

# Building the technological European Community through education: European mobility and training programmes in the 1980s

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## Abstract

The Community Action Programme for Education and Training for Technology (COMETT) played a key role in paving the way for increased cooperation between the member states of the European Community (EC) in the field of education and in the promotion of intra-Europe mobility. In this article, COMETT is considered as a non-traditional education and training programme for solving economic challenges in the context of technological change that was focused on the training of a highly skilled workforce. The process of setting the agenda for COMETT is studied through an analysis of official EC policy documents and archival material from the EU's historical archives in Florence. Our analysis suggests that the challenge posed by new information technologies acted as a catalyst for a new approach to education governance that was based on closer cooperation between European universities and industry. Promoting intra-Europe mobility among highly skilled workers and students was a key part of the programme, which defined an economic and social strategy for Europe in response to technological change. Educational and social goals were secondary in the design and implementation of the COMETT programme, which, first and foremost, was motivated by the EC agenda to boost the competitiveness of European industry.

## Keywords

Education policy, Europe, student mobility, technological change, agenda-setting, competitiveness

## Introduction

The European Community's (EC) response to the introduction of new information technologies dates from the late 1970s. It reached major milestones in the 1980s with the launch of several EC programmes in the field of education and training and also the first Framework Programme aimed

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at research and development in relation to new technologies. Although unemployment was one of the most pressing problems in the member states, classical social policy approaches were not the focus of attention. Rather, the action programmes of the 1980s followed a new policy rationale, which put forward the idea that increasing the competitiveness of European companies in the context of technological change would, simultaneously, solve some of the most pressing economic and social problems in the EC.

In this article we argue that the changes in European education governance must be considered in this context. In contrast to previous research on European education policy developments, which points to the inherent logic of these changes, we propose to give more weight to the economic and technological context. In our view, the new information technologies acted as a catalyst to bring about changes that previously seemed unthinkable in a whole range of policy areas. Thus, the new education governance in Europe in the 1980s did not arise from an inner necessity or the special insight of powerful policy actors, but from the economic challenge of structural or technological change.

We will illustrate this point using the Community Action Programme for Education and Training for Technology (COMETT), which was the first substantially funded European action programme in the field of education and training. It was designed to promote closer cooperation between universities and industry and was launched in two phases between 1986 and 1994. COMETT was the starting point for a whole series of attempts to improve Europe's economic competitiveness, not only by investing in research and development, but also by investing in human resources. The challenge posed by the new information technologies contributed to both a single market policy and a new mode of education governance, which relied on national as well as transnational cooperation. Training and mobility were key issues in addressing the challenges, but Europe was lagging behind in these areas. Mobility in particular was considered an area in which other powers were leading the way. It was deplored that

Europe has not succeeded in creating the common market of ideas or the mobility of talent that exists in the United States [ . . . ]. Europe has neither the Continental market of America nor the common strategy of Japan, while the great social debate has so far been confined within national bounds (Commission of the European Communities, 1979: 5).

Structural change not only demanded new skills and qualifications, but also a more efficient distribution of them. As well as making education and training efforts more efficient, it also addressed the problem of economic imbalances within the EC.

Methodologically, our research focuses on the historical reconstruction of the emergence of education policies, whilst placing a strong emphasis on the economic and social context. In particular, we follow the process of agenda-setting. This approach requires the analysis of the EC's official policy documents and archival materials from the EU's historical archives in Florence.

The aim of our study is to shed light on COMETT, a rarely studied but pioneering programme in the area of education, by exploring its emergence and assessing its nature, objectives and scope. Against the background of the widely adopted view of education as a solver of social problems, we highlight that COMETT represented first and foremost a programme for dealing with economic problems through education. The traditional concerns of vulnerable groups were left behind, as COMETT was instead focused on the training of a highly skilled workforce. Our analysis focuses on how this non-traditional education and training programme was created and how it functioned to solve economic challenges in connection with the introduction of new information technologies in Europe.

This article is organized as follows. In Section 2, an overview of the state of research on the COMETT initiative is provided. Although the link between new technologies and COMETT has

been noted, researchers have only discussed its key role in paving the way for increased cooperation between the member states of the EC in the field of higher education. We argue that its emergence needs to be interpreted in relation to the EC's agenda for stimulating economic competitiveness. Section 3 presents methodology and sources. Section 4 offers some economic and social context and explains how this background enabled the specific form of COMETT. In sections 5 and 6, the empirical core of this study, we analyse the premises on which COMETT was drafted, its objectives, target and procedures. We demonstrate how the promotion of mobility formed a fundamental part of the programme, defining its economic and social strategy in the context of technological change. The final section provides a discussion and conclusion.

## State of the research

For decades now, international comparative research has shown great interest in the European initiatives targeting education and training (Field, 1998; Grek, 2008; Neave, 1984), and in view of the multitude of heterogeneous educational strategies there has been a real need for systematization. A wide range of measures and target groups have to be taken into account to obtain an overview of what was happening in the EC from the mid-1970s onwards (Rees, 1998). Furthermore, the great ambition and limited duration of the numerous programmes has made it necessary to take a closer look at their effects (see e.g. Ertl, 2003; Hake, 1999; Lasonen, 2009; Volker, 1998).

The various action programmes had different target groups and used different instruments to achieve their objectives. One type of European educational initiative was aimed specifically at increasing mobility. However, although the well-known ERASMUS programme has been the subject of several studies and its historical origins have already been well researched (Corbett, 2009; Feyen and Krzaklewska, 2013), the same is not true for the COMETT initiative, which was launched earlier. Although COMETT is usually mentioned in the context of the early action programmes of the 1980s (Bonnafoos, 2014; Kämäräinen, 2017), it has not been studied in detail. This is surprising, considering that this initiative, together with ERASMUS, has recently been interpreted as a 'watershed in the history of Community education policies and, to a certain extent, in the history of West European education policies' (Paoli, 2017: 146; see also Pépin, 2007). COMETT and ERASMUS, as unequal siblings, also have a firm place in the most recent official historiography of the EU. Here, they are regarded as 'forerunners of a new era' (Dujardin et al., 2019: 444).

This disregard for the COMETT programme in both comparative and historical research may be related to the programme's utilitarian and rather technical approach. It is situated less in the tradition of the Europeanization of education and is scarcely regarded as a means by which comprehensive European education governance could be achieved (Antunes, 2006; Carlos, 2012; Ertl, 2006; Souto-Otero et al., 2008), but is viewed rather more as being in the style of a technology and competition policy. Numerous historical studies have shown that education in the 20th century was often understood as a social problem solver (see e.g. Labaree, 2012; Smeyers and Depaepe, 2008). The fact that an economic agenda can be similarly regarded is the subject of this article. COMETT I and II were European initiatives aimed primarily at facilitating cooperation between universities and enterprises (Prosser, 1997; Schmeh, 1997; Skilbeck and Connell, 1996). Thus, the COMETT scheme belongs to a series of different approaches that were aimed at increasing the mobility of highly qualified workers in Europe to improve the competitiveness of companies (Barblan, 2002; Moschonas, 1998).

Like ERASMUS, the COMETT programme was driven both by an internal need for greater political integration and an external threat from competition in the field of information technology. COMETT in particular was developed, adopted and implemented at an incredible pace. The initiative focused solely on science and technology qualifications. From the perspective of the educational

experts, this not only reaffirmed their desire for stronger cooperation, but the new situation also moved liberal-minded actors to a more interventionist position in relation to educational issues (Neave, 1987). Furthermore, Corbett argued that COMETT, which clearly fell within the remit of the EC, was the gateway to the ERASMUS programme, which was much more likely to be perceived as falling outside the EU's field of jurisdiction (Corbett, 2009). However, Cino Pagliarello (2017) has shown that despite the initial consensus, a very heated debate that revolved around legal, organizational and financial issues arose with regard to the legitimacy of the COMETT initiative. In the end, the adoption of the initiative meant that in 1986, for the first time, a concrete and far-reaching agreement was reached on greater European cooperation in the field of education.

Based on previous research, we assume that the later initiatives would not have been possible without some political course-setting in the field of education (Corbett, 2005: 60–96; Johnson, 1999). On one central point, however, we deviate from the dominant narrative: we give greater weight to the economic context of the decisions made in the 1980s. From our historical analysis, COMETT appears as more than a gateway to the long-lasting ERASMUS programme and more than a mere 'European education space' (Grek and Ozga, 2010; Grek et al., 2009). Rather, we believe that the education policy programmes in the field of technology and science must be understood much more in the context of a European competitiveness agenda that introduced several national initiatives to strengthen the domestic industries in the member states of the EC. As Cino Pagliarello (2020) has argued, the emergence of a narrative that connected education with concern over the lack of European growth and competitiveness was able to raise the agenda status of education in the mid-1980s and was in favour of the EC taking ownership of European education policy. Our research shows that the emergence of a comprehensive paradigm of lifelong learning has a background in the history of digital change and, so far, this area has received little attention. The central political challenge that COMETT and numerous other initiatives faced was the advent of new information technologies that became increasingly prevalent from the late 1970s onwards.

## Methodology and sources

In this article we analyse the origins of COMETT, the first extensive and significantly funded EC programme in the field of education. In our view, the shift of attention towards education and training stemmed primarily from the global economic situation, particularly the technological advances, which involved the need to increase competitiveness in the field of new information technologies. We argue that a historical study of the emergence of a European education space must give much more weight to the context. This means that the analysis must go beyond treating European education governance in isolation. To understand the emergence of a European education space, the fundamental economic and technological policy decisions of the European institutions must be taken into account as well.

We focus on certain agenda-setting components such as the economic and social context, the policy actors involved and their official statements. We analyse the contextual elements that key actors selected to frame their policy proposals and note the dimensions that were emphasized as a result. According to Alexandrova's agenda-setting model, the extent to which a certain dimension is emphasized determines the degree of attention paid to multiple issues, that is, it structures the overall agenda (Alexandrova, 2016: 408–409). In more general terms, however, we are interested in discovering how the agenda was set and which broader problems it appealed to.

The emergence of COMETT can be regarded as an example of 'attribute intrusion', which 'means redefining an issue in light of the emergence of a dimension of policy making, which has previously not been considered relevant' (Alexandrova, 2016: 406). In this case, education was newly understood as an answer to an economic problem that had arisen because of technological

change. Whilst action by the EC in the area of education was only desired by some of the European and national actors, certain factors coincided so that a shift in the agenda occurred. Education and training as a policy field was now reformulated in a way that made it possible for the member states to cooperate and for the EC to allocate substantial funds to a programme that sought to solve a specific problem through a set of clearly stated objectives (Jones and Baumgartner, 2005: 69).

We demonstrate in this article that among the most relevant factors enabling the creation of COMETT were the advent of new information technologies and the need to develop a solid competitiveness strategy. Bornschie (2000) has described the corresponding mode of governance as 'technology corporatism', in which public actors and industry together caused huge shifts in the European political economy and, ultimately, made the single market policy possible. The normative context of these changes was science. Science seemed to justify the need for new competencies and huge investments in a new technology policy framework. In this way, it became possible to implement fresh approaches in policy fields such as education that it would have been impossible to introduce before.

In our study of the COMETT programme, we use a variety of sources, such as official EC documents, European Council decisions, communications from the European Commission, working papers, and reports, notes and letters from Peter Sutherland's cabinet, to trace the dimensions and issues that were emphasized. We also take the political, economic and technological context into consideration. The empirical analysis seeks to identify the salient issues in the discussions leading to the formulation of the programme, the framing of the programme itself and its implementation. The issues that were prominent in these areas are identified and discussed in the context of the period under scrutiny, that is, from the late 1970s to the mid-1990s. Finally, we contrast our findings with those proposed by previous research.

## **A window of opportunity for action by the EC in the field of education in the 1980s**

The 1970s and 1980s were marked by profound changes in the economies and social landscape of industrialized nations. The advent of the microchip led to rapid technological changes that affected virtually all sectors of the economy. The increasingly widespread use of microchip technology not only revolutionized industries, but also changed people's professional and private lives. The cost of communications was cut dramatically by the introduction of electronic methods of communication and new transmission techniques (satellites, optical fibres). As the power of large computers could now be condensed into a single microchip, the use of artificial intelligence became cheaper and more widely used to process electronic data and automate simple repetitive tasks.

A response addressing the implications of the introduction of new information technologies was already on the EC's agenda in the late 1970s. The Ministry of International Trade and Industry in Japan had successfully launched the Very Large Scale Integration (VLSI) programme in 1975. This encouraged large Japanese electronics firms to collaborate in research and development to reach the level of expertise needed to enter microchip production in the early 1980s (Peterson and Sharp, 1998: 68). Thus, European manufacturers were facing a double challenge in that they were losing market share to their counterparts in both the USA and Japan. Most high-tech capabilities in the European information technology industry could be found in large firms, which were embedded in their own national markets and not globally competitive (Peterson and Sharp, 1998: 212). Several European states recognized a promising way of enhancing the competitiveness of their information technology industry: emulating the Japanese model and promoting collaboration between firms and research institutions based on a cost-sharing agreement between industry and the government

(Peterson and Sharp, 1998: 70). At the same time and following a similar approach (Peterson and Sharp, 1998: 70; Sharp and Pavitt, 1998: 268), the EC's technology policy envisaged the creation of a 'European Technological Community' through the establishment of a number of EC programmes that would stimulate transnational collaboration in research and development with regard to new technologies. First and foremost, this strategy was motivated by the EC's agenda to boost the competitiveness of the European information technology industry (Peterson and Sharp, 1998: 211), and encompassed the launch of ESPRIT<sup>1</sup> (1984–1994), which was integrated into the Framework Programmes, alongside BRITE<sup>2</sup> (1985–1989) and RACE<sup>3</sup> (1990–1994). These programmes were designed to encourage collaborative, pre-competitive research and development projects between industrial organizations and research institutions from more than one member state. The projects were funded on a cost-sharing basis in which industrial participants were expected to bear at least half the total cost of individual projects. Starting from 1987, the second Framework Programme also included the objective of increasing the mobility of scientific personnel. The third Framework Programme (1990–1994) encompassed a specific section of activities in relation to 'human capital and mobility' and was aimed at improving the mobility and training of young researchers throughout the EC.

The EC's strategy in response to the challenge of new technologies consisted not only of an effort to increase its economic competitiveness by collaborating in research and technology development, but also a matching effort in the field of education and training to complement the technology policies. This would ensure that the European workforce could acquire the necessary skills within the given time period. The pressures of global trade and competition drove European countries towards 'knowledge economies' founded on highly developed skills and technology. New patterns of work and the introduction of new technology demanded new skills and qualifications on the part of the labour force. Within the EC, a mobile, highly skilled and versatile workforce with a European mindset was envisaged. This would help the European economy to regain its competitiveness on a global scale. Education was seen as the key area of action to bring about the desired change. However, it was another five years before a window of opportunity opened and considerable funds could be committed to a EC initiative in education to tackle the new technological challenges.

A two-fold drive for action by the EC in the field of education emerged from the challenges posed by the new technologies. On the one hand, the drive was related to the call for a social policy response in relation to structural changes in the economy. In the context of deindustrialization and the beginning of the post-industrial society, Europe underwent a profound economic, political and social transition (Therborn et al., 2011). The 1970s and 1980s saw the end of the post-war boom and persistently high rates of unemployment, especially following the oil crisis of 1973–1974. Within the European Commission, the need for a long-term labour market strategy at a European level was widely acknowledged (Commission of the European Communities, 1980), and the development of new information technologies promised good career prospects for those with the relevant skills and qualifications. From a social policy perspective, an EC programme for education could respond to the technological challenge by promoting new and innovative training schemes for the young unemployed with few qualifications, or workers at risk of losing their jobs because of economic restructuring (Commission of the European Communities, 1984: 15).

On the other hand, the drive for action by the EC also emerged from the concern that European industry and businesses were losing ground in global economic competition. Until the mid-1980s, the EC's education policy had been predominantly social and redistributive in character. However, by 1985, an explicit link between education and economic growth had been established in the EC's strategy to tackle the challenges of technological change, which indicates that its education policy was shifting more towards an economic orientation (Cino Pagliarello, 2017: 89). In the

EC's development of an action programme as a response to technological change, social policy problems took second place behind the main aim of boosting Europe's economic competitiveness by creating a highly skilled workforce. The issue of high unemployment was addressed only indirectly, as it was hoped that a more competitive industry would prosper and create more jobs:

The key to a sustained and substantial improvement in the situation of young Europeans is the resumption of job-creating economic growth. [ . . . ] Determined action to tackle unemployment will therefore be a top priority for the Commission. Extra employment will be sought through a policy mix that is more conducive to growth, and through growth that generates more employment than in the past. That demands not only a nucleus of technical specialists, but a broad spread of technological understanding and experience throughout the workforce. It also requires a much greater sense of European identity, particularly amongst today's undergraduates and graduates, who will be many of the leaders in the Community of tomorrow (Richonnier, 1985: 7).

From this perspective, the response to the challenges posed by the new technologies was aimed at meeting new skill demands, both in quantitative and qualitative terms. Therefore, EC efforts had to focus on closer cooperation between industry and universities in the area of education and training to ensure a better match between the qualifications offered and those demanded, and to avoid skill shortages that would hinder Europe's technological and economic development (Commission of the European Communities, 1984: 3–9). As far as the EC's response to technological and social change was concerned, the shift towards a more economically oriented education policy is illustrated by the fact that priority was given to the needs of business and industry with regard to the provision of adequate training for workers and the development of new technologies. However, the requests of trade unions, which emphasized the need to safeguard low-skilled workers, women and the unemployed, were marginalized (Cino Pagliarello, 2017: 126). In other words, the economic rationale took precedence over the social rationale in the call for a European education policy response to technological change.

At the same time, debates about a 'People's Europe' instead of a 'Traders' Europe' gained traction throughout the 1970s. Whereas the latter evokes the image of a bureaucratic economic union preoccupied with the vested interests of industry and businesses, and the technicalities of removing barriers to trade, the former was meant to re-brand the EC as a social and cultural union, which would be close to its citizens, respond to their needs and provide them with civic rights and 'tangible benefits in their everyday lives' (Adonnino, 1985: 5). The concept acquired official status in the 1980s, following the Fontainebleau meeting of the European Council in 1984 and the publication of the Adonnino Report in 1985 (Adonnino, 1985). The report called for EC policies and actions that would bring direct benefits to the people of Europe, for example, by enabling students and workers to study and find employment in any member state. In addition, the mobility of European students and workers would contribute to the creation of a European identity and mindset among the people and would, therefore, strengthen the EC as an economic and social community. Thus, the 'European agenda' played into both the economic and social rationale behind the EC's response to technological change. However, it can also be understood as a 'European' rationale in its own right, one that called for the EC to deliver an educational programme to strengthen it as a political institution independently of the economic and social rationales.

Within this framework of rationales for EC policy intervention, the promotion of mobility not only played a key role as a means of technology and knowledge transfer, but also increased the degree of social and economic cohesion within the EC. Transnational partnerships and networks in the field of education and training were seen as a contribution to regional development, especially in relation to member states and regions that lagged behind in the development and implementation

of new information technologies. Moreover, a mobile workforce was seen as indispensable because the new information technologies tended to create sectoral and regional mismatches between available and required skills (Commission of the European Communities, 1981: 9). Geographical and occupational mobility of workers was deemed necessary to address skills shortages and structural unemployment across Europe.

The French presidency of the European Council in the first half of 1984 was marked by Mitterrand's determined effort to relaunch the idea of Europe and promote a closer European union. In January 1984, the European Commission presented its communication entitled *Technological Change and Social Adjustment* (Commission of the European Communities, 1984), in which the university–industry partnerships (UITPs) were first mentioned. The concept would become an important part of the COMETT<sup>4</sup> initiative, because the backbone of the action programme from which most other activities stemmed was a European network of UITPs. The idea of promoting cooperation between universities and industry was endorsed by the Irish presidency in the second half of 1984, and it was proposed that a conference in Galway should be organized at the end of the year to develop further the idea of close cooperation between universities and enterprises in the area of education and training (Pépin, 2006: 114). When Peter Sutherland was appointed as Commissioner for Social Affairs and Employment<sup>5</sup> in 1985, he made it one of his priorities to seize the opportunity and quickly turn the conclusions of the Galway conference into action. A draft proposal for COMETT was developed, with close cooperation between DG V/C<sup>6</sup> and Sutherland's cabinet. At the same time, the EC's efforts to lift restrictions on the free movement of people, goods and capital within its borders took on a clearer outline. In June 1985, the European Commission under its then president Jacques Delors, published an action plan (Commission of the European Communities, 1985a) whose aim was to abolish all physical, technological and fiscal obstacles to free movement within the EC. Ultimately, this would result in the Single European Market. The Single European Act created a favourable political environment within the EC for initiatives such as COMETT, which were aimed at stimulating intra-Europe mobility by making it easier for students and workers to study, undergo a training programme or find work in another member state.

After a very swift and intense phase in which the COMETT action programme was designed, DG V submitted a first draft proposal to the European Commission in July 1985 (Commission of the European Communities, 1985b). This bold proposal included a budget of 85 million ECU which was almost 15 times the annual budget for all the activities undertaken by DG V/C (Pépin, 2006: 115). Even though the draft proposal met with a favourable response, France, the UK and Germany in particular, were opposed to such a large budget (Kirchberger, 1985). The proposal for the COMETT programme was based on both Article 128 and Article 235 of the Treaty on the Functioning of the European Union, which required unanimity in the European Council's decision. After lengthy negotiations, an agreement was finally reached in June 1986 and the European Council decided to adopt the COMETT action programme with a total budget of 45 million ECU (Council of the European Union, 1986).

## COMETT 1986–1989

COMETT was modelled on the Joint Study Programmes (JSP), a pilot scheme for intra-Europe mobility that had been established in 1976 as part of the first action programme in education to stimulate cooperation and exchanges between European universities. It provided grants for the joint development and implementation of study programmes by two or more universities from different member states. The JSP provided students with the opportunity to pursue part of their studies abroad at another university that was part of the programme. Initially, EC funding was provided for



costs involved in the joint planning and implementation of the programmes. Later, additional grants were offered to cover the cost of travel and accommodation for students and teachers (Teichler, 2007: 106). However, it was not until the mid-1980s when the Single European Act and the 'People's Europe' were on the political agenda that the EC started to allocate far greater funding to its action programmes in education and training. After its ruling in the Gravier Case concerning non-discrimination in access to vocational training (European Court of Justice, 1985), the Court of Justice had brought higher education within the scope of the Treaty on the Functioning of the European Union (Article 128 on vocational training) and paved the way for the adoption of far more ambitious EC programmes. COMETT was just the first of a number of education action programmes that provided substantial EC funds to encourage the mobility of students between member states and to foster cooperation between universities and enterprises in the field of education and training. It was quickly followed by ERASMUS and PETRA in 1987, LINGUA and EUROTECNET in 1989 and FORCE and TEMPUS in 1990. What these programmes had in common was their focus on fostering transnational and multilateral cooperation through the promotion of European networks, joint projects and mobility schemes.

COMETT was the programme most able to deal directly with technological change. The European Commission was convinced that the exploitation of technological developments throughout industry would depend on the 'versatility, skills and enterprise of the workforce' (Council of the European Union, 1986). The actions undertaken within the scope of COMETT were grouped into four strands. The first strand consisted of the development of a European network of UITPs. The UITPs formed the backbone of COMETT by organizing and administering the activities within all the other strands. In addition, the network provided technical assistance and was in charge of monitoring and evaluating EC-wide activities. Individual UITPs were expected to be well connected to and embedded in local structures so they could respond to specific training needs at a local, regional and national level and cooperate effectively with the relevant public agencies and organizations (Council of the European Union, 1986). In this way, the UITPs provided a strong link between that part of the COMETT programme that was centrally administered and the regionally differentiated needs and demands of industries and universities in the member states.

The second strand formed the heart of COMETT, which was essentially promoted as a mobility programme. Under this strand, specific incentives were put in place to promote transnational exchange between universities and enterprises. Grants were awarded to trainees and new graduates who wanted to undergo a period of training in an enterprise in a different member state. The fellowship programmes provided for the secondment of university staff to businesses, and business personnel to universities in other member states. The student placements in industry promised a range of benefits (Commission of the European Communities, 1992: 24). The extended links with economic life provided higher education institutions with feedback on employers' requirements in relation to study programmes to allow for a continuous refinement of degree courses and, thus, enhance employment prospects for graduates. For companies, cooperation with higher education opened up opportunities in the area of continuing education and training for their staff and granted them privileged access to qualified potential recruits. Students were expected to be better prepared for employment if they had gained first-hand experience of working life through industry placements during their studies. In addition, transnational mobility added a European dimension to their professional and academic development by enabling them to experience some of the social, economic and cultural effects of European unification. With regard to the completion of the internal market in particular, the EC intended to provide its future European workforce with the best possible training and instil in them a sense of European citizenship through the educational and life experiences they gained during their stay in the host country. Therefore, promoting student mobility within the scope of COMETT served the EC as a whole by providing it with 'a greater pool of

graduates with the right kind of experience required for the developing European labour market' (Commission of the European Communities, 1992: 24).

The third strand involved joint projects between universities and enterprises for the development of ongoing training courses related to the needs of high-tech industries in the EC. The aim of these training projects was the rapid dissemination of new knowledge and technology developments at a European level by continuously updating staff at universities and enterprises on the latest research and development in the field of new technologies. Similarly, the last strand provided funding for multilateral initiatives concerned with the development of multimedia training systems and an emphasis was put on the development of systems to train training officers and business staff using new information and communication technologies. Open and distance learning systems<sup>7</sup> were of particular interest because they provided staff with an alternative to having to travel to obtain access to relevant training in another member state. Because of the strong demand for support for ongoing training and multimedia training systems, a larger share of COMETT funds than was initially planned in the European Council's decision was allocated to these strands of action.

Although COMETT focused on technical disciplines, its activities were not restricted to technical fields. The introduction of new technologies profoundly changed patterns of work and resulted in organizational transformations that required managerial staff, business personnel and trade unionists alike to familiarize themselves with the social, health, management and other workplace-related aspects of the use of new information technology. It was argued that

in a highly technological age, managers must not only possess specialist skills but also have a broad appreciation of the economic, social and cultural repercussions of technological change [ . . . ]. Given the impact of new technologies on all areas of life, the training partnership between industry and universities should not be confined to engineering and information science. It should also embrace legal studies, economics and social sciences (Economic and Social Committee, 1985: 5).

Exchanges should enable students in the field of social sciences to familiarize themselves with the practical possibilities and limits of the new technologies. Conversely, those studying engineering should be given the opportunity to evaluate the social and economic aspects of their activities. Thus, training projects and exchange programmes from all disciplines, especially if they were interdisciplinary in nature, were eligible for funding under COMETT. The general criteria governing the selection of projects for support required that cooperation involved partners from both enterprise and university, and that project partners came from at least two different member states (Commission of the European Communities, 1987). Furthermore, projects should 'strengthen a European sense of identity' and fall within two distinctive areas of training. The first area encompassed the fields of technology, science and management that were related to the EC's priority areas for research and development activities. The second area was comprised of fields in which technological change significantly altered skill requirements or increased the need for combinations of skills or qualifications that were not sufficiently provided for at the time. In addition, projects were accepted in the second area if they dealt with the social implications of technological change, for example, health and safety, legal issues, industrial relations or occupational psychology. The European Commission expressed a special interest in training projects that addressed the new interdisciplinary skills required as a result of technological change, and in projects concerned with the training of trainers. With regard to the social policy agenda of the programme, the selection criteria determined that 'where scientific and technological quality is comparable, projects involving less-developed regions or regions suffering economic decline will be given particular attention' (Commission of the European Communities, 1987). In addition, projects relating to equal opportunities for men and women were to be examined with particular interest. However,

these criteria were merely guidelines and not prerequisites for the selection of projects. They did not specify or guarantee in any way the equal participation of vulnerable groups. The criteria did not mention the promotion of projects related to the needs and challenges faced by the unemployed or low-skilled workers. Thus, the selection of projects under COMETT was focused on the development of innovative training schemes to serve the needs of the economy, and was primarily targeted at creating a highly skilled workforce. Social policy issues such as the high number of unemployed young people and the particularly vulnerable position of women were not directly addressed.

From the outset, the funding for projects under the COMETT programme was designed as a match funding scheme, based on the idea of sharing 'the cost of introducing the European dimension' in university–industry cooperation (Sutherland, 1985: 1). The EC's expenditure on the different actions was matched by corresponding financial support from particular organizations taking part in the projects. This approach was innovative and experimental because it offered quite a restricted budget considering its ambitious goals. However, it resulted in very limited participation by industry because most projects were too much under the control of the universities and attracted insufficient interest and financial support from companies (Commission of the European Communities, 1989). Although the stimulation of transnational cooperation between universities was quite successful, the programme's output with regard to university–industry cooperation on a transnational level proved disappointing. Furthermore, the majority of projects concerned with the development of course materials and distance learning systems were not in line with the qualification needs of SMEs and, consequently, the commercialization of the results was deemed inadequate. Another problem was the fact that the benefits were mainly seen in the member states and regions of the EC that already had a basic infrastructure enabling a certain amount of cooperation between higher education and industry in the field of education and training in technology. Thus, the southern member states (Greece, Southern Italy, Spain and Portugal) were at a disadvantage when it came to developing and submitting successful applications for projects under COMETT.

## **ERASMUS and the second phase of COMETT 1990–1994**

ERASMUS, a second programme for education, was launched in 1987. This focused exclusively on student mobility. ERASMUS shared some of its objectives with COMETT, especially with regard to the promotion of intra-Europe student mobility to create a pool of educational resources for all member states to draw upon. However, whereas COMETT was concerned first and foremost with the development of education and training programmes to cater for the needs of industry in the face of technological change, ERASMUS was predominantly focused on the goal of stimulating mutual cultural understanding and a sense of common European identity across the EC. As Peter Sutherland put it in retrospect:

The ultimate objective [of ERASMUS] was the process of integration between Europeans rather than the purely educational advantages that it would give. The reality is that we needed to create a new attitude to the EU which we still need to do today. This requires young people to recognize a common cultural and value-based system the European countries share; and not to feel alien and different from others (Vaughan, 2016).

Despite the parallel development of another major mobility programme, student mobility remained a crucial part of the COMETT programme when a decision was made on its second phase (1990–1994) in 1988 (Council of the European Union, 1989). With regard to the proposal for a

decision on the second phase of COMETT, the Committee on Energy, Research and Technology expressed its satisfaction with the fact that student placements would remain with COMETT and would not be integrated in the ERASMUS programme:

The originality of the COMETT programme lies precisely in the fact that the students are offered not a study course but practical training, which enables them to gain not only a general knowledge of the host country but also to acquire or perfect their practical vocational expertise, to establish close links between their studies and their vocational training and thus have a better chance of following a particular profession in a Member State other than their own at a later date (European Parliament, 1988: 285).

The main strategic objectives of enhancing the EC's overall technological skill base and its economic competitiveness on a global scale were retained for the second phase of the programme. However, they were now more explicitly linked to the goals of completing the internal market and ensuring social cohesion within the EC. The Single European Market required increased mobility of skilled labour between the member states (European Parliament, 1988: 284). Thus, greater emphasis was put on cross-border UITPs and the ongoing advanced skill requirements in the leading technological fields. A stronger focus was put on the development of advanced technology training systems and on meeting the skill requirements of SMEs in particular, to achieve greater industry involvement. Moreover, a higher priority was given to project proposals that contributed to the development of less favoured and declining regions in Europe to allow for a more balanced participation in the programme by the different regions. This was part of the EC's aim of working towards economic and social cohesion throughout Europe, especially with regard to the completion of the Single European Market in 1992. An evaluation report of the first phase of COMETT had criticized the lack of systematic monitoring of the extent to which projects were located in less favoured or declining regions and, thus, were focused on equal opportunities. As a result, the report concluded that 'the COMETT programme has not made a major contribution to the advancement of equal opportunities' (Commission of the European Communities, 1992: 34). The individual projects had not focused on measures that would actively increase the level of involvement of women, ethnic minorities, people with disabilities or others who were at a disadvantage in the labour market. As the training projects developed under COMETT were usually designed for trainees with a high level of education or for existing employees with skill requirements in advanced technology, the report argued that such characteristics augured badly for any major impact in terms of equal opportunities (Commission of the European Communities, 1992: 23). The rate of female participation in student placements had been 36% in the first phase of COMETT, increasing to 43% in its second phase. In training courses, the participation rate of women fluctuated at around 22%, which represented the underlying industrial population distribution at the time (Commission of the European Communities, 1996: 66–67). Thus, COMETT had not made any progress in increasing the involvement of women in technology training and development, despite the fact that this had been explicitly stated as one of its objectives in both phases.

Funding for the second phase was increased to 230 million ECU, which was five times the amount of the budget in the first phase. The European Council deemed such an increase reasonable, considering that the number of project proposals submitted had surpassed the number of available grants many times over. In addition, it was decided to open up the COMETT programme to the EFTA countries.<sup>8</sup> This decision raised the concern that as the number of competitors increased, the southern member states would lose out again in the allocation of project funds. However, the benefit of pooling financial, technical and educational resources with a number of additional economically strong and technologically advanced countries seems to have outweighed such concerns.

## **Conclusion**

In the 1970s, political actors in the national as well as the supranational arena felt a strong need to find new sources of economic growth and employment to offset the difficulties traditional industries were experiencing in adjusting to technological change and economic restructuring. The focus of the EC's policy to build a technologically advanced Europe was research and development programmes (ESPRIT, BRITE, RACE). However, this strategy was complemented by an effort in the field of education and training, following the same rationale of enhancing the competitiveness of European business and industry.

Thus, COMETT was a response to the pressures of global trade and competition that drove European countries towards so called 'information economies' or 'knowledge economies' that were founded on highly developed skills and technology. New patterns of work and the introduction of new technologies demanded new skills and qualifications on the part of the labour force. Within the EC, a mobile, highly skilled and versatile workforce with a European mindset that would help the European economy to regain its competitiveness on a global scale was envisaged. Education was seen as the key area of action to bring about the desired change.

The COMETT programme did not primarily address the issue of high unemployment. However, it perceived the challenge of new information technology as the incentive to adapt education and training systems both at a EC and member state level, with the primary goal of enhancing the economic competitiveness of European industries. The social issues arising from structural change and adaptation to new technologies were acknowledged, but were clearly outweighed by the EC's concern for economic competitiveness. COMETT did not directly address the needs of vulnerable groups of people such as women, the unemployed and low-skilled workers. These people faced significant barriers with regard to access to education, training and job opportunities related to the new technologies, which promised better career prospects for those who possessed the right set of skills and qualifications. Instead, COMETT was focused on promoting cooperation between industry and universities.

The activities under COMETT involved the joint development of education and training programmes and transnational mobility schemes, which served to make universities more responsive to the qualification and skill needs of businesses. Transnational cooperation between universities and industry was seen as an efficient way of boosting economic competitiveness by facilitating knowledge transfer between both university research and training and between university research and industrial practice. Primarily, the training and mobility schemes developed under COMETT were aimed at creating a pool of highly skilled, internationally trained and European-minded workers who were familiar with new technologies and their application under the specific economic and social conditions of industries in the various regions and member states of the EC. COMETT was geared towards the education and training of potential future leaders in European politics and business and not aimed at protecting those most vulnerable and at risk of losing out in the face of technological change.

The social implications of technological change were seen more as a concern for the European Social Fund, whereas improved economic competitiveness was expected to have some sort of trickle-down effect. If European industry mastered the development and implementation of new technologies and proved to be globally competitive in this area, it was hoped that this would, in turn, make a significant contribution to economic recovery and remedy the high rate of unemployment by creating new jobs.

Thus, COMETT was an initiative that was motivated first and foremost by the EC's agenda to boost the competitiveness of European industries. There is no doubt that COMETT contributed to the internationalization of higher education, the development of innovative education and training

schemes related to new technologies and a more extensive provision of ongoing training across the EC's member states. However, educational and social goals were secondary to the competitiveness agenda in the design and implementation of the COMETT programme.

The article shows that business interests, economic busts and booms, the position of the labour market and technological innovations must, therefore, be given greater weight in the history of education. The policymakers' perspective is only one of many. In future research on the emergence of a European education space, trade unions, business associations, women's organizations and other civil society groups should also be given greater consideration. COMETT and other policy initiatives in the context of technological change provide a good starting point for this.

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### Notes

1. European Strategic Programme for Research and Development in Information Technologies (85/141/EEC).
2. Community Programme in the Fields of Basic Technological Research and the Applications of New Technologies (85/196/EEC).
3. Community Programme for Research and Development in Advanced Communications Technologies in Europe (88/28/EEC).
4. Action Programme of the Community in Education and Training for Technology (86/365/EEC).
5. Directorate General V, which had encompassed the policy field of education and training since 1981.
6. Directorate C refers to the Division of Education, Vocational Training and Youth Policy within DG V.
7. This line of work was further developed within the EC's DELTA and EUROTECNET programmes, which were launched in 1988 and 1989, respectively, to promote open and flexible methods of teaching and learning in vocational training by using new information technology.
8. Austria, Finland, Iceland, Liechtenstein, Norway, Sweden and Switzerland.

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