

# SCALING UP AND INTEGRATING THE SELFIE TOOL FOR SCHOOLS' DIGITAL CAPACITY IN EDUCATION AND TRAINING SYSTEMS

Methodology and lessons learnt

This is a joint report by the Joint Research Centre (JRC, B.4) of the European Commission, and the European Training Foundation (ETF).

Manuscript completed in February 2021

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**PDF** ISBN 978-92-9157-730-9 doi:10.2816/907029 TA-02-21-335-EN-N

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Please cite this publication as:

JRC and ETF, Bocconi, S. and Lightfoot, M. with Brolpito, A., Giannoutsou, N., Hippe, R. and Kampylis, P., *Scaling up and integrating the SELFIE tool for schools' digital capacity in education and training systems*, European Training Foundation, Turin, 2021.

# FOREWORD

The recent public health crisis has accelerated the integration of digital technologies in education and training systems. The majority of schools across the world moved to a hybrid mode of learning. The digital capacity of education and training systems has therefore become a key challenge. The European Commission acknowledges the potential of digital technologies for inclusive and high-quality education. The first strategic priority of its new Digital Education Action Plan 2021–27 is ‘the development of a high-performing digital education ecosystem’. Under this priority, ‘the effective digital capacity planning and development’ is underlined as ‘vital for education and training systems’.

Education and training systems need the right tools and processes to plan and develop their digital capacity, involving stakeholders at all levels. SELFIE is such a tool. It is designed to support schools in developing a practice of collective reflection on the use of digital technologies for teaching and learning and use this reflection to make informed decisions about their digital strategy and practices. Furthermore, SELFIE can have a system-wide dimension by helping policymakers take action towards developing the digital capacity of education and training systems.

SELFIE is a prime example of successful cooperation between European Union agencies, such as the European Training Foundation (ETF), and different services of the European Commission: the Joint Research Centre (JRC), the Directorate-General for Education, Youth, Sport and Culture (DG EAC) and the Directorate-General for Employment, Social Affairs and Inclusion (DG EMPL).

This study focuses on the deployment of SELFIE by policy-making institutions. It captures and systematises into a methodology the process followed by the ETF and the JRC, in introducing, scaling up and connecting SELFIE to national education and training reforms, through collaborations with policy-making institutions in different countries. The report is grounded on evidence collected from desk research and semi-structured interviews with 10 key players, namely policymakers, experts and practitioners in five countries: Spain, Portugal, Italy, Serbia and Turkey.

The study’s output is a modular methodology consisting of a series of interlinked actions. These can be further fine-tuned by taking into account a number of enablers and obstacles for SELFIE implementation, which are discerned from the cross-country analysis of the case studies. The lessons learnt from this analysis, together with SELFIE’s robust conceptual framework for digitally competent organisations, provide a solid basis to scale SELFIE up to system level.

This publication, representing diverse contexts and implementations, can be useful for EU Member States and partner countries regardless of their country-specific governance models for education and training. Specifically, system-wide stakeholders, national and international agencies and the European Commission can find this methodology a useful guide in scaling up and integrating SELFIE in education and training systems to develop a high performing digital education ecosystem.

Until now, the ETF and the JRC have worked together to implement SELFIE in Serbia, Albania, Montenegro, Kosovo<sup>1</sup>, Northern Macedonia, Moldova, Georgia, and Turkey. Currently, SELFIE is being piloted in Ukraine and Azerbaijan. Future plans include, at the moment, Israel and Kazakhstan.

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<sup>1</sup> This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence – hereinafter ‘Kosovo’.

# ACKNOWLEDGEMENTS

The report ‘Scaling up and integrating the SELFIE tool for schools’ digital capacity in education and training systems’ is the result of a joint initiative between the European Training Foundation (ETF) and the Joint Research Centre (JRC) of the European Commission.

Stefania Bocconi and Michael Lightfoot are the main authors of this report. Alessandro Brolpito (ETF), Nikoleta Giannoutsou and Ralph Hippe (JRC), and Panagiotis Kampylis (Greek National Documentation Centre) are co-authors and editors, and have overall responsibility for this publication.

Special thanks go to Deirdre Hodson, from the Directorate-General for Education, Youth, Sport and Culture, and Helen Hoffmann, from the Directorate-General for Employment, Social Affairs and Inclusion, for commenting on an early draft of the report.

This study would not have been possible without the cooperation of national education and training authorities, SELFIE national coordinators and schools in the countries selected as case studies: Italy, Portugal, Serbia, Spain and Turkey. Our gratitude goes to these stakeholders for their active participation and for sharing their experiences and opinions, which contributed to the richness of the findings of this report, namely:

- Simona Montesarchio (Director General), Andrea Bollini and Pierluigi Vaglioni, coordinating the SELFIE TIME course at the Office for Digital Innovation, Directorate General for Digital Education, Italian Ministry of Education;
- Antonella Gambacorta, coordinator of the SELFIE-RAV project at USR Umbria (Italy);
- Lucia Abiuso, regional coordinator of SELFIE Italia at USR Calabria (Italy);
- Elisabetta Nanni, coordinator of the SELFIE-based school network at Autonomous Province of Trento (Italy);
- Nuno Miguel Taborda Cid Dorotea, coordinator of the SELFIE project at the Institute of Education, University of Lisbon, in collaboration with the Ministry of Education/Directorate General for Education (Portugal);
- César Herrero Rámila, member of the SELFIE national coordination team at INTEF, Ministry of Education and Vocational Training (Spain);
- Santos Agudo González and David Martínez Torres, coordinators of the Avanz@TIC/SELFIE regional coordinator at the Council of Education, Culture, Sports and Youth, Autonomous Region of La Rioja (Spain);
- Rubén Garrido García and Mario Santamaría Baños, SELFIE school leader and coordinator at Obispo Blanco Nájera Primary School in La Rioja (Spain);
- María José Martínez Burgos, responsible for CoDiCe TIC/SELFIE regional coordinator at the Council of Education, Autonomous Region of Castilla y León (Spain);
- Danijela Šćepanović, coordinator of the SELFIE national initiative at the Ministry of Education, Science and Technological Development (Serbia);
- Gordana Čaprić, national officer at the Institute for Education Quality and Evaluation (Serbia);
- Olga Stojadinović, SELFIE school coordinator at Electrical Engineering High School ‘Nikola Tesla’ (Serbia);
- Sümeyye Hatice Eral, coordinator of the SELFIE national initiative and national education expert at the Ministry of National Education, Directorate-General for Innovation and Educational Technologies (Turkey);
- Nesrin Kurt, SELFIE school coordinator at Kadri Şaman MTSO Vocational and Technical Anatolian High School (Turkey).

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# EXECUTIVE SUMMARY

The purpose of this report is to propose a methodology for the scaling up of SELFIE<sup>2</sup> on the basis of several case studies from EU Member States and partner countries. Designed to support schools in using digital technologies for teaching and learning effectively, SELFIE is an initiative of the European Commission and consists of an online self-reflection tool for members of the school community to complete voluntarily. It is free of charge and is made available to schools, including at upper secondary vocational education and training (VET) level, for them to assess their digital learning capacity. Since October 2018, more than 650 000 school leaders, teachers and students from 7 400 schools in 57 countries have used SELFIE.

The strength of SELFIE, as a process operating at the school level, is that all stakeholders are involved, with online questionnaires being completed by school leaders, teachers and students. As such, it is an empowering process, enabling schools to pinpoint the key features and issues relating to technology use and digital skills development, and to use educational technology creatively to formulate action plans to address them. At national, regional and local levels, common findings and features could be aggregated, for example to inform professional development priorities and digital curriculum enhancement. At school level, the SELFIE process could be used to encourage improvements in the local governance of learning technology.

As a powerful diagnostic tool for policy-makers, SELFIE provides a process within individual schools to reflect on current practice and to provide the evidence to invoke change at a system level. It has the potential to take on a new and critically important role for schools and education and training systems in Europe and beyond. In its very conception, SELFIE has been designed as a tool to inform school-based reflective practice. By following the SELFIE protocols, a school can undertake an inclusive exercise in reflective practice to inform its development planning. Within the process, however, it is important to stress that the SELFIE process focuses on learning rather than technology. As such, regardless of the level of sophistication of a school's use of learning technology, the process helps to pinpoint exactly how and why learning is impacted by technology.

This report describes, through a number of cases of SELFIE implementation in EU Member States and partner countries, how the SELFIE process is a means for schools to reflect on a broad spectrum of integration strategies and outcomes in respect of educational technology.

## Proposed methodology for SELFIE scale-up at system level

Based on case study investigations in three EU Member States and two EU partner countries in the South Eastern Europe and Turkey (SEET) region, this report presents a methodology for introducing SELFIE at the system level. The proposed methodology is not a standardised blueprint, but it indicates a series of steps that policy-makers and stakeholders may wish to take; it identifies the key actions to consider for scaling up SELFIE from a pilot phase to wider implementation, while acknowledging and exemplifying how different countries and systems have adopted different approaches. Using the analysis of ongoing SELFIE initiatives, this methodology aims to help policy-makers and stakeholders

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<sup>2</sup> SELFIE – Self-reflection on Effective Learning by Fostering Innovation through Educational technology: [https://ec.europa.eu/education/schools-go-digital\\_en](https://ec.europa.eu/education/schools-go-digital_en)

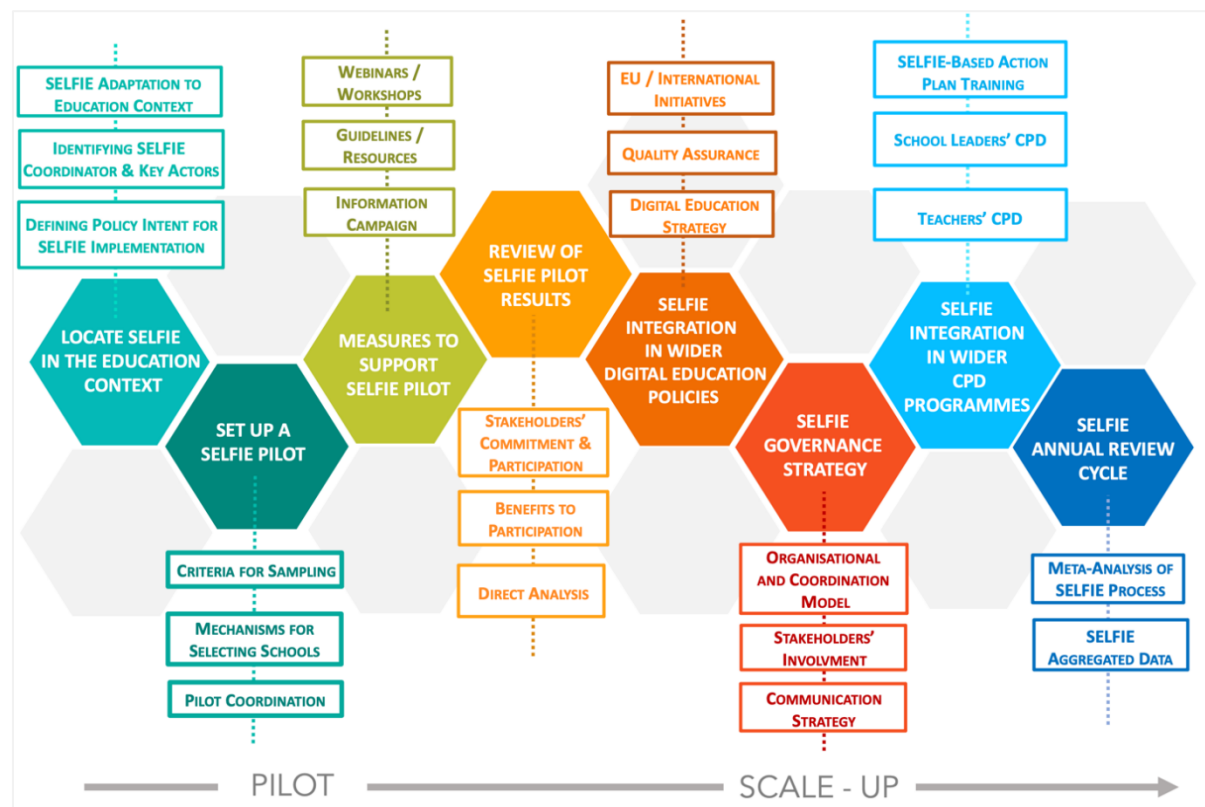


acting at different levels of education systems (e.g. policy-makers and officials in national/regional/local governments; decision-makers in educational authorities) to:

- define the policy intent for SELFIE implementation, formulating a context-relevant vision and scope for integrating SELFIE;
- draw up a comprehensive plan for incorporating SELFIE into the education system, working through the key steps necessary for piloting, evaluating and upscaling SELFIE;
- ensure commitment to implementing SELFIE, through stakeholders' engagement and the integration of SELFIE into education policy initiatives;
- strengthen the contextual conditions needed to leverage SELFIE, defining and incorporating SELFIE into wider professional development programmes and defining the SELFIE periodic review cycle.

The following figure describes how the SELFIE tool could be incorporated into an education system through eight main steps and related key actions. Each of these steps is unpacked and fully exemplified in the text of the report (Chapter 4).

### MAIN STEPS AND KEY ACTIONS FOR INTEGRATING SELFIE INTO EDUCATION SYSTEMS



As a starting point, policy-makers and administrators wishing to deploy the tool widely should locate SELFIE in the specific educational context, determining the main goals and priorities that SELFIE will cover and identifying the SELFIE coordinator. In most cases, a pilot is then set up to model effective implementation. Webinars and support measures for the pilot schools prepare the ground for the reviews of the pilot, leading to strategic actions. At all stages, the SELFIE scale-up operation is designed to align with national, regional and local digital education policies, as well as whole-school improvement and innovation strategies. The endorsement by senior education officials, at national,

regional and local levels, builds on the success of the outreach opportunities and promotes the commitment of a greater number of schools alongside authorities' explicit invitation to use SELFIE. The integration of SELFIE into the broader professional development programmes of teachers and other school staff ensures that key actors effectively understand the process. Finally, as the mainstreaming of SELFIE continues, a periodic review and analysis of SELFIE aggregated data and its impact should take place.

## Case studies of SELFIE usage in EU Member States and SEET countries

This report sets out how SELFIE could be scaled up and positioned in education and training systems. The school-level SELFIE process coupled with the methodology for scale-up are now in a position to help address many of the problems currently facing education systems due to the Covid-19 pandemic.

- **Rationale for integrating SELFIE into education and training systems.** A consensus was apparent from officials – both in education and training systems where there are devolved administrations and in those that are highly centralised – that *school empowerment* is the first element for consideration in the rationale for introducing SELFIE, encompassing schools as self-reflecting learning communities. The second element in the rationale is the *framing of schools' infrastructure development*, including resources for learning or in terms of hardware and infrastructure in order to improve the quality of investment decisions.
- **Key actors involved and supporting measures.** Across all the different cases, a combination of centralised/decentralised and top-down/bottom-up approaches to implementing SELFIE at system level is dominant at different times. High-level policy-making, in all cases, takes place through national-level decisions concerning, for example, a national curriculum and the place of technology within that curriculum. However, the implementation and enactment of these policies vary across different cases.
- **SELFIE implementation process.** Although piloting of SELFIE through a trial programme is seen as best practice, the size and scale of the trial can vary widely depending on the national context and the ambitions for SELFIE, setting up conditions for scaling up.
- **Integration into a policy context.** One of the main attractions of SELFIE is its flexibility and the way it is articulated with other policy instruments, most notably the EU Digital Competence Framework for citizens (DigComp) and the one for educators (DigCompEdu) and national policy agendas relating to transversal competences and 21st-century skills – communication, collaboration, creativity and critical thinking – across the curriculum.
- **Main drivers and obstacles.** The analysis of the case studies reveals that the main drivers for the successful operation of SELFIE at school level centre around digital readiness, governance and quality, while the obstacles for SELFIE adoption relate to attitudes, data ownership and capacity. The effective consolidation of the broadly positive experiences of the pilot studies is seen as an essential prerequisite for the scale-up of SELFIE to a system level. The action plans that emerge from the SELFIE process in schools almost invariably require additional financial resources to enable their fulfilment. Finding these resources can often be the challenge that prevents the SELFIE process from being the catalyst for real change. The initiation of encouragement and recognition mechanisms, such as the creation of a Digital Challenge Fund, could be a way to provide these additional financial resources.

- **SELFIE consolidation and development.** Learning online has assumed a new prominence during the enforced closure of school buildings during the Covid-19 crisis. SELFIE provides policy-makers with a robust set of tools that they can use to evaluate the status, capacity and maturity of online learning within their country or region. The school-level SELFIE process, coupled with the indicative methodology for scale-up, is now in a position to help address many of the problems currently facing education systems, such as how to ensure high-quality education and equality of opportunity as more and more learning is blended with digital formats.

# 1. INTRODUCTION

## 1.1 Background and policy context

SELFIE was one of the 11 priority actions of the European Commission's Digital Education Action Plan (2018–20). SELFIE was developed and subsequently piloted in 2017 in more than 650 schools in 14 European countries. The theoretical underpinning of SELFIE is the Digitally Competent Educational Organisations framework (DigCompOrg), which provides a set of descriptors for integrating digital learning into educational organisations. After qualitative and quantitative validation, SELFIE was officially launched on 25 October 2018<sup>3</sup>. It is available in 32 languages.

Two years since its launch, more than 680 000 school leaders, teachers and students from 7 450 schools in 58 countries have used the tool<sup>4</sup>. SELFIE has grown in scale and scope, not only in terms of user numbers, which have been continuously increasing, but also in terms of its relevance in the European policy context. The recent Covid-19 outbreak has further put the spotlight on the key importance of using digital technologies for teaching and learning both inside and outside the classroom, as well as highlighting the strengths and weaknesses of institutions and systems in improving the resilience and flexibility of education and training.

The European Commission has developed relevant policy initiatives, including the adoption of the new [Digital Education Action Plan](#) (2021–27) in September 2020. The new Digital Education Action Plan aims to achieve tighter European cooperation on digital education, outlining a set of strategic priorities and actions. Relevant to the focus of this report are actions such as the Erasmus+ funding for digital transformation plans and SELFIE for teachers.

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*My priority will be to get Europe up to speed on digital skills for both young people and adults by updating the Digital Education Action Plan. We need to rethink education by using the potential the internet provides to make learning material available to all, for example by the increased use of massive open online courses. Digital literacy has to be a foundation for everyone.*

**President von der Leyen<sup>5</sup>**

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In addition, the [2020 European Skills Agenda for sustainable competitiveness, social fairness and resilience](#) emphasises that the Covid-19 pandemic 'has accentuated the digital skills gap that already existed and new inequalities are emerging as many people do not have the required level of digital skills or are in workplaces or schools lagging behind in digitalisation' (p. 3).

The European Commission also proposes, in a [Council Recommendation, accompanied by a Staff Working Document for the VET sector](#), that for sustainable competitiveness, social fairness and resilience, the sector should equip its workforce – young and old – with the skills to support Covid-19

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<sup>3</sup> [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_18\\_6178](https://ec.europa.eu/commission/presscorner/detail/en/IP_18_6178)

<sup>4</sup> <https://schools-go-digital.irc.ec.europa.eu>

<sup>5</sup> [https://ec.europa.eu/commission/sites/beta-political/files/political-guidelines-next-commission\\_en.pdf](https://ec.europa.eu/commission/sites/beta-political/files/political-guidelines-next-commission_en.pdf) (p. 14)

recovery, as well as promoting green and digital transitions in a social and equitable way (further information on this draft proposal is included in Annex 2 of this report)<sup>6</sup>.

Finally, several [Erasmus+](#) projects are also working with the tool or further extending it. These include [Reflecting for Change, A strategic reflection on digitalisation at European higher education institutions](#), [SELFIE HEIpeR & Pedagogical innovation Assistant](#) toolkit, and [SELFIE – Digital Schools Awards Pilot Programme](#). Further projects will follow, as in August 2020, the European Commission also adopted a revision of its [Erasmus+ 2020 Annual Work Programme](#). An additional EUR 100 million has been provided to boost digital education and training further and to promote the development of skills and inclusion.

## 1.2 Key characteristics of SELFIE

Digital technologies have the potential to transform the way we live. Hardly any aspect of modern life remains untouched by technology. Nonetheless, the effective use of digital technologies for learning in schools and the impact on student achievement is a somewhat contested question. In recent years, the potential for the negative influences of computers on student achievement has been highlighted<sup>7</sup>.

Despite several decades of investment in educational technology by national governments and the powerful advocacy of a number of early enthusiasts, the regular and routine use of technology for teaching and learning in schools is far from universal. There remain several issues that constrain the broad incorporation of learning technology into everyday practices in schools. Indeed, in the teaching profession there remains a significant proportion of teachers who do not routinely use technology for learning (Akar, 2019).

In the light of these inconsistencies and in recognition of the need to identify the central issues relating to technology uptake in schools, SELFIE was conceived as a tool to promote a school collective reflection process. It includes three complementary questionnaires that are answered by school leaders, teachers and students. These questionnaires are based on the European Commission's [DigCompOrg](#), published in 2015. The SELFIE tool automatically creates an interactive report that provides a snapshot of where the school stands in the use of digital technologies for teaching and learning and enables the school community to plan actions for improvement and to monitor progress. This report provides the basis for schools to evaluate their status, and to use the results of this evaluation to formulate an action plan for addressing features and shortcomings identified through the SELFIE questionnaires.

As a useful diagnostic tool for stakeholders and policy-makers, SELFIE provides the evidence to invoke change at school and system level. In this light, it is clear that the SELFIE process has the potential to take on a new and critically important role for schools and education and training systems in Europe and beyond. In its very conception, SELFIE has been designed as a tool to inform school-based reflective practice. Throughout the SELFIE implementation process, a school can undertake a 'self-reflection on effective learning by fostering innovation through educational technology' (the full name of SELFIE). Within the process, however, it is important to stress that the SELFIE process focuses on learning rather than technology. An essential feature of SELFIE is that parts of the questionnaire are customisable at a school level, allowing for local factors to be considered. Schools

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<sup>6</sup> This proposal was expected to be adopted at the Council meeting on 30 November–1 December 2020.

<sup>7</sup> [www.oecd.org/publications/students-computers-and-learning-9789264239555-en.htm](http://www.oecd.org/publications/students-computers-and-learning-9789264239555-en.htm)

have the opportunity to select optional questions and create up to 10 questions to all respondent groups, enabling them to adjust SELFIE to the school's specific and changing needs.

The closures of school premises brought about by the pandemic have thrown into sharp relief the central importance of education system resilience. This resilience is based on schools' capacity to ensure continuity of learning, focusing on digital and non-digital aspects, including leadership and digital well-being. In some respects, technology availability has enabled a degree of learning continuity in 2020 during the closure of school buildings internationally caused by the Covid-19 pandemic, but the experience has been highly variable (ETF, 2020). Some schools, in the early days of the crisis, rose to the challenge to significant effect and were able to speedily switch teaching and learning to an online environment. These schools, though, were in a significant minority and for most learners, for many reasons, the pandemic has been a somewhat dismal educational experience with significant consequential learning losses (Azevedo et al., 2020; European Commission, 2020).

Infrastructure weaknesses and access to technology can be seen as significant barriers to learning online, but many other features of learning in a digital environment must be taken into consideration to achieve success. Not least among these are a school's policies and its planning, for example for the professional development and digital competence of its teachers. The large disparities in students' online experience that have been exposed by forced closures of school premises require urgent remediation if educational inequalities are not to be reinforced by the sudden move to learning online. Schools, local education authorities and ministries of education need to understand, quickly, what must be done to remedy this situation. It has become clear during the pandemic that those places where suitable investment and policy development in respect of educational technology has taken place have been able to maintain the continuity of quality learning at a higher level than those that have been able to offer little more than emergency remote teaching.

In most countries, although there is a recognition that the quality of technology use in schools is highly variable, there is a universal commitment among government policy-makers that some form of digital learning and skill development is an essential component of contemporary schooling. It is recognised that practices vary widely from school to school and are frequently reliant upon local conditions, most notably school leadership, but also many other locally situated circumstances.

The SELFIE team is working continuously towards refining not only the usability of the tool through usability studies but also its content. The European Commission has recently updated the SELFIE areas and restructured some of the questions based on a psychometric analysis of the SELFIE responses. Analysis of SELFIE responses has also proved the reliability and validity of the tool (Costa et al., 2021).

Finally, SELFIE has been enhanced with a set of questions on remote/blended teaching and learning, with the aim of addressing the recent challenges faced by education due to the health crisis. These questions address aspects relating to infrastructure, access, and communication with families, but also explore the use of digital technologies in terms of supporting children to become resilient and autonomous learners.

## 2. OBJECTIVES AND APPROACH OF THE STUDY

The present study aims to define a methodology for scaling up and integrating SELFIE in education and training systems through the analysis of a set of case studies. The specific objectives of the study are to:

- describe a number of cases of SELFIE implementation in EU Member States and partner countries, reflecting a broad spectrum of integration strategies and outcomes;
- collect and analyse evidence on policy initiatives using the SELFIE tool in the context of compulsory education (i.e. primary, secondary and vocational schools);
- provide a comprehensive methodology to inform and guide SELFIE uptake at various levels of education and training systems, highlighting its implications for policy and practice.

The study follows a qualitative approach comprising the following components:

- desk research, drawing on various information and data sources (reports, guidelines, etc.);
- semi-structured interviews, providing insights from policy-makers, administrators, experts and practitioners<sup>8</sup>;
- case study analysis, including background information and analysis of challenges and effective strategies;
- comprehensive methodology definition, synthesising key findings into a coherent whole.

These approaches are briefly described in more detail in the following sections.

### 2.1 Desk research

Focused desk research was conducted to collect evidence of policy initiatives and system-wide implementation of SELFIE, taking into account both academic and grey documents. Country reports and Eurydice data<sup>9</sup> were reviewed to help to locate the usage of SELFIE in the national, regional and local digital education policy contexts for each selected case.

### 2.2 Interviews with policy-makers and educational stakeholders

Policy-makers, experts and practitioners provided informed insights via semi-structured interviews on how SELFIE is being used in their jurisdiction. Fifteen interviews were conducted across five countries (see [Table 2.1](#)).

The interviewees were selected based on convenience sampling relating to SELFIE implementation experience (e.g., in EU partner countries in the role of SELFIE national coordinator or generally having in-depth knowledge of and/or involvement in one or several SELFIE initiatives at the system level; being able to provide background information on SELFIE pilot implementation and upscaling, etc.) and participated in the study voluntarily. The interview template is included in Annex 3.

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<sup>8</sup> This methodology has been used for similar studies carried out by the European Commission's Joint Research Centre (JRC), e.g. [Digital Education Policies in Europe and Beyond](#) and [CompuThink](#)

<sup>9</sup> [https://eacea.ec.europa.eu/national-policies/eurydice/national-description\\_en](https://eacea.ec.europa.eu/national-policies/eurydice/national-description_en)



## SEE TABLE 2.1 LIST OF INVOLVED STAKEHOLDERS BY COUNTRY

Country	Case title	Organisation name	Organisation type	Stakeholder type	Role in SELFIE
Italy	Case 1. SELFIE Italia	Ministry of Education, Directorate General for Digital Innovation, Office of Digital Innovation in Education	National government	Policy-maker	Coordinator of SELFIE TIME continuing professional development course for teachers
		National Research Council, Institute for Educational Technology (CNR-ITD)	Public Research body	Expert	Coordinating SELFIE Italia initiative
	Case 2. SELFIE USR Umbria	Regional School Office of Umbria (USR Umbria)	Regional educational authority	Administrator	SELFIE regional coordinator and coordinator of the SELFIE-RAV initiative
	Case 3. SELFIE USR Calabria	Regional School Office of Calabria (USR Calabria)	Regional educational authority	Administrator	SELFIE regional coordinator
	Case 4. SELFIE Autonomous Province of Trento	Digital Citizen School Network	School network	Educational stakeholder (former) practitioner	SELFIE provincial coordinator (former) and SELFIE school coordinator
Portugal	Case 5. SELFIE Portugal (E2D)	University of Lisbon, Institute of Education, Centre for Digital Competence and Innovation	University	Consultant for the ministry/ expert	Coordinator of SELFIE project at the Institute of Education, University of Lisbon in collaboration with the Ministry of Education and the Directorate General for Education
Spain	Case 6. SELFIE Spain	Ministry of Education and Vocational Training (MEFP), National Institute of Educational Technologies and Teacher Training (INTEF)	National government	Policy-maker	SELFIE national coordinator
	Case 7. SELFIE La Rioja	Autonomous Region of La Rioja, Consejería de Educación y Cultura, Centro de Desarrollo Profesional Docente	Regional government	Administrator	SELFIE regional coordinator
		Obispo Blanco Nájera Primary School	Primary school	Practitioner	School leader jointly with SELFIE school coordinator
	Case 8. SELFIE Castilla y León	Autonomous Region of Castilla y León, Consejería de Educación, Dirección General de Innovación y Formación del Profesorado	Regional government	Administrator	SELFIE regional coordinator



Country	Case title	Organisation name	Organisation type	Stakeholder type	Role in SELFIE
Serbia	Case 9. SELFIE Serbia	Ministry of Education, Science and Technological Development (MoESTD)	National government	Policy-maker	SELFIE national coordinator
		Institute for Education Quality and Evaluation (IEQE)	National government	Policy-maker	National officer
		Electrical Engineering High School 'Nikola Tesla'	Secondary vocational school	Practitioner	SELFIE school coordinator
Turkey	Case 10. SELFIE Turkey	Ministry of National Education (MoNE), Directorate General for Innovation and Educational Technologies (DGIET)	National government	Administrator	SELFIE national coordinator/national education expert
		MTSO Vocational and Technical Anatolian High School	Vocational secondary school	Practitioner	SELFIE school coordinator

The semi-structured interviews each lasted approximately one hour and were conducted mainly via teleconference and email, or a combination of the two. After each interview, a short written summary was drafted and shared with the interviewee for validation. Interviews provided the basis for drawing up the proposed methodology for SELFIE uptake (Chapter 4) and offered reliable evidence and insights on the crucial factors for successful piloting, upscaling and integration of SELFIE at the system level in each selected case.

## 2.3 Criteria for selecting country cases

Criteria for identifying and selecting country cases included:

- integration of SELFIE tool at system level, based on a structured approach;
- SELFIE integration at different education levels – primary, lower secondary, general and vocational upper secondary;
- timeframe for SELFIE usage at system level (e.g. early and recent adopters).

Table 2.2 presents the 10 selected cases in EU Member States and SEET countries that reflect the full spectrum of possibilities under each criterion, covering a range of implementation strategies.

**TABLE 2.2 LIST OF SELECTED CASES BY COUNTRY**

Country	Case number/title	System level implementation			Implementation phase		Adoption time
		National	Regional	Local	Pilot	Scale-up	
Italy	1. SELFIE Italia	x				x	2017 onwards
	2. SELFIE USR Umbria		x		x		2017–21
	3. SELFIE USR Calabria		x			x	2017 onwards
	4. SELFIE Autonomous Province of Trento			x		x	2017 onwards
Portugal	5. SELFIE Portugal (E2D)	x			x		2020–22
Spain	6. SELFIE Spain	x				x	2017 onwards
	7. SELFIE La Rioja		x		x		2017–20
	8. SELFIE Castilla y León		x			x	2017 onwards
Serbia	9. SELFIE Serbia	x				x	2017 onwards
Turkey	10. SELFIE Turkey	x			x		2018 onwards

Among EU Member States, the proposed cases for in-depth analysis include SELFIE initiatives in **Italy**, **Spain** and **Portugal**. The cases analysed in these three countries reflect the selection criteria discussed above, providing interesting experiences and insights on several additional key aspects regarding the scale-up and integration of SELFIE into national, regional and local education systems.

Among EU partner countries, **Serbia** and **Turkey** were selected as case studies for this report due to the large scale of their SELFIE pilots, their strong organisational capacity and their significant progress in digital education policies and practices. The evidence from these two countries, coupled with accounts of their first-hand experiences with SELFIE, are detailed later in this report.

# 3. OVERVIEW OF SELFIE INITIATIVES IN EU MEMBER STATES AND SOUTH EASTERN EUROPEAN COUNTRIES

## 3.1 Ongoing SELFIE initiatives across EU Member States

SELFIE has been used by more than 7 450 schools and, as of October 2020, has had more than 680 000 users from 58 countries across the world since October 2018. The majority of users were from EU countries and their participation, based on absolute numbers, can be categorised into three groups.

- Group 1 (more than 10 000 users): Spain, Belgium, Italy, Hungary, Germany, Portugal, Lithuania, Bulgaria.
- Group 2 (1 000–10 000 users): Greece, Poland, Ireland, Cyprus, Romania, Malta, France, Slovakia, Croatia, Sweden, Slovenia, Latvia.
- Group 3 (fewer than 1 000 users): Austria, Finland, Estonia, Czech Republic, Netherlands, Denmark, Luxembourg.

Three different types of initiatives that involve the use of SELFIE in EU education and training systems can be identified.

- Top-down model: Ministries promote the use of SELFIE in the schools. This model has involved a set of different actions, ranging from awareness raising to coordination, between the European Commission and education authorities. The model is evident in the following countries: Spain, Belgium (Flanders and Wallonia), Malta, Cyprus, Portugal and Bulgaria.
- Mixed model: A research institution and regional authorities have introduced SELFIE in schools: Lithuania, Italy.
- Bottom-up model: Individual schools have taken the initiative to use SELFIE; this involves the remaining countries.

In the following four country examples, the JRC has been directly involved in the launch through collaboration with the various ministries of education.

In **Belgium**, both Flanders and Wallonia identified SELFIE as a useful tool to support the development of the digital capacity of schools. The Ministry of Education organised a communication campaign in April 2019. A support page has been created on the Flanders education portal, including a range of support videos in Dutch. In Wallonia, all schools were informed by the region's administration about SELFIE and invited to participate.

**Cyprus** has been closely involved and has recognised the value of the SELFIE project from the outset. It was very active in the pilot phase and has subsequently been promoting the use of SELFIE across all schools in the country. Cyprus is also participating in SHERPA (SELFIE HELpeR and Pedagogical innovation Assistant)<sup>10</sup>.

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<sup>10</sup> Project funded by the European Commission under Erasmus+ Key Action 3: <https://sherpa4selfie.eu/>

In **Greece**, there is a project on digital education within the Structural Reform Support Service, and SELFIE is seen as playing an important part. The International University of Greece also coordinates the Erasmus+ SHERPA project. The National Documentation Centre of Greece organised an online SELFIE seminar in June 2020 attended by about 1 700 teachers, academics, policy-makers and students.

**Malta**, along with Cyprus, was one of the first countries that asked to take part in SELFIE pilots in late 2017. Malta was very active in the pilot phase and scaled up the tool, proposing that schools use SELFIE on a voluntary basis. The Ministry of Education and Employment has actively promoted the use of SELFIE. For instance, it organised, jointly with the e-skills Malta Foundation, a SELFIE seminar for school leaders in May 2019 to promote the tool and demonstrate its features.

The three EU Members States (Italy, Spain and Portugal) that participated in the case studies reported here were selected because of their extensive experience in country implementations of SELFIE; the different models of implementation, involving the central state as well as regional authorities and schools; and their strong involvement in the SELFIE project, which is leading to well-supported and ongoing implementation in most parts of the respective countries.

Specifically, in **Italy**, the Ministry of Education showed an interest in and was informed of the results of the SELFIE pilot, in which 201 Italian schools participated. The ministry also received information from the delegate to the ET2020 Working Group on Digital Education: Learning, Teaching and Assessment. In 2020 the ministry promoted a SELFIE-related training course for teachers and school leaders designed in collaboration with the National Research Council's Institute for Educational Technology (CNR-ITD).

In **Portugal** during the academic year 2018/19, the Directorate General for Education, in collaboration with the Institute of Education of the University of Lisbon, developed a pre-pilot project in five school clusters. A pilot implementation took place during the school year 2019/20, and the ministry is planning the broader promotion of the tool during 2020/21.

In **Spain**, the National Institute of Educational Technologies and Teacher Training (INTEF) of the Ministry of Education and Vocational Training (MEFP) is the Spanish point of contact with the European Commission in all EU initiatives regarding education. INTEF has been highly active in promoting the use of SELFIE since the outset, and Spain is the country with the highest participation rate. The rationale for introducing SELFIE in Spain is mainly to promote the digital capability of the whole-school community, thus integrating and extending the scope and breadth of the national programme on digital competence in education. INTEF shared with the Commission the organisation of the first SELFIE Forum<sup>11</sup> in April 2019. This was a conference where more than 200 education stakeholders from all over Europe shared promising practices for the promotion of digital capacity in general and vocational schools.

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<sup>11</sup> See the [conference report](#). See also the related [promotional video](#).

## 3.2 SELFIE initiatives across partner countries

A top-down model has been exclusively used for SELFIE in partner countries, with the ETF and the European Commission-JRC liaising with ministries and relevant national bodies to promote and pilot SELFIE. This model has involved a set of different actions, ranging from awareness raising to joint organisation of national pilots involving a sample of primary and secondary (general and vocational) schools selected by relevant ministries. The model is evident in the following countries: Albania, Georgia, Kosovo, Moldova, Montenegro, North Macedonia, Serbia and Turkey.

In **Albania**, oversight was initially provided by the Ministry of Education, but subsequently, due to its responsibility for vocational education, the Ministry of Finance and Economy<sup>12</sup> became involved. SELFIE implementation was started in the autumn of 2019 with a group of primary and secondary general and vocational schools selected by the two ministries. A representative from the Ministry of Civil Affairs of **Bosnia and Herzegovina** attended the SELFIE workshop for partner countries organised by the Commission in Brussels in 2018. To date, SELFIE has been promoted in the country, though not yet piloted. In **Kosovo**, the SELFIE project was launched in May 2019 with a national pilot involving a set of primary and secondary general and vocational schools selected by the Ministry of Education, Science and Technology. However, there has so far been no follow-up to the SELFIE pilot. Nonetheless, two ongoing European projects for the reform of VET in Kosovo, namely Professional Requalification and Occupation – KSV/801<sup>13</sup> and Aligning Education and Training with Labour Market Needs – ALLED II<sup>14</sup>, have been involved and could support a broader adoption and integration of SELFIE in the country's VET system.

The SELFIE national coordinator for **Montenegro** is from the information and communication technologies (ICT) department at the Ministry of Education. SELFIE was successfully tested as a pre-pilot study in a trial school in March 2019. On the strength of a further successful pilot in additional schools, the ministry decided to use SELFIE as a mandatory tool for school self-evaluation. **North Macedonia** launched its pilot in May 2019. The ministry has a detailed statistics system for school monitoring and evaluation, and based on a successful SELFIE pilot, consideration is being given to the value of linking this in some way to the SELFIE outcomes. **Serbia** joined the SELFIE project during the design phase, as a result of its regular participation in the European Commission's ET2020 Working Group on Digital Education. The SELFIE national coordinator, for both general and vocational education, is within the Ministry of Education, Science and Technological Development (MoESTD) and has overseen the growth and successful implementation of SELFIE, with some 50% of primary and secondary public schools having conducted SELFIE at least once. The Serbian ministry has organised, among other actions, a comprehensive training programme for improving schools' digital capacity through SELFIE during the school year 2019/20. **Turkey** is the largest of the EU partner countries, with a public education and training system of 18 million students. In March–April 2019 the Ministry of National Education (MoNE) organised a pilot in 290 schools in 47 cities. In line with Turkey's Education Vision 2023<sup>15</sup>, the MoNE is considering the further scale-up of SELFIE.

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<sup>12</sup> The SELFIE pilot also involved the National Agency for Vocational Education and Training and Qualifications (NAVETQ), which is in charge of the implementation and development of VET in Albania.

<sup>13</sup> <https://luxdev.lu/en/activities/project/KSV/801>

<sup>14</sup> <http://alled.eu/>

<sup>15</sup> [https://2023vizyonu.meb.gov.tr/doc/2023\\_VIZYON\\_ENG.pdf](https://2023vizyonu.meb.gov.tr/doc/2023_VIZYON_ENG.pdf)

During the preparation and finalisation of this report, several initiatives to promote SELFIE began taking shape in **Georgia** and **Moldova**. The most intensive usage is in Georgia<sup>16</sup>, where, by the end of 2020, the ETF together with the European Commission-JRC will deliver a ‘train the trainer’ initiative, including SELFIE. The Ministry of Education intends that this package will promote the use of digital technologies in teaching and learning in public primary and secondary general and vocational schools. A pilot programme is planned for **Ukraine** and **Azerbaijan** in 2021.

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<sup>16</sup> Georgian schools were among those that tested the tool during its pilot phase in October 2017.

## 4. METHODOLOGY FOR THE SCALE-UP AND INTEGRATION OF SELFIE INTO EDUCATION AND TRAINING SYSTEMS

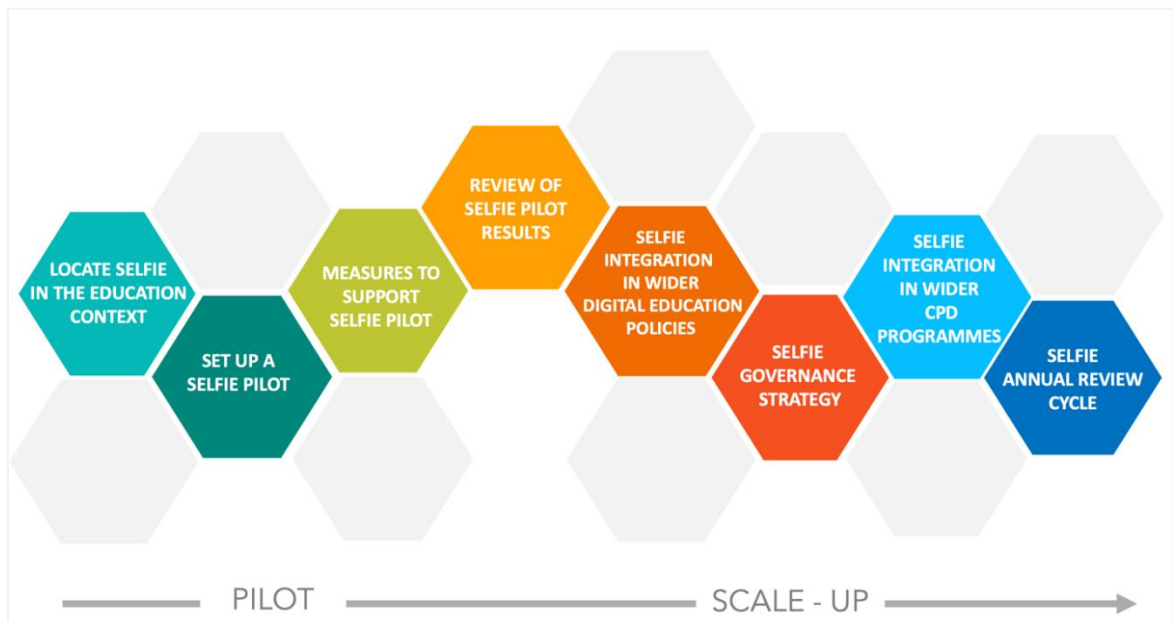
The proposed methodology provides a framework for governments and educational authorities to plan and develop context-relevant policy actions for implementing, upscaling and integrating SELFIE into the education and training system.

Based on the analysis of ongoing initiatives involving SELFIE, this methodology aims to help policy-makers and administrators acting at different levels of education systems to:

- define the policy intent for SELFIE implementation;
- draw up a comprehensive plan for piloting, evaluating and upscaling SELFIE into the national, regional and local education system;
- ensure commitment and strengthen the contextual conditions needed to leverage SELFIE in education.

The following eight steps (depicted in [Figure 4.1](#)) can guide policy-makers and administrators in how they may introduce SELFIE into their schools.

**FIGURE 4.1 PROPOSED METHODOLOGY FOR INTEGRATING SELFIE INTO THE EDUCATION SYSTEM**



As a starting point, policy-makers and administrators should locate the SELFIE tool in their specific educational context. By strongly focusing on their main goals and priorities, this will help them to identify a suitable SELFIE coordinator (or coordination team) (step 1). In most cases, a pilot action can be set up and used as an exemplar for designing an effective implementation plan (step 2) to gain a deeper understanding of the main challenges and opportunities for the effective integration of SELFIE. Defining support measures such as webinars and workshops for the piloting schools (step 3) and

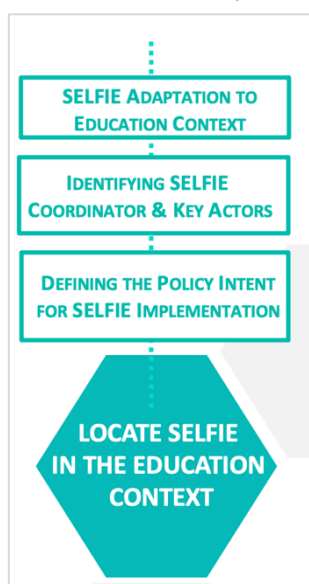


reviewing pilot results (step 4) can pave the way for further strategic actions. As well as developing an implementation plan for upscaling SELFIE into the education system, policy-makers and administrators should position and link SELFIE to specific national, regional and local policies (e.g. digital education policies, quality assurance) (step 5). Direct support from an authoritative body (e.g. education minister, a regional or local education authority) can contribute to the uptake by promoting and involving a significant number of schools through an explicit invitation to use SELFIE (step 6). Similarly, integrating SELFIE into the broader professional development programmes for teachers and school staff ensures that the self-reflection process promoted through SELFIE is fully appreciated by all the key actors (step 7). Finally, to move towards future mainstreaming and ensure effective integration into the national, regional and local context, a periodic review and analysis of SELFIE aggregated data and its impact should take place (step 8).

The proposed methodology allows for full flexibility and adaptation to different educational contexts (e.g. centralised and decentralised education systems, with different degrees of autonomy), enabling the integration of additional steps (the grey areas in [Figure 4.1](#)), as well as scope to modify their sequence and internal components, thus also favouring the application of the methodology at various levels of the education system (national, regional and local levels). In the following section, each step and the key actions to consider are briefly presented.

## 4.1 Step 1. Locate SELFIE in the national, regional and local context

After collecting information about the main characteristics of SELFIE (e.g. during seminars and periodic information events), policy-makers and administrators can start locating SELFIE in their own educational context, determining specific goals and priorities towards which SELFIE will contribute.



Key actions to consider include:

### Defining the policy intent for SELFIE implementation

A clear statement about the rationale for the SELFIE intervention (e.g. as mandatory or optional; to help schools to define their digital action plan) is a starting point for designing a comprehensive approach and effective plan to boost SELFIE uptake. To establish the policy intent of leveraging SELFIE requires clarification of the strategic objectives and priorities at the national, regional or local level to which SELFIE will contribute (e.g. promoting the innovative use of digital technologies in education, strengthening students' digital competence), as well as how SELFIE will be introduced (e.g. small- or large-scale pilot project).

### Identifying a SELFIE coordinator and key actors

Robust coordination is needed to ensure that effective actions relating to SELFIE are in place across institutions. Among the competent ministries or agencies (e.g. regional or local authorities, education agencies, universities, experts), as part of existing institutional and organisational settings for the use of ICT in education, it is crucial to establish a SELFIE multi-level coordinating body or committee (at national, regional and local levels) responsible for guiding the implementation and management of the SELFIE initiative at all system levels. This will assist in establishing and maintaining strategic partnerships and engaging relevant stakeholders in communicating about the initiative and contributing to its visibility. Moreover, depending on the specific context and structure of the education system, local-level coordinators may also be nominated to ensure synergies with local activities and effective implementation of SELFIE.

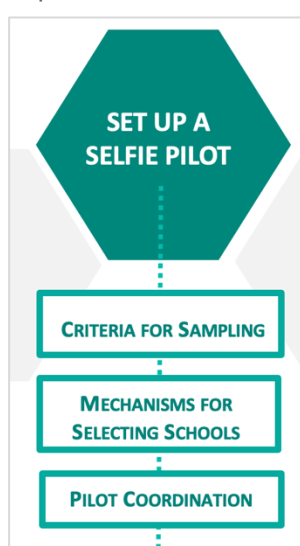


## Adapting SELFIE to the national/local context

To facilitate SELFIE uptake and promote a shared understanding of the nature of the SELFIE process, the pool of quality resources already available to school leaders and teachers should be translated and adapted to the specific context. These resources include the guides for school coordinators on setting up and using SELFIE in schools<sup>17</sup>, the DigCompOrg conceptual framework underpinning the SELFIE tool, and communication materials such as slides, videos and reports<sup>18</sup>.

## 4.2 Step 2. Set up a SELFIE pilot

For a pilot-based approach to SELFIE, integration starts on a smaller scale with piloting at national, regional or local levels. Piloting provides an opportunity for initiating, and investing in, local change through implementing SELFIE in specific contexts, as a starting point for a broader roll-out. A pilot also allows for the development of a deeper understanding of how to operationalise SELFIE, overcoming implementation barriers and identifying mechanisms to support the SELFIE process and outcomes.



Key actions to consider include:

### Defining criteria for identifying participating schools

The self-reflection process promoted through SELFIE is intended for all schools, operating in various contextual conditions and regardless of the specific characteristics of their technological infrastructure. Even (and mostly) those schools with limited access to technologies (i.e. lack of devices, low-band connectivity) or with obsolete equipment can benefit from using SELFIE to identify strengths and obstacles and to implement effective actions for improvement. For these reasons, it is crucial to adopt criteria for pilot participants that reflect the variety and richness of contextual conditions, thus ensuring the inclusion of schools that are as representative as possible of the existing range of schools' digital capacity and context. Pilot sampling should normally include schools:

- from different geographical areas (e.g. north, centre and south) and locations (e.g. city, town and rural);
- covering different education levels and sectors (e.g. primary, lower and upper secondary and initial VET institutions) and institution types (public, private, chartered);
- of different sizes (e.g. small schools with up to 500 students, medium-sized schools with 500–1 000 students, large schools with over 1 000 students);
- with different digital infrastructures (e.g. ranging from well-equipped schools with high-speed connectivity to schools with limited infrastructure and low-speed connectivity);
- that participate in specific national, regional or local programmes (e.g. on digital learning) or national/EU networks (e.g. eTwinning).

### Establishing mechanisms for selecting schools

Involving a significant number of schools could be a strategy to ensure that each criterion is adequately covered. Alternatively, schools can participate either through a direct invitation from the government or voluntarily. Depending on the specific characteristics of the education system (e.g. top-down centralised)

<sup>17</sup> SELFIE resources for schools are available at: [https://ec.europa.eu/education/schools-go-digital/selfie-resources\\_it](https://ec.europa.eu/education/schools-go-digital/selfie-resources_it)

<sup>18</sup> SELFIE information materials in Italian: [www.selfieitalia.it/docs/SELFIE\\_MIUR\\_FINAL.pdf](http://www.selfieitalia.it/docs/SELFIE_MIUR_FINAL.pdf); and in Portuguese: <https://erte.dge.mec.pt/selfie>

and the rationale for integrating SELFIE (e.g. funding technology infrastructure), pilot schools could be identified through a selection process based on the evaluation of SELFIE-based project proposals submitted by schools (e.g. proposing teacher/staff training activities based on SELFIE results).

### Managing and coordinating pilot activities

Pilot activities can be coordinated by the appointed SELFIE coordinator body or committee (e.g. ministry, educational authority) or be conducted independently (e.g. by a research institution). To ensure effective collaboration among all actors involved, a coordination plan is recommended, featuring the overall timeline and main activities for the piloting.

## 4.3 Step 3. Define measures to support the SELFIE pilot

Supporting measures are essential in assisting pilot schools engaging with SELFIE, motivating target users, and helping schools to understand the nature of the SELFIE self-reflection process.

Organising a kick-off meeting involving school leaders and SELFIE coordinators from pilot schools is vital when launching the pilot activities. Moreover, providing training events and resources throughout the pilot programme contributes to ensuring adequate support for participants in using SELFIE (e.g. registering on the SELFIE platform, personalising SELFIE questionnaires). Such measures also bring benefits after the pilot, encouraging schools that understand the value of SELFIE and are comfortable in using it to spread the positive messages throughout their professional networks.



Key actions to consider include:

#### Setting up an information campaign

Developing an awareness campaign on SELFIE (e.g. through institutional education intranets, government websites) can encourage schools to get involved and actively participate in the pilot. Creating localised infographics and promotional materials to explain the main aims and characteristics of the SELFIE tool, as well as making available a translated and adapted version of the DigCompOrg<sup>19</sup> framework, can be beneficial for those teachers and school leaders who are interested in knowing more about the topic.

#### Developing guidelines and resources

Providing guidance and advice (e.g. toolkits, training resources) to schools and all stakeholders involved in piloting SELFIE is crucial if it is to be delivered as expected. These can range from actionable guidance on the role and tasks of the SELFIE coordinator in schools to guidance on monitoring schools' participation and engagement in SELFIE. Resources

to help schools to link SELFIE into national, regional and local initiatives or to conduct institutional activities should also be provided (e.g. guidelines to help schools to use SELFIE results to draw up their educational plan or to inform their internal evaluation).

<sup>19</sup> Examples of a translated version of the DigCompOrg framework: [http://educalab.es/documents/10180/216105/DigCompOrg\\_IPTS-INTEF\\_ES.pdf](http://educalab.es/documents/10180/216105/DigCompOrg_IPTS-INTEF_ES.pdf) (Spanish version by the MEFP/INTEF) and <https://drive.google.com/file/d/0B4xOPkY46S0ZZGZHazZmZXFmMjA/view> (Italian version by the National Research Council's Institute for Educational Technology (CNR-ITD)).

## Running webinars and workshops

Training provides pilot schools and relevant stakeholders with sufficient capacity to implement SELFIE effectively. Training modules, online courses (e.g. massive online open courses (MOOCs)), podcasts<sup>20</sup> and workshops on SELFIE can be designed and deployed with the support of experts and overseen by the SELFIE coordination body. These also contribute to the nurturing of a self-reflection culture inside schools concerning the use of technologies for learning, focusing on a variety of topics (e.g. students' digital competence, designing a SELFIE-based action plan).

## 4.4 Step 4. Review SELFIE pilot results

Piloting offers the opportunity to gain a deeper understanding of major drivers and barriers relating to SELFIE implementation both at individual school level and across all of the pilot schools through the aggregation of anonymised consolidated data from these schools. When planning to roll out SELFIE on a larger scale, it is vital to troubleshoot issues that arose during the pilot programme (e.g. group discussion). Reviewing SELFIE pilot results provides the necessary information to formulate a SELFIE scale-up plan and strategy.



Key actions to consider include:

### Analysing stakeholders' commitment and participation

Participation in a SELFIE pilot indicates the degree of involvement and commitment to SELFIE, strengthening capacities at the national, regional and local levels for its introduction into the system. It also provides information on the capability of a school community to take collective ownership of its current strategies and practices and to engage in self-reflection practices (e.g. arranging a focus group or a short online questionnaire to obtain feedback after the implementation). Moreover, incentive mechanisms already provided within SELFIE (i.e. SELFIE certificate of participation for all participants, SELFIE open badge for schools, acknowledgement of 10 working hours for school coordinators to run SELFIE) can be further adapted by the SELFIE coordinator body or committee.

### Highlighting potential benefits to participation

The benefits to schools of using SELFIE fall into two main categories: (i) collecting data to inform schools' policy decisions and to identify critical elements in their digital action plan; and (ii) reinforcing the process of schools being self-reflecting learning communities. The review of pilot results should look into both aspects, identifying priorities for follow-up actions (e.g. by addressing those aspects/items from the SELFIE results that were given the lowest ratings) and potential synergies with other education policy initiatives.

### Directing resources based on analysis

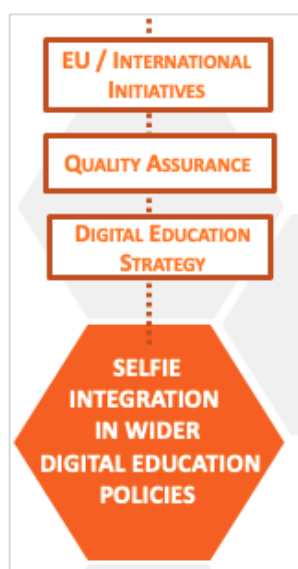
The feedback derived from the pilot data informs policy-makers and administrators about user perceptions of the practical implications of government investments in infrastructure and the status of the available digital resources to support learning and teaching. This review enables the identification

<sup>20</sup> Example of a podcast on SELFIE: <http://aprende.intef.es/index.php/endirecto/eventos-para-educadores-conectados/podcast-9-selfie> (conducted by the Spanish MEFP/INTEF).

of specific professional development needs and informs the planning of tailored training actions (e.g. for school leaders and teachers).

## 4.5 Step 5. Plan SELFIE scale-up and integration in national, regional and local policies

An overarching plan is necessary to take SELFIE to scale and to incorporate it into wider policies and strategies at the national, regional and local levels. It is critical to link and align SELFIE to existing prioritisation, administrative routines and decision-making structures to ensure its sustainability and growth towards wider uptake by schools. During this step, the strategic plan to integrate SELFIE should be endorsed by senior officials in the education administration.



It is also crucial to incorporate SELFIE into national, regional or local policies on digital education, linking to broader ministerial or education authorities' plans to outline their contribution to its implementation (e.g. through specific projects or thematic programmes; through government initiatives, including specific measures and incentives).

**Key actions to consider include:**

### **Integrating into national, regional and local digital education strategies**

It is crucial to formally integrate SELFIE into wider strategies for digital education that most countries have already developed. The expected contribution of SELFIE should be explained in policy documents (e.g. supporting and guiding the development of the digital action plan of the school; framing the school's expenditures on infrastructure) to ensure coherence at all system levels<sup>21</sup>.

### **Linking to quality assurance**

SELFIE provides the school with anonymised qualitative data (i.e. perceptions of the school's leaders, teachers and students) about the school's policies and practices in using digital technologies for learning; synergies can thus be established to use SELFIE results for internal self-evaluation activities in pre-existing quality assurance systems. A fundamental feature of the SELFIE process is that the data should inform judgements about school-based leadership and management, rather than simply being a means of auditing digital capacity. In this way, the SELFIE results can be used for the quality assurance of a school's operation as a well-led community of learning, rather than the SELFIE tool being used only as a measurement of a school's technological excellence set against national benchmarks.

### **Fostering knowledge sharing and cooperation with European and international initiatives**

Integrating SELFIE into the education system and schools' practices offers the opportunity to develop consistent policy actions. Establishing clear links and clarifying localisations of the SELFIE process allow schools and education authorities to foster knowledge sharing and international collaboration to promote peer learning and the exchange of ideas based on SELFIE results. SELFIE provides a

<sup>21</sup> For example, in Italy, the Autonomous Province of Trento included SELFIE in the local policy initiative on the Digital Education Action Plan for Schools (in Italian, Piano provinciale per la scuola digitale, Reg. delib. No 1941, approved on 24 November 2017) among key actions (Action #28) that all schools located in the province should implement in the coming years. Similarly, the Autonomous Region of La Rioja in Spain included SELFIE in the regional initiative Avanz@TIC: [www.larioja.org/edu-innovacion-form/es/actividades-formacion/proyectos-innovacion-educativa-pies/avanz-tic-ano-2019-2020](http://www.larioja.org/edu-innovacion-form/es/actividades-formacion/proyectos-innovacion-educativa-pies/avanz-tic-ano-2019-2020)

common language and a reference point for all schools and education systems, thus enabling and facilitating such cooperation.

## 4.6 Step 6. Establish the SELFIE governance strategy

The SELFIE governance strategy establishes how SELFIE will be governed and executed at any, or all, system level(s) to secure the engagement of key stakeholders and the achievement of expected outcomes. This step encompasses the high-level administrative and operative acts behind SELFIE implementation at large scale, including setting up performance indicators to monitor progress.



Key actions to consider include:

### Defining the organisational model for SELFIE governance and coordination

Depending on the organisation of the education system, SELFIE governance takes a centralised or decentralised and a top-down or bottom-up approach, or a mixed method combining different strategies. The implementation plan should be put into action through a governing board and/or a coordinating body that represents all major stakeholders (e.g. ministries, educational authorities, universities, research institutions).

### Involving stakeholders

Undertaking systematic consultation (e.g. in the form of roundtables, online consultations) with a wide range of governmental and non-governmental stakeholders during the integration and uptake of SELFIE at system level<sup>22</sup>

ensures it is comprehensive and reflects expertise and insights from different policy areas (e.g. education, infrastructure, quality assurance). International collaborations and peer networks can support the exchange of experiences and promising practices, ensuring that SELFIE implementation can benefit from similarities between education systems and policy contexts, thus providing opportunities to share resources (e.g. professional development programmes).

### Adopting a clear and effective communication strategy

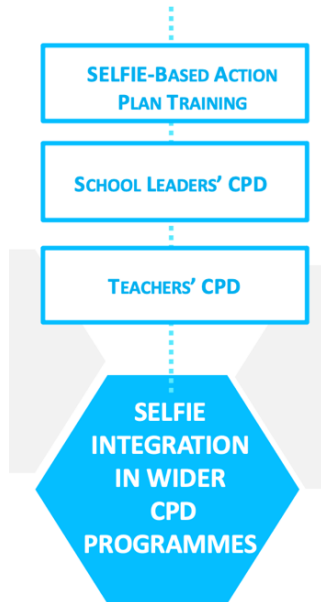
Information campaigns should focus on the distinctive elements of SELFIE, ensuring that different stakeholders (e.g. administrators in regional or district authorities, trainers) are clearly and effectively informed about planned activities for implementing SELFIE at the system level. A SELFIE coordinating body or committee should organise kick-off meetings, information days for schools, social media campaigns and network events for disseminating and exchanging information on SELFIE experiences (e.g. national SELFIE conference, periodic meetings with regional/local education authorities).

<sup>22</sup> For example, in Spain, the MEFP periodically arranges meetings with autonomous regions to inform and update them about SELFIE developments at national and EU level, as well as to collect their feedback, thus encouraging the adoption of SELFIE at regional level. (Given the distributed nature of the Spanish system, regional ministries of education are the only bodies that can contact schools directly.)



## 4.7 Step 7. Incorporate SELFIE into continuing professional development programmes

To capitalise on the full potential of SELFIE to support schools, governments and educational institutions could design and develop targeted continuing professional development (CPD) programmes as a means of using findings from the school SELFIE reports to empower schools' capacity to provide digital education and boost innovation at all system levels (national, regional, local).



Key actions to consider include:

### Professional development for teachers and SELFIE school coordinators

Including SELFIE-related training activities (which focus on the specific nature of the self-reflection process promoted by SELFIE) in teachers' initial education and professional development programmes can foster their digital capacity and raise awareness of their role and contribution in defining and broadening schools' digital education. Professional development activities can be designed and implemented to empower the SELFIE school coordinator to effectively foster self-reflective practices in the school community (e.g. how to formulate additional items, how to support colleagues and foster teachers' and students' participation).

### Professional development for school leaders

Targeted professional development activities can help school leaders to use SELFIE results proactively and recognise potentials to inform their policy decisions. Critical elements identified in the SELFIE school report need to be considered by school leaders when defining the school's digital action plan, and teachers' professional development needs detected so that appropriate CPD solutions can be proposed.

### Professional development for designing, implementing and monitoring the SELFIE-based action plan

The effective development of the school's SELFIE-based action plan requires the involvement and collaboration of staff members throughout the school community (e.g. school leader, person responsible for quality assurance, curriculum designer, home-school liaison officer). Targeted training activities can help school staff members' personal and professional growth through, for example, designing actionable plans based on SELFIE; focusing on strategies to interpret SELFIE data; identifying and establishing priorities for future action plans; monitoring and evaluating the implementation of the SELFIE-based school action plan.

## 4.8 Step 8. Setting up a SELFIE annual review cycle to inform policies

The opportunity to implement SELFIE through several rounds of annual cycles is important for its sustainability, and this provides a valuable means of monitoring schools' digital developments. Establishing robust mechanisms to monitor and evaluate system-wide SELFIE strategies and outcomes ensures that SELFIE implementation achieves the intended impacts.

Monitoring progress improves decision-making, allowing systems to adjust the SELFIE integration process to have more significant impact, and enhancing institutional learning and stakeholders' commitment. It also helps policy-makers to understand where resources are needed.



Key actions to consider include:

### Conducting a meta-analysis of the SELFIE process

Transformative participation in the SELFIE process should result in an improvement in schools' digital capacity. There is a need to evaluate SELFIE impact at the school level, a reflection of the school's ability to effectively use SELFIE data to design a genuine action, change and improvement plan.

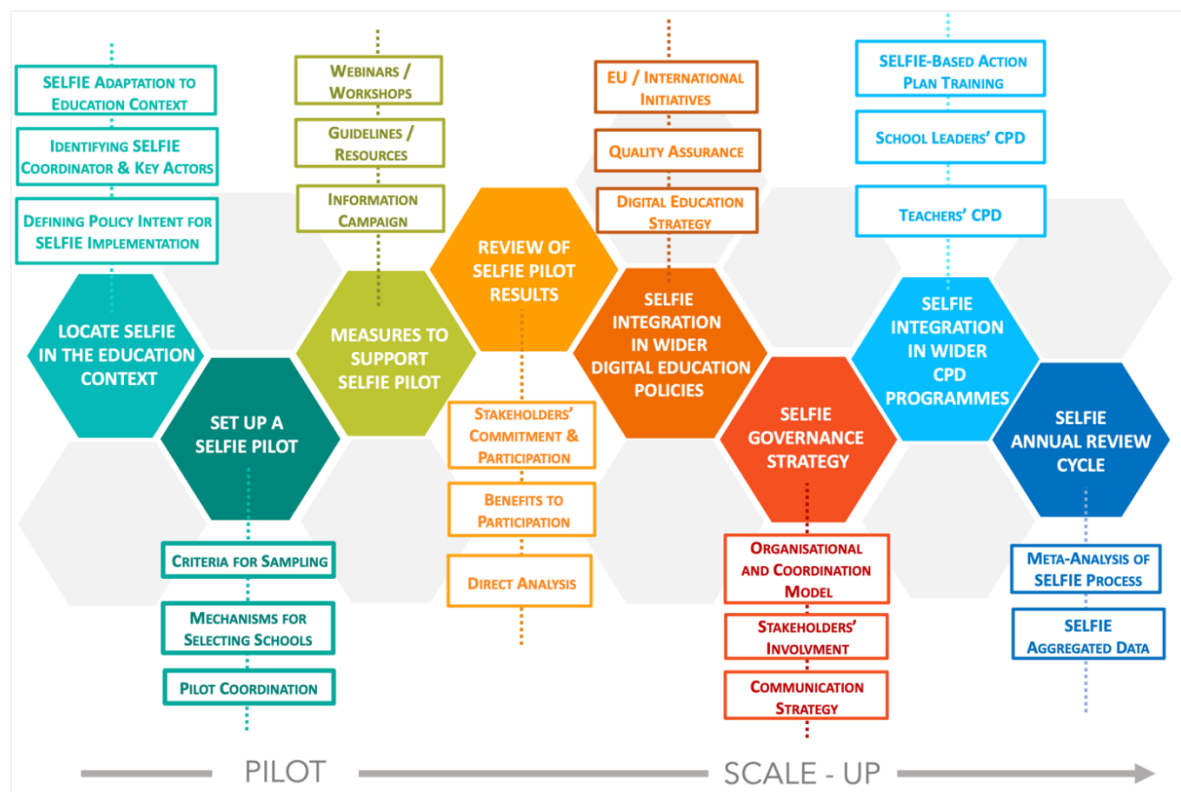
### Using SELFIE aggregated data

SELFIE aggregated data at national, regional and local levels could provide stakeholders with indications to identify broad areas for interventions (e.g. detecting professional development needs, recognising activity gaps, monitoring school policy developments). Policy-makers can agree with the European Commission on ways to have access to aggregate SELFIE data (e.g. schools located in similar contexts, from similar education levels) while ensuring the anonymity of individual schools.

## 4.9 Closing remarks on the proposed methodology

To sum up, the proposed methodology outlines the main steps for the integration of SELFIE into national, regional and local education systems, highlighting key actions for policy-makers and administrators to consider (Figure 4.2). It also enables the mapping of ongoing SELFIE initiatives in EU Member States and SEET countries.

**FIGURE 4.2 STEPS AND KEY ACTIONS FOR INTEGRATING SELFIE INTO NATIONAL, REGIONAL AND LOCAL EDUCATION SYSTEMS**



## 5. EVIDENCE FROM SELECTED SELFIE CASES IN EU MEMBER STATES AND SOUTH EASTERN EUROPEAN COUNTRIES

Six major areas for attention emerged from the analysis of selected cases. Each of these is contained in its own discrete section, beginning with the different rationales of specific countries or regions for their involvement in SELFIE. Consideration is then given to the key actors in the SELFIE process, which vary across the different cases depending on the degree to which states are centralised or have devolved administrations. A section is then dedicated to the features of the implementation in the different cases.

The final three sections begin with a consideration of the incorporation of SELFIE into a broader policy context such as the EU Digital Competence Framework for citizens (DigComp) and the one for educators (DigCompEdu) and national policy agendas relating to digital education. This is followed by a section on the main drivers and obstacles: the main drivers centre around governance and quality while the obstacles to SELFIE adoption relate to attitudes, capacity and data ownership. The final section is a brief synthesis on how SELFIE is being consolidated to form a firm base for future elaboration in each country case.

### 5.1 Rationale for integrating SELFIE into education and training systems

#### Empowering schools through collective self-reflection

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##### Highlights from SELFIE selected cases

- Building self-reflecting communities of learning
  - Providing a common reference framework for schools to locate learning with technology
  - Helping schools define their priorities and action plan
- 

A consensus was apparent from officials (both in education and training systems where there are devolved administrations and in those that are highly centralised) that *learning about and through* technology is the central feature that must drive the manifestation of technology in schools. This learning encompasses schools as self-reflecting learning communities; teachers as lifelong learners, who understand the critical importance of CPD; and students who must, through online learning, develop and improve their capacity as autonomous learners. This school empowerment is the first element for consideration in the rationale for introducing SELFIE. The second element in the rationale is the framing of the school's infrastructure development. This framing may include how resources for learning have been developed in different ways. For example, in the Autonomous Region of La Rioja in **Spain**, the development has been in terms of hardware and infrastructure and in how procurement and deployment are prioritised in relation to a school's SELFIE report.

Across the different contexts analysed, a strong and abiding rationale for integrating SELFIE into education and training is that of empowering schools' digital capacity through collective self-reflection processes and practices. More specifically, SELFIE is used as a scaffold to provide schools with a common agenda to locate learning and teaching with technology.



For example, in **Italy**, during the pilot period, the Ministry of Education learnt the extent and potential of SELFIE as a vehicle to support digital technology professional development. After the pilot, the ministry decided to support further training on SELFIE through dissemination as part of the broader training actions during its Futura Training Days<sup>23</sup> in 2019. Subsequently, a public call for schools to run intensive training programmes was issued to cover most of the Italian territory. In **Serbia**, SELFIE has been seen as the most effective solution to the previous unsuccessful attempts to encourage e-learning and improve schools' digital capacity through the use of a self-reflection tool. Participation in a SELFIE pilot strengthened Serbian capacities at the national level for the introduction of the self-reflection tool into the system and alignment of the process with other quality assurance and school development policy initiatives.

In **Portugal**, the involvement of whole-school communities was seen as a critical element in the belief that all stakeholders should take ownership of the school diagnosis so that the results are sincere, authentic and actionable. By involving the whole-school community in this process, school leaders can use the results proactively and give recognition to the power and importance of SELFIE in informing their policy decisions and identifying critical elements to be considered in defining their digital action plan.

## Defining schools' infrastructure and resource development

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### Highlights from SELFIE selected cases

- Resource investment decisions driven by learning needs
  - Identifying professional development needs
  - Assessing and monitoring the quality and availability of digital learning resources
- 

SELFIE is a helpful tool that enables policy-makers to interrogate school systems to ascertain user perceptions of the impact of investment in infrastructure and the status of the available digital resources to support learning and teaching.

For example, in **Portugal**, hardware is supplied to a school and the SELFIE tool is subsequently applied to ascertain the impact and any associated professional development needs. SELFIE is part of a bigger regional project investigating how schools use learning technologies and matching this with devices and resources. In **Turkey**, SELFIE is seen as having potential as a national survey instrument to assess the learning impact of infrastructure investment. For example, the large investments in educational technology made in the past decade can be evaluated by the Directorate General for Innovation and Educational Technologies (DGIET). SELFIE has been regarded as a useful diagnostic tool for seeing the current situation at the national level. The opportunity to implement SELFIE through several rounds of annual cycles is also considered important for sustainability and for the monitoring of digital developments.

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<sup>23</sup> [www.istruzione.it/scuola\\_digitale/futura.shtml](http://www.istruzione.it/scuola_digitale/futura.shtml)

## Projecting national policy, collecting school data and sharing best practice

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### Highlights from SELFIE selected cases

- Quality assurance
  - Framing the national picture
  - Sharing best practice for digital transformation
- 

A number of ministries of education are keen to have access to school SELFIE reports. However, by its very nature and design, SELFIE is a tool for self-reflection, action planning and empowerment, and SELFIE reports generated by the questionnaires are, and should remain, confidential to individual schools. Although SELFIE data provided voluntarily by schools can be aggregated at the national level, ministries need to exercise caution in this regard since the data is not necessarily representative, and SELFIE cannot be regarded as a substitute for national auditing of staff and student skill levels or the infrastructure status school by school.

For example, in **Serbia**, the National Education Council has published guidelines that recommend the use of online self-reflection tools as a vital part of the quality assurance system in the education sector, with a focus upon schools' digital education provision. Similarly, in **Portugal**, an ongoing pilot study uses SELFIE in five school clusters to identify staff's skill levels. Based on results, targeted training will be organised, focusing on pedagogical methodologies that integrate digital technologies and including the sharing of best practices. In **Italy**, the Regional School Office of Umbria (USR Umbria) is piloting, with 58 schools, the SELFIE-RAV toolkit for integrating SELFIE data into the mandatory school's self-evaluation report (RAV). Similarly, in **Spain**, the Regional Ministry of Castilla y León has adapted and aligned the regional ICT certification process (CoDiCe TIC) for schools to the DigCompOrg framework.

## 5.2 Key actors involved and supporting measures

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### Highlights from SELFIE selected cases

- Organisational structure depending on the education system
  - Combination of centralised/decentralised, top-down/bottom-up actions
- 

While recognising that the operational implementation of SELFIE takes place, essentially, at the school level, different models and supporting measures exist among the country cases in question. Several countries tend to operate with centralised national administrations, whereas in others, it is more often the case that parts of the decision-making are devolved to local, regional administrations. This is a reflection of the different traditions and priorities of national governments in respect of education policy-making and enactment.

**Figure 5.1** provides a broad summary of the actors involved in all of the cases and of where they are located in the system. As far as possible, the implementation of SELFIE works best when it is in harmony with the organisational structure of the education system in question (at the national, regional and local levels), with different actors involved in the SELFIE initiatives at different levels.

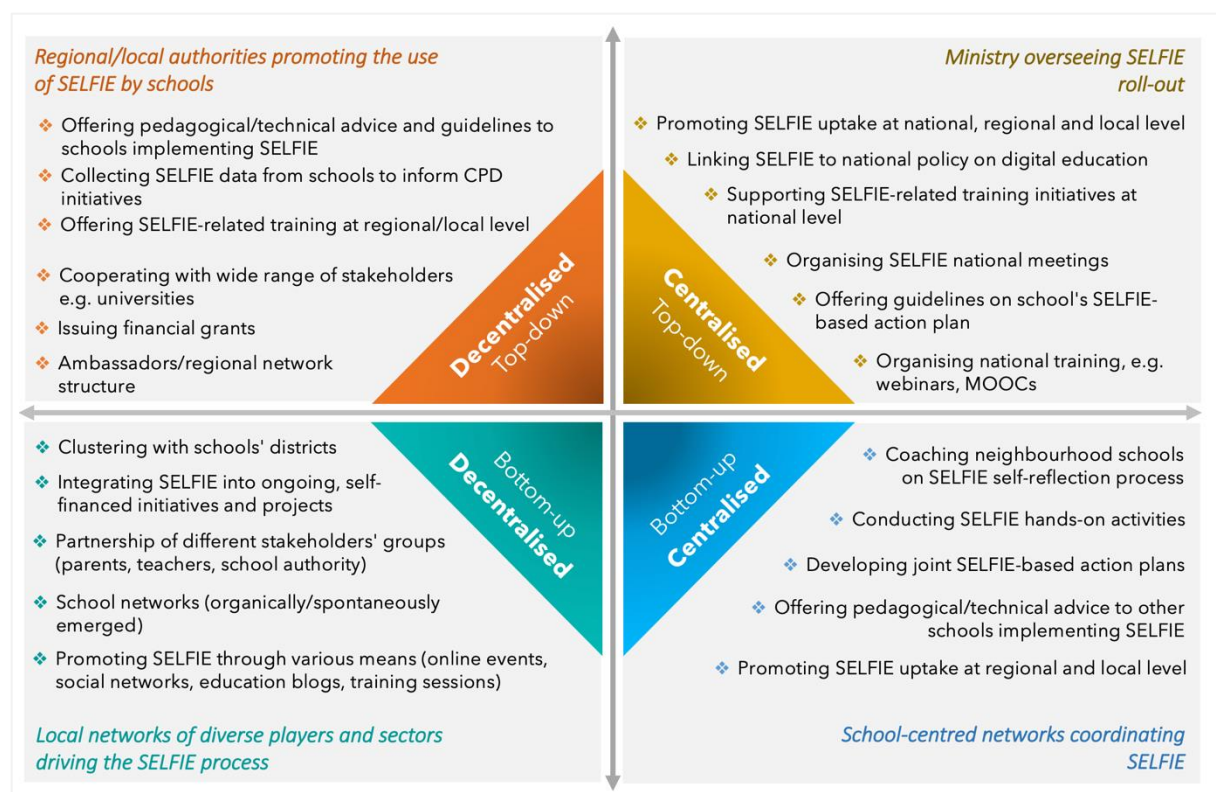
The four quadrants represent the constituencies of the key actors; in all of the cases studied, there are players from each quadrant taking part in the policy formulation and enactment, although the emphasis varies across each of the studies. Across the cases, each of the four quadrants is dominant

at different times. In all cases, high-level policy-making – about, for example, a national curriculum and the place of technology within that curriculum – takes place centrally at national level. However, the implementation and enactment of these policies vary across the different case studies.

In both centralised and federal education systems, the ministry of education and its directly mandated agencies oversee the operation of all national initiatives for education and training (*centralised top-down*). In distributed education systems, where the ministry responsible for education and training primarily plays a coordinating role at national level, the implementation of SELFIE-related activities is carried out mainly by regional and local education authorities, and it can involve universities (*decentralised top-down*). This modality is exemplified in many European Member States, including Italy, Portugal and Spain, and also in Turkey, through the EU Ambassadors network.

*Centralised bottom-up* approaches can often complement approaches that are primarily top-down with coordinated actions and activities carried out at local level by networks and, in some cases, regional universities. In this modality, there is a strong expression of localised networks and partnerships between a variety of stakeholders and groups.

**FIGURE 5.1 OVERVIEW OF SELFIE-RELATED ACTIONS AND KEY ACTORS AT DIFFERENT SYSTEM LEVELS**



In **Spain**, where the MEFP is in charge of providing the general education framework for the country, regional authorities have the autonomy to make decisions on education within the MEFP framework. Concerning SELFIE, officials from the MEFP INTEF support and oversee the adoption, acting as SELFIE national coordinator, while regional authorities directly implement SELFIE in schools. The MEFP is responsible for the dissemination of all aspects of SELFIE and SELFIE training at the national

level, contacting and informing regional authorities about SELFIE (e.g. news, events, updates, materials) as they retain the power to decide how SELFIE should be implemented in a particular region.

In **Portugal**, at a micro level, those responsible for enacting policies such as SELFIE are always the school principals. However, the Ministry of Education through the Directorate General for Education consistently has on its agenda the encouragement of schools to develop action plans for digital learning in order to develop the digital skills of organisations and their educational communities. Schools take part in projects that are developed each year in collaboration with several partners, and many of these dovetails successfully with the SELFIE processes. Other actors collaborate at a first level, such as the University of Lisbon Institute of Education and the Network of Portuguese Centres of ICT Competences of the Ministry of Education. However, the situation in Portugal is not exclusively 'top-down', as schools themselves are mandated to apply independently to take part in SELFIE with the approval of their local governance entities.

In **Italy**, the implementation of the SELFIE initiative adopted a systemic and decentralised approach to ensure reliable local support for schools during the piloting and to create conditions for future uptake of SELFIE in schools. The National Research Council's Institute for Educational Technology (CNR-ITD) established a network of associated local partners (e.g. regional education authorities; schools' network; synergies with a private foundation for education run by the Intesa San Paolo Bank). The piloting was carried out under the auspices of the Ministry of Education by the Directorate General for Digital Innovation. While the CNR-ITD, as national coordinator, was in charge of overseeing and carrying out the full SELFIE pilot implementation in Italy (providing promotional materials, presentations and training workshops), the associated partners functioned as local-level coordinators, supporting SELFIE school coordinators.

In the cases taken from the SEET countries, the SELFIE initiative has been based on a centralised, top-down approach and managed by relevant ministries, usually the ministry of education. From a practical perspective, **Turkey** has a highly centralised national education system. As such, it can be highly directive in its approach to the implementation of policy initiatives. A national SELFIE coordinator was appointed from within the DGIET to lead the MoNE coordination team. At a local/provincial level, a team of ambassadors was created (its members being selected from the ET2020 group) whose responsibility was to coordinate between SELFIE school coordinators and the national team. The minister approved all the activities at an early stage. The DGIET also provided promotional packs, briefing notes and presentations for ambassadors' and teachers' use. In order to facilitate communication between the MoNE and ambassadors, the DGIET also created an instant messaging group for immediate communication.

The primary responsibility for SELFIE in **Serbia** from a policy perspective belongs to the MoESTD, while the Institute for Education Quality and Evaluation (IEQE) is tasked with its implementation. In this centralised, top-down approach the central ministry and its agencies oversee the operation of SELFIE and its further development and roll-out. The IEQE performs expert work and activities in the area of monitoring and evaluation of the level of attainment of educational objectives, implementation of general principles, attainment standards at different levels and types of education, and other activities under the law, the incorporation act and the statute. It is in this context that the ministry published a public call for primary and secondary schools to apply to participate in the SELFIE pilot programme. The ministry selected the most suitable schools, in terms of phase, specialism and geographical spread, to participate in the SELFIE pilot.

## 5.3 SELFIE implementation process

### Conducting pilots

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#### Highlights from SELFIE selected cases

- Pilot coordination team
  - Selection of piloting schools
  - Partnership with stakeholders
- 

Although piloting of SELFIE through a trial programme can be seen as best practice, the size and scale of the trial can vary widely depending on the national context and the ambitions for SELFIE. In **Spain**, for example, a variety of actors (the MEFP, regional departments of education, consultancy companies, universities and schools) have been involved in the SELFIE pilot project since its concept development. This multi-stakeholder involvement offered a valuable opportunity to collect a great deal of information and to understand how the SELFIE tool was working before its official launch in October 2018. In **Portugal**, meanwhile, during the academic year 2018/19, the Directorate General for Education, in collaboration with the Institute of Education of the University of Lisbon, developed a pilot project in just five school clusters. The purpose was to test whether short-term training targeted to educators with lower levels of digital competence could develop their skills to higher levels. In **Italy**, the pilot was originally intended to cover 21 schools in 3 regions, but such was the strong and growing national commitment to the initiative that, in practice, 201 schools from 10 regions took part. In June 2017, the MoESTD in **Serbia** developed a pilot in which a total of 61 schools participated. In **Turkey**, during March and April 2019, the MoNE organised a pilot in 290 schools in 47 cities. The strong commitment shown in each country by the relevant ministry at a national level, together with the efficient coordination of the operation at a provincial level of pre-existing networks, contributed to the effectiveness of the pilots.

### Setting up conditions for upscaling

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#### Highlights from SELFIE selected cases

- Establishing SELFIE policy coordination at system level
  - Creating conditions for a sustainable SELFIE process
  - Sustaining information exchange and collaboration
- 

Almost without exception, there was enthusiasm and an evident commitment to move forward with SELFIE among all of the interviewees for the case studies. In **Portugal**, the results from the initial small-scale pilot were warmly welcomed by the education ministry, and this led to a rapid scale-up of the pilot to 72 schools. The scale-up was supported by seminars, workshops and a video conference.

In **Spain**, once the SELFIE tool was officially launched, INTEF invested a great deal of effort in disseminating the SELFIE tool. The MEFP organised dissemination events at the national level.

In **Italy**, following the SELFIE pilot involving 201 schools and over 32 000 participants, there has been growing interest in and awareness of the issues surrounding the digital competences and how a school and a group of teachers can identify and assess them. The ministry has been highlighting the necessity of looking at DigComp as the reference framework to progress on the path of digitalisation



as a country and as a school system, using SELFIE as a vehicle to support this. USR Calabria invites schools to act as ‘SELFIE local hubs’ to support and coach neighbouring schools.

In the SEET countries, the SELFIE project is at an earlier stage of implementation than in the EU Member States. The different countries within SEET are following SELFIE trajectories according to local circumstances. For example, 50% of schools in Serbia have already taken part in SELFIE, and there are plans for further scale-up.

## 5.4 Integration into broader policy frameworks

### Digital education national strategy

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#### Highlights from SELFIE selected cases

- Enacting national, regional and local digital policies
  - Defining schools’ digital action plans
- 

SELFIE lends itself readily to integration into broader national policy contexts. Most countries already have, or are actively developing, national strategies for digital education, a task made more urgent by the enforced closures of school premises during 2020.

One good example of this incorporation into the broader digital policy context is how **Portugal** has used SELFIE to integrate with its national strategy for digital education, known as E2D<sup>24</sup>. The E2D project is intended to help schools design and implement their action plans. Having defined the priorities for action, they will design a digital action plan. Based on the DigCompOrg and DigCompEdu frameworks, the project aims to support schools to develop and implement sustainable digital action plans in their organisations. Similarly, in **Serbia**, SELFIE has been incorporated into the country’s national ICT action plan and the wider quality assurance arrangements. In this case, the incorporation is primarily about school empowerment through a participatory self-evaluation process. It has been seen as the best way of improving schools’ digital capacity through the use of institutional development and reflective best practice. In **Spain**, SELFIE is positioned as a key tool for empowering schools and providing them with a powerful means to start developing their digital action plans. SELFIE is now an integral part of a digital action planning process that informs educational technology policy at both national and regional levels. In **Italy**, at least one of the autonomous provinces (e.g. Autonomous Province of Trento) has adopted the SELFIE process in order to inform the local digital action planning. In particular, the SELFIE pilot in Italy provides an interesting case of SELFIE implementation, adopting as it does specific supporting actions that should create favourable conditions for integrating, sustaining and scaling up SELFIE at a national level.

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<sup>24</sup> <http://c2ti.ie.ulisboa.pt/e2d/e2d.html>

## Quality assurance

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### Highlights from SELFIE selected cases

- Reviewing school-based organisation leadership and management
  - Informing analysis of schools' internal self-evaluation activities
- 

SELFIE should not be seen as just an isolated technology-related project; rather, it is part of a wider agenda, including quality assurance. The quality assurance aspect of SELFIE is also recognised by the European Commission in respect of VET<sup>25</sup>. In several of the case studies, SELFIE is being incorporated into national quality assurance systems. For example, in **Serbia** the IEQE was involved in the preparation and the administration, follow-up and analysis of the SELFIE operation. Such agencies undertake activities in the area of monitoring and evaluation in schools. From the perspective of quality assurance, SELFIE is a tool for reviewing school-based organisation leadership and management rather than a means of objectively evaluating and auditing schools' digital capacity. It should be remembered that SELFIE school reports are generated on the basis of user perceptions only, and no data analytics or objective auditing takes place. In **Turkey**, the overall experience of the pilot programme and the commitment of the national quality assurance agency, in the form of the Directorate General for Measurement, Assessment and Examination Services, are seen as key factors in the expansion and national roll-out of the SELFIE procedures. However, in countries with more devolved lines of accountability, SELFIE is not usually perceived as a vehicle for the collation of school data for accountability purposes. In **Italy**, SELFIE results are also used to inform schools' mandatory self-inspection activity (i.e. RAV) requested by the National Evaluation System. The mapping of SELFIE and RAV's key areas and indicators provides a better understanding of complementarities between the two approaches. USR Umbria is going to pilot the SELFIE-RAV toolkit with 40 schools in 2021.

## 5.5 Main drivers and obstacles

### Driver 1. Understanding digital capacity and development needs

Based on the European DigCompOrg framework, SELFIE represents a vehicle for investigating users' perceptions of the digital capacity of their schools; it enables schools to reflect on both the status and the use of technology. Having defined the priorities for action, schools are well placed to design and create their digital action plans.

### Driver 2. Developing improved school governance

As SELFIE is a process that entails a stakeholder consultation exercise, it can be instrumental in developing enhanced models of school governance, especially concerning increasing school autonomy, and local decision-making and planning (for example, by appointing 'ICT for learning' school coordinators). This local capacity building can be catalysed through SELFIE and should result in more robust local governance, reflective practice and accountability. It can take place within a supportive environment informed by high-quality performance data.

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<sup>25</sup> <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=9761&furtherNews=yes>

### Driver 3. Membership of an international movement on learning and innovation

While not being a primary driver on its own, strong interest was expressed at an early stage in SELFIE's conception from those members of the broader education community who place great value on their involvement in European and international initiatives.

### Driver 4. Quality assurance

As national ministries consider SELFIE scale-ups to the system level, it is essential to stress the nature of SELFIE and the reliability and significance of the data generated. SELFIE's main strength is as a self-reporting study of stakeholder perceptions: it is not a completely objective audit of schools' digital capacity, although it can make a substantial contribution to such an audit. SELFIE is a tool for the quality assurance of a school's operation as a well-led community of learning, rather than a measurement of its technological excellence set against national benchmarks.

### Obstacle 1. Teacher reluctance and lack of engagement

Members of the teaching profession are, in general, reluctant to become involved in any initiative that distracts from their own personal and professional drivers, notably that the students in their care can achieve to the best of their abilities in school-based and national tests and examinations. In several of the case studies, teachers expressed some cynicism about the SELFIE process, believing that the questionnaires would be just another consultation exercise that would demand their time and commitment to complete and that would lead to no change in the local circumstances.

### Obstacle 2. Restricted access to SELFIE aggregated data

Data generated through SELFIE from consultations with a school community is owned by that community, and it is members of the community who decide how the data might be shared. Anonymised aggregated data is available to the ministries of education upon request<sup>26</sup>, but there are limitations to the extent of its use, and specific rules have to be followed to obtain it. Data-sharing issues are, though, not insurmountable and in some ways serve to reinforce the value of SELFIE as a developmental tool rather than as a vehicle for conducting national benchmarking and audits.

### Obstacle 3. Low capacity to convert SELFIE results into an operational action plan

For the SELFIE process to succeed and be sustained, schools need to be able to demonstrate that the consultation process for SELFIE results in genuine action, change and improvement. In other words, the action plan that emerges from the SELFIE consultation should lead to an actionable change, the impact of which can be evaluated and interrogated. In the scale of educational change, SELFIE is still at an early stage in its development. To date, from the evidence generated from the case studies, it is seen to be a useful tool for stakeholder consultation and feedback that lays the foundations for action planning, but the hard evidence that the SELFIE process actually invokes real institutional changes is slender.

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<sup>26</sup> SELFIE national coordinators can ask the Commission to provide anonymised data (pdf format) through a procedure in line with the SELFIE data privacy statement: [https://ec.europa.eu/education/tools/selfie/privacy\\_en](https://ec.europa.eu/education/tools/selfie/privacy_en)



## 5.6 Consolidation and development of SELFIE implementation at the system level

The reports of the experiences of running SELFIE pilot implementations collected through the interviews have been, for the most part, broadly positive. The tool is readily scalable, easy to access, and available on a variety of platforms and devices. As a result of these design features, pilots that were initially conceived as being small scale have been rapidly expanded to be implemented much more widely. For example, in both **Italy** and **Portugal**, early plans for limited pilots were scaled up based on the positive experiences of pilot studies. In **Spain**, the MEFP sees SELFIE as a key tool for empowering schools and providing them with a powerful means to start developing their digital action plans.

In **Serbia**, the MoESTD is currently in the process of conceiving the Education Development Strategy 2027. The IEQE is committed to further deepening and embedding SELFIE into its regular school interventions. In **Turkey**, the MoNE wishes to explore the scope for initial teacher education institutions to have access to SELFIE both for their own internal institutional reflective practice and to introduce new teachers to online reflective practice and the tools available to facilitate it. In the context of the institutional capacity to respond to the current crisis in education caused by the Covid-19 pandemic, the ministry welcomes SELFIE as a tool to review the performance and effectiveness of online distance learning at a national level.

## 6. CONCLUSIONS

Without doubt the enforced school closures caused by the Covid-19 pandemic of 2020 have thrown into sharp focus schools' digital capacity and their readiness to implement effective distance and online learning. As a diagnostic tool, SELFIE has a significant role to play and, through its implementation at the system level, policy-makers will have the capacity to develop a better understanding of the technology development needs of the education sector.

The hasty, and often improvised, arrangements that schools have had to put in place to try and maintain learning continuity have reinforced the need for careful planning based on a deep understanding of digital capacity at both school and system level. Schools have had to review some of their rules and approaches to technology use aimed at, for example, limiting, and sometimes banning, the use of personal mobile devices in the classroom. Equally, at a system level, governments and ministries need to work hard with a wide range of partners, including telecommunications, internet and e-learning companies, to try to bridge the digital divide that exists at the level of the national infrastructure and its capacity to support distributed learning on a massive scale<sup>27</sup>.

System change in education requires careful consideration of the status, the personal motivations and the encouragement of all the key players at every level. As Barber et al. (2010) have indicated, in order to succeed, systemic change needs the strong commitment of stakeholders at all levels, from policy-makers and ministry officials down to teachers, parents and students.

As a school-based reflection and planning system, SELFIE is well placed to approach system change at the point of delivery – the school. The SELFIE process does not follow the one-size-fits-all model, but is customisable and sufficiently flexible to capture issues such as emergency remote teaching or other factors, such as students' access to learning technology, that are important for every school.

Since the SELFIE process can be customised, it can be relevant both to schools that are at the first stage of their digital transformation and to those recognised as digital champions. It gives responsibilities to bodies responsible for the governance, leadership and management of schools, who are best placed to understand the specific local issues and the complexion of the policy moves needed to address local issues.

At a national level, SELFIE can be embedded in education and training system strategies designed to promote the learning technologies; equally, it can be used as part of a quality assurance framework to validate professional practice in schools in respect of teaching, leadership and governance. In this latter respect, SELFIE can sit alongside and/or be integrated into other EU reference frameworks, such as the European Quality Assurance in Vocational Education and Training ([EQAVET](#)).

As ministries of education across the world begin their detailed planning for school resilience and continuity in the face of future enforced closures, they may consider adopting SELFIE as part of their national strategies. Ministries and education authorities could recognise that the primary focus of SELFIE is by no means simply educational technology. SELFIE should not be seen as a regime that reinforces the supremacy of technologically advanced schools. The reality is that through its wide adoption by schools in many parts of the EU and beyond, at all stages of educational technology development, the SELFIE process can, in practice, even be helpful for schools whose infrastructure

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<sup>27</sup> <https://en.unesco.org/covid19/educationresponse>

is still fairly rudimentary and where the use of digital technology is quite limited. As an operational tool along with the associated reflection process, SELFIE is designed to support systematic and transparent development of ongoing pedagogical practices through reflection, thereby improving student, professional and organisational learning.

A common issue highlighted in virtually all of the cases included in this report has been the additional financial resources necessary to implement a SELFIE action plan. Finding these resources can often be the challenge that prevents the SELFIE process from being the catalyst for real change. The initiation of encouragement and recognition mechanisms, such as the creation of a Digital Challenge Fund, could be a way to provide these additional financial resources.

# ANNEXES

## Annex 1. SELFIE and system change in education

SELFIE is designed to support the development of schools as organisations as well as to be a vehicle for driving system change for technology-enhanced learning. It is about improving learning for a digital age – it is not just about infrastructure. As it is a supra-national initiative with regular EU-facilitated networking and communication events, it provides a unifying framework for promoting digital empowerment and equality of opportunity through the sharing of experiences, ideas and policy initiatives about learning and the organisation of the resources to support digital learning. The case studies for this report have been taken from the southern European Member States and countries in SEET, but as the process is enacted at a school level, many of the arguments, the policy imperatives and positive learning developments can equally be applied to other countries that have national systems for the evaluation of educational technology and plans for digital capacity. SELFIE sits comfortably alongside formal national systems for advancing learning through harnessing educational technology and is complementary to these national systems as it places technology in an international space where the key drivers are about the sharing of knowledge and experience in non-judgemental ways.

### School self-assessment/inspection versus self-reflection/evaluation

- What is the difference between self-assessment and self-reflection?
- How can schools and policy-makers measure and evaluate the progress of digital capacity?

When considering the scale-up of SELFIE at the system level, it is essential to put this tool for self-evaluation and reflective practice into the broader public policy context of quality assurance in schools. Since the 1990s there has been an increased emphasis on accountability in the public services, notable among which have been schools (Besley and Ghatak, 2003; Parker and Guthrie, 1993). During the closing decade of the 20th century, governments in Europe created independent inspection agencies to report on the work of schools (Grek et al., 2013). As the process of external evaluation matured, by the turn of the century there had developed a growing emphasis on school self-evaluation and review. There was wide recognition that this shift in focus towards more self-assessment by schools themselves was a more constructive and enabling practice that was more likely to be instrumental in raising standards more sustainably (Hall and Noyes, 2009). To be successful, school self-evaluation and digital capacity should be conducted within a coherent framework and underpinned by a set of structures that support systematic processes to collect a range of data from diverse sources and inform actions that improve pupil and professional learning.

Armed with the data from diverse sources, the school effectiveness movement has gathered pace and has been able to show that these more organic and locally owned quality processes lead to improvements in the academic outcomes, and ultimately the life chances, of schoolchildren (Fullan and Watson, 2000). The communities of practice that develop as schools shift towards more professional learning and self-reflection are among the firm foundations on which many successful schools are built. There is, however, a tension between the received wisdom of communities of practice and the reality of working within a hierarchical organisation with external drivers and performance targets. This is particularly the case in a school setting, as the pressures mount on school leaders to ensure that there is an ever-rising trajectory of success for their students in national examinations, in line with the expectations of national education ministries. This tension can be

summarised simply as national accountability versus local empowerment. Although these two alternatives are not mutually exclusive, when considering the factors to be taken into account when planning for the scale-up of SELFIE to become a national endeavour, policy-makers and relevant ministries must understand the two contrasting ways in which SELFIE could develop. Is it, or should it be, a process of self-reflection leading to better institutional understanding and improved development planning, based on strong performance evidence? Or should it be a process of self-inspection where, through a process of benchmarking and quality assurance, an institution achieves accountability through measuring itself against national or international standards? Although SELFIE was designed as a tool for self-reflection, in this ‘age of accountability’ (Slattery, 2013; Crocco and Costigan, 2007) there is pressure from schools, and in some cases ministries, to repurpose SELFIE for quality assurance. In a self-inspection process, the participants are being judged against quantifiable benchmarks and standards. There is, understandably, a degree of defensiveness and a tendency towards performative behaviours, such as behaving and reporting in ways that are seen to be expected and desired, rather than being open and authentic. This internal tension between self-inspection/assessment and self-evaluation/self-reflection is summarised in [Table A1.1](#).

**TABLE A1.1 CONTRASTING FEATURES OF SELF-INSPECTION/SELF-ASSESSMENT AND SELF-EVALUATION/SELF-REFLECTION**

Self-inspection	Self-evaluation
Top-down	Bottom-up
A one-off event	Continuous
Provides a snapshot	Offers an evolving picture
Time-consuming	Time-saving
Accountability-focused	Improvement-focused
Based on a rigid framework	Flexible and spontaneous
Uses existing pre-determined criteria	Creates relevant criteria
Can detract from teaching and learning	Improves teaching and learning
Avoids risks	Takes risks

Source: Adapted from MacBeath (2006).

In many ways, this tension is manifest on a regional or national scale as governments seek to scale up school-based SELFIE to a system level. Using a self-inspection paradigm, the data gathered through the SELFIE online questionnaires could, if a ministry of education or a national government so wished, be aggregated and analysed at regional or national level. SELFIE could become a means through which a periodic snapshot (e.g. yearly) could be provided of a school’s capacity and trends, on the basis of which it could be either lauded or given prescriptions for remedial action. In this paradigm, the self-reporting feature that is at the core of SELFIE risks being subverted as the participants in the online SELFIE questionnaires would feel constrained to give the ‘correct’ responses to the questions. In contrast, a self-evaluation model, based on the self-reflection of school stakeholders, seeks to gain a reliable representation of a school’s digital capacity based on authentic reporting from school community members. In this way, the areas for growth and development emerge in an uninhibited way and form the firm basis for development and action planning. This process is, by its very nature, empowering, enabling and instrumental in locally situated growth and development; it is focused on improvement, not on accountability. Through the insights gained from the investigation that forms the

basis of this report, it is possible to recognise how SELFIE has been implemented with different emphases in the chosen EU Member States and partner countries. When considering the five country cases analysed in this report, it becomes evident that the motivations, intentions and expected outcomes of the different governments and education ministries, at the regional and national level, vary. Some see SELFIE as a tool for improving school leadership and governance in respect of the learning technologies, while others are keen to use SELFIE as a school benchmarking tool.

## Annex 2. Future developments: a work-based learning version of SELFIE

So far, the SELFIE self-reflection tool is available for vocational schools, but not for work-based learning (WBL) contexts. In general, WBL 'is directly linked to its goal of helping learners acquire knowledge, skills and competences with direct relevance for the labour market' (European Commission, 2017, p. 1).

WBL contexts emerge when students are spending their time partly in a vocational school and partly in a company (or other kind of employer, such as a public institution). WBL is considered to be very important for lowering youth unemployment and promoting inclusion in European education systems.

For this reason, in 2019 a feasibility study<sup>28</sup> was conducted aimed at understanding whether it would be possible to extend the SELFIE tool to these contexts and whether there would be demand for it from vocational schools and companies. The study, which used more than 30 semi-structured interviews and a small survey with key actors in the area (vocational schools, companies, social partners, international organisations, etc.) confirmed that there are no other tools with the same scope as SELFIE and that WBL stakeholders are highly supportive of measures to develop such an extension.

The encouraging results from this study indicated that the inclusion of WBL stakeholders is technically feasible. Accordingly, 'in-company trainers' have now been added as a group to be included, where relevant, in stakeholder consultation. They will have to fill out similar questionnaires to those completed by the other groups and provide valuable information of what takes place when a student is in a company.

This company view allows for further improvements and improved cooperation between vocational schools and companies and for joint discussion and agreement on how to enhance the use of digital technologies for teaching and learning in both learning and work environments.

The current questionnaires require some adaptation and customisation to embrace this new group of in-company trainers; additional questions will be included that relate more specifically to the reality in WBL contexts.

Given the positive results of the study and the support for such a project by the members of the ET2020 Working Group on VET, the European Commission decided to start its development at the beginning of 2020. Following an online workshop and pilot testing in autumn 2020 in various EU (France, Germany, Hungary, Poland and Romania) and SEET (Montenegro, Serbia and Turkey) countries, there are plans to release the WBL version of the tool in 2021. It represents another element in the consolidation of the SELFIE process as the most appropriate vehicle for mapping the

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<sup>28</sup> <https://ec.europa.eu/jrc/en/publication/adapting-selfie-tool-work-based-learning-systems-vocational-education-and-training>

current state of learning technologies at an institutional level. Through the inclusion of in-company trainers into the self-reflection exercise, the embedding and strengthening of learning technologies can be further consolidated. This will further benefit college students and work-based apprentices through the tailoring and alignment of learning technologies to match the demands of the labour market. This extension of SELFIE to incorporate additional actors enables it to cover the education and training system even more comprehensively at the system level.

A proposal from the Commission to the EU Council (at the planned meeting of 30 November–1 December 2020) also encompasses some principles that make VET for learners of all ages future-proof, to some extent. The proposal highlights the development of virtual tools, including augmented reality, to ensure that work-based experience can be optimised and delivered through distance learning. It provides for VET programmes distributed through an appropriate mix of open, digital and participative learning environments, including workplaces that are conducive to learning. The learning environments should be supported by state-of-the-art and accessible infrastructure, equipment and technology, and by versatile pedagogies and tools, such as ICT-based simulators.

The use of virtual and augmented reality provides an opportunity to increase the accessibility, efficiency and affordability of training provision, especially for small enterprises, by providing a user experience that does not require large capital expenditure on new hardware and equipment.

The Commission's proposal also refers to creating and supporting qualitative and effective digitalisation of VET provision in both school-based and work-based learning by promoting the use of European competence frameworks and self-assessment tools (such as SELFIE) and exploring the feasibility of an EU-wide survey for vocational schools.

## Annex 3. Semi-structured interviews

### Criteria for selecting interviewees

The interviewees, at the system level, must meet the following criteria:

- have played a key role, for example as the SELFIE national coordinator;
- have in-depth knowledge of and/or involvement in one or several SELFIE-related activities at local/regional or national level in each selected case;
- can provide background information on the pilot implementation, upscaling, integration and/or evaluation of the SELFIE initiative;
- can comment on bottlenecks and barriers encountered in the pilot implementation, upscaling, integration and/or evaluation of the SELFIE initiative, from both the school and system perspective;
- are able to assess SELFIE implications and integration for educational policy and practice.

The interviewees, at the school level, must meet the following criteria:

- have played a key role, for example as the SELFIE school coordinator, in the organisation and administration of SELFIE in their school;
- can provide insights into the system-level support;
- can comment on how SELFIE integrates into the national policy framework.



## Interview template

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### System-level questions (national, regional and local)

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#### Q1. Who?

**Who holds the primary responsibility (lead) for SELFIE implementation and integration at the system level?**

- How were key players/stakeholders/organisations involved in the SELFIE implementation selected?
- Who are the key actors in a supporting role?
- If applicable, how was the SELFIE national coordinator appointed?
- Has the national quality assurance/schools' evaluation authority engaged with the SELFIE process? In what ways? Describe.

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#### Q2. Why?

**Why have you/has the lead organisation decided to implement SELFIE?**

- Who took the initiative/decision?
- Can you explain how the ministry/your organisation has an interest in implementing SELFIE at the system level (e.g. monitoring, capacity building, complementing other digital strategies)?

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#### Q3. How?

**What are the key steps your ministry/organisation took to implement SELFIE at system level in your country/region (e.g. ran a pre-pilot, kick-off meeting)?**

- How did you facilitate the pilot phase?
- How do you plan to support SELFIE scale-up?
- How much time and funding would you estimate are required to implement SELFIE at large scale?
- How/to what extent is SELFIE embedded in the broader national/regional policy frameworks (e.g. digital education strategy, quality assurance)?
- In what ways have you found the SELFIE process to be of value to the education system as a whole (especially in terms of regularising the use of ICT for teaching and learning in a routine way)?
- Have you received SELFIE aggregated data for your education system? If yes, did you find it useful?
- How do you expect SELFIE implementation at the system level to influence national policy and actions at the school level?
- What strategies are used to integrate the initiative into regional/national policies?
- What resources are made available for the piloting and scale-up of the SELFIE initiative?

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#### Q4. What did you learn?

**What do you consider to be the most critical conditions and factors for successfully implementing SELFIE at the system level? What are the major barriers?**

- What kind of support mechanisms have been established (e.g. incentives, supplies)?
- What is your personal view about the strengths and shortcomings of the SELFIE framework and processes?

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#### Q5. What's next?

**What are your plans in terms of SELFIE for the school year 2020/21?**

- A new version of SELFIE is under development for WBL institutions. Is this relevant for your system? What other developments would you like to see in the coming months?
  - In what ways can SELFIE be a useful way to reflect on and plan for learning continuity/remote/blended learning?
  - What would you say to another decision- or policy-maker who is thinking of implementing SELFIE in another education system?
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## School-level questions

- When did you use SELFIE, how did you decide to use it and why?
- What do you like/dislike in the tool? Would you recommend it to a colleague/school you know? Why?
- Did your school leadership team share and discuss SELFIE results with teachers, students, parents, local/regional/national educational authorities/research institutes/industry/other schools? If yes, how and why?
- How is your school using SELFIE results? If not, why not?
- How did your school interpret and transform SELFIE results into an action plan? How did you set up priorities? How did you further analyse/investigate SELFIE results? Who is contributing to the school community in developing and/or implementing the action plan?
- In what ways did the external actors (parents, local/regional/national educational authorities/other schools/research institutes/industry) support your school to use SELFIE results?
- Do you plan to repeat SELFIE? If yes, when and what you would change/improve? If not, why not?
- Have you been asked to track actions after SELFIE? If yes, by whom?

## List of interviewees

Country	Case title	Organisation name	Role in SELFIE	Official/expert name
Italy	Case 1. SELFIE Italia	Ministry of Education, Directorate General for Digital Innovation, Office of Digital Innovation in Education	Coordinator of the SELFIE TIME CPD course	
		National Research Council, Institute for Educational Technology (CNR-ITD)	Coordinator of the SELFIE Italia initiative	Stefania Bocconi
	Case 2. SELFIE USR Umbria	Regional School Office of Umbria (USR Umbria)	Coordinator of the SELFIE-RAV project	Antonella Gambacorta
	Case 3. SELFIE USR Calabria	Regional School Office of Calabria (USR Calabria)	Regional coordinator of SELFIE Italia	Lucia Abiuso
	Case 4. SELFIE Autonomous Province of Trento	Digital Citizen School Network	Coordinator of the SELFIE-based school network	Elisabetta Nanni
Portugal	Case 5. SELFIE Portugal (E2D)	University of Lisbon, Institute of Education	Coordinator of the SELFIE project at the Institute of Education, University of Lisbon in collaboration with the Ministry of Education/ Directorate General for Education	Nuno Miguel Taborda Cid Dorotea

Country	Case title	Organisation name	Role in SELFIE	Official/expert name
Spain	Case 6. SELFIE Spain	Ministry of Education and Vocational Training (MEFP), National Institute of Educational Technologies and Teacher Training (INTEF)	Member of the SELFIE national coordination team	César Herrero Rámila
	Case 7. SELFIE La Rioja	Autonomous region of La Rioja, Consejería de Educación, Cultura, Deporte y Juventud, Centro de Desarrollo Profesional Docente	Coordinator of the Avanz@TIC/SELFIE regional coordinator	Santos Agudo González David Martínez Torres
		Obispo Blanco Nájera Primary School	School leader SELFIE school coordinator	Rubén Garrido García Mario Santamaría Baños
	Case 8. SELFIE Castilla y León	Autonomous region of Castilla y León, Consejería de Educación, Dirección General de Innovación y Formación del Profesorado, Servicio de Formación del Profesorado, Innovación e Internacionalización	Responsible for CoDiCe TIC/SELFIE regional coordinator	María José Martínez Burgos
Serbia	Case 9. SELFIE Serbia	Ministry of Education, Science and Technological Development (MoESTD)	SELFIE national coordinator	Danijela Ščepanović
		Institute for Education Quality and Evaluation	National officer	Gordana Čaprić
		Electrical Engineering High School 'Nikola Tesla'	SELFIE school coordinator	Olga Stojadinović
Turkey	Case 10. SELFIE Turkey	Ministry of National Education (MoNE), Directorate General for Innovation and Educational Technologies (DGIET)	SELFIE national coordinator/national education expert	Sümeyye Hatice Eral
		Kadri Saman MTSO Vocational and Technical Anatolian High School	SELFIE school coordinator	Nesrin Kurt

## Annex 4. Case studies factsheets

### Case 1. SELFIE Italia (Italy)

<b>Title</b>	<b>SELFIE Italia – Promoting schools’ digital capacity</b>
<b>Country</b>	Italy
<b>Timeframe</b>	2016–21
<b>Geographical scope</b>	National level
<b>Education level(s)</b>	Primary education, lower secondary education, upper secondary education
<b>Implementation phase</b>	Transition from pilot to national scale-up
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ Organising dissemination initiatives at national level</li> <li>■ Informing schools and regional authorities about SELFIE</li> <li>■ Organising professional development activities relating to SELFIE self-reflection process for school leaders, teachers and school-based coordinators</li> <li>■ Connecting to national policy initiatives such as the National Plan for Digital Education</li> </ul>
<b>Funding</b>	National education budget, EU projects
<b>Funding source</b>	Government/research funding
<b>Implementing body</b>	Ministry of Education, Directorate General for Structural Funds for Education, School Building and Digital Education, Office of Digital Innovation in Education National Research Council, Institute for Educational Technology (CNR-ITD)
<b>Actors involved</b>	Regional school offices (USRs) Local training teams (Équipe formative territoriali (EFT))
<b>Related references</b>	<a href="http://selfieitalia.it">http://selfieitalia.it</a> <a href="http://www.istruzione.it/scuola_digitale/allegati/2016/pnsd_en.pdf">www.istruzione.it/scuola_digitale/allegati/2016/pnsd_en.pdf</a> <a href="https://eacea.ec.europa.eu/national-policies/eurydice/content/italy_en">https://eacea.ec.europa.eu/national-policies/eurydice/content/italy_en</a>
<b>Policy frame</b>	In the Italian context, the piloting of SELFIE in 2016 coincided with the introduction of the new National Plan for Digital Education (Piano Nazionale Scuola Digitale (PNSD)), enacted by the Ministry of Education, thus reflecting national priorities as well as supporting schools’ analysis and understanding of their current state of the art in that respect. The main goal of the PNSD strategy was to improve schools’ use of technologies and foster innovation processes by enhancing learning environments, developing teacher training actions to support educational innovation, and promoting students’ digital competence.
<b>Key actors involved and supporting measures</b>	There is no central authority responsible for implementing SELFIE in Italy. The CNR-ITD, which coordinated the pilot phase during 2016, currently promotes and supports SELFIE-related initiatives. At ministry level, the Office for Digital Innovation in Education, part of the Directorate General for Structural Funds for Education, School Building and Digital Education and various USRs have recognised the potentialities of SELFIE and have therefore supported both the pilot phase and its current implementation. Overall, several information events, webinars and professional development activities have been organised to help schools to identify the synergies between SELFIE and local, regional and national policy initiatives on digital education. Moreover, the SELFIE Italia web portal (selfieitalia.it), managed by the CNR-ITD, provides a common space to share SELFIE-related materials and information for Italian schools that are willing to use SELFIE, as well as to collect schools’ experiences of using SELFIE and give visibility to SELFIE activities undertaken across Italy.

Title	<b>SELFIE Italia – Promoting schools’ digital capacity</b>
<b>Pilot/scaling-up</b>	<p>During 2016, a total of 201 Italian schools in 10 different regions took part in SELFIE piloting. Over 31 912 users, including students, teachers and school leaders from different education levels (primary, lower secondary, upper secondary general and vocational), contributed to SELFIE on a voluntary basis. The implementation of the SELFIE pilot in Italy adopted a systemic approach involving various educational stakeholders, including regional education authorities (USR Umbria and USR Calabria), educational research institutes (INDIRE and IPRASE), school networks (Polo Formativo AT-Varese) and a private bank foundation for education (La Fondazione per la Scuola, Compagnia di San Paolo). Coordinated by the CNR-ITD, stakeholders acted as local-level coordinators by engaging and supporting schools. Building on the pilot experience, the approach to scaling up SELFIE in Italy combines centralised and decentralised actions, involving:</p> <ul style="list-style-type: none"> <li>■ SELFIE coordination at regional and local level, carried out by regional/local educational authorities that link SELFIE to ongoing policy actions and projects;</li> <li>■ SELFIE local hubs, where individual schools (or school networks) already using SELFIE share their experience and act as a mentor/coach to encourage other schools to use it;</li> <li>■ guidelines to integrate SELFIE into existing education policies, helping schools to use SELFIE results to carry out mandatory activities (e.g. developing the school’s self-evaluation report (RAV) or for defining a three-year educational plan (PTOF) that outlines the educational, pedagogical and organisational objectives of the school) and effectively align to the priorities of the National Plan for Digital Education.</li> </ul>
<b>CPD models</b>	<p>SELFIE immersive workshops have been designed and implemented by the CNR-ITD to engage school leaders and teachers in reflection on the school’s digital capacity through SELFIE. The SELFIE immersive workshop lasts four hours and comprises six short slots combining group work, simulations and discussions, focusing on: (1) understanding the nature of the school’s digital capacity; (2) introducing DigCompOrg and SELFIE; (3) exploring the SELFIE platform and engaging the whole-school community; (4) interpreting SELFIE results and defining the school’s digital action plan; and (5) integrating SELFIE results into national mandatory processes for schools (e.g. RAV, PTOF, three-year improvement plan (PDM)).</p> <p>During 2019, the Ministry of Education promoted the SELFIE immersive workshops during Futura Italia, an acceleration platform for students and teachers to showcase how digital technology can transform teaching and learning. The ministry also funded the ‘SELFIE TIME for schools’ professional development programme for teachers and school leaders. The main aim was to provide about 600 teachers with adequate training and support to act as SELFIE coordinators within and outside their schools, focusing on key aspects of the SELFIE process (e.g. using SELFIE data to define the school’s digital action plan). Designed in collaboration with the CNR-ITD, the SELFIE TIME course is based on a blended approach, including remote sessions and a two-day residential workshop for schools in the north, centre and south of the country.</p> <p>Unfortunately, the SELFIE TIME programme was interrupted shortly before its official start when the Covid-19 crisis began. The ministry is planning to restart the action in 2021.</p>
<b>Integration into policy context</b>	<p>At national level, SELFIE is framed in the PNSD, supporting schools to develop their digital capability in line with the PNSD priorities and to define their own digital education plan. Moreover, synergies between SELFIE and the National Evaluation System (SNV) launched by the Italian Government in 2013 have also been explored. In particular, all schools in Italy are required to produce their RAV, encapsulating the school’s innovation outcomes (strengths and weaknesses), together with a three-year plan for enhancing innovation. While the RAV process largely focuses on a general level, SELFIE addresses the specifics of digital technology policy and use via a self-reflection process. Mapping of the key areas and indicators of SELFIE and RAV shows complementarities between the two approaches.</p>
<b>Proposed future actions</b>	<p>Following the Covid-19 crisis, the Ministry of Education has released guidelines for defining the ‘School Plan for Integrated Digital Education’. Each school should develop a detailed plan for organising and integrating distance learning as a complementary method to face-to-face teaching in upper secondary schools, or for all education levels in case of lockdown due to epidemiological conditions. A mapping will be defined to link the areas foreseen in the School Plan for Integrated Digital Education and the updated version of SELFIE (released in August 2020) that integrates specific items on blending learning, thus offering an opportunity to support schools.</p>

## Case 2. SELFIE USR Umbria (Italy)

<b>Title</b>	<b>From SELFIE to RAV</b>
<b>Country</b>	Italy
<b>Timeframe</b>	2016–21
<b>Geographical scope</b>	Regional level
<b>Education level(s)</b>	Primary education, lower and upper secondary education
<b>Implementation phase</b>	Transition from pilot to regional scale-up
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ Developing guidelines for integrating SELFIE data into the mandatory school's self-evaluation report (RAV)</li> <li>■ Organising professional development courses for teachers and school leaders staff in relation to SELFIE</li> <li>■ Informing about and promoting SELFIE in USR meetings with schools in relation to the implementation of the digital curriculum</li> <li>■ Delivering official communications addressed to all school leaders to involve school staff in adopting SELFIE in their schools</li> </ul>
<b>Funding</b>	Regional education budget/projects
<b>Funding source</b>	Government
<b>Implementing body</b>	Regional School Office of Umbria (USR Umbria)
<b>Actors involved</b>	National Research Council, Institute for Educational Technology (CNR-ITD) Selected teachers acting as RAV coordinators in schools Local training team of Umbria (Équipe formativa territoriale dell'Umbria (EFT Umbria))
<b>Related references</b>	<a href="https://usr.istruzione.umbria.gov.it/id.asp?id=5450">https://usr.istruzione.umbria.gov.it/id.asp?id=5450</a> <a href="http://selfieitalia.it/docs/RAV%20SELFIE_mappatura.pdf">http://selfieitalia.it/docs/RAV%20SELFIE_mappatura.pdf</a> <a href="https://eacea.ec.europa.eu/national-policies/eurydice/content/quality-assurance-early-childhood-and-school-education-33_en">https://eacea.ec.europa.eu/national-policies/eurydice/content/quality-assurance-early-childhood-and-school-education-33_en</a>
<b>Policy frame</b>	<p>In 2013 the National Evaluation System (SNV) was established in Italy to evaluate educational institutions. In particular, the system activated a process for schools' self-evaluation of pedagogical innovation. This process calls for a RAV capturing each school's innovation outcomes (strengths and weaknesses), together with a three-year improvement plan (PDM). Since 2014, the compilation of the RAV has been mandatory at all school levels, and schools can receive evaluation visits from ministry inspectors. The RAV is compiled by the school leader and the evaluation team, a group of (two or three) teachers appointed by the school leader. The RAV encompasses four main areas: (1) school context and resources; (2) student outcomes; (3) pedagogical and organisational processes and practices; and (4) identification of priorities for the improvement plan. The guidelines for drafting the RAV contain inputs, in the form of broad questions, to help a school to reflect on its policy and practice.</p> <p>Since the SELFIE pilot in 2016, synergies between SELFIE and RAV have been explored by mapping the key areas and indicators of the two approaches to highlight complementarities between them.</p>



Title	From SELFIE to RAV
<b>Key actors involved and supporting measures</b>	<p>USR Umbria coordinates SELFIE at regional level and is in contact with SELFIE school leaders and technology coordinators involved in the SELFIE implementation at regional level. USR Umbria also collaborates with the local training team (EFT Umbria – EFTs are a pool of 120 teachers selected and appointed on a regional basis by the Ministry of Education in 2019 to support digital innovation and training locally) to boost SELFIE uptake in schools.</p> <p>Supporting measures include addressing SELFIE in the USR meetings with schools in relation to the implementation of the digital curriculum, as well as delivering formal communications addressed to all school leaders to involve staff (e.g. digital catalyst teacher, innovation team and teacher responsible of schools' evaluation) in adopting SELFIE in their schools.</p>
<b>Pilot/scaling-up</b>	<p>During 2016, USR Umbria participated in the SELFIE pilot, engaging 25 schools and 5 659 school leaders, teachers and students. Building upon the success of the pilot, USR Umbria launched a project in 2019, From SELFIE to RAV. This two-year project, co-financed by the Ministry of Education, aims to: (1) develop a toolkit for schools to support the integration of SELFIE data into the RAV; (2) design and run a blended professional development course for teachers to pilot the use of the SELFIE-RAV toolkit. The project, coordinated by USR Umbria, involves the CNR-ITD (as scientific partner) and a group of primary and secondary teachers responsible for developing the RAV in their schools. Based on the CNR-ITD's preliminary mapping of SELFIE-RAV, the toolkit will consist of operational guidelines and supporting materials to guide school staff in using SELFIE results as a valuable and effective support for preparing the RAV and the improvement plan. The blended course for RAV-coordinator teachers is delivered in three face-to-face events (initial, intermediate and final) and six hours of immersive workshops and online working sessions (with a total workload of 25 hours). The project started in November 2019 and 82 RAV-coordinator teachers from 58 schools enrolled in the SELFIE-RAV blended course. Due to the COVID-19 crisis, however, the piloting of the SELFIE-RAV toolkit with schools that was expected to take place between March and October 2020 has been significantly delayed and is now expected to take place in March 2021. A preliminary version of the SELFIE-RAV toolkit was expected to be released by December 2020. The SELFIE-RAV project also contributes to fostering the uptake of SELFIE at regional level, thus increasing the number of schools in the Umbria region that are using SELFIE to more than 50%.</p>
<b>CPD models</b>	<p>To foster schools' digital capacity, USR Umbria organises professional development activities through SELFIE, such as SELFIE immersive workshops and seminars. During the blended learning course for RAV-coordinator teachers, From SELFIE to RAV, participating schools are invited to run SELFIE in their school community and then use the SELFIE results to inform their RAV, as well as to define their digital development plan. The local training team for the Umbria region (EFT Umbria) collaborates with USR Umbria to promote and support schools in using SELFIE for developing their digital capacity.</p>
<b>Integration into policy context</b>	<p>USR Umbria envisages that SELFIE will support quality assurance in school education. At school level, USR Umbria proposes the integration of SELFIE results when drawing up the RAV.</p> <p>Moreover, SELFIE is promoted in relation to the development of the school's vertical digital curriculum with the aim of fostering students' digital competence based on DigComp 2.1, aligning to the priorities of the National Plan for Digital Education (PNSD).</p>
<b>Proposed future actions</b>	<p>USR Umbria's plan for the coming year is to pilot the SELFIE-RAV toolkit in the 58 participating schools and to support them in using SELFIE results to develop a digital action plan. The SELFIE-RAV toolkit will be further enriched with visual and interactive supporting materials to facilitate its application and progressive roll-out to all schools in the region.</p>



### Case 3. SELFIE USR Calabria (Italy)

<b>Title</b>	<b>PNSD on the Road</b>
<b>Country</b>	Italy
<b>Timeframe</b>	2016–21
<b>Geographical scope</b>	Regional level
<b>Education level(s)</b>	Primary education, lower secondary education, upper secondary education
<b>Implementation phase</b>	Transition from pilot to regional scale-up
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ Promoting SELFIE uptake at regional level through various means (online events, social networks, education blogs, training sessions)</li> <li>■ Supporting SELFIE-related training initiatives at regional level</li> <li>■ Organising SELFIE regional meetings</li> <li>■ Integrating SELFIE to support the implementation of the National Plan for Digital Education at regional level</li> </ul>
<b>Funding</b>	Regional education budget/projects
<b>Funding source</b>	Government/projects
<b>Implementing body</b>	Regional School Office of Calabria (USR Calabria)
<b>Actors involved</b>	National Research Council, Institute for Educational Technology (CNR-ITD) Local training team of Calabria (Équipe formativa territoriale della Calabria (EFT Calabria)) DiCultHer Network
<b>Related references</b>	<a href="http://www.istruzione.calabria.it/pnsd-on-the-road-selfie-e-competenze-digitali/">www.istruzione.calabria.it/pnsd-on-the-road-selfie-e-competenze-digitali/</a> <a href="http://www.istruzione.calabria.it/la-sperimentazione-selfie-in-calabria-per-il-forum-di-madrid-del-4-e-5-aprile-2019/">www.istruzione.calabria.it/la-sperimentazione-selfie-in-calabria-per-il-forum-di-madrid-del-4-e-5-aprile-2019/</a>
<b>Policy frame</b>	The multi-year National Plan for Digital Education (PNSD) enacted by the ministry (2015–20) was designed to guide schools on a path of digital innovation. The plan insists on building a new digital pedagogical culture inside the school that should be capable of effectively integrating available technologies, adopting inclusive and innovative practices. USR Calabria, which oversees the implementation of the PNSD and serves as the primary reference at regional level, has recognised SELFIE as a powerful process to help schools to address PNSD key priorities.
<b>Key actors involved and supporting measures</b>	USR Calabria coordinates SELFIE at regional level and is in contact with SELFIE school leaders and technology coordinators involved in SELFIE implementation at regional level. Since 2019, USR Calabria has also closely coordinated and collaborated with the local training team (EFT Calabria) nominated by the ministry to support the implementation of SELFIE at regional level. Moreover, collaborations have been established with the DiCultHer Network (School Network in Digital Cultural Heritage, Arts and Humanities) to foster the development of schools' digital capacity through SELFIE.

Title	PNSD on the Road
<b>Pilot/scaling-up</b>	<p>During 2016, USR Calabria participated in the SELFIE pilot, engaging 95 schools and 13 850 school leaders, teachers and students. The high level of participation was inherently linked to the strong network and collaboration between schools and USR Calabria, as well as to the potential of the SELFIE tool to respond to schools' needs. During the pilot, USR Calabria also organised several information events to support pilot schools and maintained regular contacts and exchanges with the SELFIE coordinators in each school through an online forum set up and facilitated by the CNR-ITD. Building on the success of the pilot, USR Calabria has started to create an ecosystem for SELFIE at regional level, providing valuable information and helping schools to prioritise professional development needs and define their digital action plan based on SELFIE results. In particular, the main actions conducted in 2018/19 by USR Calabria on SELFIE include:</p> <ul style="list-style-type: none"> <li>■ <i>releasing official communications to the school leaders involved in the pilot</i>, inviting them to share their expertise and transform their schools in 'SELFIE local hubs' to support and coach neighbouring schools that are willing to use SELFIE;</li> <li>■ <i>integrating SELFIE with the working plan of Calabria's local training team (EFT Calabria)</i> in order to ensure that the supporting measures relating to SELFIE meet local and/or regional needs. EFT members, who have significant experience in working with the schools of their region and a good knowledge of the regional/local educational context, are in charge of helping schools effectively implement SELFIE to improve their digital capacity;</li> <li>■ <i>organising SELFIE events</i> addressed to all schools in the region to foster SELFIE uptake, to share experiences and to discuss the practices that schools have adopted for integrating SELFIE results into the RAV and into their three-year plan of activities (PTOF).</li> </ul>
<b>CPD models</b>	<p>USR Calabria organises professional development activities for school leaders and digital catalyst teachers acting as SELFIE school coordinators to support them in using SELFIE results to define the school's digital action plan. Moreover, peer support, such as mentoring and coaching, is also organised to help schools develop their digital capacity.</p>
<b>Integration into policy context</b>	<p>USR Calabria has framed SELFIE in the context of the PNSD. Moreover, SELFIE is linked to the mandatory RAV that each school should produce (quality assurance).</p>
<b>Proposed future actions</b>	<p>USR Calabria intends to continue developing the regional ecosystem for SELFIE in the coming years. To this end, USR Calabria is defining inter-regional agreements with other USRs to share best practices on how to engage schools in SELFIE at regional level (SELFIE mentoring) and to jointly reflect on supporting measures based on SELFIE results shared by individual schools.</p>

## Case 4. SELFIE Autonomous Province of Trento (Italy)

<b>Title</b>	<b>Action #28 of the Digital Education Plan for Trento schools</b>
<b>Country</b>	Italy
<b>Timeframe</b>	2016–21
<b>Geographical scope</b>	Provincial level
<b>Education level(s)</b>	Primary education, lower secondary education, upper secondary education
<b>Implementation phase</b>	Transition from pilot to regional scale-up
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ Integrating SELFIE with the local policy framework (Provincial Plan for Digital Education (PPSD))</li> <li>■ Developing dissemination initiatives at provincial level</li> <li>■ Organising training initiatives on SELFIE for teachers and SELFIE school-based coordinators</li> </ul>
<b>Funding</b>	Local budget/projects
<b>Funding source</b>	Government
<b>Implementing body</b>	Autonomous Province of Trento
<b>Actors involved</b>	Provincial Institute for Educational Research (IPRASE) School networks
<b>Related references</b>	Provincial Digital Education Plan for Schools: <a href="https://bit.ly/3oOf6JK">https://bit.ly/3oOf6JK</a> <a href="http://www.iprase.tn.it/pubblicazioni-dettaglio/-/asset_publisher/7sljBGdygB6h/content/azione-26-gli-animatori-digitali-trentini-tra-innovazione-e-formazione/20178?redirect=/pubblicazioni">www.iprase.tn.it/pubblicazioni-dettaglio/-/asset_publisher/7sljBGdygB6h/content/azione-26-gli-animatori-digitali-trentini-tra-innovazione-e-formazione/20178?redirect=/pubblicazioni</a>
<b>Policy frame</b>	The Autonomous Province of Trento (PAT) has a high level of independence from the central government in matters of education and the management of local resources. Although provincial schools are free to participate in national events, PAT finances the provincial school system directly, without any contribution from the state, and promotes its own events and initiatives. In the last few years, the development of digital competences has been one of PAT's key priorities, and a wide range of professional development courses aimed at improving teachers' planning and pedagogical competence are offered every year by IPRASE. Since 2017, SELFIE has been integrated into the PPSD (Action #28).
<b>Key actors involved and supporting measures</b>	IPRASE acted as the local coordinator for SELFIE during the pilot phase in 2016. Since the enactment of the PPSD in 2017, each individual school in the province is responsible for using and integrating SELFIE in its own context. Moreover, school networks collaborate through SELFIE, establishing formal agreements among cluster schools for sharing SELFIE results inside the network and identifying common digital strategies. The main reason for a school network to implement SELFIE is that it allows outcomes to be compared. Although each school has its own infrastructure and autonomy in defining specific digital strategies and practices, it is very interesting and important to be able to compare some information on schools' capacity to use digital technologies effectively. School networks jointly reflect on SELFIE results, using the data to identify teachers' learning needs, define group strategic planning and develop more efficient joint professional development activities.

Title	Action #28 of the Digital Education Plan for Trento schools
<b>Pilot/scaling-up</b>	<p>During 2016, PAT participated in the SELFIE pilot, engaging 9 schools and 1 273 school leaders, teachers and students. Following the success of the pilot, results were presented to the Provincial Department of Culture, which defines the education policies of PAT. In 2017, SELFIE was integrated into the PPSD, recognising the importance of supporting schools in developing their digital capacity. Schools have started clustering in order to advance school improvement, by working together in peer support through SELFIE. For example, the Digital Citizen Schools Network is composed of five primary and lower secondary schools situated in different areas of the province. This network has established a formal agreement to run SELFIE and compare SELFIE results among participating schools, concentrating specifically on the digital competence of students in order to build a common digital curriculum and on e-safety policies for all the schools in the network. The network is led primarily by one of the cluster schools, in which a digital teacher who was previously involved in coordinating the SELFIE pilot is employed; thus, expertise is shared and all the schools in the cluster are supported. A working group has been activated involving the digital teacher (acting also as SELFIE school coordinator) from each school in the network. The working group meets every month to discuss, plan and monitor common actions defined through SELFIE.</p>
<b>CPD models</b>	<p>During 2018/19, IPRASE organised several information events and professional development activities to boost the take-up of SELFIE in schools. In particular, SELFIE was part of two main professional development programmes – one for newly appointed school leaders and the other the Digital Catalyst Teacher Toolkit – both coordinated by IPRASE.</p> <p>SELFIE was included in the training programme for school leaders to help them identify ways of using the SELFIE process and data in their school community.</p> <p>The Digital Catalyst Teacher Toolkit aims to support key activities of the digital teacher in the school (e.g. drawing up the digital action plan of the school; identifying teachers' needs and organising professional development activities; developing the school digital curriculum). To this end, the toolkit also includes a detailed profile of the competences that the digital catalyst teacher needs to develop in order to operate effectively in the school. These competences encompass and revolve around the eight areas of the DigCompOrg framework, suggesting professional development activities such as face-to-face meeting labs and school visits.</p>
<b>Integration into policy context</b>	<p>PAT has included SELFIE in the PPSD (Piano provinciale per la scuola digitale, Reg. delib. No 1941, approved on 24 November 2017) among key actions (Action #28) that schools in the autonomous province should implement in the coming years. In particular, Action #28 'Digital capacity of the school', which makes a direct reference to SELFIE, reflects the priority to propagate innovation within each school by recognising and enhancing professional competences that promote innovation within each institution and by fostering collaboration among school networks.</p>
<b>Proposed future actions</b>	<p>For the next school year, professional development activities and information events organised by IPRASE and by school networks in the context of the PPSD are expected to contribute to an extension of the use of SELFIE to a larger number of schools in the province, clustering together to advance school improvement through SELFIE.</p>

## Case 5. SELFIE Portugal

<b>Title</b>	<b>Projeto-Piloto Ecossistema de Desenvolvimento Digital (E2D)</b>
<b>Country</b>	Portugal
<b>Timeframe</b>	2019–21
<b>Geographical scope</b>	National level
<b>Education level(s)</b>	Primary education, lower secondary education, upper secondary education
<b>Implementation phase</b>	Pilot phase
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ Promoting SELFIE at national level</li> <li>■ Linking SELFIE to national policy on digital education</li> <li>■ Supporting SELFIE-related training initiatives at the national level</li> <li>■ Organising SELFIE national meetings</li> <li>■ Offering guidelines on schools' SELFIE-based action plans</li> <li>■ Organising national training, e.g. webinars, MOOCs</li> </ul>
<b>Funding</b>	National education budget/project
<b>Funding source</b>	Government
<b>Implementing body</b>	Ministry of Education, Directorate General for Education
<b>Actors involved</b>	Institute of Education of the University of Lisbon Network of Portuguese Centres of ICT Competences of the Ministry of Education
<b>Related references</b>	<a href="http://c2ti.ie.ulisboa.pt/selfie/">http://c2ti.ie.ulisboa.pt/selfie/</a> <a href="https://eacea.ec.europa.eu/national-policies/eurydice/content/national-reforms-vocational-education-and-training-and-adult-learning-53_en">https://eacea.ec.europa.eu/national-policies/eurydice/content/national-reforms-vocational-education-and-training-and-adult-learning-53_en</a> <a href="http://www.dge.mec.pt/teip">www.dge.mec.pt/teip</a>
<b>Policy frame</b>	The SELFIE pilot initiative is framed in national policies to support digital education. The Ministry of Education through the Directorate General for Education always has on its agenda the encouragement of schools to develop their digital action plans in order to improve the digital skills of the organisation and of educational communities.
<b>Key actors involved and supporting measures</b>	<p>Throughout the SELFIE pilot project, schools are supported by the Directorate General for Education of the Ministry of Education, which coordinates SELFIE in collaboration with the Institute of Education of the University of Lisbon. Moreover, individual schools have applied or are applying SELFIE independently.</p> <p>Supporting measures include introductory seminars to present the SELFIE pilot project to participating schools, and online workshops to support schools in using the SELFIE results.</p>

Title	Projeto-Piloto Ecosystem de Desenvolvimento Digital (E2D)
<b>Pilot/scaling-up</b>	<p>To better understand the potential challenges for schools of using SELFIE, a pre-pilot was conducted in one school between November and December 2019, focusing on the use of SELFIE for developing sustainable and structured processes for integrating digital technologies. Using SELFIE data, the school developed a pedagogical innovation plan to further improve the digital skills of its teachers and students, and to integrate technologies into its teaching and learning practices. The school management involved several partners and started new projects to equip the school with different types of technology. Additionally, the SELFIE results helped the school to develop a distance learning plan to respond to the current situation in relation to Covid-19.</p> <p>The results from the pre-pilot highlighted the need to create an ecosystem to help schools develop digital competence at the school level. These results also informed the design of the broad pilot initiative – the Projeto-Piloto Ecosystem de Desenvolvimento Digital (E2D) – which was launched in February 2020 to help schools diagnose the degree of digital integration in their educational and organisational practices, as well as the development and implementation of a digital action plan to improve each cluster’s priority areas.</p> <p>Based on the DigCompOrg and DigCompEdu frameworks, the E2D pilot initiative aims to support the design and implementation of schools’ action plans, from the diagnosis to the development and improvement of the areas considered to be priorities.</p> <p>In the initial phase, each school makes its diagnosis through SELFIE, involving students, teachers and school leaders in identifying the strengths and the areas that require improvement. During this phase, the schools also use the self-reflection tool (Check-In) based on the DigCompEdu framework to the diagnosis of the digital skills of teachers and school leaders.</p> <p>Having defined the priorities for action, in the second phase schools design and implement their digital action plan. At the end of the cycle, each school will carry out a new diagnosis using SELFIE to assess whether their weaknesses have been overcome and to establish future priority areas for a new cycle.</p>
<b>CPD models</b>	<p>During the academic year 2018/19, the Directorate General for Education, in collaboration with the Institute of Education of the University of Lisbon, developed short-term training targeted at educators with lower levels of digital competence to advance their skills to higher levels. This short-duration training (9 hours), delivered in groups of 25 teachers, was based on DigCompEdu and the Check-In tool and involved 5 school clusters. The results informed and inspired the E2D SELFIE pilot initiative. Currently, the basis of this model is being scaled to train all Portuguese public school teachers in digital skills.</p> <p>Moreover, specific CPD courses will be developed to help schools to design and implement digital action plans based on SELFIE results that will be offered during the E2D initiative.</p>
<b>Integration into policy context</b>	<p>The E2D pilot project is part of National Reforms in Vocational Education and Training and Adult Learning (Eurydice source). E2D involves around 72 school clusters, identified based on their participation in other previous initiatives, and also includes TEIP (Programme for Priority Intervention Educational Areas) schools that can use SELFIE to make informed decisions on budget investments in technologies.</p>
<b>Proposed future actions</b>	<p>For the next school year, the main aim is to finish the E2D pilot project and disseminate the results, extending it to a larger number of schools, and then to all schools in the country.</p> <p>By giving enough time for the implementation of the first or second cycles of the plan, schools will have the opportunity to autonomously integrate a digital transformation ecosystem for the development of digital skills into their educational community. The creation of a network of SELFIE schools at the end of the project will provide support to those schools that will start the next edition of the initiative, in a context of peer mentoring among school institutions.</p>

## Case 6. SELFIE Spain

<b>Title</b>	<b>El Plan Digital de Centro – Un marco para la integración de las tecnologías</b>
<b>Country</b>	Spain
<b>Timeframe</b>	2016–22
<b>Geographical scope</b>	National level
<b>Education level(s)</b>	Primary education, lower secondary education, upper secondary education
<b>Implementation phase</b>	Transition from pilot to national scale-up
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ Integrating SELFIE into the national policy framework (digitalisation and digital competences plan)</li> <li>■ Developing dissemination initiatives at national level</li> <li>■ Informing regional authorities about SELFIE developments</li> <li>■ Organising training initiatives on SELFIE (MOOCs) for teachers and SELFIE school-based coordinators</li> <li>■ Promoting and supporting the development of schools' Digital Action Plans</li> </ul>
<b>Funding</b>	National education budget/project
<b>Funding source</b>	Government
<b>Implementing body</b>	Ministry of Education and Vocational Training (MEFP), National Institute of Educational Technologies and Teacher Training (INTEF)
<b>Actors involved</b>	Regional ministries of education
<b>Related references</b>	<p><a href="https://intef.es/Noticias/el-plan-digital-de-centro-un-marco-para-la-integracion-de-las-tecnologias/">https://intef.es/Noticias/el-plan-digital-de-centro-un-marco-para-la-integracion-de-las-tecnologias/</a></p> <p><a href="https://intef.es/wp-content/uploads/2020/07/02-Gu%C3%ADa-Plan-Digital-de-Centro-INTEF.pdf">https://intef.es/wp-content/uploads/2020/07/02-Gu%C3%ADa-Plan-Digital-de-Centro-INTEF.pdf</a></p> <p><a href="http://aprende.intef.es/aprendiario/masivas/balance-final-plandigital">http://aprende.intef.es/aprendiario/masivas/balance-final-plandigital</a></p> <p><a href="https://intef.es/Noticias/selfie-forum-teaching-and-learning-in-the-digital-age/">https://intef.es/Noticias/selfie-forum-teaching-and-learning-in-the-digital-age/</a></p>
<b>Policy frame</b>	In Spain, the MEFP is in charge of providing the general education framework for the country, but regional authorities have the autonomy to take decisions on education within the MEFP framework. The MEFP establishes contact with schools through the regional authorities, as these authorities are in charge of the management of schools. Since 2016, the MEFP has considered SELFIE a key tool for empowering schools and providing them with a powerful means to start developing their digital action plans. The main focus and priority for the MEFP is to develop the digital competence of the students, the teachers and the school, and SELFIE provides the starting point for developing the school's digital plan.
<b>Key actors involved and supporting measures</b>	In Spain, SELFIE is coordinated at national level by the MEFP. Within the MEFP, INTEF is the key actor responsible for coordinating SELFIE-related actions, acting as the national coordinator and contact point with the European Commission. In relation to SELFIE, the MEFP/INTEF is responsible for dissemination, as well as for implementing all aspects of SELFIE at national level. The MEFP/INTEF is also responsible for contacting and informing regional authorities about SELFIE (e.g. news, events, updates, materials) as they retain the power to decide whether or not to implement SELFIE in their regions. At present, three regional authorities have included SELFIE in their education plans (the autonomous regions of La Rioja, Castilla y León and Andalucía). Schools in other regions that have not yet included SELFIE in their policies can still use SELFIE, though not as part of a regional initiative. For the development of the SELFIE MOOC, the MEFP/INTEF has also contracted an external provider for some content development, while MEFP/INTEF retains full control over the design and coordination of the MOOC.



<b>Title</b>	<b>El Plan Digital de Centro – Un marco para la integración de las tecnologías</b>
	<p>Since 2018, when the SELFIE tool was officially launched, the MEFP/INTEF has work extensively on disseminating SELFIE. The MEFP has organised several dissemination events at national level (in collaboration with different stakeholders and networks), promoting SELFIE:</p> <ul style="list-style-type: none"> <li>■ through the eTwinning Spanish network;</li> <li>■ during Erasmus+ meetings with teachers and school leaders;</li> <li>■ at relevant national events and education fairs (e.g. Aula and SIMO).</li> </ul> <p>In April 2019 the MEFP/INTEF, in conjunction with the European Commission-JRC, organised the first SELFIE Forum international event. The SELFIE Forum in Madrid brought together over 180 participants from across Europe, including ministry representatives, national SELFIE coordinators, school leaders, teachers, students, policy-makers and researchers, who discussed their experiences of using the SELFIE tool, as well as key actions for implementing SELFIE in their own contexts. The forum provided a platform for gathering feedback on SELFIE, for sharing examples on how the tool was used in different countries and for facilitating discussion on how schools can be supported in following up the results of their self-evaluation.</p>
<b>Pilot/scaling-up</b>	<p>The MEFP/INTEF participated in the SELFIE pilot coordinated by the European Commission-JRC in 2016. The piloting offered a valuable opportunity for the MEFP to gain a deeper understanding of the SELFIE process as well as to test how the SELFIE tool was working before its official launch in October 2018. The participation of INTEF in the pilot was extremely important for focusing attention on the SELFIE initiative within the MEFP and facilitated progress towards the integration and scale-up of SELFIE across the country. Since the MEFP is not directly in charge of the schools and its scope is always at national level, a two-way approach has been adopted to support and facilitate the uptake of SELFIE at system level.</p> <ul style="list-style-type: none"> <li>■ <i>Involving regional authorities</i> who can contact and actively engage schools. The MEFP/INTEF provides information on SELFIE to the regional authorities, frequently and in detail, updating them on the evolution of SELFIE, as well as on SELFIE-related initiatives promoted both at national level by the MEFP and at European level by the Commission, and on SELFIE uptake in other countries. This allows the collection of regional authorities' opinions and the active involvement of these authorities in the definition of the National Digitalisation Plan. In this way, the regional authorities are also an integral part of the process and gain a deeper and shared understanding of the SELFIE implementation in their regional context.</li> <li>■ <i>Informing schools.</i> Although the MEFP does not contact schools directly, it provides information and launches dissemination events and national professional development initiatives. This enables schools to obtain information on the SELFIE tool and decide to use it directly.</li> </ul> <p>The MEFP/INTEF also contributes to and participates in several projects and studies on SELFIE. For example, INTEF is currently conducting an experimental pilot study in collaboration with the European Commission-JRC aimed at developing national indicators for SELFIE (results were expected by the end of 2020).</p>
<b>CPD models</b>	<p>Since the very beginning, the MEFP/INTEF has designed and run a MOOC for schools. The first edition focused on the DigCompOrg framework. Following the official launch of the SELFIE tool, the MOOC was then extended to support the design of the school's SELFIE-based digital action plan (MOOC title: Diseña el plan digital de tu centro [Design the digital plan of your centre]).</p>
<b>Integration into policy context</b>	<p>The MEFP has defined a digitalisation and digital competences plan that is updated almost every year. This plan is an umbrella policy initiative that covers all aspects of digital actions and encompasses a number of other national initiatives, in line with the outcomes of the EC Digital Education Action Plan. Although the digitalisation plan is not mandatory for the regional authorities, it provides an important reference point for the regions to develop their own actions. During 2020, the MEFP worked to update the plan, and was considering including SELFIE as one of the initiatives.</p>
<b>Proposed future actions</b>	<p>The MEFP/INTEF has recently developed specific guidelines to help schools design their SELFIE-based digital action plans (Plan Digital de Centro). Specific steps are suggested for designing a school digital plan according to contextual needs.</p>

## Case 7. SELFIE La Rioja (Spain)

<b>Title</b>	<b>SELFIE and Avanz@TIC regional initiative</b>
<b>Country</b>	Spain
<b>Timeframe</b>	2019–21
<b>Geographical scope</b>	Regional level
<b>Education level(s)</b>	Primary education, lower secondary education
<b>Implementation phase</b>	Transition from pilot to regional scale-up
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ Designing professional development courses for teachers and technology coordinators based on SELFIE results shared by schools</li> <li>■ Supporting schools to design their own digital action plan</li> <li>■ Supplying digital equipment to schools based on their digital action plan</li> </ul>
<b>Funding</b>	Regional education budget/projects
<b>Funding source</b>	Regional government
<b>Implementing body</b>	Regional Ministry of Education of La Rioja
<b>Actors involved</b>	Centre for Professional Development of Teachers, Regional Ministry of La Rioja (Centro de desarrollo profesional docente. Consejería de Educación, Junta de La Rioja)
<b>Related references</b>	<a href="http://www.larioja.org/edu-innovacion-form/es/actividades-formacion/proyectos-innovacion-educativa-pies/avanz-tic-ano-2019-2020">www.larioja.org/edu-innovacion-form/es/actividades-formacion/proyectos-innovacion-educativa-pies/avanz-tic-ano-2019-2020</a>
<b>Policy frame</b>	<p>The Regional Ministry of Education of La Rioja decided to enrol in SELFIE to evaluate the level of development of digital competence among schools, teachers and pupils and to help schools to design a plan for improvement.</p> <p>SELFIE is embedded in a three-year regional innovation project called Avanz@TIC. This project is oriented towards providing digital supplies such as tablets and interactive panels to schools. In order to boost the digital capability of schools, the regional ministry provides specific professional development initiatives based on SELFIE results.</p>
<b>Key actors involved and supporting measures</b>	Within the Regional Ministry of Education of La Rioja, the centre dedicated to innovation and technology is coordinating SELFIE at regional level and is in contact with SELFIE school leaders and technology coordinators involved in the SELFIE implementation.
<b>Pilot/scaling-up</b>	The regional ministry started the SELFIE pilot in 2019, when 38 schools using SELFIE were selected (based on their proposal for a digital action plan associated with their SELFIE results). By the end of 2020, 30 more schools were expected to be involved in the Avanz@TIC-SELFIE regional initiative, thus reaching 68 out of a total of 120 total (corresponding to more than 50% of schools in La Rioja region using SELFIE).

<b>Title</b>	<b>SELFIE and Avanz@TIC regional initiative</b>
<b>CPD models</b>	<p>The Centre for Professional Development of Teachers within the Regional Ministry of Education of La Rioja designs professional development courses (both face to face and online) for school technology coordinators according to the results from the SELFIE platform. Schools are invited to run SELFIE in their school community and then, based on SELFIE results, design a proposal for their plan of improvement. Schools then submit their improvement plan proposal to the Centre for Professional Development of Teachers. Selected schools receive devices and gain immediate access to professional development activities. Those schools that did not score highly have the opportunity to resubmit their projects in the next call.</p> <p>Based on the analysis of selected proposals, the Centre for Professional Development of Teachers then defines and runs training activities that are customised to meet the needs of each school.</p>
<b>Integration into policy context</b>	The regional ministry uses SELFIE data as a starting point to design a personalised plan for improvement and to develop digital competence among teachers and school leaders, as well as to supply digital equipment to schools.
<b>Proposed future actions</b>	The regional ministry plan for the upcoming year is to provide continuous support to the 38 schools that had already started SELFIE during the implementation of their action plan and to further improve the digital capability of its schools. Moreover, the regional ministry will ensure that the 30 new schools that will begin the programme in 2021 will follow the path previously mentioned, progressively reaching all schools in the region.

## Case 8. SELFIE Castilla y León (Spain)

<b>Title</b>	<b>SELFIE and certificación CoDiCe TIC (Competencia Digital de Centros en TIC)</b>
<b>Country</b>	Spain
<b>Timeframe</b>	2016–21
<b>Geographical scope</b>	Regional level
<b>Education level(s)</b>	Primary education, lower secondary education, upper secondary education
<b>Implementation phase</b>	Transition from pilot to regional scale-up
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ Adapting and aligning the regional ICT certification process (CoDiCe TIC) for schools to the DigCompOrg framework</li> <li>■ Informing and encouraging schools participating in CoDiCe TIC about using SELFIE as a complement to the regional certification method</li> </ul>
<b>Funding</b>	Regional education budget/projects
<b>Funding source</b>	Regional government
<b>Implementing body</b>	Regional Ministry of Education of Castilla y León
<b>Actors involved</b>	Centre for Professional Development of Teachers, Innovation and Internationalisation, Regional Ministry of Education of Castilla y León (Servicio de Formación del Profesorado, Innovación e Internacionalización. Dirección General de Innovación y Formación del Profesorado. Consejería de Educación – Junta de Castilla y León)
<b>Related references</b>	<p><a href="http://www.educa.jcyl.es/profesorado/es/formacion-profesorado/proyectos-relacionados-formacion-permanente-profesorado/competencia-digital/convocatorias/certificacion-codice-tic-curso-2019-2020">www.educa.jcyl.es/profesorado/es/formacion-profesorado/proyectos-relacionados-formacion-permanente-profesorado/competencia-digital/convocatorias/certificacion-codice-tic-curso-2019-2020</a></p> <p><a href="http://www.educa.jcyl.es/profesorado/es/formacion-profesorado/proyectos-relacionados-formacion-permanente-profesorado/competencia-digital/convocatorias/selfie-herramienta-auto-reflexion-potencial-digital-centros">www.educa.jcyl.es/profesorado/es/formacion-profesorado/proyectos-relacionados-formacion-permanente-profesorado/competencia-digital/convocatorias/selfie-herramienta-auto-reflexion-potencial-digital-centros</a></p>
<b>Policy frame</b>	<p>Since 2009, the Regional Ministry of Education of Castilla y León has promoted and implemented an ICT certification procedure for schools relating to digital competence, especially for educational organisations. The DigCompOrg framework and the SELFIE tools were seen, since their release, as complementary to the certification process in place in the region.</p> <p>Schools can participate in the regional CoDiCe TIC certification process through three modalities:</p> <ol style="list-style-type: none"> <li>1. <i>award of certification</i>, in the event that the school does not have the certification or has maintained it at the same level for four consecutive school years;</li> <li>2. <i>improvement of the level of certification</i>, in the event that the school wishes to obtain certification at a higher level than that obtained in one of the last two calls; in no case will a lower level be awarded than the one obtained in the previous call;</li> <li>3. <i>renewal of the certification level</i>, in the event that the school wishes to renew the certification for two more school years at the same level (applicable only if maintaining the same circumstances for which it obtained the certification).</li> </ol> <p>The Regional Ministry of Education has set up a working group to adapt and align the regional certification model to SELFIE.</p>

<b>Title</b>	<b>SELFIE and certificación CoDiCe TIC (Competencia Digital de Centros en TIC)</b>
<b>Key actors involved and supporting measures</b>	<p>The Regional Ministry of Education of Castilla y León, and specifically the Directorate General for Innovation and Teachers' Professional Development (Dirección General de Innovación y Formación del Profesorado), holds the primary responsibility for SELFIE implementation in the region. This directorate general provides information and promotes the use of SELFIE as a complement to the regional ICT certification process for schools.</p> <p>Specific information is provided to schools that apply to receive the regional ICT certification on how to use SELFIE in the self-evaluation process. Information is made available directly on the website of the regional ICT certification process. Schools participating in the regional certification procedure are also periodically informed about SELFIE by email.</p>
<b>Pilot/scaling-up</b>	<p>During 2016/17, the Directorate General for Innovation and Teachers' Professional Development of the Regional Ministry of Education of Castilla y León participated in the first SELFIE pilot in Spain, coordinated by the European Commission-JRC. A second pilot was carried out at regional level during the school year 2017/18. The regional ministry selected those schools with a high level of digital competence according to the regional ICT certification procedure (CoDiCe TIC) with the aim of informing them about the SELFIE tool and encouraging them to use it as a preliminary self-reflection for self-evaluation. The selected schools were pre-registered on the online SELFIE platform and directly accessed the tool. After the official launch of SELFIE, during the school year 2018/19 the Regional Ministry of Education adopted the same approach to involve other digitally competent schools across the region, assigning extra points to those schools that participated in SELFIE during the selection process. In addition, a working group was created to transform and adapt the previous regional ICT certification (CoDiCe TIC) procedure to the European DigCompOrg framework.</p>
<b>CPD models</b>	<p>No specific professional development activity is conducted in relation to CoDiCe TIC. As part of the certification procedure, the Regional Ministry of Education periodically provides information and encourages schools to use SELFIE as a starting point for the certification process, as well as for organising improvement measures. This also contributes to helping schools overcome the main challenges and barriers to using SELFIE, which relate mainly to school leaders' and teachers' misconceptions about heavy workload and the time required to run SELFIE in their schools. To this end, the regional ministry provides specific information and active advice to raise schools' awareness on how SELFIE results can help them to improve their use of ICT in all educational aspects and in day-to-day organisation.</p>
<b>Integration into policy context</b>	<p>CoDiCe TIC consists of two main phases: a first phase during which schools engage in self-evaluation and a second phase in which schools undergo external evaluation conducted by provincial technical teams and certification by the regional accreditation committee. SELFIE is considered to be and is promoted as a tool of great interest, particularly in complementing the first phase, in terms of supporting schools carrying out self-evaluation. To this end, the regional CoDiCe TIC certification procedure was adapted to align it to the European DigCompOrg framework as follows:</p> <ul style="list-style-type: none"> <li>■ <i>Modifying the competence areas:</i> The number of competence areas was increased (from five to eight) and renamed to align them to the eight areas of DigCompOrg.</li> <li>■ <i>Modifying the number of indicators:</i> The total number of indicators of competence was increased from 35 to 80 and equally distributed across the areas (10 indicators per area). New indicators have been adapted and incorporated into the new areas.</li> <li>■ <i>Modifying the name and weight of competence levels:</i> The five levels of progression were maintained from the previous procedure, but the complexity was increased.</li> </ul> <p>Since 2019, schools that have carried out SELFIE and obtained the SELFIE final report are credited with 0.5 extra points when applying to the CoDiCe TIC certification selection procedure. These extra points are attributed under 'Trajectory and experience of integration of ICT in the centre' in the area of 'Development of institutional plans that are not mandatory' of the evaluation criteria for the call.</p>
<b>Proposed future actions</b>	<p>The Regional Ministry of Education of Castilla y León plans to continue to provide information to schools and encourage them to use SELFIE as a complement to the regional CoDiCe TIC certification process. In particular, the opportunity to have access to SELFIE aggregated data at regional level is considered of particular importance in providing more specific support to schools at regional level.</p>

## Case 9. SELFIE Serbia

<b>Title</b>	<b>Implementation of SELFIE – Self-reflection tool for assessing digital capacities of the school</b>
<b>Country</b>	Serbia
<b>Timeframe</b>	2016–22
<b>Geographical scope</b>	National
<b>Education level(s)</b>	All
<b>Implementation phase</b>	Transition from pilot to national scale-up
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ Contextualising SELFIE within local policy frameworks (digitisation and quality assurance)</li> <li>■ Public call for involvement in the project on the Ministry of Education, Science and Technological Development (MoESTD) website (pre-pilot)</li> <li>■ Selection of pilot schools made by the MoESTD against objective criteria</li> <li>■ Monitoring pilot implementations</li> <li>■ Organising an online course for teachers and SELFIE school-based coordinators</li> <li>■ Evaluation of pilot programmes</li> <li>■ Planning strategy for national scale-up</li> </ul>
<b>Funding</b>	National education budget/project
<b>Funding source</b>	Government
<b>Implementing body</b>	Institute for Education Quality and Evaluation (IEQE)
<b>Actors involved</b>	MoESTD/Independent Adviser, Sector for Digitalisation in Education and Science ET2020 Workgroup on Digital Education IEQE/Head of Educational Technology Centre National Education Council SELFIE school teams
<b>Related references</b>	<a href="https://ceo.edu.rs/селфи-обуке-за-све-школе-у-србији/">https://ceo.edu.rs/селфи-обуке-за-све-школе-у-србији/</a> <a href="http://www.youtube.com/watch?v=L3nJRjzNTYk">www.youtube.com/watch?v=L3nJRjzNTYk</a>
<b>Policy frame</b>	Since 2016, the SELFIE concept has been integrated into Serbia's ICT action plan, as it was seen as the best answer to the previous unfulfilled attempts to develop and introduce an e-maturity model and self-reflection tool focusing on digital technologies in education. The initiative was based on the first Soft Policy Paper, Guidelines for promoting the role of ICT in education, which was issued in 2014 by the National Education Council and focused on better integration of ICT in pre-university education in Serbia. These guidelines recommended the use of self-reflection online tools as a vital part of the education sector's quality assurance system for the schools' digital component. The IEQE was selected as the implementing agency, as SELFIE belongs to the set of quality assurance mechanisms for schools.



<b>Title</b>	<b>Implementation of SELFIE – Self-reflection tool for assessing digital capacities of the school</b>
<b>Key actors involved and supporting measures</b>	<p><i>Policy-making:</i> MoESTD – Independent Adviser, Sector for Digitalisation in Education and Science</p> <p><i>Implementation:</i> IEQE – Institute for Advancement in Education – teacher training and support</p> <p>In April 2019, an eight-hour online course on SELFIE for teachers was launched by the IEQE. All primary and secondary schools in Serbia were invited, on a voluntary basis, to appoint three representatives from the SELFIE school teams, always including the school headteacher, and to participate in the online training. During the first edition of the course, 831 SELFIE school teams enrolled, with 2 340 participants in total; for the second edition there were 291 schools, with 759 teachers.</p>
<b>Pilot/scaling-up</b>	<p>By mid-2020 more than 60% of schools nationally had been fully informed about the potential of the SELFIE tool and the way it can be used for digital transformation. In preparation for a national scale-up, the IEQE planned to relaunch the SELFIE online course for the school year 2020/21 and create a new online course for SELFIE school team members to support them in the process of defining the digital component of the school development plan and an action plan for its implementation.</p> <p>SELFIE is often linked with activities relating to the development of teachers' digital competence. Based on this framework, the Institute for Advancement in Education has developed 16 hours of in-service training (online and face to face) for the first level of competence. Training has already been completed for 5 000 teachers. Among many ongoing complementary projects are the establishment of digital classrooms in primary schools (equipped with notebooks and projectors) and the provision of digital textbooks.</p>
<b>CPD models</b>	<p>Online SELFIE training programme supplemented by face-to-face training supported by national and regional seminars and conferences (e.g. Digital Education 2020: <a href="http://edtech.center/sr/konferencija-2020/">http://edtech.center/sr/konferencija-2020/</a>)</p>
<b>Integration into policy context</b>	<p>The MoESTD is currently in the process of developing the Education Development Strategy 2027, which will cover digital education. The main pillars of future developments will be:</p> <ul style="list-style-type: none"> <li>■ developing the education information system;</li> <li>■ improving the ICT infrastructure;</li> <li>■ strengthening the capacities of schools for school development planning focused on the digital dimension;</li> <li>■ improving the digital competences of pupils through curricula changes;</li> <li>■ improving the digital and pedagogical competences of teachers;</li> <li>■ researching and improving evaluation and monitoring systems in the area of digital education.</li> </ul>
<b>Proposed future actions</b>	<p>The remaining 40% of schools that have not yet been reached will be engaged and motivated to initiate their participation through taking part in the third edition of the online training to ensure full national coverage.</p> <p>Serbia is participating in the Digital Schools Awards European pilot programme, an initiative to promote and recognise the use of digital technology to deliver the best educational experience for pupils in primary and secondary schools. The pilot will cover 20 schools, which will be invited to register on the <a href="http://awards4selfie.eu">awards4selfie.eu</a> website, where they will receive support and resources to create and implement a whole-school development plan. When ready, schools can apply for recognition under the SELFIE Digital Schools Awards scheme.</p>



## Case 10. SELFIE Turkey

<b>Title</b>	<b>SELFIE in Turkish schools</b>
<b>Country</b>	Turkey
<b>Timeframe</b>	2019–22
<b>Geographical scope</b>	National
<b>Education level(s)</b>	Primary education, lower secondary education, upper secondary education, vocational education
<b>Implementation phase</b>	Pilot
<b>Key actions</b>	<ul style="list-style-type: none"> <li>■ After agreement to implement SELFIE in Turkey, the Ministry of National Education (MoNE) formed three types of teams, whose membership was officially approved by the minister:               <ol style="list-style-type: none"> <li>1. MoNE Coordination Team,</li> <li>2. Ambassadors Team (at local level),</li> <li>3. School Coordinators Team (at school level).</li> </ol> </li> <li>■ An online event was arranged for ambassadors at provincial/local level so that they could immediately contact school coordinators.</li> <li>■ A promotion pack was created with briefing notes and presentations for ambassadors' and teachers' use.</li> <li>■ A WhatsApp group was formed for immediate communication.</li> <li>■ At provincial level, an ambassadors network organised onsite information meetings for SELFIE school coordinators.</li> </ul> <p>Support by MoNE and local authorities was provided during implementation.</p>
<b>Funding</b>	National education budget/project
<b>Funding source</b>	Government
<b>Implementing body</b>	MoNE/Directorate General for Innovation and Educational Technologies (DGIET)
<b>Actors involved</b>	<p>DGIET</p> <p>European Commission DELTA (Digital Education: Learning, Teaching and Assessment) working group members from Turkey</p> <p>Consultation with the Directorate General for Measurement, Assessment and Examination Services about plans for a medium-scale pilot</p> <p>Directorate General for Vocational and Technical Education invited to take part in work-based pilot</p> <p>Provincial ambassadors network for EU projects</p>
<b>Related references</b>	<a href="http://www.efvet.org/2020/07/22/the-selfie-wbl-piloting-project-kicked-off-today-online/">www.efvet.org/2020/07/22/the-selfie-wbl-piloting-project-kicked-off-today-online/</a>
<b>Policy frame</b>	SELFIE is one key element in the evidence-gathering process to support the impact of technology, in terms of attitudes, technology usage and learning outcomes. The MoNE has been an enthusiastic advocate of SELFIE since 2019, with 231 schools taking part in the pilot study. SELFIE materials have been translated into Turkish, and, on the basis of positive feedback from the pilot study, the MoNE is said to be in favour of undertaking a much bigger national implementation.

<b>Title</b>	<b>SELFIE in Turkish schools</b>
<b>Key actors involved and supporting measures</b>	<p>DGIET; European Commission DELTA working group members from Turkey; DG Vocational and Technical Education for work-based pilot; provincial ambassadors network for EU projects.</p> <p>Turkey has a centralised education system, which was one of the most important supporting measures for implementation. As a result of this national mandate, local and regional authorities followed the instructions for a smooth implementation.</p> <p>The existing teacher networks were a really supportive feature during the implementation of the pilot SELFIE. They enabled schools to reflect on their practices and implement SELFIE to produce evidence of improvements in digital capacity at school, teacher and student level. The badges and certificates are well received and provided a strong motivational tool for all participants.</p>
<b>Pilot/scaling-up</b>	<p>The successful pilot phase of SELFIE was limited to 213 schools. Among these, the existing teacher networks were really helpful for communication and planning. The ambassadors were also instrumental in the success; they have a well-grounded understanding of educational technology as they are also involved in several other MoNE digital initiatives; they managed to connect and support the schools during the pilot phase.</p> <p>For the scaling-up of SELFIE, the policy-makers in the MoNE would like to proceed on the basis that the large-scale raw data sets will be shared between the MoNE and the JRC, as implementing agency of the EU.</p> <p>DGIET estimates that the necessary measures for a national scale-up could be undertaken within three months if the minister approves medium-scale implementation.</p>
<b>CPD models</b>	<p>CPD is conceived at a national level and carried out provincially and locally through the network of ambassadors.</p>
<b>Integration into policy context</b>	<p>The MoNE 2023 Education Vision Document includes several themes, such as learning analytics, digital content ecosystem, professional development and school improvement planning. The SELFIE process will help to develop and populate these themes. The school improvement plans, for example, will be prepared and based at the institutional level; they will serve as roadmaps for each school to evaluate its goals and capacity, and the academic and social development of children. SELFIE will assist in the plans by gathering evidence for monitoring and evaluation, as the plans create the basis for improvements in school performance on a yearly basis. As the school development model requires a holistic methodology that is similar to the SELFIE approach to digital education, there is a useful synergy of methodologies.</p>
<b>Proposed future actions</b>	<p>The Directorate General for Vocational and Technical Education has been invited to take part in the piloting of the WBL module of SELFIE. After the piloting of the module, decisions will be made about a more widespread national implementation.</p> <p>It has been suggested that teacher education institutions could have access to SELFIE for training, professional development and digital education policy formation.</p>

## LIST OF ABBREVIATIONS AND ACRONYMS

<b>CNR</b>	Consiglio nazionale delle ricerche (National Research Council), Italy
<b>CoDiCe TIC</b>	Competencia Digital de Centros en TIC (Digital Competence of ICT Centres), Spain
<b>CPD</b>	Continuing professional development
<b>DGIET</b>	Directorate General for Innovation and Educational Technologies, Turkey
<b>E2D</b>	Projeto-Piloto Ecosistema de Desenvolvimento Digital (Digital Development Ecosystem Pilot Project), Portugal
<b>EFT</b>	Équipe formativa territoriale (local training team), Italy
<b>ETF</b>	European Training Foundation
<b>EU</b>	European Union
<b>ICT</b>	Information and communication technologies
<b>IEQE</b>	Institute for Education Quality and Evaluation, Serbia
<b>INTEF</b>	Instituto Nacional de Tecnologías Educativas y de Formación del Profesorado (National Institute of Educational Technologies and Teacher Training), Spain
<b>IPRASE</b>	Istituto provinciale per la ricerca e la sperimentazione educativa (Provincial Institute for Educational Research), Italy
<b>IT</b>	Information technology
<b>ITD</b>	Istituto per le tecnologie didattiche (Institute for Educational Technology), Italy
<b>JRC</b>	Joint Research Centre (European Commission)
<b>MEFP</b>	Ministerio de Educación y Formación profesional (Ministry of Education and Vocational Training), Spain
<b>MoESTD</b>	Ministry of Education, Science and Technological Development, Serbia
<b>MoNE</b>	Ministry of National Education, Turkey
<b>MOOC</b>	Massive online open course
<b>PAT</b>	Provincia Autonoma di Trento (Autonomous Province of Trento), Italy
<b>PDM</b>	Piano di miglioramento (three-year improvement plan), Italy
<b>PNSD</b>	Piano Nazionale Scuola Digitale (National Plan for Digital Education), Italy
<b>PPSD</b>	Piano Provinciale Scuola Digitale (Provincial Plan for Digital Education), Italy
<b>PTOF</b>	Piano Triennale dell'Offerta Formativa (three-year educational plan), Italy
<b>RAV</b>	Rapporto di autovalutazione (school self-evaluation report), Italy
<b>SEET</b>	South Eastern Europe and Turkey
<b>SELFIE</b>	Self-reflection on effective learning by fostering innovation through educational technology
<b>SHERPA</b>	SELFIE helper and pedagogical innovation assistant
<b>SNV</b>	Sistema nazionale di valutazione (National Evaluation System), Italy
<b>USR</b>	Ufficio scolastico regionale (regional school office), Italy
<b>VET</b>	Vocational education and training
<b>WBL</b>	Work-based learning

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