CCS Digital Education

Market Analysis and Preliminary Business Plan for the development of innovative products and value added services

Market & Business Plan

Internal Market at which products / services are targeted

In the aftermath of one of the worst economic crises in decades, Information and Communication Technology (ICT) rises as a key factor and enabler for a more financially, environmentally and socially sustainable world, a fact that Global Information Technology Report 2011-2012 also highlights. Europe continues to show significant levels of readiness in the ICT sector; with 11 regional economies ranked among the top 20 best performing in the world (Greece holds the 58th position among 138 countries). The growth rate of the ICT market is robust showing sustainable recovery, at least in the mid-term.

IDC forecasts for an equally difficult year, regarding 2014, at least for the first half of it, as many inhibiting factors of 2013, austerity measures, rising unemployment, reduced household purchasing power, lack of liquidity and credit "freezing", remain in the current year.

On the other hand, the European broadband market has become the largest in the world, with 128.3 million lines. The Digital Agenda for Europe (the European Strategy for a flourishing digital economy), and Europe 2020 (the European development strategy for the next decade), set ambitious targets for high-speed internet so European Union, making a quantum leap, will obtain the 21st century infrastructure, it needs. These strategies are calling for the development of a comprehensive policy based on a combination of technologies, which emphasizes on two things: to provide universal (in European scale) broadband coverage and to enhance the development and adoption of next generation access networks, enabling connections over 100Mbs by 2020.

Targeted Customers

1. Publishers of educational content-language learning books. CrystalClearSoft has already developed long-term collaboration with key domestic publishing houses, several of whom are active abroad. Indicative: Grivas Publications SA,

New Editions, Hueber Hellas, Karabatis Editions, Trait d'Union Editions and more.

2. Educational content publishers for elementary and secondary education. The needs of this new market for the company will be addressed through the new products and services developed under this project. The immediate objective of CrystalClearSoft is to start new relationships with potential customers (like Patakis, Metaichmio Editions, SAVALIA and others) with whom the company had already a series of exploratory contacts.
3. Educational content publishers for exams preparation. A new market for the company addressed through new products and services related to this project. The majority of the above publishers are very active in this area.
4. Organizations and Agencies issuing Certifications. A new market for CrystalClearSoft addressed through new products and services related to this project. The company had already a number of exploratory contacts with prospective customers who mainly provide IT skills certifications like Cisco CCNP and CCNA, Microsoft, Moodle etc.
5. Educational institutions, primary and secondary schools. A new market for CrystalClearSoft addressed through new products and services related to this project. The company has a wide network of contacts with schools in Greece through its collaborating client-publishers.

CrystalClearSoft continuously carries contacts with existing and potential customers to record and understand their needs regarding the development of interactive educational applications and in combination with their operational and business priorities. The records and findings of this research coincide largely with the needs of the international market content apps are targeting and are described below. Briefly we draw the following conclusions:

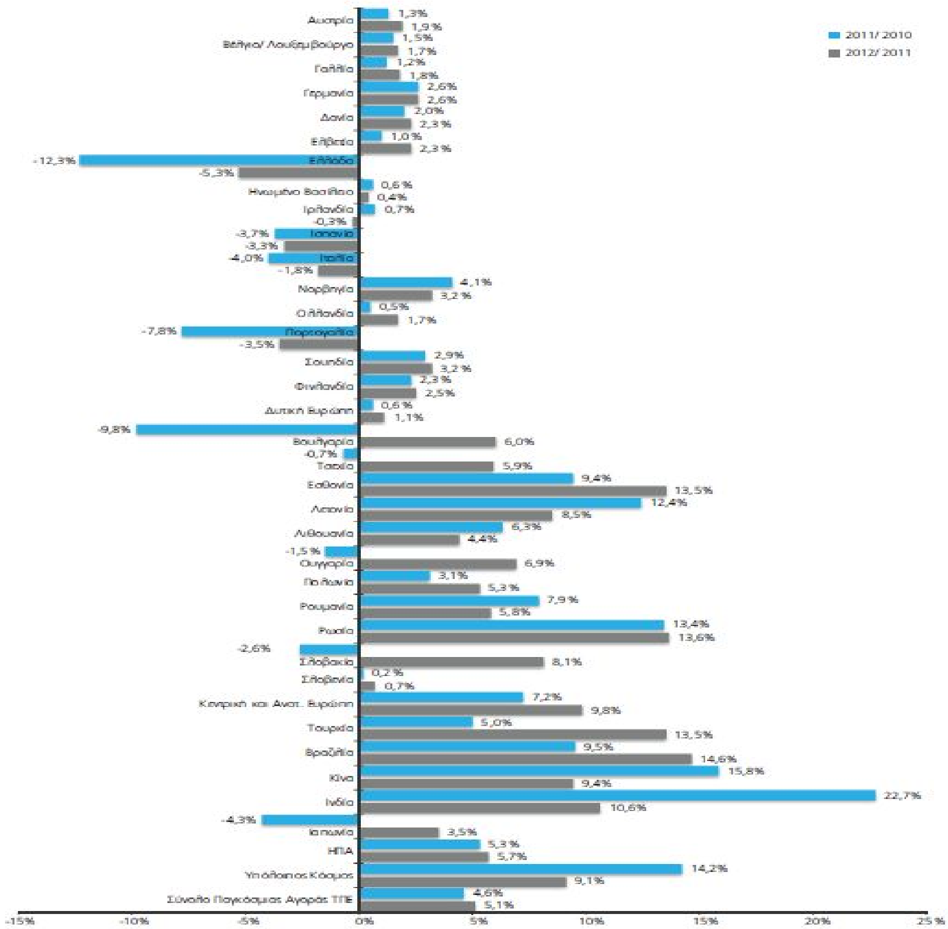
1. Because of the huge content volume the publishers wish to convert for use with IWB (in a fast and efficient manner as well) a need for a new solution has arisen. This solution should enable educational content publishers and educational institutions to develop in-house high quality IWB software. The product to be developed under this project is practically a back-end interactive

whiteboard application development system, which is designed to successfully meet this need.

2. There is an increased need for the development of mobile educational applications from publishers, which will exploit the features of mobile devices and will simultaneously adhere to and preserve the teaching methods of their books for all levels of education. HTML 5.0 is the software development framework of choice to meet these needs.
3. There is also a growing demand from publishers and examination & certification bodies, for mobile applications with high degree of interactivity and advanced features that enable test simulations on all types of mobile devices. Content app extensions can cover these needs providing a back-end system flexible enough to create digital tests-examinations that simulate all the known test formats of popular foreign languages and even other kind of examinations (e.g. vocational qualifications), for all types of mobile devices and their relative operating systems (iOS, Android, Windows mobile etc.).
4. Usage and performance statistics are of paramount importance to all involved in the teaching-learning process, including students, teachers, parents, schools and publishers. CrystalClearSoft aims to integrate all of these new products and services in a personalized web-based tool that will create reports on the application usage and the evaluation of the learning process and progress. The tool could then be an add-on to content app framework.

The International Market where the products/services are targeting

Global IT Market in 2012 exceeded € 1.080 trillion, of which € 347.07 bn were related to H/W, € 467.8 bn IT to services and € 265.7 bn to S/W. For 2013, the total global IT market is expected to reach € 1.130 trillion. The aggregate total of IT market in Western Europe showed a total increase of 0.6% in 2010/2011 and 1.1% in 2011/2012. For next year, analysts are focusing on the stamina of these economies to avoid or ease the impact of the current economic crisis hitting the Eurozone in particular. For 2012 a rebound in sales is estimated for laptops, servers, storage systems and an increase in the sales of tablets.



Διάγραμμα 1. Ποσοστό μεταβολής αξίας αγοράς πληροφορικής ανά χώρα. Πηγή: EITO σε συνεργασία με IDC, επεξεργασία ΣΕΠΕ, 1/2013.
Επιπλέον ανάλυση είναι διαθέσιμη στο www.eito.com

As for the software industry, Gartner foresees an increase of 6.4%, with a total of $ 300 billion in global revenue in 2013. This figure leads to a three year growth from 2011 to 2013 of 6.8%. Gartner also expects continued growth in the industry, with revenues reaching $ 360 billion in 2016 and $ 406.6 billion in the 2017.

The software market in Western Europe has increased by 3.9% in 2010/2011 and by 2.8% in 2011/2012 while in Central and Eastern Europe the software market showed an overall increase of 7.6% in 2010/2011 and 10 % in 2011/2012.China will be the first of the developing countries, with $ 14.6 billion in 2012. This figure may even reach $ 28.5 billion by 2016.

The software market in Turkey grew 12.6% in 2010/2011 and 10.8% in 2011/2012. Brazil also saw an increase of 11.4% and 11.9% and India of 26.1% and 15% respectively. Japan had a decline of -2.5% in 2010/2011 and a 6.6% growth in 2011/2012. In the U.S. software market moved upwards to 8.1% in 2010/2011 and 7.2% in 2011/2012.

Gartner also projects that small and medium-sized enterprises will spend 7.1% more on software in 2013, while large firms by 6%. It is expected that the countries of Asia and the Middle East will lead spending in the sector, given the low penetration rate of software in these untapped markets and a simultaneous high demand.

Regarding the use of smartphones and tablets, the following table shows the market size in the major EU countries:

Smartphone Penetration (% of mobile phone users) in EU5 Countries 3 Month Average Ending Oct. 2012 vs. Oct. 2011 Total EU5 Smartphone Subscribers (UK, DE, FR, ES and IT) , Age 13+ Source: comScore MobiLens			
	Oct-11	Oct-12	Point Change
EU5	41.6%	54.6%	13
Spain	48.4%	63.2%	14.8
UK	48.1%	62.3%	14.2
France	38.1%	51.4%	13.3
Italy	42.1%	51.2%	9.1
Germany	34.2%	48.4%	14.2

Source: Comscore

The following table shows the estimated production of smartphones by 2016:

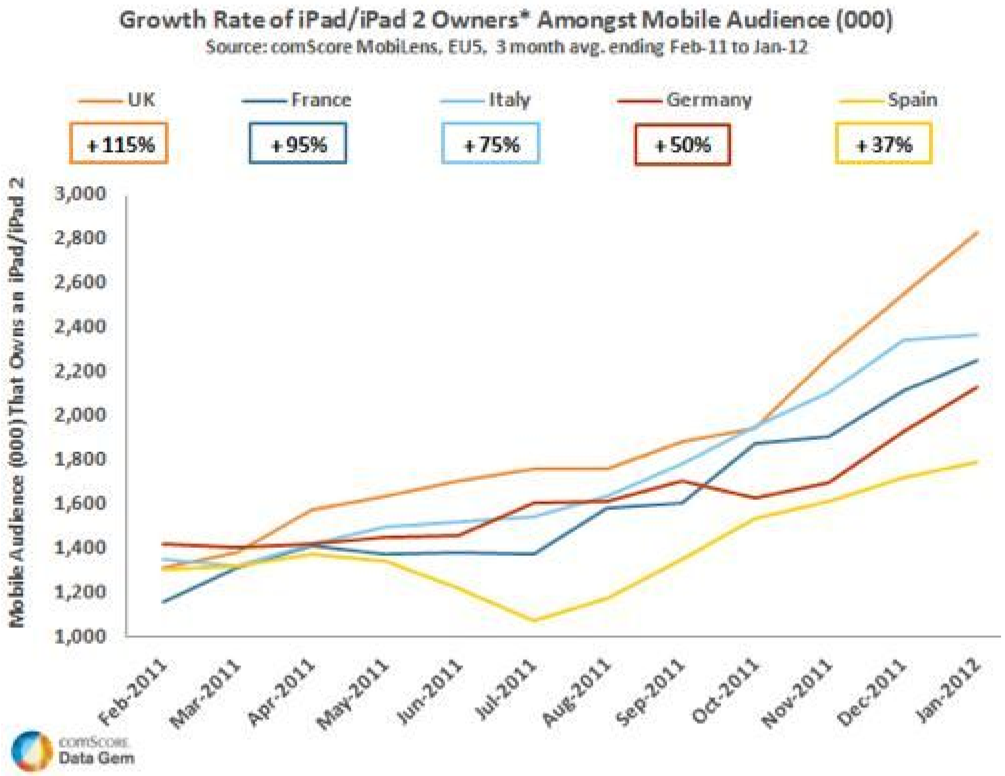
Premium Smartphone Production Forecast, Worldwide, 2012-2016

	2012	2013	2014	2015	2016
Ex-Factory Unit Production (K)	485,759	601,469	729,406	855,459	965,577
Ex-Factory Revenue ($M)	117,544	133,195	150,352	165,300	175,416
Semiconductor Content per Unit ($)	64.27	58.93	55.02	51.61	50.89
Final Semiconductor Forecast ($M)	31,224	35,451	40,144	44,164	49,146

Notes: Ex-factory unit production equals number of electronic equipment units produced, including factory inventory.
Ex-factory revenue equals revenue from sales of electronic equipment from factory gate.
Final semiconductor forecast equals semiconductor device revenue from sales.

Source: Gartner (January 2013)

An increase in iPad tablets ownership, amongst mobile phone users, is observed in five major European countries



The following table shows the estimated production of tablets by 2016:

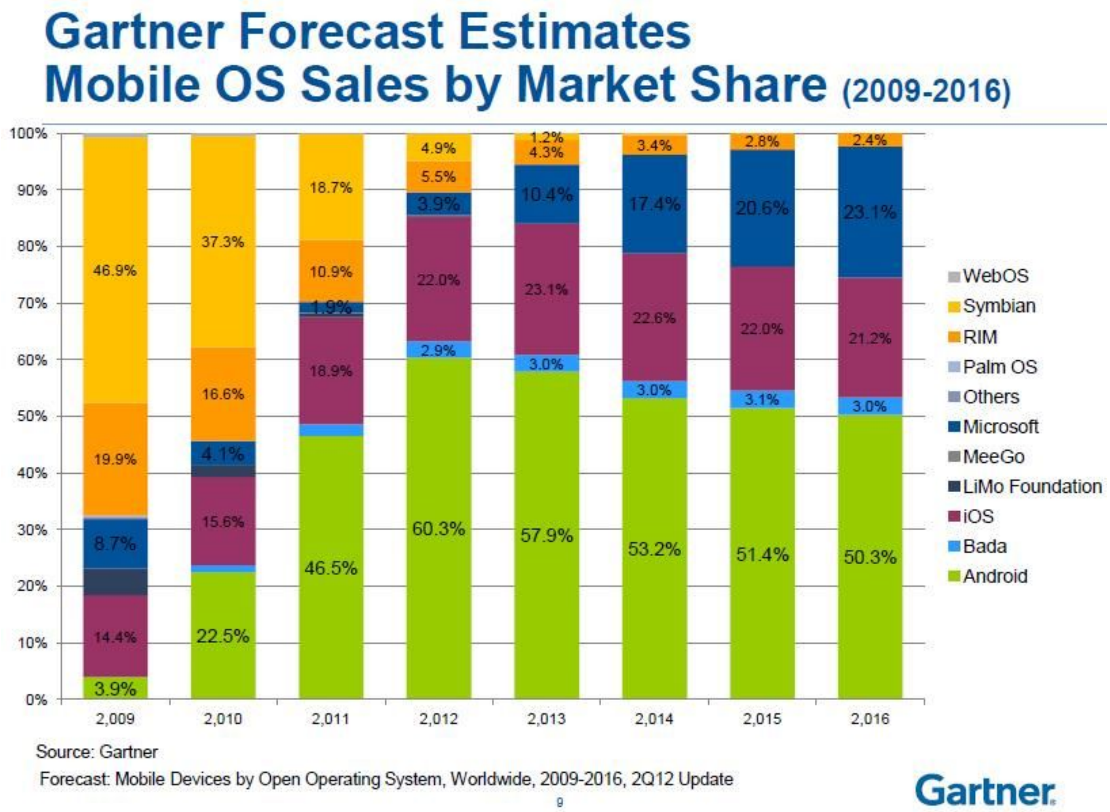
Media Tablets — Premium, Production Forecast, Worldwide, 2012-2016

	2012	2013	2014	2015	2016
Ex-Factory Unit Production (K)	74,730	93,681	116,852	136,746	158,149
Ex-Factory Revenue ($M)	22,848	25,928	30,537	32,308	36,024
Semiconductor Content per Unit ($)	87.42	83.89	79.69	73.36	71.27
Final Semiconductor Forecast ($M)	6,533	7,860	9,313	10,033	11,273

Notes: Ex-factory unit production equals number of electronic equipment units produced, including factory inventory.
Ex-factory revenue equals revenue from sales of electronic equipment from factory gate.
Final semiconductor forecast equals semiconductor device revenue from sales.

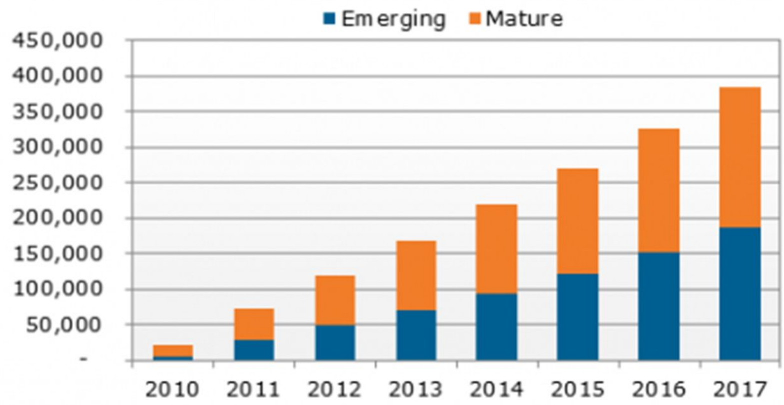
Source: Gartner (January 2013)

Estimated operating systems market share by 2016:



Finally, a growing momentum of the emerging markets in tablet acquisition is observed:

Figure 1: Worldwide Tablet PC Emerging vs. Mature Market Shipment Forecast Breakout



The Global Education Industry

The global education industry shows strong growth, especially in developing countries. As a sector, education is ranked second after the medical industry.

Over the last 6 years the global e-learning market showed 4.7% growth, while it is anticipated that this rate will rise to 6.68% by 2016. In developing countries, such as the Middle East and South Asia, the rate increases considerably reaching 27.9% (India).

M-Education (mobile learning) in particular is expected to show growth rates of 32.5% in the period 2012-2016, according to research by ResearchMoz, and this is mostly due to government initiatives on education. An example of such an initiative is the National Plan for Medium and Long Term Reform and Development of Education 2010-2020 of China, for implementing ICT in education.

The adoption also of electronic interactive whiteboards (IWB) in schools is a target of European countries by the late 1990's. According to a research by Global Industry Analysts, published in July 2012, the global IWB market is expected to reach $ 1.85 billion by 2018, demonstrating the willingness of governments worldwide to invest in the use of technology in the classroom, despite the economic crisis.

Highly-estimated research NMC Horizon Report identifies the developing technologies that will impact education in the next five years. The 2012 edition mentions six technologies expected to play a crucial role in teaching and learning. Those for the immediate future - the next 12-24 months-are:

1. Mobile devices and applications. The report states: "Once banished from the classroom, mobile devices and applications become imposing and schools have begun to revise their policies and begin to implement "bring your own device (BYOD) to school" programs. Especially the applications are the fastest growing part of everyday life and possibly gaining importance in every educational course".

2. Tablet computing. The report says: “Tablet computing offers new possibilities to enhance the learning experience that mobile phones, laptops and desktops cannot offer. Because tablets can exploit all the advantages of mobile phones applications but in a larger format, schools consider them not only as financially manageable solutions but as fully featured tools for any kind of schoolwork, which can replace other, more expensive and cumbersome tools and devices.”

The following table presents the worldwide educational market size in terms of population:

Primary, Secondary and Tertiary School Age Population

Primary		Secondary		Tertiary	
World	**655.0M**	**World**	**780.9M**	**World**	**608.1M**
South and West Asia	179.5	South and West Asia	243.7	East Asia and Pacific	188.5
East Asia and the Pacific	169.0	East Asia and Pacific	209.9	South and West Asia	165.8
Sub-Saharan Africa	129.3	Sub-Saharan Africa	108.8	Sub-Saharan Africa	76.5
Latin America and Caribbean	58.5	Latin America and Caribbean	66.9	Latin America and Caribbean	52.9
Arab States	42.5	Arab States	43.7	Arab States	34.6
Cent and East Europe	19.9	Western Europe	33.8	Western Europe	25.5
North America	25.9	North America	28.0	North America	23.7
Western Europe	24.9	Central and Eastern Europe	34.9	Central and Eastern Europe	32.2
Central Asia	5.6	Central Asia	11.1	Central Asia	8.5
India	123.6	India	169.8	China	120.3
China	93.3	China	125.4	India	114.9
Latin America and Caribbean	58.5	Pakistan	28.1	Indonesia	21.7
Indonesia	25.6	Indonesia	26.0	United States of America	21.4
Nigeria	24.2	Bangladesh	22.1	Pakistan	18.5
Pakistan	20.1	Nigeria	20.1	Brazil	17.0
Bangladesh	16.0	Mexico	13.2	Bangladesh	14.9
Ethiopia	13.3	Vietnam	11.9	Nigeria	14.7
Mexico	12.9	Ethiopia	11.4	Russian Federation	12.3
Philippines	12.9	Russian Federation	10.9	Mexico	10.0
Democratic Republic of Congo	11.0	Iran	9.5	Philippines	9.3
Egypt	9.8	Egypt	9.5	Iran	9.2
United Republic of Tanzania	8.0	Turkey	9.2	Vietnam	9.0
South Africa	7.0	Democratic Republic of Congo	9.0	Egypt	8.2
Japan	7.0	Philippines	8.0	Ethiopia	7.6
Uganda	6.7	Germany	7.5	Japan	6.6
Vietnam	6.5	Japan	7.2	Turkey	6.4
Turkey	6.4	Thailand	6.3	Democratic Republic of Congo	6.1
Kenya	6.3	United Republic of Tanzania	5.6	Thailand	5.3

Source: UNESCO Institute for Statistics

The worldwide educational market size, the size of foreign language learning market and their growth rates until 2017 are presented on the following table (GSV Estimates):

Knowledge	Market Size (2012)	Market Size (2015)	2012-17 Growth (CAGR)	Market Size (2017)
Global Market Size				
Global Education Expenditure	$4,450.9 B	$5,508.7 B	7%	$6,372.5 B
K-12	$2,227.0 B	$2,625.6 B	6%	$2,930.3 B
Postsecondary	$1,495.2 B	$1,883.5 B	8%	$2,196.9 B
Corporate & Govt. Learning	$356.6 B	$449.3 B	8%	$524.0 B
eLearning	$90.9 B	$166.5 B	23%	$255.5 B
K-12 eLearning	$16.6 B	$39.0 B	33%	$69.0 B
Higher Ed eLearning	$48.8 B	$95.4 B	25%	$149.0 B
Corporate eLearning	$25.5 B	$32.1 B	8%	$37.5 B
For-Profit Postsecondary	$96.1 B	$146.1 B	15%	$193.2 B
Social Learning/Communities	$1.0 B	$2.9 B	40%	$5.6 B
Child Care	$200.0 B	$266.2 B	10%	$322.1 B
Edu Gaming	$2.0 B	$4.4 B	30%	$7.4 B
Global Language Learning	$115.0 B	$198.7 B	20%	$286.2 B
Global English Language Learning	$63.3 B	$123.6 B	25%	$193.2 B
Test Preparation/Tutoring Market/Counseling	$54.0 B	$78.2 B	13%	$100.0 B
For-Profit	$590.9 B	$952.2 B	17%	$1,311.0 B

Education market size keeps growing

eLearning presents high % growth

Growth of Langueage Learning 2012-17

In the market sector company operates, three points are of particular importance:

1. It is estimated that global spending on education will experience a growth rate of 7%, with the market size reaching $ 6.373.5 billion
2. ELearning has high (estimated) growth of 23%, while the K-12 eLearning sector (where the company emphasizes) has an even higher growth rate of 33%.
3. Finally, in the global educational market, foreign language learning in general and English language learning in particular, are significant contributors to the expected growth, presenting 20% and 25% growth rates respectively.

The growth in the market of language learning is justified by the following data:

Language	Estimated number of speakers	Countries
Chinese Mandarin	Natives: 873 mil. Second Language: 178 mil. Total: 1.051 mil.	China, Singapore
Spanish	Natives: 350 mil. Second Language: 67 mil. Total: 417 mil.	Latin America, Spain, USA
English	Natives: 340 mil. Second Language: 170 mil. Total: 510 mil.	United Kingdom, Australia, Canada, USA, India, Hong Kong, and many others.
German	Natives: 101 mil. Second Language: 128 mil. Total: 229 mil.	Germany, Austria, Belgium Liechtenstein, Luxembourg, Poland, Switzerland
French	Natives: 67 mil. Second Language: 63 mil. Total: 130 mil.	France, Belgium, Canada, Switzerland, African countries
Italian	Natives: 61 mil.	Italy, Croatia, San Marino, Slovenia, Switzerland

Secondary research conducted by the company in recent months has shown additionally that Middle East and especially the Gulf countries are showing signs of market maturation in these areas. Specifically, our investigation resulted in the following conclusions:

1. The market size of educational books (textbooks) in the Middle East is growing rapidly, while the key common characteristic of these countries is the adoption of innovative technologies in education.
2. Of the 300 million people in the Arab world, 34% are under 15 years and in the most part students.
3. In most countries special emphasis is placed on learning English as a second language mainly for development purposes.
4. There is a distinction between poor, but large in population, countries and rich, but with smaller population, ones.
5. In the second group, where the countries of the Gulf belong, there is development and growth in the use tablets and especially in education where a rise in the use of e-textbooks is observed.
6. There is also an increasing demand for IWB and all the well-known IWB manufacturers have already extensive market presence in the Gulf countries.
7. Regarding mobile apps a gradual development is noticed of the so-called book-applications, especially in the United Emirates.

Source: International Council for Education Reform and Development (ICERD)

Targeted Countries

Based on the above data and the secondary research, the following table shows the countries / markets targeted by our company. These countries have already (and / or expected to present) particular drive for technology investments in education. Countries where the company already has customers and projects are underlined.

Geographical Area	Targeted Countries
Western Europe	United Kingdom, France, Germany, Italy, Spain, Austria, Netherlands, Belgium, Denmark, Norway, Sweden, Finland
Eastern and South-eastern Europe	Poland, Cyprus, Russia, Turkey,
North America	USA, Canada
Latin America	Mexico, Brazil
Asia - Oceania	China, Singapore, South Korea, Japan, Indonesia, Australia
Middle East	Saudi Arabia, United Arab Emirates, Egypt, Israel

The following table shows the trend of the company's estimated revenues by geographic region by 2015 after the completion of the project (in thousands €):

Geographical Area	Revenues 2011	Revenues 2012	Revenues 2013 est.	Revenues 2014 est.	Revenues 2015 est.
Western Europe	215	245	275	430	540
Eastern and South-eastern Europe	20	25	30	50	80
North America	15	25	30	80	140
Latin America				60	90
Asia - Oceania		30	40	90	150
Middle East	20	40	50	120	180

Targeted Customers

Combining the already presented data with the experience from our international presence to date, we define our objectives as follows:

1. Publishers of educational content and language learning books by geographically targeted areas. We are aiming to address the needs of this market sector through new products and services related to this project. Note that CrystalClearSoft has already developed long partnerships with major international publishing groups which are active in this field. Indicative: National Geographic Learning-Heinle Cengage (U.S. and UK), Longman-Pearson (U.S. and UK), McGraw-Hill (UK and Saudi Arabia), Express Publishing (Greece and UK), Cambridge University Press (United Kingdom), Grupo SM (Spain), Editis (France), Nova Era (Poland), Helbling Languages (Austria and Italy), Hueber (Germany), Edizioni Edilingua (Italy), Hamilton House Publishers (Cyprus), Papaloizos publications (USA), Alston Publishing (Singapore), Kaplan Education (United Kingdom and United Arab Emirates). The immediate objective is to start new business relationships with potential customers having international presence and with whom the company had already a series of exploratory contacts like with McMillan (United Kingdom and Latin America), Oxford University Press (UK), Barrons (UK), Harper -Collins (UK), Scholastics (U.S. and UK), Richmond (UK), Santilliana (Spain and Latin America), SGEL (Spain and Latin America), Hachette (France, the Middle East and North Africa), Klett (Germany), Cornelsen (Germany), Westerman (Germany), Alma Edizioni (Italy), Gyldendal (Norway), Otava Publishing (Finland), Marshal Cavendish (Singapore), Hanban (China), PPP (China), Teachers Created Material (USA), Benchmark Publishing (USA), Era Publications (Australia), Editora Positivo (Brazil), Editorial Patria (Mexico), Prosveshcheniye (Russia), Edugate (Egypt), Al Obeikan (Saudi Arabia), Athar Publishing House (Saudi Arabia), Starabia Publishing (UAE).

2. Educational content publishers for elementary and secondary education. We are aiming to address the needs of this market sector through new products and services related to this project. CrystalClearSoft has already developed

long-term business relations with major international publishing groups that are active in this field, for example: Longman-Pearson (U.S. and UK), McGraw-Hill (UK and Saudi Arabia), Grupo SM (Spain), Editis (France), Nova Era (Poland), Alston Publishing (Singapore), Kaplan Education (UK and United Arab Emirates). The immediate objective is to start new business relationships with potential customers having international presence and with whom the company had already a series of exploratory contacts like with, Barrons (UK), Scholastics (U.S. and UK), Santilliana (Spain and Latin America), Cornelsen (Germany), Westerman (Germany), Gyldendal (Norway), Otava Publishing (Finland), Marshal Cavendish (Singapore), Era Publications (Australia), Editora Positivo (Brazil), Editorial Patria (Mexico), Prosveshcheniye (Russia), Edugate (Egypt), Al Obeikan (Saudi Arabia), Athar Publishing House (Saudi Arabia), Starabia Publishing (UAE).

3. Educational content publishers for exams preparation. A market addressed through new products and services related to this project. The majority of the above publishers are very active in this area. In addition the company has a series of exploratory contacts with potential customers as ILTS (UK), First Press Publishing (UK), Heineman (UK), CLE International (France), Instituto Cervantes (Spain), SQA (Scotland).

4. Organizations and Bodies issuing Certifications. A market addressed through new products and services related to this project. CrystalClearSoft has already a number of exploratory contacts with prospective customers who mainly provide IT skills certifications like Cisco CCNP and CCNA, Microsoft, Moodle etc.

5. Educational institutions, primary and secondary schools. A market addressed through new products and services related to this project. CrystalClearSoft has a wide network of contacts with schools throughout Europe (through its multi-year involvement in European Research Programmes on Technology in Education) and worldwide through its collaborating client-publishers.

6. Ministries of Education. A market addressed through new products and services related to this project. CrystalClearSoft has already completed

projects for the Ministry of Education of Poland (as a subcontractor to Nova Era) and the Ministry of Education in Saudi Arabia (as subcontractor of McGraw-Hill). At the time of writing this proposal, the company is in the offing of direct involvement in a large pilot project in the Scottish Quality Assurance organization that falls to the Ministry of Education of Scotland. The project relates to the development of interactive applications for all educational content of the exams which are required in order to enter higher education in Scotland (known as A levels). In addition, CrystalClearSoft participates as a strategic partner of the International Council for Education Reform and Development (ICERD) based in Dubai and Doha, in a proposal to the Ministry of Education of Qatar concerning the development of interactive educational software for primary and secondary education in the country.

As already mentioned, global spending on digital education presents high annual growth rate in the areas of 23% while the K-12 eLearning sector (where the company emphasizes) has an even higher growth rate of 33% and the global market for language learning sees a growth rate of 20%.

CrystalClearSoft is continuously conducting research to existing and potential customers (i.e. educational content publishers, educational institutions and schools and institutions of public primary and secondary schools) to record and understand their needs regarding the development of interactive educational applications and in combination with their operational and business priorities. Based on that research we draw the following conclusions:

1. Publishers of educational content were and still are discontented with the "out-of-the-box" solutions they are currently using to create digital educational publications. This is due to the fact that the training material requires increased interactivity. Additionally, a certain methodology must be followed that will ensure smooth transfer of learning objectives from the printed book form to the digital version. CrystalClearSoft has extensive experience in the smooth transformation of learning objectives in the digital form. The products should give publishers the opportunity to respond to market demand for interactive whiteboard software quickly, efficiently, and at

low cost, but (most importantly) without compromising the quality of the IWB software. Part of the product to be developed under this project is practically a back-end interactive whiteboard application development system, which is designed to successfully meet this need.

2. There is an increased demand from publishers for the development of mobile educational applications, which will exploit the features of mobile devices and simultaneously adhere to and preserve the teaching methods of their books for all levels of education. However, there are serious technical limitations that prevent the development of applications that work well on all types of mobile devices: convenient development tools such as *Adobe Flash* are of no use, since they are excluded by the most popular tablet device - the iPad. Therefore, HTML-5 is currently the choice development platform for this service.
3. An increased demand is observed as well for mobile applications with high level of interactivity and advanced features allowing tests/exams simulations on mobile devices. This demand comes from publishers and examination/certification bodies and organizations. From language learning to curriculum studies, and from vocational qualifications to continuous assessment of employees, publishers, schools, teachers, professional associations and other content owners, test learners to determine progress, identify weaknesses, or award qualifications. The English language teaching (ELT) market alone makes use of dozens of different testing protocols, while many countries around the world have their own exams to certify competency in a foreign language. Publishers produce immense volumes of printed test materials every year to offer students the opportunity to practice. The pressure on publishers to make this material accessible through digital interactive mobile devices is constant. CrystalClearSoft, in the frame of the content apps framework, aims to address this need by delivering a back-end system which will be versatile and extensible enough to allow for the creation digital test simulations for all known popular language tests and even other kind of examinations (e.g. vocational qualifications), for all types of mobile devices and their relative operating systems (iOS, Android, Windows mobile etc.).

4. Usage and performance statistics are of paramount importance to all involved in the teaching-learning process, including students, teachers, parents, schools and publishers. CrystalClearSoft aims to integrate all of these new products and services in a personalized web-based tool that will create reports on the application usage and the evaluation of the learning process and progress. The tool could then be an add-on to the content app framework.

   Learners of all ages will be able to opt in and automatically communicate their statistics to the tool. This will enable them, and/or their teachers or guardians, to receive personalized learning reports that, additionally, will evaluate them within their social context (e.g. people also taking this examination, people in their age group, other students in their school, etc.) or in reference to previous generated reports.

Barriers to enter the market

CrystalClearSoft, capitalizing on its long presence in this area, retains a major advantage over newcomers and is not expected to encounter significant barriers to enter new target markets during the implementation of this project. From our experience the potential barriers to entry are related to the nature of the products themselves. Especially in the case of publishers, the applications come to complement their main offering, which is no other than the book. So there is a sensitivity that is associated with the fear of the full replacement or even extinction of the books which, in some cases, comes together with the ignorance of developments and evolution taking place globally.

Competition

The main competition the company faces all the years of its operations derives mainly from within its own customers, mainly from the fact that, most large international publishers offering educational content, maintain in-house their own development teams for digital educational applications creation. However experience shows that keeping a good relationship and a regular contact with the customer will always reveal opportunities for new projects where the company can offer real value. Companies considered also as competitors are Young Digital Planet, Aptara and S/W outsourcing companies in India such as Integra. Although the last seven years only two times we had to bid against any of them, we expect that this will change in the coming years, as more and more educational content becomes available in digital form, consistently attracting more newly-minted companies in this area. The company's goal is to continue to offer innovative services and products in target markets, always adapting to the demands and diversity of each client.

Services Promotion Plan in Target Markets

Marketing and Sales Strategy for these products and services will be designed based on the collection of information from the external environment, the target markets the company addresses as well as from the needs of those markets.

Products and Services features acting as a differentiating factor from the competition

As already mentioned, the publishers of educational content were and still are discontented with the "out-of-the-box" solutions they are currently using to create digital educational publications, because the digital form of the educational material requires increased interactivity, while a methodology which will ensure the smooth transfer of the learning objectives from the printed to the digital version is needed.

The key differentiation of the company against its competition is that the appropriate interactivity and smooth transfer of learning objectives from the printed to the digital form is a permanent field of research and development for CrystalClearSoft, while the competition has an almost universal way to handle every kind of content that is going to be digitized, whether this is commercial, recreational or even educational. Since its inception in 2005, this significant added value helped the company to distinguish among a plethora of software development firms that have tried to compete against it, and helped also to establish CCS in the minds of large multinational educational publishers world-wide, as a trusted partner. This ongoing quest for clear and detailed documentation of the educational software under development has shaped the services offered by the company today. It will also be the basis for the creation of innovative new products and services through this business plan, and will be an important factor both for their differentiation and promotion.

All the products and services presented and their characteristics present truly innovative solutions for both domestic and international markets and are a clear differentiating factor from the competition.

Penetration and Sales Strategy

The realization of this business plan would allow CrystalClearSoft on the one hand to remain competitive and to meet successfully the new needs of existing customers and on the other hand to put it a position of power to attract new customers.

Regarding the domestic but mainly the international markets, the company will promote its solutions directly, presenting products and services with personal presence, in the premises of existing and potential clients either or in large exhibitions (Frankfurt, London, New York, Abu Dhabi, Moscow, Beijing, Istanbul etc) and via live web presentations.

Based on the presentation and analysis of company's target countries / markets and the estimated revenue by geographical region by 2015, the company intends to proceed to the following actions for the implementation of the penetration and sales strategic plan:

- Recruitment of a Sales Director, in the 1st quarter of 2015, who will assume the management of all existing and potential company clientele.
- Recruitment of a Client Engagement Director, in the second quarter of 2015, who will assume the creation and preparation of all promotional material presenting company's solutions (printed and electronic) and the overall contact plan with existing and potential customers, concerning mainly in meetings clients at their premises and live web presentations.

- Recruiting of a Sales Manager for Great Britain, in the fourth quarter of 2014, which is today the most important international market of the company – this executive will be based in London.
- Recruitment of a Sales Manager, in 2014, for the Middle East market, which is the most growing international market in the field of technology in education – this executive will be based in Dubai.
- Enter into a strategic partnership in 2014 with a consulting company in the U.S. which will take care the strategic positioning of the company in the markets of North and Latin America.
- Recruitment of a Sales Manager, in the second quarter of 2015, for the Asian and Oceania region which is also a rapidly growing international market in the field of technology in education – this executive will be headquartered probably in Singapore.

As for the business model associated with the operation and marketing of new products and services, commercial policy will be as follows:

We will sell a product based on the content app framework offering at least two different options:

- Buy a license and install the tool at own infrastructure.
- Pay a subscription fee for using the tool as a service deployed in our own infrastructure. The subscription model may offer several options based on number of guides to be made digital, users, volume of resources, etc.

We will provide ad-hoc services in support of the tool to product manufacturers that have bought the tool, such as:

- Instructional design services for transcription of guides to digital resources.
- Design of custom animations, videos, interactive exercises and other resources needed.
- Training of staff that will be using the tool.

As for the business model commercial policy will be as follows:

Product	Description	Commercial Policy
Class Module	Product offered to educational content owners. An easy and quick to use back-end system to create IWB applications with low cost and high quality.	The product will be sold by annual license per user (estimated average annual subscription value € 7.500) If the product is used on subscription bases, deployed at our own infrastructure, then the subscription options will vary according to number of users, volume, etc.
Pad Module	A product for creating cross-platform digital textbooks with particularly rich interactivity.	The product will be provided by annual license (estimated value €14,000). If the product is used on subscription bases, deployed at our own infrastructure, then the subscription options will vary according to number of users, volume, etc.
TestIT Module	A product offering publishers and examinations & certification bodies the ability to create exam simulation applications.	The product will be sold by annual subscription per user (estimated average annual subscription value € 2.500)
Track Module	The product is a personalized web-based tool for creating reports on evaluation of learning and the usage of applications which will produce statistics useful for students, teachers, parents, product manufacturers, publishers and schools.	The product will be sold per activation by the user-learner (estimated average value of €0,20 per activation)