
| United Kingdom | | | | | | | | | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2012 | |
| Belgium | | | | | | | | | | 2005 | 2006 | 2008 | 2009 | 2010 | 2013 | | |
| Germany | | | | | | | | 2003 | 2004 | 2005 | 2006 | 2007 | 2009 | 2010 | 2013 | | |
| France | | | | | | | 2006 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | 2011 | | | |
| Austria | | | | | | | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2010 | 2011 | | | |
| Estonia | | | | | | | | 2004 | 2005 | 2006 | 2007 | 2009 | 2010 | 2012 | | | |
| EU 15 | | | | | | | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2013 | | | |
| Ireland | | | | 2003 | 2005 | 2005 | 2006 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2013 | | | |
| Slovakia | | | | | | | 2004 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | 2012 | | | |
| EU 28 | | | | | | | | | | 2008 | 2009 | 2010 | 2011 | 2012 | | | |
| Hungary | | | | 2004 | 2005 | 2005 | 2006 | 2006 | 2007 | 2008 | 2010 | 2011 | 2013 | | | | |
| Latvia | | | | | 2004 | 2005 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | | | | |
| Czech Republic | | | 2003 | 2004 | 2005 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | 2012 | 2013 | | | | |
| Slovenia | | | | | | 2004 | 2005 | 2006 | 2007 | 2009 | 2009 | 2012 | | | | | |
| Malta | | | | | | 2006 | 2007 | 2008 | 2008 | 2009 | 2010 | 2011 | | | | | |
| Spain | | | | | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2011 | 2012 | | | | | |
| Lithuania | | | 2003 | 2004 | 2005 | 2006 | 2006 | 2007 | 2008 | 2009 | 2011 | 2013 | | | | | |
| Croatia | | | | | | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | | | | | | |
| Cyprus | | | | | 2006 | 2008 | 2009 | 2009 | 2010 | 2011 | 2013 | | | | | | |
| Poland | | | | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2013 | | | | | | |
| Portugal | | | | 2004 | 2006 | 2007 | 2009 | 2010 | 2011 | 2012 | | | | | | | |
| Greece | | 2003 | 2005 | 2006 | 2007 | 2008 | 2010 | 2011 | 2012 | 2013 | | | | | | | |
| Italy | | | | 2003 | 2006 | 2007 | 2009 | 2010 | 2011 | 2013 | | | | | | | |
| Bulgaria | | 2004 | 2006 | 2007 | 2007 | 2008 | 2009 | 2011 | 2012 | | | | | | | | |
| Romania | 2004 | 2005 | 2007 | 2008 | 2009 | 2010 | 2012 | 2013 | | | | | | | | | |

The indicator of regular Internet use is more demanding as it goes beyond the mere availability of new technology. Yet it possesses the similar characteristic of very high growth rates.

The leading Scandinavian countries started with much higher values in the range above 60 percent already in about 2004 when Romania was still at 10 percent and Bulgaria, Greece were at 15 percent and Italy at 20 percent. So even if Romania from 2004 to 2013 increased the share nearly fivefold the time lag is more substantial than in the case of households with Internet access.

The interesting point is that some of the countries from EU15 are positioned low in the matrix: Italy, Greece, Portugal, and Spain from the southern part as against the others positioned in the first 9. Several countries from the 2004 widening have positioned themselves between these two EU15 groups.

Indicator 26. Share of energy from renewable sources

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----|------|------|------|------|------|------|
| Sweden | | | | | | | | | | | | | | | | | | | | | 2005 | 2006 | 2007 | 2008 | 2011 | 2012 |
| Latvia | | | | | | | | | | | | | | | | 2008 | 2008 | 2011 | | | | | | | | |
| Finland | | | | | | | | | | | | | | | | 2007 | 2010 | 2012 | | | | | | | | |
| Austria | | | | | | | | | | | | | 2005 | 2006 | 2008 | 2009 | 2012 | | | | | | | | | |
| Denmark | | | | | | | | | 2006 | 2007 | 2009 | 2010 | 2011 | 2012 | | | | | | | | | | | | |
| Estonia | | | | | | | | | 2008 | 2008 | 2009 | 2010 | | | | | | | | | | | | | | |
| Portugal | | | | | | | | | | 2005 | 2007 | 2009 | | | | | | | | | | | | | | |
| Romania | | | | | | | | | 2007 | 2008 | 2011 | | | | | | | | | | | | | | | |
| Lithuania | | | | | | | | | 2008 | 2011 | | | | | | | | | | | | | | | | |
| Slovenia | | | | | | | | | 2008 | 2009 | 2012 | | | | | | | | | | | | | | | |
| Croatia | | | | | | | | 2010 | 2011 | | | | | | | | | | | | | | | | | |
| Bulgaria | | | | | | 2007 | 2009 | 2010 | 2012 | | | | | | | | | | | | | | | | | |
| Spain | | | | | | 2007 | 2009 | 2012 | | | | | | | | | | | | | | | | | | |
| EU 28 | | | | | | 2007 | 2009 | 2012 | | | | | | | | | | | | | | | | | | |
| Greece | | | | | 2008 | 2010 | 2011 | | | | | | | | | | | | | | | | | | | |
| Italy | | | | 2005 | 2008 | 2010 | 2011 | | | | | | | | | | | | | | | | | | | |
| France | | | | | | 2007 | 2011 | | | | | | | | | | | | | | | | | | | |
| Germany | | | | 2004 | 2006 | 2009 | 2012 | | | | | | | | | | | | | | | | | | | |
| Czech Republic | | | | 2005 | 2008 | 2011 | | | | | | | | | | | | | | | | | | | | |
| Poland | | | | | 2008 | 2011 | | | | | | | | | | | | | | | | | | | | |
| Slovakia | | | | 2006 | 2008 | 2011 | | | | | | | | | | | | | | | | | | | | |
| Hungary | | | | 2007 | 2009 | | | | | | | | | | | | | | | | | | | | | |
| Ireland | | | 2008 | 2010 | | | | | | | | | | | | | | | | | | | | | | |
| Belgium | | 2004 | 2009 | 2012 | | | | | | | | | | | | | | | | | | | | | | |
| Cyprus | | | 2007 | 2011 | | | | | | | | | | | | | | | | | | | | | | |
| Netherlands | | 2004 | 2011 | | | | | | | | | | | | | | | | | | | | | | | |
| United Kingdom | | 2007 | 2012 | | | | | | | | | | | | | | | | | | | | | | | |
| Luxembourg | | 2006 | | | | | | | | | | | | | | | | | | | | | | | | |
| Malta | 2004 | | | | | | | | | | | | | | | | | | | | | | | | | |

Share of energy from renewable sources allows a quick glimpse at the great differences in this respect, partly due to availability of natural resources and partly to policy differences.

Apart from the exceptional share in Sweden, the range is extraordinary from a few percent to more than 30 percent of the renewable sources. It is interesting to observe that many large countries are positioned below the halve of this range: Spain at 14 percent, Italy, France, and Germany at 12 percent, Poland at 10, United Kingdom even at about 4 percent.

It will be very difficult for the general EU orientation towards renewable sources and the targets set in the National Reform Programmes (NRPs) to overcome these gaps. The need is obvious but the rate of change in the past and the wide range of situations seen at a glance in the matrix does not look very promising if further operational programs are not put in place and executed.

Indicator 27. Urban population exposure to air pollution by particulate matter PM10

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 60 | 58 | 56 | 54 | 52 | 50 | 48 | 46 | 44 | 42 | 40 | 38 | 36 | 34 | 32 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 12 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Denmark | | | | | | | | | | | | | | | | | | 2006 | 2007 | 2008 | 2008 | 2009 | 2009 | 2010 | 2010 |
| Finland | | | | | | | | | | | | | | | | | | | | | | | 1999 | 2008 | 2011 |
| Estonia | | | | | | | | | | | | | | | | | | | | 2006 | 2007 | 2007 | 2007 | 2010 | 2009 |
| Sweden | | | | | | | | | | | | | | | | | | | | | 2006 | 2008 | 2011 | 2010 | |
| Ireland | | | | | | | | | | | | | | | | | | | | 2003 | 2003 | 2011 | 2010 | 2009 | |
| Luxembourg | | | | | | | | | | | | | | | | | | | | | 2006 | 2011 | 2010 | 2009 | |
| United Kingdom | | | | | | | | | | | | | | | | 1997 | 1998 | 2003 | 2007 | 2008 | 2011 | 2010 | | | |
| Germany | | | | | | | | | | | | | | | | | 2003 | 2006 | 2007 | 2009 | | | | | |
| Latvia | | | | | | | | | | | | | | | | | | | 2010 | 2010 | 2009 | | | | |
| Lithuania | | | | | | | | | | | | | | | | | 2000 | 2010 | 2011 | 2009 | 2008 | | | | |
| Spain | | | | | | | | 1998 | 1998 | 1999 | 1999 | 2000 | 2000 | 2006 | 2007 | 2007 | 2008 | 2009 | 2010 | | | | | | |
| EU 15 | | | | | | | | | | | | | | | 1997 | 1997 | 2003 | 2007 | 2011 | | | | | | |
| France | | | | | | | | | | | | | | | | | | 2009 | 2008 | 2006 | 2005 | | | | |
| Netherlands | | | | | | | | | | | | | 1999 | 2003 | 2006 | 2007 | 2008 | 2009 | | | | | | | |
| Austria | | | | | | | | | | | | | | | 2001 | 2006 | 2006 | 2010 | 2009 | 2008 | | | | | |
| Belgium | | | | | | | | | | 1997 | 1997 | 2003 | 2004 | 2004 | 2006 | 2010 | 2008 | | | | | | | | |
| EU 28 | | | | | | | | | | | | | | | 1997 | 2006 | 2007 | 2010 | | | | | | | |
| Portugal | | | | | | | | | | 1999 | 1999 | 1999 | 2004 | 2005 | 2007 | 2008 | 2010 | | | | | | | | |
| Czech Republic | | | | | | | | | | 2003 | 2003 | 2004 | 2006 | 2006 | 2007 | 2010 | 2009 | 2008 | | | | | | | |
| Slovenia | | | | | | | | | 2003 | 2004 | 2004 | 2005 | 2005 | 2006 | 2007 | 2011 | 2010 | | | | | | | | |
| Italy | | | | | | | | 2000 | 2000 | 2000 | 2006 | 2007 | 2007 | 2008 | 2011 | 2010 | | | | | | | | | |
| Hungary | | | | | | | | | | | 2006 | 2006 | 2007 | 2011 | 2009 | 2004 | 2004 | 2004 | | | | | | | |
| Slovakia | | | | | | | | | | | | 1999 | 2011 | 2011 | 2010 | 2010 | 2009 | | | | | | | | |
| Cyprus | | | | | | 2010 | 2010 | 2010 | 2011 | 2011 | 2011 | 2011 | | | | | | | | | | | | | |
| Poland | | | | 1998 | 1998 | 1998 | 1998 | 1999 | 2006 | 2006 | 2010 | 2009 | 2009 | 2008 | | | | | | | | | | | |
| Romania | | | | 2004 | 2006 | 2006 | 2007 | 2007 | 2007 | 2008 | 2008 | 2011 | 2010 | 2010 | 2009 | 2009 | | | | | | | | | |
| Bulgaria | 2008 | 2011 | 2011 | 2011 | 2010 | 2010 | 2010 | 2002 | 2002 | 2002 | 2002 | 2002 | 2001 | 2001 | 2001 | 2001 | 2001 | 2001 | 2000 | 2000 | 2000 | | | | |
| China | 2009 | | | | | | | | | | | | | | | | | | | | | | | | |
| India | 2007 | 2009 | 2009 | 2010 | 2010 | | | | | | | | | | | | | | | | | | | | |

Important indicator in the domain of environment is exposure of urban population to air pollution by particulate matter PM10. Data relate to urban-population weighted PM10 levels in residential areas of cities with more than 100,000 residents. Again, there are huge differences between countries.

The column in red for the level of PM10 concentrations 20 micrograms per cubic metre shows the level of WHO recommended annual level. The matrix clearly shows that many countries are still above that level. In the recent years only seven EU countries were at this or lower levels, 21 EU countries are not meeting such recommendation.

Many other comparisons between countries and their dynamics can be made, both within EU and beyond. This pollution is much higher in China and India than in any EU country except Bulgaria.

Indicator 28. Publications per million inhabitants

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 | 5500 | 6000 | 6500 | 7000 | 7500 | 8000 | 8500 | 9000 | 9500 | 10000 | 10500 | 11000 |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| Denmark | | | | | | | | | | | | 1995 | 1997 | 1999 | 2002 | 2004 | 2006 | 2007 | 2008 | 2008 | 2009 | 2010 |
| Sweden | | | | | | | | | | | | | | 1995 | 1997 | 1999 | 2002 | 2004 | 2006 | 2008 | 2009 | |
| Netherlands | | | | | | | | | | 1994 | 1997 | 2001 | 2003 | 2004 | 2006 | 2007 | 2008 | 2009 | | | | |
| Finland | | | | | | | | | | | 1995 | 1996 | 1998 | 2000 | 2003 | 2005 | 2007 | 2008 | | | | |
| Slovenia | | | | 1995 | 1997 | 1998 | 2000 | 2001 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2008 | 2009 | | | | | | |
| Belgium | | | | | | | | 1996 | 1998 | 2001 | 2003 | 2005 | 2006 | 2008 | 2009 | | | | | | | |
| United | | | | | | | | | | 1995 | 1997 | 2003 | 2005 | 2007 | 2009 | | | | | | | |
| Ireland | | | | | 1996 | 2000 | 2002 | 2004 | 2005 | 2006 | 2007 | 2008 | 2008 | 2009 | | | | | | | | |
| Austria | | | | | | | 1996 | 1998 | 2000 | 2003 | 2005 | 2007 | 2008 | 2010 | | | | | | | | |
| Germany | | | | | | | 1995 | 1998 | 2004 | 2007 | 2010 | | | | | | | | | | | |
| Luxembourg | | 2000 | 2003 | 2005 | 2006 | 2007 | 2008 | 2008 | 2009 | 2010 | | | | | | | | | | | | |
| Spain | | | | 1996 | 2000 | 2003 | 2005 | 2007 | 2008 | 2010 | | | | | | | | | | | | |
| France | | | | | | | 1996 | 2003 | 2007 | | | | | | | | | | | | | |
| Estonia | | | 1995 | 1998 | 2003 | 2005 | 2006 | 2008 | 2009 | | | | | | | | | | | | | |
| Greece | | | 1995 | 1998 | 2001 | 2003 | 2005 | 2006 | 2008 | | | | | | | | | | | | | |
| Portugal | | 1997 | 2000 | 2002 | 2004 | 2006 | 2007 | 2009 | 2010 | | | | | | | | | | | | | |
| EU 27 | | | | | 1994 | 1999 | 2005 | 2008 | | | | | | | | | | | | | | |
| Czech | | | 1995 | 1998 | 2003 | 2005 | 2007 | 2008 | | | | | | | | | | | | | | |
| Italy | | | | | 1998 | 2002 | 2005 | 2008 | | | | | | | | | | | | | | |
| Cyprus | 1994 | 1998 | 2003 | 2005 | 2007 | 2008 | 2009 | 2010 | | | | | | | | | | | | | | |
| Lithuania | 1995 | 2002 | 2004 | 2005 | 2007 | 2008 | | | | | | | | | | | | | | | | |
| Hungary | | | | 1999 | 2005 | | | | | | | | | | | | | | | | | |
| Slovakia | | | 1995 | 2004 | 2008 | | | | | | | | | | | | | | | | | |
| Poland | | 1996 | 2002 | 2006 | 2009 | | | | | | | | | | | | | | | | | |
| Malta | 1996 | 2006 | 2009 | | | | | | | | | | | | | | | | | | | |
| Romania | 2002 | 2007 | 2010 | | | | | | | | | | | | | | | | | | | |
| Bulgaria | | | 2010 | | | | | | | | | | | | | | | | | | | |
| Latvia | | 2008 | | | | | | | | | | | | | | | | | | | | |

Scientific publications per million of inhabitants intend to bring into the picture also the performance in the scientific domain. In this matrix data are from ARRS (2014), Time Matrix for Publications per Million Inhabitants in 5-year Periods, based on ISI database Web of Science, 2013. The differences between EU countries are large from Denmark with about 11000 publications to 1000 in Latvia and 1500 in Malta, Romania, and Bulgaria.

The time matrix shows clear trend toward higher number of publications, one of the greatest dynamics was in Slovenia with 12 steps from 2000 in 1995 to 8000 in 2009, similar dynamics was achieved in Denmark with 11 steps, followed by Ireland, Luxembourg, Spain, Estonia, Greece, Portugal, and Cyprus.

Indicator 29. Proportion of seats in national parliaments held by women

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sweden | | | | | | | | | | | | | | | | | | | | 2003 | 2010 |
| Finland | | | | | | | | | | | | | | | | | 2006 | 2010 | 2011 | | |
| Denmark | | | | | | | | | | | | | | | | | 2011 | | | | |
| Netherlands | | | | | | | | | | | | | | | | 2002 | 2008 | 2011 | | | |
| Belgium | | | | | | | | | | 2003 | 2003 | 2003 | 2004 | 2004 | 2004 | 2009 | 2013 | | | | |
| Germany | | | | | | | | | | | | | | 2008 | 2012 | 2013 | | | | | |
| Spain | | | | | | | | | 2000 | 2000 | 2001 | 2004 | 2004 | 2005 | 2005 | 2013 | | | | | |
| Austria | | | | | | | | | | | | 2012 | 2012 | 2013 | 2004 | | | | | | |
| Slovenia | | 2000 | 2001 | 2004 | 2010 | 2011 | 2011 | 2011 | 2011 | 2012 | 2012 | 2012 | 2012 | 2012 | | | | | | | |
| Italy | | | 2002 | 2005 | 2005 | 2006 | 2007 | 2008 | 2012 | 2012 | 2012 | 2013 | 2013 | | | | | | | | |
| Portugal | | | | | | | 2002 | 2004 | 2007 | 2007 | 2008 | 2012 | 2013 | | | | | | | | |
| Luxembourg | | | | | | | 2004 | 2011 | 2011 | 2012 | 2012 | 2013 | | | | | | | | | |
| France | | | | 2004 | 2006 | 2007 | 2007 | 2011 | 2011 | 2012 | 2012 | | | | | | | | | | |
| Poland | | | | | 2001 | 2001 | 2002 | 2011 | 2012 | | | | | | | | | | | | |
| United Kingdom | | | | | | | 2004 | 2009 | 2011 | | | | | | | | | | | | |
| Greece | 2000 | 2001 | 2004 | 2005 | 2006 | 2010 | 2011 | 2012 | | | | | | | | | | | | | |
| Estonia | | | | | | | 2003 | 2012 | 2010 | | | | | | | | | | | | |
| Czech Republic | | | | | | 2009 | 2009 | 2013 | 2012 | | | | | | | | | | | | |
| Slovak Republic | | | | | 2002 | 2011 | 2013 | 2006 | | | | | | | | | | | | | |
| Ireland | | | | 2002 | 2010 | | | | | | | | | | | | | | | | |
| Hungary | | 2002 | 2010 | | | | | | | | | | | | | | | | | | |

As an example of time matrix presentation and visualisation for gender disparities the indicator 'Proportion of seats in national parliaments held by women' is shown. It is very easy to understand and can be used for other indicators describing the share of women in several fields, like employment, women in science, etc.

In the EU differences are huge, from 46 percent in Sweden to 10 percent in Hungary. From the same data set from OECDStatExtracts immediately behind Sweden South Africa is placed at 44 percent, India, Hungary, and Japan at 10 percent and Brazil at 8 percent were very far away from that.

With normal variation at new changes of parliaments the general trend is towards higher portion of seats held by women. The greatest increase was in Slovenia from 8 to 32 percent, Italy from 10 to 30, by 7 steps of 2 percent the proportion was increased in Belgium, Italy, Spain, France, and Greece. But in six EU countries the proportion did not increase above 20 percent (Hungary, Ireland, Slovakia, Czech Republic, Estonia, and Greece). United Kingdom and Poland were above that but below one quarter.

Indicator 30. Current account balance in percent of GDP

S-time-matrix: time when specified level of the indicator was achieved (sorted by last available value)

| LEVEL | -24 | -22 | -20 | -18 | -16 | -14 | -12 | -10 | -8 | -6 | -4 | -2 | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Netherlands | | | | | | | | | | | | | 1980 | 2000 | 2002 | 2009 | 2010 | 2013 | | | |
| Germany | | | | | | | | | | | | | 2001 | 2003 | 2004 | 2009 | | | | | |
| Denmark | | | | | | | | | | | 1987 | 1988 | 1998 | 2007 | 2009 | 2012 | | | | | |
| Slovenia | | | | | | | | | | | 2008 | 2009 | 2010 | 2012 | 2012 | 2013 | | | | | |
| Sweden | | | | | | | | | | | | | | 1995 | 1999 | 2012 | 2008 | | | | |
| Luxembourg | | | | | | | | | | | | | | | | 2012 | 2007 | 2007 | 2000 | | |
| Ireland | | | | | | | | | | | 2008 | 2009 | 2010 | 2011 | 2012 | | | | | | |
| Hungary | | | | | | | | 1994 | 2005 | 2008 | 2008 | 2009 | 2010 | 2013 | | | | | | | |
| Austria | | | | | | | | | | | | 1998 | 2001 | 2012 | 2008 | | | | | | |
| Slovakia | | | | | | | | | 2006 | 2008 | 2009 | 2011 | 2012 | 2012 | 1994 | | | | | | |
| Bulgaria | 2008 | 2008 | 2008 | 2008 | 2009 | 2009 | 2009 | 2009 | 2009 | 2009 | 2010 | 2010 | 2012 | 1998 | 1997 | | | | | | |
| Lithuania | | | | | | 2007 | 2008 | 2008 | 2008 | 2008 | 2009 | 2011 | 2012 | 2009 | | | | | | | |
| Malta | | | | | | | 2000 | 2000 | 2009 | 2010 | 2010 | 2011 | 2011 | 2012 | | | | | | | |
| Croatia | | | | | | | | | 2008 | 2009 | 2009 | 2010 | 2012 | | | | | | | | |
| Italy | | | | | | | | | | | | 2011 | 2012 | 1998 | | | | | | | |
| Spain | | | | | | | | 2007 | 2008 | 2009 | 2011 | 2012 | 2013 | | | | | | | | |
| Greece | | | | | | 2008 | 2009 | 2011 | 2011 | 2012 | 2012 | 2012 | 2013 | | | | | | | | |
| Portugal | | | | | | | 2008 | 2010 | 2011 | 2011 | 2012 | 2012 | 2013 | | | | | | | | |
| Latvia | | 2007 | 2007 | 2007 | 2008 | 2008 | 2008 | 2008 | 2008 | 2008 | 2008 | 2012 | 2011 | 2010 | 2010 | 2009 | 2009 | 1994 | 1993 | 1993 | 1993 |
| Estonia | | | | | | 2007 | 2008 | 2008 | 2008 | 2008 | 2008 | 2009 | 2012 | 2011 | | | | | | | |
| Finland | | | | | | | | | | 1975 | 1992 | 1993 | 2011 | 2009 | 2007 | 2004 | 2002 | | | | |
| Romania | 1994 | 1994 | 1994 | 1994 | 1994 | 1994 | 2008 | 2008 | 2008 | 2009 | 2012 | 2013 | | | | | | | | | |
| France | | | | | | | | | | | | 2012 | 2005 | 1999 | | | | | | | |
| Poland | | | | | | | | | | 2008 | 2012 | 2013 | 1995 | | | | | | | | |
| Czech Republic | | | | | | | | | | 2003 | 2007 | 2012 | 1993 | | | | | | | | |
| Belgium | | | | | | | | | | | | | 2011 | 2005 | 2002 | | | | | | |
| Cyprus | | | | | | 2008 | 2009 | 2010 | 2010 | 2012 | 2013 | 2013 | 1999 | 1998 | | | | | | | |
| United Kingdom | | | | | | | | | | | 2012 | 2011 | 1985 | | | | | | | | |

This indicator is an example of many other indicators in the economic domain that could be presented by the S-time-matrix. There are two main groups of countries in this respect. One set of countries were over the analysed period keeping the tendency towards higher share of current balance; the other group of countries showed a quite different story of considerable variation over time. There were also differences in the length of available data series and how different countries behaved before and after the start of the recent depression.

Approximately for the most recent values the greatest concentration is around level 0, which means balanced current account. At that level were 10 countries, many of them coming from the left side of the matrix by realising that such huge current account deficits are not sustainable (about 11 countries were in the column with value of -10 in the past, a deficit that requires change in only one direction). With the highest recent values on the positive side are Netherlands at 10 percent, Germany, Denmark, Slovenia, Sweden, and Luxembourg at 6 percent.

CONCLUSIONS

There are three salient points streaming from the broad journey through the 30 indicators to unravel the portrait of the EU and the EU countries.

1. The first point is methodological: it is very important how people understand data and indicators. For that we need beyond data also innovative concepts of looking at data and new generic statistical measures in order to better perceive and exploit the information available in existing data. Static measures of disparity and percentage growth rates of the present state-of-the-art alone are not enough to describe the broader dynamic reality. **Time distance is an innovative approach** for looking at time series data. Expressed in time units, the approach is easy to understand and provides a useful complement to existing methods. The strength of the time distance concept is that it enables additional exploitation of data and clear visualization of time series. **It is a generic concept, in the same way as static difference and growth rates; it provides an additional view to many problems and applications.**

Seeing with new eyes, to borrow the phrase from Marcel Proust, creates new knowledge and better understanding also for social and economic phenomena. **Both beyond GDP initiatives and beyond static statistical measures are two directions of seeing with new eyes**, which can complement each other. In this study it was shown how to present and visualise indicators over time with the novel level-time matrix and how to measure intertemporal changes in composite indicators like Human Development Index. It was this innovative time matrix presentation that enabled condensed summary visual presentation over many countries and over time for the 30 selected indicators. Under each time matrix a brief comment offers some possible introductory interpretation of the situation of the indicator. **Many other comparisons of levels between countries and their dynamics in the matrix can be made by imaginative users.**

Last but not least, in the **Annex A1 Time Matrix Calculator** is provided to calculate time matrix to **enable users to test and analyse their own data in time matrix format. There is no need to collect new data: one can start using existing data and indicators systems**

from international, national, regional, business, and local sources.

2. The second point relates to the degree of disparities in the level and dynamics of the selected indicators in the EU. **Both visually and in numbers it was shown that very large differences exist between countries in both respects – levels and dynamics.** In the perception of the overall situation in the EU in various domains and in the policy considerations this should be kept in mind at all times. Overall the general policy orientation and policy instruments should be regulated to the circumstances at the starting situation and to the vision of future economic and social development in a given country. As these conditions are so varied it must be clearly understood that this is a very complex problem to be dealt with. Also the European Commission and European Parliament should expect that over-regulation in some domains will be ineffective and inefficient.

3. An important point relates to the **multidimensional nature of development and well-being, especially in relation to the effects of the world financial crisis.** One of them is that the damage done to individual EU countries by the world financial crisis is seen in different dimensions and scale of the damage when we look for 28 countries beyond GDP and consider also deterioration in employment rate, investment share, risk of poverty, income distribution, health, etc.

While media and also official organizations are focusing on discussion of GDP growth rate (even discussing changes in this rate of e.g. 0.2 percent over quarters or years as the sign that depression is over), such orientation understated the severity of the crisis.

Other domains show a more difficult situation:

- **employment rate fell** in 20 EU countries;
- **in all 28 EU countries without exception share of gross investment in GDP decreased;**
- **risk of poverty as percent of total population increased** in 24 EU countries;
- **income distribution worsened** as Gini coefficient and income quartile share ratio increased in 25 EU countries;
- **healthy life years at birth decreased** for males and females in 15-18 EU countries.

Please consult S-time-matrices for indicators 5, 7, 17, 19, 20, 22, and 23, where this is

visually very easy to detect by comparing the latest years in bold against the values obtained in the whole analysed period. **This confirms the telling power of S-time-matrix** rearrangement of time series data by the levels of the indicators and times achieved to deliver a good summary overview with clear understanding to decision-makers as well as to the general public.

4. Life expectancy at birth and Human Development Index are two indicators that have shown continuous improvements over five and three decades, respectively. However, there are still large differences between EU countries for both of them. For these two indicators we have also prepared tables of S-time-distance as a novel measure of disparity and S-time-step as a novel descriptive measure of dynamics. For the life expectancy we selected the average of ten best countries in the world as benchmark; only three of the EU countries are higher than that international benchmark, five of them are lagging the benchmark by more than 30 years. For HDI the benchmark was the average of the very high human development group in the world; four EU countries were ahead of that, six at the bottom were lagging more than 20 years. S-time-step showed that 3.8 years were needed in recent past to increase one year of life expectancy, as an easily understandable description of dynamics complementing the growth rate measure.

5. This positive picture of dynamics in the two above indicators is followed by time matrices for **per capita GDP in PPS and median income in PPS**. The relative differences between the countries are very large, ratio between countries at the top and bottom for GDP per capita is about 2.7. For median income there was Austria at approximate level 20,000, on the one hand, and Romania with 3,000, on the other, showing a ratio of about 6.7 – a tremendous gap that can be analysed also for other countries. The time series are not long enough that similar S-time-distance time lags could be easily calculated for per capita GDP.

6. The material situation is accompanied with time matrix for **employment rate**, which again showed vast differences between EU countries. Furthermore, the most striking conclusion is the severity of fall of employment rate in the current crisis, which fell in 20 EU countries. It is the fall in the employment rate that shows better the magnitude of the blow of the financial crisis in developed world to the EU (and USA); the fall in the GDP per capita

undervalues the severity of the current depression.

7. After employment rate as indicator of quantity input of human factor of production, the fall in **share of gross fixed investment** as an indicator of material input of one factor of production shows in a dramatic way at a glance the disastrous effects of the world financial system in the current depression on the GDP growth rates. **In all 28 EU countries** without exception the investment share decreased, for EU15 average and the USA for 3 steps. Ireland and Greece had the largest drops for even 13 steps (from share of 26 percent in 2007 to 13 percent in 2013).

8. **R&D expenditure in GDP and summary innovation index** illustrate the diversity and changes in these two indicators of quality improvement in some factors of production. Both indicators differ greatly among EU countries, the ratio between the highest and the lowest countries may vary from fivefold to threefold magnitude. Tertiary attainment indicates increase in this quality of human factor in all analysed countries.

9. The trend towards higher **share of the population aged 65 years or more in the total population** in the last five decades is very clear. Italy, Germany, and Greece already surpassed the 20 percent share. Eurostat prepared projections for the old age dependency ratio for the period 2013-2080. This time matrix is an example how projections over the period of 67 years and 28 countries can with some interpolations encompass potential 1876 entries over more than six decades in a compressed single one page table.

10. **Persons killed in road accidents** are showing continuous improvement but also very large differences among countries in the EU. At the same time 80-90 people per 1,000,000 inhabitants more are killed on roads in USA and Korea than in the best EU countries. For deaths due to homicide for Estonia, Lithuania, and Latvia their current values, though decreasing, are still very much higher than in other EU countries. Infant mortality rate is a story of enormous improvements in the last 50 years.

11. A set indicators tell a story about the situation with respect to the **risk of poverty, income inequality, and healthy life years** in EU countries, with special focus on changes in the current crisis. Unfortunately the conclusions are unanimous about the effects of world financial crisis on individual EU countries: risk of poverty as percent of total population

increased in 24 EU countries; income distribution worsened as Gini coefficient and income quartile share ratio increased in 25 EU countries; healthy life years at birth decreased for males and females in 15-18 EU countries.

12. In the broadly discussed information and communication domain trends were favourable. For **household with broadband access and regular Internet use** extremely high dynamics was observed. Also scientific publications per million inhabitants showed good performance in scientific domain. Percent of early leavers from education and training decreased though there were still large differences between countries.

13. Two indicators addressed some elements of environment domain. For **share of energy from renewable sources**, apart from the exceptional share in Sweden, the range between countries is very wide from a few percent to more than 30 percent of the renewable sources, which will be a challenge for the general EU orientation towards more renewable sources. **Urban population exposure to air pollution by particulate matter PM10** is indicating the difficult challenge in this respect as in the recent years only seven EU countries are at the WHO recommended annual level of 20 micrograms per cubic metre or lower, 21 EU countries are not meeting such recommendation.

14. Proportion of seats in national parliaments held by women again shows an example of very wide country differences in a social domain, from 10 to 46 percent. The time matrix presentation and visualisation for gender disparities in this indicator makes it very easy to understand and can be used for other indicators describing the share of women in several fields, like employment, women in science, etc.

15. The voyage through 30 time matrices for 28 countries compressed a very large amount of data, expressing multidimensional nature of development and well-being, indicating both visually and in numbers that **very large differences exist between EU countries with respects to levels and dynamics.** Using the innovative approach of time distance methodology the telling power of **S-time-matrix provided a good summary overview at-a-glance over many domains with clear understanding to decision-makers as well as to the general public.** Seeing with new eyes creates new knowledge and better understanding.

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ANNEX

A1 Time Matrix Calculator to calculate time matrix for your own data

Example of input file
(for indicator life expectancy at birth)

| Life expectancy at birth | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Belgium | 76.2 | 76.3 | 76.5 | 76.5 | 76.8 | 77.0 | 77.3 | 77.5 | 77.6 | 77.7 | 77.9 | 78.1 | 78.2 | 78.3 | 79.0 | 79.1 | 79.5 | 79.9 | 79.8 | 80.1 | 80.3 | 80.7 | 80.5 |
| Bulgaria | 71.2 | 71.1 | 71.2 | 71.2 | 70.9 | 71.0 | 70.8 | 70.3 | 70.9 | 71.6 | 71.6 | 71.9 | 72.1 | 72.3 | 72.5 | 72.5 | 72.7 | 73.0 | 73.3 | 73.7 | 73.8 | 74.2 | 74.4 |
| Czech Republic | 71.5 | 72.0 | 72.4 | 72.9 | 73.2 | 73.3 | 74.0 | 74.1 | 74.7 | 74.9 | 75.1 | 75.3 | 75.4 | 75.3 | 75.9 | 76.1 | 76.7 | 77.0 | 77.3 | 77.4 | 77.7 | 78.0 | 78.1 |
| Denmark | 74.9 | 75.3 | 75.3 | 75.2 | 75.5 | 75.3 | 75.7 | 76.1 | 76.5 | 76.6 | 76.9 | 77.0 | 77.1 | 77.4 | 77.8 | 78.3 | 78.4 | 78.4 | 78.8 | 79.0 | 79.3 | 79.9 | 80.2 |
| Germany | 75.4 | 75.7 | 76.2 | 76.2 | 76.6 | 76.7 | 77.0 | 77.4 | 77.8 | 78.0 | 78.3 | 78.6 | 78.6 | 78.6 | 79.3 | 79.4 | 79.9 | 80.1 | 80.2 | 80.3 | 80.5 | 80.8 | 81.0 |
| Estonia | 69.9 | 69.8 | 69.1 | 68.1 | 66.6 | 67.7 | 69.9 | 70.1 | 69.7 | 70.6 | 71.1 | 70.9 | 71.4 | 71.9 | 72.4 | 73.0 | 73.2 | 73.2 | 74.4 | 75.3 | 76.0 | 76.6 | 76.7 |
| Ireland | 74.8 | 75.0 | 75.4 | 75.3 | 75.8 | 75.5 | 75.8 | 76.0 | 76.2 | 76.1 | 76.6 | 77.2 | 77.7 | 78.2 | 78.6 | 79.0 | 79.3 | 79.7 | 80.2 | 80.2 | 80.8 | 80.9 | 80.9 |
| Greece | 77.1 | 77.1 | 77.0 | 77.4 | 77.5 | 77.5 | 77.6 | 77.9 | 77.9 | 77.9 | 78.2 | 78.8 | 79.0 | 79.1 | 79.3 | 79.5 | 79.8 | 79.7 | 80.2 | 80.4 | 80.6 | 80.8 | 80.7 |
| Spain | 77.0 | 77.1 | 77.8 | 77.7 | 78.1 | 78.1 | 78.2 | 78.7 | 78.8 | 78.8 | 79.3 | 79.8 | 79.8 | 79.7 | 80.4 | 80.3 | 81.1 | 81.1 | 81.5 | 81.9 | 82.4 | 82.6 | 82.5 |
| France | 77.0 | 77.2 | 77.5 | 77.5 | 78.0 | 78.1 | 78.2 | 78.6 | 78.8 | 78.9 | 79.2 | 79.3 | 79.4 | 79.3 | 80.4 | 80.4 | 81.0 | 81.3 | 81.4 | 81.6 | 81.9 | 82.3 | 82.1 |
| Croatia | | | | | | | | | | | | | | | | | | | | | | | |
| Italy | 77.1 | 77.1 | 77.5 | 77.8 | 78.0 | 78.3 | 78.7 | 79.0 | 79.1 | 79.8 | 79.9 | 80.3 | 80.4 | 80.1 | 80.9 | 80.9 | 81.4 | 81.6 | 81.7 | 81.8 | 82.2 | 82.4 | 82.4 |
| Cyprus | | | | 77.2 | 77.1 | 77.4 | 77.7 | 77.4 | 77.2 | 78.0 | 77.7 | 79.0 | 78.7 | 79.0 | 79.1 | 78.7 | 80.1 | 79.8 | 80.6 | 81.0 | 81.5 | 81.2 | 81.1 |
| Latvia | | | | | | | | | | | | | 70.2 | 70.6 | 70.9 | 70.6 | 70.6 | 70.8 | 72.1 | 72.8 | 73.1 | 73.9 | 74.1 |
| Lithuania | 71.5 | 70.6 | 70.5 | 69.0 | 68.6 | 69.1 | 70.3 | 71.1 | 71.4 | 71.8 | 72.1 | 71.6 | 71.8 | 72.0 | 72.0 | 71.2 | 71.0 | 70.7 | 71.7 | 72.9 | 73.3 | 73.7 | 74.1 |
| Luxembourg | 75.7 | 75.7 | 75.3 | 76.0 | 76.7 | 76.8 | 76.8 | 77.1 | 77.3 | 78.0 | 78.0 | 78.0 | 78.1 | 77.9 | 79.2 | 79.6 | 79.4 | 79.5 | 80.7 | 80.8 | 80.8 | 81.1 | 81.5 |
| Hungary | 69.4 | 69.4 | 69.2 | 69.2 | 69.6 | 70.0 | 70.6 | 71.1 | 71.0 | 71.1 | 71.9 | 72.5 | 72.6 | 72.6 | 73.0 | 73.0 | 73.5 | 73.6 | 74.2 | 74.4 | 74.7 | 75.1 | 75.3 |
| Malta | | | | | | 77.2 | 77.3 | 77.6 | 77.5 | 77.4 | 78.4 | 78.9 | 78.8 | 78.7 | 79.4 | 79.4 | 79.5 | 79.9 | 79.7 | 80.4 | 81.5 | 80.9 | 80.9 |
| Netherlands | 77.1 | 77.2 | 77.4 | 77.1 | 77.6 | 77.6 | 77.6 | 78.0 | 78.1 | 78.0 | 78.2 | 78.4 | 78.5 | 78.7 | 79.3 | 79.6 | 80.0 | 80.4 | 80.5 | 80.9 | 81.0 | 81.3 | 81.2 |
| Austria | 75.8 | 75.9 | 76.1 | 76.3 | 76.7 | 76.9 | 77.1 | 77.5 | 77.9 | 78.1 | 78.3 | 78.8 | 78.9 | 78.8 | 79.3 | 79.5 | 80.1 | 80.4 | 80.6 | 80.5 | 80.8 | 81.2 | 81.1 |
| Poland | 70.7 | 70.4 | 71.0 | 71.5 | 71.8 | 72.0 | 72.3 | 72.7 | 73.1 | 73.1 | 73.8 | 74.2 | 74.5 | 74.7 | 74.9 | 75.0 | 75.3 | 75.4 | 75.6 | 75.9 | 76.4 | 76.9 | 76.9 |
| Portugal | 74.1 | 74.1 | 74.7 | 74.6 | 75.5 | 75.4 | 75.3 | 75.8 | 76.0 | 76.2 | 76.8 | 77.2 | 77.4 | 77.5 | 78.4 | 78.2 | 79.0 | 79.3 | 79.5 | 79.7 | 80.1 | 80.7 | 80.6 |
| Romania | 69.9 | 70.1 | 69.5 | 69.5 | 69.4 | 69.3 | 68.8 | 69.1 | 69.9 | 70.6 | 71.2 | 71.1 | 71.0 | 71.4 | 71.9 | 72.3 | 72.8 | 73.3 | 73.5 | 73.6 | 73.8 | 74.6 | 74.5 |
| Slovenia | 73.9 | 73.6 | 73.7 | 73.6 | 74.0 | 74.7 | 75.2 | 75.2 | 75.3 | 75.7 | 76.2 | 76.4 | 76.6 | 76.4 | 77.2 | 77.5 | 78.3 | 78.4 | 79.1 | 79.4 | 79.8 | 80.1 | 80.3 |
| Slovakia | 71.1 | 71.1 | 71.5 | 72.0 | 72.5 | 72.4 | 72.9 | 72.9 | 72.8 | 73.2 | 73.3 | 73.6 | 73.8 | 73.8 | 74.2 | 74.1 | 74.5 | 74.6 | 74.9 | 75.3 | 75.6 | 76.1 | 76.3 |
| Finland | 75.1 | 75.5 | 75.7 | 75.9 | 76.7 | 76.7 | 77.0 | 77.2 | 77.4 | 77.6 | 77.8 | 78.2 | 78.3 | 78.6 | 79.0 | 79.1 | 79.5 | 79.6 | 79.9 | 80.1 | 80.2 | 80.6 | 80.7 |
| Sweden | 77.7 | 77.8 | 78.2 | 78.2 | 78.9 | 79.0 | 79.2 | 79.4 | 79.5 | 79.6 | 79.8 | 79.9 | 80.0 | 80.3 | 80.7 | 80.7 | 81.0 | 81.1 | 81.3 | 81.5 | 81.6 | 81.9 | 81.8 |
| United Kingdom | | | | 76.2 | 76.8 | 76.7 | 77.0 | 77.2 | 77.4 | 77.5 | 78.0 | 78.2 | 78.3 | 78.4 | 79.0 | 79.2 | 79.5 | 79.7 | 79.8 | 80.4 | 80.6 | 81.0 | 81.0 |

Source: Eurostat, Life expectancy by age and sex, Total [demo_mlexpec].

Available software tool:
Time Matrix Calculator

Faculty of Social Sciences,
University of Ljubljana
and SICENTER, Ljubljana, Slovenia

Methodology: Professor Pavle Sicerl
Programming: May Doušak
Testing: Jaka Hajnšek

www.timedistance.net

Required format of the input file:

Input file is an Excel file with data table in active sheet.

In the row 1 there are time units (number format) from cell B1 to the right; in the column A are unit names (text format, e.g., countries, regions, etc.) from cell A2 down.

Time matrix condenses information over many units and years (from about 550 entries in the input file), into much smaller number of about 140 entries, **which is a great advantage for presentation and visualisation providing a good summary overview of the situation at a glance.**

Time matrix for life expectancy at birth

| LEVEL | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Spain | | | | | | | | | | | 1990 | 1994 | 1999 | 2003 | 2006 | 2009 |
| Italy | | | | | | | | | | | | 1994 | 1997 | 2000 | 2005 | 2010 |
| France | | | | | | | | | | | 1990 | 1994 | 1999 | 2004 | 2006 | 2010 |
| Sweden | | | | | | | | | | | | 1992 | 1995 | 2002 | 2006 | |
| Cyprus | | | | | | | | | | | | 2000 | 2005 | 2007 | 2009 | |
| Netherlands | | | | | | | | | | | | 1999 | 2004 | 2006 | 2010 | |
| Austria | | | | | | | | | | | 1992 | 1996 | 1999 | 2003 | 2006 | 2011 |
| Luxembourg | | | | | | | | | | | 1993 | 1997 | 2003 | 2004 | 2007 | 2011 |
| Malta | | | | | | | | | | | | 2000 | 2003 | 2008 | 2011 | |
| United Kingdom | | | | | | | | | | | 1996 | 2000 | 2004 | 2008 | 2012 | |
| Germany | | | | | | | | | | | 1992 | 1996 | 1999 | 2004 | 2007 | 2012 |
| Greece | | | | | | | | | | | 1992 | 1999 | 2002 | 2008 | | |
| Ireland | | | | | | | | | | 1991 | 1997 | 2001 | 2003 | 2005 | 2008 | |
| Finland | | | | | | | | | | | 1993 | 1996 | 2001 | 2004 | 2009 | |
| Belgium | | | | | | | | | | | | 1995 | 2001 | 2004 | 2009 | |
| Portugal | | | | | | | | | | | 1993 | 1998 | 2001 | 2004 | 2006 | 2010 |
| Slovenia | | | | | | | | | 1994 | | 1996 | 2000 | 2004 | 2006 | 2008 | 2011 |
| Denmark | | | | | | | | | 1990 | 1997 | 2001 | 2004 | 2009 | 2011 | | |
| Czech Republic | | | | | | 1991 | 1993 | 1996 | | | 2000 | 2005 | 2007 | 2011 | | |
| Croatia | | | | | | | | | | | 2004 | 2008 | 2011 | | | |
| Poland | | | | | | | 1992 | 1995 | 1998 | 2001 | 2005 | 2009 | | | | |
| Estonia | 1994 | 1995 | 1996 | 1998 | 2001 | 2003 | 2005 | 2008 | 2009 | 2010 | | | | | | |
| Slovakia | | | | | | 1993 | 1999 | 2004 | 2008 | 2011 | | | | | | |
| Hungary | | | | 1995 | 1998 | 2000 | 2005 | 2008 | 2011 | | | | | | | |
| Romania | | | 1997 | 1998 | 2002 | 2004 | 2006 | 2010 | | | | | | | | |
| Bulgaria | | | | | | 1998 | 2002 | 2007 | 2011 | | | | | | | |
| Latvia | | | | | | 2007 | 2008 | 2010 | 2012 | | | | | | | |
| Lithuania | | | 1995 | 1996 | 2007 | 2008 | 2009 | 2012 | | | | | | | | |

The year presented in **bold** show the latest presented year of the indicator for the given country. It can help to quickly observe whether there was a noticeable decrease in later years in the observed period.

A2 How to learn the time distance methodology

For methodology see freely available paper by Statistics Directorate, OECD:

P. Sicherl, New Understanding and Insights from Time-Series Data Based on Two Generic Measures: S-time-distance and S-time-step; Working paper No. 44, Statistics Directorate, OECD Publishing, Paris, November 2011.

Please download the paper on <http://dx.doi.org/10.1787/5kg1zpzzl1tg-en>.

More detailed methodological issues and numerous applications are available in the book:

Pavle Sicherl, Time Distance in Economics and Statistics, New Insights from Existing Data, p. 444, Echoraum, Vienna, 2012.

More information about the book is available on wikiprogress,

http://www.wikiprogress.org/index.php/Time_Distance_in_Economics_and_Statistics.

The book is available on amazon.de,

<http://www.amazon.de/gp/product/3901941274>.

Brief definition of two novel statistical measures: S-time-distance and S-time-step

The statistical measure **S-time-distance** measures the distance (proximity) in time between the points in time when the two series compared reach a specified level of the indicator X. For instance, S-time-matrix for indicator 1 earlier showed that life expectancy of about 81 years was reached in the United Kingdom in 2012; this level was reached by the international frontier in 2006, with S-time-distance lead of 6 years or lag of 6 years for the UK. **S-time-distance** for a given level of X_L is defined as:

$$S_{ij}(X_L) = \Delta t(X_L) = t_i(X_L) - t_j(X_L) \quad (1)$$

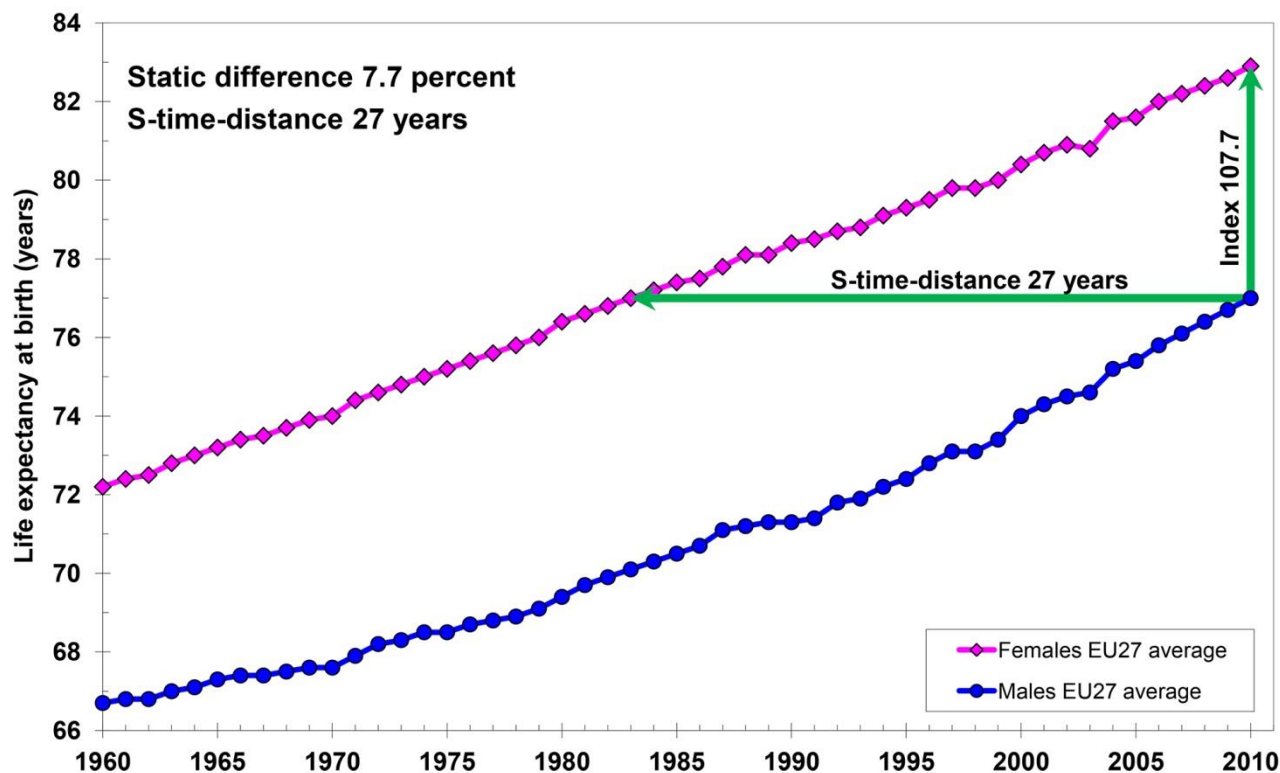
The **S-time-step** measures the time elapsed between two levels of a time series, providing an alternative description of its growth rate, measuring the growth of a series by using the inverse relation to the conventional $\Delta X/\Delta t$ growth rate metrics. For instance, the values of S-time-step in matrix 1b showed that the number of years needed in the past to reach the next consecutive level of life expectancy for EU28 was 3.8 years. This means nearly 4 years were needed for increase of one year of life expectancy from level of 79 to the level of 80 years. In the usual way of expressing dynamics in percentage terms this change would be expressed as change of about 1% over these years or 0.3% growth rate per year. Both statistical measures add information. Both measures, 3.8 years and/or 0.3% growth rate per year, are valid descriptions of the dynamics of change, while for general public S-time-

step might be even easier to understand. **S-time-step** is expressed in units of time and is defined as:

$$S_i (\Delta X_L) = [t_i (X_L + \Delta X) - t_i (X_L)] / \Delta X \quad (2)$$

In graphical terms, the usual way to compare time series is to look at the vertical dimension, i.e. for a given point in time. The time distance approach provides an additional perspective, comparing time series in the horizontal dimension, i.e. for a given level of the variable. The S-time-distance approach has two advantages: first, expressed in time units, it is easy to understand by policymakers, professionals, managers, media and the general public; second, time distance can be compared across variables, fields of concern, and units of comparison.

Gender disparities in life expectancy at birth, EU27 average in 2010: static index and time distance



SOURCE: Own calculations based on Eurostat data.

Time series can be compared in two dimensions, in the figure above we present the example of the gender disparities in life expectancy at birth for EU27 aggregates. One way is to compare time series at the given point in time, i.e. in our case the static gap in life expectancy between women and men in

2010. The absolute difference amounts to 5.9 years; the index is 107.7. Another dimension of the degree of disparity is taking into consideration the distance in years when men and women reached the same reference level of the variable, in our case the life expectancy for men in 2010 was reached by women already in 1983 (i.e. 27 years earlier): S-time-distance amounted to 27 years.

Since time distance view provides an additional dimension of temporal disparity between two time series, results by other methods are left unchanged but new conclusions can be reached.

A3 Data sources

| | Indicators | Source | Code of the dataset or table |
|----|----------------------------------------------------------|-----------------|--------------------------------------------------------------------|
| 1 | Life expectancy at birth | Eurostat (2014) | demo_mlexpec |
| 2 | Human Development Index | UNDP (2013) | http://hdr.undp.org , Data Annex |
| 3 | GDP per capita in PPS | Eurostat (2014) | prc_ppp_ind |
| 4 | Median income in PPS | Eurostat (2014) | ilc_di03 |
| 5 | Employment rate (15 to 64 years) | Eurostat (2014) | lfsi_emp_a |
| 6 | Activity rate (15 to 64 years) | Eurostat (2014) | lfsi_act_a |
| 7 | Share of gross fixed investment in GDP | Eurostat (2014) | nama_gdp_k |
| 8 | R&D expenditure (GERD), percent of GDP | Eurostat (2014) | rd_e_gerdtot |
| 9 | Summary Innovation Index | EC (2013) | Annex E, SII time series |
| 10 | Tertiary attainment for age group 15-64 | Eurostat (2014) | edat_lfse_07 |
| 11 | Proportion of population aged 65 years and more | Eurostat (2014) | demo_pjanind |
| 12 | Old age dependency ratio, projections 2013-2080 | Eurostat (2014) | tsdde511 |
| 13 | Population growth rates, total | Eurostat (2014) | demo_pjanbroad |
| 14 | Persons killed in road accidents per million inhabitants | Eurostat (2014) | tran_sf_roadse, demo_pjanbroad |
| 15 | Death due to homicide, standardised death rate | Eurostat (2014) | hlth_cd_asdr |
| 16 | Infant mortality rate | Eurostat (2014) | demo_minfind |
| 17 | At-risk-of-poverty (percent of total population) | Eurostat (2014) | ilc_li02 |
| 18 | At-risk-of-poverty (percent of elderly population) | Eurostat (2014) | ilc_li02 |
| 19 | Income quintile share ratio S80/S20 | Eurostat (2014) | ilc_di11 |
| 20 | GINI coefficient | Eurostat (2014) | ilc_di12 |
| 21 | Early leavers from education and training | Eurostat (2014) | edat_lfse_14 |
| 22 | Healthy life years at birth - females | Eurostat (2014) | hlth_hlye_h, hlth_hlye |
| 23 | Healthy life years at birth - males | Eurostat (2014) | hlth_hlye_h, hlth_hlye |
| 24 | Households with broadband access | Eurostat (2014) | isoc_pibi_hba |
| 25 | Regular Internet use | Eurostat (2014) | isoc_ci_ifp_fu |
| 26 | Share of energy from renewable sources | Eurostat (2014) | nrg_ind_335a |
| 27 | Urban population exposure to air pollution by PM10 | Eurostat (2014) | env_air_ind |
| 28 | Publications per million inhabitants | ARRS (2014) | based on ISI database Web of Science, 2013 |
| 29 | Proportion of seats in parliaments held by women | OECD (2013) | Employment, Proportion of seats by women |
| 30 | Current account balance in percent of GDP | Eurostat (2014) | tipsbp20 |

ABOUT THE AUTHOR

Professor Pavle Sicherl, Founder of SICENTER and principal researcher, 1993-present, Professor of Economics, University of Ljubljana, Slovenia (1975-2003); macroeconomic adviser in the Harvard University Development Advisory Service team in Ethiopia, (1970-1974); in 1960's Deputy Director of the Yugoslav Institute of Economic Research in Belgrade.



Born in Ljubljana, Ph.D. (economics) and Dipl.Econ., University of Ljubljana; M.A. Development Economics (Williams College, MA, USA). Speciality: growth and inequality, he introduced new statistical measures, S-time-distance and S-time-step, to amend the present methods of analysing time series data and disparities in many fields.

For this idea he received many fellowships and invitations: Senior Fulbright Research Award (Yale), London School of Economics, Institute of World Economics (Kiel), Institute for Advanced Studies (Vienna), etc. Visiting professor abroad, project leader for international and national projects, and consultant to the World Bank, OECD, UN, ILO, UNIDO, INSTRAW, ITU, EUROCHAMBRES.

Biography: Who's Who in the World, Marquis, 1991-1992 ... 2013.

Website: www.gaptimer.eu

Email: pavle.sicherl@gaptimer.eu

EU at a Glance presents an easily understandable overview of 30 selected indicators over 28 EU countries in time, which is probably the most condensed current summary picture of disparities and dynamics in the EU countries over many domains over time.

The Gaptimer Report No. 3 is timely publication very useful for discussion of the situation in the EU in light of the forthcoming new European Commission and European Parliament and at the occasion of the 10th Anniversary of the largest EU expansion in 2004.

| | Indicators | Data range | Top country (last year) |
|----|-----------------------------------------------------------|------------|-------------------------|
| 1 | Life expectancy at birth | 1960-2012 | Spain |
| 2 | Human Development Index | 1980-2012 | Netherlands |
| 3 | GDP per capita in PPS | 1995-2012 | Luxembourg |
| 4 | Median income in PPS | 1995-2013 | Luxembourg |
| 5 | Employment rate (15 to 64 years) | 1992-2012 | Netherlands |
| 6 | Activity rate (15 to 64 years) | 1992-2012 | Sweden |
| 7 | Share of gross fixed investment in GDP | 1954-2013 | Estonia |
| 8 | R&D expenditure (GERD), % of GDP | 1981-2012 | Finland |
| 9 | Summary Innovation Index | 2008-2012 | Sweden |
| 10 | Tertiary attainment for age group 15-64 | 2000-2013 | Ireland |
| 11 | Proportion of population aged 65 years and more | 1961-2013 | Italy |
| 12 | Old age dependency ratio, projections | 2013-2080 | Slovakia |
| 13 | Population growth rates, total | 1961-2013 | Luxembourg |
| 14 | Persons killed in road accidents | 1990-2012 | United Kingdom |
| 15 | Death due to homicide | 1994-2010 | United Kingdom |
| 16 | Infant mortality rate | 1960-2012 | Slovenia |
| 17 | At-risk-of-poverty (% of total population) | 1995-2012 | Czech Republic |
| 18 | At-risk-of-poverty (% of elderly population) | 1995-2013 | Hungary |
| 19 | Income quintile share ratio S80/S20 | 1995-2013 | Slovenia |
| 20 | GINI coefficient | 1995-2013 | Slovenia |
| 21 | Early leavers from education and training | 1992-2013 | Croatia |
| 22 | Healthy life years at birth - females | 1995-2012 | Malta |
| 23 | Healthy life years at birth - males | 1999-2012 | Malta |
| 24 | Households with broadband access | 2003-2013 | Finland |
| 25 | Regular Internet use | 2003-2013 | Luxembourg |
| 26 | Share of energy from renewable sources | 2004-2012 | Sweden |
| 27 | Urban population exposure to air pollution | 1997-2011 | Denmark |
| 28 | Publications per million inhabitants | 1994-2010 | Denmark |
| 29 | Proportion of seats in national parliaments held by women | 2000-2013 | Sweden |
| 30 | Current account balance in % of GDP | 1975-2013 | Netherlands |

It uses innovative time matrix presentation format that enables such condensed summary visual presentation over many countries and over time. These 30 selected indicators from many Eurostat indicators systems follow the orientation of Beyond GDP.

The 30 time matrices give rich food for thought and imaginative readers can find numerous comparisons and stories in the material. One of them is that the damage done to countries by the world financial crisis is much greater when we look for 28 countries at employment, investment share, risk of poverty, income distribution, health, etc. and not at GDP alone.

