

# Sandwich-Course Training in Higher Education as a Major Strategic Thrust Regional Policy of Professional Training: Lessons Learned From the Pioneering Example of the University Institute of Technology Corsica

Christophe STORAÏ, Laetitia RINIERI, Mickaël BOULENGER

University of Corsica, Corte, France

Corsica is an island economy marked by the complete absence of any of the big holdings and multinationals that fuel and forge the worldwide economy. Equally absent is any of the kind of medium-sized enterprises servicing big business that have spearheaded local economies in other regions like Lombardy. Corsica's economic fabric is essentially made up of small and home businesses, farm smallholdings, artisans, and small-scale retail. Given how public-sector capital investment is already hypertrophied, a policy of investment in human capital could be a compelling new opportunity to trigger a dynamic regional development impetus. Leading the way, the University Institute of Technology Corsica, Corsica University's affiliated school of applied vocational technologies, is demonstrating its ability to act as a structurally engaged facilitator of island-wide spatial planning and regional branding. As a founding pillar in pioneering the emergence of a sandwich-course training system in higher education in Corsica, in 2010 the university made its entire training curriculum fully accessible to all through the signature of apprenticeship training or vocational qualifications agreements. This grass-roots programme is the outcome of a committed core strategy to develop partnerships with the island's key social and economic communities (businesses, community groups, and local authorities), and it plays a fundamental role in shaping and selling the most vital valued assets that typify a regional territory emerging into a structured destination-brand identity (simultaneous growth in the employability and quality of school-to-work transition shown by its human capital, mass shift in the degree of skill acquisition directly tied to the regional territory's own organic needs, fluidity of knowledge transfer fully controlled through sandwich placements, deep sustainable entrepreneurship education etc.). After highlighting the specific features of the sandwich training policy development process in Corsica as a shaper of the Regional Vocational Development Programme, this paper brings an analysis of the lessons learned from the pioneering example of the University Institute of Technology Corsica as a dynamic engineer of structured future and regional brand for Corsica.

*Keywords:* sandwich training, employability index, school-to-work transition, employability, regional policy of professional training

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Christophe STORAÏ, Senior Lecturer in Economics, UMR LISA 6134, CFA UNIV in Corsican region, University of Corsica.  
Laetitia RINIERI, Vocational training and school-to-work transition engineer, CFA UNIV in Corsican region, University of Corsica.

Mickaël BOULENGER, Associate Engineer, CFA UNIV in Corsican area, University of Corsica.

Correspondence concerning this article should be addressed to Christophe STORAÏ, CFA UNIV in Corsican region, Campus Grimaldi, Bât PPDB, University of Corsica 20250 Corte, France. E-mail: storai@univ-corse.fr.

## Introduction

A new and much-hyped concept in the economics literature has now emerged into a major strategic thrust for regions in fierce global competition to capture and secure geographically-mobile investment: attractiveness, or regional branding. In this environment, the challenge of cohabiting a two-pronged policy of sustainable development and regional branding requires coordination across several fronts, where early-stage tech entrepreneurship and human capital feature high on the list of critical variables.

Regional branding is the new paradigm to create jobs, boost inward investment into industry and services, unlock the international marketplace and gain access to new technologies. Winning potential investors is therefore a major objective for any regional territory, regardless of its development stage (Michalet, 1999). Territorial attractiveness hinges on a series of location-related assets that are made capital by the fact that firms will only locate to sites that can bring competitive advantage. Businesses are receptive to a specific destination-branded offering that maps out the locational advantage, and on the lookout for specialist skills and local know-how. The attractiveness criteria for a regional brand go way beyond differences in “natural” factor endowment.

Here, public services policy plays a pivotal role in leveraging success factors for place branding, notably through education and vocational training and through R&D backing. Regional-entrepreneurial dynamics can only be progressively engineered. The process starts by improving the quality of the business environment, after which the second step is to meet the needs expressed by potential investors. This is where educational training strategies are a particularly key factor for spurring the availability of skilled qualified human resources and unlocking innovative high-potential entrepreneurship (Marchesnay, Kammoun, & Karray, 2006). Extending on this idea, entrepreneurial ecosystems built on the competitiveness clusters model founded on core tech research, and engineered with SMEs enrolled in the governance framework offer a potential source of sustainable regional-level structural planning and development (Veltz, 1996; Colletis & Pecqueur, 1996). The process ultimately impels the existence of a competitive web of local enterprise. The relationship between Stanford University and Silicon Valley offers a telling example of the positive externalities of a cooperative tech research/training strategy match-up.

Corsica is an island economy marked by the complete absence of any of the big multinationals that fuel and forge the worldwide economy. Equally absent is any of the kind of medium-sized enterprises servicing big business that have spearheaded local economies in other regions like Lombardy. Corsica’s economic fabric is essentially made up of small and home businesses, farm smallholdings, artisans, and small-scale retail. Given how public-sector capital investment is already hypertrophied, the private sector looks like the only viable option capable of triggering a dynamic regional development impetus. It would necessarily entail coordinatedly forging a dual strategy of training up human resources and engaging a technology research process aimed at increasing the needed island-wide competency levels to national and international competency standards frameworks.

Leading the way, the University Institute of Technology Corsica, Corsica University’s affiliated school of applied vocational technologies, is demonstrating its ability to act as a structurally engaged facilitator of island-wide spatial planning and regional branding. As a founding pillar in pioneering the emergence of a sandwich-course training system in higher education in Corsica, in 2010 the university made its entire training curriculum fully accessible to all through the signature of apprenticeship training or vocational qualifications

agreements. This grass-roots programme is the outcome of a committed core strategy to develop partnerships with the island's key social and economic communities (businesses, community groups, and local authorities), and it plays a fundamental role in shaping and selling the most vital valued assets that typify a regional territory emerging into a structured destination-brand identity (simultaneous growth in the employability and quality of school-to-work transition shown by its human capital, mass shift in the degree of skill acquisition directly tied to the regional territory's own organic needs, fluidity of knowledge transfer fully controlled through sandwich placements, deep sustainable entrepreneurship education, and so on).

It is precisely this University Institute of Technology Corsica sandwich-student school-to-work transition issue, reframed as pivotal to local regional development strategy, that this paper aims to highlight as a real-world example of how to deal with specific constraints facing a small-island economy.

### **University Institute of Technology Corsica, Pioneering the Development of a Sandwich-Course Training System in Higher Education in the Corsica Region**

The IUT of Corsica faculty created the very first apprenticeship "section" in Corsica-region higher education, back in the 2001/2002 academic year. Originally targeting just one professionally-oriented undergraduate course (the university technical diploma (DUT) in Business and Administrative Management) enrolling 12 students, the initiative hived off into every single course curriculum on offer.<sup>1</sup> The dynamic momentum engaged by this bridge to the business world sparked the creation of a Corsica-region University Placements & Careers Service (CFA UNIV) tasked with handling the promotion, development, and administrative-educative-financial management of the sandwich-course system at the University of Corsica.

At the start of the 2012/2013 academic year (September 2012), the University Institute of Technology Corsica counted 150 sandwich-placement students (i.e., 25% of student enrolment at the faculty)<sup>2</sup> representing 54.4% of students going through a University of Corsica-led sandwich-placement scheme and 30% of sandwich-placement students in Corsica-region higher education as a whole.

### **Sandwich-Placement Training in Higher Education as a Shaper of the Regional Vocational Development Programme**

Corsica offers a case-in-point example of an areal region characterized by an ageing labour force making it necessary to re-align mid-term regional vocational training strategy in response to this inescapable reality. As a major lever of local-regional development and social regulation policy, the island's vocational training system has to re-adapt its offer to achieve the targeted job-to-training fit. Continuing professional education and the sandwich-course system (apprenticeships, sandwich-course internships) are therefore the two core strands of the same policy platform designed to structure and build the competency levels, qualifications, and employability of the available employed labour force on a given territory.

With commentators touting the knowledge economy as the only way out from endemic economic crisis, the University Institute of Technology Corsica has taken a pro-active role by engaging in a process to structure a consolidated, sustainable socio-economic fabric through optimized management of its vocational training/information, guidance services, and tailored careers support system. The faculty thus works in close

<sup>1</sup> As of September 2010, the entire University Institute of Technology Corsica curriculum (six DUTs and nine licences professionnelles (national professional-vocational bachelor's degrees)) is on offer under sandwich placement agreements.

<sup>2</sup> It is a figure that puts the IUT de Corse top of the national league table in terms of sandwich-to-campus ratio (ADIUT, 2013).

collaboration with the CFA UNIV, which leads the annual survey 10 specifically geared to sandwich-placement students (monitoring school-to-work transition figures for sandwich-course leavers (graduated or not) in March the following year).

### **Ministry-Sponsored Surveys on the Transition-to-Work of University Institute of Technology Corsica Graduates**

For this purpose, a specific survey targeted at measuring school-to-work transition by University Institute of Technology Corsica students was adopted as a performance instrument but also to provide statistical support to predictive policy building on directions that future vocational training efforts should take in order to fill human resources gaps in the Corsican socio-economic fabric. This predictive strand is a crucial factor, as the analyses produced are designed to guide the political (CTC)<sup>3</sup> and institutional (the University) decision-makers in their coordinated effort to roadmap a vocational strand of Corsica-region higher education geared to local-specific factors and variables.

The analyses developed are built around nine core focuses:

- (1) The professional status of the sandwich-placement student;
- (2) Job level (occupational category);
- (3) The time gap before integrating the current position;
- (4) The contract type (long-term, short-term... );
- (5) The in-job salary of the sandwich-placement student;
- (6) The job-to-training fit (whether the job position is an extension of curriculum completed);
- (7) Geographic location of the job found;
- (8) Structure taking on the sandwich-course leaver (businesses, community groups, local authorities);
- (9) Link to the initial sandwich-placement structure.

### **Moving From Expected Outcomes to Predictive Values Ready to Devise a Structured Sustainable Areal Development Roadmap**

Stemming from the University of Corsica's ministerial accountabilities (nationally-coordinated regional-scale survey led by universities offering a broad-spectrum vocational development curriculum), the CTC, simultaneously exercising its mission to promote regional apprenticeship schemes<sup>4</sup> and its mission to validate the map of regional-scale coverage of training programmes<sup>5</sup>, wants to see the University of Corsica (via the CFA UNIV) annually provide tangible figures on graduation rates and school-to-work transition record to allow the island political decision-makers to prepare Regional Vocational Development Programme (PRDF).

This tool, wielded by regional government, informs mid-term regional vocational training policy and the aligned coordination of the vocational training paths on offer. To forge the plan, the CTC relies on active input from the Corsica's educative, economic, and social community networks.

<sup>3</sup> Collectivité Territoriale de Corse (CTC): Corsica-Region Local Government.

<sup>4</sup> The CTC is also the system's leading sourcing of funding via the Contrat d'Objectifs et de Moyens (service objectives and infrastructure spending agreement) signed between French central government and the French regional divisions.

<sup>5</sup> From primary school education through to post-secondary higher education—a central government-sponsored mission that was devolved to the CTC via French decentralization policy on Corsica under the law dated 22 January 2002 (see French government decree 2002-2092 dated 22 January 2002 concerning Corsica).

### Close-up Look at the School-to-Work Transition Record of Sandwich-Placement Students Leaving the University Institute of Technology Corsica in 2011 and 2012<sup>6</sup>

The University Institute of Technology—Corsica vocational curriculum courses surveyed illustrate five core activity areas representative of university teaching opened up to directly fill gaps in the island-wide socio-economic fabric:

- Management: DUT (university technical diploma) in Business and Administrative Management (DUT GEA); LP (national professional-vocational bachelor's degree) in Entrepreneurship (LP E); LP Banking and Finance;
- Commerce: DUT Marketing Techniques; LP Commerce: value creation and food-industry products;
- Computing and Communications: DUT Communication Networks and Services; LP Audiovisual techniques; DU (university-issue degree diploma) in Audiovisual engineering;
- Industry: DUT Civil Engineering, DUT Biological Engineering (biotech and food-farming industries), LP Food—Farming Quality Engineering, LP Civil Engineering & Construction;
- Environment: DUT Biological Engineering (environmental engineering); DUT Health-Safety-Environment; LP Water and Environmental Governance; LP Energy and Climate Engineering—renewable resource management.

The set covers a total 16 courses (seven DUT, eight LP, and one DU) enrolling 190 students.<sup>7</sup>

### Report and Analysis of the Main Findings

The main findings are in the following:

(1) Breakdown distribution of sandwich-placement students in the five core activity areas representative of university teaching opened up to directly fill gaps in the island-wide socio-economic fabric (see Figure 1).

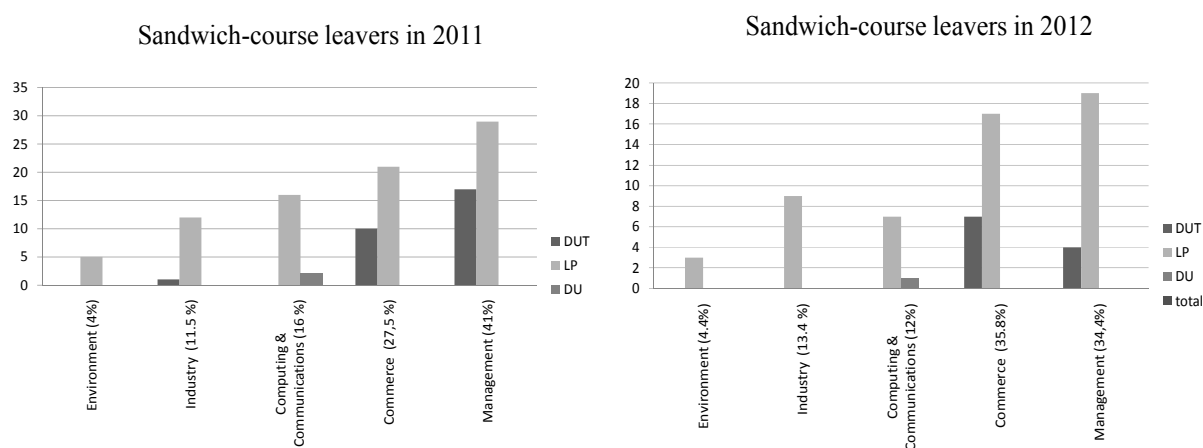


Figure 1. Distribution of sandwich-course leavers.

The presence of students in the tertiary sector is in line with the preponderance of apprenticeships from this domain.

(2) Career situation of sandwich-course leavers (see Figure 2).

<sup>6</sup> The raw data and the findings reported here are taken from annual survey 10 conducted by the CFA UNIV.

<sup>7</sup> Exact figures put the survey response rates from the sandwich-placement students concerned at 91.8% in 2011 (113 respondents out of 123 surveyed) and 79.1% in 2012 (53 respondents out of 67 surveyed).

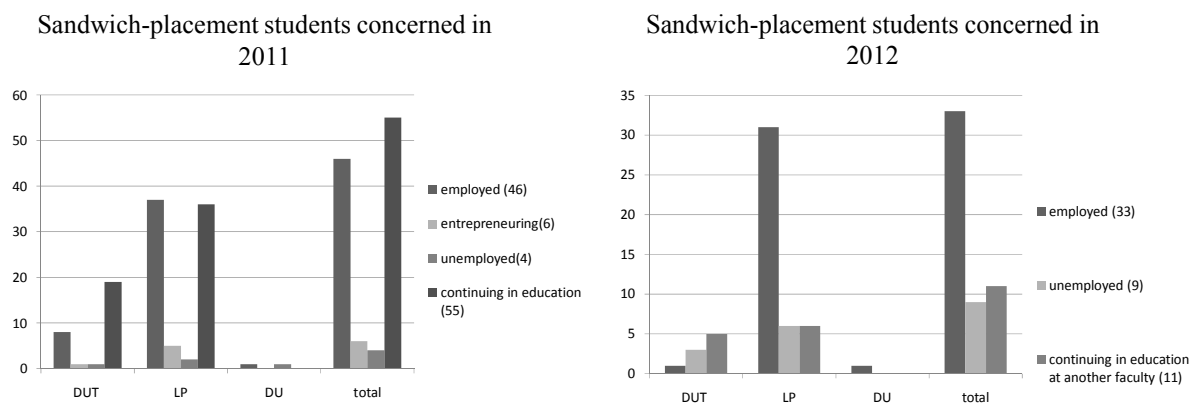


Figure 2. Career situation of sandwich-course leavers.

A majority of students are immediately in work situation although some prefer to enhance their employability by pursuing their apprenticeships.

(3) Types of job contracts held by sandwich-course leavers (see Figure 3).

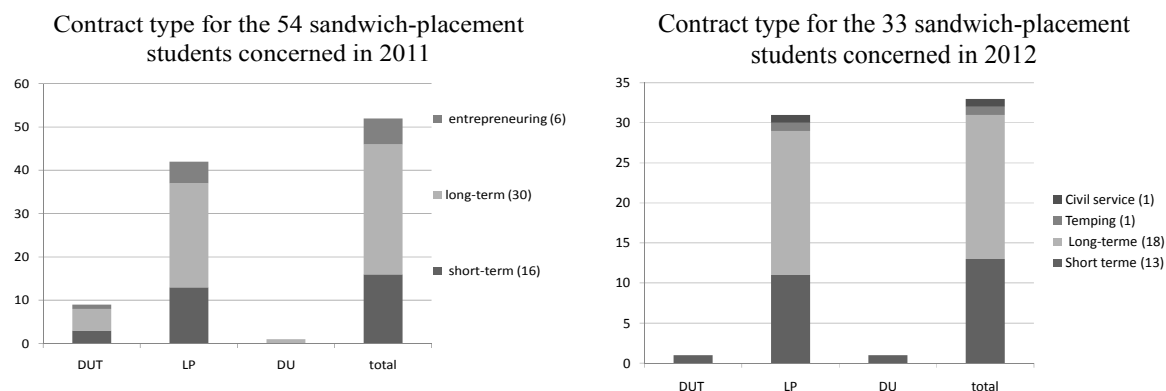


Figure 3. Types of job contracts held by sandwich-course leavers.

Despite the economic crisis, the majority of student-apprentices are hired on a permanent job contract and some create their business.

(4) Types of occupational categories held by sandwich-course leavers (see Figure 4).

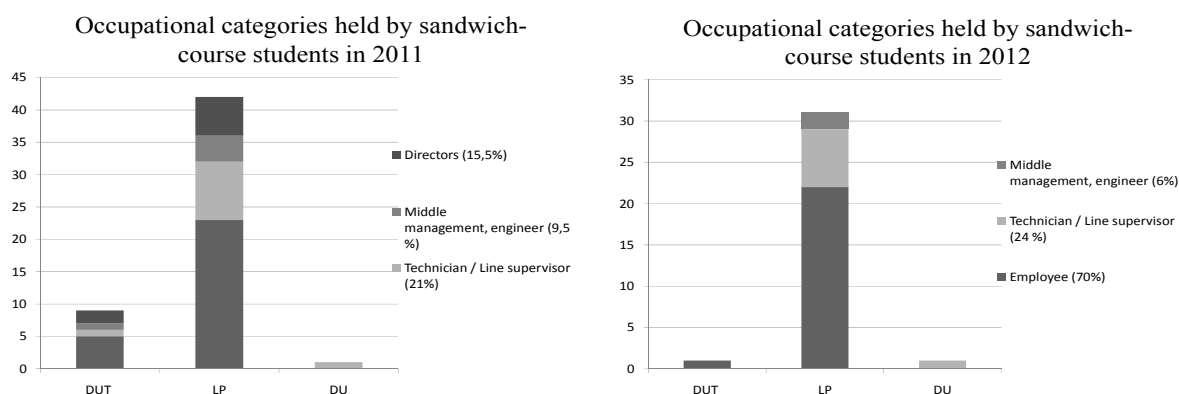


Figure 4. Types of occupational categories held by sandwich-course leavers.

Occupational classifications workstations are not necessarily in line with the level of education acquired by

student apprentices due to the weak structure of the Corsican companies.

(5) Job-to-training fit for sandwich-course leavers (see Figure 5).

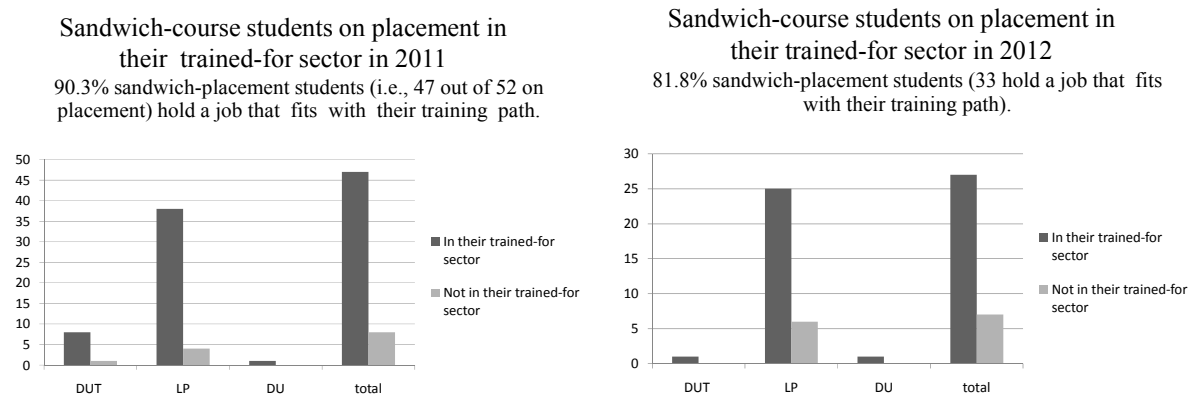


Figure 5. Job-to-training fit for sandwich-course leavers.

Nevertheless the functions are overwhelmingly occupied consistent with the training received by student apprentices.

(6) Sector structures taking on sandwich-course leavers (see Figure 6).

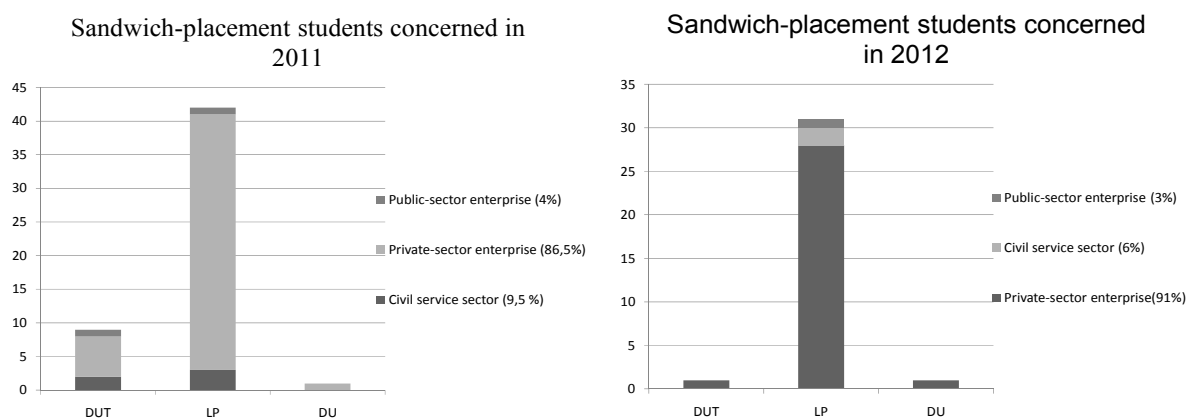


Figure 6. Sector structures taking on sandwich-course leavers.

The student-apprentices are employed in 90% of cases in a private company.

(7) Size of structures taking on sandwich-course leavers (see Figure 7).

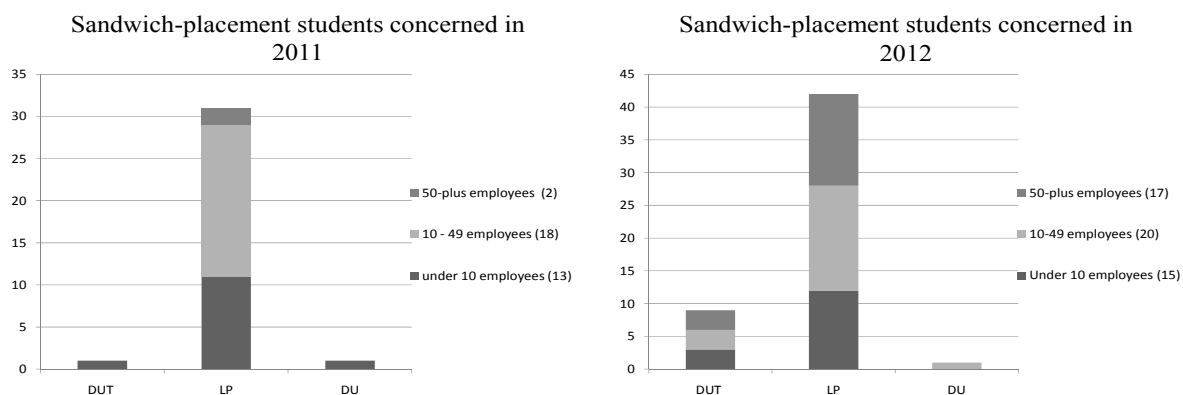


Figure 7. Size of structures taking on sandwich-course leavers.

Student-apprentices are employed mainly in small and medium-sized enterprises.

(8) Geographic location of jobs found by sandwich-course leavers (see Figure 8).

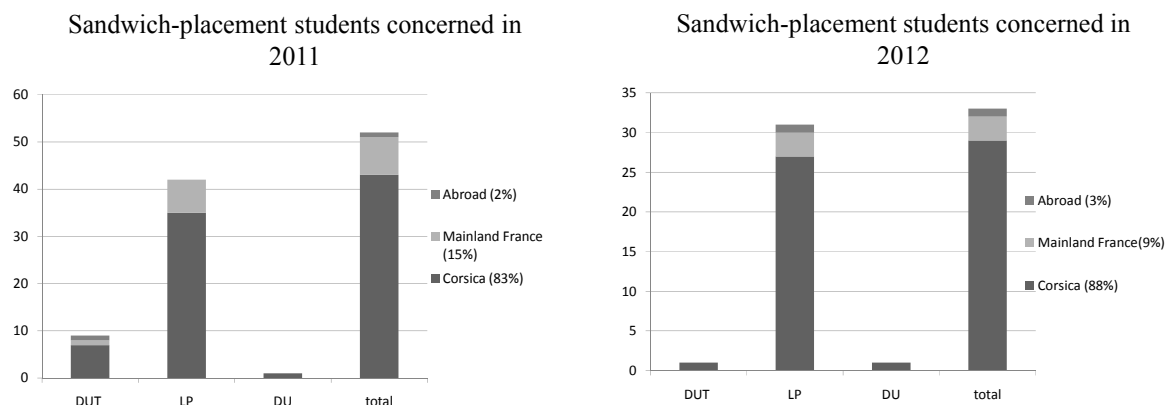


Figure 8. geographic location of jobs found by sandwich-course leavers.

These companies are mostly localized on the Corsican territory.

(9) Salary brackets of job contracts held by sandwich-course leavers.

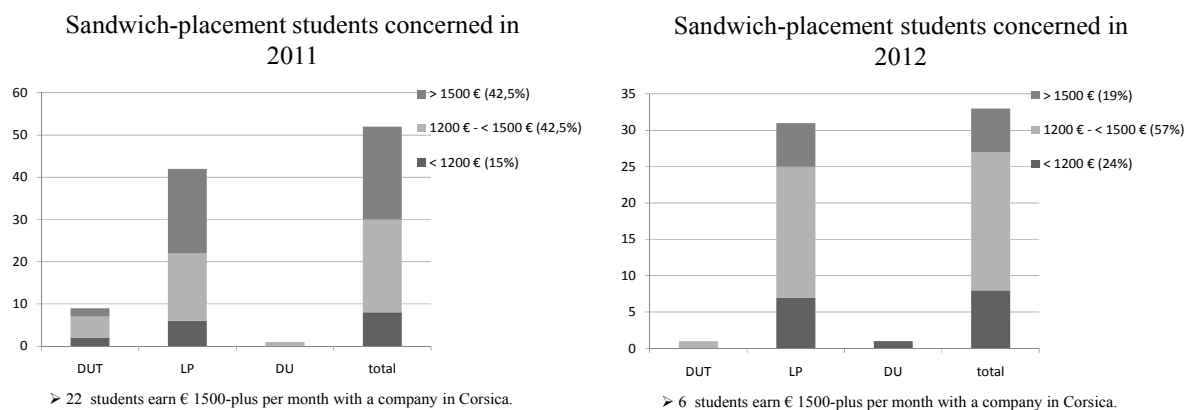


Figure 9. salary brackets of job contracts held by sandwich-course leavers.

Salaries of student apprentices are in line with the level of diplomas.

(10) Examples of the kinds of jobs held by sandwich-course leavers:

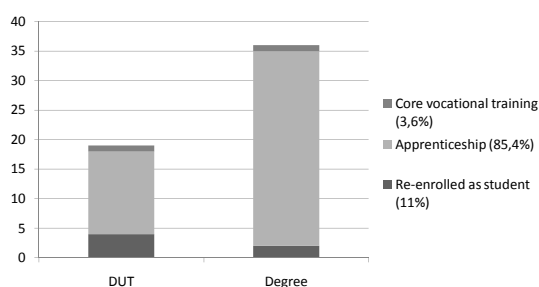
- sales representative;
- accountant;
- research officer;
- project site supervisor;
- laboratory technician;
- construction superintendent;
- network leakage technician;
- PR assistant;
- customer support assistant;
- risk prevention engineer.

The types of jobs students-apprentices meet the needs expressed by the local economic fabric island.

(11) Situation of sandwich-course leavers continuing in education at another faculty (see Figure 10).



Sandwich-placement students concerned in 2011



Sandwich-placement students concerned in 2012

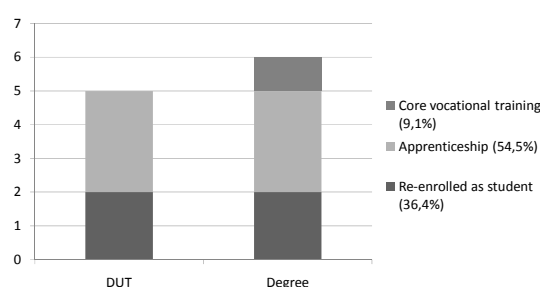
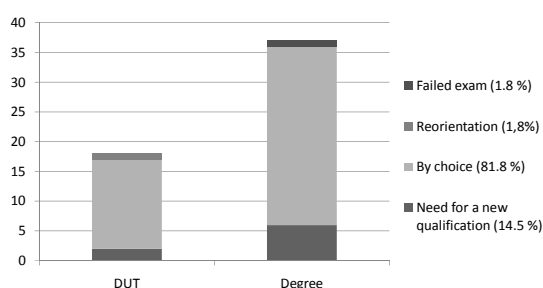


Figure 10. Situation of sandwich-course leavers continuing in education.

Further studies of student-apprentices is mostly the same safety device training (apprenticeship).

(12) Reasons pushing sandwich-course leavers to continue education at another faculty (see Figure 11).

Sandwich-placement students concerned in 2011



Sandwich-placement students concerned in 2012

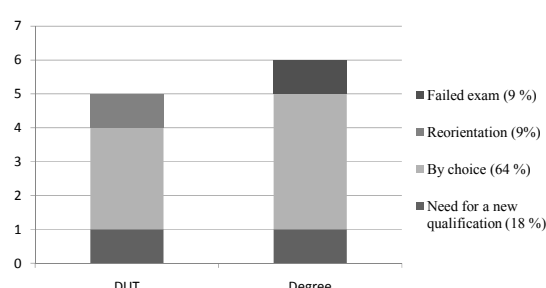


Figure 11. Reasons pushing sandwich-course leavers to continue in education.

The need for additional qualifications often justifies further studies of student apprentices.

## Conclusions

The survey findings point to particularly encouraging signs on employability and quality of school-to-work transition of University Institute of Technology Corsica students, especially in the analysis of targeted job-to-training fit. This grass-roots reality opens up promising future perspectives for a structured entrepreneurial fabric in Corsica built on the sandwich-course system platform where placement businesses are centrally empowered to train up young local talent.

Ultimately, the overriding objective remains to successfully coordinate the impetus given to vocational training as a solution to fill gaps in the island-wide socio-economic fabric (maximization of the job-to-education fit) through the emergence of sandwich-course training channels (tiers III, II, and I). Moving towards this objective, the findings of the joint-led University Institute of Technology Corsica/CFA UNIV surveys provide regional public policymakers with positive concrete guidance.

From this perspective, the joint expertise of the University Institute of Technology Corsica and the CFA UNIV brings insights that are liable to guide strategic decisions on vocational training policy, employment policy, and how to structurally shape the island as a social and economic area. These findings will be presented as part of a wider initiative to build a policy decision support tool focused on the theme of areal planning and regional branding for Corsica.

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