



Advanced draft for the Forum

European Education and Training Expert Panel

Issue paper - Investment, reforms
and governance

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1. Introduction

The strategic framework for European cooperation in education and training (ET 2020)¹ is based on common objectives and supports the improvement of the education and training systems of the European Union's Member States through common tools, mutual learning and the exchange of good practice via the open method of coordination. The value of this cooperation is widely recognised.

Since the adoption of ET 2020 in 2009, European societies and economies have been undergoing fast and extensive transformations that affect the way people live and work – and the way they learn. Consequently, there is a need to strengthen the relevance and impact of European cooperation by better understanding global trends and their implications for EU education and training policies.

As the current strategic framework comes to an end in 2020, the European Commission – Directorate-General for Education, Youth, Sport and Culture – is carrying out wide consultations as part of the preparations for its successor. The European Education and Training Expert Panel has been convened in order to make a strategic contribution by reflecting on the concept of 'embracing change', as well as discussing in what ways new trends are likely to influence education and training in the future, and how they could be addressed through European cooperation over the next decade.

The Panel – composed of 18 international experts² – was asked to focus on six thematic blocks, namely: demographic change; inclusion and citizenship; technological change and the future of work; digitalisation of society; environmental challenges; and investment, reform and governance. These were selected by the Commission from a pool of analyses of long-term strategic trends.

For each block, the Panel was invited to address the following scoping questions.

- Which are the major societal developments that will have an impact on how education and training are delivered in Europe in the medium to long term? How can European cooperation best respond to these challenges?
- What should be the strategic objectives of European cooperation in education and training for the next decade? Which should be the priority areas and themes?

The Panel carried out its work between October 2018 and January 2019.

This issue paper reflects the Panel's debates. It first illustrates the trends, challenges and opportunities for education and training that are associated with investment, reforms and governance over the coming decade. It suggests issues that could be addressed through European cooperation, and offers a number of concluding remarks.

The information and views set out in this issue paper are those of the Expert Panel members and do not necessarily reflect the official opinion of the European Commission.

¹ Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training ('ET 2020'), OJEC 2009/C 119/02 ([https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009XG0528\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009XG0528(01)&from=EN))

² The members of the Expert Panel were: Hermann J. Abs, Emmanuel Boudard, Etienne Denoël, Paul Downes, Malcolm Fisk, Silvija Karklina, Eva Klemenčič, Per Kornhall, Sandra Kučina Softić, Carla Morais, Rob Mudde, Serena Pastore, Andrius Plečkaitis, Anna Rabajczyk, Hanne Shapiro, Teresa Sordé-Martí, Gabriela Teodorescu and Raimo Vuorinen.

2. Key challenges and opportunities

There are important issues around how education is governed and funded, including what the different models mean for education in the context of a changing environment, in terms of quality, efficiency and equity. The issues in this debate include improving quality, ensuring adequate training and support for teachers and effective leadership, the role of funding, both public and private, non-formal learning, how education institutions can ensure good governance and the increasing availability of evidence. Improving education and training systems will remain a key goal, irrespective of the challenges ahead. Some research has shown that it is possible to make improvements over a period as short as six years.³ However, thought needs to be given to how to tailor interventions as all national systems are different, increasingly complex and have a unique set of indicators and interventions.

2.1 Facing up to the challenges of governance

Evidence-based decision-making has marked much of the past decade in global education and training policy. The evidence from international surveys, policy cooperation and data analytics is available to policymakers at unprecedented levels. The role of data and evidence in the governance of education and training – affecting similarly the reforms and investments – is likely to grow after 2020. Affecting areas as diverse as skills, curricula, university rankings and all the teacher professions, this change will bring both risks and opportunities for European education and training systems. The extent to which this affects individual systems will depend also on the overall policymaking capacity in a country.

Almost every country has undertaken some form of education reform during the past two decades, but not all have succeeded in improving their systems. A major challenge has been to identify which reforms are the most appropriate to deliver better outcomes. An international study³ of 20 education systems which have achieved significant sustained and widespread gains has sought to understand which interventions or reforms are specific to an individual system and which are of broader or universal relevance. This study found that 70 % of the improvements could be explained by ‘process’ factors, such as education and training of teachers and school leaders, improved curricula, accountability mechanisms and collaborative practices. By contrast, changes in resources – such as the number of employees or salary levels – appeared in only 15 % of interventions in the systems studied. This may in part be so low because the resource levels were sufficiently high from the start: while scholarly discussions are still ongoing, a broad consensus seems to be that while a certain level of resources remain a prerequisite for wide-based improvements in quality, the distribution of resources is an important factor for creating inclusiveness, equality and equity within modern systems.⁴

Education systems are complex by nature, and governing multilevel education and training systems has become an increasingly important issue in political and policy agendas.⁵ Complex changes such as the increasing internationalisation of education and training, decentralisation of decision-making in education and training, private-sector governance, increasing focus on both quality and responsiveness to individual needs of learners, and changes in available resources have raised significant questions about the governance traditions in different sectors and countries. Their strong roots in national and

³ Mourshed, M., Chijioke, C. & Barber, M. (2010). How the World’s Most Improved School Systems Keep Getting Better. McKinsey & Company.

⁴ The Education and Training Monitor 2017 has found that at lower levels of education investment, the influence of socioeconomic background on pupils’ education results increases.

⁵ Burns, T. and Koester, F. (eds.) (2016). Governing Education in a Complex World. Educational Research and Innovation, OECD Publishing, Paris.

cultural contexts, or academic self-governance, add complexity to change. Additionally, democratic governance in education and training – in its different forms from sector to sector – is likely to grow in importance over the period ahead.

2.2 The role of educators and leaders

When considering the quality of an education system, much depends on the quality of its teachers, managers, academics, trainers and other staff. The UNESCO Incheon Declaration on Education 2030⁶ states: ‘We will ensure that teachers and educators are empowered, adequately recruited, well-trained, professionally qualified, motivated and supported within well-resourced, efficient and effectively governed systems’. However, the situation is often complex. Well-performing school systems focus on improving classroom interactions, using levers such as building practical skills during initial teacher education, providing mentors in schools to support new teachers, fostering a culture of continuous improvement and enabling teachers to learn from each other.

Looking ahead, it will become more important to support collaborative practices among teachers, such as joint preparation of lessons, regular team meetings or teacher peer reviews through classroom visits. TALIS shows a significant correlation between obtaining meaningful feedback on teaching and teachers’ self-efficacy and job satisfaction.^{7,8} Some countries are already working on changes in this regard: education and peer mentoring programmes have been introduced in Finland and Sweden.⁹ In Finland, the ministry supported teacher education institutions in establishing a network to develop and disseminate a peer-group mentoring model to support professionals in the field, especially in their early careers.¹⁰ The model brings teachers together to share and reflect on their experiences and to discuss the day-to-day challenges they face. Large-scale programmes to deploy collaborative practices among teachers have also been launched in Belgium and in the Netherlands.¹¹

Higher education is likely to experience sector-specific changes of its own. Several European higher education systems have seen a rise in the number of students, which has not always been followed by a corresponding increase in available resources. This, together with an increasing number of doctoral graduates, has resulted in a rise in the number of academic staff, often with doctorates, working on non-permanent or low-paying contracts. The effects of this change are likely to increase in the coming years and, taken together with demographic changes and migration flows which will affect student numbers, will create a pressing need for action in regard to higher education staff.

The professionalisation of educational leadership, experienced in some European countries, can contribute to ensuring that education systems carry on functioning efficiently in the context of upcoming challenges. At the same time, in some education sectors, such as higher education, an increase in the professionalisation of management has created tensions and complaints of increasing bureaucracy.

⁶ <https://unesdoc.unesco.org/ark:/48223/pf0000245656>

⁷ OECD (2014)., TALIS 2013 Results: An International Perspective on Teaching and Learning, OECD Publishing.

⁸ Kemmis, S., Heikkinen, H., Aspfors, J., Fransson, G. & Edwards-Groves, C. (2014). Mentoring as Contested Practice: Support, Supervision and Collaborative Self-development. *Teaching and Teacher Education*, 43, 154–164. Heikkinen, H., Jokinen, H. & Tynjälä, P. (2012). Peer Group Mentoring for Teacher Development. Milton Park: Routledge.

⁹ Teachers in Sweden have been supported in peer learning by the comprehensive and successful governmental initiatives ‘Matematiklyftet’ and ‘Läslyftet’ (the boosts for mathematics and reading).

¹⁰ <http://osaavaverme.wixsite.com/verme/en>

¹¹ LeerKracht in the Netherlands; ProfESSor – SeGEC, Collabor’Action – PO Province of Hainaut and PratiCole in Wallonie-Bruxelles education network in Belgium.

Looking ahead, an important challenge will be to improve the quality of the management of institutions while ensuring appropriate levels of autonomy for teachers, trainers and academics.

2.3 The changing institutional landscape of learning

Education and learning are changing and developing on the basis of a range of drivers. Technology is among the most prominent of these, and will continue to be so over the coming decade, most notably in a shift toward lifelong learning as the new normal in the future lives and careers of individuals. Educators will increasingly find themselves in an environment in which there is an overload of information, and so their tasks will, among other things, move to evaluating information effectively, selecting teaching content wisely and helping learners to cope with information of different value and reliability. A current trend, as perceived by the Expert Panel, is that education systems need to move towards more personalised learning and constant adaptation, creating suitable learning environments in formal education and training and in the workplace.

Digital technologies also mean that education can be delivered in different ways and that there can be a shift to a more learner-centred model and towards open education. Up to a certain point, new technology can usefully support these changes, but its full implementation into classrooms will need to take account of the risk, mapped in some studies, of discouraging pupil engagement and building of relationships. Learning is a social activity: technology will not change the fact that we have evolved to learn from other humans.¹² Yet, we have to encourage teachers to be innovative, to try something new and different and to make errors. Even small changes in teaching – i.e. changing the way the question is asked, posing the problem and encouraging students to find the answer on their own instead of providing it for them, letting them find information and critically reflect on it, having them work in groups, letting them make their own mistakes – can have significant impact on their way of learning and acquiring skills.

However, this needs to be balanced with the provision of an appropriate level of teacher-learner interaction and other classroom and wider school as a learning community interactions. An analysis of the PISA scores in science¹³ found that teacher-directed instruction, defined as an activity that makes knowledge contingent and situated in the living experiences of learners, carried the highest positive association with pupils' scores, even more than the socioeconomic background of students. The importance of interactive teacher-directed instruction, therefore, needs to be considered, complemented with the opportunities brought by other methods of teaching and learning. This is also important for the emancipatory role of education¹⁴, as is the issue of students' voices. As regards the use of IT in schools, there is other evidence on the use of teacher-centred versus teacher-directed methods.¹⁵ The OECD, for example, concludes that technology can get in the way of the interaction with a teacher that is crucial for the development of higher-order thinking.¹⁶ This points to an important role for the teacher and the importance of teacher-led practice as opposed to individual learning regarding use of IT in schools. In higher and adult education, the flexibility of time and space, as well as ways of learning, plays an important role, and the teacher here acts as a mentor and tutor in a

¹² Csibra, G. and Gergely, G. (2011). Natural Pedagogy as Evolutionary Adaptation. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 366, 1567, 1149–1157.

¹³ Denoël, E., et al. (2018). Drivers of Student Performance: Insights from Europe. McKinsey & Company

¹⁴ Biesta, G. (2015). The Rediscovery of Teaching: On Robot Vacuum Cleaners, Non-egological Education and the Limits of the Hermeneutical World View. *Educational Philosophy and Theory*; Säfström, C. A., et al. (2015). Whatever Happened to Teaching? *Nordic Studies in Education*, 35, 3–4, 268–279.

¹⁵ Denoël, E., et al. (2018). Drivers of Student Performance: Insights from Europe. McKinsey & Company.

¹⁶ OECD (2015). Students, Computers and Learning: Making the Connection. Paris, PISA, OECD Publishing.

blended or fully online environment. This requires teachers to have different skills and ways of working in schools.

Separately, open education models and distance learning, in which the main objective is to encourage affordable, equitable, inclusive and high-quality education, are likely to play a greater role in the delivery of education. Open educational resources have strong potential to keep learning content up to date, to foster innovation in education and to encourage students and teachers to work together to create and use educational resources. Over the coming period, however, open educational resources will increase the need for teachers to know how to publish their own content and how to use the open resources of others (the so-called 5 Rs – retain, reuse, revise, remix and redistribute). Related skills will be how to integrate openness into a course and how to engage with students in openly networked spaces.

The European Council, in its 2018 Recommendation,¹⁷ outlines a set of key competencies for lifelong learning to ensure personal fulfilment and development, active citizenship, social inclusion and employment. In this new framework, personal, social and *learning to learn* competencies comprise the ‘ability to reflect upon oneself, effectively manage time and information, work with others in a constructive way, remain resilient and manage one’s own learning and career’. Appropriate skills and access to meaningful upskilling can enhance security in a changing labour market. Therefore, integration of career education in curricula as a preventive measure will have a key role to play as a sociopolitical response in meeting the varying learning needs of individuals.

2.4 Investment in education and training

Education and training budgets in the European Union’s Member States have changed significantly following the financial crisis. As a share of GDP, government expenditure in education in the EU declined from 5.3 % in 2010 to 4.7 % in 2016.¹⁸ In higher education, changes in public budgets and in the percentage of the population attending higher education institutions have created a strong pressure to deliver more with frozen or reduced funding. In adult education, demographic factors, changes in the labour market and migration have created a need for new investments. At pre-tertiary level, demographic changes and school choice systems¹⁹ have affected systems and regions in various ways. Some countries or regions may experience a significant decline in pupil numbers. Yet, what all these cases have in common is the need to readjust investment levels and areas.

Education and training funding mechanisms have also grown in complexity. Higher education has seen an increase in the use of performance-based financing, usually based on contracts between governments and individual institutions. An increasing share of financing is based on competitive grant-allocation processes or has to be sought in the market. Some countries, such as Sweden and Lithuania, which previously introduced market-based principles of decision-making and investment in schools, are considering a move towards more centralised financing. Since the trend of increasing complexity is

¹⁷ [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604\(01\)&rid=7](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604(01)&rid=7)

¹⁸ Eurostat, data code [gov_10a_exp]

¹⁹ This has happened in Sweden; e.g. Brandén, M. & Bygren, M. (2018). School Choice and School Segregation: Lessons from Sweden’s School Voucher System. Linköping University, Department of Management and Engineering, The Institute for Analytical Sociology, The IAS Working Paper Series.

likely to continue in the future, care needs to be taken when reacting to change: it may be best to work with existing systems rather than try to change them completely.²⁰

School systems with similar education spending have widely varying levels of performance. The study of 20 national education systems referenced above (see Note 3) showed that system performance spans the full spectrum of poor, fair, good and great up to the level of spending of USD 6 000 per student (at purchasing power parity). Education costs in a kindergarten to age-12 school system can be broken down into three main components: (i) human resources costs (~74 % of the total costs), (ii) capital costs, mainly building related (~8 % of the total costs), and (iii) other costs, such as facility management, IT, canteens, textbooks, etc. (~18 % of the total costs). Variables that influence school human resources costs include: (i) the number of students attending the school, which is linked to mandatory school age but also repeating grade and dropout rates among students, (ii) teachers' salaries, (iii) the weekly number of hours taught by teachers in front of their students, (iv) the weekly number of hours students go to school, (v) class sizes, and (vi) support staff not directly teaching to the students.

At the same time, while initial education and training and higher education remain largely publicly funded across the EU, private provision has been developing at a rapid pace in some Member States. Furthermore, private contributions to education costs – either to public or private institutions – also place pressure on parents or other fee payers (e.g. individuals or employers in the case of adults) to try to raise money, which can create a negative effect on equity. In the case of possible public-private partnerships, it is important to distinguish between the different education sectors, as these experience different challenges. EU countries will be facing different aspects of these challenges after 2020.

²⁰ An interesting description from Sweden is contained in this report: Blancharay, P., et al. (2014). Shifting Responsibilities - 20 Years of Education Devolution in Sweden: A Governing Complex Education Systems Case Study". OECD Education Working Papers, OECD Publishing, 104.

3. Looking towards 2030: priority areas of action

The following key themes for European cooperation over the coming decade emerged.

Governance:

- There should be targeted and evidence-based policymaking built on research, transparency, communication and collaboration.
- There is a role for indicators or benchmarks to measure performance and establish good practices.
- The EU could assist in the dissemination of the results of policy innovation.

Implementing reform:

- Teaching staff at all levels of education need appropriate support in their initial education and continuing professional development.
- Peer learning, mutual observation and discussion is an option that could be explored further in order to support reforms, both at the level of teaching and of systems.
- The role of leadership is vital and requires appropriate skills. Investment in management education should increase, and more rigorous selection of leaders should be introduced.
- There needs to be a move towards open, online and flexible learning. Educators and individuals need to develop the necessary skills to benefit fully from this.

Investment:

- There is no one-size-fits-all approach to investment in education and training systems, although reforms should be supported with appropriate financial investment.
- Funding models need to be adapted to circumstances of individual countries while, at the same time, taking care not to incentivise gaming the system and introducing safeguards against corruption.

3.1 Governance

Looking towards 2030, the challenge is to ensure adequate resources for the education system, introducing efficient and effective spending schemes. The Expert Panel discussions underlined the different contexts in which Europe's education and training systems operate. While European countries aim for the same goals in terms of quality, equality and equity of education and training, the ways in which they seek to achieve these goals differ widely. The exchange of information and policy ideas, as well as different approaches to shared challenges, will remain significant for future EU cooperation in education and training.

3.1.1 Targeting reforms and supporting their implementation

As education and training move increasingly online and learner demographics evolve, learners will grow increasingly diverse in socioeconomic, cultural and knowledge terms. These changes increase the need to identify new approaches to reforms while keeping a focus on the culture of dialogue in both national and institutional decision-making. There needs to be a balance between autonomy and accountability in terms of education and training organisations, and as well as in national, regional and local level.

The effects of the growth in the evidence base and new analytical tools can open opportunities for better-targeted policymaking. There are a variety of methods that systems can adopt to take advantage of these changes, but two factors will be crucial in order to succeed. First, a culture of evidence-based

policymaking, including the capacity for analysis and iteration, should continue to be pursued. There should be a strong role for researchers in these processes, and the analyses of systems should routinely include monitoring of system outcomes. Second, policymaking should continue moving towards an increasingly democratic process, built on the principles of transparency, communication and collaboration, with the added purpose of supporting a sense of community.

As a means of bringing focused action on joint goals, there is a role for indicators or benchmarks to measure performance and establish good practices at EU level. The specific implementation approaches should, however, be determined at the national or regional level. The proviso is that one should never measure more than is necessary.²¹ Therefore, there needs to be good guidance on why data are being collected, particularly as this can create a large administrative burden. The EU could assist in the dissemination of the models of policy innovation that arise from different countries. For example, when countries develop promising answers to shared challenges, an EU framework could be set up to help other countries learn about the reform and explore the potential for its adoption. Germany, for example, has introduced public-private partnerships that do not endanger equity; these are in the form of pilot programmes agreed with state authorities that change practices in the public sector.

3.1.2 Managing changes

There is a need for ongoing educational reform in order to keep pace with change. Reform can be messy, and there is no one model for success: individual education systems need to find their own way by combining policies based on evidence and implementation processes that are adapted to the specific context and concrete challenges. The Expert Panel discussed three aspects that education leaders and policymakers ought to integrate when developing and implementing reforms, either at organisational or system levels²²: first, their current performance stage; second, the set of interventions and reforms associated with the current performance stage; and, third, the adaptation of this set of interventions to take into account the history, culture, politics and structure of the organisation, system and country.

As learning will increasingly take place in more diverse settings, a single practitioner, professional group or organisation will no longer be able to respond to the increasing need for learning support among more diverse user groups. This will make it necessary to create multi-professional and cross-sectoral networks. Lifelong guidance is an example of an area where there is shared policy and administrative responsibility among several ministries at national and regional levels.²³ Career education for adolescents is mainly organised in educational institutes, but young people and adults outside of education have access to guidance through public employment services or voluntary or private service providers. Key features in a well-functioning service network are collaborative creation of knowledge, inclusive collaboration and emergent development of leadership and management in networks.²⁴ There may also be ways to involve families and communities in a meaningful manner in school governance; for example, in decisions about how to enable students to catch up. This could include after-school programmes, for example, run by families, or work-based learning in the context of VET schools. There

²¹ Kusek, J. Z. and Rist, R. C. (2004). Ten Steps to a Results-based Monitoring and Evaluation System. Washington D.C., The World Bank.

²² Adapted from Mourshed, M., Chijioke, C. & Barber, M. (2010). How the World's Most Improved School Systems Keep Getting Better. McKinsey & Company.

²³ European Lifelong Guidance Policy Network (2015). The Guidelines for Policies and Systems Development for Lifelong Guidance: A Reference Framework for the EU and for Commission. ELGPN Tools No. 6. Saarijärvi, (FI).

²⁴ Nykänen, S. (2011) Towards Leadership and Management in Guidance and Counselling Networks in Finland. University of Jyväskylä, Finnish Institute for Educational Research, <https://ktl.jyu.fi/vanhat/julkaisut/julkaisuluetello/julkaisut/2011/D096.pdf/>

is an increased need for systems that make it easier to recognise qualifications, badges and micro-credentials from different forms of education. This will require new forms of cooperation at the national, EU and global levels in order to make these systems interoperable and to ensure that mechanisms are in place for reliable quality assurance. Europe is still struggling in this field, while countries such as Australia, India, the USA and Sri Lanka have already achieved this at national level.

3.2 Implementing reform

3.2.1 Developing and supporting individuals in education and training

Teachers, trainers and academic staff are at the centre of education delivery, and it is essential that education and continuous professional development are adapted to the current challenges and that individuals develop competences that are relevant to a changing world. One option is the hands-on collaboration in terms of peer support and peer learning to support teachers, based on mutual observation and discussion.²⁵ In higher education, excellence in teaching should be encouraged alongside research, and a similar system or reward for contributions to community and society should be in place. There is an urgent need to address the challenge of non-permanent academic posts. Educators' workloads should also be addressed, to give them a chance to innovate and collaborate.²⁶

As education and training develop to address the challenges outlined in the other issue papers, the role of leadership will become increasingly vital. This means selection and development of the right individuals, based on their leadership skills in addition to their teaching, academic or research skills. Among those, leadership for the learning of teachers is among the most important. In order to succeed in this, leaders need to have a strong moral compass, build relations and lead their teachers into enquiry of their teaching. In order to encourage an increase in the quality of leadership, a rigorous selection process, appropriate remuneration and appropriate initial and continuing professional development should be offered.²⁷ As the availability of evidence, and the technology for its analysis, increases, so does the need to provide support to decision-making, both at national and institutional levels.

3.2.2 Open, online and flexible learning

As open education models grow in prominence, including through steps taken by the EU, efforts should move towards making teacher-developed content and materials more widely available. Data should be available and open, and publicly funded educational content and courses should be freely available to the public. Brokerage of research information and research by teachers and institutional leaders into their practice should be supported. In primary schools, teacher-developed content and materials could be shared and adapted by others, and the teachers could receive feedback on content from the users. This could allow different types of individuals and groups to be supported more fully, as technology makes it possible to devise different learning paths through interactive learning resources, feedback and assessment. In order to make best use of freely available learning options, all individuals need to acquire new transversal competences to identify the skills they have learnt previously, how these relate to the world of work and how they can apply these appropriately during work placements and other

²⁵ Martin, L. E., et al., (eds) (2014). *Handbook of Professional Development: Successful Models and Practices*, PreK-12. New York: The Guilford Press. Timperley, H., et al. (2007). *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration*. Wellington: Ministry of Education.

²⁶ Mourshed, M., et al. (2011). How the World's Most Improved School Systems Keep Getting Better *Educational Studies*, 1, 7–25.

²⁷ OECD (2018). *Effective Teacher Policies: Insights from PISA*. Paris, Pisa, OECD Publishing.

work-related learning. After this, they can confidently access and interpret the information they need to make well-informed choices about their learning options and pathways and how these relate to possible future careers and a sustainable work environment. In parallel, there needs to be a set of rules for recognition and validation of non-formal and informal learning. It may also be helpful to develop a register of non-formal education providers, possibly through the quality assurance frameworks set up in the context of the national qualifications frameworks and tailored to the characteristics of non-formal learning.

3.3 Investment

3.3.1 The role of resources

The Expert Panel stressed that education systems are facing different kinds of resource challenges and that there is no one-size-fits-all answer to the issue. Resources are important in this debate as they underpin improvements in quality. Thought should be given to the types of pressures that educational institutions are likely to be under over the next decade. These are likely to include financial pressure, in which case thought should be given to how to help institutions to adopt a more strategic orientation around efficiency in the context of cuts. Richer institutions are likely to thrive, while poorer ones may be at risk of deteriorating. One potential solution may be to ensure a minimum level of education funding – such as through ring-fencing – even under conditions of austerity.

As regards financing mechanisms, different options will be appropriate for different systems: a country with a strong tradition of grants in higher education may find it challenging to introduce a comprehensive loans-based system. Performance-based funding in higher education could be further developed, based on the lessons from the first decade of implementation. However, great care must be taken not to incentivise different ways of gaming the system, and there must be safeguards against corruption. Whichever means of financing are selected, however, the Expert Panel proposes a system of funding be put in place to ensure equity among all levels and locations, including islands and remote areas. A particular priority should be the development of an appropriate system of support for participation in adult learning to adapt to changes in the world of work, particularly in those countries in which adult learning rates have historically been low. Adequate resources to support quality education are also needed. Teachers need platforms and hubs where they can find resources and best practices. This would increase transparency and the quality of materials. There should also be adequate support in terms of e-infrastructure, use of digital technologies and the design and creation of (e-)courses, in addition to support at the institutional level, including for management and administration. Europe should consider how to invest in these types of repositories and other infrastructure.

3.3.2. Broadening the debate

Education is a much wider topic than just school-based education; there needs to be awareness of how to impart information through a range of educational pathways, not just in schools/higher education institutions, and a way of integrating this into the education system. Learning spaces are changing and this influences education trends, not only in terms of the availability of technical equipment and connectivity, but also in the way in which learning environments are built and are integrated into their communities. Differentiated approaches may be needed; for example, in the case of migrants, early school leavers, rural areas or learners with disabilities. This can be difficult to govern as it could involve non-traditional and informal types of learning. The changes should be supported by a quality assurance process, in which also non-formal education should be recognised.

4. Concluding remarks

In order to improve education systems, there is a need for investment, reforms and governance to ensure quality and equity. Raising the quality of education systems is built primarily on the quality of teachers, and therefore the teaching professions should be given support in terms of education and training, appropriate working conditions and overall recognition. The impact of the changing composition of student groups and educational resources is also important.

Governance models need to be strong enough to deal with changes in delivery, content and focus of education systems. Principals play a key role, and appointments should be based on leadership qualities.

Flexibility is at the heart of many of the reforms that will be needed over the coming 10 years, due partly to a series of unknowns, such as the continuing development of technology and the possible growth of private funding models, but also due to a need to tailor educational models to local, school-level and individual circumstances, as necessary. Collaboration is also vital, both between teachers and school/higher education institution leaders, in the form of peer mentoring and discussion, and also between schools/higher education institutions, regions and countries.

In summary, educational models, including delivery of education, are likely to change considerably over the coming decade, and therefore governance and funding systems need to be flexible enough to be able to adapt to changing circumstances.

