Networks for learning and development across school education

Guiding principles for policy development on the use of networks in school education systems

Produced by the ET2020 Working Group Schools
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Schools and multilingualism

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# Networks for learning and development across school education

Output of the ET2020 Working Group Schools 2016-18

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1. About

ET2020 Working Group on Schools

Under its current mandate, the ET2020 Working Group on Schools\(^1\) examined successful and emerging, or potential new, policy developments in Member States. These concern the governance of school education systems that can support and improve quality, inclusion and innovation. They focused on the capacity for systemic change in the four key interlinked areas: 1) quality assurance for school development; 2) continuity and transitions for learner development; 3) teachers and school leaders; and 4) networks.

Networks

Education systems are becoming increasingly complex in the context of globalisation and digitalisation on the one hand, and decentralisation and school autonomy on the other. There is a keen interest in networks as a tool for better connectivity between stakeholders within and between different levels of the system to achieve defined educational goals and greater equity, efficiency and quality. Furthermore, networks can serve as an environment to explore and pilot new policies, pedagogical ideas and working methods. They can be permanent structures, or function as temporary ‘experimental’ stages in policy development; formally or informally constituted; centrally managed and directed, or operating on the basis of consensual decision-making across multiple stakeholders. A priority for the ET2020 Working Group Schools was to establish when and how best to harness the potential of networks within different educational contexts, and to understand the potential benefits and challenges of doing so, drawing upon examples from across Europe.

This report

This report sets out guiding principles for policy development within a context of recent research and developments in this area of school education. These principles are further illustrated with specific examples from countries, which are shared and discussed by members of the Working Group to consider how different types of networks they have been put into practice, and with what results.

The content comes from a series of meetings held in Brussels, research (member self-reporting) exercise, and a Peer Learning Activity. There are 12 case study examples, as presented by countries and organisations at the Peer Learning Activity. The report was compiled and edited by Laurie Day (Ecorys) and Hannah Grainger Clemson (European Commission) in October 2017, with contributions from Jonathan Allen (Consultant) and Janet Looney (EI ESP), and review and validation by members.

\(^1\) Representatives from all Member States, EFTA and Candidate countries, plus social partners and stakeholder organisations.
2. Guiding Principles

2.1 About the principles

The statements – or ‘Guiding Principles’ - highlight the key policy messages regarding networks in school education as developed by the ET2020 Working Group Schools (2016-18). They are based on recent research, policy experiences and peer learning processes. They provide a frame for the sharing and analysis of recent developments in countries, as discussed and reported by Working Group members.

2.2 Fundamental values

Networks are a way for different actors and levels of school education systems - policy makers, schools, school education leaders, teachers and a range of stakeholders - to promote and support school development and to address and potentially solve problems concerning the education of young people in collaborative and flexible ways.

Understanding how these professional networks function, and identifying the important elements to consider, can help to better realise network goals, identify opportunities for networking across school education systems, and contribute to a broad and embedded culture of learning. This culture values – and is dependent on – trust and motivation, as well as confidence, communication, collaboration, and critical (self)reflection. At school level, in particular, it depends on having satisfactory conditions and status for teachers and an acknowledgement of the demanding nature of teaching.

Networks should not exist for their own sake: they depend on mutualism and action driven towards shared goals. They can create co-responsibility and shared accountability. It is important to use evidence for creation and development; even to consider the same goal could have been achieved more effectively through alternative means. The learning needs to be followed by action, leading to further learning.

"A learning network demands an open learning attitude"

Statement from the Peer Learning Activity held in Belgrade, Serbia (September 2017)

This publication contains many images. Some relate directly to the case study examples. Others have been used as inspiration during the process as the Working Group developed their ideas and understanding of networks.
2.3 Guiding principles for policy development on the use of networks in school education systems

1. GOAL-SETTING AND SHARED GOALS: a shared vision is needed to inspire the cooperation of different actors, in the interest of school development. Clear shared goals should be defined the first stage in network development, in order to engage the appropriate actors in an appropriate structure. Goals may be redefined as the network evolves.

2. AUTONOMY, ACCOUNTABILITY & FLEXIBILITY: attention should be paid to the decision-making capacity of different actors and their sense of agency and responsibility. Flexibility within policies may encouraged increased activity. Self-assessment - may help identify or motivate new network actors; help existing members identify their own needs; and contribute to network development with an increased sense of ownership.

3. MOTIVATION & BENEFITS: an open and supportive environment supports inter-school and inter-professional exchanges. The interests of different actors should be balanced within and between different system levels, as friction and competition between schools or other actors can undermine the cohesiveness of networks. It is important to demonstrate that the inputs (in time or resources) are proportionate to the outputs.

4. ROLES: Cooperation between teachers as key actors should be supported by: a) providing time for dedicated activities, b) assuring recognition; c) giving them a voice, and d) assuring a climate of trust. Actors should be aware of their role as networking activity may be different to their daily professional tasks. Effective distribution of leadership is particularly important.

5. CAPACITY-BUILDING: teacher collaborative competence should be developed through ITE and CPD. There should be both horizontal and vertical cooperation, taking care not to overload particular actors. Mediators between network points may need specific support.

6. CROSS-SECTORAL WORKING: action should identify points of shared interest and align policy development cycles of different areas. Evidence-based policymaking and practice requires connections with and between teacher-led experimentation, and expert pedagogical research.

7. NETWORK DEVELOPMENT: networks should be flexible. They may be temporary or longer term, and may exist as an initial phase in establishing and embedding a culture of collaboration. They may also make lasting connections of which project activity may be one part; guided by the actors. Managing or acting within networks can inform decisions about distribution of resources.

8. IMPACT, QUALITY ASSURANCE & EVIDENCE: Monitoring and evaluation is central to understanding the effectiveness of networks and self-reflection is key to ongoing development. Network developers should consider how progress and outcomes will be measured, define key indicators, and to decide how and by whom they will be measured. Appropriate data generated by networks should be taken into account at local and national levels of decision-making.
3. **Networks within and for a culture of learning: an introduction**

3.1 **Policy context**

Improving the quality and efficiency of education and training, one of the ET2020 goals\(^2\), remains an ongoing concern for Member States. Policies need to reach all aspects of the school education system and, whilst ministries traditionally act as the central or highest point in the hierarchy, many systems are becoming increasingly decentralised. Even countries with a highly centralised system reveal some desire to give more autonomy to actors at regional and local levels as a way of more effectively and quickly implementing policies and instigating necessary changes depending on the local context.

There is an increased value placed on synergies, communication and collaboration within and between schools and between different elements of the school education system as a whole. This value is underpinned by an assumption that working together is more effective for all than working individually (even if the goals and methods are the same or similar) because of the opportunity to build on the knowledge and experience of others in a ‘learning culture’. When the EU and Member States are being asked to intensify efforts to improve their education and training systems\(^1\), such a cultural shift can be crucial in supporting development and innovation. This is i) because innovations evolve more quickly and effectively with more and different actors involved in the testing and improving of new approaches; and ii) because of the increased capacity of actors and approaches to adapt and evolve in changing contexts as a result of shared goals, knowledge and skills. Communication and collaboration are key features of a 'professional culture' where actors are both trusted and motivated to take a role in those decision-making processes and actions, which includes self-evaluation and self-improvement.

‘Networks’ are playing both a structural and cultural role in these contemporary approaches to policy-making processes within often complex systems\(^1\). If a professional learning culture with increased autonomy wants to thrive, these actors need connecting vertically and horizontally in a way that they are both motivated and have the capacity to share, learn and make changes. Nevertheless, accountability, together with notions of 'measurement' and 'effectiveness', are tricky aspects to discuss and define when talking about 'cultures' that are inherently dependent on complex, shifting and social behaviours.

The recent Communication on ‘School development and excellent teaching for a great start in life’ highlights that cooperation helps schools to enrich learning experiences and outcomes and better support young people in developing the competences they need\(^3\). The Working Group members recognise that networks require, but might also ignite, an important cultural shift towards 'co-creating' in school education development, rather than waiting for change to happen. A significant cultural shift is unlikely to be immediately widespread but the belief is that networks as one approach can be beneficial. Effective networking for quality and

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improvement in school education requires a deep understanding by policy makers of the purpose and nature of networks in order to adequately support their development and often be part of the network activity themselves. There are many identifiable barriers to the necessary conditions needed for networks to be able to function – at all levels of the system – and work towards their goals with a clear understanding, internal to each network, of the added value. Exploring solutions to overcome these barriers and improve the effectiveness of networks is the focus of this report.

3.2 What do we mean by networks?

A review of theoretical literature led to networks being understood in the following ways:

1. At their most basic, a network is group or system of interconnected people or things. It is the established *connections* between them that maintain the network. Analysing a network, such as from a policy perspective, can be usefully based on examining these relationships.

2. Networks exchange knowledge, skills and resources, between points for the *mutual benefit of all* of the actors, although the activity carried out by actors might be different (e.g. the work of teachers and policy makers). Networks may bring together stakeholders from different sectors or different levels of the education system, drawing on their collective intelligence.

3. Networks are alliances working *towards a particular common or shared goal(s)*. Therefore they may seek to change the status quo, including the performance or quality of other actors (e.g. supporting schools facing particular challenges). The goals may be redefined after some time as the network provides a way for synergies to develop and new ideas and innovative practices to emerge.

*Networks* can be distinguished from *clusters* and *partnerships*:

<table>
<thead>
<tr>
<th>NETWORKS</th>
<th>CLUSTERS</th>
<th>PARTNERSHIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established <em>connections and relationships</em> between points maintain the network</td>
<td>Groups of people or things (e.g. schools) operating in a similar geographical area (e.g. a town) or field of work (e.g. special educational needs)</td>
<td>Two or more actors make an agreement to share knowledge, skills or resources, possibly during a period of joint activity.</td>
</tr>
<tr>
<td><em>Collective intelligence</em>: exchange knowledge, as well as skills and resources, between points for the <em>mutual benefit of all</em></td>
<td>Actors may share knowledge or resources</td>
<td></td>
</tr>
<tr>
<td>Alliances working towards a particular <em>common or shared goal(s)</em></td>
<td>Not necessarily working towards a shared goal or have established</td>
<td></td>
</tr>
</tbody>
</table>
Networks are not merely static structures, but are defined communities and dynamic entities where activity is driven towards particular goals and organically evolves. Networks should ideally take goal-setting as the starting point to inform the process and the supporting structure, although sometimes the process or structure are first to be defined. Each should be reviewed and adjusted as a cycle (below):

The main elements when analysing networks, drawn from various theoretical models, are:
**GOALS:** These are shared between the network actors and are the desired outcomes of the activity. Identifying goals sets the priorities for action but also suggests a necessary structure. Goals can be operational (achieving efficiency), personal (about self-development of the actor), or strategic (future development of the organisation or system). Goals are a way of operationalising work towards a shared outcome or 'vision', which unites the actors in their values of what they are striving for.

**ACTORS:** These carry out the network activity. Their behaviour can be influenced by their professional role (i.e. in their daily context), their positioning in the network (including whether they are clustered with others), their relationships (connections) to other actors, and their sense of benefit.

**CONNECTIONS & RELATIONSHIPS:** These are the structural links and functioning relationships between actors. They may be different distances and strengths or intensities. They may allow artefacts to flow in one or both directions. There may be more than one connection between two actors.

**STRUCTURE:** This describes the way the actors positioned and connected in relation to each other across the whole network. There are many different structures that mean control, information flow and the capacity to instigate change happen differently, for example: centralised, decentralised, distributed, linear, tree, and so on.

- 'Closeness' of points or actors identifies where information could be quickly relayed to others
- 'Betweeness' refers to the power of an actor to make the link between different disconnected groups
**ARTEFACTS:** artefacts are the things that are shared across the network in order to undertake the activity and achieve goals. These can be knowledge, skills and/or resources.

**CREATION and DEVELOPMENT:** Networks may be informal and become formalised (within a system); they may be loose (in their connections) and become more fixed; static or fluid. Often in creation a core group will problematize a situation and position themselves in relation to it. These actors will then enrol others to the network and mobilise it. Networks may be temporary or develop organically into another type. In both cases there is a challenge to extract evidence from the network activity to assess its performance and identify future goals and any changes.

**MUTUALISM:** Network cohesion and functioning depends on all actors recognising the value of being part of it. All actors benefit but not at the expense of the benefit of any others.

### 3.3 Research evidence of networks in school education systems

Over the past several decades, a significant body of literature on networks has emerged, addressing both conceptual issues and evidence of their impact. These include three strands of research relevant for education including: social network analysis, policy change and political science networks, and public management networks\(^3\). This typology offers varying perspectives from which to consider networks; a single network might be analysed from one or more of these different viewpoints.

- **Research on social networks** explores aspects such as the nature of relationships within networks, information diffusion and communication across networks. Research on teacher social networks (both face-to-face and virtual) has grown considerably with the advent of social media. The emergence of social networks in education has been seen as particularly important because of the isolated nature of traditional classroom-based teaching, limiting opportunities for mutual learning and adaptation\(^3\).

- **Political science networks** research explores networks focused on policy change and agenda setting; their impact on collective action and policy outcomes; policy innovation (i.e., how networks promote innovation and diffusion)\(^3\). More recent research in the political science tradition has focused on how collaborative and participatory networks support knowledge development and innovation.

- **Public management networks** research explores the structural features of networks and their impact on outcomes and cost efficiencies. This area of research has become more

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\(^3\) These different theories have different roots, with sociological analysis beginning in the 1930s, political science literature in the early 1980s, and public management literature in the mid-1980s. They rely on different research methods, different assumptions about human motivation, and highlight different research questions. At the same time, greater cross-fertilisation across these strands may further enrich each area.
important with the current trend towards decentralisation of education systems in Europe, as pressures on resources increase, as reflected in the ongoing OECD School Resources Review (SRR).

3.4 Why strengthen the role of networks in school education systems?

Based on the previous thematic work, the Working Group approached the topic with a common understanding of the importance of networks for efficiency, effectiveness and innovation and that:

- collaborative networks, whether online or face-to-face, enable innovations to evolve more quickly and are more effective as more people are involved in testing and improving new approaches given that diverse views help collaborators to move beyond paradigms and worldviews of a particular community\[vii];
- networks may also support a more efficient allocation of resources across school systems.

In complex school education systems, networks may be seen as an effective and efficient approach to:

- support horizontal decision-making
- solve complex problems
- share responsibilities
- create synergies between stakeholders
- promote knowledge-sharing and the dissemination of practice;
- enable innovations to evolve more quickly;
- enhance the professional development of teachers;
- support capacity-building in schools;
- optimise the use of time and resources;
- mediate between different levels of the system.

As highlighted above (3.3), social networks, networks focussed on policy change and innovation, and public management networks are established with varying goals in mind. Their scale and organisation also vary. Because school education networks are heavily dependent on the interaction between educators, they can offer deeper, more meaningful and relevant interactions although these social-professional relationships still have their own challenges.
3.5 Critical points to consider when integrating networks in school education systems

The Working Group formulated key questions concerning policy needs and actions and the creation, sustaining and developing of networks to support learning and development across school education systems. These can be used by policy makers and others as critical points to consider when deciding on investing in a network:

1. How to know when and where to initiate networks?
   - What is the value and role of networks in terms of supporting learning and development within different parts of the system?
   - What kind of evidence helps to identify the need for a new network and the effective functioning of existing ones?

2. How can the necessary conditions be created for different types of networks to function effectively?
   - What competences (knowledge, skills and attitudes) of members and leaders need to be supported for the networks to function in different contexts?
   - Who drives network processes and how can a sense of ownership and engagement be maintained across different groups of actors?
   - What resources are required and how to ensure these are used efficiently?

3. In what ways can network outcomes feed back into different parts of the system and support decision-making and development?
   - What approaches can ensure that networks can respond to defined needs in policy development but also to local needs?
   - What are the limitations and opportunities for different types of networks to transfer knowledge and ideas across systems?

As part of the work, a set of Guiding Principles are proposed to inform policy decision-making processes that include networking. These are grouped under eight themes that also, in themselves, form a useful checklist for creating and developing networks within school education:

- Goal-setting and shared goals
- Autonomy, accountability & flexibility
- Motivation & benefits
- Roles of different actors
3.6 The ET2020 peer learning process

The formulation of guiding principles and accompanying examples of policy development was carried out in three ways:

| Review of existing research and literature | A background paper summarising international sources of literature on networks was created for the Working Groups members by European Commission consultants. |
| Working Group meeting | Using a blend of sub-group discussion, reporting, and full group reflection, the members explored the topic from different perspectives in working sessions at a meeting at the European Commission in Brussels. Working Group members shared case studies from their countries. |
| Peer Learning Activity | The policy challenges and principles set out in this report were developed in depth by 9 countries and 3 organisations attending a Peer Learning Activity (PLA) hosted by Serbia (26-29 September 2017). This PLA enabled participants to undertake a deeper critical analysis and reflection on behalf of all members of the Working Group, and discuss possible future action for their own contexts. In this respect, the longer case study examples that feature in the report are of country and organisation networks that are current and constantly developing. Therefore the reflections and possible future actions should be understood as work-in-progress. |
A molecule is two or more atoms held together by a chemical bond.

Molecular science studies their structure, properties and interaction.

Analysis of network activity and effectiveness is similar.
4. Networks in action

The Working Group thematic meetings and Peer Learning Activities highlighted a significant number of examples of networks in action within and between national education systems across Europe. These examples have operated at varying scales, and with varying degrees of formal monitoring and evaluation. However, they provide important insights to contemporary policy challenges for network management.

In this chapter, we examine more closely the examples of networks from the Group, triangulated with further examples from the wider policy and research literature. To provide a structure, we have grouped the networks into six broad ‘types’ that best reflect their characteristics:

a) International support to policy and practice development
b) Supporting national policy development and implementation
c) Developing national and regional structures of governance
d) Connecting schools for school development
e) Connecting teachers for professional development; and,
f) Multi-stakeholder networks targeting specific groups of learners

For each category, first we present the key concepts and rationale, before considering the evidence base, discussing the main challenges, lessons learned and outcomes from educational networks, with reference to case study examples from the Group and the wider literature. There are 11 longer case study examples, as presented by countries and organisations at the Peer Learning Activity.

All Guiding Principles are relevant to each type of network, however specific principles are highlighted where they are particularly relevant to the success or challenge of a network type or specific case example.

4.1 International support to policy and practice development

Education networks operating at an international level clearly offer the widest geographical scope. At a first glance, these networks may seem more challenging to organise, taking into consideration distances and different languages and cultures. However, technology has the potential to remove some of these obstacles, and unlock the potential benefits of knowledge-transfer and inter-cultural learning.

Harris argues that the following principles need to be at the core of an effective online development network: participation beyond the boundaries of a traditional public authority; a clear purpose, mission and community values; bringing in new members and changing external contributors and facilitators over time; a clear plan of action to catalyse change;
infrastructure to enable individuals to assess their capacity to contribute; feedback, and a perceived return on investment.

**Box 1: Examples of inter/transnational policy networks in a European context**

**ETUCE** (European Trade Union Committee for Education), which operates at European level to defend teachers’ interests to the European Commission. ETUCE is also active in several EU-funded cooperation projects, for example on ICT in schools and promoting the social sector dialogue. It therefore plays an active role in engaging teachers in school development across Europe.

**ATEE** (Association for Teacher Education in Europe) has the aim of enhancing the quality of Teacher Education in Europe and supporting the professional development of teachers and teacher educators across the continent. ATEE has 19 thematic workshops, and also networks with established links between research, policy and practice. ATEE is conscious of its international nature, and is careful to understand and respect cultural differences.

Ministries of Education themselves are members of **European Schoolnet**, organised to introduce innovation to diverse stakeholders, including the Ministries themselves, but also, schools, teachers, researchers and industry partners.

**SIRIUS** is the European Policy Network on the Education of Children and Young People with a Migrant Background that was initiated by the European Commission in 2012. The network facilitates inclusive policymaking by exchanging knowledge and experience between researchers, practitioners, immigrant youth and communities and policymakers for the development of joint strategies on migrant education. The current network is composed of 31 members in 18 countries.

International networks can also support the diffusion of specific educational models or paradigms. The **UNESCO Associated Schools Project Network (ASPnet)** spans 10,000 schools and 180 countries, providing an educational programme based around human rights, sustainable development, and intercultural learning. At the country level, ASPnet National Coordinators are designated by UNESCO's National Commissions. Head teachers, teachers and students lead activities in the individual member schools.

Just as international networks may operate at varying levels to support education through school improvement, they may also influence governance, including a move to multi-level governance, with actors operating at different levels through links that are dynamic and fluid.

The Open Method of Coordination (OMC) of the European Union, of which the ET2020 Working Groups are a product, also constitutes an international network, providing a “soft mode” of governance to “steer policies”. The OMC has the potential to contribute to convergence in policy areas in which consensus has been difficult to achieve, and has been applied in areas such as employment and migration.
The logo of the ET2020 Working Groups is a tree, which is a type of network structure.

Trees are also connected in nature by an underground fungal network that helps to share nutrients and other chemicals. Research is investigating how plants communicate with each other in order to increase their chances of survival.
CASE STUDY 1: Cross-border networks of schools: European Council for Steiner Waldorf Education (ECSWE)

GUIDING PRINCIPLES

1. Goals; 4. Role of different actors; 5. Capacity-building of actors

About the network

The organisation brings together Steiner Waldorf school associations from 28 European countries to report on important organisational, political and legal developments in the member countries, to exchange good practice and to coordinate joint activities and advocacy around shared goals, including: 1) holistic education fostering all human capacities, 2) age-appropriate and development-oriented media pedagogy 3) school autonomy, e.g. freedom of curriculum, pluralism in assessment; 4) freedom of parental school choice; 5) public funding for independent non-profit schools.

The European office collates surveys and domestic reports and facilitates meetings of national representatives. Across the network, schools (712 as of 2017) within and across countries work on joint projects and support each other by sharing good practices, including network conferences.

Developing the network

It is nearly 100 years since the first Steiner school was established. The mission of the European council is to support genuine Steiner Waldorf education and promote human-centred and independent education in Europe. ECSWE note that ministries seem to increasingly outsource problem solving and policy-development into networks that distribute leadership vertically and
horizontally and thus ensure shared ownership and shared accountability. This is of particular interest for their own school movement that has worked in networks for many decades already.

In return, Working Group members have identified the inner diversity and transnational character of ECSWE as a particular strength. This diversity allows ECSWE to draw on a broad range of expertise and knowledge that could have an even greater impact by further strengthening the peer learning dimension of the network.

**Challenges**

Whilst organised around the shared vision of a holistic and human-centred pedagogy, ECSWE faces the challenge of catering to the needs of a very diverse membership in terms of, for example, geography; local culture; the legal and political environment; the status of independent education within a given country; and the level of public funding. To what extent the members of the network (can) play an active role is determined by finances and human resources, the level of commitment to international cooperation and the awareness of mutual challenges. Promoting peer learning between national associations and cross-border mobility of Waldorf teachers may address some of these challenges and expose national representatives and teachers to diverse forms of advocacy, school leadership and pedagogical practices.

A further consideration is how ECSWE could best contribute to bringing the ET2020 Working Group Schools outputs into national and EU-level policy making via its existence as a cross-border network. For ECSWE, the question remains as to what extent the voice of stakeholders at a more local level is making a difference in policy making. Certainly, the degree of freedom to experiment might permit parts of the network to explore and pilot alternative pedagogical approaches in cooperation with ministries and this ‘offer’ might in turn strengthen relations between the network and policy makers.

“It was interesting to see that ministries increasingly outsource problem-solving and policy-development into networks that distribute leadership vertically and horizontally and thus ensure shared ownership and shared accountability. This is of particular interest for our school movement.”

From ECSWE Peer Learning Activity Report

**Possibilities for future development**

ECSWE recognise that both national and cross-border networking is heavily dependent on the willing engagement and self-identified needs of actors at local level as a first step. Capacity-building of actors to then work as effective ‘critical friends’ and communicate both horizontally and vertically is also of particular importance.

http://ecswe.net/
Nikola Tesla (1856-1943) was a world-famous physicist, engineer and inventor.

There is a museum dedicated to his life and work in the centre of Belgrade, Serbia.

The principles of his alternating current (AC) induction motor and wireless electricity transmission highlight the challenges in generating strength and communication across networks.

As appeared in the Electrical Experimenter, May 1919
4.2 Supporting national policy development and implementation

At national level, networks can provide an important role in policy formulation and testing. They offer utility both as a source of innovation, and as a means of subsequently disseminating good practices and ensuring their diffusion across the education system at all levels\(^{xii}\). In an OECD study, Hopkins\(^{xiii}\) concluded that networks for policy and practice innovation are most effective when certain conditions are present. These include: consistent values and focus; a clear structure and impact on learning; supporting knowledge creation, utilisation and transfer; clear leadership and empowered participants; and, adequate resources.

Involvement of a wide range of stakeholders is important, including teachers, school leaders, network initiators and managers, consultants, researchers and evaluators, as well as policy makers. E-communication can provide a means of rapidly sourcing feedback from diverse interest groups at different levels of the system. Such communication can be either ad hoc, or managed via more longstanding networks. For example, the National Council for Curriculum and Assessment (NCCA) in Ireland regularly uses online consultation process to inform policy development. A recent instance in 2017 involved gathering feedback on proposals for a primary curriculum in Education about Religions and Beliefs (ERB) and Ethics.

National policy networks typically involve a combination of formal engagement with schools and other key stakeholders, to consult on priorities of national interest, and more open dialogue, exploiting the potential of networks for policy makers to ‘listen’ to schools, educators, and other key stakeholder groups. The permanency of these networks invariably reflects their goals, ranging from longstanding forums to connect otherwise disparate parts of the system, to time-limited pilot projects of an experimental nature, with the purpose of bringing stakeholders together outside of the constraints of educational hierarchies and providing time and space to problem-solve and innovate.

Box 2: National Policy Networks

In Switzerland, Schoolnetwork21 (réseau d’écoles21) is a standing network of 1,850 schools with a history of 20 years. It aims to foster sustainable development within schools, covering topics ranging from human rights, to health promotion and environmental sustainability. The network is funded by the ministries of education and health, and the cantons, and coordinated by foundation trusts. Through this model, the ministry is able to support schools to achieve policy priorities from some distance, facilitating access to many CPD resources and toolkits.

In Portugal, the National Pilot Programmes for Pedagogical Innovation and Curricular Flexibility aim to provide additional freedoms to school clusters – rather than networks - to work collaboratively to develop localised solutions to policy issues. Grade retention (year repetition) has been identified as a particular challenge in Portugal, as it is correlated with Early School Leaving (ESL). The pilot format offers schools flexibility, while maintaining accountability. In total, six school clusters have been selected for the pilots, with monitoring and feedback of results to the ministry.
CASE STUDY 2: Making new links across closed networks for professional and institutional development: Croatia

GUIDING PRINCIPLES


About the networks

The Ministry of Science and Education in Croatia has established networks of County Council leaders to carry out and coordinate the tasks of professional development of teachers, educational school experts and principals in accordance with the Institute of Education's program of professional development of teachers, teachers, associates and principals.

1. The network for general subject teachers and principals is managed by the Education and Teacher Training Agency with 4 regional offices, each facilitating the work of sub-networks of county council leaders.

2. The Agency for Vocational and Adult Education facilitates the network for vocational subjects teachers (engineering, health care, tourism), each with multiple programmes.
**How it is being developed**

The use of networks is currently under development. The new Strategy of Education, Science and Technology has identified the most important areas of improving educational institutions as including raising the level of institutional autonomy and accountability; establishing mechanisms of cooperation; and ensuring specific training for actors working with particular special education needs and talents.

The ministry’s approach is to combine the adoption of new regulations with the establishment of specific support networks for these key areas. The ministry are seeking to motivate stakeholders at local and national level to get involved in education system development projects. They have identified the potential to utilise these two distinct and hitherto ‘closed’ networks - within general education and Vocational Education and Training respectively - to consult with country councils and school leaders on national policy reforms. Their principle concern is whether the introduction of autonomy will be successful in a highly centralized education system.

Particular strengths, as identified by other Working Group members, are the use of established networks as a basis for further development and the key steps taken by the ministry to have a public consultation on their proposed changes with the realisation that one set approach does not necessarily work for all actors in the system.

**Challenges**

A particular challenge is to seek ways to connect the general education path to the vocational path and to link across quite closed (subject-specific) networks to facilitate cross-curricular peer learning. Another challenge in making new connections with existing networks is to link schools with other actors in the system and do this on topics of mutual interest, for example VET institutions with industry or school leaders with regional and national authorities.

Furthermore there is the question of how to empower school clusters and encourage local teachers’ and principals’ networks to initiate or be part of the process of change in education. This may include revising the way public consultation is organised.

**Possibilities for future development**

The many islands along Croatia’s coastline present an additional challenge for professional networking and general connectivity.
It is the intention to further explore the potential within and across networks to develop cross curricular links as part of the new Strategy. This will include targeted support to build the capacity of actors who manage networks and may also include targeted funding.

CASE STUDY 3: Targeted support to curriculum teaching and learning: Greece

GUIDING PRINCIPLES


About the network

In Greece, the ministry has funded a network of Environmental Education Centres (EECs) since 1990 to function as learning and training organisations, raising students’ awareness and training teachers on environmental issues, and embedding environmental education within the secondary education phase. Students’ training mostly takes place at EEC buildings and the programmes they attend last from one to three days. EECs define their annual topics and inform schools about them. They also upload teaching material produced to their websites, making it accessible for all schools and teachers.

A review of the centres highlighted that, despite performing a key role in addressing national policy objectives, the EECs were not always well integrated with networks of schools. The ministry aims to link the EECs more closely to national curricula and to establish closer synergies at all levels of the system – national, regional, institutional, and teacher-to-teacher.
MINISTRY OF EDUCATION, RESEARCH AND RELIGIOUS AFFAIRS
REGIONAL EDUCATION DIRECTORATES
(establishment, funding, approval of programs / activities, staff secondment)

ENVIRONMENTAL EDUCATION CENTERS (53)
- learning/training organizations
- aims at raising students’ awareness, and training teachers on environmental issues

PEDAGOGICAL GROUP
- pupils’ training
- teachers’ training
- production of instructional / training material

Primary and secondary education school units

Environmental NGOs, HE institutions and other education actors

LOCAL GOVERNMENT
(infrastructures, additional funding, local environmental culture)

Image source (above and opposite): Peer Learning Activity case study presentation
How it was developed

The legal framework for the establishment of EECs was created in 1990 (law 1892/90) aiming at initiating environmental education into secondary education. The first EEC was established in 1993 and today there are 53 Centres (balanced geographically) operating within the country. They constitute a decentralised public education structure for Environmental Education which functions as a network between the Ministry of Education, Research and Religious Affairs, the Regional Education Directorates, the schools, the local government/communities, higher education institutions, and NGOs.

The Ministry is responsible for their establishment, funding (partly), and approval of the EEC programmes and activities, as well as for providing the necessary staff (secondment of public primary and secondary education teachers). The local government can request the establishment of EECs and provides additional funding and infrastructure. The EEC staff form a pedagogical group responsible for pupils’ training, teachers’ training and the production of instructional/training material.

Some of the EEC network's particular strengths, as identified by other Working Group members, are the equity of access and the ability to provide 'teaching in the field', along with supportive material.

Challenges

There is a desire to identify ways in which the EEC network can help build a more established collaborative culture amongst teachers and link the centres more efficiently to schools in a mutual (rather than one-directional) relationship, assuming that this increased collaboration will lead to better learning outcomes for students. An added challenge – or positive outcome – would be to further involve teachers in policy making in this area.

Possibilities for future development

An institutional framework may be the most useful tool to: enable schools to produce annual development plans which would then help to create a closer linking of environmental activities to curricula; involve a larger number of teachers/students in the activities; enable schools to provide feedback to EECs with their suggestions; and initiate the collaboration of school teachers with the EEC staff. Such an institutional framework could also help to redefine EECs’ role, transforming them to centres that mainly focus on sustainability, which would broaden their thematic work, attract a larger number of teachers/students, and would adapt EECs’ function to the current challenges building on their existing outcomes.
4.3 Developing national and regional structures of governance

Educational networks exist at all geographical scales, and the connections between them and distribution of responsibilities are fundamental to their effectiveness and their sustainability. The role for national policy makers can be more or less directive, depending on the goals of the network.

The division of responsibilities within networks is strongly influenced by the structure of national education systems\textsuperscript{xiv}. There has been an overall trend towards the devolution of responsibilities for school improvement within European countries, described in the literature as ‘lateral capacity building’\textsuperscript{xv \textit{\&} xvi}, in which key relationships are established on a horizontal basis and often reside at a local level. Multiple school accountability requires local mechanisms to establish a sense of community, which are often highly contextually specific\textsuperscript{xvii}. Nonetheless, vertical relationships, including between school and district, and between sub-national and national tiers of government, continue to play an important balancing role. As Fullan concludes: “...too much intrusion demotivates people; too little permits drift, or worse”\textsuperscript{xviii}.

The ongoing \textit{OECD School Resources Review (SRR)} examines how school networks support quality and efficiency at different levels. What the evidence from these country reviews suggest is that while governance arrangements are particular to each country, \textit{regional networks} can help to strengthen both autonomy and efficiency of municipalities and schools. While there are few empirical studies on managerial networks, a study by Meier and O’Toole\textsuperscript{xix} analysed performance of 500 U.S. school districts found that “more networking in more directions” enabled managers to reduce rigidity of their organisations, and to thus to take greater advantage of the available resources within the system.

\textbf{Box 3: Strengthening regional and sub-regional educational governance}

\textbf{Estonia – network potential identified by external evaluation}

\textbf{Estonia} has a highly decentralised school system, with many small schools, creating barriers to efficiency. The independent OECD school resources country review concluded that networks provide a way of overcoming these barriers, for example by: clustering of schools with one school providing leadership and managing the budget; sharing of resources among neighbouring schools; or creating regional networks to improve management of resources. For any of these options, network-level coordination and planning should involve all stakeholders in resource management decisions\textsuperscript{xx}.

\textbf{United Kingdom(England) – development of a regional and sub-regional infrastructure}

In the \textbf{United Kingdom(England)}, there has been a trend towards decentralisation within the school system, accelerated by the conversion of a large proportion of secondary schools into Academies (publicly funded independent schools) since 2010\textsuperscript{xxi}. This process has seen increased school autonomy, within a dual system of maintained schools and academies, and a
reduced role for local authorities\textsuperscript{xxii}. Recognising the challenges presented, the Department for Education intervened in 2014 to introduce a new tier of governance: Regional School Commissioners (RSCs), to facilitate a more coordinated approach towards school improvement at a regional and sub-regional level. This arrangement has been aligned with a policy to encourage the clustering of schools into Multi Academy Trusts (MATs)\textsuperscript{xxiii}, supported by a Regional Academy Growth Fund (RAGF). As with other countries, therefore, the regional level has provided a focal point for network and resource management.

\textbf{Italy - School reform law 107/2015}

In \textit{Italy}, national legislation was passed (Law 107/2015), creating the possibility for schools to share resources and to undertake joint activities falling within their respective School Development Plans. The Law envisages networks as organisational structures including schools, local authorities and other private and public bodies, which are functional to inter-institutional relationships in a given territorial area and can tackle common educational issues together. In addition to that, the Law constitutes a new model of shared governance between autonomous educational institutions, subject to the signing of a specific agreement defining the nature of the collaboration. In this context, school networks are “\textit{forms of aggregation of school institutions around a shared project}”. The implementation of the Law has reportedly created a conducive environment for new initiatives to promote social inclusion at a local area level (particularly tackling early school leaving, and supporting migrant students) and to pool resources for training and curricula.

A common theme to emerge from different educational networks across Europe is the importance of creating a 'moderating' or 'mediating' role – whether this is located at the intersection of different geographical scales, or between different overlapping networks. In \textit{Sweden} (see Case Study 5), the five regions provide a natural axis for local and national decision making, with regional coordinators performing a key role in this respect. Similar regional network coordination arrangements can be found within \textit{Norway} (see Case Study 4) and \textit{Finland} (see Case Study 7), albeit operating within different policy and legal frameworks.
CASE STUDY 4: Regional networks for local implementation: Norway

GUIDING PRINCIPLES


About the network

The national government has decentralized the decision-making on how to use grants for Continued Professional Development (CPD) for schools and teachers to local networks. The aim is to stimulate local ownership and make sure that funds are used in a way that respond to local needs.

There is a core network of County Governors convening at national level with the involvement of the Directorate of Education and Training. Each Governor facilitates a co-operation forum with regional networks, the local university, teacher associations, the association of municipalities and local businesses.

Counties organise themselves in different ways, but in one example, there are 4 regional networks, each with 5-6 municipality administrations. The municipality networks are made up of the heads of schools in that municipality plus teacher association representatives and local businesses.

How it was developed

Initially a government White Paper was introduced, covering early intervention and quality. It represents a new model for locally-based competence development of school staff. The funding of school education is national but the model is based on local ownership of participation. The funding goes into a forum involving the municipality, regional school owners (upper secondary), local higher education institutions, and other partners.

Implementation is still in the early stages, and there remains a strong need for the national level to offer guidance and assistance to the local level. At the same time, feedback from the local level
changes the implementation process. These insights have illustrated to all participants that it takes time to establish a shared vision and understanding when trying to achieve a balance between the network as a tool for implementation of national policy and the need for local involvement and ownership.

Some particular strengths of the network, as identified by other Working Group members, are the adjustment of needs to the local context; a sense of collective responsibility; and the accompanying incentive to participate.

**Challenges**

The current focus is how to create mutual commitments for all the participants in the network; how to involve other stakeholders; and how the national government can support the networks in becoming actual 'learning networks'. The peer learning process highlighted that networks can act as the point of balance between national and local actors, and their aims and needs. Networks can serve as arenas to discuss and form a shared vision, but also as a way of giving feedback to the government, if several local actors come together. It also highlighted that a network should not necessarily sustain or remain unchanged when conditions change, the network should probably change too.

A crucial question is whether the network is functioning in its own right or as a structured way of implementing a new strategy. For Norway, this shift from using networks as a tool to functioning on their own after some time is certainly desirable.

**How can we achieve balance between the network as a tool for implementation of national policy and the need for local involvement and ownership?**

**What are the necessary conditions (research, experience) for networks to sustain after the kick-off period is over?**

![Bottom-Up Approach](image1.png) ![Top-down Approach](image2.png)

**Possibilities for future development**

Feedback from the networks will help to evaluate progress and future needs: if the strategy contributes to equity, and whether certain regions and/or certain themes of competence building should be targeted.
CASE STUDY 5: First steps in using an established regional network for new teacher professional development policy action: Sweden

GUIDING PRINCIPLES

4. Roles of different actors; 5. Capacity-building of actors; 6. Cross-sectoral working

About the network

Whilst Sweden has already established a network to support school development, it is now looking to utilise and build on the same structure in order to take a systematic approach to Continued Professional Development (CPD). The ministry understands that sustaining cooperation between all levels will be crucial in enabling schools to operate as effective learning organisations within a decentralised educational system.

Whilst the broad interest is how to implement and valorise policy such as Continued Professional Development through networks, the primary concern at policy level is to better understand and establish the main roles and responsibilities of the national authorities, local authorities and higher education institutions.

How it was developed

The Swedish National Agency for Education had already established its network of 5 regional coordinators, which has now grown to 17. Each coordinator is responsible for a network of municipal school providers and linked to a university. The coordinators meet 3-4 times per year with training and an annual conference. Funding for coordinating the network is provided yearly to the coordinators along with extra funding for school development.

A particular strength, as identified by other Working Group members, is the use of an established network and the approach of using the sub-network coordinators as an important reference group.

Image source: Peer Learning Activity case study presentation
Challenges

A key challenge is to establish networks with a broad representation of stakeholders as a way to facilitate vertical and horizontal discussions in order to develop and prepare policy initiatives that are better anchored. The Ministry also recognises the importance of taking actions to support a shared vision and a successful implementation of new policies.

A crucial feature of this collaboration is the “mediating level” between "top down" and "bottom up" approaches, as well as the way in which networks can develop through cooperation with other networks.

Another challenge is ensuring adequate input in terms of financial resources, network actor training or support in some other form.

Possibilities for future development

Sweden has a number of ongoing committees of inquiry in the field of school education and will implement new policies due to the outcomes of these. Further consideration and discussions, and exploring the results from these inquiries, will need to take place before the role of national authorities, local authorities and higher education institutions can be defined.
Other examples can be found at a sub-national level. In Belgium (French community), each province has an educational adviser ("accompagnateur de direction") overseeing networks of schools to support their development, while the pedagogical advisers in Serbia (see Case Study 9) perform a similar role in facilitating horizontal exchanges of practice between schools within the SHARE network (although the network types and purposes are very different). In Amsterdam in the Netherlands, a voluntary network was established between educators from primary schoolboards. In this instance, the network activity was initiated by the university. The group meets five times a year and exchanges information on relevant development, informs each other about CPD activities, and gives feedback on each other’s induction programmes. The involvement of the university ensures a direct link to academic research.

The need to achieve a balance of representation from different interests, and geographical coverage, is a common challenge for education networks across Europe. In Slovenia, for example, the involvement of secondary schools in national development projects has considerably out-paced primary school involvement. Similarly in Bulgaria, the school clusters have evolved in a very organic way in the context of a highly devolved system without a national organisational framework. While this has helped to set a school-led agenda, it has resulted in gaps in coverage at a regional level, with the ministry seeking to provide support to adopt a more coherent and systematic approach. In countries where this regional tier of network coordination is better established, some ministries have taken – or are planning to take – steps to implement large scale national educational programmes in a systematic and coordinated way. The work on teacher professional development in Sweden (Case Study 5) provides one such example.

### 4.4 Connecting schools for school development

Having mutual support among schools has a long precedent within educational policy and practice, and the benefits of doing so are well documented within the research literature.

The concept of the ‘School as a Learning Organisation’\textsuperscript{xxiv} explicitly perceives one school as part of a network with other schools – so enabling co-construction of educational progress, as well as nesting individual schools within a supportive framework of governance, higher education institutions, parents and guardians and the local community. Similarly, professional learning communities view individual teachers as part a broader network of professionals with shared concerns.

The notion of a ‘self-improving’ school system highlights the importance of finding sustainable local solutions for network development. Hargreaves\textsuperscript{xxv} identifies four building blocks of self-improvement: capitalising on the benefits of school clusters; adopting a local solutions approach; stimulating co-construction between schools, and expanding the concept of system leadership. A school-to-school approach takes on particular significance within highly decentralised education systems.
“The need for lateral school-to-school partnerships has become apparent in the face of evidence that neither top-down centrally imposed change nor pure competition and marketisation can achieve sustained improvement across school systems”

Research has shown that school-to-school networks can have an important positive impact on educational quality, and ultimately on learner attainment. A large-scale longitudinal study covering 43 school districts in nine US states found that collective leadership\(^{5}\) at both the school and district levels were associated with higher student achievement\(^{xxvii}\). These networks frequently involved local community groups and universities. Research in California found that those districts which had taken steps to build trust and support professional learning communities, schools (including those in sanction) were able to make more strategic use of systematic assessment and data analysis, and ultimately to improve student learning outcomes\(^{xxviii}\). In another example, a study of 200 schools which formed professional learning communities for reading teachers in an urban district in Texas found statistically significant improvements in student achievement, while teachers perceived a positive impact on student learning\(^{xxix}\).

In Europe, a variety of strategies have been adopted to support the development of communities of practice within school education. The role of national policy makers within these networks can be observed to vary considerably, but typically conforms with one of two broad approaches:

- **Enabling or facilitative** - arms-length support to school networks that have developed organically, such as through the provision of infrastructure to support collaboration; and,

- **Directive or interventionist** – using policy directives or programmes to tackle educational underperformance via peer learning between schools, and/or ensuring that high performing schools have a clear mandate to transfer their skills and expertise to others within the system.

In **Cyprus**, the now well-developed system of primary school networks was initially conceived by primary school inspectors, who recognised the benefits of networking among school principals within their group (each group consists of 15-20 schools). The model was subsequently recognised by the Department of Primary Education of the Ministry of Education and Culture which introduced a policy of supporting these networks in a more structured and planned way in order to include both networking among schools and professional/teacher learning communities. The development of these networks and learning communities should be based on the various learning needs of schools and teachers.

The ‘Lighthouse’ project in **Finland** (see Case Study 7) is a further example of an initiative underpinned by a spirit of bottom-up, school-led innovation. The project takes the form of a

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\(^{5}\) Collective leadership refers to the extent of influence organisational actors and other stakeholders exert on decisions.
“loose developmental network”, which is supported by the Finnish National Agency to encourage goal-oriented development and experimentation at a school level. The network membership is entirely voluntary and includes schools with varying development needs, with no implied hierarchy. Lighthouse projects sit outside of the more formal national development networks for school education but serve as a potential test bed.

In other instances, central government has taken a more directive role in reorganising school networks to optimise their efficiency and effectiveness. The TEIP school clustering model adopted in Portugal (see Case Study 8) is one such example, whereby wholesale legal and structural reforms were identified as a solution to raising educational standards and providing a more equitable use of resources at a municipal level.

A horizontal model of school-to-school support for improvement is being fostered with funding incentives in some European countries, including Latvia (see page 39). In Ireland, the new School Excellence Fund (SEF) is an innovation of the Department of Education and Skills which will enable schools to apply for funding to implement innovative programmes which are context-specific and aimed at improving learning outcomes. In particular, the SEF will encourage schools to work collaboratively with other schools in clusters and new or existing networks to encourage peer learning and sharing of experience. The funding will also support links with local businesses and academic institutions. Ten clusters are proposed in the first phase (announced November 2017).

The SHARE project in Serbia (see Case Study 9) provides another example of a more formalised horizontal model of school improvement. In this case, high performing schools are matched with their counterparts for whom specific development priorities were identified through external evaluation (the school inspectorate). This model has operated for a number of years, with some promising results, and priorities identified for future development.
CASE STUDY 6: Transition from one structural leadership to another: Catholic Education Flanders

GUIDING PRINCIPLES

4. Roles of different actors; 8. Impact, quality assurance & evidence

Catholic Education Flanders is one of the largest networks in Belgium’s landscape of schools and their school boards. They are moving from working under the auspices of the Flemish bishops to an organisation with a board of (elected) governors, each of them real employers in education, members of school boards all over the country. The Flemish case is special because the Ministry of education does not ‘govern’ schools. All schools have ‘independent’ school boards.

They see a need to (re)define and expand the role of school boards, also in relationship to the competences they pass on to the school leaders. They wish for them to self-supervise the ‘collective efforts for quality improvement’ which they are implementing in every school. Inspired by other peer learning countries, they might consider the creation of school development teams as a means for quality assurance in every school where the school leader(s) can act as change agents.
CASE STUDY 7: Supporting learning and cooperation between innovative schools: Finland

GUIDING PRINCIPLES


About the network

The ‘Lighthouse’ project is a national, developmental network that aims to: a) support and increase common learning and cooperation between schools in regional and national level; b) encourage goal-oriented development and experimentation, and c) help to share the new pedagogical approaches and innovation as a result of developmental actions.

The network comprises 6 regional sub-networks. It has 8 different groups of participants (pupils, families, schools, research universities, professional organisation and partners, local businesses, local and national networks, and international) and 10 current development themes, include technology, leadership, and learner well-being and motivation.

How it was developed

The network was launched three years ago to support municipalities strategic planning, national development of basic education and the introduction of the new core curriculum. At the beginning, 100 schools were involved; now there are more than 250. Due to its success, two more networks were launched: one for cooperation in Early Childhood Education and Care and one for Upper Secondary education.
There is no money offered to the schools; the network is based on cooperation and network actors supporting one another. The ministry understand that a bottom-up approach is important; that all of the innovations are based on the developmental needs rising from schools, teachers and pupils. Schools then make their own development plans according to those needs.

Some of its particular strengths, as identified by other Working Group members, are the establishing of robust evidence from 3 years of trials; the trust invested in local actors; and the achieved continuity and flexibility between national goals and municipal and school interests.

**Aim of the network**

Enables common learning.

Works as a structure for cooperation.

Encourages to goal-oriented development and experimentation.

Helps to share the results of the development actions.

**Challenges**

The Finnish ministry are still working on improving the means to support the creation and sharing of innovations via networks.

Whilst the primary outcome of the networking can be developed, the ministry also recognise an opportunity to better understand and improve the network functions and processes as a model within school education governance. Even if the different sub-networks are separate from each other, at a local level the actors are part of the same broad community. Therefore there is a need to add and support cooperation between networks especially at the regional level.

Finally, there is also a challenge to support the development and innovative capacity of schools that are not in the network.

**Possibilities for future development**

Attention in the future will be in three areas. First is to consider the processes involved so far and the possibilities of creating a model. This model may then have the potential to be used in subsequent multiple networking and innovation projects later on.

Secondly there is a need to support cooperation between different networks, potentially through local meetings.

A third possibility is to launch an evaluation project to gather the learning during the lifespan of the network for future development.
CASE STUDY 8: Multi-level networks as part of a national programme to support schools facing specific challenges: Portugal

GUIDING PRINCIPLES


About the network

The Priority Intervention Educational Territories Programme (TEIP) is an educational policy measure to promote inclusion through the support of schools and school clusters located in the most disadvantaged / challenging regions. The programme calls for a preventive, sustained and networking action with the community, in order to promote a good school climate and the educational success of/for all students, to combat school drop-out and to strengthen the relationship between the school, family and the community. It has also been the basis for the negotiation of additional resources.

The programme is supported by a set of networks that go beyond the internal organization of the school clusters and their relationship with local communities. Schools Clusters and non-grouped Schools in Portugal are organized in a way to develop continuous professional development activities. Presently there are 91 Schools’ Associations Training Centers (CFAE-Centro de Formação de Associações de Escolas), located in one of the associated schools, which provide ongoing training to associated schools, TEIP and non-TEIP, through the development of continuous training plans based on the needs identified in each school.

The Directorate-General for Education, in charge of monitoring and evaluating the EPIPSE-DGE programme, has taken a multi-level approach through the organization of national, regional and local meetings to promote networking between teachers, technicians, middle and top leaders, families, critical friends and institutions of higher education.

How the network was developed

The programme had its first edition in the mid-1990s and was relaunched 10 years ago. One of the main objectives was to create the conditions for the schools, which shared the same territory and, as such, the same challenges, to create a common educational project, and to benefit from a joint Pedagogical Council and additional resources to act in conjunction with the community. In 1998, this experience gave rise to a new law...
on autonomy, organisation and school management that enabled the creation of 'Schools Clusters', a model that currently prevails in Portugal in public education and whose principle is organisation and networking.

In 2014, the TEIP Schools were challenged to operationalise their educational projects by developing strategic multiannual improvement plans, based on guidelines and a training framework created at the central level/administration. This inspired the governance model of a new 2016 National Plan for the Promotion of School Success (PNPSE-Plano Nacional de Promoção do Sucesso Escolar).

Furthermore, the TEIP schools themselves, following a suggestion from EPIPSE, began to organise informally as 'micro-networks', to develop joint training courses/continuous professional development (CPD) aimed at their professionals and to discuss problems and share solutions. There are also the networks created by 'critical friends' who work with more than one TEIP School or cluster and networks created by higher education institutions, which support more than one TEIP School or Cluster.

The ministry sees the programme as an example of what it means to be networked, to be organised in a network and, above all, to be supported by a network. Identified strengths by Working Group members include: the multilevel support that the network model is able to provide for TEIP schools; the shared goals of the TEIP schools which help strengthen the network connections; the structure which supports a relationship between policy makers and the critical friends of the schools; and the generating of useful data via the biannual school reports.

Challenges

The ministry is currently rethinking the future of the TEIP programme and how, in the next 4 years, it can be an effective inclusive educational policy measure - promoting the educational success of all children and young people from disadvantaged backgrounds, and capable of differentiating the support to be given to schools depending on the diversity of the target groups, on a sustained basis, based on networking and on a predominantly preventive action. Their two key questions are: What other kind of actors / stakeholders can be involved on the networks? And What other different ways exist to create supportive networks?

Prevailing challenges include: giving voice and listening to what significant other actors have to say, especially the families and students; engaging community actors who can strengthen the link with the environment, such as representatives of Local Authorities and Social Security; and the disclosure of practices.

Possibilities for future development

As the network and TEIP programme are one entity, the next Improvement Plan is able to focus on certain elements to address the challenges. Actions may include:

- establishing local support teams (including HEIs) for school clusters facing particular difficulties;
- seeking continuity between schools development plans and municipal educational plans;
- promoting training courses to improve the peer learning competence of teachers and trainers;
- involving specific community actors in local and regional meetings.
CASE STUDY 9: Horizontal learning between ‘high’ and ‘low’ performing schools: Serbia

GUIDING PRINCIPLES

About the network
The SHARE project focuses on the development and verification of a program of horizontal learning and implementation among schools based on the networking of the teachers between schools. High performing schools mentor and provide support and capacity-building for schools with poor performance which have been identified in external evaluations. The aim is to improve quality in specific areas of school work and life.

SHARE project is a joint project of the Institute for Education Quality and Evaluation (IEQE), Ministry of Education, Science and Technological Development (MoESTD), Centre for Education Policy (CEP) and UNICEF. The programme has been successfully been implemented in 10 pilot schools which, in reference to the external evaluation of school quality results, did not achieve a satisfactory quality level in the past.

How it was developed
The project was financed and managed on a national level with the aim to improve teaching and learning in particular schools.

There are positive trends in the quality improvement of the schools which participated. The external evaluation conducted after the implementation of the program, showed that nine out of ten schools demonstrated an improvement of quality scoring a higher grade on the external evaluation compared to the previous evaluation report. Although the programme was designed to improve teacher and learning, in most schools there was an improvement in six out of seven areas of quality, but the most significant changes were in three areas: teaching and learning, ethos, organization of work, and leadership.

Image source: Peer Learning Activity case study presentation
Challenges

There were some challenges during the pilot process such as a lack of a culture of sharing/reflecting in schools (reflective practice is not developed within schools), lack of “critical friend” in schools. Low-performing schools were so weak that they needed large-scale capacity building in order to be able to “absorb” learning and exposure to best practices. On other hand, even high-performing schools had poor capacities to identify, reflect on and share their own best practices. Additionally, the lack of financial resources for schools decreased the mobility of teachers.

Throughout peer review and reflection some perspectives were changed in order to meet the priorities of (a) enlargement, and (b) sustainability.

(a) In connection to the expansion of the network, the Share Project plans to be implemented horizontally in the secondary education sector as well. The PLA discussion contributed to the consideration of the possibility of networking of the schools vertically through the education sector, such as linking preschools and primary schools or primary and secondary schools. Also, the network expansion may involve changing the way of networking: instead of the criterion of school performance (which is not always appropriate) a thematic approach could be taken.

b) The sustainability of the network during the PLA workshop identified the necessity of maintaining teachers' enthusiasm and providing financial means to cover the cost of their mobility. In order to recognize the enthusiasm of the teachers, it has been recommended to formally introduce “the award of excellence” to schools participating in such activities and dissemination of good practice. It is possible to encourage local governments to finance and take responsibility. However, not all local governments are in the same position as for financial and human resources. Therefore, a combination of the support from the national level in individual parts of the country and the encouragement of municipalities to take responsibility and provide funding where possible is the right solution for the establishment and sustainability of SHARE.

Possibilities for future development

The priorities in the future are the expansion of the Share network and creation of conditions for sustaining the SHARE network. Possible action for this support includes:

- Building capacities of practitioners for support of low performing schools to improve their quality through cooperation with peers/networked schools.
- Expanding the SHARE network in primary education.
- Introduction of the SHARE network in secondary education.
- Developing the mechanisms for financial support for schools networking.
- Recognising the SHARE project schools as a model of excellence.
- Awarding grants to selected schools for hosting, teachers’ mobility and building capacities.

It is feasible to involve other important stakeholders in the project such as parents and students through the Parents’ Council and the Students’ Parliament or the Youth Office. Since these activities require cross-sectoral cooperation that can be a challenge itself. Therefore, the plan for their involvement will be subsequently drawn up.
4.5 Connecting teachers for professional development

Teacher social and professional networks can support collective learning and innovation, and help to address the risk of professional isolation among individual teachers. A distinction can be drawn between social hubs that are, essentially, secure spaces in which those with shared interests in education may collaborate, and professional networks, which are more specialised, and help communication within or between professional associations or membership bodies. There is a justification for both types of network, and many points of crossover between them, but their respective strengths and limitations should be acknowledged in the context of school development.

Box 4: “ECEC and primary education” Network (Austria)

In 2013, the Austrian Ministry of Education launched a national development project with the dual aim of strengthening continuity in early language learning, and improving the cooperation of schools and kindergartens to support learner transitions. The project was supported by regional educational authorities and teacher training colleges, and was implemented via a network of 79 participating schools and 100 kindergartens.

The network was formally evaluated, and the experiences had an important impact on the education reform process in 2015/16. This legislation included in particular aspects of sharing information and cooperation between schools and kindergartens, increasing organisational and educational autonomy and a coherent approach to improve the quality of language learning.

The members of the network also played, and continue to play, a decisive role in the implementation of the reforms. Each of the key stakeholder groups has a unique role to play:

- The regional educational authorities became part of a steering body that guides and monitors the overall implementation.

- The teacher training colleges have developed special formats to support school-based training in their regions and continue with newly established research foci on elementary education, transition and continuous language learning.

- The participating schools and kindergartens play an indispensable role as models of educational innovation.

- The scientific support accompanies the systemic implementation process.

The paradigm of co-operation is, step by step, reported to be replacing linear responsibilities and actions within the Austrian education system, and contributing towards stronger cooperation between kindergartens and primary schools, and more effective transitions for children.
The drive towards evidence-based teaching has led to the emergence of networks designed to facilitate the sharing of data and ideas among teachers, university researchers and others involved in education, for example the Research Schools Network, Evidence Based Teachers Network and the Evidence Based Education network in the United Kingdom (England). These developments, while laudable, highlight the potential tension between scientific and democratic control over educational practice, and the need to consider how best to quality assure the outputs from teacher-initiated networks.

A mixed methods approach was used for a 2015 study on teacher networks in district and charter schools in Philadelphia, in the United States. The study found that this teacher social network was important for developing teacher expertise, increasing job satisfaction and persistence, and that there were demonstrable benefits for the school climate.

In Slovenia, a project-based approach has been piloted with a considerable degree of success. This is supported by the National Education Institute of Slovenia (NEIS), who provide input from pedagogical consultants and facilitate project-specific networks on topics ranging from literacy and numeracy development, to assessment methods and other aspects of pedagogy. These networks are time limited, and combine vertical and horizontal accountability mechanisms.

In Latvia, a state-initiated measure ensures additional financial resources for state gymnasiuims and special education institutions to operate as regional support centres. For gymnasiuims, this status is linked with teacher professional development and curricula, and for special education institutions it is linked with inclusion. As part of this mandate, these schools are required to organise professional development opportunities with other types of schools, and schools from other regions, as well as between individual teachers, to share and broaden their professional experience. As such, there is an element of compulsion to the model, although this is matched with financial resources.

In Italy, funds for in-service training are allocated through the Regional Education Office to individual schools that act as lead schools (School reform law 107/2015). The lead school organises initiatives and activities around a theme of interest for in-service training thus developing a network of teachers working in different schools that share knowledge and experiences.
CASE STUDY 10: Using networks for school management and teacher learning within national education projects: Slovenia

GUIDING PRINCIPLES

About the networks
In Slovenia, 'project development teams' in basic and secondary schools develop and implement solutions and best practices obtained and evaluated through various projects, such as e-Competent School, Empowering Learners through Improving Reading Literacy and Access to Knowledge, and Assessment for Learning.

For example to ensure sustainability of the literacy project (2011-2013), thematic sub-networks were created in which teachers were organised according to the areas, which were successfully developed within the project. The aim of each network was to promote continued professional growth, expand the knowledge and experience within school collectives, develop good practice in the field of literacy, and help pupils to raise the level of reading literacy. Pedagogical consultants (from NEIS), teachers and experts offered support to schools in the different priorities areas (such as reading and writing techniques, motivation for reading, formative assessment).

Image source: Peer Learning Activity case study presentation
How the networks approach was developed

Initially, School Development Teams (SDTs) were established to create a supportive environment for implementing changes, to promote learning and continued professional growth, and support school leaders in school development planning. The positive experience with establishing SDTs in the process of implementing changes in general upper secondary schools led the National Education Institute of Slovenia (NEIS) to establish new project development teams in basic and secondary schools focused on specific educational issues. The intention is to launch SDTs in all levels of education, not just in upper secondary schools.

A particular strength highlighted in examining this case study is the intended involvement of all schools, and especially the fact that after the funding stopped, schools kept the teams because they saw their value. The national support for the peer learning of teachers, promoting their communication and confidence, is also positive. Nevertheless, there is a strong desire to improve strategies for increasing the “critical mass” of teachers who then cooperate with SDTs and thereby ensure the implementation process at ground level.

Supporting horizontal learning, building a positive school culture, and disseminating best practices via teacher collaboration are all recognised as part of the network activity that can have impact.

Challenges

Key challenges for the Ministry and the Institute are to focus on is the head teacher’s role in the SDT: to strengthen their involvement and ownership as well as include students and parents in the process. In the past parents had been excluded from the process of implementing changes, which is perceived as a weakness of the project networking. The challenge is to find the right balance or level of involvement and to define their role to boost the efficiency of the School Development Team.

Another challenge is to find ways other than just funding – past the initial investment - to keep the networks alive and proactive.

Possibilities for future development

European Social Fund-projects will continue to trigger the process of development work in schools with the help of pedagogical consultants and experts. However, the intention is to focus more on teaching and learning – on the process of networking activity- in addition to the structural organisation of actors.
Holmes notes that online interactions through social networks that are free of bureaucracy allow teachers to talk more freely about their feelings. Over time, teachers may build communities of trust, reciprocity and shared values. When teachers combine online learning with application in their own classrooms, and are able to see benefits, they are often more willing to invest time in the network.

On an international scale, eTwinning, part of the Erasmus+ programme, provides a forum in which all those working in schools, including teachers, head teachers and librarians, can collaborate, develop projects and participate in an international community of practice. Cooperation is encouraged at the levels of both school and individual teachers. eTwinning now has over 500,000 registered users, and involves nearly 180,000 schools. It has been endorsed by the education authorities in a number of Member States, including those such as Italy, who have afforded a method of formal recognition.

Other countries have sought to support teacher peer education through more formal policy networks, initiated by government. In Poland, the Platforma Doskonalegniewieci was established in 2013, as part of a project aiming to support schools and community centres to implement the new national teacher development programme. The project achieved a significant scale, engaging 6,000 schools and kindergartens from 160 districts, and was supported by an online platform.

From: Guidance on Web-Based Professional Networks for Vocational Teachers (Education and Training Foundation 2017); a review of a number of virtual professional networks in Europe.

1. Repository platforms serve to store and distribute materials: typically, they are supported by the ministry or a national agency, and they have top-down architecture and management.

2. Actuality platforms focus more on topicality and innovation. They may be top-down or they may also take the form of market place where teachers may quickly find novel practices and earn royalties by creating their own lessons.

3. Community platforms serve a reasonably well defined group of users with a focus on interactive communication. Usually a group or association of teachers will have initiated them and they are typically managed in a distributed manner.

A virtual network or web-based network is organised according to a set of on-line services (enabled by Web 2.0) which permit or enhance the communication, learning and collaboration of a group of people. Virtual networks can enhance and extend face to face networking, because they make communication over distance and across time cheap, easy, flexible (both synchronous and asynchronous) and rewarding. They help to sustain communication over time and they can serve to intensify, focus, amplify, multiply and extend interactions. A virtual network can encourage synchronous and asynchronous exchanges,
facilitating one-off, just-in-time, or sustained communication, storing information and eliciting emotional and personal commitments.

Virtual networks - and associated platforms operating as the tool - have particular relevance for education professionals. A virtual platform can support the emergence of a ‘virtual community of practice’ which, in turn, can increase trust and improve the quality and quantity of co-working and, in this way, enable a profession to work more collectively and more effectively. A virtual network can take the form of a unified and integrated set of e-services, called: a virtual or web-based platform. It is also possible for a virtual network to take the form of distinct but inter-connected applications for e-mail, chatting, file-transfer etc. In most cases, virtual platforms are used together with other applications, social media and e-mail.

Community and institutional platforms benefit from the trust and engagement that has been created in face to face meetings and then carried into virtual encounters. However, this relatively strong sense of community may work against the membership becoming very large. The different functionalities may be offered through face-to-face, virtual or blended network:

Platforms can add value to physical events, making it easier to access presentations and materials and to follow up conversations or collaboration. Platforms can serve to extend face-to-face training, linking it with mentoring, peer-learning and thus have more influence upon instructional practice. Usually, however, linkages with CPD are organised through social media or through other platforms operated by the CPD providers.

In Spain, the central administration supports a number of online communities, which enable teachers to share resources and to communicate. The Web Procomún is one such example. The promotion of such networks is consistent with Spanish education policy, which stresses

4 The term social media is understood to refer to a type of internet-based application that permits users to create user-profiles and to upload and share content. Social media can serve as the vehicle for a virtual professional network (e.g. a professional Facebook group) or they can be ‘plugged in’ to a virtual professional platform in order to enhance its functionality.
the importance of teacher cooperation, while recognizing that the national administration has no competencies on schools.
CASE STUDY 11: Online platforms to support teacher cooperation: Belgium (Flanders)

GUIDING PRINCIPLES


About the network

‘KlasCement’ is a peer-to-peer Open Educational Resources platform for teachers. The main function is to operate as a repository for teaching materials and lesson plans, uploaded and shared by users. It lists information on training courses and logged-in users can search for other members to collaborate with. There is also a discussion forum.

The moderation of uploaded material consists of checking if the resources do not consist of fundamental factual errors and if copyright laws are followed. There is no moderation on pedagogical criteria, and no value claims are being made by the moderators or the ministry.

How it was developed

It was founded almost 20 years ago by a teacher and has evolved into a network of more than 100K members and almost 50,000 resources. With the network growing, careful steps were needed to define appropriate levels of intervention by the Ministry, and to empower teachers to share content within an appropriate legal framework.

The Flemish Ministry of Education slowly invested more and more resources into it: in 2002 funding a part-time teacher to moderate the educational resources until it was brought into the ministry with a professional team of 20 part-time posted teachers and IT developers.
Some of its particular strengths, as identified by other Working Group members, are the large number of users; the taking on of the large administrative burden by the ministry; and the taking responsibility for publishing standards and improving the online functions.

**Challenges**

With the increasing involvement of the government a perception has developed of government interference in the resources themselves. Due to the strict moderation on copyright, barriers for sharing were also increased, raising the question as to how to keep involving and facilitating the use of the platform and the sharing of educational resources. Although government intervention has created a stable and safe environment for the network, where funding is secured, it has also created a tension between what users want and what policy makers could to with user information.

Rapid technological changes and the emergences of other, often private, social networks have also raised questions of the role of the platform and whether it should be making other offers to teachers through different networking functions such as discussion forums.

KlasCement has grown organically into the network it is today, but it is clear that the needs of users have evolved too and the way the ministry sees the network may not be the same as user perceptions. There is a desire to investigate if their goals are still valid and if the network is still organised in the most effective and efficient way to reach those goals.

### Key questions

- **How can we keep facilitating and stimulating the participation of teachers in OER-networks?**
- **How do we ensure that KlasCement is responsive within policy development but also to the needs of the teachers?**

*Image source: Peer Learning Activity case study presentation*

### Possibilities for future development

The ministry aims to now engage with the most active users (key network actors) as ‘ambassadors’ for the online network and take steps based on their views and expertise. By doing this they hope to take away part of government label of rubber-stamping that the network has for some teachers and to stay responsive to their needs.

[https://www.klascement.net/](https://www.klascement.net/)
4.6 Multi-stakeholder networks targeting specific groups of learners

While education policy and practice networks in education are invariably concerned with schools, school leaders and teachers, it is important to consider the roles of a much wider and more diverse set of key stakeholders within the system. The concept of multiple stakeholder accountability has gained increasing prominence in educational discourses, including in the work of the OECD. As Hooge argues, horizontal measures involving a range of stakeholders can significantly enhance and strengthen vertical measures of regulatory and school performance accountability, to address the full range of school improvement objectives within increasingly complex education systems.

Multi-stakeholder networks also offer enhanced scope and capacity for meeting the needs of specific populations or learners with additional needs, as ‘inclusive systems’ geared towards learner development. As such, they are a common feature of programmes developed to meet the needs of disadvantaged learners, such as those at risk of Early School Leaving (ESL), migrant and minority ethnic groups, and learners with special educational needs.

Box 5: Examples of multi-stakeholder networks for specific groups of learners

The Drop-out network and Central help desk in Antwerp city in Belgium supports both students and schools. Students who are frequently absent from school are referred to the Pupil Guidance Centre. The Centre in turn may seek support of the Central Helpdesk, which is at the centre of a network (the Antwerp City Council, Antwerp Education Council, school administrations, Pupil Guidance Centres, Social Welfare Services, Youth Services, the Police force and the Justice Department). The Helpdesk will help to tailor services to the needs of early school learners or those at risk.

The School Completion Programme in Ireland enables local communities to develop tailored strategies for learners at risk of early school leaving. A Local Management Committee (LMC) which brings together representatives of schools, parent and other local voluntary and statutory services to make decisions on project management and govern local resource use. The network arranges appropriate supports for learners to improve access participation and outcomes.

In the United Kingdom (England), the Department for Education and Department of Health jointly funded a Mental Health Services and Schools Link Pilot Programme. In total, 22 local partnerships were selected, bringing together clusters of schools, health services, and voluntary sector partners, to develop a ‘whole system’ approach towards improving mental health support in schools. An independent evaluation found that the pilots were successful in establishing trust between professionals; developing more coherent pathways, and identifying and referring students at an earlier stage. Multiple stakeholder accountability was a key success factor.

In 2014 the Iceland Ministry of Education, Science and Culture published a White Paper on educational reform. One of the main targets set in the paper was to raise reading literacy levels and the ministry identified specific goals such as increasing curriculum time for literacy,
ensuring schools set a literacy policy, and convincing parents/guardians of the importance of reading. In order to initiate action towards these goals, a network was set up by bringing together the state, local authorities and stakeholder organisations. A national campaign was carried out which involved the Minister of Education making an agreement with every municipality in the country on how to work together towards the goal. The role of the National Parents Association in drawing attention to the importance of reading literacy is recognised as having been influential.

In Latvia in 2017, the ESF project “Prevention of and Intervention to Early School Leaving” started for the purposes of reducing early school leaving among children and youth. It is implementing preventive and intervention measures in 665 educational institutions for pupils in grades 5 to 12 of general education institutions, as well as for pupils of years 1 to 4 of VET institutions and general education institutions which implement VET programmes.

The project promotes the establishment of a system of sustainable co-operation between municipality, school, teachers, support staff and parents in order to identify at-risk learners in a timely manner and provide them with personalized support. Teachers are given opportunities to professionalize and strengthen skills for working with young people. A database will be created, which will ensure regular exchange of information at state, local government and school level of pupils at risk of early school leaving, together with preventive measures and their outcomes.

Beyond pilot programmes and projects, many countries have taken measures to review and strengthen governance arrangements at a municipal level to ensure that schools are networked with a full complement of support services to meet young people’s needs. Multi-disciplinary teams and cross sectoral networks are now fairly well established across Europe, and have been the subject of previous research xxxviii.

‘Early Help Hubs’ in the United Kingdom are one such example of multi-agency locality clusters, which support joint planning and information sharing between schools and other youth and community services, and which play a key role in safeguarding and child protection. In Portugal, the ministry has taken measures to review how best to systematize the links between the TEIP school clusters and municipal social services representatives, to facilitate a joined-up approach, while in Slovakia the March 2015 Act on Vocational Education and Training (61/2015) requires that employers participate actively within the dual system of secondary school education, to strengthen links with the labour market and to ensure a breadth of VET opportunities. Some 1,450 employers and 7 professional associations are part of this network at a national level.
At a local level, individual teachers/schools often search for solutions all independently. By accident they may meet and a partnership has born with two or three school(teams) who start experimenting. At some point, the partnership is noticed by the authorities and gets the chance to develop as local authorities may provide a more structured and extended shape leading to the formation of a network. Each partner tends to add their part of the puzzle and the teachers and/or schools start learning from each other.

There is a contrast between ‘vertical’ networks, that tend to be hierarchical or institutionalised (e.g. school networks and councils) and ‘horizontal’ networks, which may be characterised as peer-to-peer and small scale and include: learning networks; networks for innovation; networks to support work preventing students dropping out; networks for the labour market and networks for the integration of newcomers. A variety of stakeholders might be involved: school principals and staff; contact persons and coordinators; teacher training institutions; the ministry; the city or municipality; unions.

There are a number of requirements for any facilitator of a network that is created from partnerships and that is working on particular aspects of learner development. These include: trust building and maintaining a balance of benefits; supporting the process as well as the structure; and keeping the goals clear and focused given that the learner group needs may be diverse.
The challenge in such facilitation (see graphic above) is the potential for chaos in the connections. There is a risk of overloading demands on the actors and competing with all other ‘important’ issues in school education as well as the wider community. A possible temptation, with such increased connectivity, is also to use this access to schools as a way of engaging with and affecting learners’ behaviour in increasing ways.

Nevertheless, there are two clear possibilities for using such networks with a positive outcome. The first is learning lessons from ground level whilst also actively helping specific groups of learners directly:

The second is having an impact from the local level on national policy making:
5. Reflection: practical steps to the effective use of networks

5.1 The purpose of networks in school education

With education systems presenting ever greater complexity in the context of globalisation and digitalisation, and decentralisation and school autonomy, there is a keen interest in networks as a way of supporting the interactions between key system actors, and as a tool for harnessing this connectivity to achieve defined educational goals.

As we have discussed throughout the report, networks are both a pre-condition for well-functioning education systems, and a policy lever for managing interactions between different educational sub-systems to achieve greater equity, efficiency and quality. They can be permanent structures, or a function of temporary ‘experimental’ stages in policy development; formally or informally constituted; centrally managed and directed, or operating on the basis of consensual decision-making across multiple stakeholders. Networks have a special set of characteristics that are not always present within more conventional educational hierarchies.

A priority for the Working Group was to establish when and how best to harness the potential of networks within different educational contexts, but also to understand the potential benefits and challenges of doing so, drawing upon examples from across Europe. In the previous sections of this report we identified broad types of networks and reviewed the evidence from research alongside the contributions of Working Group representatives to consider how they have been put into practice, and with what results. Across these diverse examples, three broad types emerge, which policy makers may consider when reflecting on their own use of networks: as policy or practice incubators; as a tool for educational governance; and as a complementary and participatory entity.

**Networks as policy or practice incubators** – across many European countries, it is apparent that networks provide a way to test and experiment; often in the context of pilot projects or initiatives, and with specific issues in mind, such as tackling school under-performance, Early School Leaving, or supporting the educational inclusion of newly arrived migrant children. These networks are typically, but not always, time-limited in their nature, and rely in the suspension of ‘business as usual’ to create the conditions for innovation, whether this is in the form of regulatory exemptions, additional funding, or the provision of extra staffing or infrastructure.

**Networks as a tool for educational governance** - a further set of networks reviewed through the Working Group concern accountability and resource management at different levels within the system – both vertically (national, regional and local), and horizontally (between schools, and with other key stakeholders at a defined scale). These networks have more explicitly spatial dimensions, concerning the evolving geographies of national education...
systems and the actors within them; the levels at which leadership is distributed, and the relationships between formal and non-formal networks and interest groups.

**Networks as a complementary entity** – a final set of networks stand out as being more explicitly ‘bottom-up’ in their nature, evolving at some distance from national policy-making on an entirely peer-to-peer basis between schools or teachers, or in some instances in an oppositional or compensatory role to address perceived shortcomings in national policy or funding. These networks can range from more formal networks of independent schools - developing in a negotiated relationship with national government and within the legal parameters of different national education systems - to informal teacher social networks and resource-sharing platforms.

### 5.2 The role of different actors

Given the purposes described above (5.1), in many of the network examples considered for the report, the role of government was primarily **facilitation**: maintaining a balance between regulation and financial responsibilities on the one hand, and creating spaces for teachers, schools and other key stakeholders to take an active role in testing and innovating on the other. Repeatedly within the examples reviewed by the Working Group, networks were found to be based upon establishing trust and equity; capturing participants’ intrinsic and extrinsic motivations, and clearly articulating the benefits of the time invested. The most effective networks adopted a self-critical approach – periodically reflecting upon their value and relevance, and making adjustments as necessary to keep pace with political, social and economic changes.

The report has also highlighted the evolving sets of **competences** required for educators operating within a networked environment. At their most rudimentary level, networks concern connectivity between different social actors, and as such they require the ability for empathy and self-reflection, and an openness to inter-cultural learning. The examples reviewed by the Working Group also highlighted the need for specific roles within different types of networks, however, and underlined the importance of systems leadership – whether residing at a national, regional or municipal level, or in the context of school systems. The regional scale emerged as being particularly significant for networks aspiring towards national coverage, and some countries were in the process of scoping the optimum role for regional authorities in mediating between national and local priorities.

Finally, the examples in this report underline the importance of **monitoring and evaluation**. While many of the networks presented by the members of the Working Group demonstrated promising results and were potentially innovative their context and processes, comparatively few have yet to be independently evaluated and able to demonstrate more tangible impacts. The international research literature includes many more examples of educational networks that have been rigorously evaluated using ‘strong’ research designs (including the use of quasi-experimental methods). Evaluation may seem more difficult where networks are informal or emerging but should be equally encouraged. Further research and evaluation of
networks within European school education would seem to be a priority, to adopt a more evidence-informed approach in this area.

5.3 Guiding principles – a checklist for policy makers

From the network examples described in Section 4, the Working Group identified key challenges and possible courses of action in order to meet those challenges through the effective integration of networks within school education systems. These have been combined together with an extended version of the guiding principles (Section 2) to create a ‘checklist’ for policy makers, network leaders and other key decision-makers.

1. GOAL-SETTING AND SHARED GOALS
   a) There is a clear vision for the network which will inspire the cooperation of different actors, in the interest of school development.
   b) The network is focussed on clear and shared goals as the first stage in network development, to engage the appropriate actors and in an appropriate network structure, and to make sure the work benefits all involved.
   c) The shared goals are (or will be) regularly reviewed and redefined as the network evolves.

2. AUTONOMY, ACCOUNTABILITY & FLEXIBILITY
   a) Attention is paid to the decision-making capacity of different actors and their sense of agency and responsibility, in order to promote equity and shared accountability amongst network actors. [One tool may be a form of ‘contract’ setting out the network objectives, strategy and quality].
   b) There are mechanisms and time invested for policy makers to listen to the needs and feedback of schools - both inside and outside of the mainstream system - and regional authorities, and for decision-making by different network actors.
   c) Government involvement in networks recognises an appropriate balance of top-down support and recognition with bottom-up action or lower level horizontal working to ensure a positive sense of autonomy and accountability.
   d) There is flexibility within policies in order to encourage increased activity (exploration, collaboration, innovation) in networks; for example where freedom of choice of pedagogical approaches or within curricula encourages pilot projects to happen.
   e) Self-assessment - a process of critical reflection against a set of targets or expectations (for example when reviewing and renewing school development plans) - is encouraged to help identify or motivate new network actors; help existing members identify their own needs; and contribute to network development with an increased sense of ownership.

3. MOTIVATION & BENEFITS
   a) The network is situated in an open and supportive environment to provide a platform for supporting inter-school and inter-professional exchanges of teachers and pupils for school improvement.
b) The network actively balances different interests within and between different system levels where these do not detract from the shared goals.

c) Consideration is given to potential friction and competition between schools or other actors which can undermine the cohesiveness of networks. Steps are in place to manage and resolve conflicts where these arise.

d) Network activity is structured in a way that clearly demonstrate that the inputs (such as time or resources) are proportionate to the outputs.

4. ROLES OF DIFFERENT ACTORS

a) The network promotes cooperation between actors, in particular teachers:
   a) giving time and permission for dedicated activities; b) assuring recognition; c) giving them a voice and using that feedback; and d) assuring a climate of trust.

b) Actors are made aware of their role within the network, especially those in a key position to lead, moderate or evaluate activity or dissemination (as this may be different to their daily professional tasks).

c) Leadership is supported as an important factor in the network: both school leaders with multiple areas of responsibility and the effective distribution of leadership are important within networks.

5. CAPACITY-BUILDING OF ACTORS

a) Networking - as a part of a teacher’s collaborative competence - is introduced at the stage of Initial Teacher Education (ITE) and developed through Continued Professional Development (CPD).

b) There is both horizontal and vertical cooperation within the network, as well as between networks and the school education system more broadly. This may be supported by the use of digital technology.

c) Actors working as mediators between system levels are offered particular support, training or increased capacity to act and take decisions, compared to their daily professional tasks.

d) Targeted outreach is made with adequate support and resources to ensure that all schools that need to benefit from network participation can do so.

e) Care is taken not to overload particular actors or points with tasks or expectations - this will weaken the capacity to act and therefore the connections and the network as a whole.

6. CROSS-SECTORAL WORKING

a) The network is able to establish strong links between different sectors and stakeholders via i) identifying points of shared interest that resonate with individual or organisational priorities, and, if necessary, ii) aligning policy development cycles of different sectors.

b) The network is able to support evidence-based policymaking and practice by making connections between actor-led experimentation and collaborative project management, and communicating outside of the school community.

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5 This includes specific skills of peer learning, self-reflection and self-evaluation, resource creation and sharing (including OER and digital tools),
external pedagogical research, such as between schools and universities.

c) The intersections between networks at local, regional, national and international levels are identified and exploited as spaces for hidden innovations to be discovered, shared and replicated. These opportunities are enhanced where multiple networks overlap and different actors are well-connected.

7. NETWORK DEVELOPMENT
a) The network is both flexible and well-supported with resources in order to maximise its impact and enable innovation.

b) The timeframe of the network is carefully considered, recognising that networks may be temporary or more long-term. They may be emerging or shifting in form and purpose. They may exist as an initial phase of a broader or longer strategic plan, such as establishing and embedded a culture of collaboration. Networks may be established at the point of project planning in order to carry out that activity but may also make lasting connections of which project activity may be one part.

c) The development of the network is guided by the actors with ownership, recognising that more active / connected actors may be best used as ambassadors to strengthen, broaden or steer the development of the network.

d) It is understood that networks can inform decisions about the optimum distribution of resources across / within education systems, including the extent to which budgets are centralised or decentralised.

8. QUALITY ASSURANCE & EVIDENCE
a) Mechanisms for monitoring and evaluation are established in the life cycle as key to understanding the effectiveness of a network, including how or whether it has a) engaged the relevant stakeholders; b) stimulated the desired actions and behaviours, and c) achieved the desired results or outcomes.

b) It is has been considered if and how progress and outcomes will be measured, to establish a need for and define key indicators, and to decide how and by whom they will be measured.

c) Self-reflection and self-evaluation by all actors is established as key to the mutual and ongoing development of a network.

d) Appropriate data generated by networks are taken into account at both local and national levels of decision-making.
6. List of country and stakeholder examples

► Box 1: Examples of inter/transnational policy networks in a European context ........................................ 13

ETUCE (European Trade Union Committee for Education), ATEE (Association for Teacher Education in Europe), European Schoolnet, SIRIUS and UNESCO Associated Schools Project.

► Case Study 1: Cross-border networks of schools: European Council for Steiner Waldorf Education (ECSWE) ......................................................................................................................... 15

The organisation brings together Steiner Waldorf school associations from 28 European countries to report on important developments in the member countries, to exchange good practice and to coordinate joint activities and advocacy around shared goals.

► Example: NCCA Curriculum consultation (Ireland) .................................................................................... 18

National Council for Curriculum and Assessment (NCCA) uses online consultation process to inform policy development.

► Box 2: National Policy Networks .............................................................................................................. 18

Schoolnetwork21 (Switzerland) aims to foster sustainable development within schools, covering topics ranging from human rights, to health promotion and environmental sustainability.

National Pilot Programmes for Pedagogical Innovation and Curricular Flexibility (Portugal) aims to provide additional freedoms to school clusters and to work collaboratively to develop localised solutions to policy issues.

► Case Study 2: Making new links across closed networks for professional and institutional development (Croatia) .................................................................................................................... 19

State-initiated networks of County Council leaders carry out and coordinate the tasks of professional development of teachers, educational school experts and principals.

► Case Study 3: Targeted support to curriculum teaching and learning (Greece) ........................................ 21

State-initiated Network of Environmental Education Centres (EECs) functions as learning and training organisations, raising students’ awareness and training teachers on environmental issues, and embedding environmental education within the secondary education phase.

► Box 3: Strengthening regional and sub-regional educational governance .............................................. 23

OECD recommendation to Estonia and policy examples from United Kingdom(England) and Italy presenting networks as an opportunity to facilitate cooperation between various educational stakeholders and actors and to stimulate a more coordinated approach towards school improvement.

► Case Study 4: Regional networks for local implementation (Norway) ...................................................... 25

Networks of various local stakeholders create a co-operation forum and aim to stimulate local ownership and assure responsible use of the received grants.
Case Study 5: First steps in using an established regional network for new teacher professional development policy action (Sweden)

State-initiated network of regional coordinators aims to build a systematic approach to Continued Professional Development (CPD).

Example: Primary school networks (Cyprus)

System of primary school networks and teacher learning communities, recognised by the state and incorporated into the educational system.

Example: School Excellence Fund – clusters and networks to support innovation (Ireland)

School Excellence Fund (SEF) was established to enable schools to apply for funding to implement innovative programmes which are context-specific and aimed at improving learning outcomes.

Case Study 6: Transition from one structural leadership to another (Catholic Education Flanders / EFEE)

Network of schools aiming to (re)define and expand the role of their school boards and the competences of school leaders.

Case Study 7: Supporting learning and cooperation between innovative schools (Finland)

The 'Lighthouse' project is a national network that aims to support and increase common learning and cooperation between schools, encourage goal-oriented development and experimentation, and help to share the new pedagogical approaches and innovation.

Case Study 8: Making new links across closed networks for professional and institutional development (Portugal)

The Priority Intervention Educational Territories Programme (TEIP) is an educational policy measure promoting inclusion through the support of schools and school clusters located in the most disadvantaged/ challenging regions.

Case Study 9: Horizontal learning between ‘high’ and ‘low’ performing schools (Serbia)

The SHARE project focuses on the development and verification of a program of horizontal learning and its implementation among schools based on the networking of the teachers between schools.

Box 4: 'ECEC and primary education' Network

State-initiated national project aiming to strengthen continuity in early language learning, and improve the co-operation of schools and kindergartens to support learner transitions.

Example: Evidence-sharing networks (United Kingdom(England))

Research Schools Network, Evidence Based Teachers Network and Evidence Based Education Network were launched to facilitate the sharing of data and ideas among teachers, university researchers and others involved in education.

Example: Financial resources for regional support between schools (Latvia)

A state measure providing funds for individual schools to facilitate cooperation between schools and individual teachers and their joint development.
Example: School reform law 107/2015 (Italy) .............................................................................. 40
A state measure providing funds for individual schools to act as lead schools, organising training activities and developing a network of teachers.

Case Study 10: Using networks for school management and teacher learning within national education projects (Slovenia) ............................................................................................................................................. 41
School Development Teams (SDTs) were established to support development and implementation of solutions and best practices, to promote learning and continued professional growth and to support school leaders in school development planning.

Example: eTwinning (Europe) ........................................................................................................ 43
eTwinning, part of the Erasmus+ programme, provides a forum in which all educational actors can collaborate, develop projects and participate in an international community of practice.

Example: Platforma Doskonaleniewsieci (Poland) ........................................................................ 43
The teacher peer education project aims to support schools and community centres to implement the new national teacher development programme.

Example: Web Procomún (Spain) .................................................................................................. 44
The online community aims to create a space enabling teachers to communicate and to share resources.

Case Study 11: Online platforms to support teacher cooperation (Belgium (Flanders)) .......... 45
‘KlasCement’ is a peer-to-peer Open Educational Resources platform for teachers, functioning as a repository for teaching materials and lesson plans, uploaded and shared by users.

Box 5: Examples of multi-stakeholder networks for specific groups of learners .................. 47
Drop-out network and Central help desk in Antwerp city (Belgium); School Completion Programme (Ireland); Mental Health Services and Schools Link Pilot Programme (United Kingdom (England)); Network to promote reading literacy campaign (Iceland); Prevention of and Intervention to Early School Leaving (Latvia).

Example: National network of VET schools and employers (Slovakia) .................................. 48
Act on Vocational Education and Training (61/2015) requires that employers participate actively within the dual system of secondary school education, to strengthen links with the labour market and to ensure a breadth of VET opportunities.

Case Study 12: From partnerships to networks in local settings (Eurocities) ......................... 49
Analysis of different types of networks of educational actors and stakeholders and the appropriate methods of facilitating them.
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