



In and Around
°Training \ Employment ° #3-2022

About
environment and
competences

Céreq

Public body under the supervision of the ministry
of Education and the minister of Employment
Since 1971

Illuminating the links between training,
employment and work.
+ info and all studies
on www.cereq.fr





In and Around

is presenting articles about education, training and employment. The publication is edited by the Céreq, Centre for Studies and Research on Qualifications.

#3,2022

Publication director:
Florence LEFRESNE > Céreq



10, place de la Joliette CS 21321
13567 Marseille Cedex 02 France
Tel. : (+33) 04 91 13 28 28
www.cereq.fr

In and Around

°Training Employment "Work #3-2022.



About
environment
and
competences



In and Around

°Training `Employment "Work #3-2022

INTRODUCTION BY 7
Nathalie MONCEL

**HIGHLIGHT:
ABOUT ENVIRONMENT AND COMPETENCES**

**Employment and the ecological transition:
what scenarios for the future?** 9
Dominique MÉDA

**Identifying and supporting the skills
required for the ecological transition** 15
Nathalie MONCEL & Liza BAGHIONI

**What role does education play
in environmental concerns?** 31
Magali JAOUL-GRAMMARE & Anne STENGER

**From restructuring to career transitions:
a new era of occupational mobility?** 39
Damien BROCHIER

WHAT ELSE?

**Work, ecology and knowledge:
a field of reflection and dispute** 47
Claudia FIGARI

INTERNATIONAL OUTPUTS

**C-Terre project: meeting skills needs
in the context of the ecological transition** 55

**Bilt project:
bridging innovation and learning in TVET** 57

Ceil/Céreq 59



Highlight: About environment and competences



Nathalie MONCEL
Head of Department, Céreq

Introduction by Nathalie MONCEL

The “ecological” or “green” transition has become a key concept in current political debate (e.g. the European Green New Deal in August 2021), following that of “sustainable development” promoted by the Rio Summit of 1992. Whatever the precise term used, it underlines the need to integrate environmental concerns into production, consumption and our ways of living.

If we are to cope with the climate crisis, what types of radical changes in occupations, firms and regional economic systems are to be expected? How will these changes impact workers’ career and firms’ practices, employment structures and work organisation, work routines and training provision?

In order to gather together some initial insights into what we know so far, this “In & Around” provides an overview using several types of recent research materials. Two of them relate to a cycle of 5 web conferences produced in autumn 2020 by Céreq in collaboration with various French ministerial institutions (France Stratégie, ONEMEV, ADEME).

The first paper is the introductory talk by Dominique Méda, sociologist, Professor at Dauphine University and head of the IRISSO research centre. Exploring the future of work in the context of the (inevitable?) ecological transition, she calls for a proper “eco-restructuring”, by which she means both an intellectual and paradigmatical shift in the way we conceive our future development and the pragmatic approach that is essential for acting through operational systems.

Highlighting the changes taking place in jobs and across sectors, she points out three main issues. What skills are to be developed? What training measures are to be implemented? What are the roles for the social partners and social dialogue arenas in promoting this new “great transformation”?

Indeed, transition means going from one stage to another, and sketching out the route requires us to investigate and document three points: where we are, where we want to go and which are the best ways to achieve this desirable state.

The 2020 web conferences focused on this last point, shedding light on current experiments in order to illustrate the various ways of tackling the issue of the skills and supports required for the ecological transition. The second paper summarises the presentations and debates. It is organised around four main topics that address the challenges for employment and skills: developing observations, measures and forecasts; raising awareness among socio-economic actors; adapting initial and continuing training; planning and supporting changes in jobs and local initiatives.



The last three papers draw on research that documents specific viewpoints.

Magali Jaoul Grammare and Anne Stenner use the 2010 Generation survey dataset to investigate the relationship between educational level and the environmental concerns of young school leavers

Damien Brochier, from Céreq, argues for a new area of occupational mobility with the introduction of innovative public measures to support career transitions in France.

Claudia Figari, senior researcher at CONICET, presents the results of a research project on corporate teaching arrangements embedded within firms' Corporate Social Responsibility Agenda.

In response to the new global consensus on sustainable growth, it appears that these arrangements are shaping new labour subjectivities.

Finally, this In & Around Edition presents several on-going research projects at Cereq that are exploring the spread of the ecological transition across sectors, occupations and training programmes.

Going green means moving towards global, systemic and long-term shifts.

Times are changing, giving rise to developments that the work and employment research community has to reveal and promote, if it can move quickly enough to do so ...



Highlight: About environment and competences



Dominique MÉDA
Director of Irisso, Professor at Paris Dauphine University

© Philippe MATSAS /
Opale / Leemage

Expert's outlook

Employment and the ecological transition: what scenarios for the future?

We currently find ourselves at a very particular juncture in a world beset by multiple crises – economic, health and environmental – each of which is exerting enormous pressure on our productive system and hence on jobs. These crises demand responses that balance the short-term need to support current jobs with the medium to long-term imperative to decarbonise our economy.

There are many ways of achieving net-zero carbon dioxide emissions by 2050; they differ depending on the international context, the behaviour of the various actors, the intensity with which the various technologies are deployed, the degree to which consumers find restraint and moderation acceptable, the diversity of public policies and so on. On this last point more specifically, the effects on employment obviously depend on the public policies introduced and the level of investment devoted to the ecological transition.

At all events, we know that eco-restructuring – I use this term to emphasise both the necessary intellectual and paradigmatic shift and the highly operational restructuring dimension of the process – is going to cause some serious upheavals in our productive system and that we are going to have to close or restructure certain sectors – those that emit the most greenhouse gases (GHGs) –, expand others, modify our production methods and green industrial processes in order

to decarbonise our economy. This in turn will mean radical changes in occupations, firms and regional economies.

Virtually all the models available today show that a double dividend is possible: before the health crisis, it was estimated that between 160,000 and 600,000 jobs could be created in France thanks to eco-restructuring. Since the health crisis and the subsequent plans for recovery, the scenarios produced by various institutions suggest that the number of jobs that might be created will depend on the amounts of money invested. Thus the French Agency for Ecological Transition forecasts that 600,000 jobs could be created by 2030; more recently, the World Wildlife Fund, working with Ernst & Young, has put forward the idea that, given adequate investment, between 1 and 2 million jobs could be created rapidly, particularly in construction and public works, energy supply and transport. This good news is explained by the fact that the sectors that emit most GHGs and that have to be reduced in size are less labour-intensive than those that

are to be expanded.

As far as the distribution of jobs is concerned, the redeployment process may prove to be extremely complex, and a very radical reshaping of the labour force and large-scale transfers of workers are to be anticipated. It will not be acceptable for the ecological transition to be implemented at the expense of employees and enterprises in the doomed sectors, that is to say those enterprises at risk of closure or restructuring and employees who will be obliged to retrain. In this respect, there has to be a dual process: it is important both to anticipate the closures and job losses (which jobs in what sectors are going to have to be lost and/or transformed?) and the jobs that are to be created, which will not necessarily be in the same locations, the same enterprises or the same sectors and will not necessarily require the same qualifications or skills. This is a familiar problem that countries have already had to confront; however, the actions taken have not really been crowned with success.

After all, we have not been able in the past and continue to be unable to prepare effectively for restructurings and to support labour mobility. We need only to consider the way in which the crises in the textile or iron and steel industries were managed in the various European countries: some of the workers affected became unemployed or took early retirement and never worked again. Later, in 2006, when the European Globalisation Adjustment Fund to help workers made redundant was set up, the results were not any more convincing.

One difficulty is linked in particular to the compiling of an accurate register of the enterprises, sectors and skills of the employees whose jobs are going to disappear: it would be useful to map

the occupations at risk and to identify accurately those skills that could be transferred. What is needed is a detailed study focusing, at one and the same time, on sectors and enterprises and on individuals. Interesting tools such as on-line CVs (?) are beginning to become available. But, more generally, we should be able “to launch a large-scale national analysis of all occupations and skills in the various occupational groups, focusing on their strengths and weaknesses in dealing with the ecological transition”¹. Such an analysis could be used to constitute a pool of transferable skills and as an aid in planning the necessary restructuring and training programmes.

However, it is also important to ascertain what the new jobs will be and where they will be located. This will obviously depend on government policies, on standards, on the level of the agreed investments and on the scale of the relocations. It will also depend on the resolution of some major questions. If there is widespread agreement on the need for the thermal renovation of buildings, there is no agreement on the question of whether all existing buildings should be renovated, including those of poor quality, or whether new construction programmes should instead be put in place with the aim of providing new buildings that conform to environmental standards. Should the process of metropolisation be continued or should there be a move in the opposite direction, leading to the expansion of small and medium-sized towns? Should teleworking be further encouraged, enabling managerial and other professional staff to work remotely, or should economic activities be relocated to small and medium-sized towns, or even to rural areas, in order to enable everyone, including second-line workers, to work close to home?

With regard to the question of the

changes in employment arising from the ecological transition, in France there is an employment strategy report commissioned by the Ministries of the Ecological Transition, of Labour, of Education and of Higher Education, Research and Innovation from Laurence Parisot, the former head of MEDEF, the French employers’ organisation. Provided for in an act of parliament passed in 2015, this report, entitled “Plan de programmation des emplois et des compétences/Employment and Skills Programme Plan”, was submitted in February 2019. It attempts to list the jobs affected but above all conveys a very powerful message: it is not simply a question of creating new green occupations but also of reconfiguring a large number of existing occupations and even totally rethinking all occupations in all value chains. This clearly is an enormous undertaking.

One question to be answered beforehand is undoubtedly that of ascertaining what jobs we wish to develop and where in the country they are to be located. This will require some voluntary forecasting and a return to regional planning, with decisions made not at the top but jointly with the regions (regional authorities, associations, representatives of central government at regional level and so on), enterprises and the social partners. The purpose of the Parisot Report was to prepare for this cooperation. Moreover, the report speaks of a Master Plan...

A series of fundamental questions on the institutions and actors likely to undertake these actions and on the necessary coordination between them have also to be answered. We have only to refer to the fascinating report by the Réseau Action Climat and the CFTC trade union, which shows how compartmentalised the institutions involved in dialogue and decision-making still are, particularly

between the national and regional levels and between the actors in employment, industry and education.

Furthermore, the efforts to establish the number of jobs lost and created as a result of the energy and ecological transitions are not adequate. The Parisot Report highlights a glaring shortcoming when it comes to forecasting: “all the modelling exercises estimate the volume of jobs created or destroyed. However, it is important to note that there is no macro-economic model in France capable of taking into account the skills dimension of a jobs market”. Thus the report notes that in Norway, for example, the MODAG and MOSART models produce simulations based on four different levels of education and are therefore capable of estimating the demand for labour by industry combined with level of education. It is with these major issues of identifying the new skills and the occupations in which they will be deployed that the Céreq-led project on the representations and realities of the new skill requirements in the ecological transition will grapple; the various strands of the programme are set out later in the project documentation.

Finally, three major questions will have to be resolved.

1| What skills are to be developed?

Account will have to be taken of the fact that needs for new specialized skills will emerge, as indicated in the Parisot Report, but that it will also be necessary to continue to develop general transversal skills likely to be deployed in most occupations. This is the case in the construction occupations, for example, where the focus is very much on the resources used, the ability to save on materials and energy or to use fewer additives, the development of design practices featuring simplicity and restraint and the ability to coordinate

different actions and trades. General knowledge of ecological issues is obviously also necessary – such knowledge should be acquired in initial education at all levels of the education system and in continuing education and training. M. Jaoul-Grammare and A. Stengers' contribution to the project documentation clearly demonstrates the importance of education in raising citizens' awareness of ecological concerns.

2| What retraining measures should be adopted in order to anticipate and avoid unemployment, particularly for the least well qualified and most vulnerable, as noted in D. Brossier's article in the project documentation? How can we proceed quickly, while at the same time developing occupational skills and competences and guaranteeing incomes? The British campaigning organisation *One million climate jobs* proposed that a public climate agency should recruit individuals whose occupations are at risk from the ecological transition and put them to work in sectors crucial to the transition, in return for the necessary provision in terms of training. This is a fundamental question: what measures should be put in place and who is to manage them? What assistance should central government and the regions provide in order to create direct routes into new occupations and/or sectors that avoid the transition via unemployment and take into account the crucial issue of training? What organisation is going to take charge of these transfers? Would it not be necessary to put in place a genuine guarantee of employment – as Pavlina Tcherneva suggests in our edited book *Manifeste Travail. Démocratiser. Démarchandiser. Dépolluer* or in her book *A Job Guarantee ?* The aim here would be to use public funds in order to create jobs in the sectors and occupations at risk in the ecological transition, along the

lines of Roosevelt's Civilian Conservation Corps or the Territoires Zéro Chômeur de Longue Durée/Zero Long-Term Unemployment Regions initiative in France.

3| What role for employees and social dialogue? In order for these retraining measures to be organised better, it is absolutely essential to involve employees. Firstly, because there is a risk they will refuse to take up the measures if they are excluded from the process and, secondly, because they are the ones best placed to identify the skills they possess and those they lack. Consequently, it is imperative that an obligation to negotiate locally be instituted, with negotiations to be conducted as close as possible to the reality of occupations at enterprise level and in such a way as to encourage the democratisation of the enterprise. This is what we advocate in our *Manifeste Travail*.

In conclusion, the task that lies ahead is a particularly difficult one because it requires the coordination of a large number of actors and raises the question of how it is to be set in motion. Who is capable of initiating the process, of mapping out the path to be followed in order to coordinate the various actors and foster cooperation and of encouraging all small businesses and local authorities to become involved? The whole process is made all the more difficult by the fact that jobs are not all that is at stake; there is also the question of work itself, the way in which job content, the underlying principles of work organisation and the very gestures and movements of the work process will all undergo change throughout the entire production chain. This is a task that will force us to develop a vision that is both very macro and medium-term and very micro for operational purposes in order to ensure that all segments of production

chains are reconsidered and reshaped in the light of the ecological transition.

1) <https://reseauactionclimat.org/wp-content/uploads/2017/08/les-reconversions-professionnelles-cle-de-reussite-dune-transition-ecologique-juste.pdf>





Highlight: About environment and competences



Summary of the 2020 cycle of web conferences organized by Ademe > Céreq, France Stratégie and CGDD > all members of Onemev.



For Céreq:
Nathalie MONCEL & Liza BAGHIONI

For France Stratégie:
Marième DIAGNE and Coline BOUVART

For MTE/CGDD/Onemev:
Sophie MARGONTIER

For Ademe:
Thomas GAUDIN

The 5 web conferences in figures:

- 5 episodes of 1½ hours between 29 September and 3 December 2020
- 32 speakers (a list can be found on the France Stratégie and Céreq websites)
- 2,196 participants in the live events
- 4,300 participants via on-demand streaming (as of publication date)
- 174 comments or questions
- Almost [70 documentary resources](#)



Identifying and supporting the skills required for the ecological transition

What are the issues at stake for jobs and skills in the ecological transition? In order to document and illustrate this pivotal but little investigated question while going beyond a purely quantitative approach, four organisations with observational and analytical expertise in the fields of employment and the environment organised a cycle of 5 web conferences in the autumn of 2020 that were followed by a total of almost 6,500 internet users, either live or via on-demand streaming.

Ademe, Céreq, France Stratégie and CGDD, all members of Onemev, put forward actors with very diverse profiles to shed light on these issues: companies, professional organisations, the French vocational training support agencies (OPCOs), training organisations, national and regional employment services, regional public services, the Ministries of Labour, Agriculture and Education and researchers.

Four main lessons emerged from these numerous contributions:

1| the challenges for jobs and skills posed by the ecological transition are the same as those posed by any other far-reaching change, making it necessary to observe, anticipate, raise awareness, adapt the training on offer, facilitate transitions and act locally. However, the ecological transition – perhaps to an even greater extent than the digital transition – has a systemic dimension; it disrupts modes of production, consumption, transport and work organisation and, moreover, is strongly influenced by regulation;

2| proper consideration of these changes requires decompartmentalisation and the adoption of cross-cutting, interdisciplinary approaches in order to assess, anticipate, train and support. This will involve not only revisiting the current ways of doing things but also bringing into play the whole of the ecosystem around companies, beginning with companies themselves;

3| the process of raising awareness and taking action is a lengthy one, involving as it does experimentation, a continuous process of trial and error and solutions devised en route;

4| the changes in occupations and skills need to be anchored in work-related activities. They have to be appropriated by local actors via a diverse range of partnerships, while at the same time being linked to the national and regional levels in order to encourage real spin-offs without falling into duplication, which is regarded as unstimulating and ineffective.

The summary of these 5 web conferences, densely packed but still not exhaustive, focuses on 4 of the challenges posed by the ecological transition at a number of different levels– the firm, the industry or sector, the public sphere, higher education and the region – and makes use of observations, illustrations, exploratory thinking and even recommendations:

- observation and anticipation of the changes in occupations and skills linked to the ecological transition;
- encouragement of proper consideration of the issues affecting jobs and skills linked to the ecological transition;
- adaptation of the initial and continuing training offer to the ecological transition;
- understanding the economic changes and encouraging occupational transitions.

This summary draws on the evidence, experiences and actions presented during these web conferences, which are used here by way of illustration; they obviously do not cover all the existing initiatives.

Observing and anticipating the changes in occupations and skills linked to the ecological transition

Prior to any action, observation of the changes in occupations and skills linked to the ecological transition (ET) is made complex by the transversal and systemic dimensions of this transition. It is true that, since 2008, the Agence de la transition écologique (Ademe) has compiled an annual overview of the jobs in three sectors at the heart of the ET – renewable and recovered energy generation, housebuilding and land transport – and identified the potential for job creation and destruction. For its part, the Observatoire national des emplois et métiers de l'économie verte (Onemev) has quantified employment in the green economy, as well as in green and greening occupations, since 2010. These studies bring together several actors and experts in the fields of employment and the environment.

These quantitative analyses have several limitations:

- they do not produce systematic sectoral and regional versions because of a lack of sufficiently detailed data at the regional

level and the absence of suitably adapted statistical classifications;

- they have not been extended by systematic qualitative analyses of the skills deployed in ET-related work activities. Consequently, there is no comprehensive mapping of ET occupations and, furthermore, no comprehensive list of the associated skills.

Nevertheless, they can be usefully supplemented by one-off prospective studies of skill needs, such as those carried out by the *Centre d'études et de recherches sur les qualifications* (Céreq) since 2013 in certain eco-activities: renewable marine energies, terrestrial wind power, smart electrical networks and methanisation.

Similarly, while the Parisot Report provides a documented overview and makes a number of recommendations for an Employment and Skills Programming Plan linked to the energy transition, it is concerned with only one part of the area of activity (energy, construction and transport), does not specify how the goals are to be achieved and has not to date been extended in any coordinated fashion beyond the isolated studies carried out in a number of sectors or regions.

Taken together, these points are, according to many actors, justification enough for increasing the resources available to conduct more detailed analyses (of markets, FTEs FTEs (full-time equivalents) and occupations and skills) in order to facilitate in particular the task of statisticians working on observational (c.f. Onemev's studies), prospective, environmental and HR studies.

INCOMPLETE BUT RELEVANT LESSONS

Thus the studies carried out in recent years on certain sectors or among certain

groups have been only partial in scope. Nevertheless, they serve as a basis for a number of enlightening observations:

- The destruction or creation of jobs can just as well take place between burgeoning and declining sectors as within each sector (waste disposal and automotive, for example) and is not limited to a few specific sectors;

• Genuinely “new” occupations linked to the ET are not being created on a massive scale. Concentrated mainly in sectors at the heart of the ET (such as renewable energies), these specific occupations often require a high level of qualification: new technologies, specialist skills (notably in engineering) or hybrid skills (technical and commercial, along the lines of wind project manager);

Environment-related job offers for managerial and executive staff: almost 8,000 job offers for managerial and executive staff were linked to the environment in 2018 (2% of the total), according to a study published at the end of 2019. Candidates were expected to have strong technical skills and preference was given to those with experience.

- The ET is transforming many existing occupations in all sectors, to varying degrees and with sometimes considerable job creation potential. This will inevitably lead to new skill configurations, additional skills (particularly transversal and so-called “soft” skills, such as the ability to cooperate) and new ways of working, all generally underestimated by recruiters at this stage.

Job creation in renewable energies: the number of employees in full-time equivalents (FTEs) could rise from 152,000 to 236,000 between 2019 and 2028, according to a report by consultants EY commissioned by the Syndicat des énergies renouvelables (June 2020). The new jobs, which

will be distributed throughout France, will be almost exclusively in existing occupations (notably maintenance) with a few exceptions, including “terrestrial wind power project manager”, which requires a mix of skills.

Recruiters' expectations: Only 10% of employers are planning to recruit workers in new occupations or with new profiles linked to the ET, according to the supplementary survey “Labour force needs” (BMO) 2020, carried out by the *Pôle Emploi*, the French employment service, among 15,000 companies. 11% think that the ET is going to require new skills and 32% mentioned the need to adapt candidates to new working methods.

A RANGE OF APPROACHES TO OBSERVING AND ANTICIPATING

There are a number of different approaches to identifying the changes in occupations, skills and modes of work organisation linked to the ET, focusing on the level of the firm, occupational group or even industry, public sector or region.

> The level of the firm

This is a complex exercise. The most closely observed firms are often those whose activities have been radically changed by the ET. Elsewhere, observation seems to be still in its infancy; it is sometimes perceived as conceptual, fraught, even expensive, but above all not a priority, unlike the digital transition.

An agreement on the management of jobs and careers (accord de gestion des emplois et des parcours professionnels/ GEPP), which is obligatory in companies with at least 300 employees, can be a good lens through which to examine the challenges posed by the ET... as long as this approach produces some effects and is then extended beyond the social partners and constantly advanced.

In the case of very small and medium-sized enterprises, the challenge is a harder one to address but can be tackled with support.

Eiffage, a forward-looking approach: in 2007, the group set up a “sustainable urban forecasting” centre in order to assess the evolution of the occupations linked to the ET, to build differently and to recruit and train differently. In 2012, it also launched the “Bioterre” master’s in environmental studies at Paris I Panthéon-Sorbonne and has since identified some new occupations (civil and environmental engineer, notably).

> At the level of an industry

Observation and anticipation are largely voluntary activities for the social partners and usually involve several sectors or even vocational training support agencies (OPCOs). The absence of compulsion is an obvious curb on activity. Nevertheless, several industries have tackled the issue by bringing into play their occupations and skills observatories (observatoires prospectifs des métiers et des qualifications/OPMQ), whether at sector or OPCO level. The usual approach is a quantitative one, taking advantage of the so-called commitments to develop employment and skills (engagements de développement de l’emploi et des compétences/Edec) and central government support, as has been done in the construction and public works, electricity and water supply industries. Although consideration of the ET is now included in the Edec specifications, it is not always put into practice.

The annual Uniformation barometer: immediately after the signing of an Edec in 2018, the OPCO for social cohesion included in its 2020 barometer several questions linked to the ET in order to assess the impact of environmental

issues by region and for each of its 20 sectors, as well as the most heavily affected occupations. The objective in 2022: to identify, from the contents of training programmes, the transversal skills most frequently required in the context of the ET.

The Edec in the electricity supply industry: 12 professional and trade union organisations signed an Edec in 2019 in order to estimate the number of people employed in the industry (600,000), identify the shortage occupations (23 of the 100 investigated) and determine the job creation potential by 2030 (200,000). The initiative lasted 18 months and involved many actors; it was generously supported by the General Delegation for Employment and Vocational Training (Délégation générale à l’emploi et à la formation professionnelle/DGEFP) and provided information for firms, notably about the needs for transversal skills in hitherto highly technical occupations – commercial and customer relations skills, legal, regulatory digital knowledge and project management skills. Céreq’s study on the construction, methanisation and transport and logistics industries served to identify new and emerging occupational practices associated with the ET.

> At the level of regional public authorities

Public authorities in the regions are displaying an increasing capacity to use a tried and tested methodology to provide a firm basis for the ET as close as possible to the region and among local actors.

The interdisciplinary approach developed by the National Centre for Regional Public Authorities (Centre national de la *fonction publique territoriale*/CNFPT): 26 networks of professionals (training advisors, occupations experts, academ-

ics, HRM consultants) regularly measure the evolution of skills needs, notably in connection with the ET, thereby enabling the continuous updating of the Directory of Regional Occupations (Répertoire des métiers territoriaux), which contains some 250 occupations. This approach notably highlights the importance of “composite” skills that call on several areas of expertise (e.g. regional development, water supply and waste disposal).

> At the level of a region

Studies of the objectivation of ET-related employment and skills issues may be versions of a national initiative (e.g. the Edec in the electricity industry in the PACA region, which has certain specificities, or the CNFPT survey of emerging occupations, conducted annually in four regions). They may also originate with the regional actors themselves, whose initiatives may be assisted or even equipped by regional and/or national actors.

Forward looking initiative in the construction and public works sector in the Cambrésis region: in this employment area in Northern France, the CERC Hauts-de-France, with technical and financial support from Ademe, placed its expertise at the disposal of the local actors in order to carry out observation studies and forward planning.

ENCOURAGING CONSIDERATION OF THE ISSUES AT STAKE FOR JOBS AND SKILLS IN THE ECOLOGICAL TRANSITION

Once the ET’s impacts on jobs and skills have been identified, what strategies do the various actors, at various levels, adopt to communicate, raise awareness and urge people to act? This is a key question, since raising awareness of the issues at stake in the ET cannot be taken for granted (given its multifactorial dimension) and is a long-winded process.

> At the level of the firm

In many firms, initiatives to promote eco-conscious actions have emerged on the initiative of employers (recommendations, challenges, criteria in profit-sharing agreements, etc.) or of activist employees. Furthermore, large companies are more likely to be taking environmental concerns into account, particularly because of certain regulatory obligations, even though their actions do not routinely demonstrate concern for the wider society, far from it. There is less discussion about taking the ET into account in the various stages of the production process, whether for goods or for services, or in work activities themselves.

Eiffage, new ideas for raising awareness of the ET and encouraging action: introduction of daily 15-minute “environmental chats” (along the lines of the 15-minute safety sessions); creation of a special card game on sustainable development called “Incollables” (Know-it-all) and linked to the various occupations represented in the group (distributed to 25,000 employees in the summer of 2020); development of 3 parlour games on the ET produced by the group’s university (professional reactions to be acquired in one or two hours through simulations).

Avenues for improvement mentioned by web conference participants:

- offer training to directors and line managers, particularly in very small and medium-sized enterprises, in order to improve employees’ awareness of the issues at stake in the ET;
- consider the ET as an opportunity to give or restore meaning to work (e.g. the re-use of materials in the social and solidarity economy);
- give priority to an approach to sustainable development that attaches greater importance to the various occupations or professions and is less “dressed up” for external consumption;

- encourage the recruitment of decarbonisation advisors in order better to identify the levers that can be pulled at local level, within companies.

> At the level of an industry or sector

The main challenge in moving from observation to action is to enable the actors to appropriate the analytical studies for themselves, which involves popularisation, forums for exchanging and sharing information, methods, tools etc. and an open approach to facilitate decompartmentalisation.

Uniformation's diffusion practices: the social cohesion Opco shares with its social partners the results of the studies carried out by its joint Studies and Observatories commission, hosts the observatories club and calls on outside experts (France Stratégie, Réseau Emplois Compétences, Commissariat général au développement durable (CGDD), Onemev...) for events aimed at sectors and companies within its sphere of operation.

> On the level of the public sector

Several initiatives have seen the light of day in the three segments of the French public service (central and regional government, hospitals) and in several departments and in February 2020 central government launched the Environmentally Responsible Public Services Plan in order to accelerate the environmental transition in its services. Nevertheless, the compartmentalisation of central government services makes it impossible to put in place a truly systemic strategy linking environmental issues and employment/training, highlighting the need to train senior civil servants and supervisors to take the new issues into account.

The priorities for the regional public services: to encourage collaboration within the local authorities between

water services, waste disposal, planning, economic development and tourism and to initiate more transversal studies; externally, to set up “not excessively institutional”, transversal forums for exchanges of information and ideas in order to bring about change by holding topical talk events open to actors from all backgrounds, along the lines of those organised by the CNFPT.

> At the level of a university

The universities have launched initiatives in recent years with the aim of giving greater consideration to the ET, usually through specific measures (an item of information, a training course, a teaching method, premises) rather than as part of an overall approach. The sustainable development and societal responsibility (SD&SR) certification, awarded to some 30 institutions (Universities and Grandes Écoles) by the Cirses network, as well as the tools offered to academics are helping to diffuse the issues at stake and good practices more widely.

Sharing good practices in the Conference of University Presidents (Conférence des présidents d'université/CPU): at regular intervals, the CPU's monthly ET committee reports on the initiative launched by one university and describes the (cultural, structural etc.) obstacles. One recommendation to increase dissemination: share methodological tools (via a guide, for example) in order to encourage a systemic approach to the ET (governance structure, establishment of referents, awareness in support services and teaching teams).

> At the level of a region or employment area

Providing information – on the issues at stake in the ET, green or greening occupations and the new skills in demand - is one of the tasks of the devolved authorities, particularly at regional level, whose

prerogatives in the area of employment advice and guidance have also been strengthened – and of specialist organisations, such as the Carif-Orefs. This is a task that requires a methodology, tools and a multiplicity of actors and sources in order to raise the visibility of the issues at stake in the ET for jobs and skills.

The support for the development of the circular economy provided by CRESS, the regional chamber for the social and solidarity economy (SSE) in the Pays de la Loire: a resource centre, a bimonthly newsletter, support for SSE organisations' transformation plans.

A pool of regional resources on the energy transition in the construction industry: on the initiative of the Ademe and the Alliance Villes Emploi, 43 local and regional authorities have introduced measures to promote jobs and skills programmes in construction companies with a focus on energy efficiency and the development of renewable energies. A guide outlines the issues at stake, the actors and the methodology used and brings to light 65 “good practices”.

> At national public policy level

Alongside these measures being taken at various levels, the public authorities have at their disposal regulatory, normative and fiscal levers that can be pulled to accelerate the process of raising awareness of the issues at stake in the ET for jobs and skills.

Support for the waste recycling and transformation industry: much waste has little if any intrinsic market value, but public policies at European, national and regional level have helped to turn it into a revenue source. Two ambitious goals stand out: significantly reduce the volume of waste produced (2015 Act on the Energy Transition) and recycle 100% of all plastics between now and 2025 (AGEC Act of February 2020).

ADAPT THE INITIAL AND CONTINUING TRAINING OFFER TO THE ECOLOGICAL TRANSITION

After the observation and raising awareness phases, how is the training offer to be adapted to the new expectations, in both occupations and skills, created by the ET? There are many answers to this question, reflecting the training system and its wide diversity of actors. They come into play at various levels: identification and formalisation of the new training needs; adaptation of the reference frameworks, course contents and assessments; training of the trainers; publicising the training offer.

Integrating the ecological transition into the existing training offer

The issues at stake in the ET are currently reflected in the training offer, whether leading to a formal qualification or otherwise, in a particularly wide range of different ways.

In the national education system: according to the certifying ministry, the offer of vocational qualifications now includes knowledge and skills linked to the ET, but to varying degrees depending on the sector in question and the needs already identified. Céreq's 2016 studies also shed light on the extent to which the ET is taken into account in vocational training programmes.

In agricultural training: the Ministry of Agriculture states that it has completed the task of incorporating the skills linked to agroecology into all its qualifications (preparing trainees for 120 occupations) in consultation with the professionals in 50 sectors.

In the Ministry of Labour: all the vocational qualifications have been carefully examined from a “greening” perspective by Afpa at the request of the DGEFP, which was seeking to identify any possible new qualifications and take into

account the transformation of existing occupations by the ET. The qualifications in question mainly range in level from CAP (EQF 3) to Bac+2 (EQF 5). Apart from the initiatives launched by activist employees at firm level (not linked to occupations), around half of the qualifications incorporate a dimension linked to the ET, in the shape of additional skills and, more rarely, new occupational practices. For certain qualifications, the impacts on skills and occupations are substantial: the choice of materials as determined by the adoption of eco-design in design studios and drawing offices; the choice of solvents in vehicle body shops; energy optimisation for machine programmers.

In training organisations: the current offer takes little account of the issues raised by the ET, according to the *Acteurs de la compétence* (the former *Fédération de la formation professionnelle*): the organisations and their trainers are only recently established and the outlets for new programmes are perceived to be insufficient. Three types of offer can be identified: adaptation to the challenges posed by the ET, the acquisition of technical skills in green or greening occupations and achieving regulatory compliance, including with safety regulations.

Identify, anticipate, then formalise training needs

New training needs are identified by means of monitoring and forecasting studies carried out by certification bodies, training organisations and OPCOs, the declared needs of actors at firm, industry or sector level and reports by exam boards.

New needs in the construction and public works sector: in response to the manufacturers of solar panels who were also proposing to install them, professionals in the sector wanted to

introduce an additional qualification in the “installation of renewable energies” for those taking a vocational *baccalaureate* (EQF 4). Another example: at the request of a major DIY retail company, the reference framework for the vocational baccalaureate (EQF 4) in construction now includes knowledge about the environmental footprint, which is useful for future sales staff.

In order to accelerate the transformation of the training offer, France compétences launched an appeal, which ended in the autumn of 2020, for assistance from industry-level professional associations in identifying, on the basis of a set of preformulated questions, the occupations undergoing change, particularly as a consequence of the ET.

The objective of this exercise was to compile a list of emerging occupations and skills and if necessary to develop new qualifications that the training organisations would be able to avail themselves of. In the end, 23 occupations were identified in 2020, 7 of them connected with the ET. At the end of the 2021 appeal for assistance, 20 emerging occupations were identified, 5 of them linked to the ET.

All the actors in the training system are agreed on the need to involve the professionals in the development of the new reference frameworks at as early a stage as possible.

Many ways to adapt the training offer

The training offer can be adapted in various ways depending on the objectives, the actors involved and the timescale envisaged:

- the development of new certifications or prior testing. Example: the advanced wind power maintenance technician course was trialled by Afpa in 2017, in partnership with several companies, as

part of a business incubator programme. The fact that all the trainees found jobs at the end of the course led the DGEFP to validate a new vocational qualification;

- a certification’s sectoral and/or regional colouration or particularity: a supplementary qualification to become an aerospace sheet metal worker in Poitiers or an agroecological specialisation in the French West Indies after the chlordecone pollution;

- a specialisation certificate, awarded by the Ministry of Agriculture. Example: an additional six months’ training in order to enable a holder of the vocational baccalaureate (EQF 4) in agriculture to become manager of a agricultural methanisation unit;
- a course leading to a qualification but not necessarily to certification in response to a company’s new ET-related needs, set up by a training organisation, whether inside or outside the company.

Irfedd’s experimental training programmes in the PACA region: the 35-hour course on urban agriculture launched in 2018 in order to anticipate future needs has given rise to an increasing number of applications three years on. Irfedd is also working on a new 70-hour course on hydrogen for the start of the new school year in 2021, with several liaison workers and in conjunction with the regional council.

Technical skills, transversal skills and new ways of working to be incorporated

The new skills to be developed are not simply technical ones: companies have an increasing demand for multi-skilled workers and transversal skills (autonomy, adaptability, teamworking, creativity). This development is not specific to the ET but is probably more pronounced than in other major transformations (such as the digital transition, which has a significant technological component). Thus the

Ministry of Agriculture has added to the vocational baccalaureate (EQF 4) and BTS programmes the option of carrying out a project with several people. And in the construction and public works sector, the ability to cooperate is essential for the trades associated with the energy transition.

For all the actors, there is one imperative: these new skills must be rooted in the work activity, which means that work and modes of production have to be observed. In other words, the new skills have to be put into the context in which they will be used, since grafting generic ET-related knowledge on to existing training programmes is not an adequate response.

Train the trainers, scrutinise assessment practice

In order to adapt the training system to these new needs and to increase the level of professionalism within it, the *Acteurs de la compétence* suggest working on learners’ “beliefs” and on learning styles in order to support them in their practice through simulations, training exercises in the work situation, learning by immersion etc.

For its part, the Ministry of Agriculture has designated a number of regional reference frameworks in agroecology that will support inter-firm projects and has consulted more widely with tutors and instructors in order to facilitate application of the new knowledge.

For several years Afpa has been systematising the process of raising trainers’ awareness of the issues at stake for jobs and skills in the ET for all vocational qualifications, relying on trainers of trainers to do so.

Irfedd in the PACA region has compiled a handbook that will serve as a guide to initiating and successfully implementing

sustainable development measures in training establishments.

Assessment of these new capacities, which is more complex than for purely technical skills, requires a methodological basis. The Ministry of Agriculture has, therefore, formulated some recommendations for the final assessment phase that are available to both trainers and assessors.

Making the new training offer visible

Actors on different levels can put in place voluntarist measures in order to construct a training offer that incorporates the challenges the ET is expected to pose.

> In companies

Eiffage's updated training offer: the group, which has had its own university since 2016, has launched a one-day module on sustainable development and compiled e-learning materials on low-carbon strategies. Eiffage has also contributed to the development of Uved's MOOC entitled "Ecological engineering", launched in 2017.

> Art industry level

Unifformation's support for the promotion of a new training offer: the social cohesion OPCO identified 4,000 courses in 2017 and 2018 (lasting 21 hours on average) on topics linked to the ET (energy performance, environmental education, waste management etc.). Its support role enabled the community education and facilitation sector to include education in sustainable development as one of its priority "collective actions" and to support regional initiatives, along the lines of the Eco crèche programme in the Nord department.

The new cartography of the training offer in the electrical industry, in line with the Edec: the objective here is to compile an inventory in the shortage occupations of the training offer, the level of qualification

required and the estimated volumes of jobs. A training offer that places the emphasis on a common core of basic skills.

> In the regions and employment areas

Centre-Val de Loire's "greened" offer: in 2020, the Regional Council once again examined its entire 2021-2024 training programme in the light of the challenges posed by the ET, with the support of 14 regional training reference frameworks, its various departments (purchasing, agriculture, tourism, economics, etc.) and professionals in the sectors concerned. For example, the training courses for waiters and cooks now include knowledge of short supply chains. However, in the light of the muted responses to the call for tenders, the authority wishes to provide training organisations with a professionalisation programme in order to raise awareness of the new environmental assumptions.

A mobile workplace training platform in the construction and public works sector: workplace training can be used to raise awareness in very small and medium-sized enterprises and to train employees in three days in the workplace; this mobile training platform provides employees with new skills in energy performance and is a joint initiative of four Maisons de l'emploi, Ademe, Constructys, the Hauts-de-France region and Cd2e.

> In the universities

The holistic approach developed by La Rochelle University: the "classic" academic disciplines are to be abolished at the beginning of the 2021-22 academic year in favour of "major" and "minor" courses with common spaces for interdisciplinary working. Examples: geography with a marketing "minor" and harbour management with a law "minor". The vice-chancellor of the university has

declared that this individualisation of student programmes will transform the university's culture. At the same time, the university is developing its expertise in the "smart urban coastline" and reorganising all its research units to focus on this issue as part of the development of a campus with five other European universities in order jointly to construct a transnational training offer leading to recognised qualifications.

> At national and interoccupational level

Ademe's catalogue of training programmes: around 100 training programmes are included, organised around 7 major themes (climate, construction, circular economy, energy efficiency, renewable energies, behavioural change and urbanism and mobility).

DETECTING ECONOMIC CHANGE AND ENCOURAGING OCCUPATIONAL TRANSITIONS

The effects of the ET could, in the long term, lead to a substantial transfer of jobs between sectors and within sectors and companies. The issues associated with career guidance and development, which are not specific to ET, are the particular focus of the EDECs and more generally of the Skills Investment Plan (PIC), as well as of the new "collective transitions" package. Whether the aim is to identify and support a company, an industry, a sector, a region, an employment policy provider or individuals themselves, each of the initiatives presented during the web conferences is playing out over the long term and within a multi-partner framework.

Ascertaining the needs for support linked to the ecological transition

What measures should be taken and what actors called on in order to identify the issues at stake for jobs and skills in

the medium to long term in one or more industries?

> Developing "accessible" methods of planning for the changes in jobs and skills arising out the ecological transition

Objective: to enable each sector and each industry to investigate how the ET is going to change the production process and what that is going to involve in terms of changes to jobs and skills.

Example method: a shared vision of the future for jobs and skills in the waste transformation and recycling industry. This is a process of co-construction, trialled by Céreq and France Stratégie, with the aim of identifying the priorities of the industry (which has four sub-sectors), the changes in occupations, the training needs and the possibilities for retraining.

The method: regular exchanges between professionals, labour market integration companies and experts, as well as between actors in education and training.

The characteristics and issues at stake are emerging clearly after a year: propelled by a favourable legislative and regulatory environment and by increasing awareness of waste management in the wider society, economic activities are being reconstituted and are diversifying and specialising. Certain functions are emerging, most of them more highly skilled, such as research, design and engineering, as well as technical sales functions. Also becoming evident is a need for heightened skill and qualification levels among employees. Until now mostly unskilled, workers in the industry have to deal with increasingly diversified flows of waste using new recognition technologies. At the same time, job prospects vary depending on the occupation in question: they are increasing for activities involved in the sorting of industrial waste but declining

significantly for those dealing with household waste.

> **Ensuring very particularly that the actors in employment plan for the potential job losses and gains in the various sectors because of the ecological transition, by identifying additional training needs in order to support employees' transitions into high-growth occupations.**

Equip providers of support for career guidance, training and employment

Transitions between declining occupations and those suffering labour shortages linked to the ET require a high degree of awareness on the part of those involved in career guidance, training and employment. The same applies in the case of occupations in the “green” sectors. So what support tools can be deployed? How can the flow of information be reinforced? There are a number of initiatives that can help.

Awareness raising kits for the green economy in the PACA region: with the support of the Region, Pôle emploi, the French employment service, and the French Agency for Biodiversity, Irfedd has been able over a period of several years to train almost a thousand employment, training and careers guidance counsellors, to put together a kit containing presentation media, videos and quizzes for organising a workshop for target audiences and to develop interactive exercises on the green economy in PACA focusing on jobs, occupations and training.

An e-learning module at Pôle emploi aimed at counsellors: this new 50-minute format, which has been available since the summer of 2020 from the service provider's digital university, comprises two modules and a final quiz. The first module is intended to raise awareness

of the employment potential of green and greening occupations. The second module is intended to encourage counsellors by means of 3 practical cases of job seekers interested in ET-related jobs and 3 case studies of recruiters.

Supporting the actors concerned in their occupational transitions

One very significant observation: whereas knowledge of needs and solutions usually precedes action, such knowledge can also be constructed while taking action, on the basis of ad hoc, sometimes experimental measures, as opposed to the application of pre-established good practices. Such ad hoc measures may constitute useful toolboxes for encouraging dissemination.

At industry level

The areas of focus, arising out of studies carried out in the waste transformation and recycling sector on the increasing automation of sorting: offer the workforce opportunities to upskill in order to develop flexibility and autonomy (by means of vocational qualification certificates (CQP), Validation of Acquired Experience (VKE), etc.); establish bridges between the labour market integration organisations that facilitate access to jobs in the sector for unskilled workers and private companies that can offer permanent jobs; raise the media profile of the shared vision of the future approach (see above) in order to facilitate its appropriation and expansion by actors in the industry.

The development of re-employment in the social and solidarity economy: the recycling of used materials, a long-established practice at Emmaüs, was investigated by a “skills and training” working group as part of the development of a road map for the circular economy. The investigation led to the identification of three new occupations (multiskilled recycling agent, ambassador for the circular economy and designer of second-hand retail spaces.

At regional level

The experiment with dialogues on jobs and environment is now a tried and tested practice, thanks in particular to the work done by Ademe and the Alliance Villes Emplois. However, there are still too few sectors and regions involved (between 2008 and 2016, the Maison de l'emploi and sustainable development project covered approximately 10% of France's territory). What effects do these dialogues produce? How can their expansion be encouraged?

Cambresis emploi gives impetus to energy renovation: the support for exploratory dialogue (SED) project led to the launch of the 2021-2024 local action plan that included one strand on “jobs and skills” another on “stimulating the renovation market”. In order to assist actors in the employment services and the regional authorities to make projections over a three-year period, the SED tool was used to characterise in advance three job creation scenarios in the low consumption construction/renovation of buildings sector, to calculate the number of hours' work per occupation and skill group and to identify measures to raise skill levels among workers in the sector and to equip jobseekers. A “sectoral strategic workforce plan” that requires regional leaders and a strong link to companies and regional partners in economic development, employment, training and labour market integration.



CONCLUSION

> With a wealth of theoretical and operational contributions, points of view and feedback from a wide range of actors at different levels, the cycle of 5 web conferences has shown how the issues at stake in the ecological transition are already being taken into account but also how limited the scope of the measures being taken is at this stage.

Several possible courses of action are emerging in order to scale up the response:

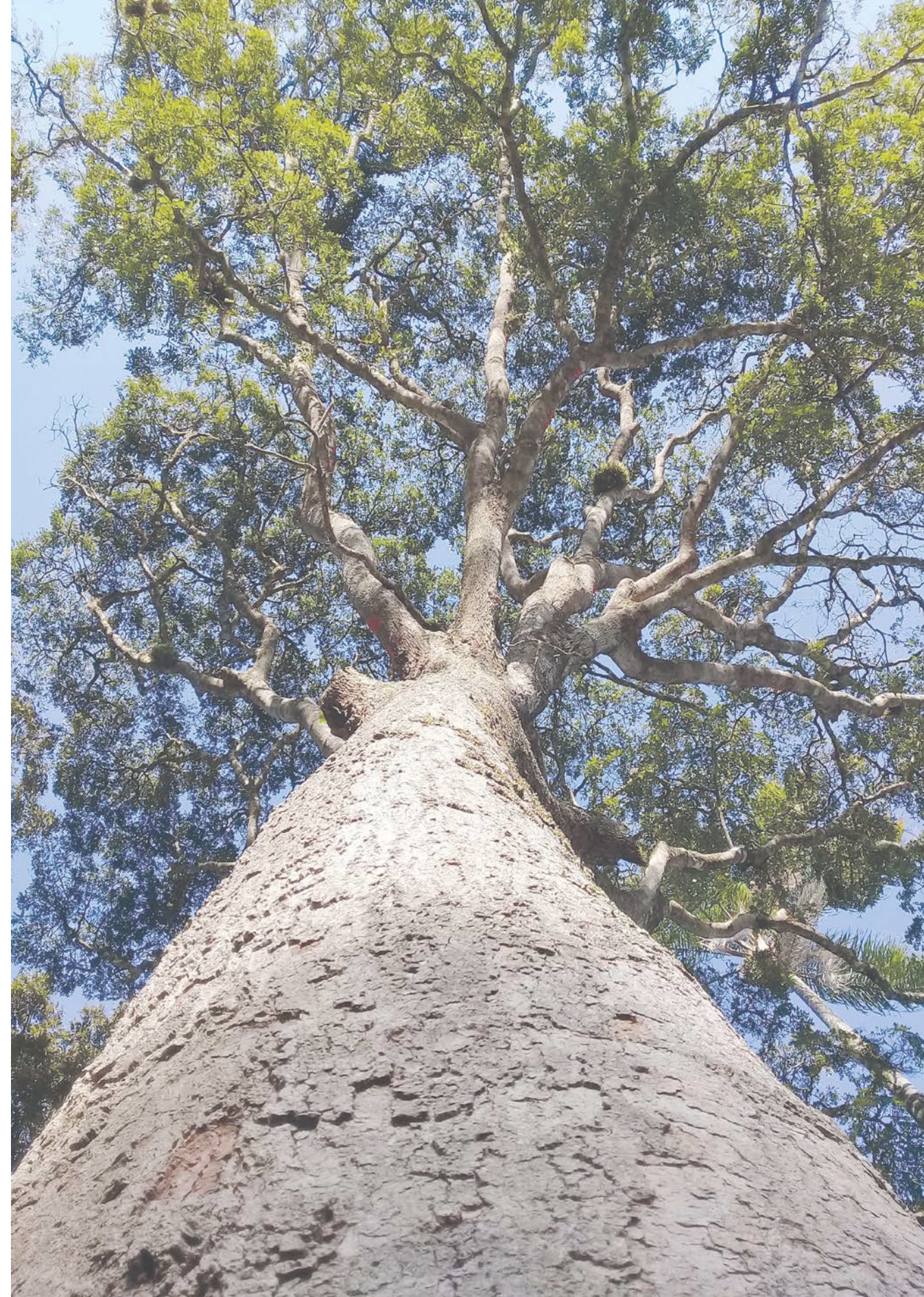
- increase the resources available for investigating the changes taking place, systematise the strategic workforce planning dimension of the exploratory measures, their qualitative strands and their regional variations and draw up a cartography of the occupations and skills associated with the ET;
- use the regulatory levers to promote ET as a priority objective at all levels and establish it as an essential subject in the discussion on work and in social dialogue in companies and organisations in the non-market sector;
- equip information, career guidance, training and employment specialists with the tools they require in order to accelerate proper consideration of the issues at stake in the ET for jobs and skills.

It is true that the public debate, particularly around the proposals put forward by the French Citizens' Convention on the Climate, and the measures put in place by the public authorities and/or the social and regional actors, can help to change things, provided that the actors show a willingness to address the issues and subject to proper evaluation. We could cite the "FNE-Formation renforcée", a government-funded scheme for raising

skill levels in firms impacted by the COVID-19 pandemic, the "collective transitions" package and, more broadly, the Skills Investment Plan (PIC) and the Recovery Plan, all of which are at least partially slanted towards the ET. Or again the draft bill (August 2021) on the climate, which seeks to reinforce the environmental prerogatives of the Social and Economic Committees (CSEs), to incorporate the ET into negotiations on strategic workforce planning and to make the OPCOs responsible for supporting very small and medium-sized firms in dealing with the issues for jobs and skills arising out of the ET.

Nevertheless, in order to simplify understanding of the issues, enrich the exchanges and facilitate the action, it is essential, at the same time, to continue to develop further the forums in which the actors in employment and the environment can exchange experiences, as well as the spaces in which those experiences can be leveraged. Thus Onemev has made available a documentary base of more than 160 resources on employment and the ET. On Ademe's initiative, the regional environmental actors also have at their disposal an overview of the French actors in employment, careers guidance and training. And reciprocally, a guide to the environmental actors at regional level could prove to be very useful.

These assessments and needs led the organisers of this cycle of web conferences to set up a working group in order to continue their deliberations on the actors to be involved in dialogue and to specify, in the coming months, the conditions under which coordinated support is to be provided for development of the skills required for the ecological transition. <





Highlight: About environment and competences



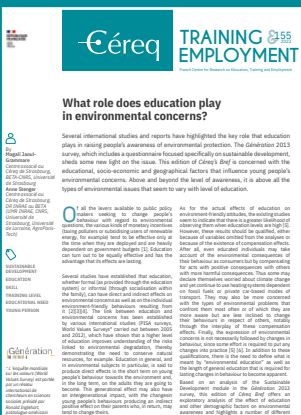
YOUNG PERSON > SKILL > SUSTAINABLE DEVELOPMENT
> EDUCATION > EDUCATIONAL NEED > TRAINING LEVEL



Magali JAoul-GRAMMARE
Senior researcher, CNRS
Discipline: Economics
Main research areas: Economy, Education



Anne STENGER
Senior researcher, UMR-beta Inrae, CNRS
Discipline: Economics
Main research areas: Environmental economics –
Experimental economics – Forest Economics



<https://www.cereq.fr/en/what-role-does-education-play-environmental-concerns>



What role does education play in environmental concerns?

Several international studies and reports have highlighted the key role that education plays in raising people's awareness of environmental protection. The Génération 2013 survey, which includes a questionnaire focused specifically on sustainable development, sheds some new light on the issue. This article is concerned with the educational, socio-economic and geographical factors that influence young people's environmental concerns. Above and beyond the level of awareness, it is above all the types of environmental issues that seem to vary with level of education.

Of all the levers available to public policy makers seeking to change people's behaviour with regard to environmental questions, the various kinds of monetary incentives (taxing polluters or subsidising users of renewable energy, for example) tend to be effective only at the time when they are deployed and are heavily dependent on government budgets [1]. Education can turn out to be equally effective and has the advantage that its effects are lasting.

Several studies have established that education, whether formal (as provided through the education system) or informal (through socialisation within the family), can have direct and indirect effects on environmental concerns as well as on the individual environment-friendly behaviours resulting from it [2] [3] [4]. The link between education and environmental concerns has been established by various international studies (PISA surveys, World Values Surveys* carried out between 2005 and 2012), which have shown that a higher level of education improves understanding of the risks linked to environmental degradation, thereby demonstrating the need to conserve nat-

ural resources, for example. Education in general, and in environmental subjects in particular, is said to produce direct effects in the short term on young people's behaviour towards the environment and, in the long term, on the adults they are going to become. This generational effect may also have an intergenerational impact, with the changes in young people's behaviours producing an indirect positive effect on their parents who, in return, may tend to change theirs.

As for the actual effects of education on environment-friendly attitudes, the existing studies seem to indicate that there is a greater likelihood of observing them when education levels are high [5]. However, these results should be qualified, either because of variables omitted from the analyses or because of the existence of compensation effects. After all, even educated individuals may take account of the environmental consequences of their behaviour as consumers but by compensating for acts with positive consequences with others with more harmful consequences. Thus some may declare themselves worried about climate change and yet continue

to use heating systems dependent on fossil fuels or private car-based modes of transport. They may also be more concerned with the types of environmental problems that confront them most often or of which they are more aware but are less inclined to change their behaviours in respect of others, notably through the interplay of these compensation effects. Finally, the expression of environmental concerns is not necessarily followed by changes in behaviour, since some effort is required to put any changes into practice [5] [6]. In addition to these qualifications, there is the need to define what is meant by “environmental education” as well as the length of general education that is required for lasting changes in behaviour to become apparent. Based on an analysis of the Sustainable Development module in the Génération 2013 survey, this edition of article offers an exploratory analysis of the effect of education and other demographic factors on environmental awareness and highlights a number of different socio-demographic profiles depending on the types of environmental concerns.

Environmental concerns differ with level of education

Among the various factors likely to explain the risk in the sample analysed, individuals were asked to describe their main environmental concern. For the question: “Of the following problems linked to environmental degradation, which is the one that seems to you the most worrying?”, seven possible answers were offered: “noise pollution, biodiversity, natural disaster, increase in household waste, water pollution (lakes and rivers), air pollution, climate change and greenhouse effect”.

Focusing on basic competencies is a way of approaching in greater detail the difficulties experienced by some of the young NEET population. Among these competencies, literacy and numeracy

are of crucial importance, since they are often a precondition for accessing other competencies and facilitating access to life-long learning. Surveys such as INSEE’s IVQ (Information et Vie Quotidienne/Information and Daily Life) survey and the OECD’s PIACC survey make it possible to measure these competencies in adults (Cf. Box 1).

While qualifications obtained is an indicator of educational level, we have little information about the specific educational variables, such as the courses taken in sustainable development (see Box 1). Thus, over and above the educational aspect itself and in order to contextualise its effects, the analysis also has to include socio-economic and geographical context variables that also influence individuals’ awareness of environmental problems (see digital supplement).

The socio-educational factors are individuals’ social origin as measured by the highest level of education achieved by the father or, failing that, by the mother (higher or lower than the baccalauréat), as well as respondents’ educational background: the highest qualification obtained, perception of education as offering a grounding in environmental issues and an objective measure of the environmental element of education as evaluated on the basis of an individual’s educational background (see methodology box). The socio-economic factors are variables relating to occupational situation (employment, unemployment, others) and to individuals’ health (chronic illness or otherwise), since a person who is ill may be more aware of environmental problems than an individual in good health (allergies, for example).

As far as the geographical factors are concerned, a person’s past and present area of residence may each influence

their environmental awareness. Thus the analysis includes the area of residence during childhood (at age 11-12), any changes between childhood and adulthood and the current area of residence. These areas are assigned to one of three categories: rural, urban and highly urbanised (more than 500,000 inhabitants). They can also be used to identify any changes in the area of residence between the age of 11-12 and the time of the survey. Finally, the analysis takes account of the presence (or otherwise) of a national park or marine reserve or protected area in the department in which the area of residence is located.

The analysis was carried out using a sample of 3,533 individuals aged between 16 and 35. The sample was not balanced in terms of gender (28% women), notably because of the associated educational pathways, which were predefined in the construction of the survey sample (see methodology box). All levels of education are represented at both the level of the individual and of the parents. Most of the respondents live in an urban area (76 %) but one that is less dense than that of their childhood (84%). While 79% of the respondents had remained in the same type of area of residence between the age of 11-12 and the survey date, 5.8% had moved from a rural into an urban area and 15% had moved in the opposite direction.

Three fundamental environmental concerns emerge from the analysis, with more than 70% of respondents mentioning one or other of them: climate change and the greenhouse effect (26%), biodiversity (24%) and water pollution (20%). These concerns are differentiated by level of education.

Those with few qualifications are relatively more worried about noise pollution than about the environmental

BOX 1

Environmental education (EE) and education for sustainable development (ESD)

The incorporation of the notion of environment into the French education system dates from the end of the 1970s. The early EE courses aimed to raise individuals’ awareness of environmental problems, but the availability of such courses varied considerably by level, institution and discipline. In France, such courses were concentrated in primary and lower secondary schools. As the decades passed, an approach focusing exclusively on the environment gradually gave way to one focused on the individual with the aim of promoting sustainable development, in which the affective dimension was becoming increasingly important. Thus from the 2000s onwards, the emphasis in ESD was on the behavioural changes to be made, the aim being “to integrate the principles, values and practices of sustainable development into all aspects of education and learning” (UNESCO, United Nations Decade of Sustainable Development, 2004-2015). Despite this development, until the 2010s, ESD was virtually non-existent in primary schools, accounted for only 11% of secondary-level provision and was scarcely mentioned at all in higher education. In 2014, spurred on by the Conference of University Vice-Chancellors and the Conference of the Grandes Écoles (la Conférence des Présidents d’Université and la Conférence des Grandes Écoles), a working group put forward a reference framework for sustainable development that specified the necessary minimum knowledge and led to the guide on SD in the FECODD (Formation – Education – Compétences – Objectifs du Développement Durable: <https://fecodd.fr/>) tool box. In 2015, the 193 UN member states adopted 17 Sustainable Development Goals (SDGs) for the period 2015-2030, a common road map for the transition to sustainable development. SDG 4 “Quality Education” provides notably for the acquisition of the knowledge required to promote sustainable development. In France, this goal was given concrete expression through the introduction of education plans in SD in primary and upper and lower secondary schools and award of the designation “E3D – École/Établissement en démarche de développement durable/School moving towards sustainability”; these two measures increased by 149% and 60% respectively between 2014 and 2016 (INSEE, Indicateurs pour le suivi des ODD). In 2021, the minister for higher education, research and innovation extended the Mission Jean Jouzel, which had been launched in February 2020, in order “to give greater consideration to the recommendations made in the intermediate report in such a way as to support and facilitate the introduction of these training and awareness-raising measures within higher education establishments” (MESRI). For further information, see [7].

problems, and this concern also occupies a relatively more important position among the individuals with low levels of qualification than in the population as a whole.

The fundamental role of education in the type of environmental concern...

Educational profiles appear to be a decisive factor in environmental awareness. After all, individuals' educational characteristics play a greater role than their social characteristics in determining the overall profile of their environmental concerns. Those with the highest qualifications and having completed higher education courses on the environment are more aware of global concerns such as climate change and water pollution. This profile is found more frequently among girls and children from the higher social strata. The least well qualified individuals who have not had any environmental education are more aware of local concerns, such as increasing waste and noise and air pollution.

Individuals are more aware of the environment as a global public good

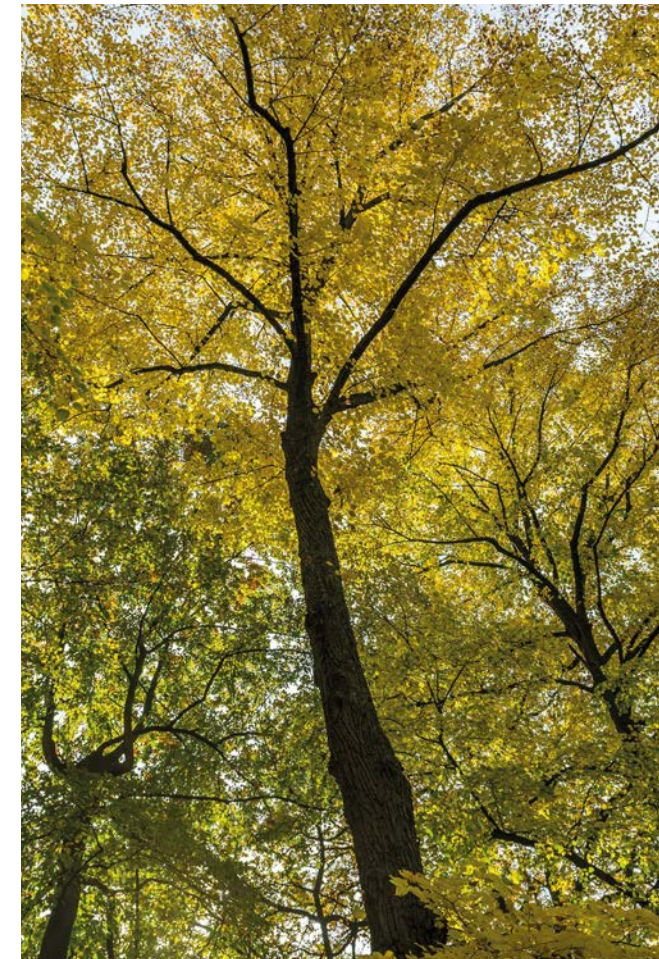
when they have been educated in and sensitised to environmental issues. Those with the lowest levels of education have different environmental concerns, closer to their daily worries. After education, other socio-economic and geographical factors help to fine-tune these profiles.

... qualified by individuals' socioeconomic and geographical profiles

The dominant role of education has to be viewed in the context of individuals' lives. In particular, the economic profiles show that the more vulnerable a person's occupational situation is, the more their concerns move away from the global level (climate change, water pollution) and revolve around the immediate environment (air and noise pollution). These profiles contrast the youngest respondents and men with older respondents and women, on the one hand, and those individuals who have a job with those who do not, on the other. Over and above the educational and economic factors, geographical factors also seem to play a part in determining individuals' environmental concerns.

Thus among those who live in rural areas, these concerns move all the further away from the local level, giving way to a greater preoccupation with global issues. The geographical profiles divide individuals depending on whether or not they live close to many and diversified protected areas, on the one hand, and, on the other hand, residents of relatively non-urban areas from those living in highly urbanised areas

If they live close to protected areas, these latter are more concerned about natural catastrophes, noise and atmospheric pollution. These results seem relatively consistent with some earlier surveys on environmental concerns in France (CREDOC 2015; OCDE 2014), which show notably that "proximity to a remarkable natural space increases interest in environmental issues" (CREDOC survey on the future biodiversity agency, 2015). Finally, the various analyses enable us to compile a very specific profile of those individuals concerned with biodiversity, who generally hold an agricultural baccalauréat and tend to live in rural areas.



3 Scores and differences in scores for numeracy and literacy by level of qualification and situation (20-34 year olds, all 29 countries)

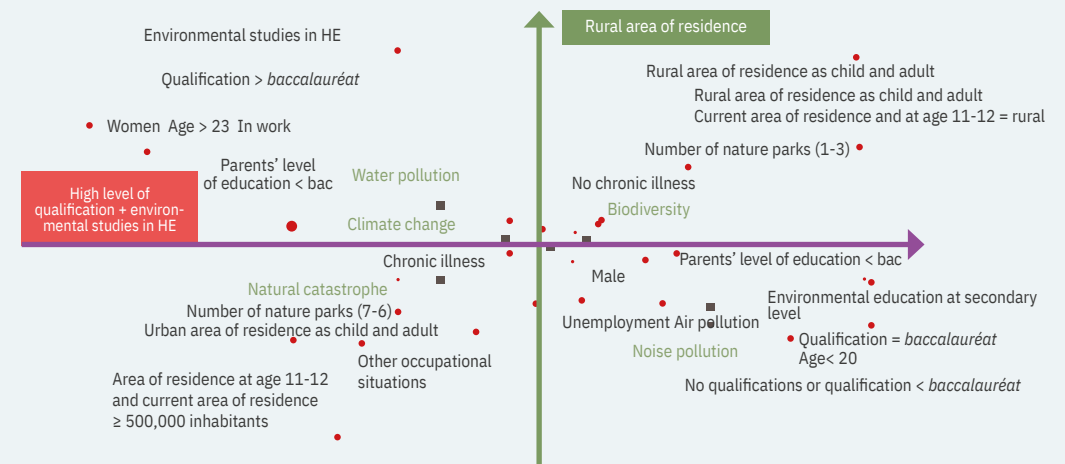
	Air pollution	Biodiversity	Climate change	Natural catastrophes	Noise pollution	Increase in waste	Water pollution
No qualifications or qualification lower than the bac	1,22	0,91	0,94	1,2	2,26	1,09	0,85
Bac or equivalent	1,22	1,16	0,93	0,79	0,72	1,04	0,81
Higher than bac	0,63	0,94	1,1	1,01	0,29	0,91	1,25

Example: a disparity index > 1 signifies both that the level of education is relatively more frequent in the concern in question but also that this concern occupies a relatively more important position within that level of education than in the population as a whole.

Céreq, enquête Génération 2013 interrogation 2016, module Développement durable.



4 Socio-demographic profiles as a function of environmental concerns - Modalities (axes F1 and F2: 50.89%)



CONCLUSION

> These preliminary results tend to confirm the role of education in environmental concerns: individuals with the highest levels of education do indeed appear to have an awareness of environmental problems that is more global in nature (climate change) than local (noise pollution). However, our results also show that education is only one of a number of variables that have to be taken into account. This initial analysis confirms that education should be seen as a major lever to be activated by those seeking to increase awareness of environmental problems and to encourage environment-friendly behaviours. However, while the existing data have enabled us to analyse the link between education and environmental concerns, they fail to capture environment-friendly behaviour. In order to improve our understanding of the “education-concern-behaviour” relationship, it will be necessary to track the cohorts of the Génération surveys in order to ascertain both the environmental concerns they express and any environment-friendly behaviours they might adopt, and to do so while taking into account the specific educational courses taken. A better understanding of this relationship would make it possible, on the one hand, to champion those courses that have the greatest impacts on behaviours and, on the other hand, to identify more clearly those populations on whom the public authorities might concentrate their efforts. <

BOX 2

Scope of the analysis and methodology

Of the 22,000 individuals questioned during the Génération 2013 - 3 Years On survey, a sample of 3,533 individuals answered additional questions on sustainable development. This module was added at the request of the General Commission on Sustainable Development (Commissariat Général au Développement Durable/CGDD). The scope consists of a list of educational courses compiled by the Commission and which it regards as falling within the sphere of environmental concerns. There is no official classification of these so-called “environmental” courses. They were identified by means of a specific methodology based on a search for key words in the titles of qualifications and in teaching modules. Thus only certain courses identified by the CGDD are covered by this sample. The individuals were asked about their perception of the education they had received about the environment: “Would you describe the education you received as environmental education?”. Now 22% of the individuals in this sample did not perceive their education as environmental. Furthermore, in preliminary analyses, this variable proved to be non-significant. These results led us to analyse the courses in greater detail. Above and beyond the young respondents’ subjective perceptions, we constructed an objective variable relating to the environmental dimension (see digital supplement). In order to investigate the links between environmental perceptions and educational, socio-economic and geographical factors, we carried out four multiple correspondence analyses (MCAs, see digital supplements) that enabled us to differentiate the types of environmental concerns by level of qualification, socioeconomic situation and geographical areas of residence both past and present.

FURTHER READING

 Read all Céreq publications on www.cereq.fr/en

- [1] “Short & long-term effects of monetary and non-monetary incentives to cooperate in public good games”, M. Lefebvre & A. Stenger, Plos One, Public Library of Science, 15 (1), 2020.
- [2] Notre avenir à tous, Rapport Brundtland, Commission mondiale des nations unies sur l’environnement et le développement, Québec, 1987.
- [3] Feuille de route pour la mise en œuvre du programme d’action global pour l’éducation en vue du développement durable, Unesco, Paris, 2014.
- [4] « Environnement : comment changer nos comportements ? », S. Granon, Le Journal du CNRS, 2015.
- [5] “Does education increase pro-environmental behavior? Evidence from Europe”, A. Meyer, Ecological Economics, 116, 2015.
- [6] “The determinants of individual’s attitudes towards preventing environmental damage”, B. Torgler, M. García-Valiñas, Ecological Economics, Volume 63, Issues 2–3, 2007.
- [7] Travail, formation et éducation au temps des transitions écologiques, F. Drouilleau-Gay (Coord.), A. Legardez (Coord.), co-édition Céreq Octarès, 2020.
- [8] Modes de vie et pratiques environnementales des Français, CGDD, 2018.



Highlight: About environment and competences



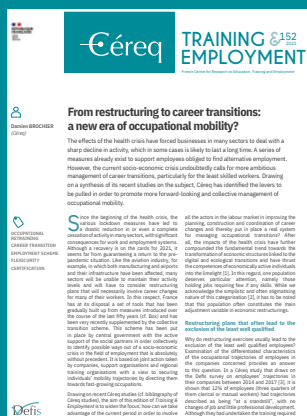
ACCESS TO CVT > CAREER TRANSITION > OCCUPATIONAL MOBILITY > FLEXICURITY > OCCUPATIONAL RETRAINING > COACHING



Damien BROCHIER
Partnership and vocation training missions, Céreq
Discipline: Economics, labour, vocational training
Main research areas: Career transitions



<https://www.cereq.fr/en/restructuring-career-transitions-new-era-occupational-mobility>



From restructuring to career transitions: a new era of occupational mobility?

The effects of the health crisis have forced businesses in many sectors to deal with a sharp decline in activity, which in some cases is likely to last a long time. A series of measures already exist to support employees obliged to find alternative employment. However, the current socio-economic crisis undoubtedly calls for more ambitious management of career transitions, particularly for the least skilled workers. Drawing on a synthesis of its recent studies on the subject, Céreq has identified the levers to be pulled in order to promote more forward-looking and collective management of occupational mobility.

Since the beginning of the health crisis, the various lockdown measures have led to a drastic reduction in or even a complete cessation of activity in many sectors, with significant consequences for work and employment systems. Although a recovery is on the cards since 2021, it seems far from guaranteeing a return to the prepandemic situation. Like the aviation industry, for example, in which both manufacturing and airports have been affected, many sectors will be unable to maintain their activity levels and will have to consider restructuring plans that will necessarily involve career changes for many of their workers. In this respect, France has at its disposal a set of tools that has been gradually built up from measures introduced over the course of the last fifty years cf. [Box] and has been very recently supplemented by the collective transition scheme. This scheme has been put in place by central government with the active support of the social partners in order collectively to identify possible ways out of a socio-economic crisis in the field of employment that is absolutely without precedent. It is based on joint action taken by companies,

support organisations and regional training organisations with a view to securing individuals' mobility trajectories by directing them towards fast-growing occupations.

Drawing on recent Céreq studies (cf. bibliography of Céreq studies), the aim of this is to widen the focus: how can we take advantage of the current period in order to involve all the actors in the labour market in improving the planning, construction and coordination of career changes and thereby put in place a real system for managing occupational transitions? After all, the impacts of the health crisis have further compounded the fundamental trend towards the transformation of economic structures linked to the digital and ecological transitions and have thrust the competences of economically active individuals into the limelight [1]. In this regard, one population deserves particular attention, namely those holding jobs requiring few if any skills. While we acknowledge the simplistic and often stigmatising nature of this categorisation [2], it has to be noted that this population often constitutes the main adjustment variable in economic restructurings.

RESTRUCTURING PLANS THAT OFTEN LEAD TO THE EXCLUSION OF THE LEAST WELL QUALIFIED

Why do restructuring exercises usually lead to the exclusion of the least well qualified employees? Examination of the differentiated characteristics of the occupational trajectories of employees in the companies concerned provides an answer to this question. In a Céreq study that draws on the Defis survey on employees' trajectories in their companies between 2014 and 2017 [3], it is shown that 12% of employees (three quarters of them clerical or manual workers) had trajectories described as being "at a standstill", with no changes of job and little professional development.

Although they had undertaken the training required by law, only 37% of them had been able to take part in non-compulsory training programmes, compared with 58% of all employees, and this despite the fact that they were equally keen to do so (70% compared with 68%). This situation, largely the result of management decisions, led to this group of employees being restricted to strictly adaptive training that did not enable them to progress in their careers. Consequently, they were not equipped to embark on a major career change in the event of a restructuring taking place.

As a result, short-term solutions based on severance bonuses or early retirement programmes are generally adopted in such situations as mutually acceptable compromises, to the detriment of more ambitious solutions that aim to help the employees concerned to return to employment on a permanent basis. This is exemplified by the restructuring decisions taken during the past year by companies such as Michelin, Aéroports de Paris and the SNCF. Even though they are few in number, the examples of successful moves into different

jobs or sectors made by vulnerable employees deserve to be examined in detail in order to analyse the underlying choices made. This applies to a back-to-work scheme put in place in 2014 and 2015 to offer strengthened support for 4,400 employees made redundant by the transport and logistics companies Mory Ducros and Mory Global [4]. Under this scheme, lasting solutions were found for 96% of the employees, 40% of whom had few if any qualifications. This extraordinary result is explained by an exceptional level of institutional and financial support, underwritten over the long term (almost 6 years) by the state. The scheme enabled 70% of the affected employees to embark on training programmes; for those likely to face difficulties due to poor language skills or computer illiteracy, comprehensive support processes were put in place. Thus while it is possible during a restructuring process to make good the skills deficits of the least well qualified individuals, large-scale and costly programmes have to be put in place, which may well put a damper on the widespread adoption of such schemes.

FOR SHARED MANAGEMENT OF THE CAREER TRANSITIONS OF THE MOST VULNERABLE

This now widely acknowledged diagnosis of the accumulated risks faced by the least qualified individuals in restructuring situations has already received a number of specific responses in terms of access to training. In particular, the Act of 5 September 2018 increased the annual amount paid into the personal training accounts (compte personnel de formation/CPF) of individuals whose qualifications fall below level 3 of the French national qualifications framework (CAP – basic vocational certificate). The question of their ability to initiate training independently, particularly by means

The long history of the French-style management of restructuring programmes

The social fact embodied in France's restructuring programmes has been constructed over the course of a history mediated through the creation and accumulation of multiple levers of action during the last 70 years.

From the 1950s to the 1980s: collective levers for managing large-scale restructurings

- *Management of voluntary severance by means of individual financial incentives (severance bonuses) or of the labour market through early retirement schemes.*

- *Establishment of redeployment units by companies involved in closing down sites.*

- *Establishment of redeployment schemes based on state-aided training programmes (under the umbrella of the National Employment Fund/Fonds National pour l'Emploi set up in 1963).*

From the 1990s to the present day: responsibility for dealing with the consequences of restructuring programmes transferred to companies and individual employees

- *For individuals:*

- *emergence of an individual right to a change of occupation or career through various forms of contract concluded with the employees in order to give them a status and guarantees between being made redundant and accessing a new job: retraining agreement, retraining leave, employment security contract, etc.*

- *recourse to measures provided under the right to training, notably in order to facilitate access to lengthy training programmes: the individual training leave (congé individuel de formation or CIF), which in 2018 was replaced by the personal training for transition account as part of an occupational transition plan.*

- *development of a right to personalised counselling on career and skills: skills assessment (from 1991), professional development counselling (from 2014).*

- *For companies:*

- *from 1989 onwards, obligation to put in place a social plan, which in 2002 became the employment protection plan, in order to avoid or reduce redundancies by activating the various levers mentioned above.*

- *since the beginning of the 2000s, companies have had to add a preventive strand to their corporate planning by adopting forward-looking approaches to the management of jobs and skills in order to anticipate changes in jobs and skills at as early a stage as possible.*

Sources : [18] [19]

of the CPF app, has become crucial. On this point, and despite the short period of time that has elapsed, take-up of the CPF one year after its introduction seems to be a reality for all categories of employee, since 63% of the beneficiaries are clerical or manual workers or technicians [5]. However, this finding is not sufficient to eliminate the serious deficit in access to training for the least qualified employees in French companies.

Furthermore, a response based solely on training does not in itself appear to really secure individual trajectories in the event of restructuring. For the least qualified, an additional stage is necessary in which they acquire skills associated with a specific trade or occupation that can also be used in other contexts. If the acquisition of these cocalled transferable skills [6] is to be truly viable, then individuals' commitment to training must be matched by the assumption of responsibility by their employers. This is the thinking behind the possibility very recently offered to companies to contribute to the funding of their employees' personal training accounts in order to jointly construct a training initiative with them. More broadly, however, there are various levers that have to be activated in order to launch workers with few qualifications into a process of occupational transition. Various Céreq studies (notably those based on analyses of the Defis surveys) enable us to identify four main levers.

Lever 1: mapping out trajectories by linking them to work

The aim of the first lever is to involve employees with the lowest levels of qualification in mapping out trajectories in line with their occupational identities. For a good number of them, as is well known, attitudes towards training are frequently adversely affected by school failure syndrome, which makes it difficult for them

to commit themselves voluntarily to the “standard” training course formula. In such situations, employees can have recourse to two schemes. The first is the validation of acquired experience (VAE), which seems particularly well suited to occupations in which experience acquired on the ground frequently takes precedence over formal qualifications. This applies notably to the construction and public works sector, recently studied by Céreq, where there is demonstrably a desire “to revive the use of VAE” by using it as a tool in developing career trajectories and raising skill levels [7]. The success of this approach depends crucially on the key role played by the OPCOs (opérateurs de compétences – the new vocational training support agencies) in developing collective and inter-company VAE practices, which are regarded as the only way of successfully supporting candidates in a demanding process.

A second scheme, a much more recent one since it was introduced by the 2018 Act, seeks to acknowledge the value of work itself as a form of training through the implementation of on-the-job training programmes (Actions de Formations en Situation de Travail / AFEST). This scheme is of major interest in the light of Céreq’s findings on the extent of informal learning that can be observed in individual work dynamics [8]. By seeking gradually to certify the skills acquired through work, these on-the-job training method can help to redefine the profiles of many occupations. The development of such method might enable French firms to join their counterparts in several European countries (notably in Northern Europe) that have long made extensive use of this form of training to provide life-long training [9].

Thus by attributing a new value to experience and to work and repositioning them at the heart of the trajectories of

employees with the lowest levels of qualification, these categories of workers can be launched on to the upward career trajectories from which many of them are excluded.

Lever 2: supporting individuals in the construction of their trajectories

However, a lever of this kind cannot be effectively activated unless the modes of information and advice on the various career development schemes have also been devised. The point here is to enable individuals to identify the potential for transferability of the skills they already possess. The ease of identification varies depending on the type of activity in question. While such potential is readily identified in the case of occupations that cut across various sectors, such as sales jobs, it is much less easily identified in more specific occupations, like those in the construction industry, for example. Hence the importance of the second lever, namely the provision of support for individuals as they construct their occupational trajectories. Here too there is an instrument that is now firmly incorporated into companies’ internal practices, namely the career development interview. However, the most recent assessments of its use and its effects in terms of information suggest that its impact is currently somewhat reduced [10]. Two other types of resources are also available. Accessing information independently still seems to be the prerogative of managerial staff and employees in intermediate occupations [11], even though, as we have already seen, the early uses of the “My Training Account” app seem to be reversing this tendency slightly. The career development advice scheme (le Conseil en Évolution Professionnelle / CEP) constitutes a third course of action that can help individuals, particularly the least well qualified, to identify more clearly the

extent to which the skills they already possess will enable them to set their sights on careers in other occupations and to pinpoint the additional skills they will require for success. Céreq’s studies on the dynamics of the implementation of the CEP scheme in the French regions [12] have highlighted the decisive influence of local partnerships, whether formal or informal, that advisors forge with other organisations in order to respond to users’ needs, which sometimes have more to do with social integration than career development.

#Lever 3: safeguarding trajectories through upskilling and internal mobility

Companies have at their disposal a third lever to activate for the benefit of their employees with the lowest levels of qualification, namely the mode of mobility management they are going to favour. A range of highly contrasting strategies can be observed. Some companies adapt to very high turnover rates, which are due mainly to the often difficult working conditions. Simply by adopting such a strategy, they are drastically reducing the opportunities for their employees to develop their skills internally. Other companies offer their employees basic forms of career trajectory safeguarding, such as expanding their skill sets and validating them through industry-level certifications. This has been the approach adopted notably in the warehouse and logistics sector in certain regions, with public authorities, labour market intermediaries and employers working together to develop and recognise the occupation of “multi-skilled logistics operative” [13]. While these processes enable employees working in low-level jobs as warehousemen or fork-lift truck operators to develop their skills, they also serve the economic interests of the companies concerned, which see them as a means to attract workers and increase

employee loyalty, strategies that tend to be difficult to implement in this type of work.

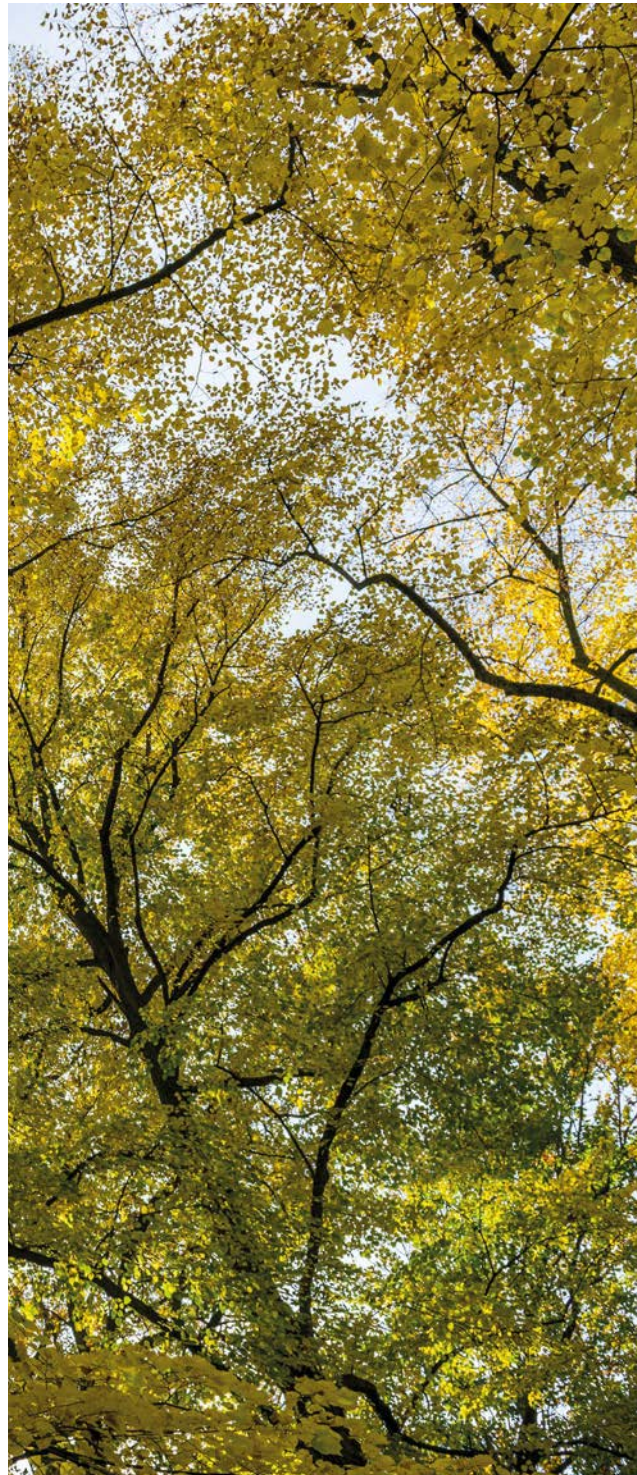
#Lever 4: bringing mobility management and certification systems into line with each others

A final lever is essential to give individuals a real ability to navigate their trajectories. It involves constructing a more homogenous and integrated vision of the vocational certification system that offers workers stabilised reference points as they construct their trajectories. The challenge here is to strengthen links between the various public and/or occupational reference frameworks in order to improve skill transferability. At the heart of the debate is the currently ongoing work on units of competency [14]. Since 2014, all the vocational certifications listed in the French National Register of Vocational Certifications have had to be divided into “units” defined as “identified parts of a vocational certification”. Each unit can be the object of a specific validation process, thereby enabling individuals gradually to acquire a qualification. However, an additional issue has arisen, namely the need to consider the possibility that units linked to a specific certification can be recognised as possible components of a different certification. This plan to construct units common to several different certifications (already foregrounded by Céreq two decades ago [15] requires an extensive programme of modification involving the various certification bodies (the National Ministry of Education, the Ministry of Labour, the occupational sectors and so on). Metaphorically speaking, therefore, the question is not so much to develop new units of competency but rather to place cement between the existing units. The cartography resulting from these exchanges will enable individuals to ground their professional development

on recognised collective reference points, thereby facilitating the construction of their career trajectories. One interesting indication that this process is already under way is the steps being taken by numerous occupations and skills observatories (which support more than a hundred occupational sectors) to encourage collaboration among themselves, particularly on ways of developing bridges between the various sectors [16].

CONCLUSION

> Clearly, the various approaches sketched out here will be seen as just so many fine words unless they are understood and appropriated by the actors in the training system. Even if they have more resources at their disposal, the most vulnerable individuals are also the most dependent on the strategic choices made by their employers. Consequently, they have and will always have difficulties in driving forward the construction of their own trajectories. In view of the weakness of company-level negotiations on training, it is at the level of the occupational sectors that the best prospects for the most comprehensive appropriation of the challenge of managing career transitions are to be found. The new cycle of collective bargaining at this level, which Céreq analysed as having been particularly active after the national intersectoral agreement of 2013 and the Act of 2014 [17], will have to be closely observed in this respect. Particular attention will also have to be paid to the way in which the OPCOs will be able to encourage the sectors they support to collaborate in this area. <



FURTHER READING

Read all
Céreq publications
on www.cereq.fr/en

- [1] Les reconversions professionnelles, F. Compain et B. Vivier, Avis du CESE 2021-08, 2021.
- [2] Le travail non qualifié : permanences et paradoxes, D. Meda & F. Vennat (dir). Coll. Recherches, La Découverte, 2005.
- [3] « La formation en entreprise accompagne les promotions mais fait défaut aux plus fragiles », E. Melnik-Olive, C. Stephanus, Céreq Bref n° 374, 2019.
- [4] Clôture et bilan du dispositif d'accompagnement renforcé au retour à l'emploi des salariés de Mory Ducros et Mory Global, P. Dole, Rapport de l'IGAS, 2020.
- [5] Bilan 2020 du Compte Personnel de Formation, Centre Inffo, Inffo Formation n°1000
- [6] Compétences transférables et transversales : Quels outils de repérage de reconnaissance et de valorisation pour les individus et les entreprises ?, France Stratégie, Réseau Emploi Compétences, 2017.
- [7] « Valoriser les acquis de l'expérience, pour un usage renouvelé de la VAE », N. Beaupère, F. Kogut-Kubiak, N. Quintero, J. Urasadettan, Céreq Bref, n° 386, 2020.
- [8] « Le travail au coeur des apprentissages en entreprise », C. Fournier, M. Lambert, I. Marion-Vernoux, Céreq Bref n° 353, 2017.
- [9] « Regards comparatifs sur la formation en Europe : un plafond de verre du côté des entreprises françaises », A. Checchaglini, I. Marion-Vernoux, Céreq Bref n° 392, 2020.
- [10] « L'entretien professionnel peut-il contribuer au développement des compétences ? », C. Durieux, L. Baraldi in L'entreprise rend-elle compétente ? Céreq Essentiels 02, Céreq, 2021.
- [11] « Tous informés... tous formés ? », C. Brunet, G. Rieucan, Céreq Bref n° 378, 2019.
- [12] « Coopérer pour mieux orienter : zoom sur les pratiques locales des acteurs du CEP », A. d'Agostino, L. Baghioni, A. Legay, L. Gayraud, A. Valette-Wursthen, Céreq Bref n° 383, 2019.
- [13] « De l'influence du numérique sur les compétences dans les entrepôts de la logistique », M. Hocquelet, Céreq Bref n° 388, 2020.
- [14] « Les blocs de compétences dans le système français de certification professionnelle : un état des lieux », F. Amat et alii, Céreq Echanges, n° 4, 2017.
- [15] « La validation des qualifications : quelle place pour une régulation paritaire et interprofessionnelle ? » O. Liaroutzos, E. Sulzer, N. Besucco, F. Lozier, Céreq Bref n° 177, 2001.
- [16] « Observatoires prospectifs des métiers et des qualifications, l'âge de la maturité », A. Delanoé, N. Quintero, A. Valette-Wursthen, Céreq Bref n° 398, 2020.
- [17] Evaluation des effets de l'accord national interprofessionnel de décembre 2013 sur les négociations des branches professionnelles, Sémaphores & Céreq, synthèse du rapport final pour le CNEFP, déc. 2018.
- [18] Mutations industrielles et reconversion des salariés, Villeval M.C., L'Harmattan, 1992.
- [19] Anticiper et concerter les mutations - L'obligation triennale de négocier le dispositif de gestion prévisionnelle des emplois et des compétences, H. Rouilleault, La Doc. Française, 2007.



Highlight: About environment and competences



POLITICAL ECOLOGY > CRITICAL PEDAGOGY > KNOWLEDGE
> CORPORATE SOCIAL RESPONSIBILITY > GLOBAL COMPACT
> CORPORATIONS



Claudia FIGARI

Senior Researcher at CONICET, Director of CEIL

Senior Lecturer in Labour Relations Studies at the Faculty of Social Sciences of the University of Buenos Aires and Senior Lecturer in the Department of Education at the National University of Luján, Argentina.

Discipline: socio-economics, labor economics

Main research areas: Labour studies

Work, ecology and knowledge:
a field of reflection and dispute

At the beginning of the millennium, a global and civilizational consensus is being renewed. Its most emblematic expression is the signing of the Global Compact (GC), promoted by the United Nations. Its conceptual bases find in the doctrines of management the main guidelines for large companies and states in order to bring a “more human” face to capitalism. In this sense, the great challenge will be to transpose the new global mandates founded on human rights, decent work, the fight against corruption and the protection of the environment, -among other issues- in different regions and countries. To this end, different networks of the so-called GC are created, located at regional and national level. Their purpose is to provide corporate literature and materials that contribute to implementing the recommendations of the new global consensus in the daily work and in the territories where factories are located. In the described scenario, Corporate Social Responsibility - CSR - provides the key semantics to, for example, socially legitimise the image of a company that is responsible for the care of the environment. In this framework, a corporate pedagogy is being strengthened in order to shape a new worker who collaborates with the company and at the same time must respect global corporate mandates. In other words, corporate pedagogical devices are designed to shape workers who see themselves as global citizens.

Two decades into the millennium the COVID pandemic has shaken the world. No one was, and still is, exempt from a blight that revealed multiple forms of solidarity and, at the same time, the extreme voracity of large pharmaceutical corporations and laboratories in general. Capitalist accumulation shows its worst face, together with the hegemony of the powerful regions and countries of the planet. This exceptional pandemic situation also evidenced the implications of the harmful and devastating link between human beings, nature and societies. From our perspective, critical ecology -which is both political and pedagogical-

is not a new field, but it has undoubtedly gained prominence as it contributes to the visibility and denaturalization of environmental destruction and highlights the increasingly radical alteration of the socio-environmental conditions that make our planet habitable.

We propose to problematize global corporate agendas and the semantics used to promote their social legitimization through the lens of our latest research. In other words, the so-called CSR has been and continues to be the language of global agreements, in a context where the continuity of the capitalist order demands certain adjustments (including among

others the commitment to environmental objectives). However, corporations evaluate in an abstract way the so-called environmental objectives derived from these agreements, and spread them through sustainability reports made for public dissemination and international rankings.

A challenge for critical research is to show the subversions of meanings in a global context of inequality. Problematizing the ecological transition requires first of all to denaturalize oppression and destruction of life. Critical pedagogy assumes a fundamental role here by providing the conditions for the shape and development of a critical conscience.

Towards an ecological capitalism? The need for problematization and criticism

The global agreements made at the beginning of the millennium have called upon regions, countries, corporations, trade unions and society as a whole to achieve goals that lead to “sustainable capitalism”. However, behind this notion lie assumptions and paradigms that are still far from being made visible by scientific studies in the social sciences and humanities.

Two decades before the new millennium, the Washington Consensus had already demonstrated its necessary articulation with the neoliberal-toyotist matrix (Antunes, 2005). For Latin America in general and for Argentina in particular, it meant the loss of acquired social and labour rights, various forms of flexibility -and their harmful implications for working conditions- and the valorisation of the knowledge deployed by workers in the very act of work (Antunes, 2005).

The millennium seeks to re-establish a new global consensus, a framework in which large companies will have to meet targets that can be measured, evaluated

and disseminated in sustainability reports. Annual disclosure is a requirement if a large corporation adheres to the GC. A localized global pedagogical agenda is created that makes feasible what we have called “the official corporate curriculum” (Figari, 2019). The environmental contents take centre stage, however, they are based on a productivity and efficiency-based perspective.

Funded by the Argentinian National Council for Scientific and Technological Research (CONICET) and the University of Buenos Aires, our most recent research has studied corporate pedagogical devices in different sectors of economic activity. Concurrent trends can be recognized when analysing the corporate demands arising from the Global Compact. Two strategic sectors that challenge governments, corporations and civil society as a whole on the ecological issue are the automotive industry -in subsidiaries located in the northern area of the province of Buenos Aires- and large-scale open-pit mining (six production projects in the province of Santa Cruz, in the south of the country). We have selected subsidiaries of large transnational companies that subscribe to the GC and recognise in their sustainability reports all the semantics of corporate social responsibility through a permanent reference to environmental contents.

In the mining sector, working and living conditions are significantly altered, for example, by establishing 14-day work shifts (which are carried out at an altitude of approximately 4,500 metres) and 14 days of rest. In addition, the fatal injuries to the environment involve the use of millions of litres of water and its contamination from various chemicals, including cyanide. In addition to labour conflicts, there are environmental issues in a water reserve area, since mining activity takes place in a territory where

large glaciers are located.

In terms of renewable energy, the automotive industry is still far from restructuring. However, through CSR, some actions are being carried out with schools to protect the environment, and road safety education is being advocated.

In different sectors of economic activity, there is a prolific managerial literature to promote “good practices”, some of which are paradoxically linked to the environment.

The semantics of CSR is imposed by standardising these practices in pursuit of a responsible economy that allows for accumulation and guarantees production, and also generates a variety of actions aimed at achieving social legitimacy.

Both in corporations and in public policies, the narrative related to the environment and largely based on the so-called CSR takes centre stage. However, debates on the organic link between labour process, nature and society are clearly an unresolved issue in research. Research focusing on the generation of new knowledge associated with ecological praxis is still in its beginnings. In this sense, the valorisation of technicality should incorporate knowledge of various kinds as long as the work process is substantially modified.

On a macro level, the need for a historical ecological tempo cannot be separated from economic, social, labour and educational inequality. At the level of the territories where the factories are located and the work process unfolds, it is the socio-technical processes themselves, the working conditions and the required knowledge that must be radically transformed. This is where political and trade union action takes centre stage. The environment is mortally wounded and the forms of production that continue to predominate in our countries have much to do with the contamination of water as

a strategic resource, with climate change, with the use of agrochemicals, and with the predation of forests and jungles.

The link between individuals/organisations and nature must be considered in conjunction with the reflection on the 4th industrial revolution based on the digitalisation of administrative systems, connectivity and the so-called internet of things.

Several recent studies in Argentina focus on the implications of platform economies on contractual, working and professional conditions; however, technical innovations do not lead to reductions in working hours, or to improvements in the labour and salary situation.

Similarly, the link between economy, labour and nature is far from being studied in depth. In agreement with Merlinsky’s propositions in an interview conducted by Mariana Percovich, published in *Revista Anfibia* on August 23, 2021, it is necessary to consider political ecology (formative) and socio-environmental conflict as consubstantial to Environmental Sciences and to a critical environmental education. We are still at a very incipient stage when it comes to proposing concrete actions of care that also embrace the environment in which we live. However, this perspective needs to be closely linked to labour process and capital valorisation. These are two distant fields in Labour Studies that need to build bridges between them. Similarly, an attentive look at studies on required and valued knowledge, and on professional trajectories of workers cannot be dissociated from this debate.

The need for ecological governing requires debating the paradigms of productivism that fuels incessant environmental pollution. We recall the contributions of Virginia Toledo-López and Anne Tittor (2019:88) who discuss the notion of “ecological modernization”.

Sustainable development, as a widespread notion in the global order, therefore entails a social and political discourse: both the environment and the economy win.

The certifications obtained by companies through adherence to the GP and compliance with environmental objectives have little to do with caring for the environment from a comprehensive perspective. Moreover, “the appeal to environmental issues serves as an excuse for the generation of new markets and the expansion of capital” (Toledo-López and Tittor, 2019, pp. 105).

Is an eco-logical pedagogy for workers possible? Towards a critical and transformative consciousness

The processes of labour and social subjectivation are shaped by the global parameters behind a myriad of mediations and devices brought into play by the doctrine of the new management. No one is exempt in a global, interconnected and asymmetrical world. The aggregate knowledge of the new management is based on orthodox approaches from the management sciences. It also provides an efficient corporate praxis that makes it possible to convey global mandates in different regions and countries. In this context, corporate pedagogical devices that recontextualise, transmit and evaluate performance in real time through corporate competencies, nowadays defined as “socio-emotional skills”, are becoming more important. The know-how and technical skills that workers mobilise in their daily working lives are relevant, but for the purposes of establishing professional mobility, knowledge related to corporate values predominates.

Within the framework of an ecological transition, the required knowledge is still far from being generated and included in the curricula. Although this debate is

more developed in European countries, in Argentina there is still a need to discuss a development model that does not focus on the pillars of extractivism, non-renewable energies and agrotoxics.

However, there is also relevant work being done by several organizations and social movements in relation to agroecology, especially within the framework of the Popular Social Economy. In this context, the role of the so-called green jobs and circular economy are becoming increasingly central.

Research in environmental education is less developed. Socio-environmental research from the anthropological and sociological fields is becoming more important, as we discussed in the previous section.

School at all levels is much more called upon about this matter in Argentina, which is interesting when a critical ecological awareness is promoted. It is a great challenge for critical pedagogy to problematize the hegemonic ways in which environmental issues are addressed. This more linear vision can be seen in large corporations and in several public policies, a framework in which the actors assume some practices, for example, the treatment of toxic waste, or road education, although production itself results in irreparable damage to the environment and to workers (Granados; González Quiñones, 2019).

There can be no ecological awareness without an awareness of deep social inequalities. In this respect, we insist on an ecology that is not only political but also educational. In line with the contributions of experts in the observation and analysis of employment and environment, made at the five web conferences organised in autumn 2000 by Céreq, we postulate that ecological knowledge implies profound transformations, even greater than those related to the platform

economy. What is at stake is to promote a systemic and integral education that articulates production, consumption, work organization and public policies. In short, the space of social production must be considered in an organic link with that of social reproduction. Working conditions must be read in terms of quality of life. Acting on these competencies requires transversality and delving into complexity, since it implies a multidimensional and multisituated knowledge, capable of recognizing different levels and scales of analysis. This implies that educators and different actors such as trade unions, companies and political society must have an impact on initial and continuous learning.

This can only be achieved through a socially committed strategy in which the education of educators is encouraged. Objectives, content and activities organized far from where they will be deployed are of little use. In order to reflect on an ecological transition, it is necessary to place at the centre of the debate the praxis of workers and the material and symbolic conditions of existence, and from there to aim at a thorough transformation of the link between workers, nature and societies.

About closures and openings

The new global consensus that appeared with the new millennium were marked by renewed management doctrines. Their conceptual foundations and the multiplication of regional and local agencies and networks have been remarkable producers of corporate literature, contents and activities when it comes to striving for a capitalism that is responsible towards its workers and the environment. These transformations also involved shaping new labour subjectivities to be able to carry out the main recommendations of international organizations. The new global order

built on a productivity, efficiency-based and result-oriented order required the development of practices aimed at its social, cultural and labour legitimization. Thus, global mandates had to be transferred to the daily work environment and, in general, to civil and political society. Research carried out in Argentina -especially in subsidiaries of large transnational corporations- suggests however that the notion of sustainability and environmental care as a recurrent discourse is far from protecting the working and living conditions of workers in general. Precarization and outsourcing have become a recurrent trend in these latitudes since the 1990s. What is at stake is, in short, a development model that challenges the extractivist perspectives, renewable energies, soybean farming and agrotoxics. In many of the automotive, agro-industrial and mining corporations, it is necessary to carry out a discursive operation that can unmask the underlying meanings of the environmentalist discourse: the result-oriented, productivity and efficiency-based paradigm is the one that is effectively imposed, regardless of the fact that environmentalist practices are proclaimed.

From this perspective, an ecological horizon that preserves life requires, as a necessary intervening variable, the education of critical citizens with ecological awareness. A paradigm based on these principles challenges everyone. Knowledge and pedagogies at the service of a new socio-environmental matrix make it possible to structurally and culturally problematize the invisible paradigms that while demanding care for the environment, intervene in a permanent and active way to damage it. To think of a different world, based on an organic link between individuals, environment, and societies, is still a pending issue.



 **FURTHER
READING**

 Read all
Céreq publications
on www.cereq.fr/en

Antunes, R. (2005). Los sentidos del trabajo. Ensayo sobre la afirmación y negación del trabajo. Buenos Aires, Argentina: Herramienta.

Figari, C. (2019). Nuevos consensos globales, poder corporativo y formación de trabajadores: un debate siempre presente. *Perfiles Latinoamericanos*, 27 (54), Flacso México: FLACSO, pp. 27-49, doi: 10.18504/pl2754-002-2019.

Granados, L.; González Quiñones, F. (2019). Rumbos y extravíos de la educación ambiental. *Destellos de un paradigma emergente. Sociedad y Ambiente*, núm. 19, pp. 293-317. El Colegio de la Frontera Sur.

France Stratégie; Céreq; ADEME; Ministère de la transition écologique. (2021). Identifier et accompagner les compétences de la transition écologique. Synthèse du cycle 2020 de webconférences, France.

Percovich, M; (2021). Entrevista a Gabriela Merlinsky. *Revista Anfibia*. 23 agosto.

Toledo-López, Virginia y Tittor, Anne (2019). Contradicciones en torno a las innovaciones y certificaciones en el sector de la bioenergía en Argentina. *Letras Verdes -Revista Latinoamericana de Estudios Socioambientales-*, N° 26 septiembre-febrero, <https://revistas.flacsoandes.edu.ec/letrasverdes>.

International outputs: C-Terre project meeting skills needs in the context of the ecological transition



WHO ?



« C-Terre » project is carried out by a team of researchers from the Department on Work, Employment and professionalisation of Céreq.

It is funded under the Skills Investment Plan launched by the French government in 2018, a 5-year plan led by the Ministry of Labor, which aims at a/ supporting skills development especially for the low-skilled jobseekers and low-skilled young people, b/ meeting companies' actual and future needs in terms of workforce and skills, c/ contributing to the transformation of the skills and competences in connection with the ecological transition.

WHEN ?



C-Terre is an ongoing project that started in 2021 and is planned up until the end of 2022.

WHAT ?



A central hypothesis underlies C-Terre project: the shifts in employment driven by the ecological transition yield a renewal of skills or a change in existing skills that could lead to opportunities for the low-skilled workers and jobseekers.

The project works on a second corollary hypothesis: the emergence of these new or changing skills raises questions about their identification, acquisition, development, validation, and recognition for various stakeholders at different levels.

C-Terre project focuses on 3 sectors of activity (construction, trade, social economy) and 2 French regions (Auvergne-Rhône-Alpes and Provence-Alpes-Côte-d'Azur).

In that framework, three main lines of research are investigated:

1/ Training and professional integration: What are the links between training and employment for young workers who have received environmental training and/or accessed to green jobs? Is continuing vocational training a means of matching or adapting jobseekers' and workers' skills with the needs related to the ecological transition? What are the professional experiences and project plans of the workers in this context?

2/ Instrumentation of skills management: the project will focus on a particular support measure [which is called in French EDEC] designed to help professional branches (which group companies from the same sector of activity under a collective agreement signed by the representative employers' and employees' organizations) develop employment and skills, investigate HRM procedures and tools regarding green skills and how they impact workers.

3/ Transformation of working practices and trades: How does the ecological transition transform working practices? How do workers react to the new operating practices? How does the ecological transition impact on-the-job learning and knowledge transmission?

More information:

<https://www.cereq.fr/en/C-Terre-project-will-shed-light-green-skills-needs>

International outputs: Bilt project Bridging innovation and learning in TVET



WHO ?



The Bridging Innovation and Learning in Technical and Vocational Education and Training (Bilt) project is implemented by UNESCO – UNEVOC with support of the German Federal Institute for Vocational Education and Training (BIBB).

Céreq has been a member of UNEVOC network since 2020 and is taking part in the Bilt project.

The activities of the Bilt project have involved a large audience of TVET stakeholders over three continents, Africa, Asia and Europe.

WHEN ?



The project started in July 2019 and its core activities were carried out in 2020 and 2021.

UNEVOC-UNESCO announced the extension of Bilt project activities until 2025.

WHAT ?



As stated on its website, the Bilt project aims to support TVET stakeholders in addressing challenges that arise due to current global trends. These include the digitalization of the workplace and the training cycle, the transition to green and sustainable economies, a growing focus on the benefits of entrepreneurial learning, and the increase in migration, that require close engagement from TVET stakeholders to provide relevant training solutions.

In tackling these challenges, Bilt leverages the existing mechanism of the UNEVOC Network to offer opportunities for collaboration between UNEVOC Centres and TVET stakeholders and a platform to foster innovation and peer learning on how to identify, integrate and implement new qualifications and competences in TVET systems.

The first phase of the Bilt project resulted in mapping studies on promising practices to include new qualifications and competences in national TVET regulations.

The second phase aimed at drawing up (or writing) three reports addressing the role that address the role of TVET stakeholders at macro-, meso- and micro-levels and give them a better understanding as well as tools to contribute to keep TVET systems updated and relevant. International workshops and experts' meetings helped to feed into the reflections. A learning forum was organized to discuss the outcomes of the publications.

Céreq acted as an active contributor to the project by 1/ coordinating the international experts working group in charge of providing operational recommendations for “meso-level” stakeholders (such as business membership organizations, trade unions, joint organizations or chambers of commerce, industry or crafts), 2/ writing the second publication “New qualifications and competencies for future-oriented TVET – TVET advocacy – Ensuring multi-stakeholders participation”, 3/ co-hosting the learning forum.

More information:

<https://unevoc.unesco.org/Bilt/Bilt>



International outputs: Ceil/Céreq

Like Céreq, Ceil-Conicet (Centro de Estudios e Investigaciones Laborales – Consejo Nacional de Investigaciones Científicas y Técnicas) was celebrating its 50th anniversary in 2021.



>>>

Created in 1971, and located in Buenos Aires, Argentina, Ceil-Conicet has been pursuing the objectives to train researchers and scholars in the area of labour issues, to carry out theoretical studies and empirical research on labour relations in Argentina, on the structure and functioning of labour markets, employment and economic and social development, human resources planning and administration.

The common date of creation of our respective institutions says a lot about the long road CEIL and Céreq have travelled. Both institutions have contributed to accumulate knowledge and develop expertise that have passed on from generation to generation and across borders and have made Ceil-Conicet and Céreq quality references.

What better moment than the celebration of our fiftieth anniversaries to reaffirm our friendship? Ceil-Conicet and Céreq have been collaborating for a long time, beginning with an intense activity of exchanges, joint projects and mutual visits, which made it possible to forge a lasting relationship that is currently reflected in Céreq's publication in Spanish: Calificaciones y Empleo, <https://www.cereq.fr/es>.

More information:
<http://www.ceil-conicet.gov.ar/>





Do firms facilitate the construction of competences? / Gasquet, Céline; Hocquelet, Mathieu; Vero, Josiane *et al.* - Marseille : Céreq, 2021. - 69 p. - (In and Around; 2) .
<https://www.cereq.fr/en/do-firms-facilitate-construction-competences>

The observatories become fully operational / Delanoë, Anne; Quintero, Nathalie; Valette-Wursthén, Aline in Training and employment n° 150 (2021). - 4 p.
<https://www.cereq.fr/en/observatories-become-fully-operational>

How do young people from priority neighbourhoods fare after their baccalauréat? / Couppié, Thomas; Dieusaert, Pascal; Vignale, Mélanie in Training and employment n° 151 (2021). 4 p.
<https://www.cereq.fr/en/how-do-young-people-priority-neighbourhoods-fare-after-their-baccalaureat>

From restructuring to career transitions: a new era of occupational mobility / Brochier, Damien in Training and employment n° 152 (2021). - 4 p.
<https://www.cereq.fr/en/restructuring-career-transitions-new-era-occupational-mobility>

What certification for transversal competences in France? / Galli, Catherine; Paddeu, Josiane in Training and employment n° 153 (2021). - 4 p.
<https://www.cereq.fr/en/what-certification-transversal-competences-france>



Céreq

Public body under the supervision of the
ministry of Education and the ministry of
Employment

Since 1971
Illuminating the links
between training,
employment and work.

EXPERTISE

Centre of expertise, surveys and
research.

AT THE SERVICE OF

The key actors in education and
training, work and employment.

FIELDS OF ENQUIRY

Initial and continuing education
and training, career trajectories,
access to employment, young
people's education-to-work
transition, occupational mobility,
work organisation, changes in
occupations, competences and
certifications.

A multidisciplinary team

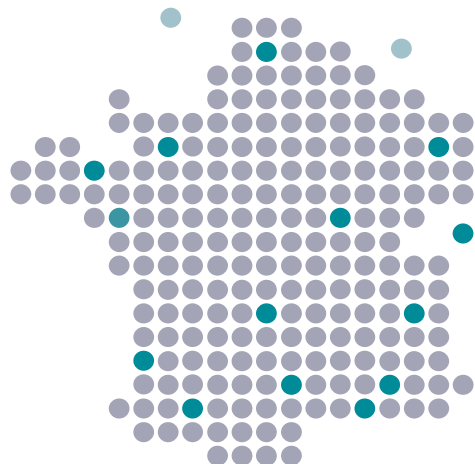
+ 50 researchers

A multidisciplinary group of experts. Céreq brings together researchers with a wide range of profiles to facilitate a variety of approaches and methods.

- > Sociologists
- > Economists
- > Statisticians
- > Legal experts
- > Anthropologists
- > Political scientists
- > Econometricians

A network of 12 associated centres

Located in academic or CNRS research laboratories



- Art-Dev, Montpellier
- Beta, Strasbourg
- Centre Emile Durkheim, Bordeaux
- Clerma, Clermont-Ferrand
- Certop, Toulouse
- Creg, Grenoble
- Crem, Rennes
- Clersé, Lille
- Eso, Caen
- Iredu, Dijon
- DCS, Nantes
- Lest, Aix-en-Provence

Open to the wider world

Collaboration with international organisations: ILO, CEDEFOP, UNESCO, OECD, etc. Research activity and collaborative projects funded by several sponsors: European Commission, French Development Agency, World Bank, etc.

An extensive network of contacts in many countries: Algeria, Austria, Bulgaria, Canada, Czech Republic, Croatia, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, Morocco, Mozambique, Norway, Poland, Senegal, Slovenia, Slovakia, South Korea, Spain, Switzerland, Tunisia, etc.



illuminating young people's education-to-work transition



The Génération surveys gather data on the multitude of factors that might influence the school-to-work transition.

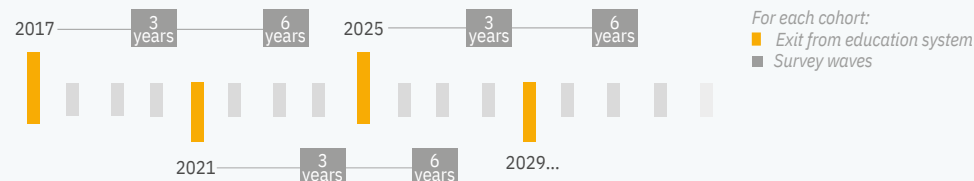
It concerns young people:

- > who left the French education system for the first time or who have already interrupted their education for a maximum period of 16 months,
- > who left during or at the end of a school year,
- > with or without qualifications,
- > and who are living in France or abroad.

Each cohort questioned twice

3 years and then 6 years after leaving the education system.

Reconstructing trajectories



The survey also collects data on:

- > Apprenticeship
- > Return to education/training
- > Socio-cultural background
- > Gender
- > Family environment
- > Individual characteristics
- > Qualifications obtained
- > Residential mobility

Toutes les informations sur Génération et la vidéo de présentation : www.cereq.fr/enquetes-et-donnees

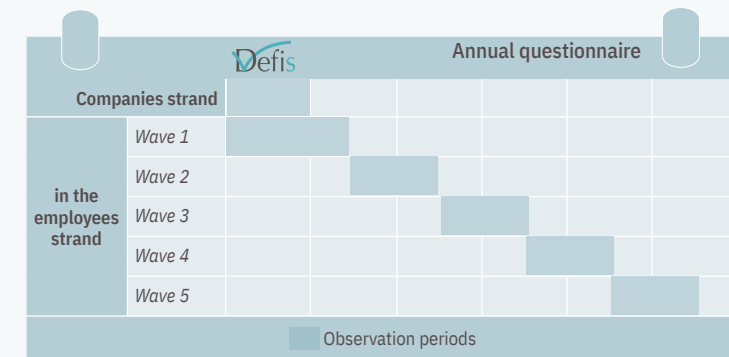
30 000 jeunes représentatifs des sortants de la formation initiale.



illuminating vocational training and employees trajectories



Tracking year after year



Tracked over 5 years
16,000 employees surveyed

Contextualised
4,500 companies surveyed

surveys gather data on :



... in the employees strand

- > Employment and unemployment trajectories
- > Changes in work
- > Training measures completed
- > Training plans and needs, constraints
- > Learning at work
- > Information on training



... in the companies strand

- > Work organisation
- > Management tools
- > HR policy
- > Training practices
- > Industrial relations
- > For small companies: Director's profile

Toutes les informations sur Defis et la vidéo de présentation : www.cereq.fr/enquetes-et-donnees

Dispositif d'Enquêtes sur les Formations et Itinéraires des Salariés (Defis)

Information and videos: www.cereq.fr/en/en-images





In and Around

°Training \Employment "Work #3-2022

Publication Director:
Florence LEFRESNE

Scientific Director:
Céline GASQUET

Coordination:
Alisson BOKO
Anaïs CHATAGNON
Arnaud DUPRAY
Clémence GIRARD-COUSSY
Nathalie LEMENAGER
Matteo SGARZI

Graphics and design:
Zineb MOUACI

Printed by:
Impremium, France

Translation:
Andrew WILSON

ISBN: Processing/ISSN en cours
Dépôt légal: 2nd semestre 2022
Copyrights: AdobeStock
Infographics: Céreq