



Technology Ireland submission to Department of Education on the Digital Strategy for Schools

About Technology Ireland

Technology Ireland is an Association within Ibec, which represents the ICT, Digital and Software Technology Sector. The Association is a pro-active membership organisation with over 200-member companies located throughout Ireland. We advocate on behalf of Ireland's indigenous and foreign direct investment (FDI) technology companies to Government and policy makers.

Introduction

Technology Ireland would like to thank the Department of Education and Skills for the opportunity to submit a consultation on the Digital Strategy for Schools. Our consultation examines the goals and achievements of the previous strategy, international best practice, and industry's key priorities for this strategy.

In preparing this consultation, Technology Ireland conducted desk research, consulted with individual members who are leaders in EdTech and facilitated a round-table discussion to understand what industry are calling for in this strategy.

Technology Ireland commends the work that has been achieved during the lifetime of the previous strategy and we look forward to continued collaboration to ensure the success of the new strategy.

Review of previous Digital Strategy for Schools

We commend the achievements made during the lifetime of the previous strategy which called for all new and revised curricula to focus on digital learning skills and the use of digital technologies. We also welcome the continued support to schools to develop a Digital Learning Plan. It is encouraging that digital Skills are now one of seven core elements in Initial Teacher Education.

Technology Ireland also welcomed the introduction of Computer Science as a Leaving Cert subject in 2018. Technology Ireland look forward to seeing the continued roll-out of this subject to all schools to ensure equitable access to the programme for all students.

Finally, the continued development of comprehensive CPD programmes offered by the Professional Development Service for Teachers (PDST) has been a positive step.

Opportunities for continued progress in the last strategy

Technology Ireland believe there were areas of the last strategy that did not meet expectations and thus provide opportunity for further development in the new strategy.

We believe the provision of internet connectivity under the Schools Broadband Programme, particularly to primary schools, did not meet objectives. Our colleagues in Telecommunications Ireland, Ibec are heavily involved with the implementation of the National Broadband Plan, and we sought their input on this matter. The remit of a reconstituted Mobile Phone and Broadband Taskforce should focus on practical blockages and hurdles that stand in the way on network deployment. For example, both overground and underground fibre network deployment involves significant, time-consuming, and burdensome interactions with Local Authorities, who often adopt different approaches to the same issue and whose advance approval is required for planned works. A push by a reconstituted Taskforce to simplify and streamline the administrative requirements Local Authorities place on network operators would be a welcome development and should speed deployment.

Further, there is potential to build upon the availability of high-quality digital content to support learning and teaching. New services are now available from EdTech firms that would allow teachers to provide their students with individualised material that can better meet their individual needs. However, schools continue to lack quality guidance and advice, including access to suitable procurement frameworks, that would enable them to purchase and deploy the latest educational tools.

What is outlined thus far is most achievable with the establishment of structures to provide oversight of and guidance on the implementation of the Strategy, as well as multi-annual funding which will also enable ongoing purchase of updated equipment within schools. This includes assistance to resolve both hardware and software difficulties but also guidance on how to deploy newer technologies such as cloud computing, machine learning and artificial intelligence.

International best practice

Technical support

The [Digital Education at School in Europe report](#) highlights that a lack of technical support is one of the greatest obstacles faced by teachers in the use of digital technologies (Chapter 4.2.3.).

Schools require technical support to enhance teaching, learning and assessment as well as the school's administration and planning systems. Education systems must offer a comprehensive, efficient, and effective technical support solution for schools.

Infrastructure and procurement

Infrastructure:

As recognised in the 2015-2020 strategy, schools require a robust, reliable ICT infrastructure to effectively integrate ICT into all aspects of school life. There are three key cornerstones to schools' digital infrastructure:

- Internet connectivity and wireless networks. Enhanced network connectivity is required to enable digital teaching and learning.
- Implementation of a 'cloud-based' approach for central ICT systems, applications, services, and infrastructure, including human resource management, case management and finance

systems. Maximising cloud usage will deliver technological and cost benefits for schools, as well as ensuring pupils can benefit from new cloud-based educational programmes.

- Appropriate device ratios for students and teachers to ensure both have access to all the digital resources they need, and infrastructure is no longer a constraint.

Procurement:

Policies should be implemented to enhance digital procurement capabilities. Schools need guidance when it comes to making the right choices on the purchase of technology products. However, knowing what technology to buy to address an education provider's needs is often a challenge. To assist with this, a service catalogue, or similar, should be developed, to provide schools with options and resources that best meet their digital needs. The catalogue should contain solutions and services to uplift the digital maturity of the school. Services and solutions featured in the catalogue should be leading; pre-approved; compliant with standards, policies, and interoperability requirements; and include professional development, case studies, school feedback as well as technical advice.

Helping education providers improve procurement practice and understand their procurement options, will also help aggregate demand, and cut the costs of sales for companies.

Guidance must also be provided with regards the maintenance of devices. For every new device added or application deployed, consideration needs to be given to how that device will be managed and maintained, what its life span will be, who will have responsibility, and what additional demands it will place on the existing school infrastructure.

Technology Ireland believes appropriate central procurement frameworks must be strengthened to allow schools to purchase new and innovative services being provided by members of the EdTech industry. Frameworks to better facilitate the purchase of cloud based EdTech services, must be established as a priority so that Irish school pupils can enjoy the same technological benefits available to students in other EU countries.

Leadership

Leadership at school level is an important lever for change. Leaders can motivate staff, set objectives, develop school digital plans, champion digital change, coordinate efforts, and more generally create a climate favourable to innovation and experimentation. There are two approaches towards developing digital leadership in schools: the training of school leaders and the appointment of digital coordinators.

In half of the European education systems, there are policies to support the appointment of digital coordinators in schools ([Digital Education at School in Europe report](#), Chapter 4.2.3.). Digital coordinators, known also as ICT coordinators, may be assigned different tasks and responsibilities, but these usually cover both technical and pedagogical aspects. The digital coordinator role is usually assigned to ICT teachers or teachers specialising in digital education.

Technology works best in education when strategically introduced by skilled, and confident staff. The best leaders place a strong focus on how technology can improve processes and teaching, they build digital capability amongst their staff and achieve good value for money through their procurement. Leaders must adopt a whole-school approach to the integration of digital technology. Digital teaching and learning tools cannot be seen as optional, they must become an integral part of classrooms and school systems. It is the responsibility of school leaders to drive this whole-school approach.

We know, however, that many leaders can struggle to know where to start with technology; they may be experts in education but are often not experts in digital technology. The same is true for teachers – we know that confidence and willingness are among the main barriers to adopting digital

technologies, and that ensuring teachers have adequate training, including in areas such as cloud computing, is often the biggest challenge. With this in mind, frequent training for school leaders is of the utmost importance, given their responsibility in driving the digital strategy at a local level. Many members of industry offer a range of complimentary training programmes and certifications that leaders and teachers can avail of.

Continuous professional development (CPD)

It is imperative teachers have professional development opportunities and access to resources to ensure the successful utilisation of technology in the school environment.

To help teachers evaluate their level of digital competence and thereby define their development needs, the education system should implement and promote the use of self-assessment tools. The education system can develop its own self-assessment model or use the European self-assessment tool (TET-SAT). This diagnosis will help uncover digital deficits which can subsequently be incorporated into initial teacher education programmes. Further, it is important for teachers to have the opportunity to feedback on and evaluate the CPD they have undertaken so amendments can be made, where necessary, to ensure the needs of teachers continue to be met.

Digital device access

Although not currently widespread, our research has noticed a growing international trend in the provision of a digital device per student. The provision of such devices is shifting from being considered a luxury, to being a basic building block of good education. Our European colleagues in [Scotland](#) and [Austria](#) are among the first to adopt the device per student approach.

Digital learning resources

Digital learning resources are any digital resource designed and intended to be used by teachers and learners. They can take a variety of different forms such as e-textbooks, educational online videos, and applications, learning games, e-worksheets, and web-based tests.

Incorporating digital learning resources will assist with the development of a constructive and inclusive learning environment. Most importantly, it will enable teachers to adapt teaching to diverse groups of students and students' individual needs. The so-called factory model of education – where each pupil advances at the same pace in every subject, regardless of ability and interest – should now be consigned to the past. Educators increasingly agree that personalised education, enabled by new technologies, yields much improved learning outcomes. Services offering a personalised learning assistant to students to remind them of their assignments and offer feedback on their learning experience are now available. Data analytics tools also now enable teachers to better understand how students are learning and to identify the interventions needed to better support them. Moreover, the use of machine-learning can ease teachers' workloads by offering automated feedback on assignments. This helps teachers use their time more effectively and where it has the most impact, whether it is supporting those children with individual needs or preparing new content for the classroom.

More broadly, the use of digital learning resources will help make studying more engaging and will expand opportunities in lifelong learning. The integration of digital learning resources is key to ensuring the achievement of digital skills and competencies.

Education systems must have policies in place to define quality requirements for digital learning resources as well as to improve their development and availability, while also considering the needs of disabled people. 32 systems within Europe have such policies in place. Technology Ireland

commends that Irish top-level authorities have taken practical measures to ensure the development, availability, and quality of these digital resources.

Online Safety

The European framework for digital competence, also known as DigComp, describes digital competence in detail and divides the knowledge, skills, and attitudes that all citizens need in a rapidly evolving digital society into five areas. Safety is one of these five areas and encompasses protecting devices, protecting personal data and privacy, protecting health and well-being, and protecting the environment ([Digital Education at School in Europe](#), Chapter 1.3.2.). Education systems must incorporate safety as part of digital competences.

Digital Competence

The definition of digital competence is something which should be included in all strategies. The inclusion of Ireland's definition should be a consideration for the new strategy as, at present, Ireland is one of the few countries in Europe with no common definition of digital competence ([Digital Education at School in Europe](#), Chapter 1.1.). Digital competence should also be explicitly addressed in the national curriculum. The report highlights that many European education systems teach digital competences as a cross-curricular theme, while others also teach it as a compulsory separate subject.

Digital technology and competences to be a core element of Initial Teacher Education

Initial Teacher Education providers must instil the benefits of using digital technology – whether it is machine learning, automation, or the various services available through cloud computing – to enhance the educational experience. The Department of Education, and initial teacher education providers, need to collaborate closely on teacher education programmes so that newly qualified teachers can acquire the necessary skillset to use such technologies to support learning and teaching.

In about two thirds of European education systems, teacher-specific digital competences are recognised in competence frameworks as some of the essential competences teachers are expected to have. Technology Ireland commends the implementation of a specific digital competence framework for teachers within the Irish education system. However, in initial education for teachers in Ireland, education providers are not issued with regulations or recommendations regarding how to structure their digital competence programmes, which could perhaps lead to inconsistency across initial teacher education providers ([Digital Education at School in Europe](#), Chapter 2.1.2.). This is at odds with our European counterparts, where over half of European education systems issue such regulations and recommendations to education providers. Top-level regulations or recommendations on the assessment of prospective teachers' digital competences should also be introduced.

Monitoring digital education strategies

A digital strategy cannot be successful without regular monitoring and evaluation. Only 50% of European education systems have undertaken some form of monitoring and/or evaluation of digital education policies. Of this 50%, many systems (Ireland included) are only monitored and/or evaluated on an ad hoc basis. International best practice recommends this happen regularly ([Digital Education at School in Europe](#), Chapter 4.1.2.).

COVID-19

Opportunities

Every crisis poses serious challenges, paving the way to learn, unlearn and relearn concepts and skill sets which enable the mindset to undergo drastic changes, and the COVID-19 pandemic has taught us

much. The pandemic initiated an extensive, sudden and dramatic digital transformation in worldwide society. It pushed us to take an extraordinary digital leap in our everyday life and practices, including in our education systems. Overnight, education was transformed from a traditional classroom to a remote, digitalised one - suddenly, an entire generation of children had to start managing and mastering digital tools to participate in their compulsory basic education. This required significant adjustments not only from children and their teachers, but also from their families, school administration and the entire society. Teachers and schools had to be the leaders of this overnight digital transformation, without being well prepared for it.

Lockdowns across the world paved the way for radical innovations and gave momentum to digital learning platforms which have become extremely popular among students, teachers, and educational and academic administrators, to interact and keep pace with learning. The pandemic era accelerated adherence to online platforms for effective accessibility of teaching and learning.

During the Covid-19 pandemic, the importance of digital learning has gained pace. While we are of the opinion that digital teaching cannot replace classroom teaching, the time has come for a radical transformation from the theoretical era to the digital era where online learning can supplement and complement but cannot replace the offline direct teaching-learning process.

As referenced above, a key feature of the new digital era is enhanced flexibility and personalisation, with the technology now available to better tailor education to the needs of individual students. Schools in Ireland should be given the opportunity to put this innovation to good use and to improve outcomes for all students.

Education leaders and teachers have showed great resilience, creativity, and perseverance in responding to the challenging situation of COVID-19. Some have identified valuable digital practices that they wish to utilise also in the future.

The pandemic has presented the opportunity to accelerate the progression of the digitalisation of education and we must now reap the rewards of this acceleration and ensure this digital momentum continues.

Challenges/ digital divide

Unfortunately, the pandemic presented an opportunity to further accentuate the digital divide, both in Ireland and internationally.

Significant parts of rural Ireland still lack the broadband infrastructure to enable remote learning. Indeed, even in less rural parts of Ireland, bandwidth and poor internet connections posed significant challenges. Many Irish students lacked connectivity or had to rely on inadequate access to devices. This was not only a disadvantage to these students, but also for other students in the school with better access, as teachers had to adjust their methods to cater for everyone.

The pandemic presented a further challenge to the wider society, in that children and families suddenly had to possess a variety of skills and competencies in order to maintain access to education. Many children and families lack such skills.

Similarly, there exists a subset of teachers with difficulties in digital skills and competences to use and to integrate the digital tools into learning and teaching practices in meaningful ways. Teaching and its preparation may have been very burdensome for this subset of teachers. Further, the quality of education received by Irish students was hugely dependent on the digital skills and competences of the teacher.

Finally, students with additional needs faced further challenges during the online learning from home period. In [research conducted by AHEAD](#), only 25% of students with a learning disability agreed they were coping well with learning from home, while less than 50% agreed that lecturers/ teachers considered accessibility in the provision of online learning materials.

In summary, it seems that existing technology, practices, skills and competencies, attitudes as well as cultural aspects can act as barriers to digital transformation. Further, it is apparent that teachers, schools, and educational administration have been poorly prepared for acting as leaders and change agents in digital transformation.

Technology holds the power to close the digital divide, we must not allow it to be a factor that further deepens it. With better investment in digital infrastructure and further CPD for teachers and educational leaders, Technology Ireland believes it is possible to overcome the challenges presented because of the COVID-19 pandemic.

What industry calls for in new strategy

1. Technical Support

During the development of the previous Digital Strategy, schools presented the challenge of attaining reliable and timely technical support as a major issue. The Strategy sought to evaluate several technical support options with a view to providing guidance on the best technical support solutions for schools. Unfortunately, availability of timely technical support remains a major challenge for primary and post-primary schools around the country and Technology Ireland and its members are calling on the Department to enhance technical support solutions for schools as a matter of urgency. This includes the provision of assistance with hardware and software difficulties but also guidance for schools on how to better use cloud computing and other technologies. Without this support infrastructure in place, the integration of digital tools for learning activity is extremely limited.

In the recently launched Action Plan for Apprenticeships 2021-2025, Government committed to setting targets for the public sector to take on apprentices and to create cross-sector apprentices. Therefore, the creation of an apprenticeship programme to provide technical support capacity for schools would satisfy both the Government commitment and the needs of the schools for reliable technical support.

2. Importance of digital skills for careers and employment

While K-12 education is not necessarily career-focused, greater primacy must be attached to digital skills given their ever-growing importance for the 21st century labour market. The advent of increased automation, for example, is forecasted to significantly impact many conventional job roles, meaning Ireland's workforce will need new digital skills for a transformed employment landscape. Technology firms are some of the fastest growing in Ireland and already they are encountering skills shortages, with companies unable to fill a variety of technical roles. (According to Fit.ie, there are currently over 12,500 tech vacancies in Ireland.) A key priority must be to ensure that children get the foundational skills they need, particularly in areas like cloud computing, machine learning and artificial intelligence, so that they are best equipped for the jobs of the future. Career guidance counsellors in schools also need additional support to understand various, and quickly expanding, digital-related career paths.

3. New procurement frameworks

Policies should be implemented to enhance digital procurement capabilities. As it stands, appropriate central procurement frameworks are not in place to allow schools to purchase new and innovative services being provided by EdTech firms. Frameworks, such as those that better facilitate the purchase of cloud based EdTech services, must be established as a priority so that Irish schools can benefit from cutting-edge educational tools and services, and Irish school pupils can enjoy the same technological benefits available to students in other EU countries.

4. Access to device and broadband

Technology Ireland and its members recognise the need for every student to have access to a learning device. We are seeing a growing international trend amongst education systems to equip students with their own digital terminal, as well as internet connectivity, such as in Scotland and Austria. Such initiatives will contribute to the attainment of digital skills and competences, as well as eliminating the digital divide. Members would like to see an increase in the access to devices for students in the first instance, with a subsequent plan to start the phased introduction of a device per student. Further, we recognise that digital devices have a life span, and we call for a management system to be introduced to ensure efficient renewal of expired devices.

5. Continuous Professional Development (CPD)

Technology Ireland and its members believe that digital leadership and quality CPD are integral to the successful integration of digital teaching and learning tools. The Digital Learning Framework has proven a key support in this regard to teachers and school leaders, and its continued and extensive use should be encouraged in the new strategy. We call for continued CPD opportunities for teachers and school leaders, with a framework in place to assist teachers and leaders in determining their specific development needs.

Equally important to the availability of CPD opportunities is to ensure teachers and school leaders are given the time to attend such trainings. Technology Ireland and its members are concerned that teachers/ school leaders miss out on many CPD opportunities due to conflicting responsibilities. We call on the Department to ensure that all teachers/ school leaders are given the time and encouragement to attend such trainings.

6. Digital by Default

Technology Ireland and its members believe the Irish education system must be Digital by Default. The Department of Education must lead by example in this regard and fully embrace digitalisation as a means to enhance their operations. The use of technology in schools can no longer be seen as a luxury, but rather a necessity. To this end, continued multi-annual financial investment is required. Technology Ireland members and industry greatly assisted the Department of Education in overcoming the challenges presented by COVID-19 over the past year. However, the onus is now on the Department to ensure schools, teachers, students, and parents are equipped to handle all future challenges, without reliance on donations from industry, or fundraising efforts from parents.

7. Leaving Certificate Computer Science

To ensure the success of the Leaving Certificate Computer Science (LCSS) subject, the Department must now seek to roll out the subject in all post-primary schools in Ireland.

Pathways must be implemented at upper primary and junior cycle level to encourage uptake of the subject at senior cycle level. Specifically, to guarantee this uptake and success of LCSS, we call for the introduction of coding/ digital media short courses at junior cycle level.

One of the largest threats facing growth of LCCS is the lack of qualified teachers. This shortfall must be addressed as a matter of priority at undergraduate and teacher training level.

Upon qualification, teachers must continue to be supported to best deliver LCSS. Technology Ireland and its members believe the introduction of a buddy system between industry and teachers would be most beneficial. Such a system would mean any additional guidance new teachers may need on technical aspects of LCCS is available to them.

8. Technology as a subject, and a tool in all learning activity

The development of Computer Science as an individual subject at senior cycle is most important and is a very welcome achievement of the previous strategy. In addition, Technology Ireland and its members believe technology must now be integrated into learning activity in all subject areas at both primary and post-primary level.

9. Digital content development

Technology Ireland and its members are calling for the creation of high-quality digital content to support learning and teaching. The availability of relevant digital content will assist teachers with the development of a constructive and inclusive learning environment and will help make learning more engaging. A rich library of digital content is key to ensuring the achievement of digital skills and competences.

10. Online safety/ cyber security

Information security, data privacy and online safety must be key considerations for the new strategy and the Department has significant responsibilities to ensure the safety and wellbeing of students, teachers, and staff in both physical and virtual environments. Understanding and acknowledging the risks posed by technology in education will enable a robust security procedure to be implemented to safeguard systems, staff, and learners.

As well as the integration of monitoring and filtering systems in schools, it is important that students are taught about online safety as part of a broad and balanced age-appropriate curriculum. Further to this, parents/ guardians must also be regularly educated on this topic as homes also play a crucial role in promoting safe and healthy digital practice. Greater access to digital devices within the learning environment will warrant the incorporation of digital safety into CPD trainings to educate teachers and school leaders of the latest risks and threats posed to schools, students, and staff and how such risks and threats can be mitigated.

11. Technology is key in Initial Teacher Education (ITE)

Digital learning tools and resources must be a core element in Initial Teacher Education programmes. Technology Ireland and its members urge that all Initial Teacher Education providers instil the benefits of using digital technology to enhance learning and teaching in their students. This will enhance the use of digital technology across all curriculum areas to enrich both learning and teaching. Similarly, as part of the inspection process for these teachers, a digital assessment of their teaching practice must be incorporated into the inspection in the same way their literacy and numeracy practices would be assessed. We further call for Initial Teacher Education providers to be issued with regulations/ recommendations regarding how to structure their digital competence programmes, ensuring a high digital standard across all ITE programmes.

12. Diversity & inclusion

Technology Ireland and its members believe that technology has the power to both close the digital divide, while also possessing the power to deepen it. Digital skills are essential to be able to develop and deploy digitally accessible and inclusive systems. We call for diversity and inclusion to be a key consideration in all digital developments, which require input from all facets of society.

How?

Technology Ireland believes what has been outlined above is most achievable with the appropriate actions:

1. Financial investment/ Government support

Continued financial investment and support from Government through multi-annual funding will help to accelerate the attainment of digital skills and competencies amongst both teachers and students. We are ambitious about the rewards this strategy will reap, but ambition is futile without appropriate investment. This includes the creation of new procurement frameworks that will better allow Irish schools to benefit from cutting-edge educational tools and services.

2. Collaboration amongst all key stakeholders

As outlined in the ICT Ireland (Technology Ireland predecessor association) consultation in 2014, the success of digital development in schools is dependent on a shared commitment by all the educational partners. To this end, collaboration at all levels (teachers, school management, industry, teaching unions, initial teacher education providers, the Department and its agencies, students, parents) is of the utmost importance. Technology Ireland welcomes the establishment of the DSSP Consultative Group to drive this collaboration in the formation of the new strategy and looks forward to continuing to engage through the lifetime of the strategy. The new Digital Education Strategy should also be as aligned as possible with other key Government digital-related texts, including the forthcoming new National Digital Strategy, the Public Sector ICT Strategy, and the 2019 Cloud Computing Advice Note.

3. Practical support from industry

While this new strategy is heavily reliant on considerable financial investment and support from Government, Technology Ireland members are enthusiastic to offer practical support in the form of teacher training, learning platforms and learning materials. Many Technology Ireland members already have vast amounts of resources freely available to educational institutions and members would like to work with the Department of Education to ensure that both the Department and schools are deriving the maximum benefit from these complimentary resources.

4. Continuous Professional Development to ensure buy-in from teachers and leaders

Teachers and school leaders must feel supported to implement the technological enhancements that are being called for in this strategy. CPD opportunities for teachers and school leaders is the appropriate avenue to assure them of this support and to equip them with the skillset necessary to implement these technological enhancements.

5. Ensuring rather than assuming digital literacy for students

While most students within primary and post-primary education may be considered *digitally native*, we must not assume this translates as *digitally literate*. To guarantee comprehensive digital literacy of all students, they must be taught the necessary digital skills from the most basic level. A sound understanding of the digital world should be part of the formal and non-formal education provided in every education and training institution.

6. Implementation of risk management systems to address cybersecurity concerns

Information security, data privacy and online safety are some of the greatest worries amongst stakeholders in the integration of technology in schools. To prevent these worries becoming barriers to the adoption and use of digital technology, technical supports and ongoing guidance should be provided at a central level.

7. Tone of strategy – supportive rather than accusative

The tone of the strategy is important to ensure buy-in from teachers and school leaders. It must assure teachers that the purpose of the strategy is to support them in integrating digital tools in all learning activity. Digitalisation will not replace the delivery of the curriculum, rather *enhance* the delivery of the curriculum. Further, the tone must assure school leaders that they will also be supported in any digital implementation, from assistance with procurement, to technical and device support.

8. Lean and streamlined systems and processes

The actions of this strategy must be easily implemented by schools. Cumbersome, lengthy and administration-heavy implementation processes will threaten the uptake of the strategy in schools and may contribute to the deepening of the digital divide. Lean and streamlined implementation processes that embrace simplicity and cut through red tape will be key to the adoption of technology in schools and will drive equity of access.

9. Regular monitoring and evaluation of strategy – assigning actions to objectives

As previously mentioned, the success of any strategy is dependent on regular monitoring and evaluation. We have identified that only 50% of European education systems have undertaken some form of monitoring/ evaluation of digital education policies. Of this 50%, many systems (Ireland included) are only monitored/ evaluated on an ad hoc basis ([Digital Education at School in Europe](#), Chapter 4.1.2.). Technology Ireland recommends that regular monitoring of this strategy is prioritised. The DSSP Consultative Group will help initiate this, and we look forward to a similar structure – potentially including leaders from both education and industry – to oversee the monitoring/ evaluation through the lifetime of the strategy. As has been done in the previous strategy, the assigning of actions to objectives will enable the monitoring of what has been achieved against the allocated timelines.

Conclusion

Technology Ireland believes this forthcoming digital strategy has the power to enact real digital change in Irish schools that will pave the way for a diverse, equitable and inclusive education system.

Support systems for teachers and school leaders are of paramount importance for this new strategy. Providing efficient technical support solutions, improved procurement frameworks, greater access to devices and broadband for both students and teachers, a library of rich secure digital content and

continued CPD opportunities for teachers and school leaders will ensure that teachers and school leaders feel they have the necessary skills and resources to successfully integrate digital technologies to the teaching and learning process.

The past year has taught us that digitalisation can greatly enhance and complement teaching and learning but can never replace the direct process. Significant digital momentum has been gained during the lifetime of the pandemic and we believe this momentum will be influential in driving the forthcoming digital strategy.

The 21st century employment landscape is ever evolving. However, something that remains consistent is the growing need for digital skills in the workplace. The development of foundational digital skills must be ensured for all Irish primary and post-primary students, with plentiful opportunities to develop more in-depth knowledge in areas such as coding, digital media, cloud computing, machine learning and artificial intelligence, so that they are best equipped for the jobs of the future. The continued roll-out of Leaving Certificate Computer Science, as well as the introduction of pathways at primary and junior cycle level, will be key to safeguarding the development of these pivotal future skills.

Technology Ireland believes that the priorities outlined in this consultation are most achievable with adequate multi-annual funding from Government. Technology Ireland and its members are ambitious and confident that this strategy will reap great rewards, however, the ambition is futile without appropriate investment from Government.

Technology Ireland and its members remain committed to supporting the work of the Department of Education in the roll-out of this strategy and we look forward to continued collaboration to ensure its success.