

Mobile Education in France

This document is part of a series of country specific reports which consider the demand for Mobile Education from the formal education sector perspective.



Foreword

For the Education sector, mobile connectivity provides an opportunity to offer new ways of teaching and learning that ultimately will improve performance and results whilst at the same time open up new markets for mobile operators across the world. Mobile will increase access to up-to-date materials, will enable collaboration and strengthen learner engagement. In response to this opportunity, the GSMA's Mobile Education initiative aims to accelerate the adoption of Mobile Education solutions; in particular, the use of mobile-enabled portable devices, such as e-Readers and tablets in mainstream education settings.

This document is part of a series of country specific reports which consider the demand for Mobile Education from the formal education sector perspective in each country. In each we describe the delivery models in place for the main types of education along with examples of activities already underway. To date country specific reports have been developed for the United States, United Kingdom, Spain, Japan and France.

The GSMA Mobile Education Landscape Report describes the market for Mobile Education from a global perspective, focusing on the supply side. It describes trends, key players and current initiatives in the emerging Mobile Education and related e-Textbook publishing markets. An accompanying background document; Education Systems — A Brief Introduction gives background on how education segments and systems function and describes flows of funding.

We encourage you to get involved, whichever part of the ecosystem you belong to, please contact **mobileeducation@gsm.org** to learn how.





Pierre-Emmanuel Struyven VP Innovation and New Markets

Whilst France is catching up with the usages of ICT in education, this report shows the potential of mobile learning in the French market. Tablets and smartphones are a big commercial success among all types of consumers, especially the youngsters. We believe it is important the education sector allows schools to open their doors to such devices. Mobile learning is leading the way for digital technologies to enhance the everyday life of pupils.

Working collectively is important to demonstrate the impact these devices can have in schools, for example through use case development. At SFR we believe that Mobile Operators have a part to play in this (r)evolution, both at home and in the classroom.

Contents

Foreword	d	2
1 Introdu	ıction	4 – 5
2 Key Tal	keaways	6
3 Educat	ion System	7
4 School	s	8 – 12
4.1 4.2 4.3 4.4	Technology Mobile Education Ownership of Mobile Devices Case Studies: - Corrèze (Operation OrdiColl - WaPEduc 2.0 Mobile Learning Service	ège)
	Ŭ.	
5 Technic and Tra	•	13 – 14
		13 – 14
and Tra	ining	13 – 14 15 – 17
and Tra 5.1 6 Higher 6.1 6.2 6.3	ining Technology Education Technology Mobile Education Case Study:	

1 Introduction

1 Introduction

- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

Background

This report on Mobile Education in France is one of a series of reports which collectively describe the emerging market for Mobile Education. At a country level, as well as this report on France, there are reports on the United States, the United Kingdom, Spain and Japan. These country-specific reports focus primarily on the demand side of Mobile Education. The Mobile Education Landscape Report considers the development of Mobile Education from a global perspective, focusing more on the supply side. An accompanying primer on education systems gives background on how education segments and systems function and describes flows of funding.

Objective

The key objective of this report is to examine the current take-up and uses of Mobile Education technologies across different education segments in France and explore possibilities for their expected growth.

Structure

The report opens with a summary of the key takeaways, including the specific barriers facing Mobile Education in France. This is followed by a high level overview of the education system.

The report then describes three different education segments: schools, technical and vocational education and training (TVET), and higher education. For each segment, we describe the education system and give context on use of technology. We then look at the development of Mobile Education, describing what is already in place in terms of a 'Mobile Education ecosystem', identifying and describing selected initiatives and drawing out lessons learned.



Target Audience

The target audience for this report is managers from:

- Mobile ecosystem organisations responsible for consumer devices, institutional customers or M2M services.
- Education content organisations looking to expand in to Mobile Education.
- System and software developers with an interest in developing Mobile Education solutions.
- Government departments or education institutions wishing to understand more about the landscape of Mobile Education in France.

Definitions

The main focus of this report is Mobile Education, which is interpreted as:

- Use of individual, portable devices (e.g. e-Readers, tablets, Personal Digital Assistants (PDAs), and smartphones), which make use of the mobile network (i.e. are SIM-enabled).
- Used in mainstream education settings (e.g. primary, secondary, college, workplace, distance learning, professional qualifications), therefore aligning with curriculum objectives or used for high-stakes assessment, and will cover both learning (e.g. interactive learning), content (e.g. textbooks) and administration (e.g. school records, attendance, communications).

For the country reports, we describe the use of Mobile Education across the three main education segments, which can be defined as:

- Schools: learning is delivered only in formal education settings in specific institutions with clear flows of funding.
- Technical and Vocational Education and Training (TVET): learning is delivered in a wide variety of settings, including formal education institutions, the work-place, via distance learning and in casual or self-directed settings (the latter are informal learning settings). Activities can include learning for qualifications, training for specific tasks or skills, training for 'softer' management skills, leadership development skills, certifications, professional training, etc. Mostly formal settings are described in this report.
- Higher Education (HE) (also referred to as Tertiary Education): learning is delivered mostly in formal education settings in specific institutions with clear flows of funding, but can also be delivered as distance learning.

The school and higher education systems are generally clear and straightforward to describe, but the systems for TVET can be more complicated. In part this is because they typically overlap with the school and higher education sectors, but also the policy focus can be quite variable.

1 Introduction

- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

2 Key Takeaways

1 Introduction

2 Key Takeaways

- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

The main points about education and Mobile Education in France are:

- The structure of the education system and approaches to teaching and learning leave little room for innovation at an institutional level. In schools, teaching content and textbooks are set centrally, and ICT strategies are dictated at a regional level. Académies (local branches of the Ministry of Education) are pushing the ICT agenda forward.
- French schools and universities generally lag behind other Western countries in terms of using ICT in the classrooms. Equipment such as interactive whiteboards and Virtual Learning Environments (VLEs) known as 'digital workspaces' in France are only just starting to be implemented on a widespread basis only 1,800 schools in 2010 were equipped with digital workspaces. There is a significant policy push behind these new developments, so again, this is centrally led.
- The use of mobile phones in schools is controversial due to concerns about the health implications of young people using mobiles, leading to calls for and actual banning of mobile phones in schools. Partly as a result of this, there is resistance to introducing tablets into the classrooms and using them to access digital e-Books.
- In Higher Education, a report headlined that French Universities were trailing other countries in terms of their use of technology, and emphasised that students expect more. This has led to a funded programme of investment in WiFi spots in universities, the creation of digital resources in the form of pod casts, and some efforts to develop mobile applications. Some mobile applications are being produced for the sector, but they are focused on practical issues (timetables, locations, news etc.) rather than transforming the way that teaching and learning are delivered.



- France was slow to pick up on the potential of e-Learning and especially slow to integrate any policy concerning e-Learning at a government level. However, interest in Mobile Education appears higher and could lead to mobile devices leap-frogging desk-tops as the main device type.
- The Mobile Education commercial sector is underdeveloped and is yet to emerge. The major publishers are still experimenting with e-Books and there is little sign of them developing Mobile Education products. There are a handful of products on the market, -many of which have evolved from publicly funded initiatives.
- The specific challenges for the development of Mobile Education in France are:
 - Strong concerns over the health risk from using mobile phones, leading calls for the banning of phones from schools.
 - Significant government focus is on installing interactive whiteboards in classrooms and creating digital workspaces.
 - Regional and local authorities work autonomously on implementing ICT strategies, which has led to geographic digital divides with some very innovative areas and other areas lacking in even basic ICT infrastructure.
 - Textbook content must align with national curriculum and is approved by central government, making innovation a slow process.

3 Education System

- 1 Introduction
- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

State education in France is provided free to everyone and there is very little private education. Schooling is mandatory from 6 to 16 years. In 2010, the French State allocated 21% of its budget to education, (equal to 6.9% of GDP expenditure). The total education expenditure was of \Box 132.1 billion (\$175 billion) of which \Box 93.7 billion (\$130.2 billion) was allocated to primary and secondary education.

A raft of recent education reforms have been implemented, aimed at improving the performance of the system, preventing early drop-outs

A raft of recent education reforms have been implemented, aimed at improving the performance of the system, preventing early drop-outs and giving all pupils an equal chance of success. These have included the introduction of assessments at the end of primary, major curriculum change at lower secondary and upper secondary vocational, and policies to improve higher education¹.

Table: Education in France²

Phase	Age	Expenditure (2009)	Number of Students (2009)	Types of Institution
Pre-primary	3-6	€38.2 billion (\$50.1 billion)	2,533,000	Nursery school (école maternelle) Infant class of primary school
Primary	6-11	(pre and primary)	4,070,000	Primary schools (école élémentaire)
Lower Secondary	11-15	€55.4 billion (\$77.0 billion)	3,107,000	Collèges
Upper Secondary	15-18	(lower and upper secondary)	1,431,000 694,000	General and technological lycée Vocational lycée
Lifelong Learning	15+	€9.6 billion (\$13.3 billion) (continuing education)* €38.4 billion (\$53.4 billion) (apprenticeships and voc'l training) (2007)	434,000 (apprentice-ships)	In employment
Higher Education	18+	€26.3 billion (\$36.5 billion)	2,316,000	Universities Engineering and Business Schools (Grandes Ecoles) Institutes of Technology

^{*}Vocational Education is also provided in Upper Secondary schools – Vocational Lycees

¹ UKTI Education Opportunities in France, April 2011

² INSEE – Education Expenditure Statistics, http://www.insee.fr/fr/ themes/tableau.asp?reg_id=0&ref_ id=NATnon07307 Ministry of National Education. Statistics

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4 Schools

- 1 Introduction
- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational **Education and Training**
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

Education Ecosystems - French Schools

State/Education Agencies

- 30 Academies headed by the Recteur and is responsible for implementing national policy in all levels of education in the Academie area. The Recteur also has ultimate responsibility for the setting, organisation and implementation of the national examinations
- 101 Départements headed by a inspecteur d'académie, operationally responsible for collèges
 22 Regions own and are operationally responsible for lycées.
 Communes fund and are operationally responsible for primary schools and nursery schools

Curriculum Authorities

■ Haut Conseil de l'éducation (HCE or High Council for Education)

Regulators

- Nationale (IGEN)

 Inspection Générale de l'Administration de l'Education
 Nationale et de la Recherche (IGAENR)

Private Schools

other conditions

Parents pay some fees8,780 private schools

Learners

Majority are Catholic schools under state contract.

Receive state funding but must

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Unions/Professional

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- SGEN-CFDT, SNEP, SNES. SNETAP, SNUipp

Arm-length bodies

- Observatoire national de la Lecture (National Research
- (Research institute for secularity)
- Study and Research

Suppliers

17% of expenditure is on administration, catering, accommodation, books, supplies and transport

^

Not exhaustive

State Schools

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- 16,336 Nursery school
 54,280 Primary schools
 7,017 Colleges have some financial
- 4,280 Lycees general and technological lycée or a vocational lycée. Have legal responsibility and Financial autonomy

Educators

Source: GSMA

Other Stakeholders **Advisory Committees***

- Haut Conseil pour l'éducation artistique et culturelle (High Council for artistic and cultural education)
- Conseil Supérieur de l'Education (Higher Council for Education)
- Conseil territorial de l'éducation (Territorial Council for Education)
- National Teacher Training **Evaluation Committee**
- Higher Committee for Education, Economy and Employment



- Institute for reading ■ Observatoire de la laïcité
- Centre for Qualification

The main characteristics of the school system in France are:1

- Regionalised education system, with the Académies (30 regional branches of the Ministry of Education) as the major players and the local governments having responsibility for investment and operational expenditure.
- Statutory national curriculum, which differs according to age group.
- Three streams of upper secondary education, leading to high stakes qualifications - the general baccalauréat; the technological baccalauréat or the vocational baccalauréat.
- Predominantly State financed school system about 86% of primary and 79% of secondary students attend State schools.
- Nearly all private schools have a contract with the State, covering salaries and aspects of school management.
- Textbooks must be approved by the Minister of Education and based on the curricula and official recommendations. Teachers select from approved textbooks. Students are loaned textbooks free of charge during compulsory education. Textbooks are paid for by a fixed subsidy from the Académie.
- Teachers are employed by the State rather than schools, and may pay more attention to inspectors than headteachers.
- Most teachers consider themselves to be academic instructors rather than educators in the wider sense, with lessons feeling more like university lectures than nurturing learning environments.
- Intensely academic and driven by a grading system that marks out of 20. Children repeat years if they fall behind and have among the longest school days in Europe. Very uniform delivery across the country and variation is frowned upon.
- Suffered a major decline in international ratings leading to increasing recognition of a disconnection between the traditional academic education system and the diverse needs of the pupils it caters.
- Reforms include:
 - A more diagnostic grading system in primary schools, rather than a simple mark out of 20 (although many teachers have continued the old system anyway).
 - Introducing more arts and cultural activities in schools.
 - Giving headteachers more freedom over the curriculum.

- 1 Introduction
- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational **Education and Training**
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

1 International Review of Curriculum and Assessment Framework Internet Archive France report QCDA; Organisation of the Education System in France 2009/10. FURYDICE

4.1 Technology

France lags behind leaders such as the UK in terms of using technology within its education sector, although recent efforts are leading to improvements. The Government has some specific and focused national policies in place, which are very prescriptive. For example there is a national specification for a digital workspace that addresses issues such as interoperability, authentication and services expected.

Technology deployments are however the responsibility of the regions and departments, and it is at this level that most of the activity occurs. Some authorities, such as Rhone and Correze, are innovators, while others are slower to adopt technology. There is a real divide between schools in different areas, leading the Government to launch a □67 million (US\$89 million) Rural Digital Schools Plan to better equip 6,700 rural schools.

The use of digital workspaces and digital textbooks are becoming increasingly widespread and are the big theme of ICT in French schools. Digital workspaces have become accessible via an interactive portal for all stakeholders (students, teachers, parents, management personnel, local authorities, local partners, government, etc.). Each student has access to a virtual office allowing online access to his schedule, his book of electronic text, notes, resource materials or course elements provided by teachers. Currently, two thirds of all schools have begun their transition to digital workspaces, a process that will continue for a few years. At present, 1,800 secondary schools have transitioned 2 million users - this number is expected to reach 5,000 by the end of 2012.²

Teachers have generally been slow to acknowledge the advantages for teaching and learning offered by ICT, and there seems to be little discussion about the pedagogical advantage of 'e' or Mobile Education. There is however a strong focus on developing students ICT skills. These are assessed through a national scheme - Computer Science and Internet Brevet (B2i) – which tests the command of multi-media and Internet tools acquired by pupils across primary, second collège pupils and third lycée and apprentice training Centre pupils.

Software and multimedia products that meet the education system's needs and expectations are awarded by the Ministry of Education sponsored 'RIP' label and identified by a special logo after an assessment by teachers and experts and a final decision by a multimedia committee.

There is little high stakes e-assessment other than a compulsory Highway Code test and a handful of science exams.

Table: Technology in French Schools

	Aspect	Main Points								
Ministry of Higher Education and Research. Current national policies: Infrastructure and Service Programme - to develop Digital Workspace. Digital Resources for teaching and learning in schools and higher education. ICT Uses in Education Programme. ICT Training and Support Programme. Each Department also has its own ICT strategy for schools. Procurement ICT in primary schools funded by town councils. Lower secondary schools (colleges) ICT funded by departments. Upper secondary schools (lycées) funded by regions. Penetration Primary Lower Secondary Vocational	Expenditure	■ Programs include: □67m (\$89m) national Rural Digital Schools plan.								
■ Lower secondary schools (colleges) ICT funded by departments. ■ Upper secondary schools (lycées) funded by regions. Penetration Primary Lower Secondary Upper secondary Vocational	Policy	 SDTICE (Department of Information and Communication Technologies) shared resource for Ministry of National Education and the Ministry of Higher Education and Research. Current national policies: Infrastructure and Service Programme - to develop Digital Workspace. Digital Resources for teaching and learning in schools and higher education. ICT Uses in Education Programme. ICT Training and Support Programme. 								
	Procurement	■ Lower secondary schools (colleges) ICT funded by departments.								
Students per PC. Interactive whiteboards per 100 students. 9.9 0.2 0.3 0.5 2.6 0.3 1,800 Upper Secondary schools have Digital Workspaces, rising to 5,000 by 2012¹.	Penetration	Interactive whiteboards per 100 students.	9.9	5.6	3.1					

- 1 Introduction
- 2 Key Takeaways
- 3 Education System

4 Schools

- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

1 Introduction

- 2 Key Takeaways
- 3 Education System

4 Schools

- 5 Technical and Vocational **Education and Training**
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

4.2 Mobile Education

As indicated, there is growing emphasis on digital textbooks but little other activity in the broader Mobile Education sphere to date. High profile political and press campaigns focused on banning mobile phones have limited any considerations about the positive benefits of using mobile phones for learning. However, the Government is considering the use of tablet PCs in schools and held an open day with manufacturers in February 2011 to investigate the new technologies.

There are a handful of examples of Mobile Education initiatives, mostly centred on learner's use of tablets in classroom settings, rather than any real innovative uses or shifts in teaching roles. Examples include:

- Bordeaux small pilot with 13 schools and 90 tablets.
- Val-de-Marne programme to equip all 50,000 school children in the region with a laptop or tablet by 2013.
- Corrèze iPad pilot in lower secondary schools (see case studies below).
- Rhone Government and SFR sponsored project putting a classroom of 30 mini-PC tablets in 6 colleges.

A recent development (May 2011) has been an announcement about the development (led by the Aix-Marseille Education Authority) of a digital tool for use in primary schools, based on the open source solution 'Inconito - Digital school.' This will enable secured access to qualified online resources that can serve as teaching resources for learners, both during lessons and outside the classroom. The expectation is to roll the new product out nationally through a unique portal from the school year 2011-2012.

4.3 Ownership of Mobile Devices

As with most countries, estimates of penetration rates vary and are changing quickly. A survey in 2009 of 12-17 year olds found that 73% have their own mobile phone, a figure that rises to 95% for 16- and 17-year-olds. A fifth said they have had their phones confiscated by school officials. More recently WapEdu, a mobile learning service provider, claimed that nearly 100% of French learners own mobile/cell phones, whether they are in "college" or "lycée".2

4.4 Case Studies

Corrèze Operation OrdiCollège

Claimed as the first deployment of iPads in French schools – December 2010

Case Study – Corrèze Operation OrdiCollège	
Aim	Provide equal access to computer learning and equal chance of success.
Scale	2,500 6th grade (11-12 year old) students and 800 teachers.
Description	■ Deployment of 1:1 iPads loaded with EduPad educational software and applications.
Partners	Conseil Général, Département of Corrèze, Edupad, Apple.
Funding/Business Model	€1.5 million funded by local government – some discount given by Apple.
Technologies	iPads and EduPad software applications.
Impact on Learning	Yet to be evaluated.
Lessons Learned	 Disadvantage of iPad is that it doesn't have Flash. iTunes accounts difficult to manage. Unable to project students work.
Sustainability	Project to be appraised at end of the year.

WaPEduc 2.0 – Mobile Learning Service

This is a commercially based service, claiming to be the first mobile Learning Service in France.

Case Study – WaPEduc 2.0 Mobile Learnin	g Service
Aim	■ Provide learning for students 'anytime anywhere'.
Scale	32,000 students.
Description	 Mobile phone platform offering access to course materials, quizzes, tutoring, for students to revise for the Baccalureate on the move. Over 110 lessons aligned to curriculum are available. Allows collaboration between teacher and students outside the classroom. Problem pages and advice columns. Interactive question paper allows students to self-assess.
Partners	Support from Montpellier Local Education Authority.
Funding/Business Model	Free access for students from their own mobile phones, but students pay for downloads depending on their personal contracts.
Technologies	All smartphones, but specific app for iPhone.
Impact on Learning	Improved students ability to use their phones.Motivated students for learning.
Lessons Learned	 Need to ensure that the emphasis on making learning fun but that a 'game' does not detract from the actual content. Students need to take into account the need to download learning when deciding which mobile contract to take out.
Sustainability	Free for students, seems to be commercially successful.

- 1 Introduction
- 2 Key Takeaways
- 3 Education System

4 Schools

- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

5 Technical and Vocational Education and Training

1 Introduction

2 Key Takeaways

3 Education System

4 Schools

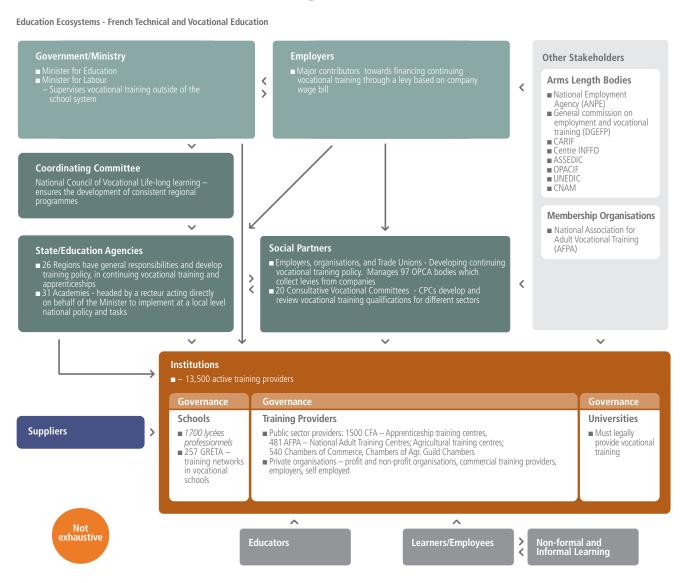
5 Technical and Vocational Education and Training

6 Higher Education

7 Market For Mobile Education

8 Appendix

Life-long learning policy in France offers everyone the opportunity to benefit from training, either initially as part of school or university education, or as part of continuing vocational training for young people or adults in the workforce. The structured system gives employees a permanent entitlement to training, during working hours, with no loss of earnings.



5.1 Technology

As much of the actual delivery of training take place through networks including schools, so the available technology for this sector is partly reflected in the previous sections.

France appears to lag behind in both ICT deployment and e-Learning for employees, possibly the result of having a rather strict legislative-driven approach to training that doesn't always take into consideration learner needs. To highlight the gap: in 2009 only 24% of French employees took an e-Learning course as opposed to 51% in Spain and 47% in the UK. However, e-Learning delivered by mobile devices is more prevalent in France than other countries - 45% of long distance learning was delivered on a mobile device (e.g. smartphone, iPad) in France, compared to 38% in the UK and 29% in Spain – perhaps implying the e-Learning lag could be leap-frogged by an increasing focus on Mobile Education.

Apprenticeship training centres are locally based institutions that generally have a computer suite. Commentary suggests that the provision of ICT is inadequate and there are often complaints about lack of access.

- 1 Introduction
- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

- The main characteristics of the TVET system in France are:1
- Structured and organised system based on the principal of sharing responsibility for training between the State and the private sector.
- Central government, the 26 regional governments, employers and social partners cooperate over vocational training policy.
- Government responsibility is decentralised and each region manages the vocational training system for both young people and adults in its area.
- Government focus on increasing apprenticeships, which provide young people between 16 and 25 years with general, theoretical and work based training.
- French employees received an average of 10 hours training in 2010. Classroom-based teaching is the dominant method (96%), with 23% incorporating mixed/blended learning. 45% of long distance learning was delivered on a mobile device (e.g. smartphone, iPad).²
- System has undergone major reform since 2008 with the aim to link training and employment, make the system fairer and more efficient, and involve the individual in their career path. Reforms included the creation of a 3 year Vocational Baccalaureat.
- Companies are the main source of funding of employees' continuing education, spending □11.1 billion (U\$14.8 billion) or 41% of the □27 billion (U\$36 billion) market in 2006. On average companies contribute 3.5% of their payroll towards training employees.
- The training provider sector is very fragmented, with over 45,000 training organisations in 2005, although only 13,500 actively focused on vocational training. Most of these organisations are small, but a couple of larger operators, AFPA and the GRETA networks, represent 13% of the continuing education market.

¹ Sources: National Ministry of Education: National Education and Vocational Education in France, 2010; EURYDICE Organisation of the Education System in France 2009/10

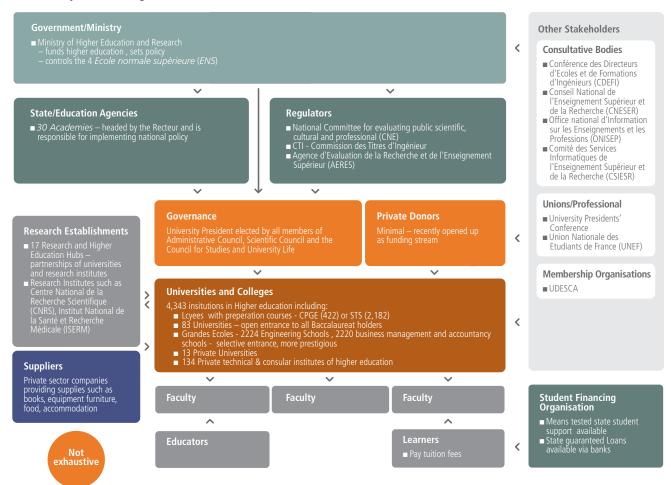
² Cegos European Survey of Learning Trends 2011, May 2011 Cegos - http:// www.slideshare.net/clives/cegos-2011learning-trends-survey-draft-final-may-11

6 Higher Education

- 1 Introduction
- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

Higher Education in France is provided by the State and in fact professors and lecturers are civil servants, making the Ministry of Education one of the largest employers in France.

Education Ecosystems - French Higher Education



Source: GSMA

- Delivered in grandes écoles and public universities. Grandes écoles (usually engineering or business schools) have selective admissions, whereas anyone with a baccalaureat can enter universities.
- Institutions are often medium sized and specialise in particular subjects, partnering with other institutions to offer a broader range of courses.
- Largely State funded system, with standardised tuition fees set by the Ministry at relatively low levels a standard undergraduate degree was □156 (\$217) in 2010. Some grandes écoles have higher fees, while a few elite institutions actually pay students while they attend.
- Open access of universities to all baccalaureat holders means the first year is extremely over-crowded and the drop-out rate is high.
- Reforms are making more universities autonomous (60% by 2010) This means they will have more responsibility for finance and staffing matters, and will be able to raise finance from sources other than the State. Other reforms include enhancing appeal of universities, reducing failure rate in first year, improving student guidance, and creating Research and Higher Education Hubs.

6.1 Technology

As with other areas of the education system in France, universities are lagging behind other Western countries in the use of ICT. This was confirmed to the French Government in their report L'université numérique (Digital University), which warned that technologies urgently needed to catch up to satisfy the demands of the new generation of students. However, it seems that the Government have been making some strides forward, making good recent progress in transforming the sector.

Government projects have been instigated at the regional level, through the creation of digital regional universities (UNR), and at the national level through the formation of digital thematic universities (UNT) and the French-speaking legal digital thematic university (UNJF). The step towards successfully incorporating ICT into teaching and learning is some way off, but there are calls for "Innovative Digital Solutions for Teaching" to improve digital content and develop digital platforms.

Table: Technology in Higher Education¹

Aspect	Main Points
Expenditure	 2009 Digital University Plan €17 million (\$23.6 million). 2011 budget of €8.5 million (\$11.7 million) for teacher training and development, mobile learning and building learning centres. €1 million (\$1.4 million) was dedicated to setting up new mobile applications as part of the Wi-Fi, Podcast, Digital Working Environment for All programme.
Policy	 Plan Wi-Fi, Podcast, Digital Working Environment for All launched in 2009 included: Doubling the number of Wi-Fi terminals to provide free, high-speed internet access on all campuses in communal areas such as libraries, classrooms, canteens and lobbies. Equipping all universities with facilities to create podcasts and training up to 2000 teachers to record course online.
Procurement	■ Funding allocated to universities for specific purposes by central government.
Penetration	 20,000 Free Campus Wi-Fi hotspots giving access to high speed internet access - 12 universities have over 95% coverage. 30,000 hours of podcast courses available covering courses for 105,000 students (out of 2 million students). National L'université numérique portal with free online resources.

- 1 Introduction
- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

6.2 Mobile Education

The Government have been encouraging the use of mobile devices in higher education, firmly backed by investment in Wi-Fi hotspots in universities, subsidising student's access to laptops, encouraging the use of digital workspaces and developing mobile services.¹ Examples of each include:

- Widening student access to technology the Government developed a scheme (Micro-Portable Etudiant MiPE) so that students could buy a laptop with a Wi-Fi card on credit. This was in association with banks and technology companies such as Intel.
- Access to digital work space by September 2010, 95% of students had access to a digital work environment. This workspace allows them to access online resources (videos, full courses, exercises and self-assessments, animations, simulation), the services of the university and interact with their teachers.
- ADELE mobile service for students looking for accommodation. The application is geo-location enabled and gives students access to a base of 300,000 lets. It allows them to reserve online and receive confirmations back. The service is now available in three versions: Mobile Web, iPhone and Android.

So far however, these initiatives seem to focus on administrative tasks, lifestyle applications and accessing resources rather than transforming the way that teaching and learning is delivered.

Ownership of mobile devices

Over 85% of today's students are equipped with computers or wireless mobile devices.²

6.3 Case Study

UnivMobile

This is a mobile application developed for students in Paris. Again, the focus is on accessing information.

1 Introduction

- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training

6 Higher Education

- 7 Market For Mobile Education
- 8 Appendix

Case Study - UnivMobile	
Aim	Offer useful services to students.
Scale	Trialled in four universities in Paris (87,000 students).
Description	 Application for internet connected mobile phones, offering students practical information such as: Mon ENT – Search the universities directory ,look up timetables, exam dates, test results and see messages. GeoCampus – this module includes an interactive map of campuses, it locates services available such as restaurants, WiFi hotspots. Other modules such as news, podcasts.
Partners	Paris Ile-de-France Digital University, Proxima Mobile Project.
Funding/Business Model	Free to students — development financed by Government through the Digital University Programme.
Technologies	iPhone application and mobile website.
Impact on Learning	■ Limited to convenience through podcasts of lessons.
Lessons Learned	Not available.
Sustainability	Will depend on student uptake, but aim to roll out to all universities in the Ile-de-France region in 2011-2012 (380,000 students).

Intel – Case Study, Intel World Ahead & France's Student Laptop Initiative; European Schoolnet, Insight Netbooks on the Rise, November 2010

² Digital User Guide, Université Numérique de Paris - Île de France,

7 Market for Mobile Education

- 1 Introduction
- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

The French commercial market for Mobile Education is under developed and relies heavily on government decisions about ICT policy in schools and higher education. The fact that mobile phones are either banned or viewed suspiciously in schools, means that any Mobile Education initiatives have been focused on tablets, netbooks or connected laptops.

France in general has however seen a huge growth in mobile devices particularly smartphones and tablets:¹

- Smartphone sales grew by 114% in 2010, whilst in 2011, one phone sold in every two will be a smartphone.
- Sales of tablets have been higher than sales of desktop computer in the last months of 2010, leading to predictions of 1 million sales in 2011.

7.1 Mobile Education Ecosystem

In the commercial market, the main emphasis is on e-Books and e-Book apps with little regard to the form factor they are being read on. Publishers are only just beginning to embrace the digital, for example Lagardére, a major French publisher is responding to the success of the iPad by developing more e-Books and investing in e-Reader applications. However, so far there is little focus on the education sector.

Some examples of the handful of commercial products in the segment include:

■ Taoki app by Hachette - designed for use in the first year of primary school, Taoki helps children learn to read. The content of the iPhone/iPad app corresponds to the existing paper Taoki et Compagnie textbook, with an additional 120 interactive and sound exercises. It was developed for use in class alongside the paper textbook, but can also be bought by parents for reading at home.



- eduPad this is an educational applications authoring tool. The company is a French start-up based in Paris, seed funded by ExploLab Factory, a French internet incubator which invested □300,000 (\$399,360) in the company in 2010 and further funds in March 2011. eduPad's mission is to provide a free, cross-platform solution that enables anyone with educational content (editors, teachers, organizations), to easily publish e-Learning apps without starting a never-ending and costly IT project.
- Jouve an e-Book conversion and publishing company working with educational textbook publishers to digitise their books.

 Jouve's strategy is to help publishers identify new opportunities for their content and then provide the production technology to take advantage of these opportunities. This includes semantic tagging, metadata services, and XML-based enriched media. For educational textbooks, this mean creating chunks of content that teachers can collect themselves to create a unique course.

The underdeveloped market for Mobile Education in France combined with the recent focus from education providers on digital textbooks and tablets should offer opportunities for companies in the near future.

8 Appendix



- 1 Introduction
- 2 Key Takeaways
- 3 Education System
- 4 Schools
- 5 Technical and Vocational Education and Training
- 6 Higher Education
- 7 Market For Mobile Education
- 8 Appendix

8.1 Exchange Rates

In this report, all values are given in national currencies, with corresponding figures in US\$. The exchange rates used are sourced from the OECD and are as follows:

Table: Exchange Rates – National Currency Per US\$

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	1.09	1.12	1.06	0.89	0.80	0.80	0.80	0.73	0.68	0.72	0.75	0.72	0.72
£	0.66	0.69	0.67	0.61	0.55	0.55	0.54	0.50	0.55	0.64	0.65	0.63	0.63
Yen	107.83	121.48	125.25	115.94	108.15	110.10	116.35	117.76	103.39	93.57	87.51	81.39	81.39



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