France - The centres of vocational excellence (CoVe) entitled Campus des métiers et qualifications, dedicated to Energy transition and eco-industry

Title of inspiring practice	The centres of vocational excellence (CoVe) entitled Campus des métiers et qualifications, dedicated to Energy transition and eco-industry ("*Les centres d'excellence Campus des Métiers et des Qualifications de la filière « Transition énergétique, éco-industrie»*")
Geographical area	France, at regional level
Period of implementation	The first CoVe "Campuses des métiers et qualifications" in France emerged in 2013. It was decided in 2018 to bring out a new generation of campuses that should be at the same time places of life, training, innovations, international openness.
Rationale	In September 2022, there are 116 *Campus des métiers et qualifications* running in France, 12 of which focus on the sector of Energy transition and eco-industry.
Scope of the practice	A campus offers a combination of Initial Vocational Education and Training (including apprenticeship), Continued Vocational Education and Training, support for validation / recognition of informal and non-formal learning
Educational level	All campuses cover qualifications from level 3 to 8 of the EQF. In France, there are no qualification under level 3.
Introduction and context	**Why the campuses :** The ambition with the campuses was to support the success of students in their training and support their integration into employment by offering them different opportunities and pathways, such as direct employment offers or specific trainings leading to employment. The aim was also to contribute to an equal dignity of the training pathways (between the general academic path and the vocational path, between IVET and Continued Vocational Education and Training (CVET), between apprenticeship and the other types of trainings). The aim was to work on the needs of today and tomorrow in terms of competences, skills and employment, and to reinforce the links between VET and companies. Context in 2014-2018 • High rates of youth unemployment in France, particularly for those without qualification • Industry sectors with high growth potential • A lack of appeal or knowledge of these sectors by the pupils • A need to reinforce communication between the world of education and the world of work **Campuses are networks** The '*Campus des métiers et qualifications*' are networks formed at a regional level between vocational and polyvalent high schools, apprenticeship training centres, continuing VET centres, higher education institutions, research laboratories, local authorities as well as companies and professional branches. **Funding** Campuses funding is provided by public and private funds and some own resources. • At national level: public funds for wages and training engineering

	○ The state pays public teachers; ○ Since 2020, 32 Campuses have obtained EUR 80 million in funding from the public programme "Investments for the Future (PIA3)" to co-finance up to 50% of training engineering, state-of-the-art equipment and digital training platforms. ○ The Campuses of Excellence are identified to support the Skills component of the France 2030 plan. The PIA4 (programme "Investments for the Future") can co-finance up to 70% of training projects to support acceleration strategies (e.g. hydrogen, low-carbon aircraft, nuclear ...). • At the regional level ○ The regions are in charge of financing the construction of high schools and large equipment, their policy is « campus oriented » and they finance innovative technical platforms, state-of-the-art equipment, buildings… ○ The regions get European structural funds such as ESF or ERDF, that can be used • Private funds coming from companies ○ They take in charge pedagogical resources relating to jobs, trades and qualifications, pedagogical tools, software and computer applications, technical resources and specific equipment (e.g., cars and trucks, pieces of planes or boats, etc.) ○ They take in charge wages and buildings for private apprentice training centres • Activities that generate incomes/financial resources ○ Campuses get resources coming from : Equipment or technical platforms rentals, trainers intervention for CVET, students activities useful for companies **Twelve Campuses deal with Energy transition and eco-industry.** A notable example of Campus dealing with this sector is the "Smart Energy Systems Campus" in the Auvergne-Rhones Alpes Region, labelled as « *Campus des métiers et qualifications d'excellence* ». The Campus is positioned as the single entry point for initial and continuing education, from level 3 to level 8 EQF. The Campus is part of the global vision of a new energy economy, carbon neutral, integrative and collaborative for the multiple actors of the energy sectors (convergence and solutions adapted to uses). The Campus is oriented towards activities that promote innovation and the creation of synergies between the different stakeholders in the regional, national and international ecosystems. The "Smart Energy Systems Campus" aims at encouraging the development of a knowledge-based society by opening up internationally and mobilising the resources offered by the European Union. The Campus wants to assist to the experimentation and innovation in vocational training and the training employment relationship.
Key activities and outcomes	12 campuses focus on the sector of Energy transition and eco-industry, among which the "Smart Energy Systems Campus" in the Auvergne-Rhones Alpes Region (Labelled **Campus des métiers et qualifications d'excellence).** The "Smart Energy Systems Campus" is at the heart of professional training for a global vision of the zero-carbon transition and the convergence of intelligent energy systems characterising the need for the efficient energy mix to meet the multiple uses of the smart city (produce, manage, store, use). The "Smart Energy Systems Campus" brings together more than a hundred essential partners in the Auvergne-Rhône-Alpes region: secondary and higher education institutions (public/private), research structures, companies, local authorities, competitiveness clusters, employment bodies. With the presence of major manufacturers (Schneider Electric, Engie, RTE, Enedis, GRDF...), the Tenerrdis competitiveness cluster, and in line with the directives of the National Strategic Committee of sectors "Industries of new energy systems", the Campus aims to initiate the convergence of sectors (electricity, renewable gas, thermal). Responding to the needs of companies with new competences, skills, knowledge, and the needs of people that have to adapt to the evolution of their productions and markets, the Campus is positioned as the unique gateway to initial and continuing education, from CAP (level 3 vocational diploma) to doctorate (level 8), in areas of

	excellence such as dynamic management and intelligent management of production and energy systems, the active management of energy infrastructures related to uses (building, carbon-free mobility, infrastructure, industrial processes). It develops also innovative training modules in three sectors: Smartgrids, Hydrogen and Renewable Gas. It provides training in the fields of electricity and energy professions; digital systems; electrical engineering; connected environments; renewable energy; energy and climate; electricity, gas, thermal; active energy management; energy and environment; installation and maintenance of energy systems; fluids, energy, home automation; electrical engineering, industrial computing, thermal engineering. The Campus offers immersive training methods used on experimental grounds in high schools and universities. The training courses include an interactive website for students, job seekers and people in retraining. This website allows users to discover the training and professions of the zero-carbon transition through the operation of a smart city. The Campus also offers a vocational programme inviting company "ambassadors" to speak about their backgrounds, their motivation, their evolution in the profession. Videos are made and published on social networks for young people. As part of the initiative on the attractiveness of professions, the guidance counsellors tested a game – named "Game of professions" – specially designed to introduce young people aged 16-25 to the diversity of professions. The goal of this activity is to make young people and adults aware of the different possible training paths to reach a position. The Campus headquarters is on the world pole of energy and renewable resources GreEN-ER, located in the Grenoble area, dedicated to the ecological transition and sustainable mobility. The success of the Campus is attributed to a set of factors and initiatives, among which the attractiveness of workshops on energy professions for secondary schools held at Collège de Saint-Marcellin or the session of Biogas job explanation held at the Lycée de Vizille with the Waga Company. A notable factor behind the success of the Campus is the survey on energy transition strategy, which quantifies and qualifies the specific needs of the regional hydrogen sector in terms of skills and training. This survey provides a regional mapping of key stakeholder, in addition to the national mapping of trades-skills. The programmes of International Mobility of students and teachers, international cooperation and European projects are also key factors behind the success of the Campus. This is witnessed by the statement of a student from Lycée Pablo Neruda, who declares: « I am taking part in the Erasmus project with my electrician CAP class from lycée Pablo Neruda in Saint-Martin-d'Hères. The interest for me is to acquire more knowledge mainly on solar panels. It's a great experience and opportunity. » Similarly, a teacher explains: **«** The Erasmus project is a partnership between two French and Romanian institutions in the field of electrical engineering. The students will work on the theme of transition, green, energy, electricity (VTEE). Students must be able to present themselves, their environment and their institution in English. » The "Smart Energy Systems Campus" in the Auvergne-Rhones Alpes Region was awarded Campus des métiers et qualifications d'excellence.
Other information	About the Campus des métiers et qualifications : https://www.education.gouv.fr/les-campus-des-metiers-et-des-qualifications-5075 Energy transition and eco-industry Campuses : https://www.education.gouv.fr/transition-energetique-eco-industrie-les-campus-des-metiers-et-des-qualifications-9581
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