



**THE BUILD UP SKILLS CONSORTIUM IN
FRANCE**

Roadmap

BUILD UP SKILLS France

Endorsed version

26 November 2013

Introduction

The roadmap proposed in the following pages for improving vocational skills in the construction industry is designed to help achieve our national objectives for energy efficiency and the growth of renewable energy. The proposed plan is intended to ensure that building professionals have the skills required to meet these new challenges.

Preparation of this roadmap has been led by the members of the consortium:

- ▶ ADEME (French Environment and Energy Management Agency)
- ▶ Association Nationale pour la Formation Professionnelle des Adultes (National association for adult vocational training; AFPA)
- ▶ Alliance Villes Emploi (Urban employment alliance)
- ▶ CSTB

And supervised by the Build Up Skills Steering Committee, which includes the following member organisations:

- ▶ Associations des Régions de France (Associations of French regions; ARF)
- ▶ Confédération de l'Artisanat et des Petites Entreprises du Bâtiment (Association of building trades and small businesses; CAPEB)
- ▶ Confédération française démocratique du travail (French democratic convention of labour; CFDT)
- ▶ CFE CGC (French confederation of management / General confederation of executives)
- ▶ Confédération française démocratique du travail (French democratic confederation of labour; CFTC)
- ▶ Confédération générale du travail (General confederation of labour; CGT)
- ▶ Confédération Générale du Travail - Force Ouvrière (General confederation of labour - Workers' force; CGT - FO)
- ▶ Commissioner-General for Sustainable Development
- ▶ Constructys
- ▶ Fédération des Sociétés Coopératives et Participatives du Bâtiment et des Travaux Publics (Association of construction and public works cooperatives; SCOP BTP)
- ▶ Fédération Française du Bâtiment (French building federation; FFB)
- ▶ Ministry of Regional Equality and Housing - Department of housing, urban development and landscapes (DHUP)
- ▶ Ministry of Ecology, Sustainable Development and Energy
- ▶ Ministry of National Education
- ▶ Ministry of Labour, Employment, Vocational Training and Social Affairs – General delegation for employment and vocational training (DGEFP)
- ▶ Plan Bâtiment Durable (French national plan for sustainable building)
- ▶ The Pôle Emploi network of employment offices

Executive Summary

The Build Up Skills France roadmap is the fruit of several months of national and regional consultation meetings and the efforts by a smaller group of Steering Committee members to draft and review the document.

It is important to note that over four hundred people worked on this project apart from the members of the consortium, many of them on more than one occasion.

As a reminder, the following methodology was used to help draft the roadmap:

National meetings for the national platform on 2 October 2012, 19 December 2012, 4 April 2013 and 20 June 2013, and six inter-regional meetings (January to May 2013): presentation of hurdles and obstacles highlighted in the status assessment, compilation of proposals and pilot projects conducted to remove these obstacles, presentation of the strategic phase memo followed by a version of the roadmap and compilation of participants' comments on the actions to be carried out.

Steering Committee meetings (seven meetings from 31 May 2012 to 1st October 2013): the last four Steering Committee meetings (3 and 19 June 2013, 10 July 2013, 1st October 2013) were devoted almost exclusively to the roadmap.

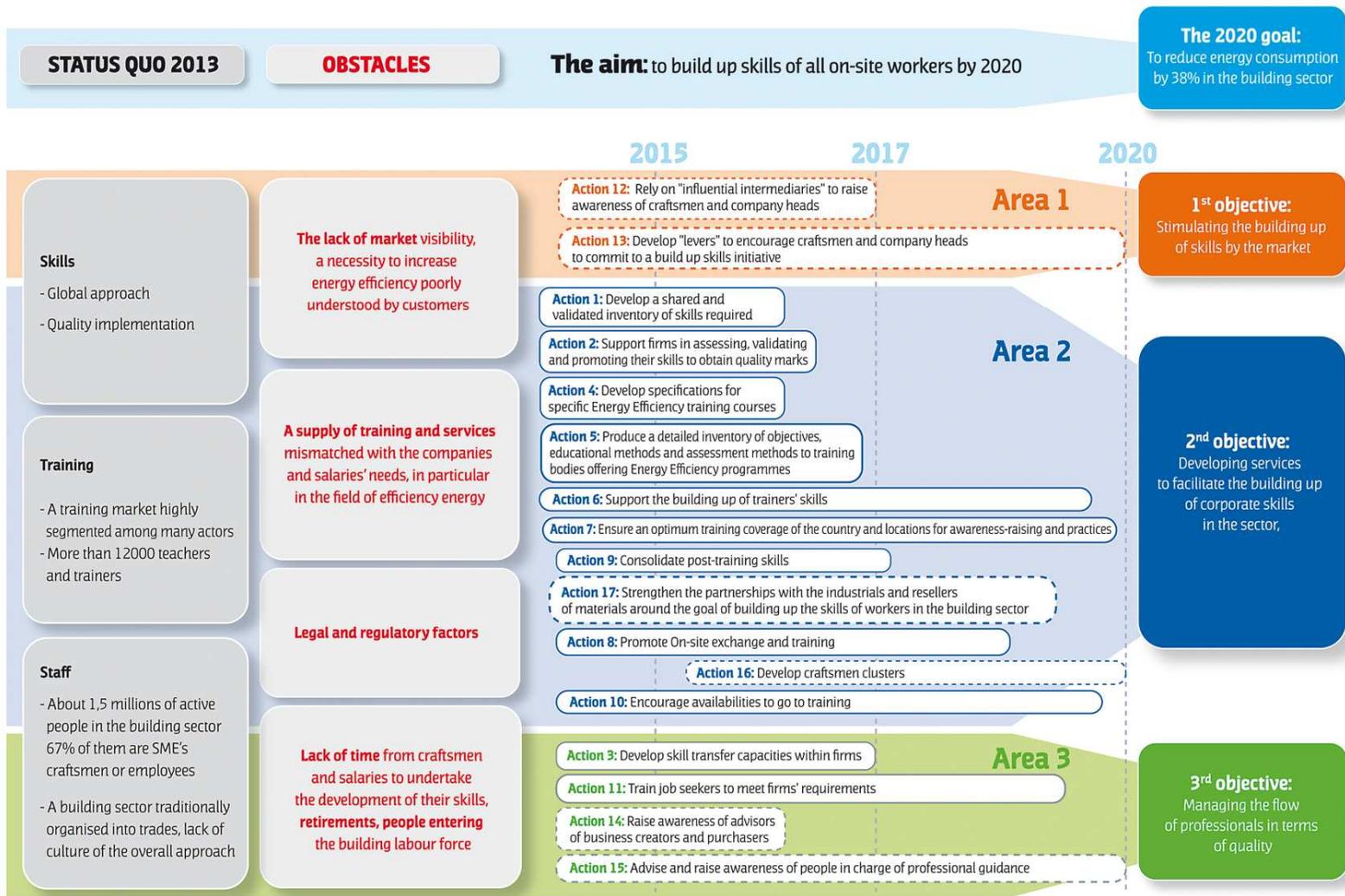
Editorial Committee and Review Committee meetings: from 18 March, an Editorial Committee initially composed solely of a few members of the consortium began work. This Editorial Committee hosted several members of the Steering Committee beginning on 16 May and has met several times since then. Each group member helped to draft the document (see all contributors at the end of the report). The Review Committee comprised all consortium members in addition to the members of the Editorial Committee. It met on 27 May and 1st July. The version intended for approval by the Steering Committee on 10 July was sent to all its members on 3 July. A final version was submitted to the Steering Committee on 26 July for validation.

The roadmap presented here is the result of these various efforts, which have brought together the range of stakeholders with an interest in improving vocational skills in the construction industry. The process used to develop the roadmap (including the status assessment and identification of the obstacles to developing trajectories to be translated into actions for meeting the 2020 objectives) is shown in Figure 1. **In order to meet the general objective of lifelong skills improvement among all construction industry professionals (particularly between now and 2020),** three strategic priorities were identified as essential:

- a drive by the market to improve skills (priority 1),
- the development of training and service offerings designed to make it easier for sector firms to improve employee skills (priority 2),
- and management of construction industry vocational workers (priority 3).

Only **market realities** linked to the "energy transition" and the **obligation to meet quality requirements** will prompt firms that have not anticipated market changes to commit to a skills improvement initiative; only **training and services tailored to** the constraints and needs of businesses - especially small firms and current and future employees - **will make this strategy possible**; and **only as new employees with the necessary skills enter the workforce** will companies be able to maintain and expand their potential.

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The actions with a dotted line are some "accompanying measures" while the others are actions falling directly under BUS.

Figure 1: Roadmap development process (support actions that fall within the scope of the BUS initiative are shown with dotted lines)

Area 1: Stimulating the building up of skills by the market

In order to stimulate skills enhancement, prime contractors, project managers and the craftsmen themselves must work as a market to take several actions.

Lead contractors must be one of the main driving forces in improving the skills of construction industry professionals, as their specifications must reflect the issues involved in building energy efficiency and can include actions for improving skills. Experimental projects are already in place. They must become better known in order to be adopted on a broader basis.

But there is insufficient experience to make a difference; the vast majority of developers and principal contractors must be trained to:

- draft precise, demanding specifications, notably with regard to supervising performance of the work;
- prepare consultation regulations that allow for greater consideration of business quality and environmental approaches (when it was rewritten, the public procurement code strengthened the options for public-sector principal contractors to incorporate variants and selection criteria to reflect their needs as closely as possible);
- manage apportionment by taking into account the need for a comprehensive approach, obligations of result and a desire to promote small business consortiums.

As a link in the construction chain, the project management (architects, design offices) must also continue to build up skills through awareness-raising or training initiatives:

- With regard to engineering: in constructing or renovating low-consumption, positive-energy buildings and in coordinating work as part of a global approach, by managing interrelationships with an obligation of results in terms of energy efficiency,
- Advisory services: advising clients, including with regard to building lots.

Residential and commercial buildings total 18,850,000,000 sq.m, representing end energy consumption of 785 TWh.

Individual homes account for 40% of this energy consumption and 43% of decision-makers (12,359,000 individuals).

This market segment represents a significant challenge and calls for a strategy that can address the various issues involved: organization of each business, of worksites, etc.

Given their vantage point, craftsmen are especially well placed to contribute to an expanded renovation market by helping non-professional clients (private individuals in most cases) decide which energy renovation work should be carried out. They must therefore be sure of their arguments on the advantages of energy renovation. Module 4 of the FEE Bat training scheme responds to this objective. It could include data on tools and programmes for financing the work, the choice of investments and the use of the energy-renovated building.

However, in order for the market to stimulate skills enhancement, a continuing effort must be made to educate craftsmen and small firms about changing standards with regard to anticipated results in the energy efficiency and renewable energy market and the consequent need to build up skills.

This awareness-raising, already carried out by the professional and consular organisations, must be continued via other influential intermediaries - accountants, banks and insurance companies (Action 12). These professions are in regular contact with craftsmen and company directors with whom they are seeking to maintain a close, advisory relationship.

It is therefore important to prepare informational content and even training intended for these influential intermediaries. Insurance companies have a special role to play in encouraging the quality of work and, by extension, improving skills by granting advantageous rates to the firms with the fewest number of claims or by stipulating that companies submit evidence of improved skills (Action 13).

Lastly, efforts made by firms to build up skills must be clear and easily identifiable. In this respect, the RGE label must be promoted by an extensive communication campaign. In addition, granting a competitive advantage to firms that have earned quality certification is a huge incentive. For the residential market, cross-compliance will be introduced as a condition from 1 July 2014 in conjunction with the RGE label. In other types of contract, some lead contractors have already established cross-compliance or the allocation of certain aid. These forms of leverage can be expanded still further.

In Priority 1 (stimulating skills enhancement by the market), only Actions 12 and 13, viewed as direct encouragement to the build up skills approach, are covered by a detailed action summary. The other recommendations for this strategic priority are outside the Build Up Skills scope. It is, however, essential to implement them in order to supervise, support and encourage skills enhancement among construction professionals.

Area 2: Developing <<training and services>> to facilitate the building up of corporate skills in the sector

The project status assessment has highlighted all the hindrances and barriers to skills enhancement among a large number of craftsmen, firms and employees. It is important to facilitate this initiative by providing services and training adapted to business requirements. These offerings must be expanded to the regional level in order to be closer to existing and potential human resources for the sector and markets.

In terms of services, this involves a continued effort to expand support for craftsmen and small businesses in their strategic management activities: knowledge of their environment (market, customers, opportunities, etc.) and anticipation of how that environment will be changing in the future. For example, regional pilot projects for assessing “skills/changing industries” could be systematically described to company directors, to supplement a day of training in the economic and HR issues posed by energy renovation in the construction industry.

In addition, it is also important to test the introduction of programmes for replacing professionals on training leave, to overcome the principal obstacle put forward by craftsmen and company executives (Action 10).

Lastly, again with regard to service offerings, continued and expanded creation of business consortia and cooperatives (Action 16) would be useful, to help businesses offer a comprehensive range of services.

In terms of training, despite the many initiatives launched since 2007 in response to the challenge of enhancing skills – in order to meet our energy efficiency objectives –, work must continue on the skills and the training offerings themselves. In particular, partnerships with manufacturers and the building materials trade should be strengthened, with the goal of enhancing skills among construction industry professionals (Action 17).

With regard to the skills registry, the following tasks remain:

- Establish a shared and validated inventory of skills required in connection with the work undertaken under the RAGE programme (Environmental Grenelle trade practices) (Action 1),
- Provide support to firms that wish to assess, validate and promote their skills in these areas (Action 2),

Regarding the registry of training offerings, a methodology and tools should be proposed to training organizations offering programmes in building energy efficiency, so they can improve the quality of their current course offerings. Apart from drafting specifications for training offerings in the field of energy efficiency (Action 4), we need to:

- Provide access to a detailed inventory of objectives, educational methods and assessment methods (Action 5)
- Provide support for the building up of trainers' skills (Action 6)
- Encourage the introduction of practice tools that are geographically, financially and logistically accessible (Action 7)
- Promote On-site exchange and training (Action 8)
- Develop programmes to help workers consolidate their skills after they have received training (Action 9)

Area 3: Managing the flow of professionals in terms of quality

The wealth of skills in the building sector is weakened by retirements, turnover and the arrival of new employees.

The sector is therefore concerned with improving the skills of professionals already working within the industry and reducing turnover or early departures while attracting new skilled professionals who are already trained or prepared to receive training.

Thus, in order to preserve the industry's human resources and enhance their skills, it is proposed that skills transfer programmes be expanded within firms (Action 3), including programmes to address the issue of workers who are physically past their prime.

The following is essential to attract new skilled professionals:

- Train job seekers to meet firms' requirements (Action 11),
- Raise awareness of advisors of business creators and purchasers (Action 14)
- Advise and raise awareness of people in charge of professional guidance (Action 15)

Thirty actions had been described initially to cover these three strategic priorities. However, the Steering Committee decided it was most appropriate, as part of the BUS programme, to define in greater depth only those actions that were most closely related to the Build Up Skills initiative.

Of the 30 actions described, only 17 were ultimately selected:

- either because they fall directly within the scope of the Build Up Skills initiative, insofar as they address efforts to improve the skills of construction industry workers and their trainers;
- or because they directly foster skills enhancement.

They 17 detailed descriptions of these actions were assigned to one of two subsections, entitled:

- Actions falling directly under BUS
- Support actions under BUS



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The actions listed in the roadmap will be implemented, phase by phase, at various levels - national, regional and local (labour market area) - with interactions between these various levels and with a steering organisation and tasks at each level.

The proposals for coordinating how the roadmap would be monitored have not been approved by every organization involved. Consequently, those proposals will need to be finalized within the coming months.

Similarly, the issue of providing institutional and financial resources for technical coordination of the steering committee remains completely unresolved, because to date none of the organizations represented on the steering committee has made such a commitment.

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Review of data drawn from the “status assessment”

The building renovation and new construction objectives set out by the President of the Republic in March 2013 put France firmly on a path towards achieving our energy and climate objectives. But these objectives are up against a complex reality, that of large numbers of prime contractors forming a scattered target that is therefore difficult to reach and convince. And yet clearly it is precisely these renovations, generated by micro-economic decisions, that will enable us to meet our objectives.

In France, where 60% of employees work in building firms with fewer than twenty employees, it is absolutely essential to continue to adapt their skills, given that these are the firms best able to meet the needs of all these "scattered" principal contractors.

Building industry professionals have not been waiting for this roadmap to respond to market challenges. This effort must be continued so that the largest number of professionals are in a position to seize growth opportunities in these markets.

As this build up of skills cannot be achieved without the strong support of those involved, a number of actions will need to be taken at the local (i.e., regional or below) level. Only at that level will the industry be capable of tailoring solutions to specific regional characteristics, both in France and in its overseas territories. Special attention must be paid in overseas territories in adapting solutions to specific climate features, the peculiarities of construction systems and the networks of organizations involved. The goal of the roadmap is therefore to structure a national framework that allows the regions to assume responsibility for the issue of continuing skills enhancement among construction industry professionals, as part of networks that already exist or are being reconfigured (cf. the local renovation resources).

The market

The building sector is characterised by a significant amount of existing stock: 65% of its thirty million housing units were built before 1975. The annual average replacement rate is 1%. The sector grew strongly in the 2000-2008 period but has experienced a downturn since 2009. Its pre-tax turnover in 2012 came to €130 billion. The 2011 turnover was broken down as follows.

	New construction	Renovation/maintenance	Total
Housing	37 Bn€	42 Bn€	79 Bn€
Excluding housing	21 Bn€	29 Bn€	50 Bn€
Total	58 Bn€ (45%)	71 Bn€ (55%)	129 Bn€ (100%)

In the context of this downturn, **the market for energy renovation and renewable energy** has increased by about 50% from 2006, and in 2012 reached¹ :

	Billions €
Activities on buildings	10,57
Ventilation, heating control systems	0,43
Heating	1,77
Renewable energy (EnR) equipment and installation	8,91
Total	21,27

Another indicator confirming this growth: projects to improve residential energy efficiency (APPEL) as a percentage of total sales in the building work trade (new and renovation) rose from 7% in the second quarter of 2010 to 10% in the second quarter of 2012² (although CAPEB notes that "this might run out of steam").

National policies

The Grenelle round table talks on the Environment set ambitious objectives for national policy beginning in 2008:

- ▶ Renovation of 400,000 housing units a year as from 2013 and of the most energy-intensive 800,000 social housing units by 2020.
- ▶ Energy renovation of public buildings.
- ▶ Wider use of low-consumption buildings (2013), then positive-energy buildings (2020).
- ▶ 23% of energy produced from renewable resources in 2020.

The first "environmental conference" held in September 2012 introduced the objective of raising the thermal performance of a million new and old housing units or a 38% drop in energy consumption by 2020 in existing buildings.

Lastly, on 21 March 2013, the President of the Republic announced the housing investment plan, with twenty measures in three main areas:

¹ Source: ADEME)

² Source: CAPEB (French association of building trades and small businesses)

- ▶ Remove the barriers to completing housing projects
 - By giving a go-ahead to planned construction
 - By expanding access to housing for the middle class
- ▶ Provide a boost to construction of new projects
 - Primarily by mobilising organizations in the social housing sector
 - And by simplifying standards and rules
- ▶ Renovate existing buildings by:
 - Encouraging the public to make the commitment: a "one-stop" resource will offer a public energy renovation service to simplify the process for private individuals and allow each household to take advantage of grants for which they may be eligible (single toll-free number and a specific site, along with 1,000 energy renovation ambassadors)
 - Financing the renovation of 180,000 private housing units (low-income and non-low-income) and 90,000 social housing units in 2014.
 - Expanding the sector: continuing the on-going training of firms and craftsmen under the FEE Bat scheme and confirmation that the "Reconnu Grenelle de l'Environnement" label will ultimately be essential to be eligible for grants (cross-compliance).

Workforce

The construction industry workforce (the target of the BUS programme) is as follows:

- ▶ 634,273 building-sector workers and salaried employees in 2010³
- ▶ 40,219 site managers and foremen in 2011⁴
- ▶ 83,600 full-time-equivalent temporary staff in the building sector in 2012.⁵ But with 1.65 million employment contracts lasting 2.6 weeks on average, there were actually 246,000 temporary workers who carried out at least one temporary assignment in the building sector in 2010.⁶
- ▶ 315,000 craftsmen and directors of companies with fewer than ten employees in 2012.

In addition, about 150,000 people enter the building sector every year, including 100,000 who have been retrained and 50,000 young people who have completed their initial training.⁷

Energy consumption

Energy consumption in the construction sector (excluding grey energy), and more specifically in the residential/service sector, is a major issue for sustainable development. In 2011, residential and service sector buildings accounted for 41% of final energy consumption in France, with nearly two-thirds of this total energy consumed by the residential sector and one-third by the service sector.⁸

Renewable energies are continuing to grow. This growth is due mainly to the success of heat pumps and to advances in new methods of heating with wood, both in individual and collective housing.

³ Source: OPMQ, UCF, CCA-BTP

⁴ Source: OPMQ, UCF, CCA-BTP

⁵ Source: Pôle Emploi

⁶ Extract from the inventory Build Up Skills – January 2013 – p.64

⁷ Estimate by the "Building Trades" Sector Committee. 2009 – Extract from the inventory Build Up Skills – January 2013 – p.130

⁸Key energy figures, 2012 (Table 2):

<http://www.statistiques.developpement-durable.gouv.fr/publications/p/1942/966/chiffres-cles-lenergie-edition-2012.html>

The share of renewables in primary energy consumption in 2011 was 7.9%.⁹ Thermal renewable energies have achieved 91% of the 2011 objective.¹⁰

The objectives for 2020

In the new construction sector, the 2012 thermal regulations followed by positive-energy buildings from 2020 onwards will help to achieve the 2020 goals.

Even though the goals for new building are increasingly stringent, reducing the sector's overall energy bill will mainly involve the renovation of existing buildings that were built before the existence of standards promoting energy efficiency. One percent of the existing stock is renovated every year; at this pace, only one-third of residential housing will be renovated within 30 years. The goal is a 38% reduction in consumption in existing buildings by 2020. The priority is therefore the 16.1 million dwellings constructed before 1975, which have an average consumption of 328 kWh/sq.m/year, and the 800,000 social housing units (among the 4.2 million to be renovated) with a consumption of more than 230 kWh/sq.m/year. The aim is to reduce their consumption to between 90 and 150 kWh/sq.m/year.

Number of people involved

The following populations fall within the scope of BUS:

- ▶ 315,000 craftsmen and directors of companies with fewer than ten employees
- ▶ 40,219 site managers and foremen
- ▶ 634,273 building sector workers and salaried employees
- ▶ 246,000 temporary staff
- ▶ 12,000 instructors

Different methods may be used to build up the skills of construction personnel (information, awareness-raising, training, support) based on the extent of knowledge or skill required.

The number of people targeted for BUS in each personnel category varies, based on skills already acquired: recent arrivals in the sector who have completed the newly revised training programmes for construction, craftsmen and employees who have attended ongoing training or who have worked at sites where training support or a related training track was available, etc.

The quantitative goals for skills enhancement must also take account of the fact that firms with fewer than twenty employees account for 20% of the workforce.

The skills to be acquired

Construction professionals will need to acquire greater skills in two areas if renovation and construction energy efficiency goals are to be met:

- ▶ - understanding the cross-trade nature of building energy efficiency and taking into account its “professional consequences” in terms of implementation (inspection of products and supports on receipt, dealing with critical points and interfaces, preventing impaired performance of other work lots,

⁹ Energy balance p.46 - <http://www.statistiques.developpement-durable.gouv.fr/publications/p/1938/966/bilan-energetique-france-2011-1.html>

¹⁰ Energy balance p.49 – Table in box - <http://www.statistiques.developpement-durable.gouv.fr/publications/p/1938/966/bilan-energetique-france-2011-1.html>

self-assessment as the project advances, etc.) and supervision (measurement of the energy efficiency upon completion of the project);

- ▶ - the quality standard for the work performed by each trade, in order to ensure the required energy efficiency for each lot; this is a condition for achieving overall energy efficiency.

All construction professionals must be educated and made aware of the issues posed in these two areas. Construction site supervisors and craftsmen must gain a mastery of these various technical points and the self-assessment tools, and must play their part in educating and monitoring construction professionals before and during the building project.

For the second area, construction professionals must have sufficient technical skills to execute work in their trades in accordance with best practices and to interface with the other work lots. Note that the work by the "Skills" group may help with the current work on the Grenelle de l'Environnement trade practices (RAGE).

It is also advisable that firms and craftsmen are able to advise their customers on the grants available to them.

Trainers and instructors

For the public targeted by the BUILD UP SKILLS programme, 12,000 instructors and teachers¹¹ (excluding the higher education sector) need to be trained.

▶ Initial training	6,985
Including National education	5,000
Apprenticeships (estimated)	1,985
▶ Continuing training	5,047
Including AFPA (National association for adult vocational training)	1,217
GRETA (Consortium of public educational institutions)	223
FCMB (Building trades training companion)	107
Other certifying training bodies	500
Non-certifying training organisations	3 000 ¹²

The apprenticeship supervisors also need to be taken into account, as well as the tutors.

Obstacles

There are numerous interrelated obstacles impeding skills enhancement for building industry professionals working on construction projects.

They can be categorised as follows.

1. The market

Many craftsmen and company directors believe the market is not adequately "mature" to encourage them to build up skills in energy efficiency (mainly in renovation) and renewable energies, insofar as demand for work is being hampered by:

- ▶ A depressed economic environment,

¹¹ Analysis of the national Build Up Skills France status quo - page 139

¹² ADEME-CAFOC Nantes survey - Training needs of teachers and instructors in the building and renewable energy sector based on the issues identified in the Environmental Grenelle. 2012

- ▶ Budgetary constraints that are forcing many public contracting authorities and private developers to limit their works budget and favour "price" over "quality",
- ▶ A lack of information among contracting authorities and developers about regulations and subsidies,
- ▶ A lack of transparency regarding "return on investment",
- ▶ In the special case of jointly-owned property, the difficulty in reaching agreement on the renovation work to be performed.

2. Availability

Many craftsmen and employees have little time to embark on building up their skills, for several reasons:

- ▶ A lack of time, which leads them to decide in favour of short-term opportunities (work) to the detriment of the medium/long term (investment in skills).
- ▶ "Competition" from mandatory training programmes that eat into the allocated budgets and the time given over to training.
- ▶ "Competition" from training programmes organised by manufacturers, which are often viewed by their participants as "sufficient" to grasp the new skills required.
- ▶ A "culture" found among a number of craftsmen and employees that has not prepared them for change and the need to upgrade their skills.

3. Training and services

The range of offerings is still often poorly suited to the needs of firms and their employees, especially in terms of "practices", learning practices and on-site monitoring.

It has also been noted that a majority of instructors have not yet acquired all the necessary skills to train building site professionals in the new practices.

Lastly, the training organizations do not adequately pool their offerings and resources.

4. Legal and regulatory problems

The legislation is complex, with a multiplying number of texts and reference frameworks.

In addition, "the global approach" comes up against specific obstacles like the questions of liability and insurance. Nevertheless, work is currently in progress to remove these legal and insurance obstacles in the medium term.

Moreover, work remains to be done on the training legislation in the context of "construction site training" if it is considered relevant to use this educational method to build up the skills of construction professionals.

Overall strategy

In order to meet the general objective of lifelong skills improvement among all construction industry professionals (particularly between now and 2020), three strategic priorities were identified as essential:

- ▶ A drive by the market to improve skills
- ▶ The development of service offerings to facilitate skills enhancement among construction industry firms
- ▶ Qualitative management of the flow of skilled workers into the sector.

Only **market realities** linked to the "energy transition" and the **obligation to meet quality requirements** will prompt firms that have not anticipated market changes to commit to a skills improvement initiative; only **services tailored** to the constraints and needs of businesses - especially small firms and current and future employees - **will make this strategy possible**; and **only as new employees with the necessary skills enter the workforce** will companies be able to maintain and expand their potential.

This threefold strategy can be translated into actions, some of which fall directly under BUS, while others (outside BUS) fall into a more general area of creating a favourable environment for stimulating the build up of skills. These actions are presented in the following pages for the three strategic priorities.

Priority 1 - A drive by the market to improve skills

This involves:

- ✓ urging lead contractors to develop a **demand for work** in new construction and renovations that takes into account the "energy transition" and gives priority to the quality of offerings rather than the single price criterion,
- ✓ educating **craftsmen and small firms** about changing standards with regard to anticipated results in the energy efficiency and renewable energy markets and the consequent need to build up skills,
- ✓ improving **transparency** for lead contractors and helping them identify firms that have acquired the skills with which to satisfy the new requirements of quality and obligation of results,
- ✓ encouraging quality through **market recognition**.

Priority 2 - Developing "training and service offerings" to facilitate the build up of skills of current and future firms and employees

Offerings tailored to the needs and limitations of businesses must be expanded to the regional level in order to be closer to existing and potential human resources for the sector and markets.

This involves:

- ✓ developing a service offering adapted to business needs
- ✓ offering training programmes that:
 - are based on a shared inventory of skills to be acquired and on the recognition of skills already acquired,
 - associate and link together a range of educational tools and methods and favours a practical approach for more effective training, by encouraging learning practices that can be used directly on site and an understanding of what they mean,
 - are conducted by trained, qualified and even certified instructors and recognised training bodies,
 - provide recognition, notably in the form of quality certifications for the firms and employees as well as for the instructors and the training programmes.

Priority 3 - Managing skilled workers in the sector

The challenges are to:

- ✓ preserve the sector's **"human resources"** and increase their skills;
- ✓ maintain and even expand an **inflow of skilled professionals** (trained or prepared to received training) in light of new industry demand.

Thirty actions had been described initially to cover these three strategic priorities. However, the Steering Committee decided it was most appropriate, as part of the BUS programme, to define in greater depth only those actions that were most closely related to the Build Up Skills initiative.

The actions presented in the pages that follow are grouped into three sections:

- Those that fall directly under BUS, as they involve skills enhancement for construction professionals and their instructors,
- Those that directly encourage the skills enhancement initiative,
- Those described as "outside BUS ", grouped under the title "For an environment conducive to skills enhancement in the building sector". These are more peripheral actions, either in terms of the targeted audience or because they go beyond the scope of skills enhancement.

In the first two sections, the actions are presented in the form of detailed action summaries, whilst the third section reproduces the comments and suggestions from the national and inter-regional consultation initiative.



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Action summaries:



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Actions falling directly under BUS

Skills

The skills of a large number of craftsmen, firms and employees must be enhanced to various degrees if we are to achieve the energy efficiency goals set by the Grenelle round table talks on the Environment and the Energy Transition Conference in 2012. In addition, the outcomes required under new thermal regulations and the introduction of new products have a major impact on trade practices and therefore on the skills of professionals, especially those in the construction industry.

Numerous initiatives have been launched since 2007 to attempt to respond to these various challenges, notably:

- FEE Bat (Formation aux Economies d'Énergie dans le Bâtiment), to train professionals in a comprehensive approach to building energy efficiency;
- the RAGE programme for revising trade practices,
- PRAXIBAT®, for setting up technical/instructional training platforms that emphasize vocational learning techniques,
- Review of national education diplomas and especially the creation of an additional renewable energy major.
- Review of professional accreditations from the Ministry of Employment, creation of accreditations and CCS (supplementary certificate of specialisation)
- Adaptation or creation of Vocational Qualification Certificates (solar and photovoltaic, thermal insulation via the outside).
- Creation of an orientation workshop for job seekers as part of the services offered by Pôle Emploi, to guide them towards sustainable building trades.

All these different actions contribute - directly or indirectly - to building up the skills of current and future professionals and to changing their environment.

However, the implementation of the 2012 TH-U Rules, the RGE label and, ultimately, cross-compliance requires that we accelerate the efforts we have made to enhance skills and ensure consistency between the various actions carried out with this objective:

- Updating initial and continuing training programmes for the various target audiences,
- Specific Energy Efficiency quality training schemes (FEE Bat, PRAXIBAT®, etc.)
- Training of instructors and teachers
- Provisions for supporting firms in obtaining quality certification
- The inclusion of skills inventories to be mastered as part of the quality certifications awarded to firms and craftsmen, rather than a training obligation.

Action 1 – Develop a shared and validated inventory of skills required (Strategic priority 2)

Brief description

Identifying the skills required to achieve building energy efficiency is a fundamental step in coordinating and ensuring the consistency of information, awareness-raising and training actions for professionals. Several projects already exist in this field, including:

- ▶ The RAGE programme (Review of Trade Practices - Environmental Grenelle): Driven by CAPEB and FFB, ACQ, COPREC Construction and CSTB, the RAGE programme aims to update the trade practices currently in force and propose new ones for construction and renovation work. These reference texts, designed to guide the traditional normative process, will be operational and recognised by the insurers as soon as they are approved.
- ▶ Under a "training" area in the RAGE programme, additional work will be used to extract the skills impacted by the review of trade practices from different guides and to constitute a database of extracted skills, classified by different criteria (technical solution, scope, supervision/operator, new/renovation).
- ▶ In addition, there is also data on the skills required to perform vocational trades in building sector firms. This data is mainly compiled by the Observatoire Prospectif des Métiers et des Qualifications du BTP (OPMQ – BTP) (Building and Public Works Jobs and Qualifications Forecasting Unit), a body operating under the auspices of the national joint commissions on employment (CPNEs) in the building and public works sector. One example is the BNDC (Banque Nationale de Données des Compétences - National Skills Databank), which contains 36 trade sectors and nearly four hundred job descriptions that are updated regularly. In conjunction with a computer application, it can be used to construct the reference framework for skills management systems from business consortiums to small and medium-sized firms in the building and public works sector, via the development of individual sector data repositories.

In other words, a link should be drawn between the revised trade practices and the skills required by building professionals - notably construction professionals - in order to update the existing skills inventories in use in the building sector. These items could be used by the various stakeholders in enhancing the skills of building professionals.

Principal challenges in carrying out the action

- ▶ Having skills databases on the building trades and crafts, updated in response to the RAGE programme,
- ▶ Updating and creating information, awareness-raising and training tools for building professionals (specifically on biosourced materials),
- ▶ Providing support to firms in managing their skills and preparing their training plans,
- ▶ Providing support to training bodies in reviewing and creating initial and continuing training programmes consistent with the challenges involved,
- ▶ Providing support to firms in identifying, assessing and validating skills required to obtain quality certifications (e.g. RGE, etc.).

Projected impact

- ▶ Implementation of reference training programmes based on required skills, with specific clarification of skills impacted by the review of trade practices.
- ▶ Updates to existing initial and continuing training programmes for construction professionals,
- ▶ Definition of the skills required in the guidelines for quality certifications.

Proposed programme

- ▶ **Phase 1:**
Analyse the technical reference documents produced as part of the RAGE programme to identify and extract the skills impacted by the review of trade practices and compile them in an appropriate database.
- ▶ **Phase 2:**
Analyse the scope and feasibility of integrating skills from priority 4 of RAGE with the reference inventories already in existence and available via OPMQ - BTP.
- ▶ **Phase 3:**
Incorporate the selected skills into those reference skills inventories.
- ▶ **Phase 4:**
Provide organizations responsible for informing, educating and training building professionals with access to extracts from the updated skills database, by means of an appropriate application.
- ▶ **Phase 5:** Database updated regularly.

Principal parties involved

OPMQ, Constructys, professional building organisations, ADEME.

Possible sources of financing

Constructys research and development fund

BUS Pillar II

Tracking and success indicators

Action 2 – Support firms in assessing, validating and promoting their skills to obtain quality marks (Strategic priority 2)

Brief description

The number of quality certifications for firms and craftsmen is growing, in light of the performance requirements imposed in construction and energy renovation: RGE label, Qualibat, Qualifelec, Qualit'Enr, Pros de la performance énergétique®, ECO-Artisans®. These quality labels all rely on an issuing procedure by an accredited body, a skills inventory linked to energy efficiency and renewable energies, and an audit of the business.

Compliance with knowledge and skill criteria are normally based on a direct obligation to take part in training. This obligation can be appropriate when new technologies and products emerge to ensure skills enhancement among professionals, guarantee the quality of the work performed and avoid counter-referrals. An obligation of direct training is not relevant in other cases as the firm may already have all or some of the skills required (recruiting young people or job seekers already trained in the required skills, continuing training of employees, participation in site-based instructional facilities or programmes that provide support for work performance, etc.). In this case, the obligation of direct training - without considering the current skills available within the firm - is redundant and penalises firms that have already made an effort to build up skills, totally or partially.

Therefore, business quality certifications must include, among other things, an inventory of required knowledge and skills (for criteria relating to knowledge and skills) as well as ways of proving that the employees and craftsmen in question actually possess that knowledge and those skills. Thus, the reference framework for the RGE label provides for several methods of obtaining the label, depending on the knowledge and skills available to the firm.

Firms and craftsmen and the bodies in charge of issuing quality labels frequently find themselves up against the problem of identifying, assessing and validating existing knowledge and skills.

The proposed action is aimed at developing methodologies and support for firms and craftsmen required to identify, assess and validate their skills in order to obtain quality certifications.

Principal challenges in carrying out the action

- ▶ Harmonised development of quality labels linked to building energy efficiency,
- ▶ Providing recognition for firms already committed to building up skills,
- ▶ Monitoring training programmes associated with obtaining quality certification on behalf of firms and craftsmen that have made a commitment to enhancing their skills and genuinely need to obtain such certification.

Projected impact

- ▶ Identification of the knowledge and skills that businesses and craftsmen must possess in order to obtain quality certification

Proposed programme

- ▶ **Phase 1:**
Analyse the reference guides for the main quality certifications to identify the knowledge and skills required, the methods for demonstrating knowledge and skills and any associated training obligations.
- ▶ **Phase 2:**
Develop the methodology and tools required to support firms and craftsmen in identifying, assessing and validating the knowledge and skills required in order to obtain quality certifications, for example by drawing on the methodology and tool (BNDC) developed by the OPMQ to support firms wishing to set up a GPEC. For firms with ten employees and more, this support is provided by consultants selected by Constructys in all regions. In addition, another GPEC experiment on very small businesses is also in progress.
- ▶ **Phase 3:**
Disseminate this methodology and tools to qualification organizations and promote a standard skills inventory process
- ▶ **Phase 4:**
Support firms and craftsmen in identifying, assessing and validating knowledge and skills required to obtain quality certifications using the tools developed.

Principal parties involved

Qualification bodies, Constructys, ADEME, professional organisations, OPP BTP.

Possible sources of financing

BUS Pillar II

Tracking and success indicators

Action 3 – Develop skill transfer capacities within firms (Strategic priority 3)

Brief description

At a time of major changes in the market and in working methods, companies know that they need to become learning and therefore training organizations, so as to adapt and stay abreast of market developments. This involves using workstations and production time to develop the skills of their employees.

In addition, the wealth of skills is constantly being weakened by retirements, turnover and the arrival of new employees who are skilled to various degrees. (In the building sector, although the economic crisis has reduced mobility among firms, average seniority is only seven years, compared with more than ten years when all sectors are combined).¹³). Companies must therefore find the means to face up to the departure of employees with strategic know-how in the short or medium term.

In addition, some employees, including those who have been exposed to difficult work conditions during their professional careers, would like to complete their careers by highlighting the skills they acquired throughout their professional life ("best techniques" and "best attitudes").

Lastly, any firm wishing to obtain Reconnu Grenelle Environnement recognition is going to have to rely on a trained technical advisor.

This will involve drawing on current "learn by doing" training practices, self-training and collective apprenticeships while encouraging the transfer of skills within the firm, mainly through the use of "technical advisors" and such schemes as the intergenerational contract. This intentional learning environment assumes that an appropriate organisation has been set up within the firm.

The *Observatoire Prospectif des Métiers et des Qualifications du BTP* (Building and Public Works Jobs and Qualifications Forecasting Unit)¹⁴ makes a set of documents (guides, skills logs, etc.) available to firms and employees for formally defining these programmes.

Constructys is already providing support for the internal transfer of skills either as part of a GPEC or through occasional instructor training. Occasional instructor training can be used to provide technical experts with instructional skills.

Principal challenges in carrying out the action

Organise and develop the transfer of skills within firms so that construction projects offer an opportunity for everyone in the construction chain to develop a continuing quality improvement process

Rely on the firm's recognition of the importance of this formative approach focused on each individual's work situation to make it an ongoing process for instilling the skills that employees are expected to have

Make sure that the employees with professional legitimacy based on recognised experience are trained in transferring skills and have the tools required for their task (monitoring, skills assessment tools, etc.)

¹³ FFB - Social indicators in the building sector - 2012

¹⁴ www.metiers-btp.fr

Make the most of the knowledge and skills acquired in the field by these experienced employees by passing them on to younger colleagues/new recruits

Make it easier for employees who have had difficult working conditions to transition into instructor or tutor positions within their firm

Projected impact

Cascading effects of "traditional" training outside the firm through the transfer of skills from a trained person to one or more of his colleagues.

Easier integration of new recruits into the sector (young people, retrained workers).

Proposed programme

Phase 1: Find and analyse existing best practices in this area. Identify the skills assessment and formalisation tools already in existence.

Phase 2: Promote these best practices through (for example) communications campaigns at construction sites

Phase 3: Disseminate these examples within building industry firms to encourage them to do the same

Principal parties involved

Workplace partners, ANACT, OPMQ, ConstructyS

Possible sources of financing

BUS Pillar II

Tracking and success indicators

Training

The number of opportunities for vocational training in France's building sector has exploded. A very large number of firms and professionals are involved. In addition, quality demands in terms of the performance and technical standard of new products are increasingly high.

It is becoming apparent that, in order to respond to the ambitious energy efficiency improvement goals set by Europe and France, skills throughout the profession must be massively and rapidly improved.

The FEE Bat scheme has educated and trained over 50,000 new workers in a comprehensive approach to building energy efficiency. At the same time, the energy efficiency quality labels in the building sector have been grouped under the Reconnu Grenelle Environnement label, a certification that in 2014 should pave the way for cross-compliance of public grants.

In order to meet the qualitative and quantitative challenges involved in vocational training, training organizations in the construction sector (i.e., bodies developing training offerings in building energy efficiency) should be provided with a methodology for upgrading the current quality of their courses as well as suitable tools for doing so. The five action summaries described in this section should work towards this goal.

Action 4 – Develop specifications for specific Energy Efficiency training courses (Strategic priority 2)

Brief description

As part of the goal explained in the introduction of identifying a methodology for use by training bodies to formalise the quality of their Energy Efficiency training programmes, we propose that precise specifications be drafted that describe:

- ▶ The scope of skills targeted by these training programmes: refer to the inventory described in Action Summary 1
- ▶ The educational methods used (instructional goals in conjunction with targeted skills, educational methods in conjunction with the expected learning level, training tools in conjunction with the recommended educational methods, post-training tools for use in long-term consolidation of knowledge acquired during training).
- ▶ Trainer training: refer to Action Summary 6
- ▶ The student assessment process to be introduced: assessment of knowledge acquired from the training This assessment process should connect with the process for issuing quality certifications to businesses and could use the tools developed under Action Summary 2.

A quality mechanism, either existing or to be created, should be in place to monitor compliance with the requirements described in the specifications. This quality system, overseen by independent bodies, should combine monitoring of documentation (training courses for instructors, educational goals, etc.) with field visits. It should also be affordable for the training bodies wishing to pursue this approach. It will of course be accessible to all training organizations involved in this sector of activity.

Principal challenges in carrying out the action

- ▶ Propose specifications governing educational requirements (goals, methods, tools) and assessment requirements to training bodies interested in developing courses on Energy Efficiency in the building sector, with a link to RGE.
- ▶ Identify the requirements:
 - ▶ Educational: based on the targeted audience (construction industry operators, with or without regulator status), describe the educational goals and methods appropriate to the targeted skills. These skills will be those identified as part of Action 1. Note that the educational method used must relate to the level of learning expected for the targeted skill (for example, ensuring airtightness of the building shell when installing electrical ducting. The level of learning expected for this skill requires supervising the student's actions in a professional situation). Similarly, the educational tool used must correspond to the expected skill level and the recommended method (for example, using a technical platform for practical work with handling of equipment - it is understood that the equipment made available to trainees on the platform must be capable of teaching all technologies and should not have a "product" input only).
 - ▶ Assessment: describe the procedures for assessing knowledge acquired from the training (these procedures should be proposed in conjunction with the expected skill levels - for example, a goal of mastering the technique should be assessment via actual performance), in conjunction with the work activities described in Action 2.
 - ▶ Trainer training: the instructors should be able to show evidence of both technical and educational skills, especially when the educational goals are linked to the educational practices of setting up practical work, transfer of technique, etc.

- ▶ Allow all training organizations (whether public or private continuing training, training offered by manufacturers, etc.) to become involved in this quality approach
- ▶ Create a link with the RGE charter qualification systems

Projected impact

- ▶ Have a clearly identified, recognised Energy Efficiency training programme that provides an easier route to company qualification, in conjunction with RGE.
- ▶ Give greater recognition to training in the CVs of trainees and notably job seekers.

Proposed programme

- ▶ Draft detailed requirements for the specifications, with help from organizations that issue business qualifications.
- ▶ Communicate with the training bodies on these specifications.
- ▶ Develop a controlled-cost quality system for the training body so that the process established by that body can be highlighted for the benefit of business quality labels.

Principal parties involved

- ▶ Training bodies in the building sector (public and private sphere, associations, manufacturers, etc.)
- ▶ Business qualification bodies
- ▶ Professional building organisations included in FEE Bat.

Possible sources of financing

ADEME, BUS Pillar II

Tracking and success indicators

- ▶ Monitoring of documentation.
- ▶ Construction site monitoring.

Action 5 – Produce a detailed inventory of objectives, educational methods and assessment methods to training bodies offering Energy Efficiency programmes (Strategic priority 2)

Brief description

The work initiated as part of Action Summary 1 should yield a shared and validated inventory of skills required to achieve the 2020 goals (including training for the use of biosourced materials).

This inventory, supplemented by related goals, educational methods and assessment methods, must be made available to training bodies so that they can review their offerings.

Initial work has begun as part of the BUS project's skills group. The results of these discussions will be made available to the working group responsible for preparing this inventory.

Principal challenges in carrying out the action

- ▶ Identify the educational goals and methods to be envisaged for each type of skill targeted and for each level of learning expected for that skill, and develop the associated assessment methods. A link should be made to the work conducted under Action Summary 2 on the assessment tools to be introduced.
- ▶ Distinguish among skills: "common core", "specific" and "cross-disciplinary".
- ▶ Allow the training bodies to initiate a quality process and come as close as possible to the requirements in the specifications described in Action 4.
- ▶ Link to the European training requirements (Renewable Energy Directive, ECVET programme and Ree_Trofit).
- ▶ Create a link with the RGE charter qualification systems

Projected impact

- ▶ A review of the existing training programmes for energy efficiency in the building sector.

Proposed programme

- ▶ Supplement the skills inventory prepared under Action Summary 1 with the following items: level of learning expected per targeted skill based on the tasks assigned to the professional at the construction site, educational goals to be achieved per level of learning, instructional methods in line with the expected goals, associated instructional tool and assessment method.
- ▶ Make this inventory available to all training bodies involved.

Principal parties involved

- ▶ Participants in the RAGE project
- ▶ Educational experts
- ▶ Training bodies in the sector

Possible sources of financing

- ▶ BUS Pillar II

Tracking and success indicators

- ▶ Number of training bodies taking part in the process described in Action 4.

Action 6 – Support the building up of trainers' skills (Strategic priority 2)

Brief description

To make it easier to enhance the skills ¹⁵ of construction professionals, instructors who have themselves received training must be available. Trainers and instructors must instil skills and knowledge in apprentices, young people and adults so that construction professionals can address the requirements for building environmental quality:

- ▶ Technical skills specific to the different trades
- ▶ Cross-disciplinary skills (taking into account the specific circumstances for their use, checking the quality of their work against the recommendations of their trade and avoiding defects due to poor workmanship, explaining to other workers the precautions to be taken to avoid damaging completed work, etc.) common to all trades.
- ▶ Cross-disciplinary knowledge on building energy efficiency.

In this context, the "trade" instructors face three problems:

- ▶ Updating and/or keeping updated their level of technical skills specific to their trade
- ▶ Changing their attitude by allowing apprentices to become involved in procedures performed on the job
- ▶ Deploying educational approaches based on problem situations, so that apprentices can transfer their knowledge in a variety of situations.

The instructors can be classed schematically into two groups: independent and networked.

Principal challenges in carrying out the action

Allow instructors to develop a threefold skill: technical (especially insofar as these techniques change rapidly), educational (not merely passing on knowledge, but also instilling a reflective approach to work) and environmental.

Give both groups (independent and networked instructors) the means to:

- ▶ find their natural place
- ▶ learn about the major energy challenges and the current systems.
- ▶ maintain and expand their technical skills

make the global approach operational in terms of education and effectively pass on professional "proper, quality" practices.

Projected impact

Be in a position to address the demand for training, itself driven by a stronger renovation and construction market.

¹⁵ Skill is the application of all knowledge (knowledge, know-how) in action.

Proposed programme

- ▶ Organise training for "non-network" instructors.
- ▶ Organise the traceability of instructor training.
- ▶ Organise times and places (such as Internet forums) for instructors to meet and discuss issues.
- ▶ Make a "toolkit" available to all instructors, potentially containing:
 - ▶ feedback, first-hand accounts and examples (especially on the notion of the "reflective approach").
 - ▶ Technical resources, scientific knowledge, legal knowledge (liability, insurance).
 - ▶ Warnings about the cross-disciplinary aspect of skills, the on-site technical interfaces, joint operationality among trades.
 - ▶ Proposed training path for mastering professional techniques.
 - ▶ Self-positioning tool.

The toolkit could take the following form:

- ▶ Digitised content for the sections on self-positioning, resources, scientific and technical knowledge and legal knowledge (regulations and insurance).
 - ▶ Use of fixed and/or mobile educational platforms to provide the trade skills and educational techniques linked to learning practices
 - ▶ Use of e-learning platforms for simulated practical applications at virtual construction sites, but also "virtual reality" tools (construction site simulators, etc.).
 - ▶ Organise sponsorship for long-term distribution of the toolkit.
- For organising long-term sponsorship of the toolkit:**
- ▶ Identify one or more sponsors.
 - ▶ Organise the production of the toolkit contents.
 - ▶ Organise communication around the toolkit's distribution (especially for the instructors in group 1).
 - ▶ Coordinate updates to the toolkit over time.
 - ▶ Coordinate assessment of the toolkit.

Principal parties involved

- ▶ Instructors from training bodies (initial and continuing, public and private sphere, associations, manufacturers)
- ▶ Training bodies
- ▶ Ministry of National Education
- ▶ Work leaders or educational coordinators in these bodies
- ▶ Educational experts
- ▶ Digital training product designers
- ▶ Regional councils and ADEME regional offices
- ▶ ConstructyS

Possible sources of financing

- ▶ BUS Pillar II
- ▶ Regional councils and ADEME regional offices

Tracking and success indicators

- ▶ Number of instructors with access to the digital contents of the toolkit (resources, scientific and technical knowledge, legal knowledge).
- ▶ Number of instructors trained in PRAXIBAT® type technical-educational platforms.
- ▶ Number of instructors with access to the toolkit's e-learning contents.

Action 7 – Ensure an optimum training coverage of the country and locations for awareness-raising and practices *(Strategic priority 2)*

Brief description

Construction professionals need:

- ▶ to be made aware of the need and value of enhancing their professional practices.
- ▶ practical work activities, to refine their practices and working methods.

Addressing this twofold requirement requires:

- ▶ **Tools and/or actions for raising awareness** (for example, fixed or mobile platforms, exhibition halls, etc.).
- ▶ **Training programmes and tools for practicing techniques** that are easy to access geographically, financially and logistically. For that purpose, there must be numerous technical-instructional platforms, in proportion to the local population density of building craftsmen and construction firms. Access to training must be facilitated both financially (training must not be excessively costly for the firm) and logistically (the training body sponsoring the platform must be able to react quickly to the training needs of firms and adapt to their time constraints).

The aim of this action is to create an effective regional network that includes tools for raising awareness and for providing opportunities to practice techniques.

The network should also allow for shared use of costly tools such as the PRAXIBAT® training platforms. This pooling will be critical to addressing the constraints facing businesses in terms of cost, availability and training needs for professional techniques, as well as the constraints facing training organizations that need sufficient numbers of students in order to conduct training sessions.

This action is related to the work conducted under Actions 1 and 5.

Principal challenges in carrying out the action

- ▶ Educate building professionals, along with lead contractors and project managers, about the importance of quality in the construction chain.
- ▶ Help to build up the skills of building site professionals by teaching the “right” techniques they need to master.
- ▶ Obtain "economies of scale".
- ▶ Optimise the training offerings available in the regions.
- ▶ Help job seekers learn about and become more aware of these practices.

Projected impact

The expected impact is twofold:

- ▶ Creates greater awareness of the need for a qualitative improvement in construction and renovation.
- ▶ Improves mastery of techniques in construction and renovation.
- ▶ Allows for qualitative and quantitative development of training programmes that are geographically close to businesses and their employees.

Proposed programme

- ▶ **Phase 1:**
 - ▶ Conduct an assessment of needs and existing programmes in each region for both types of tool (awareness-raising / training).
Note: This assessment has been carried out as part of the PRAXIBAT® programme in several regions.
 - ▶ Study the feasibility and appropriateness of setting up "sustainable building centres" where there is both supply and demand for training.¹⁶
 - ▶ Prepare proposals for developing regional partnerships with the main training networks (Ministry of National Education, CCCA BTP, AFPA, GRETA, etc.).
 - ▶ Identify "best partner practices" and capitalise on them.
- ▶ **Phase 2:**
 - ▶ Put together a regional development plan, taking into account two contradictory constraints - budget and proximity.
 - ▶ Train the instructors in using the tools.
 - ▶ Organise "variable geometry" partnerships in the regions, with the help of volunteer training institutions. The training funders, workplace partners and EPCIs along with their regional resources such as Maisons de l'Emploi could work towards mobilising training bodies and setting up partnerships.
- ▶ **Phase 3:**
 - ▶ Gradually set up the resources.

Possible sources of financing

Regional councils, EPCIs, ADEME, Constructys, manufacturers.
BUS Pillar II

Principal parties involved

Regional councils, ADEME, trade organisations in the building sector, Constructys, training bodies (initial and continuing, public and private spheres, associations, manufacturers) and EPCIs - Maisons de l'Emploi, Pôle Emploi

Tracking and success indicators

- ▶ Number of people educated
- ▶ Number of training tools per professional practice
- ▶ Number of people trained per professional practice

¹⁶ These centres could be used to bring together training organizations that can share educational tools and companies that could develop a comprehensive offering more easily and that could take advantage of slack periods in their business for training purposes.

Action 8 - Promote On-site exchange and training (Strategic priority 2)

Brief description

Companies are not the only ones involved in training their employees. The other parties in the construction chain participate as well, starting with the prime contractors and project management professionals, one of whose tasks is to improve collaboration between the various companies with a role to play at the construction site.

The idea is to foster on-site discussion among lead contractors, project managers, various operators (inspectors, etc.) and site personnel, notably in the form of feedback.

In addition, a number of best practices from the field (e.g. Opération Villavenir) show the clear advantage of using construction sites as training grounds, provided the problems of both training and building construction/renovation are handled appropriately from a legal, organisational and insurance viewpoint. Thus, for example, Constructys has set up "**rotating instructors**" who work on sites in accordance with a particular methodology and draw on company-based occasional instructor advisors.

The advantage of introducing training that is structured around the site is especially clear at renovation sites that require greater coordination. The introduction of training modules at a building site can also respond to a site's immediate needs, in particular when the site includes a high degree of technical innovation and when firms working on the site need their skills to be updated specifically to complete the project.

The various site stakeholders (prime contractor, project manager, contractors) need to organise one aspect (encouraging on-site exchanges) or the other (organising training courses structured around the site) jointly. This should be carried out upstream and downstream so that the effects of the training can be measured in terms of education and the energy efficiency achieved when the project has been completed.

Principal challenges in carrying out the action

Foster and develop times for on-site dialogue between prime contractors, project management and trade professionals

Make sure that the site provides an opportunity to develop a continuing quality improvement process for all players in the construction chain based on feedback and, where appropriate, through training courses corresponding to the site.

Projected impact

Brings the players responsible for designing engineered structures and those in charge of implementing them closer together so that they all work towards achieving energy efficiency and renewable energy goals in buildings they have built together.

Proposed programme

- ▶ **Phase 1:** Analyse existing best practices on the topic

- ▶ **Phase 2:** Set up a favourable legal and insurance framework
- ▶ **Phase 3:** Promote these best practices through communication campaigns at pilot construction sites
- ▶ **Phase 4:** Disseminate these examples among lead contractors and project managers to urge them to do the same by example.

Principal parties involved

Trade organizations in project management and project performance

DGEFP

Training organizations

“Bâti Environnement - Espace Pro” (BEEP) centres for construction professionals

Representatives of the lead contractor

Constructys

Possible sources of financing

BUS Pillar II

Lead contractors

Tracking and success indicators

Number of training modules relating to the construction site

Action 9 – Consolidate post-training skills (Strategic priority 2)

Brief description

As has been clearly established in discussions in recent years on reducing energy consumption, it is essential that building trade professionals maintain their existing skills and develop new ones, especially with regard to the quality of vocational work performed at the construction site.

We therefore need to:

- ▶ Strengthen requirements with regard to making proper design choices and the quality of the work performed, upgrading trade practices and improving inter-trade coordination.
- ▶ Promote more effectively the practices that are integral to the traditional method of passing on knowledge in the building sector.
- ▶ Allow construction professionals to develop a more specialised analytical method for choosing the most suitable technology for problems encountered, but without an overly optimistic view of products. The craftsman's level of knowledge is linked closely to his ability to analyse and choose.

This requires support for adaptive challenges that goes beyond the time that each individual devotes to training. Construction professionals must therefore have access to qualified resources for passing on appropriate advice to individuals (notably so they can guide their customers to sources of quality information such as the Espaces Info Energie); they must tailor the general skills acquired from training to their specific trade needs, and have access to project-sharing forums in order to gain a better understanding of interfaces between vocational trades.

Thus, to build up skills over the longer term, we need to design resources that provide **support** to firms and craftsmen, above and beyond the time that each worker devotes to training, in order to consolidate this new knowledge in actual work environments.

Principal challenges in carrying out the action

Consolidate the enhancement of professionals' skills by developing resources that can be used after the training and by making it easier for workers to apply the theoretical or practical knowledge they acquired from their training, based on solutions tailored to the needs of both the trainees and businesses.

- ▶ Offer quality content that responds to trade-related concerns and specific situations (regional construction systems, complex scenarios, etc.), in order to improve the quality of both recommendations and the work performed.
- ▶ Create forums for dialogue that can promote the sharing of experiences and projects (clubs, project pooling sites, virtual communities).

Projected impact

- ▶ Effective transfer of expected energy efficiency and renewable energy skills into professional practices

Proposed programme

- ▶ **Phase 1: Scoping stage:**
 - ▶ Conduct workshops on defining needs and a shared strategy, with the parties affected
 - ▶ Draft a set of requirements for developing tools and related services
 - ▶ Prepare the development project (search for partners and financing).

- ▶ **Phase 2: Development stage**

Principal parties involved

ADEME.
CSTB (Scientific and technical buildings centre)
Professional organisations (CAPEB, FFB, SCOP BTP)
Construction material manufacturers and retailers

Possible sources of financing

BUS Pillar II
ADEME
Software publishers
Research credits

Tracking and success indicators

Transfers of skills assessed at + 12 months, + 24 months and + 36 months.

Action 10 – Encourage availabilities to go to training (Strategic priority 2)

Brief description

The lack of availability is the main obstacle cited by craftsmen and heads of small firms to explain their problems in training themselves and sending their employees for training. The smaller the firm, the greater the obstacle.

There are several possible strategies to overcome this obstacle:

- ▶ Construction site training courses, in accordance with certain conditions.
- ▶ Adapting training courses and training administration to the constraints of craftsmen and small firms (in-house training, training half-days, mobile platforms, etc.).
- ▶ The use of “forced availability time” (bad weather, unemployment, slack business periods, etc.) to conduct skills enhancement training.
- ▶ Making arrangements to replace those on training leave: this last strategy is the one adopted here in the roadmap.

Principal challenges in carrying out the action

- ▶ Help to overcome the obstacle of availability for the construction professionals employed by small firms.

Projected impact

Increased number of construction professionals from small firms who have taken part in training to acquire new required energy efficiency skills.

Proposed programme

- ▶ **Phase 1:**
Analyse, capitalise on and model best practices with regard to replacement:
 - ▶ in agriculture (national system);
 - ▶ in the building sector (the “Jobrotation” experiment conducted in Nord - Pas-de-Calais, employer groups, temporary staff, etc.).
 Legal analysis of feasibility.
- ▶ **Phase 2:**
Define pilot regions (scale to be stated) for testing these methods:
 - ▶ for short training programmes,
 - ▶ for long training programmes.
 Regardless of the method, this involves:
 - ▶ proposing replacement as one component of the “service offerings” available to businesses (alongside an analysis of their needs, support, educational engineering, etc.) and to employees;

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- ▶ encouraging group solutions like EIGs, GEIQs (employer groups for insertion and qualification), etc., for helping to cover wages of employees who can replace workers on training leave (especially for short training courses),
 - ▶ constructing systems whereby employees on leave for long periods can be replaced by job seekers who can use the opportunity to enhance their skills.
- ▶ **Phase 3:**
Assess methods.
- ▶ **Phase 4:**
Prepare a guide for all stakeholders involved.

Principal parties involved

- ▶ Pôle Emploi, regional councils.
- ▶ Trade organisations.
- ▶ Maisons de l'Emploi.
- ▶ Temporary employment agencies.

Possible sources of financing

BUS Pillar II

Tracking and success indicators

- ▶ Number of "best practices" identified and analysed.
- ▶ Number of people trained thanks to the introduction of these methods.
- ▶ Expansion of these methods to other regions.

Action 11 - Train job seekers to meet firms' requirements (Strategic priority 3)

Brief description

Firms seek to recruit people qualified to work on new and/or energy renovation construction sites.

At the same time, job seekers with experience in the building sector, or who are looking for professional guidance in the building sector and are prepared to train, seek to enter the field.

Pôle Emploi, the Maisons de l'Emploi offices and the PLIEs (local workplace integration and employment plans) have developed and tested a variety of vocational schemes - combining training courses and construction site work - that meet the needs of these firms and job seekers, while Pôle Emploi has conducted orientation workshops for those interested in careers in sustainable building. In this way they can implement the "social clause".

Agencies for social integration through employment (SIAEs) and employer groups for insertion and qualification (GEIQs) can also make it easier for job seekers to locate positions that need to be filled. A network of GEIQs that specialize in the building and public works sector exists throughout the country.

This action aims to expand these resources within each labour market by enlisting the sector's trade organizations, taking into account the actual needs of local firms.

Principal challenges in carrying out the action

- ▶ Make it easier for firms to recruit qualified personnel.
- ▶ Educate companies (especially very small businesses) about the wide range of recruitment methods available.
- ▶ Allow job seekers to obtain qualifications and find a job.

Projected impact

- ▶ A drop in the unemployment rate among people trained and qualified in the building sector or who are being retrained.
- ▶ A broader skills base for businesses, thanks to their recruitment of trained job seekers who meet their needs.
- ▶ Changes in recruitment practices to encourage inter-sector professional mobility.

Proposed programme

- ▶ **Phase 1:**
Prepare a guide to best practices in the form of career tracks that combine training and construction site work and meet the needs of firms and job seekers.

- ▶ **Phase 2:**
 - ▶ Train professionals responsible for implementing these programmes.
 - ▶ Educate company directors in ways they can make their hiring practices more open to applicants from varied backgrounds, and thus reduce the risk of not being able to fill vacant positions.
- ▶ **Phase 3:**
 - ▶ Disseminate best practices and existing guides within the labour markets.

Principal parties involved

- ▶ Pôle Emploi, Maisons de l'Emploi, PLIEs
- ▶ Training organizations
- ▶ SIAEs, GEIQs
- ▶ Trade organisations.

Possible sources of financing

- ▶ Regional councils
- ▶ European Social Fund
- ▶ Pôle Emploi
- ▶ Accredited joint collection funds (OPCAs) (including administration of the FPSPP fund (joint professional development fund) as part of programmes specifically devoted to job seekers, such as vocational retraining agreements (CSPs) and the operational preparation for employment programmes (POEI, POEC)
- ▶ BUS Pillar II

Tracking and success indicators

- ▶ Number of documents distributed.
- ▶ Number of professionals trained.
- ▶ Number of job seekers who have found jobs through these schemes.



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Support actions under BUS

Action 12 – Rely on «influential intermediaries» to encourage craftsmen and company heads to commit to a build up skills initiative (Strategic priority 1)

Brief description

Based on the markets in which they work (new construction, renovation, commercial, residential), craftsmen and company heads adapt gradually to changes in demand. But some, despite efforts made by professional and consular organisations to advise them and urge them to learn more, are still not sufficiently aware of the need to gain skills.

This objective aims to scale up the awareness-raising campaigns for craftsmen and company heads by relying on people and organisations with whom they are in regular contact and who may influence them. This involves mainly chartered accountants, banks and insurance companies (non-exhaustive list). Although actions of this type of action were already undertaken in the aftermath of the Environmental Grenelle, mainly during implementation of the ECO-PTZ, they deserve to be revived.

Principal challenges in carrying out the action

- ▶ Help to ensure that the craftsmen and company heads are committed to and commit their employees to a skills enhancement initiative.
- ▶ Mobilise, inform and train “opinion-makers” for this purpose.

Projected impact

Increased participation of craftsmen and employees in actions designed to build up their skills.

Proposed programme

- ▶ **Phase 1:**
Prepare information/awareness-raising content intended for each type of “opinion-maker” and identify existing documents.
- ▶ **Phase 2:**
Distribute that information/awareness-raising content, in part by organizing meetings and/or short sessions in the field.
Experts may be asked to attend these meetings, with the inclusion of first-hand accounts by craftsmen and company directors.
Visits to exemplary sites could also be proposed.

Principal parties involved

- ▶ Federations and organisations of chartered accountants, banks, insurance companies, etc.
- ▶ ADEME.
- ▶ Trade organisations.
- ▶ Maisons de l'Emploi.



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- ▶ Members of the BEEP network.
- ▶ Pôle Emploi

Possible sources of financing

- ▶ Regional councils
- ▶ BUS Pillar II

Tracking and success indicators

- ▶ Creation of information/awareness-raising content for opinion-makers.
- ▶ Number of information/awareness-raising meetings and sessions held.
- ▶ Number of meeting attendees.

Action 13 – Develop «levers» to encourage craftsmen and company heads to commit to a build up skills initiative (Strategic priority 1)

Brief description

One obstacle to many craftsmen and company directors committing to a skills enhancement initiative is that they feel that the "market is not mature", notably the renovation market, and that skills enhancement therefore offers no "competitive advantage".

The aim of this action is twofold:

- ▶ Turn renovation markets into opportunities - a tool for encouraging craftsmen, employees and job seekers to obtain training.
- ▶ Develop insurance-related incentives for construction firms so that they see an advantage in building up skills.

This action supplements and reinforces the cross-compliance measures and schemes.

Principal challenges in carrying out the action

- ▶ Help to ensure that the craftsmen and company heads are committed and commit their employees to a build up skills initiative.

Projected impact

Increased participation of craftsmen and employees in activities design to enhance their skills.

Proposed programme

- ▶ **Phase 1:**
 - ▶ Identify and capitalise on "best practices" in terms of using markets as leverage for skills enhancement.
 - ▶ Create "eco-benefits" for firms that have obtained an RGE label.
 - ▶ Identify other possible forms of leverage.
- ▶ **Phase 2:**
 - ▶ Clarify with building firm insurers the current and future procedures for insurance policies in the building sector.
 - ▶ Prepare and distribute:
 - ▶ An informational memo for businesses on "insurance and the energy transition in the building sector".
 - ▶ "Best practices" in terms of using markets as leverage for skills enhancement.

Principal parties involved

- ▶ Maisons de l'Emploi
- ▶ Federation of social lending institutions.
- ▶ Insurance companies
- ▶ The AMF
- ▶ Trade organisations.
- ▶ Qualification organisations.

Possible sources of financing

BUS Pillar II

Tracking and success indicators

- ▶ Creation of the informational memo.
- ▶ Compilation of eco-benefits and other forms of leverage that may be created
- ▶ Number of copies of this memo and compilation of eco-benefits that have been distributed

Action 14 – Raise awareness of advisors of business creators and purchasers *(Strategic priority 3)*

Brief description

- ▶ Over 30,000 people each year create or buy out a firm in the building sector. It is important for these people to have acquired all the new vocational skills they will need in order to work on new construction and/or energy renovation sites. Some of these founders and buyers are supported in their entrepreneurial projects by advisors, most of whom belong to one of the large specialised national networks (chambers of commerce, entrepreneurial management boutiques (BGEs), etc.) that are overseen by the National Business Creation Agency (ACPE).
- ▶ The aim of this action is to develop an influx of business creators or buyers into the building sector with the required skills to work in energy efficiency and renewable energies and to lead firms that command those skills.

Principal challenges in carrying out the action

Contribute to the qualitative and quantitative development of the building sector by the arrival, in this sector, of professionals with the necessary skills.

Projected impact

- ▶ Advisors in entrepreneurialism and business acquisitions who are familiar with the requirements and opportunities raised by the energy transition, so they can educate business creators and buyers in these issues in turn and guide them towards training programmes.
- ▶ Enhanced skills among business creators and buyers.

Proposed programme

- ▶ **Phase 1:**
Set up a working group with the APCE and the main consultancy networks for creators-buyers. The group will have the task of preparing (a) information and awareness-raising content and tools for these consultants and (b) a national informing and educating these consultants.
- ▶ **Phase 2:**
Implement a national programme.

Principal parties involved

- ▶ Maisons de l'Emploi
- ▶ CMA, CCI, BGE, etc.
- ▶ Trade organisations.
- ▶ Specialist institutes (example: organization for founders/buyers of businesses in the building and public works sector)

- ▶ Regional councils
- ▶ The APCE
- ▶ Pôle Emploi

Possible sources of financing

- ▶ Regional councils
- ▶ French government (DGEFP)
- ▶ BUS Pillar II

Tracking and success indicators

- ▶ Creation of content and tools
- ▶ Number of consultants educated
- ▶ Number of entrepreneurs and business buyers receiving support from these consultants

Action 15 – Advise and raise awareness of people in charge of professional guidance (Strategic priority 3)

Brief description

The building sector is undergoing a dual technological and cultural revolution. It is and will continue to be increasingly full of opportunities for young people and adults looking for employment.

The majority of professionals providing initial or continuing vocational guidance to these young people and adults do not have sufficient information about these changes and opportunities to be able to inform those they advise about their vocational options under the best possible conditions.

The aim of this action is to educate these professionals and anyone with an influence on vocational guidance (school principals, teachers, etc.) regarding the opportunities offered in the building sector and to advise them about the conditions and resources available to those who are responsible for guiding others towards those opportunities.

An additional objective is to promote the building trades and access paths such as apprenticeships.

Principal challenges in carrying out the action

- ▶ Introduce the new opportunities offered by the building sector to young people and adults seeking vocational guidance and/or employment.
- ▶ Help to boost the influx of new and motivated people into the sector.

Projected impact

- ▶ An increase in the number and quality of new trade professionals entering the building sector.

Proposed programme

- ▶ **Phase 1:**
Provide counsellors with access to innovative methods and tools along with communication methods that reach young people today (social networks, etc.).
- ▶ **Phase 2:**
 - ▶ Disseminate these methods and tools and promote these (new) communication methods.
 - ▶ Organise informational activities for counsellors (company tours, first-hand accounts from industry participants, etc.).

Principal parties involved

- ▶ Regional councils, Pôle Emploi, Maisons de l'Emploi, local offices.
- ▶ National education (CIO)
- ▶ Public Guidance Department (SPO).
- ▶ CARIF.
- ▶ Cité des Métiers.

Possible sources of financing

- ▶ Pillar II.

Tracking and success indicators

- ▶ Number of guidance counsellors reached

Action 16 – Develop craftsmen clusters (Strategic priority 2)

Brief description

The energy renovation market offers enormous potential for work. The energy transition objectives target one million dwellings under current energy standards (new: 2012 TH-U rules + old: existing building TH-U rules combined). Similarly, one of the conclusions of the Statu Quo analysis involves the need to present a comprehensive offering: improving energy efficiency requires not just a succession of trade practices, but an overall analysis of the building and its use. Companies must be able to set up consortia of suitable size for the targeted contracts (especially the public sector contracting authority) in order to respond to and help expand this emerging market.

The aim is therefore to strengthen aid and support measures and schemes for craftsmen and small firms so that they can organise themselves into various types of consortia, so that, for example, they can:

- ▶ Respond as groups or cooperatives to calls for tender for projects overseen by public or private owners.
- ▶ Position themselves as consortia or cooperatives of craftsmen or firms providing services for private individuals.
- ▶ Apply a global approach to organising and managing the work.

Principal challenges in carrying out the action

- ▶ Propose consistent offerings whilst instilling confidence.
- ▶ Access new markets.
- ▶ Within a consortium or cooperative, encourage and facilitate synergies and complementarities between the various partners involved to improve the quality of the work performed.
- ▶ Encourage pooling of skills and resources.

Projected impact

Improved understanding of the interdependence among technical trades to achieve a satisfactory overall energy efficiency.

Adaptation of the RGE label to make it available to cooperatives of craftsmen or firms whose members have earned the RGE qualification individually.¹⁷

Proposed programme

- ▶ **Phase 1:**
Set up a national platform, such as a website, that can be used to:
 - ▶ Identify firms that are interested in responding to these contracts as part of a consortium.

¹⁷ Solenn Le Guen, Mission Officer at the DGEC: "To our knowledge, there is currently no anticipation that the RGE label will be changed in this way."

- ▶ Search these firms by geographical criterion, business activity, trade, size, etc.
- ▶ Improve the visibility of these business consortia and cooperatives.

- ▶ **Phase 2:**
Continue and expand the creation of consortia and cooperatives.

Principal parties involved

- ▶ Trade organisations.
- ▶ Maisons de l'Emploi.

Possible sources of financing

- ▶ BUS Pillar II
- ▶ Regional councils

Tracking and success indicators

- ▶ Number of different types of consortia (formal, informal, cooperatives, etc.).

Action 17 - Strengthen the partnerships with the industrialists and resellers of materials around the goal of building up the skills of workers in the building sector (Strategic priority 2)

Brief description

All craftsmen and small building firms are in contact with equipment and materials suppliers, which tell them about their products and often train them in using those products.

Clearly these suppliers are primarily concerned that their craftsmen and business customers produce quality work overall and achieve the results expected of them.

The aim of this action is to mobilise manufacturers and wholesalers more effectively, so that regional partnerships can be developed with those companies, focusing on several areas:

- ▶ Educating craftsmen and company heads in the value of and need for skills enhancement.
- ▶ Supplying equipment and/or materials to training organizations.
- ▶ Training, with the challenge of expanding their activity beyond the mere use of their products.
- ▶ Innovation.

Principal challenges in carrying out the action

- ▶ Ensure that materials manufacturers and distributors have a stake in enhancing the skills of building site professionals, beyond their role as a supplier.

Projected impact

Greater contribution to raising the awareness of company heads in the building sector and enhancing the skills of employees and craftsmen.

Proposed programme

- ▶ **Phase 1:**
 - ▶ Identify and capitalise on "best practices" among local partnerships between manufacturers and retailers on one hand and organisations taking steps to enhance the skills of construction professionals on the other. This should focus on one of three partnership areas (education, training and supplies to training institutions).
 - ▶ Establish agreements with these manufacturers and wholesalers based on the concept of "shared interests", with an ethics component.
- ▶ **Phase 2:**
 - ▶ Write and distribute a "Guide to best partnership practices".
 - ▶ Develop training programmes for technicians-salesmen working for materials suppliers, so that they are equipped to provide appropriate advice to their customers (craftsmen, small businesses).

Principal parties involved

- ▶ Manufacturer associations (AIMCC, etc.).
- ▶ Trade organisations.
- ▶ Maisons de l'Emploi.

Possible sources of financing

Manufacturers and wholesalers.

BUS Pillar II

Tracking and success indicators

- ▶ Number of best practices identified.
- ▶ Preparation of the guide.
- ▶ Number of actions performed in each of the three areas.

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SUMMARY TABLE OF ACTIONS BY PRIORITY AND MAIN PLAYERS INVOLVED (OUTSIDE CONDUCTIVE ENVIRONMENT)

Strategic areas	Actions	Trades organizations	Trade Unions	OPMQ	Constructyts	Ademe	Regional Councils	Employment Houses and PLIE	Manufacturers of building	Employment Agency	Missions Locales	Ministry of Education	Qualification organization	Training organization
Area 1 - Stimulating the building up of skills by the market														
	Action 12 - Rely on «influential intermediaries» to raise awareness of craftsmen and company heads	X				X		X		X				
	Action 13 - Develop «levers» to encourage craftsmen and company heads to commit to a build up skills initiative	X						X						
Area 2 - Developing «training and services» to facilitate the building up of corporate skills in the sector														
	Action 1 - Develop a shared and validated inventory of skills required	X		X	X	X								
	Action 2 - Support firms in assessing, validating and promoting their skills to obtain quality marks	X			X	X							X	
	Action 4 - Develop specifications for specific Energy Efficiency training courses	X				X							X	X
	Action 5 - Produce a detailed inventory of objectives, educational methods and assessment methods to training bodies offering Energy Efficiency programmes													X
	Action 6 - Support the building up of trainers' skills				X	X	X					X		X
	Action 7 - Ensure an optimum training coverage of the country and locations for awareness-raising and practices	X			X	X	X	X	X	X				X
	Action 8 - Promote On-site exchange and training	X			X									X
	Action 9 - Consolidate post-training skills	X				X			X					
	Action 10 - Encourage availabilities to go to training	X					X	X						
	Action 16 - Develop craftsmen clusters	X						X						
	Action 17 - Strengthen the partnerships with the industrials and resellers of materials around the goal of building up the skills of workers in the building sector	X						X	X					
Area 3 - Managing the flow of professionals in terms of quality														
	Action 3 - Develop skill transfer capacities within firms		X		X									
	Action 11 - Train job seekers to meet firms' requirements	X			X			X		X	X			X
	Action 14 - Raise awareness of advisors of business creators and purchasers	X					X	X		X				
	Action 15 - Advise and raise awareness of people in charge of professional guidance						X	X		X	X	X		

For an environment conducive to skills enhancement in the building sector

Some proposals by the four hundred-odd people consulted under the BUS project are **not within its scope**, but they can contribute to building up the skills of building site professionals insofar as they share the goal of developing an environment conducive to this process. These proposals are therefore summarised in this chapter attached to the roadmap. They are grouped here around three issues:

- ▶ Acting on the demand for work.
- ▶ Organising and developing the offer in the regions.
- ▶ Recognising the skills and experiences.

Most of these proposals are based on experiences and/or existing schemes. A summary is given here to fuel the discussions and work of players and organisations involved (project managers, prime contractors, Sustainable Building Plan, job centres, etc.).

1. Acting on the demand for work

As underlined by one participant *"The entire construction chain must raise its quality level. The entire chain will suffer if there is a weak link."*

It is therefore important to make sure that everyone at the beginning of the chain - the prime contractors and project managers - pull it "upwards" and thus help to build up the skills of craftsmen and employees.

A. Prime contractors:

They are (or should be) the driving forces in building up firms' skills.

Part of the quality of the construction or renovation will depend on their "specifications" and their choices of work and suppliers.

It is therefore essential that they are at least advised of energy efficiency issues in the building and that some of them (for example, public prime contractor technical departments) know how to write specifications and tender rules that take the qualitative and environmental dimensions into account and urge the build up of skills in firms.

The experiences outlined in the consultation show that the following already exist:

- ▶ Schemes, programmes and information/awareness-raising tools of public and private prime contractors.
- ▶ "Good practices" of direct association with public contracts - build up of firms' skills (excluding cross-compliance).
- ▶ Training courses for public prime contractors in:
 - Drafting precise, demanding specifications (mainly on controlling the execution of work).
 - Preparing consultation rules to take better account of quality and environmental approaches by firms.
 - Managing the allotment by taking into account the need for a global approach, obligations of result and a desire to promote groups of small firms.

B. Project managers:

The project managers (architects, Design Offices) have a triple mission of design, consultancy and coordination in the "construction chain".

They must therefore have the skills required to fulfil this triple mission and, thus, participate directly and indirectly in the build of skills of craftsmen and employees in the building sector.

This is not, however, the case of all project managers today.

It has therefore been proposed to construct jointly with all the stakeholders a dual programme of awareness-raising and training of project managers taking into account the three missions:

- ▶ Designing constructions and renovations of low consumption, positive energy buildings.
- ▶ Advising the prime contractors (including on allotments) and firms (including on groups).
- ▶ Coordinating the work under a global approach and managing the interfaces, with an obligation of results in terms of energy efficiency.

C. Firms and craftsmen:

The firms and craftsmen have an influence on the private prime contractors in their choice of energy renovation work and usage, especially with private individuals whose private houses represent the main challenge. In addition, they can also advise them on the different work grants. The craftsmen and heads of small firms thus contribute to developing the renovation market.

The following idea has been put forward to expand this function of information and consultancy:

- ▶ Develop (or repeat) arguments on the advantages of energy renovation.
- ▶ Include in training programmes (mainly FEE BAT):
 - the use of these arguments,
 - modules on:
 - ▶ the tools and systems for financing work,
 - ▶ the choice of investments,
 - ▶ "the usage".

(The four FEE Bat modules partly respond to this proposal).

2. Organising and developing the offer in the regions

The challenge is to help to structure and improve the offer in the regions. Several options have been suggested for this:

D. Developing local support for craftsmen and small firms:

Building up the skills of building site professionals is a problem that enters into the more general problem of knowledge and understanding the environment of the strategy of these small firms, their ability to anticipate change and to provide forward-looking management of their jobs and skills by taking account of these changes.

The goal is therefore to develop support for craftsmen and small firms in this strategic information and anticipation approach, so that they are better able to seize the new opportunities offered by the markets - mainly in energy renovation - and to build up skills with their employees, in this perspective.

E. Contractualisation:

The entire "construction chain" is involved in achieving energy efficiency objectives in new construction and renovations. The resulting obligations of result must therefore be shared between the "stakeholders" who make a joint commitment.

This commitment may be contractualised.

The aim is to:

- ▶ Set up groups of players in the regions who are linked together by joint objectives of result.
- ▶ Help with a simultaneous building up of skills of each of these groups of local players.
- ▶ Avoid any defective "links in the chain" that can hinder the achievement of the energy efficiency goals, to the detriment of other "stakeholder links".

F. Local material channels:

The creation of local bio-sourced material channels and "non-industrialised construction systems" helps with both the economic development of regions concerned and the reduction of greenhouse gas emissions given the short material procurement circuit.

This therefore involves:

- ▶ Helping to create and develop local material channels that create jobs and are "carbon-free".
- ▶ Telling local prime contractors and project managers about these materials.
- ▶ Training craftsmen and employees in using them.

G. Cross-border cooperation:

In cross-border regions with Belgium, Luxembourg, Germany, Italy and Spain, building site professionals work on sites on either side of the border. Secondly, the countries listed are all taking part in the BUS project and have developed tools, methods and know-how to build up the skills of their "blue collar" workers. Some of these could be transferred from one country to the next.

However, the recognition and certification systems for firms and employees are not the same.

The aim of this action is to encourage cross-border cooperation with a view to exchanging in several areas:

- ▶ Build up skills tools, methods, etc.
- ▶ Information on work, employment and training markets.

The challenge is therefore to develop cross-border partnerships between various categories of players and in different areas to help to build up the skills of building site professionals of regions involved.

The expected impacts are:

- ▶ Mutual enhancement of build up skills programmes in the cross-border regions.
- ▶ Greater numbers of offers of work, employment and training.

3. Recognise

H. Recognition of firms

The market is the first build up skills lever for professionals; once an advantage can be conferred or even some contracts reserved where justified to professionals demonstrating their skills. Quality marks for professionals would come into their own in this context.

Thus, in terms of public operations markets, the prime contractors will be made aware and encouraged to use qualified professionals and more generally to show real preference for the quality of offers and the skills of those on the short list.

The plan for the private market, basically renovation, is to introduce cross-compliance for public energy renovation grants from 1 July 2014, under the charter instituting the "Reconnu Grenelle Environnement" label. Regional authorities can also apply this type of cross-compliance locally, inspired by existing arrangements in certain regions (Basse-Normandie region, Urban Community of Dunkirk, etc.). In this case, it is important that the cross-compliance arrangements rely on the same firm recognition provisions to avoid "stacking" reference frameworks on top of each other.

Quality recognition marks in the construction sector are marks (such as descriptors, labels, qualifications, certifications, etc.) that make professionals (firms or people), buildings or the products in them stand out.¹⁸ Quality recognition marks for skills in firms are reference points that confirm the total or partial ability of the firms receiving them to provide particular services and implement the resources they have available, based on predefined criteria. There are three types of mark attesting to the recognition of the quality of the firm's skills:

- ▶ descriptor/label confirming the firm's competence,
- ▶ qualification confirming the firm's competence,
- ▶ certification confirming the firm's competence.

The stakes are as follows:

¹⁸ According to the AQC – Agence Qualité Construction

The quality marks can be used by the customer/prime contractor to:

- ▶ Facilitate and safeguard his choice of service providers.
- ▶ Facilitate the achievement of objectives,
- ▶ Benefit from financial aid (bank loans, regional authority grants, etc. when the cross-compliance clauses come into play)

They can be used by the building professional (Design Office, project manager or firm) to:

- ▶ Promote the know-how of his firm,
- ▶ Strengthen a relationship of trust with his customers,
- ▶ Gain an additional competitive advantage,
- ▶ Help his customers to take advantage of financial subsidies, where appropriate,
- ▶ Commit to continuing progress, involving his employees.

The table below summarises the three quality marks:

	Descriptor/Label	Qualification	Certification
Document	charter + reference framework	reference framework	reference framework
Body issuing the mark	professional sector association, which manages it or entrusts it to third parties	body whose conditions for issuing a qualification are managed by standard NF X50-091 and which can therefore be accredited by COFRAC	certification body that may be accredited* by COFRAC based on standard NF EN ISO/IEC 17021
Requirement level	+	++	+++
Assessment criteria	Legal criteria (existence as legal entity, insurance, etc.); technical criteria covering resources (human, material) and the firm's references	existence as legal entity, legal and administrative situation, financial capacities, technical capacities (human and material resources, references)	existence as legal entity, legal situation, financial capacities, technical capacities (human resources, materials and methods, references)
Assessment procedure	on application + signing a charter, knowledge test or successful QCM, possible audits	on application + document audit	on application + document audit + in situ mandatory (on the firm's premises, on sites)
Monitoring	within 2 years (installation audit)	annual (on application)	annual, on application + audit in situ
Valid for	3 years	4 years at most	4 years
Renewal	on application with compliance check on criteria defined in the reference charter	on application + document audit	on application + document audit + in situ mandatory (on the firm's premises, on sites)

I. Recognition of skills acquired by individuals:

Quality recognition marks for individual skills are reference points that confirm the professional aptitude of an individual to provide particular services, based on predefined criteria. There are two types of mark for recognising the skills of an individual: qualification of individual skills and certification of individual skills.

For the customer, this means:

- ▶ Obtaining a certificate when the quality sign is regulatory (e.g. DPE),
- ▶ Safeguarding his choice of service providers
- ▶ Maximise the likelihood of achieving the performances expected from the service

For the building professional, this means:

- ▶ Promoting his know-how and, if appropriate, producing regulatory certificates,
- ▶ Strengthening a relationship of trust with his customers,
- ▶ Gain an additional competitive advantage,
- ▶ Safeguarding the hiring of his employees,
- ▶ Committing the players to a process of on-going personal progress

The characteristics of both types of individual quality marks, described in the inventory (p.111-112), are summarised below: ¹⁹:

	Qualification	Certification
Document(s)	Qualification reference framework	Certification reference framework
Issuing body	Qualification body	Certification body that may be accredited by COFRAC based on standard NF EN ISO/IEC 17024
Assessment criteria	Initial training, experience, references	Initial training, vocational training, experience, references
Assessment procedure	On application + document audit + occasionally knowledge tests	On application + document audit + knowledge tests or practical assessment
Monitoring	Annual (on application)	Annual (on application) + test or assessment
Valid for	4 years at most	4 to 5 years
Renewal	Similar to the initial acquisition procedure	Similar to the initial acquisition procedure

¹⁹**Comment from FFB:**

This paragraph covers both people potentially employed in a firm (therefore, in principle, holders or a CQP, for example, or a diploma, even an accreditation?) and people potentially exercising a building activity, as an individual firm. They are very different and mixing types can cause problems.

J. Recognising the experience of individuals:

This involves **promoting and optimising** to professionals and firms the "**Accreditation of Prior Learning**" (APL) process²⁰ as a means of obtaining quality marks.

The APL is an individual right to have recognised, by an accreditation jury, the skills acquired through professional or personal experience: *"Any person who has carried out a professional paid, unpaid or voluntary activity with relation to the subject of his application for at least three years may request the accreditation of his prior learning"*

This process provides total or partial recognised certification, i.e. a diploma, a professional qualification or a Professional Qualification Certificate.

The certifications accessible by the APL are listed in a national directory of professional certifications (RNCP)

The Accreditation of Prior Learning can be financed under a range of schemes based on the applicant's situation (employee, job seeker, etc.).²¹

The challenges are to:

For the professional or employee:

- ▶ Promoting professional practices and know-how by having them recognised officially
- ▶ Obtain a full or partial diploma, professional qualification or CQP, mainly to be able to access a training course without having to prove a level of study that is normally required
- ▶ Safeguarding the job by proving know-how
- ▶ Improving the visibility of skills for staff seeking employment

For the firm:

- ▶ Increasing productivity and improving the quality of service rendered to the clientele thanks to qualified, motivated employees
- ▶ Ensure employee loyalty by recognising the qualification obtained through the APL, in the classification grid of collective BTP conventions
- ▶ Promoting and improving the firm's image by proving the skills of its employees

²⁰Comment from CFDT on the APL:

The procedure for promoting and optimising the APL needs to be shorter and simplified and applicants should be supported throughout, mainly the least qualified, as many reports indicate that the current scheme is not sufficiently appealing (see Besson report: "Moving from a stated APL to a career APL will only occur if the certification system becomes far more modular and certifiers recognise all these modules p.25 "APL: an assessment of the APL scheme", Eric Besson report to the Prime Minister, 2008.

²¹ <http://www.metiers-btp.fr/outils-pratiques/validation-acquis-experience/Pages/validation-acquis-experience.aspx>

Implementation of the "roadmap" and financing

Implementation:

Timetable (Support actions that fall within the scope of the BUS initiative are shown in light gray)

	2014	2015	2016	2017	2018	2019	2,020	TRADE ORGANIZATIONS AND/OR WORKPLACE PARTNERS	OPMQ	CONSTRUCTYS	ADEME	REGIONAL COUNCILS	MAISON DE L'EMPLOI	POLE EMPLOI	MANUFACTURERS	LOCAL EMPLOYMENT SUPPORT OFFICES (MISSIONS LOCALES)	NATIONAL EDUCATION	QUALIFICATION BODIES	TRAINING BODIES	
PRIORITY 1																				
Action 12: Rely on «influential intermediaries » to raise awareness of craftsmen and company heads								X			X		X	X						
Action 13: Develop «levers» to encourage craftsmen and company heads to commit to a build up skills initiative								X					X							
PRIORITY 2																				
Action 1: Develop a shared and validated inventory of skills required								X	X	X	X									
Action 2: Support firms in assessing, validating and promoting their skills to obtain quality marks								X		X	X								X	
Action 4: Develop specifications for specific Energy Efficiency training courses								X			X								X	X
Action 5: Produce a detailed inventory of objectives, educational methods, and assessment methods to training bodies offering Energy Efficiency programmes																				X
Action 6: Support the building up of trainers' skills										X	X	X					X			X
Action 7: Ensure an optimum training coverage of the country and locations for awareness-raising and practices								X		X	X	X		X	X					X
Action 8: Promote On-site exchange and training								X		X										X

**THE BUILD UP SKILLS CONSORTIUM IN
FRANCE**

Action 9: Consolidate post-training skills									X			X		X					
Action 10: Encourage availabilities to go to training									X			X	X						
Action 16: Develop craftsmen clusters									X				X						
Action 17: Strengthen the partnerships with the industrials and resellers of materials around the goal of building up the skills of workers in the building sector									X				X		X				
PRIORITY 3																			
Action 3: Develop skill transfer capacities within firms											X								
Action 11: Train job seekers to meet firms' requirements									X		X		X	X		X			X
Action 14: Raise awareness of advisors of business creators and purchasers									X			X	X	X					
Action 15: Advise and raise awareness of people in charge of professional guidance												X	X	X		X	X		

Benchmarks

The following benchmarks and indicators are suggested with the caveat that they will need to be defined in more detail by the technical committee responsible for monitoring the roadmap's progress, in close collaboration with those responsible for each action:

	Benchmark 1 (December 2015)	Proposed indicators (December 2017)
Priority 1		
Action 12: Rely on «influential intermediaries » to raise awareness of craftsmen and company heads	Informational and educational media prepared Opinion-makers identified	Number of meetings conducted Number of worksite tours conducted
Action 13: Develop «levers» to encourage craftsmen and company heads to commit to a build up skills initiative	Ecobenefits established for companies that have received the RGE label Other best practices identified	Insurance options clarified
Priority 2		
Action 1: Develop a shared and validated inventory of skills required	Skills database available	
Action 2: Support firms in assessing, validating and promoting their skills to obtain quality marks	Methodology developed	Number of companies and craftsmen that have received support; length of support and level of satisfaction
Action 4: Develop specifications for specific Energy Efficiency training courses	Specifications drafted	System for monitoring training quality implemented
Action 5: Produce a detailed inventory of objectives, educational methods, and assessment methods to training bodies offering Energy Efficiency programmes		Skills database completed and made available to all relevant training organizations
Action 6: Support the building up of trainers' skills	Toolkit available	Toolkit distributed to all instructors
Action 7: Ensure an optimum training coverage of the country and locations for awareness-raising and practices	Assessment ??? PRAXIBAT expanded to cover the entire country Regional partnerships suggested	Number of regional technical/instructional platforms or long-term building centres established
Action 8: Promote On-site exchange and training	Best practices identified Legal and insurance framework defined	Number of lead contractors and contracting authorities that have received a copy of the best practices
Action 9: Consolidate post-training skills	Reference list of requirements prepared	Support programme in place
Action 10: Encourage availabilities to go to training	Methods developed to make it easier to replace workers taking part in training	Number of pilot regions where replacement methods will be tested Improvement in the number of workers taking training leave and the number and length of work contracts for those replacing them
Action 16: Develop craftsmen clusters	Website/platform created	Number of consortia or cooperatives created
Action 17: Strengthen the partnerships with the industrials and resellers of materials around the goal of building up the skills of workers in the building sector	Best practices identified	Number of guides to best practices distributed Number of special training programmes open to technicians/sales representatives

THE BUILD UP SKILLS CONSORTIUM IN FRANCE

Priority 3		
Action 3: Develop skill transfer capacities within firms	Best practices identified	Number of worksite communications programmes conducted
Action 11: Train job seekers to meet firms' requirements	Guide to best practices prepared	Relevant professionals trained Best practices distributed to company directors Years of industry experience among job seekers trained (for purposes of identifying retrained employees separately)
Action 14: Raise awareness of advisors of business creators and purchasers	Working group established	Number of advisors trained nationally
Action 15: Advise and raise awareness of people in charge of professional guidance	Innovative methods and tools developed	Methods and tools distributed Number of informational activities conducted for counsellors

Funding sources

This refers to funding sources that are considered viable, i.e., avenues to explore by the parties responsible for carrying out each action.

	TRADE ORGANIZATIONS AND/OR WORKPLACE PARTNERS	CONSTRUCTYS	ADEME	REGIONAL COUNCILS	MAISON DE L'EMPLOI	POLE EMPLOI	MANUFACTURERS	EPCs (public bodies for DEVELOPERS/PROJECT MANAGERS)	ESF	DGEFP
Priority 1										
Action 12: Rely on «influential intermediaries» to raise awareness of craftsmen and company heads				X						
Action 13: Develop «levers» to encourage craftsmen and company heads to commit to a build up skills initiative										
Priority 2										
Action 1: Develop a shared and validated inventory of skills required		X								
Action 2: Support firms in assessing, validating and promoting their skills to obtain quality marks										
Action 4: Develop specifications for specific Energy Efficiency training courses			X							
Action 5: Produce a detailed inventory of objectives, educational methods, and assessment methods to training bodies offering Energy Efficiency programmes										
Action 6: Support the building up of trainers' skills			X	X						
Action 7: Ensure an optimum training coverage of the country and locations for awareness-raising and practices		X	X	X			X	X		
Action 8: Promote On-site exchange and training								X		
Action 9: Consolidate post-training skills			X							
Action 10: Encourage availabilities to go to training										
Action 16: Develop craftsmen clusters				X						
Action 17: Strengthen the partnerships with the industrials and resellers of materials around the							X			

THE BUILD UP SKILLS CONSORTIUM IN FRANCE

goal of building up the skills of workers in the building sector																			
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Priority 3																			
Action 3: Develop skill transfer capacities within firms																			
Action 11: Train job seekers to meet firms' requirements		X		X		X											X		
Action 14: Raise awareness of advisors of business creators and purchasers				X															X
Action 15: Advise and raise awareness of people in charge of professional guidance																			

Coordinating and monitoring implementation of the roadmap

The actions described in the roadmap will be carried out at various levels (national, regional, local) by a variety of parties that will need to interact with each other. The challenge will be to ensure that these parties take consistent, effective action and that they fulfil the defined objectives for skills enhancement.

The Residential Energy Renovation Plan (PREH), announced by France's President in March 2013, calls for the creation of coordination bodies at the national and regional level and even in each *département* that would provide a natural home for the Build Up Skills roadmap.

At the national level:

The **PREH steering committee** could monitor the roadmap's implementation.

In fact, one of the PREH's three main areas of focus involves mobilizing industry professionals to ensure that the renovation work performed is of the highest possible quality. The PREH's steering committee, jointly led by the French Minister for Regional Equality and Housing (METL) and the Minister of Ecology, Sustainable Development and Energy, meets every 15 days, and includes the Department of Housing, Urban Development and Landscapes (DHUP) and the Directorate General for Energy and Climate (DGEC), ADEME, the ANAH (National housing association), the ANIL (National office for housing information), a DDT (Departmental land management office), a DREAL (Regional directorate for the environment, development and housing), and government associations (ARF, ADF, ADCF, AMF), in addition to the aforementioned ministerial cabinets.

The PREH steering committee is responsible for the following:

- Overseeing implementation of the PREH
- Coordinating actions by the central government and its representatives and topics being pursued by local authorities
- Tracking results.

The DHUP is responsible for managing technical issues.

However, insofar as the PREH has a broader scope of activity than construction skills enhancement, a **technical monitoring committee** should be established that would be responsible for:

- Ensuring that the Build Up Skills roadmap is being carried out consistently, so as to guarantee the best possible results;
- Defining indicators to be compiled on a regular or as-needed basis in order to capitalize on, evaluate and monitor the roadmap;
- Coordinating the network of institutions and organizations responsible for taking action as part of the national roadmap;
- Evaluating, over time, the efficacy of the arrangements made for proposing corrective and/or additional action.

This technical monitoring committee could be comprised of:

- representatives of trade associations and trade unions,
- Constructyts,
- the relevant ministries (DHUP, DGEC, CGDD, DGEFP)

- Association des Régions de France (ARF),
- Pôle Emploi,
- the Ministry of National Education,
- ADEME, the AFPA, the Alliance Villes Emploi, the CSTB
- Plan Bâtiment Durable (PBD)

and other partners in the realm of employment and training with a potential stake in these activities.

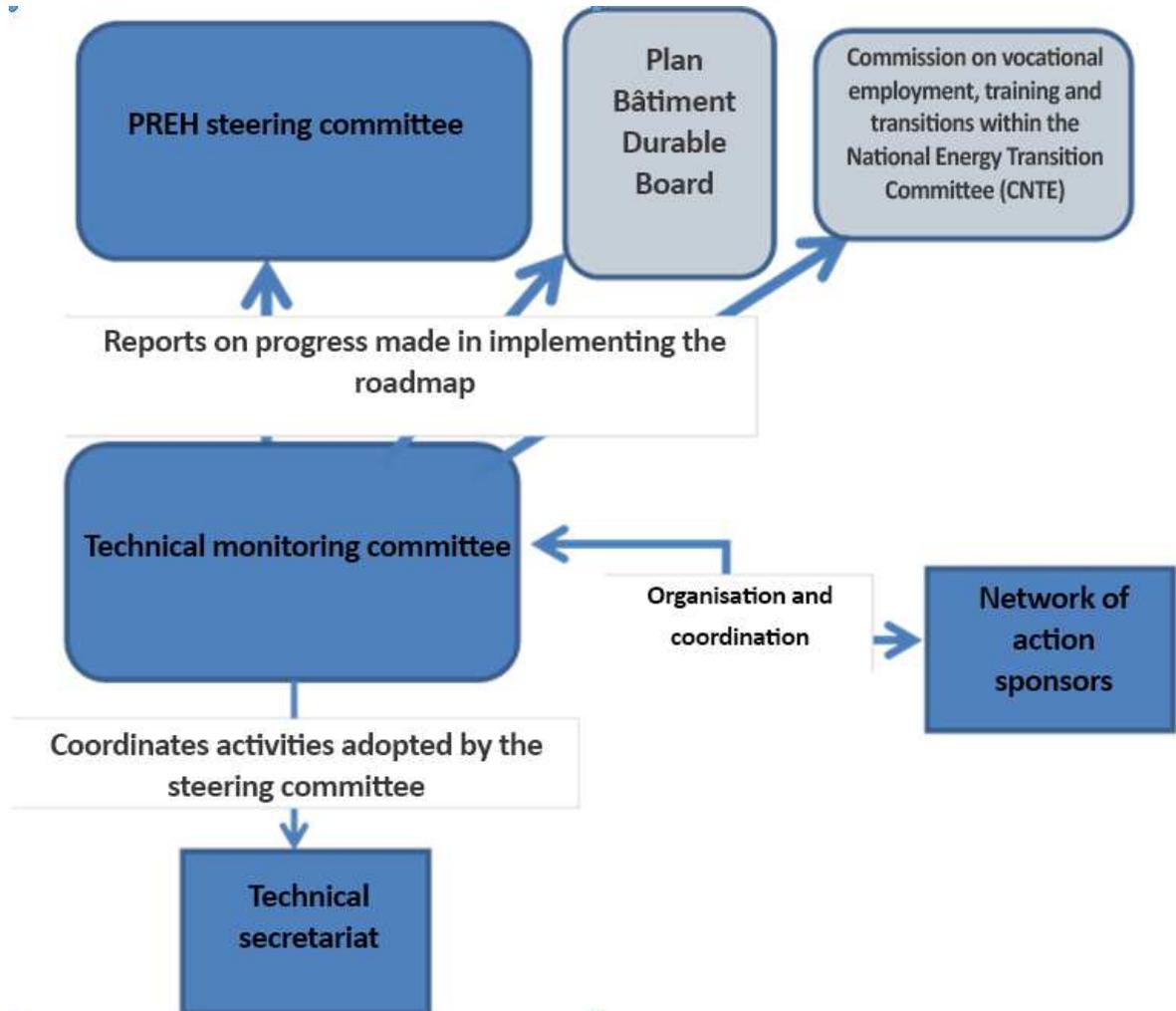
The Plan Bâtiment Durable training committee could serve as the institutional home for this technical monitoring committee if it were called to do so by the PREH's national steering committee. In that way, Plan Bâtiment Durable could help disseminate information to organizations with a stake in improving skills in the construction industry (BUS, the RAGE programme, FEE Bat, etc.), by holding meetings on training-related topics twice a year.

To ensure that these responsibilities can be carried out, a **technical secretariat** (one half-time officer) will be needed to coordinate the monitoring committee's activities. The technical secretariat's responsibilities would be as follows:

- Coordinating the meetings of the technical monitoring committee: invitations, agenda, meeting reports;
- Appointing representatives to the national PREH steering committee, the PBD Board, the regions;
- Coordinating and leading the network of institutions and organizations responsible for taking action. This would entail setting up a national meeting to be held once or twice a year, with help from Plan Bâtiment Durable, and compiling and processing roadmap tracking indicators;
- Keeping stakeholders informed of roadmap monitoring activities.

The costs entailed by the monitoring committee's work (mailings, meeting logistics, telephone costs, etc.) and by the duties of the officer position could be covered by the internal funds of the organization that assumes responsibility for the technical secretariat. That organization could submit a proposal under Pillar II to obtain European co-funding.

In schematic terms, the system for monitoring the roadmap at the national level could be set up as follows:



At the regional and departmental level:

In each region and *département*, the PREH would be placed under the aegis of regional prefects backed by the DREAL offices and departmental prefects backed by the DDTs.

A steering committee would include the principal stakeholders: the Regional Council, central authorities (DIRECCTE, DREAL, the Rectorat), the ADEME regional office, the AFPA regional office, and regional representatives from Maisons de l'Emploi, workplace partners and Constructyts.

In each labour market:

Certain actions are carried out within specific labour markets. In these cases, the stakeholders likely to sponsor or take part in a given activity must be mobilized and the action plan must be coordinated. The Maisons de l'Emploi employment offices will play an essential role in this process.

Methodology

- **Phase 1:**
 - Set up the technical monitoring committee and the technical secretariat.
 - Establish the network of project sponsors, possibly funded pursuant to Pillar 2 of BUS
 - Define the indicators to be compiled on a regular or as-needed basis in order to capitalize on, evaluate and monitor the roadmap
- **Phase 2:**
 - Establish regional bodies
 - Coordinate national bodies

Conclusion

Several hundred stakeholders at both the national and regional level have helped to conduct the status assessment and prepare a BUS roadmap.

Successful implementation of the roadmap will depend in part on whether these stakeholders can be mobilized still further to carry out the activities that were chosen.

But other factors will play a part as well:

- Proper national and regional coordination of participants and activities.
- Coordination of the roadmap with national and regional policies and organizations, notably including the Residential Energy Renovation Plan (PREH). The circular issued by the French government on 22 July to establish the PREH specifically cited the need to take the Build Up Skills roadmap into consideration.
- The ability to mobilize sources of funding.

Authors and contributors

The roadmap authors and contributors are:

- The consortium's member institutions:
ADEME
AFPA
Alliance Villes Emploi
CSTB
- And the following institutional members of the Steering Committee:
CAPEB
CFDT
DGEC
DHUP
FFB
Pôle Emploi



**THE BUILD UP SKILLS CONSORTIUM IN
FRANCE**

Annex
Endorsement letters

Le Président

Monsieur le Président
ADEME
20 avenue du Grésillé
BP 90406
49004 Angers Cedex 01

Aux bons soins de Madame Elisabeth Artaud

Monsieur le Président,

La CAPEB considère que la feuille de route établie dans le cadre des travaux de Build Up Skills est globalement de nature à favoriser la montée en compétence des professionnels de chantier et à contribuer à l'atteinte des objectifs de la politique énergétique et climatique dans le secteur du bâtiment.

La CAPEB contribuera au mieux à la mise en œuvre des mesures proposées dans la feuille de route et veillera notamment à ce que cette démarche soit en cohérence avec les actions déjà engagées par ailleurs et tienne compte du rôle des Partenaires Sociaux de la branche du bâtiment sur le champ de la formation professionnelle.

Nous vous prions d'agréer, Monsieur le Président, l'expression de notre parfaite considération. *Dim 11/11/13*



Patrick Liébus
Membre du Conseil Economique, Social
et Environnemental

Objet : Build Up Skills : l'initiative européenne
pour la main d'œuvre de la construction durable

CONFÉDÉRATION
de l'ARTISANAT et des
PETITES ENTREPRISES
du BÂTIMENT

2, rue Béranger
75140 Paris Cedex 03
Tél. : 01 53 60 50 00
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www.capeb.fr
Siret n° 775 682 107 00054

ADEME
20, avenue du Grésillé
BP 90406
49004 ANGERS Cedex 01

Paris, le 19 novembre 2013

Objet : lettre de soutien Build Up Skills

Madame, Monsieur,

La Fédération Française du Bâtiment considère que la feuille de route établie dans le cadre des travaux de Build Up Skills est globalement de nature à favoriser la montée en compétence des professionnels de chantier et à contribuer à l'atteinte des objectifs de la politique énergétique et climatique dans le secteur du bâtiment.

La Fédération Française du Bâtiment contribuera au mieux à la mise en œuvre des mesures proposées dans la feuille de route et veillera notamment à ce que leur mise en œuvre se fasse en cohérence avec les actions déjà engagées par ailleurs et tiennent compte du rôle des Partenaires Sociaux de la branche du bâtiment sur le champ de la formation professionnelle.

Nous vous prions de croire, Madame, Monsieur, en l'expression de notre parfaite considération.


Bertrand SABLIER



CONSTRUIRE
RESPONSABLE

Le 20 novembre 2013

**CONSORTIUM
BUILD UP SKILLS FRANCE
20 avenue du Grésillé
BP 90406**

49004 ANGERS CEDEX 01

Build Up Skills : projet européen sur la montée en compétences des professionnels de chantier dans le champ de l'efficacité énergétique et des EnR

Madame, Monsieur,

La **FEDERATION SCOP BTP** considère que la feuille de route établie dans le cadre des travaux de Build Up Skills est globalement de nature à favoriser la montée en compétence des professionnels de chantier et à contribuer à l'atteinte des objectifs de la politique énergétique et climatique dans le secteur du bâtiment.

La **FEDERATION SCOP BTP** contribuera au mieux à la mise en œuvre des mesures proposées dans la feuille de route et veillera notamment à ce que leur mise en œuvre se fasse en cohérence avec les actions déjà engagées par ailleurs et tiennent compte du rôle des Partenaires Sociaux de la branche du bâtiment sur le champ de la formation professionnelle.

Nous vous prions d'agréer, Madame, Monsieur, l'expression de notre parfaite considération.

Jacques PETEY
Président

64 bis rue de Monceau
75008 PARIS
Tél. 01 55 65 12 20
Fax. 01 55 65 12 29
Mél. fede@scopbtp.org

WWW.SCOPTBTP.ORG

leSCOP
SOCIÉTÉS COOPÉRATIVES
ET PARTICIPATIVES



La Défense, le 21 novembre 2013

ADEME
20 avenue du Grésillé
BP 90406
49 004 Angers Cedex 01

Objet : Lettre de soutien Build Up Skills

Madame, Monsieur,

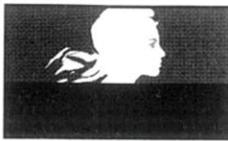
Le Plan Bâtiment Durable considère que la feuille de route établie dans le cadre des travaux de Build Up Skills est globalement de nature à favoriser la montée en compétence des professionnels de chantier et à contribuer à l'atteinte des objectifs de la politique énergétique et climatique dans le secteur du bâtiment.

Le Plan Bâtiment Durable contribuera au mieux à la mise en œuvre des mesures proposées dans la feuille de route et veillera notamment à ce que leur mise en œuvre se fasse en cohérence avec les actions déjà engagées par ailleurs et tiennent compte du rôle des Partenaires sociaux de la branche du bâtiment sur le champ de la formation professionnelle.

Nous vous prions de croire, Madame, Monsieur, à l'expression de notre parfaite considération.

Jérôme Gatier

Directeur du Plan Bâtiment Durable



MINISTÈRE DE L'ÉGALITÉ DES TERRITOIRES
ET DU LOGEMENT

MINISTÈRE DE L'ÉCOLOGIE,
DU DÉVELOPPEMENT DURABLE ET DE L'ÉNERGIE

*Direction générale de l'aménagement,
du logement et de la nature*

*Direction de l'habitat, de l'urbanisme et des paysages
Sous-direction de la qualité et du développement durable dans
la construction*

Bureau des professionnels du bâtiment

Affaire suivie par : Gabriel Coanon
Gabriel.coanon@developpement-durable.gouv.fr
Tél. 01 40 81 94 99 – Fax : 01 40 81 95 30

Objet : Validation de la feuille de route française du
projet Build Up Skills

Paris, le **14 NOV. 2013**

ADEME

Secrétariat de Build Up Skills France

20 boulevard du Grésillé

49000 Angers

Le secteur du bâtiment est au cœur de la politique du ministère en réponse aux enjeux du changement climatique et de la transition énergétique impulsée par le Gouvernement.

La montée en compétences des professionnels du bâtiment constitue un élément clé de notre stratégie et il nous appartient de mobiliser toutes les énergies pour relever le défi de l'efficacité énergétique et du développement des énergies renouvelables.

La feuille de route définie par le consortium français dans le cadre du projet « Build up Skills », que j'appuie par la présente, répond à cet objectif de structuration des actions nécessaires de formation et pose notre action collective dans un cadre partagé et consensuel aux côtés des partenaires professionnels de la construction.

Le directeur de l'habitat, de l'urbanisme et des
paysages



Etienne CREPON



**S'ENGAGER POUR CHACUN
AGIR POUR TOUS**

Mme Elisabeth Artaud
ADEME
27 Rue Louis Vicat
75015 Paris

Paris, le 8 octobre 2013

Références : SG/CR

Objet : Approbation de la feuille de route du projet Build Up Skills

Madame,

L'anticipation des besoins d'acquisition ou de renforcement des compétences et qualifications des professionnels du bâtiment (ouvriers, artisans), liés à la transition énergétique, a été au cœur du projet européen « Build up skills » (construire les compétences).

La CFDT est persuadée qu'un nouveau modèle de développement est aujourd'hui nécessaire et a participé activement aux initiatives en faveur du développement durable (conférences environnementales, débat sur la transition énergétique...).

La CFDT a apprécié la méthode de BUS, fondée sur un dialogue entre parties prenantes, pour faire un état des lieux partagé de l'évolution des besoins de GPEC, de l'offre et de la demande en matière de formation professionnelle continue. La méthode a permis de croiser les enjeux sectoriels avec des retours sur des initiatives territoriales dans des bassins d'emploi, ce qui nous est apparu riche d'enseignements sur les dynamiques locales et les expérimentations. C'est pourquoi je vous confirme l'approbation par la CFDT de la feuille de route de BUS (version août 2013)

Nous appelons concernant l'action 11 (p.38) à une vigilance pour que des projets portés dans le cadre de Structures d'insertion par l'activité économique (SIAE) et de Groupements d'employeurs pour l'insertion et la qualification (GEIQ) bénéficient prioritairement aux personnes les plus éloignées de l'emploi.

En vous priant d'agréer l'expression de mes meilleurs sentiments

Patrick PIERRON
Secrétaire National
en charge du développement durable

Build Up Skills : the European sustainable building workforce Initiative

Letter of endorsement

Institution : Ministère de l'éducation nationale

Date : 06 NOV. 2013

Name : Brigitte Doriath

Adress : 97 rue de Grenelle

75007 Paris

We, Departement of education, consider that the proposed measures are suitable for enhancing the skills of building workers and are available to achieve the energy and climate policy targets in the building sector.

We will contribute to the best of our ability to implementing the measures proposed in the Action Plan.

Name of the Signatory :

Brigitte Doriath



Inspectrice générale de l'éducation nationale

Sous-directrice des lycées et de la formation

professionnelle tout au long de la vie

Pour le directeur général de l'enseignement scolaire et par délégation,
L'Inspectrice générale de l'éducation nationale
Sous-directrice des lycées et de la formation professionnelle
tout au long de la vie

Brigitte DORIATH

Lettre d'approbation

Institution : Ministère de l'éducation nationale

Date : 06 NOV. 2013

Nom : Brigitte Doriath

Adresse : 97 rue de Grenelle

75007 Paris

Build Up Skills : l'initiative européenne pour la main d'œuvre de la construction durable

Lettre d'approbation

Nous, services de la Dgesco, représentée par Brigitte Doriath, considérons que les mesures proposées conviennent pour améliorer les compétences des professionnels de chantier et contribuer à l'atteinte des objectifs de la politique énergétique et climatique dans le secteur du bâtiment.

Nous contribuerons au mieux de notre capacité à la mise en œuvre des mesures proposées dans le plan d'actions.

Nom du signataire :

Brigitte Doriath



Inspectrice générale de l'éducation nationale

Sous-directrice des lycées et de la formation

professionnelle tout au long de la vie

Pour le directeur général de l'enseignement scolaire et par délégation,
L'Inspectrice générale de l'éducation nationale
Sous-directrice des lycées et de la formation professionnelle
tout au long de la vie

Brigitte DORIATH

Lettre d'approbation

Direction Générale de l'Énergie et du Climat
Grande Arche de la Défense, Paroi Nord
92055 PARIS LA DEFENSE CEDEX

Date : **08 NOV. 2013**

Build Up Skills : l'initiative européenne pour la main d'œuvre de la construction durable

Lettre d'approbation

Nous, Direction Générale de l'Énergie et du Climat, considérons que les mesures proposées conviennent pour améliorer les compétences des professionnels de chantier et contribuer à l'atteinte des objectifs de la politique énergétique et climatique dans le secteur du bâtiment.

Nous contribuerons au mieux de notre capacité à la mise en œuvre des mesures proposées dans le plan d'actions.

Le sous-directeur de l'efficacité énergétique
et de la qualité de l'air,
par intérim, le chef du bureau
« Économies d'énergie et chaleur renouvelable »


Yann MENAGER

Build Up Skills : the European sustainable building workforce Initiative

Letter of endorsement

Direction Générale de l'Énergie et du Climat
Grande Arche de la Défense, Paroi Nord
92055 PARIS LA DEFENSE CEDEX

Date : **08 NOV. 2013**

We, Directorate General for Energy and Climate, consider that the proposed measures are suitable for enhancing the skills of building workers and are available to achieve the energy and climate policy targets in the building sector.

We will contribute to the best of our ability to implementing the measures proposed in the Action Plan.

Le sous-directeur de l'efficacité énergétique
et de la qualité de l'air,
par intérim, le chef du bureau
« Économies d'énergie et chaleur renouvelable »


Yann MENAGER

Lettre d'approbation :

Institution : CONSTRUCTYS, OPCA de la Construction..... Date 18 novembre 2013.....

Nom : CONSTRUCTYS, OPCA de la Construction, représenté par David Mazurelle.....

Adresse : 32 rue René Boulanger – CS 60003 75483 PARIS CEDEX 10

Build Up Skills : l'initiative européenne pour la main d'œuvre de la construction durable.

Lettre d'approbation :

Constructys, OPCA de la Construction considère que la feuille de route établie dans le cadre des travaux de Build Up Skills est globalement de nature à favoriser la montée en compétence des professionnels de chantier et à contribuer à l'atteinte des objectifs de la politique énergétique et climatique dans le secteur du bâtiment.

Constructys, OPCA de la Construction, contribuera au mieux à mise en œuvre des mesures proposées dans la feuille de route et veillera notamment à ce que leur mise en œuvre se fasse en cohérence avec les actions déjà engagées par ailleurs et tiennent compte du rôle des Partenaires Sociaux de la branche du Bâtiment sur le champ de la formation professionnelle.

Nous vous prions d'agréer, Madame, Monsieur, l'expression de notre parfaite considération.


David MAZURELLE
Directeur Général

Lettre d'approbation

Institution : Association des Régions de France

Date : 25/11/2013

Nom : Alain ROUSSET

Adresse : 282 boulevard Saint Germain, 75007, Paris

Build Up Skills : l'initiative européenne pour la main d'œuvre de la construction durable

Lettre d'approbation

Les Régions françaises, représentées par l'Association des Régions de France, considèrent que les mesures proposées conviennent pour améliorer les compétences des professionnels de chantier et contribuer à l'atteinte des objectifs de la politique énergétique et climatique dans le secteur du bâtiment.

Les Régions contribueront ainsi au mieux de leurs capacités à la mise en œuvre des mesures proposées dans le plan d'actions.

De plus, nous aimerions nous impliquer dans la mise en œuvre des mesures suivantes :

- Formation des formateurs
- Amélioration des référentiels métiers



Alain ROUSSET