

**EU 2020: Why Skills are
Key for Europe's Future**

By Paul Hofheinz

Innovation **Human Capital** Sustainability
Knowledge Economy

Lisbon Council Policy Brief

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Europe meets the second decade of the third millennium in a precarious position. The long era of prosperity which brought us where we are today is running out of steam. Around the world, educational standards and life expectancy are improving, allowing millions of people to rise out of poverty and enter the global workforce – a development we should welcome, as it has brought much prosperity and well being in its wake.¹ And while Europe's population is set to shrink and age at a rapid pace in coming years and decades, much of the rest of the world will boast young and growing populaces, becoming the burgeoning markets of the future. These rising standards of global prosperity and demographic shifts are imposing economic and social dislocation here in Europe, mostly through the engine of globalisation. The bottom line is, as longevity and access to education improve around the globe, Europe can no longer count on a large lead in scientific know-how, education, and innovation to give us an automatic edge on the rest of the world. And that poses a problem. How do we sustain high wages and comprehensive social systems in an era where many others are able to produce goods and services at least as good as ours – and often at considerably lower costs? How do we generate the wealth, attract the investment and manage existing resources in a way that will allow us to fulfil growing demands and expectations – and pass on a better way of life to our children, as our parents did before us?

And how do we do all of that at a time when our existing consumption patterns – and particularly our dependence on old and dirty forms of energy – are already taxing the capacity of the earth to sustain us?

The answer today is more or less the same as it was yesterday: prosperity will come mostly by producing outstanding products and services that will command a higher price than goods or services produced elsewhere. This was the key to Europe's prosperity for almost four centuries. We led the world in developing and delivering innovative products and services at the high value-added end of the economic scale. We invented the industrial revolution – and led it through successive waves of innovations. And we invented the welfare state, too, adding a flare for social innovation to our already evident economic success.

But where is that innovation today? Are we really busy inventing the high value-added goods and services of tomorrow? Are we preparing our social system for a new set of challenges, which social scientists can see as clearly as others saw the poverty that led to the creation of the original welfare state? Or has the debate bogged down in a defensive, hold-on-to-what-we've-got-at-any-cost posturing, which blocks progress on so many fronts and no longer provides us with real solutions to the problems we face? Today, some would argue that Europe is in an

1. See especially Jeffrey Sachs, *The End of Poverty: How We Can Make It Happen in Our Lifetime*, (New York: Penguin, 2005).

ostrich-like stance, preferring to hide from threats rather than devise ambitious and forward-looking strategies for overcoming them.²

To be sure, many European companies operate at the forefront of global economic developments (even today, the world's No. 1 exporter is not China, but Germany – and that despite Germany's high wages and the competitive strain of a strong euro). But our society sometimes seems strangely unwilling to recognise the social and economic challenges we face, or the need for reform to help existing institutions meet new challenges, or of the innate strengths Europe will bring to the process of modernisation should we ever decide to engage in it in a serious, sustained way. The real problem here is not a lack of analysis. We have seen literally thousands of academic conferences devoted to the social challenges of tomorrow – so much so that some analysts have argued that if you judged Europe by the number of conferences convened and papers written on competitiveness issues, we would already be “the most competitive and dynamic knowledge-based economy in the world.”³ The desk in my office is itself a monument to the number of trees we are apparently willing to sacrifice in the service of this ideal: in the last six years, it has become literally a mountain of papers on social transformation, educational reform, competitiveness, the future of the Lisbon strategy. But why do we have so little to show for this?

Why is the public debate still dominated by fear-driven, retroactive arguments that do so little to lay the groundwork for changes which most political leaders and social scientists know will be necessary? And why do we consistently turn our eyes away from the most pressing social challenges we face, preferring a politically correct debate that enforces and enhances the status quo to a reality-based, modern discussion that could help us move as a society to where we need to go?

This is why a skills and human capital agenda – as proposed by President Barroso in his *Political Guidelines for the Next European Commission* – is so important.⁴ Put simply, we need a pro-active, high-profile agenda that answers the social and economic challenges we face in clear and clearly definable terms. No more naval-gazing debates, arguing defensively over developments in the rest of the world as if we resented the prosperity arising elsewhere and had no means at our disposal to make sure that as others rise we remain a prosperous society as well. In their place should come a clearly defined strategy capable of rallying a broad range of Europeans around it and allowing us to retain our place at the forefront of global economic developments.

And therein lie the benefits of embracing an ambitious skills and human capital agenda: First and foremost, the argument behind investing more in skills and human capital is fundamentally correct: as this

2. See André Sapir et al. *Europe's Economic Priorities 2010-2015: Memos to the New Commission*, (Brussels: Bruegel, 2009).

3. Ann Mettler, *From Why to How: Reflections on the Lisbon Agenda Post-2010*, (Brussels: The Lisbon Council, 2008).

4. José Manuel Barroso, *Political Guidelines for the Next European Commission*, 03 September 2009.

'We need a pro-active, high-profile agenda that answers the social and economic challenges we face in clear and clearly definable terms.'

paper will show, investing in education always pays, both for society at large as well as for the individual.⁵ Put simply, if we want to live better than the rest of the world, we must *be* better than the rest of the world. That means raising the level of education, training and employment opportunities available to our citizens at all strata of society. We must unleash our economic and creative potential once again in ways that will help us make products and services that command high prices in global markets (including our own domestic markets). We must help people learn to think creatively – and to respond flexibly – to a global market place where speed and innovation are as important as technical prowess.⁶ We must make sure that knowledge is not the sole property of elites, but is broadly disbursed among the population, giving people the power to invent new ways of organising work, new ways of collaborating to add value, new ways of attaining personal fulfilment, new ways of thinking constructively in a world where the ability to create and deliver new, forward-looking ideas will determine success.

The other reason why the skills agenda is important is that it works politically.⁷ What has been missing from the so-called “globalisation debate” is a narrative that allows people to understand the fundamental facts: that globalisation

has been responsible for a dramatic rise in living standards throughout the world (including Europe) and that our government has a coherent strategy for positioning our society to succeed in these fast-changing times. Broadly speaking, it is not difficult to determine the winners from the losers in globalisation. The winners are mostly high-skilled workers in the developed world and low-skilled workers in the developing world. The losers are low-skilled workers in the developed world. The goal now is to make sure that everyone emerges a winner, including those whom social and economic change has left on the sidelines. We must urgently provide a narrative and construct systems that encourage people to embrace modernity and allow them to feel that – even in an age characterised by transformation – the social contract has something in it for them as well.

What is missing in Europe is a broad social consensus around the key issues. First and foremost, we need to embrace globalisation and the sustainable social-market economy upon which it is based because it is absolutely and imperatively in our society’s interest to do so – for the sake of our own well being and for the sake of rising prosperity in the world at large. But we also need to make a concerted effort to reach out to communities, individuals and regions that might be

5. This issue will be discussed at greater length in the section on the economic benefits of education.

6. See especially Daniel H. Pink, *A Whole New Mind: Why Right Brainers Will Rule the Future*, (London: Marshall Cavendish, 2008). See also the groundbreaking work of Frank Levy and Richard J. Murnane, “How Computerized Work and Globalisation Shape Human Skill Demands,” adapted from Levy and Murnane, *The New Division of Labor: How Computers are Creating the Next Job Market*, (Princeton: Princeton University Press, 2004).

7. Curiously, investing in education is a very popular campaign pledge – though it seldom translates to real policy initiatives after elections. Candidates propose increasing investment in education. But once elected to government, other spending priorities take over, leaving politicians a chance to propose raising investment in education again in the next election. The point is, politicians are clever enough to sense the electoral power of a skills agenda in election time. Why aren’t they smart enough to make this a budget priority once elected as well? And why aren’t we smart enough to hold them accountable for this? See also DemosEuropa, *Six Key Messages from Central Europe on the Successor to the Lisbon Strategy*, (Warsaw: DemosEuropa, 2009).

'Investing in education always pays, both for society at large as well as for the individual.'

adversely affected – not simply with aid in times when they face difficulties, but with pro-active, ongoing support and investment that will help us ensure this era will be a time of renewed European prosperity. At a minimum, we must urgently “skill up,” as it were, offering more opportunities to people, securing greater involvement of citizens and society in the economic transformation underway, helping to unleash the creative potential in each and every European and making sure our society is equipped to continue performing at the cutting edge of global economic developments.

This is indeed a tall order. It will require convincing governments, businesses and individuals to recognise the contribution we all have to make, as well as the role and importance of skills in future social progress. It will also call on many of us to develop and recognise new skills – such as flexibility and the ability to engage constructively and effectively in so-called life-long learning. And it will involve a budgetary commitment from all of us – governments, businesses and individuals – even now, when budgets are already unprecedentedly tight.⁸ And these arguments will need to be made and won not in the cosy corridors of academic conferences, but in the sometimes blunt and never-easy-to-win debates in the town halls and around the kitchen tables where Europe's future will be decided. Against this backdrop, we need:

- I. A large-scale public debate – undertaken and animated on a continuous basis by elected heads of government and state – on the importance and role of skills and human capital for guaranteeing better social outcomes in years to come.
- II. A broad-based programme that will facilitate better access to training and skills for individuals at all ages and levels of need.
- III. An effort to raise awareness of this issue in a long-term, sustainable way – not just with a single speech or conference, but by laying down sustainable and permanent institutions which will promote and encourage skills acquisition, life-long learning and better access to education for decades to come.

The Economic Benefits of Skills and Education

Research on the economic benefits of education is very much in its infancy, but today we have a much more clear picture thanks mostly to the cutting-edge work at the Organisation for Economic Co-Operation and Development (OECD). *Education at a Glance 2009*, the OECD's flagship publication on education systems in the world's most-developed countries, was released in September 2009, and is a veritable gold mine of interesting

8. Faced with a deep recession and severely stressed government finances in the early 1990s, the government of Finland made a counterintuitive decision: it doubled spending on education, training and research. The result is the growing competitive position of Finland today. See Esko Aho, “The 2008 Jean Monnet Lecture,” delivered to the Lisbon Council.

'Individuals who invest in university education receive a higher rate of return on investment than real interest rates – and often significantly so.'

research on the link between educational attainment and prosperity.⁹ And the findings are very clear: investment in education pays – always – both for the individual and for society at large.¹⁰ Schleicher (2006) has shown that individuals who invest in university education receive a higher rate of return on investment than real interest rates – and often significantly so.¹¹ What's more, the return on investment that society itself makes in education pays off as well. Data compiled for the OECD Programme for International Student Assessment (PISA) shows that countries that raise the level of secondary schooling attainment per cohort by one additional year will see 3% to 6% higher gross domestic product growth over time.¹² Using a complex regression, the OECD calculates that tax payers receive a roughly \$50,000 (€34,100) return on investment per student who graduates in terms of additional future tax revenue – even after deducting the public funds that helped the students with their study.¹³

Even more interesting are the signals the market place gives us about the economic value of education. In recent years, the world has seen a surge in university enrolment. As recently as 1995, only one in five OECD school leavers went on to receive a university degree or higher qualification. In 2007,

the figure was twice that – a 100% rise in only 12 years. And yet, there is no sign of decline in the wage premia that workers with tertiary education can command over workers with only secondary qualifications. And this is despite the evident surge in the supply of graduates.¹⁴ Between 1997 and 2003, the wage premia that a tertiary graduate could command grew by 1% on average *per year* in 18 of 22 OECD countries for which data was available.¹⁵ Today, the OECD calculates that a male university graduate is \$82,000 better off in net present value terms than job seekers without a university degree, even after taking account for the opportunity costs of time spent out of the work force to pursue education. In other words, the demand for skilled workers is rising faster than our institutions are able to deliver them.¹⁶

And there is a moral and social case to be made here, as well. The fact is, Europe's unemployment problem is almost exclusively concentrated among the low skilled (see Charts 1 and 2 on pages 7 and 8 for a breakdown of employment and unemployment prospects based on level of educational attainment.). In 2007, the latest year for which comparable data is available, workers 15 to 64 years old with a tertiary degree enjoyed 83% workforce participation – a situation akin to full employment.¹⁷

9. OECD, *Education at a Glance 2009*, (Paris: OECD, 2009).

10. *Ibid.*

11. Andreas Schleicher, *The Economics of Knowledge: Why Education is Key to Europe's Success*, (Brussels: The Lisbon Council, 2006).

12. *Ibid.*

13. The figures are from OECD, *Education at a Glance 2009*. The OECD is also working on a new database as part of its Programme for International Assessment of Adult Competencies (PIAAC), which will launch in the next decade. Patterned on the successful PISA project, which has done so much to shape the educational debate surrounding secondary education in the last decade, the PIAAC project will be devoted to the study of adult skills and lifelong learning.

14. *Ibid.*

15. Schleicher, *Economics of Knowledge*. Interestingly, the wage premia that a university graduate can command rose most quickly in Germany, Hungary and Italy, according to OECD data. And yet, these countries each show tertiary attainment levels below the OECD average. It is a sign that the education system in those places is failing to respond to signals that the labour market is giving. See OECD, *Education at a Glance 2009*.

16. Schleicher, *Economics of Knowledge*.

17. Eurostat.

Chart 1: Employment rates for 15-64 year olds by skill level (2007)

Skill level is based on UNESCO classifications; medium skilled means secondary or equivalent; high skilled means tertiary attainment or equivalent

Country or Region	High Skilled	Medium Skilled	Low Skilled	Total Workforce
EU27	83.8%	70.2%	48.6%	65.4%
EU25	83.8%	70.6%	49.2%	65.8%
EU15	83.8%	72.3%	51.9%	66.9%
Belgium	83.7%	65.9%	40.5%	62.0%
Bulgaria	84.6%	70.6%	30.6%	61.7%
Czech Republic	84.0%	72.6%	24.2%	66.1%
Denmark	87.6%	81.8%	64.2%	77.1%
Germany	86.0%	73.6%	44.9%	69.4%
Estonia	86.8%	74.4%	33.1%	69.4%
Ireland	85.9%	74.1%	49.3%	69.1%
Greece	81.9%	60.8%	52.3%	61.4%
Spain	82.5%	68.2%	57.5%	65.6%
France	79.6%	69.5%	47.7%	64.6%
Italy	77.7%	67.9%	46.5%	58.7%
Cyprus	86.5%	73.6%	52.8%	71.0%
Latvia	86.9%	74.3%	38.6%	68.3%
Lithuania	88.1%	68.6%	25.9%	64.9%
Luxembourg	83.4%	67.3%	49.8%	64.2%
Hungary	80.0%	64.8%	27.3%	57.3%
Malta	86.0%	72.0%	46.9%	55.7%
Netherlands	87.5%	79.9%	61.0%	76.0%
Austria	86.5%	75.9%	51.9%	71.4%
Poland	82.8%	61.0%	24.9%	57.0%
Portugal	84.2%	64.8%	65.7%	67.8%
Romania	85.8%	63.9%	40.3%	58.8%
Slovenia	87.5%	70.8%	43.1%	67.8%
Slovakia	83.1%	69.0%	14.7%	60.7%
Finland	85.1%	73.9%	46.4%	70.3%
Sweden	87.6%	80.6%	53.4%	74.2%
United Kingdom	87.1%	76.7%	60.0%	71.3%

Source: Eurostat, EU LFS

Chart 2: Unemployment rates for 15-64 year olds by educational attainment (2007)

Skill level is based on UNESCO classifications; medium skilled means secondary or equivalent; high skilled means tertiary or equivalent

Country or Region	High Skilled	Medium Skilled	Low Skilled	Total Workforce
EU27	3.9%	6.9%	10.6%	7.1%
EU25	4.0%	6.9%	10.7%	7.2%
EU15	4.0%	6.6%	10.3%	7.0%
Belgium	3.8%	7.6%	12.9%	7.5%
Bulgaria	2.4%	5.8%	17.6%	6.9%
Czech Republic	1.7%	4.7%	20.1%	5.3%
Denmark	3.0%	3.0%	5.6%	3.8%
Germany	3.7%	8.2%	16.8%	8.5%
Estonia	na	4.8%	11.2%	4.7%
Ireland	2.6%	4.4%	7.4%	4.6%
Greece	7.0%	9.8%	7.5%	8.3%
Spain	5.3%	8.1%	10.5%	8.3%
France	5.4%	7.1%	12.2%	7.9%
Italy	4.4%	5.6%	7.3%	6.1%
Cyprus	3.4%	3.9%	4.8%	3.9%
Latvia	3.7%	5.8%	10.3%	6.0%
Lithuania	2.1%	5.1%	7.3%	4.3%
Luxembourg	3.2%	3.4%	5.8%	4.1%
Hungary	2.9%	6.6%	17.3%	7.4%
Malta	na	na	8.5%	6.5%
Netherlands	1.8%	2.9%	5.2%	3.2%
Austria	2.5%	3.7%	8.6%	4.4%
Poland	4.6%	10.3%	15.7%	9.6%
Portugal	7.5%	8.2%	8.2%	8.1%
Romania	2.9%	6.9%	7.1%	6.4%
Slovenia	3.3%	5.0%	6.8%	4.9%
Slovakia	4.1%	9.4%	44.9%	11.1%
Finland	3.6%	7.0%	12.6%	6.9%
Sweden	3.6%	5.3%	12.8%	6.2%
United Kingdom	2.5%	5.1%	9.2%	5.3%

Source: Eurostat, EU LFS

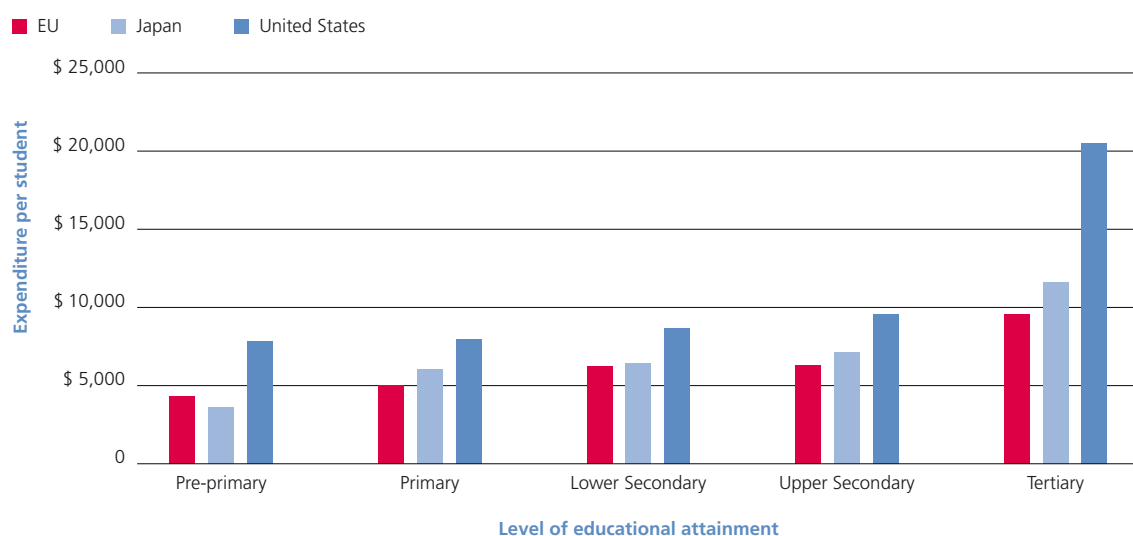
'Europe's unemployment problem is almost exclusively concentrated among the low skilled.'

By contrast, workers with secondary degrees enjoyed an employment ratio of 70.2% – a very high level, which, it should be noted in passing, shows that before the economic crisis hit in 2008 Europe was indeed fulfilling its Lisbon Agenda employment target of 70% participation for workers in the medium- and high-skilled categories. But what about the low skilled? Here the numbers are indeed disturbing. Only 48.6% of Europe's low-skilled workers were active in the labour market in 2007. In other words, one out of every two of the low skilled in Europe was out of work or otherwise not available to the labour market in that boom year – a disturbing figure which calls for greater attention at the policy-making level and a concerted policy response if we want to achieve greater levels of social inclusion and equity.

At its heart, the problem is a simple one: Europe's wage structure prices low-skilled workers out of the market, leading to unacceptably high unemployment rates among the low skilled and lack of opportunities presented to this vulnerable societal group. Getting people back to work – and allowing society to benefit from the creative potential that exists in each and every one of us, including the low skilled – will require that we skill up and invest in this large body of people as quickly as we can. The alternative is that we continue to tolerate disproportionate levels of unemployment and social exclusion at the centre of our societies for years to come.

Chart 3: Expenditure per student in 2006

On educational institutions, in PPP-adjusted US dollar equivalents



Source: OECD

'Europe's educational standards and attainment rates have not decreased. What has decreased is our relative standing in the world.'

What Has Gone Wrong?

To be sure, Europe was and is a leader in world-class education. And it is important to note that our educational standards and attainment rates have not decreased. What has decreased is our relative standing in the world. At the level of formal education, Europe still teaches roughly the same skills to the same, or even slightly increasing, number of students. And international comparisons show that the basic skills we teach are not deteriorating. But the problem is, the rest of the world is improving its educational performance – and quickly at that. The result is that – in an age of unprecedented global competition – Europe has fallen to the middle of the global pack on educational attainment, offering what is by global standards an average education to a roughly average number of people (the notable exception is Finland, which consistently tops international comparisons of secondary school systems.). Countries like Korea, meanwhile, have seen their educational attainment soar, bringing in its wake huge advances in prosperity and longevity.

The challenge in Europe is two-fold:

Financing: First and foremost, we invest too little in education at all levels – primary, secondary and tertiary (see Chart 3 on page 9 for details). In many countries, we have a debate over funding for education – whether tertiary education should be free or whether students should

be charged a nominal fee. But this debate largely misses the point. The important thing is that there be adequate investment in education. The source of that investment – public or private – is less important. The United States continues to do relatively well in mobilising resources for education mostly by allowing a mix of public and private funding for tertiary education, with public and private institutions competing side-by-side for students. In Scandinavia, the system is the opposite; education is considered a public good – and in recent years, massive resources have been mobilised with clearly demonstrable results. But the rest of Europe somehow comes down in the middle of this debate – largely refusing to allow private investment in education, but also stopping short of making the major public investment it would take to make up the short fall. The result is chronic underinvestment as compared to global benchmarks in this area.

Limited Opportunities for Life-Long Learning: On skills and lifelong learning, our record is not much better. The good news is that – in terms of return on investment – the quickest turn around in raising an individual's skill level can often be achieved with post-formal education training.¹⁸ But the record also tells us that the people who need training the most are the least likely to get it. Workers who already have a tertiary degree are 50% more likely to receive post formal education training than those

18. See Peer Ederer, *Innovation at Work: The European Human Capital Index*, (Brussels: The Lisbon Council, 2006).

'Workers with a tertiary degree are 50% more likely to receive post formal education training than those with only a secondary degree.'

with only a secondary degree, according to OECD data.¹⁹ Going forward, we have to find better ways not just to invest in our universities, but also to provide more training for the low skilled. One way would be to incentivise or require businesses to invest more in the skills of their workers – an option which is much discussed, even if policy makers consistently shy away from forcing the business community to commit actual resources.²⁰ Another way would be through a more ambitious “flexicurity” programme, which would offer unemployed workers greater career advice and access to training through government-funded job centres during their periods of unemployment.²¹ The worst solution would be to do what we do now: ignore the unique problems of low-skilled workers in a high-wage economy, and merely scratch our heads in wonder when we see that a barrage of policy initiatives are not giving us the results we desire.

What Are the Skills Europe Will Need?

The question still arises: if we are to invest more in skills, what are the skills we need? Are we equipping students with the knowledge they will need tomorrow? Or are we teaching them the wrong skills,

leading to “skills mismatches” and pockets of over-education combined with under-employment?

It's no surprise that a vigorous debate has broken out on this topic. To be sure, we possess excellent data on skills forecasts compiled on an annual basis by the European Centre for the Development of Vocational Training (Cedefop) in Thessaloniki.²² The European Commission has itself proposed deepening and expanding Europe's skills matching capacity through the *New Skills for New Jobs Initiative*.²³

Skills matching is a useful exercise, which, among other things, has pointed to a persistent gap developing in Europe around the supply of suitable graduates available for the advanced problem solving jobs that already form the basis of our advanced industrial economy.²⁴ But the Cedefop project has other problems that have hindered its effectiveness. First and foremost, it has largely failed as a communication exercise (if you search Cedefop on Google, you will find very few articles about their work outside of the Greek media, where the institute is based.). But there are equally difficult questions about the long-term relevance of skills forecasting in an economic environment

19. Schleicher, *Economics of Knowledge*.

20. For more on the UK approach to this problem, see Alexander Park Lord Leitch et al, *Prosperity for All in the Global Economy: World Class Skills, The Leitch Review of Skills* (London: HM Treasury, 2006).

21. Under this scheme, unemployed workers are offered generous, long-term benefits and access to retraining; but social workers are also deployed to make sure that benefit recipients use their benefits to retrain and seek new work. For an excellent description of how flexicurity worked in Denmark, where it was first conceived, see Martin Neil Baily and Jacob Funk Kirkegaard, *Transforming the European Economy*, (Washington DC: Peterson Institute, 2004). See also European Commission, *Towards Common Principles of Flexicurity: More and Better Jobs through Flexibility and Security*, (Luxembourg: Office for Official Publications of the European Communities, 2007).

22. European Centre for the Development of Vocational Training (Cedefop), *Future Skill Supply in Europe: Medium-Term Forecast Up to 2020, Synthesis Report*, (Luxembourg: Office for Official Publications of the European Communities, 2009).

23. European Commission, *New Skills for New Jobs*, (Brussels: European Commission, 2008).

24. Cedefop, *Future Skill Supply in Europe*.

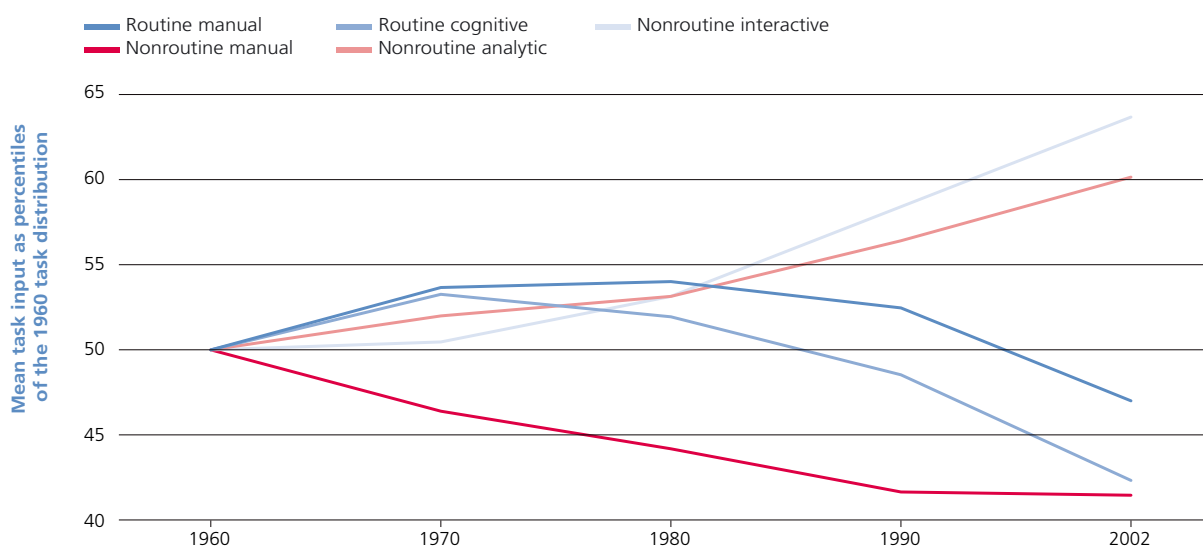
characterised by constant and rapid change, where workers are increasingly being asked not just to perform routine cognitive tasks, but to devise new ways of solving unforeseen problems.²⁵

Frank Levy and Richard J. Murnane (2006) have done ground-breaking work in this area. The two authors looked at the evolution of employment and skills in the United States over the last 40 years. They noted that, in the United States, “while some occupations expand, work that can be done at less cost by computers or workers in lower wage countries continue to disappear. The result is both a changing mix of jobs

and a changing mix of tasks in jobs.” The outcome is a rise in jobs that require “complex communication” and “expert thinking,” while demand for workers who could perform “routine cognitive,” “routine manual” and “non-routine manual” tasks has declined as much as eight percent in some cases (see Chart 4 below). The authors say the trend is leading to increased wage inequality, which interestingly is increasingly correlated with the skills and educational attainment of the people affected.

Indeed, it seems that the market place for educated workers is giving us important clues about the skills the economy needs,

Chart 4: How demand for skills has changed
Economy-wide measures of routine and non-routine task input (US)



Source: Levy and Murnane

25. Frank Levy and Richard J. Murnane, “How Computerised Work and Globalisation Shape Human Skill Demands,” adapted from Levy and Murnane, *The New Division of Labour: How Computers are Creating the Next Job Market*, (Princeton: Princeton University Press, 2004).

'The most important skill would seem to be the ability to formulate complex solutions to new and unforeseen problems and the capacity to learn new and different skills throughout a lifetime.'

which we ignore at our peril. Judging from market signals, the most important skill today would seem to be not so much the basic cognitive skills that made people successful in a linear, mass-production, manufacturing-driven economy (though basic skills like literacy and numeracy remain extremely important). Instead, the most important skill would seem to be the ability to formulate complex solutions to new and unforeseen problems and the capacity to learn new and different skills throughout a lifetime.²⁶ In other words, the best knowledge that an individual can possibly acquire – and this is both more complex and more important than it sounds – is the recognition that a brain is a rechargeable tool which can and should be built up and improved upon throughout a lifetime. This understanding perhaps explains the paradox described in the previous section: under our current system, people who need training the most are the least likely to get it. Stated another way, people who already know the most are the most likely to go out and learn more. This is their fundamental skill. It is what distinguishes their social pathways so dramatically from the low skilled. And this is why a European skills and education agenda is of such utter importance. Somehow, we must find a way not just to supply more educational opportunities, but to create demand for those skills as well – among people at all levels of educational attainment.²⁷

And there is evidence that when we do teach skills, we don't always teach the right ones. That is why knowledge must be decoupled from an understanding that a fact once learned is an automatic ticket to prosperity and security. In fact, an education is only an invitation to learn even more. And the willingness to accept that invitation is the difference between upward mobility and social exclusion, between economic relevance and social marginalisation.

The Four Deliverables

A range of policies affect human capital, and to date policy makers have often defined the human capital and education dossiers much too narrowly. When jobs are given out at the government level, leaders often treat human capital and education as if they were relatively minor dossiers (i.e. in comparison with the “important dossiers” of finance or foreign affairs), which could be easily handled by a junior minister. Given the strategic importance of skills acquisition for a high value-added economy like Europe's, skills and human capital should be given much greater political and fiscal priority. In particular, educational attainment and skills acquisition should be a headline issue for prime ministers and finance ministers, who should ensure that adequate resources are made available, adequate reforms are undertaken, the right framework is put in place and sufficient public awareness is raised about the

26. Much interesting work is going on in this area right now. See especially Frank Levy, “How Technology Changes Demand for Human Skills,” OECD PIAAC working paper, forthcoming.

27. A good example is Korea, where the government was able to create a powerful grassroots drive towards greater educational attainment. The results were spectacular: Combined with other successful development strategies, Korean GDP grew 8.7% per year on average for nearly three decades, taking the country from among the world's poorest to among its richest.

importance of these issues on individual and societal development. And they should strive to see the holistic, multi-dimensional aspects of a complex, modern skills agenda, i.e., many things outside the realm of education and education spending have a direct effect on a country's human-capital base. Specifically, political leaders must deliver on four things – what will be called here “the four deliverables” – if they are to devise and implement a successful human capital strategy for their country:

- I. Create it**
- II. Attract it**
- III. Keep it**
- IV. Activate it**

The interesting aspect about these four deliverables is that, for a society to succeed, it must be successful in all four areas. Success in only three areas will result in failure. But success in all four can lead to sustainable growth, greater social cohesion and lasting prosperity. So far, very few countries have managed to succeed in all four areas. Even Finland, which has led in most areas of education and education policy, faces some challenges on activation (with higher levels of unemployment than other top performers, such as Denmark or the Netherlands) and attraction (with low levels of foreign students and workers), which means that even the outliers can find areas where they can improve. Hopefully, this model can help them see where those areas are.

I. Create it

This deliverable pertains primarily to the formal and informal education systems. It is a country's responsibility to create as much human capital as possible via its formal and informal education systems, with quality education made available to all regardless of socio-economic background.

II. Attract it

Countries should strive to be magnets of human capital. In the age of globalisation, it is imperative to attract knowledge workers. The education system can play an important role in this regard, as it has in the UK, Australia, Canada, USA and elsewhere. Successful blue-card systems can make a major difference as well, offering employment opportunities to successful foreign graduates. Many of those graduates will go on to become citizens and make a valuable contribution to the society and economy of the countries in which they reside.

III. Keep it

On advice from the global development community, many African countries have invested heavily in improved schooling and other educational pathways. By and large, this is a very good idea. But the result is that many graduates, once trained, often go elsewhere to

‘ Somehow, we must find a way not just to supply more educational opportunities, but to create demand for those skills as well.’

work because there are not enough quality, well-paying jobs for them in their home country. The British health system, for one, is full of quality health professionals who graduated from African training academies. To be wholly successful, a country must have good jobs available for the people it trains and educates. In other words, good human capital development strategy is influenced by much more than just investment in education. Good human capital policy strives to reward and retain those it trains with good and plentiful employment opportunities.

IV. Activate it

A country can have the smartest workforce in the world, but if most of its workers are unemployed or choose not to work, the benefits for society, as well as the individuals in question, will be limited. Studies show that people learn most of the skills they possess on the job.²⁸ A good human capital strategy not only gives people access to skills and training, but also keeps them gainfully employed, where they can continue learning and developing. A healthy, dynamic labour market, a growing economy, and low unemployment are important factors in this key deliverable. There should be no lost or forgotten generations, as we have seen in some central

and east European countries after the fall of the Eastern bloc, with entire age cohorts considered too old to train.²⁹ Social exclusion of this size and scope takes a very negative toll on society, not to mention on the individuals involved.

The Policy Framework: The Three Levers

Treaties that govern the European Union – most recently the Lisbon Treaty – give Europe very little role in setting or defining education policy.³⁰ This is an area that falls squarely under the jurisdiction of EU member states. And yet, there is much the EU can do to “encourage cooperation” in the field of education, as the treaties empower it to do – particularly through the mechanism of the “open method of coordination,” in which countries agree to evaluate each other and exchange best practices. Against that backdrop, European leaders have three principal levers through which they can lead a better, improved policy debate on human capital policy. As with the four deliverables described above, the three levers must all be applied to ensure success. Use of only two levers while ignoring one can lead to policy failure as severe as if none of the levers were employed at all. The three levers are:

- I. Pressure**
- II. Persuasion**
- III. Incentives**

28. Ederer, *Innovation at Work: The European Human Capital Index*.

29. Peer Ederer, Philipp Schuller and Stephan Willms, *European Human Capital Index: The Challenge of Central and Eastern Europe* (Brussels: Lisbon Council, 2007).

30. Article 149 of The Treaty of Lisbon says: “The Union shall contribute to the development of quality education by encouraging cooperation between Member States and, if necessary, by supporting and supplementing their action, while fully respecting the responsibility of the Member States for the content of teaching and the organisation of education systems and their cultural and linguistic diversity.”

'A country can have the smartest workforce in the world, but if most of those workers are unemployed or choose not to work, the benefits for society, as well as the individuals in question, will be limited.'

I. Pressure

Part of what is missing in Europe is wide-spread knowledge and acceptance of the benefits of becoming a genuine learning society. The European Union can help here. It can commission research and initiate policy processes which lead to better public debate, greater benchmarking and broader public awareness of the challenges we face. Producing and publishing complex composite indicators can be particularly useful here – but the goal is not, as some say, to engage in “naming and shaming.” To the contrary, a well-designed composite indicator should provide helpful, useful information to everyone, bringing transparency to education and economic systems that will help policy makers know what levers they can and should apply in all countries, leaders and laggards.³¹ The success of the OECD’s flagship PISA project shows what can be achieved in this way. By providing countries with better data on where they stand vis-à-vis their global peers, the OECD has managed to stir up a very useful public debate on key policy trade offs in this area. It is a model for what can be achieved with careful, judicious and timely use of data.

II. Persuasion

Governments – and particularly government leaders – have the bully

pulpit. They can talk, and people and the media listen. European leaders need to make the case for greater investment in skills much more routinely and consistently, as President Barroso has started to do. They need to use their power and influence to set this vital social agenda as a key priority for coming decades, and not just as an electorally popular footnote found at the bottom of speeches on other themes and topics. They can also help activate and empower pressure groups, particularly in civil society, to exert pressure on key stakeholders, including governments themselves, to do more to increase investment in – and foster the development of – skills and human capital. Ultimately, they need to raise knowledge and demand for skills and skills acquisition. And they need to make better use of one of the most important powers they have today – the power to cajole and persuade.

III. Incentives

Governments can make it worthwhile to pursue education and training. Successful examples include use of the tax system and directly-funded schemes. Individuals will not act unless they are convinced that it will benefit them; and businesses will probably not invest unless they are either forced to do so or are clearly incentivised to do so. Either way,

31. A good example of a composite indicator which – far from merely naming and shaming the countries involved – can actually lead to a better informed, constructive debate on policy tradeoffs is Peer Ederer, Philipp Schuller and Stephan Willms, *University Systems Ranking: Citizens and Society in the Age of Knowledge* (Brussels: The Lisbon Council, 2008).

governments can and must do more to provide incentives for greater access to education and training at all levels. At the European level, funding can and should be increased for the Erasmus programme, which has done so much to promote a European spirit among successive generations of students.³² The European Globalisation Adjustment Fund, launched in 2006, has also helped educate more than 15,000 workers in eight EU member states. And the social fund itself could be used more pro-actively to promote and encourage skills acquisition and training, particularly in adversely affected communities. These are good, strong vehicles whose success can and should be built upon in years to come.

What the New European Commission Should Do

The new European Commission is in a position to make a substantive and timely difference in this debate. Specifically, by setting skills and human capital as a policy priority of the EU 2020 agenda, which will replace the Lisbon Strategy in the Spring 2010, it can create a vibrant platform where reform and modernisation will come more easily. And it can set political guidelines that will leave the EU – and its 27 member states – stronger and healthier societies for decades to come. EU member states would benefit from a healthy, vigorous and informed European debate on skills, one that helped generate

demand for further development in this area and built a broader public base for improved skills and education in the member states themselves. With that in mind, the European Commission should launch a broad-based and sustained debate on skills and human capital, working not just to raise the profile of this key dossier but also to lay down institutional reforms that will ensure that the agenda remains at the forefront of public debates. Specifically, this means the following:

- I. **Encourage the European Council to devote one of its annual meetings exclusively to the Skills and Human Capital Agenda.** This move would send a strong signal to citizens, media and organised stakeholders that skills and education are an issue that receives utmost priority at the highest level. Ideally this meeting should set clear targets and milestones on what should be achieved in a given period. It should also raise key issues, such as the need to involve finance ministers and prime ministers more directly in decision making on education-related issues, including funding. The European Commission should initiate a yearly stocktaking at the spring European Council on skills development, making sure that the issue stays on the radar screen.

32. More than two million students have taken part in Erasmus-funded study abroad programmes in the last 20 years.

Chart 5: Graduation Rates

Percentage of 2007 age cohort with tertiary degree or equivalent

Rank	Country	Graduation Rate
1	Iceland	63%
2	Poland	49%
3	Finland	48%
4	New Zealand	48%
5	Denmark	47%
6	Ireland	45%
7	Netherlands	43%
8	Norway	43%
9	Portugal	43%
10	Sweden	40%
	Proposed EU benchmark	40%
11	Japan	39%
12	Slovak	39%
13	United Kingdom	39%
	OECD average	39%
14	United States	37%
	EU19 average	37%
15	Czech	35%
16	Italy	35%
17	Spain	32%
18	Switzerland	31%
19	Hungary	29%
20	Germany	23%
21	Austria	22%
22	Greece	18%

Source: OECD Education at a Glance 2009

NB: These figures differ from the benchmark proposed by the Education Council of the European Union, which suggests tracking tertiary attainment rates of 30-34 year olds. We believe that figure understates recent progress in some countries and makes true comparisons difficult by only showing improvement over a considerable time period.

'The EU 2020 agenda should contain a 40% tertiary educational attainment target by 2020 for all EU member states.'

II. Develop new targets and indicators.

Targets and indicators are useful – both to help countries understand how and where they need to improve, but also in raising the profile of complex issues to larger, non-expert audiences. Specifically, the EU 2020 agenda should contain a 40% tertiary educational attainment target by 2020 for all EU member states, as already proposed by the Education Council of the European Union (for a look at how countries would fare, see Chart 5 on page 18).³³ This is a crude target, but like the targets from the Lisbon Agenda which the EU 2020 programme will replace, it would have the advantage of focusing attention on raising educational attainment rates – which is an important goal in and of itself. An example of how targets can help focus attention on a given policy area is the Lisbon Agenda's 3% R&D target, which motivated and incentivised countries to invest more in research. Even though only two countries achieved the target, it nonetheless fed an important public debate on the importance of R&D and encouraged countries to raise their game in this area.

III. Initiate better, more systematic dialogue with a broader array of stakeholders and kick off a grassroots awareness campaign on the importance of skills.

Specifically, if it is to be successful, this dialogue must include discussion of the overall funding issue. It is not enough to praise skills; the European Union and EU member states must encourage stakeholders to mobilise the resources it will take to make education and training available to all. This will require dialogue, and not just with the usual suspects. As a first step, the European Union should organise a major Presidency-led conference, where a variety of stakeholders (such as NGOs working with or representing immigrants, cities and regions, entrepreneurs, national innovation agencies, media representatives, etc) and not only the usual education-debate suspects (i.e. universities, education ministry officials, etc.) are invited. The conference should be used to encourage participants to increase investment in – and access to – education, to seek and find viable funding vehicles for this work, to encourage governments to commit to more ambitious skills and skills-acquisition targets and to benchmark EU member countries with each other and key regions elsewhere (i.e. Asia and North America).

33. See Education Council of the European Union, *Strategic Framework for European Cooperation in Education and Training (ET2020)*, Adoption of Council Conclusions, 8984/09, Brussels, 30 April 2009. See also, European Commission, *Explanatory Note on the Benchmarks Proposed in the Updated Framework for European Cooperation in Education and Training*. Education Ministers have proposed that the benchmark for educational attainment should be the percentage of university graduates among the population aged 30-34. The Lisbon Council supports the adoption of an indicator for measuring educational attainment, but believes that using the most-recently measurable age-cohort (known as the "graduation rate") would be a better indicator. The graduation rate allows countries to perceive, report and track changes in their system much faster than the 30- to 34-year-old age cohort benchmark.

'More than is commonly understood, the competitiveness and sustainability agendas have become the social agenda.'

More than is commonly understood, the competitiveness and sustainability agendas have become the social agenda; we face unprecedented challenges, which, should we fail to meet them, pose very grave questions about our ability to maintain our standard of living and to meet current and future social goals. Curiously, the interests of society and the individual are starting to converge. It is in the interest of every individual – man, woman, child or immigrant – to become all that he or she is capable of being. And it is in society's interest to help him or her to do that.


If Europe ever manages successfully to introduce and pursue a skills agenda, it will be a win-win situation – for the individuals in question but also for society at large. And the more pathways to advancement that we can open, the better. The ability of our workers, companies and state institutions to produce high value-added products and services – combined with an effort to do all of this in a more resource efficient and sustainable way – is and will be the key to maintaining our European way of life – today, tomorrow and for generations to come.

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