Communications from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

School development and excellent teaching for a great start in life

{SWD(2017) 165 final}
1. Introduction

Investing in people, and young people in particular, is a top priority for Europe. In December 2016, the European Commission presented initiatives on 'Investing in Europe's Youth', emphasising the importance of opening up new opportunities for young people. A key message is that the quality of education is decisive for young peoples' prospects and life chances. This initiative builds on the 'New Skills Agenda for Europe'. Education also plays a critical role in the European Pillar of Social Rights. This Communication is part of a package of initiatives addressing schools, higher education and graduate tracking. It responds to the European Council Conclusions of December 2016. It is supportive of UN Sustainable Development Goal no 4 on education.

High-quality education for all will help Europe achieve its economic and social objectives. Good education underpins inclusive and resilient societies. It is the starting point for a successful professional career and the best protection against unemployment and poverty. It fosters personal development and lays the basis for active citizenship. Good education fuels R&D, innovation, and competitiveness. However, for societies to reap these benefits, high-quality education needs to be a reality for all.

Schools play a pivotal role in life-long learning, and therefore action is needed to improve the quality and performance of school education. The current situation in Europe shows that there is no room for complacency. Across the European Union, there is a rich diversity of schools and education systems. At the same time, virtually all Member States are facing several key challenges:

- **There are weaknesses in competence development at school education level.** The latest results of the OECD PISA survey show that one in five pupils have serious difficulties in developing sufficient reading, mathematics and science skills. As a result, these young people are more likely to face important, lifelong obstacles to social inclusion and employability. At the same time the share of pupils achieving very good results in Europe is relatively low; even the best-performing EU Member States are outperformed by advanced Asian countries. Many young people lack appropriate digital skills. Another key issue is lack of formal qualifications; despite the fact that many Member States have made good progress in bringing down the share of early school-leavers to the Europe 2020 headline target of 10%, still too many young people leave school prematurely.

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1 COM(2016) 940, 941
2 COM(2016) 381
3 COM(2017) 250
5 http://www.un.org/sustainabledevelopment/education/
6 The challenges set out in this Communication apply to general education as well as to school-based vocational education.
7 European Commission (2016), PISA 2015: EU performance and initial conclusions regarding education policies in Europe. The share of low achievers went up between 2012 and 2015 in science from 16.6 % to 20.6 % and in reading from 17.8 % to 19.7 %; in mathematics it stagnated at around 22 %. The proportion of top performers in science is 24% in Singapore and 15% in Japan. No EU Member State matches this performance.
• **School education does not always play in full its role to promote equity and social fairness.** PISA data⁹ reveal that gender gaps in mathematics and science are narrowing, however gender stereotypes still lead to differences in engagement in science and ICT and need more attention. Moreover, data demonstrate that educational achievements greatly depend on the pupil's socio-economic background. On average, more than a third of young people from disadvantaged backgrounds in the EU show low levels of educational achievement. This is four times more than their peers with more advantaged backgrounds. Other specific challenges for pupils with a migrant background and Roma amplify this. These gaps add to societal inequality¹⁰ instead of curbing it. Access to high quality education and training is key to a more resilient and equal society. The examples of Estonia and Finland show that school education systems can deliver high levels of both achievement and equity at the same time.

• **The pace of technological and digital change is having a profound effect on our economies and societies - schools need to respond better to this new reality.** Many of today’s school children will later work in job types that do not yet exist. Already 90% of all current jobs require at least some level of digital skills.¹¹ It is no longer sufficient to equip young people with a fixed set of skills or knowledge; they need to develop the resilience and ability to adapt to change. The 'Reflection Paper on Harnessing Globalisation' also recognises that new ways of learning are needed for a society which is becoming increasingly mobile and digital. As emphasised in the 'Reflection Paper on the Social Dimension of Europe', education systems need to be modernised to promote creativity and critical thinking, and an entrepreneurial mindset.¹²

**Addressing these challenges requires reforms.** This is a task for Member States, as the design of education systems is in their hands and solutions will vary depending on national, regional and local specificities. In keeping with subsidiarity, the EU can play a useful role in supporting Member States in their reform efforts. Cooperation at EU-level supports Member States with data analysis, evidence sharing, identifying good practices, and offering opportunities for exchanging experiences and mutual learning. This type of voluntary cooperation offers added-value to Member States in taking informed decisions.

**There are three areas where action is needed** and where European level support can help address the above challenges:

1. Developing better and more inclusive schools;
2. Supporting teachers and school leaders for excellent teaching and learning; and,
3. Governance of school education systems: becoming more effective, equitable and efficient.

For each of these areas, this Communication sets out EU action to assist Member States in addressing these challenges. The European Semester is a key driver for reform, namely through the education related country specific recommendations. The EU can help those Member States who want support for their reform efforts. In addition, the EU offers financial

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⁹ OECD's Programme for International Student Assessment (PISA) 2015 survey.
and technical support to Member States, notably through Erasmus+, the European Structural and Investment Funds, and the Structural Reforms Support Service.

**Diversity is a hallmark of European school education systems**, and there is no one-size-fits-all solution. At the same time, Member States have a shared interest in improved educational outcomes. To make high quality education for all a reality, all available tools, at national and EU levels, should be fully exploited. The Commission stands ready to work closely with Member States.

### 2. Developing better and more inclusive schools

*To complement actions taken by Member States, the Commission will:*

- Increase cooperation between schools by making **school partnerships and pupil mobility under Erasmus+** more accessible and enrich digital and intercultural learning by promoting participation in **eTwinning**;
- Develop a **self-assessment tool on digital capacity** so that schools in the EU can, on a voluntary basis, self-evaluate where they stand in relation to common criteria and are supported in developing and improving their effective use of technologies for digital age learning. Using the tool, schools can chose to report on their progress in the **availability, use, competences and attitudes to Information and Communication Technologies, building a database** across all participating Member States.
- Support improvements in school level education in **science, technologies, engineering and maths (STEM)** by promoting best practice in developing links and cooperation of higher education, research, businesses with schools at EU level and effectively addressing gender gaps and stereotypes in STEM, using Erasmus+.
- Promote and support policy experimentation on developing **multilingual pedagogies** and **teaching in diverse classrooms** as part of the 2018 Erasmus+ work programme.
- Follow-up the observations of the United Nations' Committee on the Rights of Persons with Disabilities by supporting cooperation between the **European Agency for Special Needs and Inclusive Education** and Member States, at their request, in implementing the education provisions of the UN Convention on the Rights of People with Disabilities.
- Further support Member States in providing sufficient **high quality early childhood education and care** and step up efforts to help them learn from each other and identify what works best.

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2.1 Supporting all learners and their competence development

All young people must have the chance to develop the full range of key competences. These include literacy, foreign languages, mathematics, science, digital and coding skills and civic and social competences, but also entrepreneurship competences and transversal skills such as creativity and critical thinking. Despite their importance, not all young people fully develop these competences. The 2006 European Framework on Key Competences for Lifelong Learning supports the acquisition of these competences. Its review, announced in the 'New Skills Agenda', will help to further strengthen competence development in education and training. For schools, this also requires a change in the way learning happens.

Linking learning with real life experience yields better results. Project- and problem-based learning, on-the-job experiences or community service learning increase young people's motivation, put subject content into context, and offer opportunities for the development of social, civic, and entrepreneurship competences. Science, technologies, engineering and mathematics (STEM) education is more effective when linked to economic, environmental and social challenges or to arts and design, demonstrating its relevance for daily life.

Digital technologies can enhance learning and support innovation in schools. Used properly, digital technologies can enrich learning experiences and support development beyond digital competence. Yet currently only a quarter of European school children are taught by digitally confident teachers. Digital technologies can support communication and cooperation in and between schools and enhance the participation of pupils and their families in school life.

Schools need to support all learners and respond to their specific needs. Schools that pay attention to the varying needs of different pupils achieve better results. This has also a gender dimension. Schools that embrace linguistic and cultural diversity across their school population and support integration have a positive effect on all children's ability to learn. However, this is not always the current practice. Some EU Member States face difficulties in providing pupils with disabilities access to inclusive, quality education. In some cities and regions, a significant share of school pupils does not speak the language of instruction at home. Especially newly arrived migrant children need targeted language programmes to better integrate into school. In a number of countries, Roma and other ethnic minorities lack access to high quality education.

14 2006/962/EC
17 European Commission (2013) Survey of Schools: ICT in Education Benchmarking Access, Use and Attitudes to Technology in Europe's schools
20 In its Action Plan on the integration of third-country nationals, the European Commission proposed a number of supportive measures in education and training for migrant children. COM(2016) 377 final.
2.2. Enhancing learning by opening up to new forms of cooperation

Cooperation helps schools to enrich learning experiences and outcomes and better support young people in developing the competences they need. This includes cooperation with local services, community organisations, businesses and universities, but also cooperation within schools. Young people at risk of dropping out of education benefit from close cooperation with social services or youth workers. Early interaction with career guides, entrepreneurs and academics helps young people to prepare for future employment and further studies.\(^{21}\) In subject areas such as science or sport, students benefit when other education providers, business and civil society collaborate with their schools.\(^{22}\) However, not all schools have sufficient external support or support the necessary cooperation among their own teachers, non-teaching staff, pupils and parents.\(^{23}\)

Bullying, cyberbullying, and violence undermines a child's well-being and success at school.\(^{24}\) Physical and mental well-being are preconditions for successful learning. Evidence shows that strategies involving teachers and parents are the most effective in tackling all forms of bullying.\(^{25}\) In order to curb bullying and violence, children need to learn about tolerance and diversity. The same applies to online safety and the responsible use of social media.

Applying a whole school approach improves learning outcomes, inclusiveness and equity.\(^{26}\) With this approach, the whole school together with external stakeholders and the local community engage to improve school quality. The online platforms 'European Toolkit for Schools' and the 'School Education Gateway' support this approach, and are available on a voluntary basis to all European schools, supporting peer exchange and helping to improve methods of organisation, teaching practices and learning experiences.\(^{27}\) The Erasmus+ programme supports European school partnerships, helping schools to broaden connections and enabling cross-border peer exchange.\(^{28}\)

\textbf{eTwinning}\(^{29}\) is the largest community for schools in Europe. More than 460 000 teachers and 4 in 10 schools in Europe have already participated. Offering a safe online environment for cross-border education projects, eTwinning provides schools with easily accessible tools to enhance their digital learning offer and to support intercultural and cross-border contacts between teachers and pupils. Mainstreaming its use in all schools in Europe can help to boost digital competences and open up classrooms.

\(^{21}\) INCLUDE-ED \url{http://creaub.info/included}; European Lifelong Guidance Policy Network, \url{www.elgpn.eu}
\(^{22}\) European Commission (2015): Science Education for Responsible Citizenship
\(^{24}\) OECD (2017), \textit{PISA 2015 (Volume III)}
\(^{27}\) \url{http://www.schooleducationgateway.eu/en/pub/resources/toolkitsforschools.htm}
\(^{28}\) To celebrate the 30th anniversary of the Erasmus Programme, the action ‘Move2Learn, Learn2Move’ offers in 2017 young people active in eTwinning projects an opportunity to travel and meet their peers as part of their learning experience. The Commission will assess the 2017 initiative and may, without any detrimental effect on the Erasmus+ budget and using input from this assessment, consider a similar initiative in the future.
\(^{29}\) \url{www.etwinning.net}
2.3 Improving access to and quality of early childhood education and care

High quality early childhood education and care lays the foundation of an effective and equitable education system. It prepares children for primary education, boosts academic performance at all future levels, and has a particularly positive impact for children from disadvantaged and migrant backgrounds. PISA shows that 15 year olds who had not attended pre-primary education have a three times greater risk of being low performers than those who had attended it for more than one year.\(^\text{30}\) Investing in early childhood education and care reduces the need for higher levels of spending at later stages of education, when the costs for closing the gaps between high and low performance of learners are higher.\(^\text{31}\)

Supply and access to high quality early childhood education and care is a challenge. Participation in early childhood education and care has increased,\(^\text{32}\) but remains problematic for children under the age of three and especially for disadvantaged children. Participation, affordability and quality are unevenly distributed within and between countries. In 25 Member States the demand for childcare exceeds the supply; deficits in quality are often linked to inadequate qualification of staff and limited opportunities for professional development.\(^\text{33}\) Member States' experts and the European Commission have jointly identified quality principles and five key areas for action: access, workforce, curriculum, evaluation and monitoring, governance and funding.\(^\text{34}\)

Implementation of these guidelines would contribute significantly to young children's educational outcomes, giving all children, including those from vulnerable backgrounds, a head-start for success at school.

3. Supporting teachers and school leaders for excellent teaching and learning

To complement actions taken by Member States, the Commission will:

- Offer policy guidance on the careers and professional development of teachers and school leaders by reinforcing peer learning under Education and Training 2020 through a series of expert seminars and linking it to the European sectoral social dialogue in education;
- Simplify access and promote opportunities for future teachers to gain practical teaching experience abroad with the support of Erasmus+;
- Develop online communities and resources for school professionals, including new eTwinning opportunities for student teachers, online networks for early career teachers and their mentors, online courses (including MOOCs), exchange of best practice among providers of Initial Teacher Education and a Digital Competence Framework to support teachers' self-assessment and development;

\(^\text{30}\) OECD (2016), Low-performing students: why they fall behind and how to help them succeed.
\(^\text{32}\) Within Education and Training 2020, the Council set an EU benchmark requiring that at least 95 % of children from the age of 4 to compulsory school age participate in ECEC. In 2014, the EU-wide participation rate was 94.3%.
\(^\text{33}\) Eurydice (2014) Policy Brief Early Childhood Education and Care
Further develop synergies with the OECD to produce joint comparative data on school staff, including through more efficient, joint data collection by Eurydice\textsuperscript{35} and the OECD on teachers and school leaders.

3.1. Making teaching careers more attractive

**High quality, motivated and valued teachers are at the heart of excellent education.** But a decline in the prestige of the profession and staff shortages are challenges in many Member States, holding back the quality of school education.\textsuperscript{36} Most Member States aim to attract a wider range of suitable candidates to careers in teaching, and to motivate and support them to excel in this demanding profession.

**Improving selection and recruitment can help identify those most suitable for teaching and bring a broader range of experiences into the profession.** Some countries are evaluating applicants on a broader range of aptitudes and attitudes in addition to their academic merits.\textsuperscript{37} Where relevant for Member States, this can go hand in hand with efforts to address the significant gender imbalance in teaching and to attract new teachers from other professions and underrepresented groups.

**Pay, contractual status and clear career prospects are important for the attractiveness of the profession.** In some Member States, teaching loses out to other professions in the competition for the best. Teachers often earn significantly less than the average for tertiary-educated workers: salaries range from 74% in pre-primary education to 92% at upper secondary level.\textsuperscript{38} Countries with very low salary levels or poor job security struggle to attract newcomers and to fill vacant positions with the most qualified candidates. Teachers are also concerned about the quality of their preparation and induction and better career opportunities.\textsuperscript{39} Clearly defined competence levels and career structures enhance teachers' appreciation of career prospects.

3.2. Teaching: a profession of career-long learners working together

**The quality of teacher education requires more attention.** Initial Teacher Education is most effective when pedagogical theory is combined with both subject knowledge and sufficient classroom practice.\textsuperscript{40} Student teachers need to be prepared for collaborative work and career-long professional development, for dealing with diversity in the classrooms and for using digital technologies with confidence. In a number of Member States, participation in Continuing Professional Development (CPD) is low or poorly focussed. CPD needs to be accessible, affordable and relevant. Involving schools and teachers in identifying themes and areas of need can help to improve its quality.\textsuperscript{41}

**Teachers need special support during the early stages of their careers.** When entering the profession, many teachers find real school environments challenging and some drop out of the profession. Currently only 6 out of 10 novice teachers receive genuine induction to school

\textsuperscript{35} http://eacea.ec.europa.eu/education/eurydice/index_en.php
\textsuperscript{36} European Commission (2013), Study on Policy Measures to improve the Attractiveness of the Teaching Profession in Europe
\textsuperscript{37} European Commission/EACEA/Eurydice (2013), Key Data on Teachers and School Leaders
\textsuperscript{38} OECD (2016), Education at a Glance 2016: OECD indicators. Data for 22 EU Member States.
\textsuperscript{39} European Commission (2013), ibid
\textsuperscript{40} OECD (2014), TALIS 2013 Results: An International Perspective on Teaching and Learning.
\textsuperscript{41} The Teaching Profession in Europe (2015)
practice\textsuperscript{42} and induction schemes that combine professional, social and personal support, including mentoring, help novice teachers develop competences and resilience. This enhances the quality of teaching and reduces costly exit from the profession.\textsuperscript{43}

**High-performing teachers collaborate.** Teaching as a team, observation of other teachers, and wider professional learning communities are gaining ground as powerful forms of peer collaboration, but are not yet the norm across Europe.\textsuperscript{44} To improve pupils’ learning experience, teachers need to be able and willing to work and learn in teams – with other teachers, in multi-professional school teams and with external partners.

**Collaborative environments and digital technologies can enhance teacher learning.** Traditional workshops and training courses away from school still prevail. Educational innovations such as collaborative peer networks, massive open online courses (MOOCs), and the sharing of open educational resources can complement these methods and help overcome barriers to participation.\textsuperscript{45}

\begin{quote}
Through **Erasmus+**, the EU supports the professional development of school staff. Grants are available for student teachers, teachers and school leaders who wish to participate in training courses, school placements or job shadowing activities in another country. Through **eTwinning**, the EU encourages voluntary collaboration and peer learning among teachers in online courses and joint training events.
\end{quote}

3.3. Supporting school leadership

**Effective school leadership impacts positively on student achievement, teaching quality and staff motivation.** Research shows that leadership based on a vision shared by staff, parents and local community is crucial in school development and innovation.\textsuperscript{46} However, in some Member States, school leadership positions are considered unattractive.\textsuperscript{47} Leading a school typically comes with a demanding mix of tasks linked to both management and instruction. School leaders often do not receive the preparation or ongoing support they need for these different tasks.

**Increased school autonomy has led to more responsibility for school leaders in many countries.** This allows school leaders to re-organise classroom time and approaches, stimulate school development and share responsibilities among a wider group of staff. However, these changes require appropriate resources and support.\textsuperscript{48} The recruitment, preparation and professional development of school leaders is a crucial factor in improving school performance.

\textsuperscript{44} OECD (2014) ibid.
\textsuperscript{45} Ibid.
\textsuperscript{46} OECD (2016), School Leadership for Learning.
\textsuperscript{47} SWD(2012)0374.
\textsuperscript{48} VO-raad/EFEE/ETUCE (2015), Professional Autonomy, Accountability and Efficient Leadership and the role of employers’ organisations, trade unions and school leaders.
4. Governance of school education systems: becoming more effective, equitable and efficient

To complement actions taken by Member States, the Commission will:

- Building on existing cooperation, including on skills strategies and school resources, set up a demand driven technical support arrangement in cooperation with the OECD to help Member States who voluntarily seek assistance, to design and implement major school education reforms. The Commission services, including the Structural Reform Support Service, and EU funding instruments (such as the European Structural and Investment Funds and Erasmus+) could provide support;

- Propose a joint report on the effectiveness and efficiency of expenditure in school education, involving appropriate Council committees and Commission services. This will build on ongoing work with the OECD and may lead to the development of policy guidance on investment in school education in partnership with interested EU Member States and stakeholders;

- Together with EU Member States and stakeholders, develop targeted policy guidance on quality assurance through peer counselling and peer learning.

4.1. School resources: investing adequately and efficiently

While Europe enjoys a rich diversity of educational systems, cultures and circumstances, there are similar governance and funding challenges. These include defining clear responsibilities for funding and adapting the school network to demographic changes. EU Member States allocate a significant amount of resources - more than 3% of GDP on average - to school education. The good use of these resources is key for the efficiency of the whole public expenditure of a country.

Making the best use of limited resources to enhance the performance of all students is of critical importance. PISA surveys show that effective educational outcomes cannot be achieved below a minimum level of financing. Some Member States have not been investing sufficiently to achieve good long-term results. However, at a comparable level of spending, some Member States achieve better results than others. Strengthening cooperation between education and economic policy areas can improve the evidence-base and generate consensus about "what works" in education investment. Challenges include investments in infrastructure, including digital infrastructure and connectivity, as well as in human capital.

Tailor-made policy support to Member States' education reforms may help improve the governance of school systems and increase effectiveness and equity.

4.2. Combining autonomy and quality assurance

The interplay between school autonomy and accountability calls for strong but flexible quality assurance systems. A major recent trend has been towards decentralisation and coordination.
increased school autonomy. Granting schools more autonomy over school practices and organisation or their use of financial resources gives them more opportunities to adapt to their specific needs and local context. However, its benefits depend on the capacity of schools to plan effectively and manage their own development, as well as how accountable they are to parents, local communities and education authorities.\(^{55}\) PISA results show that school autonomy leads to better basic skill achievement when coupled with accountability. Quality assurance mechanisms vary greatly across Europe,\(^{56}\) but share some common challenges. These include how to: set goals and measure progress for education systems and student learning; design quality assurance for increasingly decentralised and multi-level education systems; encourage dialogue and a culture of trust among education stakeholders; and prioritise human and financial resources.

**Developing appropriate tools and processes for quantitative and qualitative data would strengthen quality assurance.** Quality assurance mechanisms should consider school climate and learner well-being as well as learner competence development. Both quantitative and qualitative data are necessary for this balanced view.\(^{57}\) Schools and local stakeholders need to invest in capacity building to identify the most appropriate tools and indicators in order to monitor both learner progression and school development and to develop a shared understanding on how to interpret data. This should be complemented with external monitoring mechanisms such as national or regional school evaluations and/or large-scale student assessments. Moving from a 'checklist' approach focused on formal compliance with rules and procedures, to a supportive approach focused on school development raises standards and improves learning outcomes.\(^{58}\)

5. **Conclusion – the way forward**

**Improving education is a centre-piece of the Commission’s initiative on Investing in Europe’s Youth.** In particular, the quality of schools plays a central role in shaping the prospects of young people. Schools lay the foundation for professional success. They offer a unique chance for social mobility. This is, however, not always the case. The new PISA data are a wake-up call for Europe: the share of low-achievers in science soared from 16.6% in 2012 to 20.6% in 2015. 11% of pupils leave school without formal qualification. If such short-comings in school education are not tackled, millions of young people will see their life chances diminished.

**Making high-quality education a reality for all young people is a key concern for Europe's future.** The reflection paper on the social dimension of Europe of April 2017\(^{59}\) points out that education is among the factors that will increasingly determine our societies' and economies' future; in the Rome Declaration of 27 March 2017, 27 Member States pledge

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\(^{57}\) ET2020 Working Group Schools interim report on *Continuity and transitions in learner development, April 2017*

\(^{58}\) Council conclusions on quality assurance supporting education and training, 20 May 2014.

\(^{59}\) COM(2017) 206
to work towards "A social Europe: ...a Union where young people receive the best education and training and can study and find jobs across the continent". 60

**Working towards a shared commitment.** Improving school education warrants being a top priority. This applies to Member States and the EU and will require close cooperation. Reforming their school education systems is a task for Member States. The Commission stands ready to support them by harnessing EU tools and processes. Notably, the European Semester is a tried-and-tested driver for reforms. Other work, such as the voluntary cooperation under ET 2020, should be further developed so that they offer the best possible added-value to Member States. In particular, the Education and Training Monitor should be used in full to help Member States take informed and evidence-based policy decisions. A key question for future cooperation is whether to set a more ambitious benchmark in the fight against early school-leaving. Another key issue is how to make the most of Erasmus+ to provide more young Europeans with learning experiences abroad and increase existing capacities to support development and innovation in school and teacher education.

Success will depend on close cooperation. An Education Summit, planned for early 2018, will address equity in education and how to better support disadvantaged groups in education. It will offer a first opportunity to discuss the future of European cooperation in education and especially in school education.

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