Among all Europeans between 24 and 65 years old who had a tertiary educational degree in 2010, 82.8% were working. In the same age group, 68.3% who completed secondary schooling were working. Only 46% of those who did not complete secondary schooling were working. It is apparent that if Europe wants to be working, higher education is the necessary foundation for being competitive in the labor market. Since this is not only true for generations of future workers currently in school, but equally so for those who are in their 30s, 40s and 50s today, Lifelong Learning must be essential to continued employability.

The cumulative investment necessary to generate higher education degrees alone for adults over the next two decades across Europe may be 3.5 trillion euros, or 1.4% of the European GDP per year. Even higher investments will be required in non-formal and informal Lifelong Learning. To help guide this investment, this research project will find answers to the following urgent questions:

1. How do successful enterprises actively employ Lifelong Learning for their competitive advantage?
2. Which public policy environments facilitate Lifelong Learning for such enterprises and entrepreneurs?
3. How does Lifelong Learning interact with and promote innovativeness on the enterprise level?
4. How much of which skills do European adults actually have?
5. What are the actual learning mechanisms in adult life that lead to these skills?
6. What are the causal effects of these skills on growth, competitiveness and social cohesion?
Project Organisation

The research consortium includes nine universities and research institutes from four academic disciplines – macro-economics, innovation dynamics, educational systems, and psychometrics – to establish empirically proven answers. All outputs of the project (models, reports and tools) are designed to guide, support and facilitate good practice and strategy among public policy officials, enterprise strategists, individual citizens and fellow scientists.

Objective 1 | Understanding of the Lifelong Learning strategies in 50–60 successful enterprises, across 15 EU countries and 4 EU competitors, and across 5–6 industries. Understanding will be sought through detailed interviews of the top management of these enterprises and financial and strategic background analyses of the enterprises, supported by a Dynamic Problem Solving skill assessment of 50 employees in each of the enterprises. In five of these enterprises we will initialize long-term longitudinal observations.

Objective 2 | Understanding of the Lifelong Learning policies in 15 public policy trails, which created the LLL institutions that were used by the above enterprises. This will be achieved through interviews with public policy officials and a documentary analysis of public policies, supported by a Dynamic Problem Solving direct skill assessment of 20 entrepreneurs in each of these 15 public policy environments. By starting out from successful enterprises in objective 1, the research follows a good-practice approach to derive conclusions for future policies and strategies.

Objective 3 | Understanding the relationship between Lifelong Learning and innovation in companies, via the link of employee-driven innovation and entrepreneurship. This will be done by an in-depth investigation of 25 companies in one particularly successful European industry – consumer foods – which is experiencing high rates of innovativeness and facing strong global competitive pressure.

Objective 4 | Understanding the skill of Dynamic Problem Solving (DPS), whereby we suspect DPS to be a good recorder of LLL activities by individuals, and at the same time to be a foundational skill for the acquisition of non-routine, job specific skills of high value. We will test a total of 4150 individuals including 500 individuals in five enterprises in two longitudinal observations, 300 entrepreneurs in the above policy trails, and 600 in a cross reference study to the OECD PIAAC survey to establish for the first time ever a cross-national, cross-industrial reference set of DPS scores.

Objective 5 | Understanding the sources of skills, using background questionnaires of our own Dynamic Problem Solving test and the OECD PIAAC survey, and drawing on data from EU databases LFS/SES (3rd wave), CVTS (4th wave) and AES (2nd wave), recording public, business and individual LLL investments respectively. We will establish cross-nationally valid learning mechanisms by which skills were attained or maintained with adult LLL investments.

Objective 6 | Understanding the outcomes of skills, by tracing the level of skills as measured by our own Dynamic Problem Solving test and the OECD PIAAC survey (and supported by analyses from objectives 1 and 2). Skills will be traced to socioeconomic outcomes of growth as measured by income, to competitiveness as measured by employment, and to social equality as measured by inclusiveness of employment opportunities.

Activities

- Value creation model of the enterprise, where the various links between LLL activities and enterprise competitive advantage are highlighted and evidenced. The links will vary by those industry, country and enterprise contexts which we investigate.
- Investment efficiency and effectiveness framework model which public policy officials can employ to trace LLL investments to effects on final beneficiaries and from there to social, enterprise and individual rates of return of learners.
- Decision tree analysis model which can be used by policy makers, business strategists and individuals to decide who will preferably undertake or promote an LLL investment and to which degree, by accounting for the networkedness of innovation returns.
- Measurement device for DPS skills. It can tell the user about DPS competence, a skill which is trainable, and which is a foundation skill to acquiring complex job-specific skills – and thus is the ticket to high employability.
- Toolbox for designing LLL circumstances and learning biographies, with which the learning biographies can be charted which snake their way through instances of learning and predict how much and what kind of skills this person is likely to achieve.
- Improved versions of investment return methods on LLL investment: an improved neo-classical production function, better predictions of private rates of return on LLL investment, and better predictions of social rates of return on LLL investment.

Outcomes
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