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Inclusive business in practice – Case studies from the Business Innovation Facility portfolio

iSchool: Transformative learning in the Zambian classroom

This report is one of a series of 'deep dive' case studies that seeks to understand inclusive business in practice. The series explores contrasting inclusive businesses, all of which have been supported by the Business Innovation Facility.



Foreword: An introduction from the author

Children with their heads bent down and headphones plugged in their ears gazing intently at the small-screened tablets/laptops in front of them. This was the sight that greeted us in the first school we visited in Lusaka Zambia – TICO Community School. Teachers and students alike were all proud to be learning and teaching from the tablets. The headmistresses had the trolley cabinet in their rooms in which the tablets are secured and charged each night. The repeated complaint was, “We want more tablets and more grades should be able to access the content.”¹

Children in most of the target schools come from marginalised communities, and access to iSchool not only serves as a means to improve the quality of education, but also to bridge the digital divide. Internet connectivity, though not needed for the iSchool product, will spread across Africa and the digital divide will narrow. Whether business models can successfully connect, engage and educate low-income pupils in a commercially sustainable way is, therefore, a highly relevant question.

iSchool’s launch*, due at the time of writing (mid 2013), has been delayed because the iSchool model has evolved significantly, learning and adapting along the way. As a pioneer in the e-learning space – not only in Zambia but in all of Africa – iSchool has had to learn all its lessons first hand. It’s an extremely ambitious business model, just like its founder, Mark Bennett, who is the guiding force behind the company.

At the same time, it is exciting and inspiring because if iSchool takes off, it has the potential to provide each child with quality education irrespective of the economic background the child comes from. In this report, we aim to understand the evolution of iSchool, its strategic and commercial drivers, and the key factors that will determine its eventual impact on education in Africa. We hope you find it as insightful as we did.

Acknowledgements

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¹ Up until now pilots were running across grade 1-3. From the beginning of 2014, all grades 1-7 will be covered by iSchool.

Contents

Executive summary	4
1. The Inclusive business in brief	6
1.1 What is the business?	6
1.2 How is the business commercial, inclusive and innovative?	7
2. The story behind iSchool	8
2.1 Business drivers	8
2.2 Timeline	8
2.3 Market context	9
3. How does the inclusive business model work?	11
3.1 Overview of the value chain and business model	11
3.2 Partnerships	12
3.3 Pricing and margins	12
3.4 Challenges and risks	13
4. Commercial results	15
5. Development impact	16
5.1 Direct impacts at the base of the pyramid	16
5.2 Impact on students	17
5.3 Impact on teachers	18
5.2 Potential for systemic impacts	19
6. Future outlook and lessons learned	20
6.1 Future outlook and potential for scale	20
6.2 Additionality of BIF support	20
6.3 Lessons learned	20
Annex 1: Case study methodology	22
Annex 2: iSchool's product range	24
Annex 3: Impact of solar on iSchool costs	25
Annex 4: Logic model	26
Partner profiles	27
About this series of case studies	28

“iSchool adds flavour to teaching and learning”

Ms Neely Ziwa, Grade 2 teacher: Lumuno private school, Lusaka

Table of Acronyms

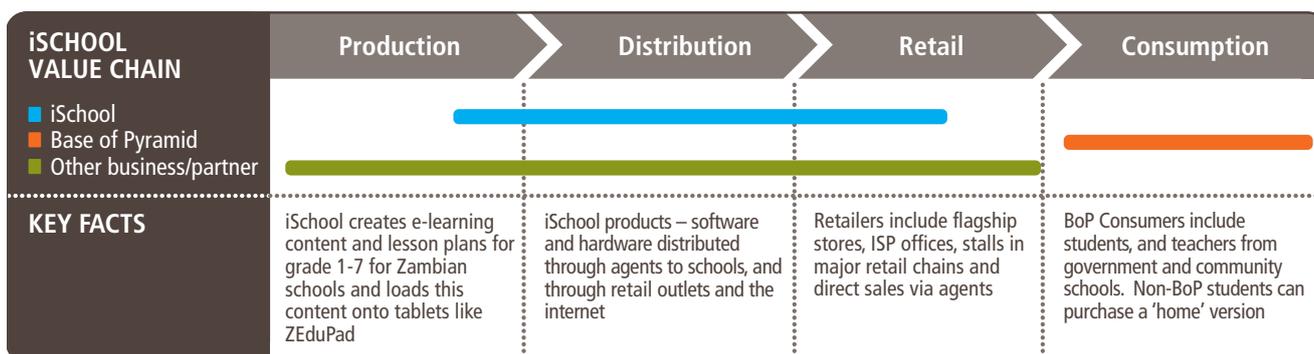
BoP	Base of Pyramid
DFID	Department for International Development
EBS	Education Broadcasting Services
EGRA	Early Grade Reading Assessment
EGMA	Early Grade Math Assessment
ICT	Information & Communications Technology
IRR	Internal Rate of Return
ISP	Internet Service Provider
MOE	Ministry of Education
MOU	Memorandum of Understanding
ROI	Return on Investment
TLE	Total Learning Environment

Executive summary

iSchool is a Zambian start-up company offering e-learning systems for Zambian primary schools and individual learning at home. The e-learning products are designed for the Zambian context, cover the entire curriculum from Grades 1 to 7, and are available in English and eight local languages. Through its approach to learning, iSchool aims to develop critical thinking in children and help Zambian teachers move away from the 'chalk and talk' approach to creating a more interactive learning environment.

The inclusive business aims to reach state schools and community schools in rural Zambia, but to do this has had to continuously refine the product package and bring down costs all along its value chain. The e-learning package now includes the 'ZEduPad' – a tablet learning device on which the content is loaded and delivered to teachers and students – plus teacher training, power provision and full mentoring and support.

Figure 1: iSchool's Value Chain



iSchool has launched the product in the Zambian market in September 2013. This follows investment of \$5.2m to date, three years of hard work since inception, successful not-for-profit pilots in 17 schools reaching 3,458 children, solid monitoring and evaluation (M&E) numbers demonstrating its impact on children's learning abilities, and several iterations of the product offering.

The company has had to overcome numerous challenges on its long journey to commercial launch, most significantly finding a business model that will make iSchool a truly commercial proposition with sustainable revenue. This has also been the area of support from the Business Innovation Facility (BIF). Challenges remain but emerging interest from commercial investors is signifying a growing belief in the iSchool model to generate financial returns. And iSchool already has a clear strategy for sustainability in Zambia combined with expansion into other countries in Africa.

iSchool is an interesting inclusive business as it illustrates how a business model has evolved to combine the twin goals of sustainable returns and social impact. The fundamental social value of the product for low-income learners has changed little, but the iSchool business model, and indeed the software and hardware products, has evolved in an attempt to bring down the cost per student, make it affordable across Zambia, and reach scale. Along the way, iSchool has also developed key partnerships with organisations globally to further cut costs.

Figure 2: Summary of iSchool's impacts

iSchool

Country: Zambia
Sector: Education
Product: E-learning content for Grades 1 to 7
BoP: Students and teachers in community and government schools



Website: www.ischool.zm

Inclusive business model:
Provision and sales of interactive e-learning content and teacher training material to improve quality of education and encourage cognitive learning. BIF support to develop commercially viable business model and conduct market research.

Commercial results:

- No revenue yet, launch in September 2013
- Investment of \$5.2mn to date

Development impacts:

- 3,383 children reached to date
- Students in pilots achieve higher scores in reading, numeracy and critical thinking skills

Market opportunity:

- Low quality education in Zambian schools, in particular government and community schools
- Some consumers willing to invest in learning materials beyond core school offering

Future plans:

- \$7mn earnings projected for 2015 – by reaching 26,648 ZEduPad sales
- Expect to reach 162,531 beneficiaries by 2017

Note on figures used:

Currency: In cases where local currency has been converted into USD the following exchange rate has been used throughout this report: \$1 = 5.4 Zambian kwacha (22 August 2013).

Base of Pyramid: Numbers of people reached at the base of the pyramid represent those directly engaged as suppliers, entrepreneurs or consumers, and are not multiplied by household size to represent 'lives touched'.

1 The inclusive business in brief

- > iSchool offers a complete e-learning system for Zambian primary schools, including original content delivered through tablet computers, and full training, mentoring and support.
- > The company is primarily targeting community and government schools.

1.1 What is the business?

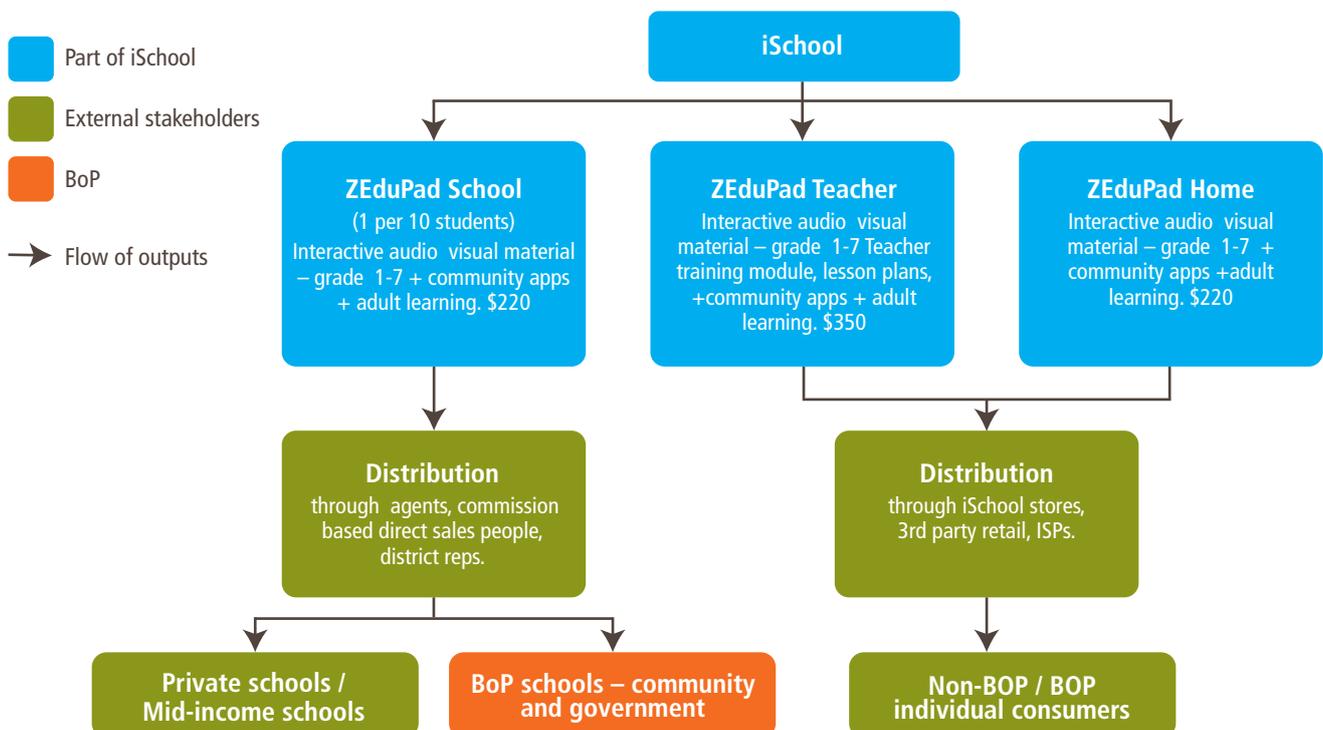
The focus of this report is iSchool, a start-up stand-alone company in Zambia founded by Mark Bennett in 2010. Its only business is the production and sale of the iSchool suite of e-learning products, which are produced and distributed by the company, and targeted at school children across all income levels.

iSchool is a complete e-learning system for Zambian primary schools. It is centred around providing lesson plans for teachers and online interactive multi-media learning content for students in Grades 1 to 7, with content available in English and eight local languages. The e-learning package is delivered through the 'ZEduPad' – a tablet learning device on which the content is loaded and delivered to teachers and students – teacher training, power provision and full mentoring and support delivered at minimal cost per student.

Table 1: iSchool key facts

iSchool Key Facts	
Name	iSchool
Sector	Education
Country	Zambia
Product/Service	iSchool offers an e-learning package aimed at primary schools and individuals that includes the 'ZEduPad' – a tablet learning device on which educational content is loaded – plus teacher training, power provision and full mentoring and support.
Relationship with lead company	The e-learning package is the only business of the company.

Figure 3: The focus of this report – iSchool





iSchool's ZEduPad

1.2 How is the business commercial, inclusive and innovative?

How is the business commercial?

iSchool has the ethos of a social enterprise. Though not yet profitable, the company has a business model that seeks to generate sufficient revenue for profitability and a modest return. When iSchool began, and indeed when it applied for BIF support, the big question was “can it operate a model that is not based on CSR or donor grants, but achieves commercial sustainability?” While the answer is not yet known, and patient capital rather than commercial capital is needed, iSchool now has a clear strategy for achieving financial sustainability.

How is the business inclusive?

iSchool aims to change the way education is delivered in Zambia and is targeting all schools and students including base of the pyramid (BoP) schools (defined in this study as community and government schools)². Zambia has 8,200 primary schools of which 365 (4.1 per cent) are private schools attended by children coming from privileged homes, paying monthly fees upwards of \$400/child/term. iSchool plans to primarily target the 7,578 schools which are either government or community schools that cater to the majority.

The problems identified by iSchool are that schools in Zambia are plagued with high teacher and student absenteeism, untrained teachers, a lack of resources including textbooks and infrastructure, high drop-out rates, and an overall low quality of education. iSchool's primary objective is to improve the quality of education in schools in Zambia by: 1) helping all students develop cognitive learning abilities and problem-solving skills by providing access to interactive enquiry-based learning resources, and 2) training teachers to become facilitators of learning rather than sources of knowledge.

How is the business innovative?

iSchool has created an innovative new product which provides e-learning content through low cost tablets like ZEduPads. A comparable product offering³ that is contextualised for Zambian primary school children currently does not exist in the market. There are three versions of the ZEduPad, classified on the basis of user-type:

- 1. School Learner:** Primarily targeted at BoP schools, it includes full learning material and research content, as well as community apps and adult learning material.
- 2. Teacher:** Any school that buys student versions needs teacher versions too, which include the student content plus the lesson plans, and a full one-year training course aimed at moving the teacher from rote learning to enquiry-based, active learning. The teacher version is important for another reason as well: 80 per cent of Zambian teachers give private tuition and it is expected that this will increase demand for and usage of iSchool products.
- 3. Home Learner:** The home version is targeted at the growing Zambian middle class, which is aspiring and understands the importance of quality education. It comes complete with full learning materials, plus homework modules and other educational and entertainment content. The Home Learner can have up to four different profiles, so one ZEduPad can be used by a number of different family members. The product is expected to not only generate revenue, but also create awareness and demand for the school version, functioning essentially as a cross-subsidisation and market-building strategy.

iSchool is also constantly innovating its business model – whether via pricing, distribution partners, or additional apps added into the offering – in order to make new distribution mechanisms more robust.

² The definition of the BOP will be further explained in Section 6.1.

³ A comprehensive overview of iSchool's product range is included in Annex 2.

2 The story behind iSchool

- > Since 2010, the iSchool business model has evolved considerably to reduce its cost base in order to achieve commercial viability and scale.
- > A growing market for education services and favourable regulatory environment in Zambia, coupled with the company's mission of transforming education, are driving the development of iSchool.

2.1 Business drivers

iSchool initially began as a project of AfriConnect Development which was the CSR arm of AfriConnect, an Internet service provider (ISP) founded by Mark Bennett. Beginning in 2007, AfriConnect invested in the development of the iSchool concept, funding a market study and landscape analysis and creating the original iSchool website. Once AfriConnect was sold to Vodacom in March 2010, iSchool became a standalone company, capitalised through Mark's investment of \$3,029,000 in shareholder debt.⁴

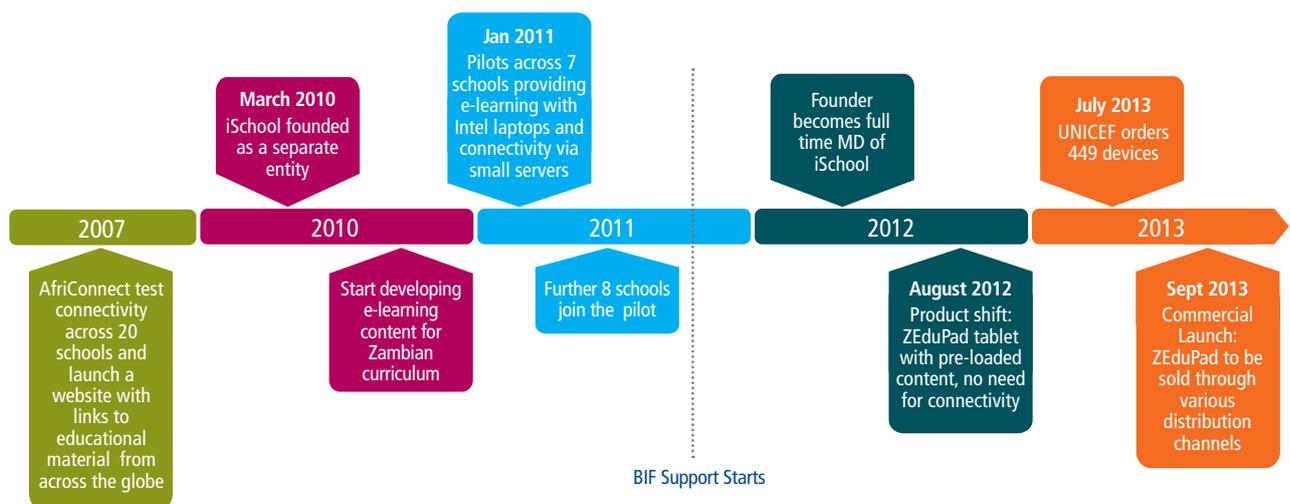
The profit of iSchool is intended to be recycled back into the company to fuel expansion and reduce costs, though this might change with new international investors looking to invest in iSchool with specific return targets in mind.

Mark Bennett and Clare Stead, the e-learning director, are primarily driving the iSchool business model. During the research it became very clear that each employee of iSchool ardently believes in the inclusive business's potential to change the way education is delivered to the children in Zambia. iSchool presently has approximately 200 employees, including contractors and freelancers, operating across the globe.

2.2 Timeline

The idea of enhancing quality of and access to education in Zambia came about in 2007 when Mark, who still owned AfriConnect, decided to connect 20 schools in Zambia to the Internet and launch a website with approximately 20,000 links to educational content from across the globe for Grades 1 to 12. This model was not scalable, however, for three main reasons:

Figure 4: Timeline of iSchool development



⁴ Though no longer a part of AfriConnect, the ISP continues to be a key distribution partner of iSchool, as the ZEduPads will be available across all iConnect stores (AfriConnect's broadband service) and the e-learning content is available with the iConnect internet connection.

- 1. Content was not localised:** Educational materials needed to be contextualised to Zambian needs in order to become attractive and useful.
- 2. Costs were prohibitive to achieve scale and commercial viability:** Providing e-learning content through the Internet by providing connectivity plus Intel classmates (a laptop) cost iSchool \$45/child/term. However, a 'willingness to pay' survey conducted in 2011 by the Business Innovation Facility (BIF) revealed a willingness of only \$6/child/term⁵ (later revised, Figure 5).
- 3. Technology was not reliable:** The technology, including the need for permanent wireless connectivity, and regular Internet connections, was not sufficiently durable in all contexts, and maintenance costs were high.

BIF Support in brief

Beginning in April 2011, the Business Innovation Facility (BIF) began providing support to iSchool, by helping the company develop a business model based on a better understanding of what is needed to take the iSchool model from pilot to commercial scale. BIF helped analyse some preliminary monitoring and evaluation (M&E) data which iSchool had collected from its initial pilot, and conducted market research to understand the education landscape in Zambia and how ICT was being used in education. BIF also conducted a 'willingness to pay' for technology survey of the parents.

Additionally, BIF consultants helped streamline the day-to-day operations of iSchool, helping the company create their first financial model, and identify an educational expert who was part of the BIF project team (costs paid by iSchool, under cost-sharing arrangements with BIF). BIF focused on advising iSchool on the strategy for scaling up to different countries in Africa, and the BIF Country Manager, as part of the programme's knowledge activities, helped provide some publicity for iSchool by helping iSchool publish a feature in the Bulletin and Record magazine.

Box 1

In mid-2010, iSchool began developing interactive content for grade one of the Zambian curriculum, and in 2011 a pilot was launched in seven schools in Lusaka. Soon, 10 more community schools of the Impact Network, an organisation working to improve educational quality in the Eastern province of Zambia, came on board. A small server was installed in each of the pilot schools which communicated with the central iSchool server every night to update the content, which the teachers and students could then access through their Intel Classmates, all provided for free by iSchool. The cost of providing this service was \$15/child/term, still higher than the willingness to pay.

The infrastructural needs of connecting a school with Internet also resulted in high maintenance costs and disruption in lessons as the content was online.

These technical difficulties along with the high cost base motivated iSchool to change the delivery mechanism to tablets with pre-loaded content. Starting in 2014, all the pilot schools will move from using the small servers and Intel classmates to using ZEduPad tablets with pre-loaded content. Currently tablets with e-learning content are priced at \$220.⁶ This costs the parents \$4/child/term taking into account that a ZEduPad will be shared by two students at a time. The actual cost per child/term may vary depending on whether the school needs solar power and on how many streams there are in the school.

Figure 5: iSchool student cost/term timeline



2.3 Market context

Market Demand

The present population of Zambia is 13 million and is expected to increase to over 100 million by 2100⁷. With 50 per cent of Zambia's population under 15 years of age, this signifies a huge market for educational services. The focus of the Zambian government on education has also led the international community to direct its resources towards improving educational quality and access in Zambia. The education market in Zambia is shaped by players like UNICEF, DFID, USAID and corporate sector sponsors who have the ability to fund and propagate certain programs.

The Education Act 2011 is Zambia's main legislation on education and identifies each child's right to free education up until Grade 7. This means that if a government school wants to adopt iSchool, the cost cannot be passed on to the parents. In reality, it does not seem absolutely clear whether the legislation refers to tuition fees only or prohibits any kind of charging per se. As Table 1 shows, total spend per pupil per year is typically \$66, once a range of fees and payment are taken into account, and tuition only accounts for a small portion of this amount.

⁵ When the survey was repeated by iSchool in 2012, willingness to pay rose to \$9/child/term.

⁶ The idea of selling the ZEduPads at cost price of \$100 and charging a subscription of \$3/month was also explored, but abandoned due to the difficulties of collecting the monthly subscription.

⁷ Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2012 Revision*. <http://esa.un.org/unpd/wpp/index.htm>

⁸ Karen Weiner, "School fee Abolition: Parents perspective," USAID, 2010. http://www.equip123.net/docs/e2-School_Fees_Parents-IB.pdf

Table 2: Annual per-pupil household expenditure in Zambia on Primary Schooling (Figs in USD)⁸

Tuition	PTA*	Development Fees	Exam Fees	Books / Supplies
2	24	12	24	4

*PTA: Parent Teacher Association, which provides additional resources for the school

The legislation (coupled with the fact that many parents with children in government schools have very low income) has led iSchool to look for financing partners to: 1) subsidise the cost of iSchool products for government schools, and 2) develop sustainability features (other Apps and services on ZEDuPads) in order for schools to generate income and fund the ZEDuPads. This will help schools to build business models that will make iSchool economically viable without necessarily having to charge parents.

Competition

Currently, there are no other organisations offering a complete end-to-end solution for e-learning which includes developing content and delivering it through pre-loaded hardware. Only iSchool provides interactive content mapped to the Zambian curriculum complete with teacher training modules. Its complete package aimed at transforming how teaching is conducted remains its competitive advantage.

One of iSchool's main competitors is the Ministry of Education (MOE), which has vast resources in terms of finance and access to government schools. MOE initiatives which might be a source of potential competition to iSchool include:

- **E-learning:** The MOE wants to establish an e-learning portal (www.studymate.info) that will host interactive learning content from Grades 1 to 12. Future plans include loading this e-learning content onto tablets and distributing them to government schools.
- **Interactive radio program:** Content is accessed either by listening online or through an SD card for which there is a slot in the radio. These winding radios are provided to schools for free, especially those that have no textbooks.
- **Information & Communications Technology (ICT) capacity building:** The initiative will train teachers in the use of computers in the classroom. After the training, the schools procure computers from Camara, an MOE partner, at a subsidised cost.
- **Equilibrium Interactive Solutions:** Provides interactive whiteboards for education where users manipulate the computer on the whiteboard using a pen, finger, stylus or other device.

Other competition includes Camara Education, an Irish NGO that establishes low cost e-Learning centres within schools and community centres, delivers training on how to maintain and administer the Centres, and teaches the teachers how to use the technology as effective pedagogical tools. It uses traditional desktop computers and has no learning content. Another competitor, UB Slate, sells tablets similar to ZEDuPad at a price of \$149 but also does not provide learning content.

Table 3: Summary of influencing factors

Internal Factors	
Company strategy	<ul style="list-style-type: none"> • iSchool's business model has evolved and corrected itself based on the company's mission and the strategic need to be financially viable and reach substantial scale.
Company leadership	<ul style="list-style-type: none"> • Mark Bennett, the MD of iSchool, primarily guides the direction iSchool takes.
Serendipity	<ul style="list-style-type: none"> • Mark set up and ran the computer centre at the University of Zambia and hence the move to start iSchool in Zambia, as he felt the need to improve education and access to connectivity in the country.
External Factors	
Evolving market opportunities	<ul style="list-style-type: none"> • National prioritisation of education has expanded the market. The Education Act 2011 made basic education free, and led iSchool to develop sustainability apps in order for government schools to afford them.
Policy context	<ul style="list-style-type: none"> • Possible revamping of Zambian curriculum in 2014 will make iSchool incur further costs.
Partnerships	<ul style="list-style-type: none"> • Multiple partnerships are built into the model. Stronger partnership with MOE could have expedited iSchool's launch.

3 How does the inclusive business model work?

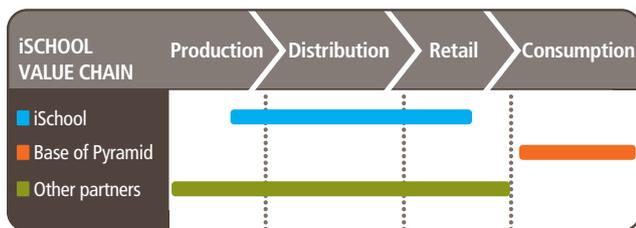
- > iSchool manages production, distribution and retail sales in the value chain, developing solutions and creating partnerships at each stage to lower costs and expand reach.
- > iSchool has faced and overcome many challenges and mitigated various risks since its inception through the continuous refinement of its business model.

3.1 Overview of the value chain and business model

iSchool manages production, distribution and retail sales in the value chain (Figure 6). In order to improve the affordability of tablets and achieve scale, it is partnering with various organisations around the globe to cut down on its cost base and develop sustainability features like community apps and adult learning material which will help schools generate income to fund the ZEDuPads.

iSchool’s diverse product range ensures it caters to a range of audiences and the provision of solar power ensures iSchool’s reach to the remotest parts of Zambia. The ZEDuPads and other accessories are sourced from China. The content, developed in-house, is then loaded onto the tablets, and locked to a unique identifier on each ZEDuPad to avoid theft. The tablets are then distributed to schools (BoP consumers) and individuals through a network of iSchool sales agents, an iSchool flagship store and through its various distribution partners.

Figure 6: iSchool value chain



At iSchool’s core is the development of the e-learning content called the ‘Total Learning Environment’ (TLE). The TLE is designed to provide:

- Detailed lesson plans for teachers for 5,500 primary level lessons
- Interactive and localised audio-visual material for students for 12,000 lessons in eight Zambian languages as well as English
- A one-year teacher training course (three days face-to-face, then on the tablet via remote mentoring) promoting active child-centred learning.

The central character in all grades and lessons is a girl named ‘Precious’ who grows along with the children each year. This helps children to relate with incidences and remember more.

“Children wash hands before meals now as Precious fell ill when she didn’t wash her hands.”

Ms Neely Ziwa, Grade 2 teacher, Lumono private school, Lusaka

Once schools buy the iSchool products, their teachers are trained on how to integrate e-learning into their classroom. There are four planned lessons per day. The recommended approach is that the teachers follow the prescribed lesson plans and use iSchool tablets for every alternate lesson in each subject. A class using the ZEDuPads would be divided into three groups, with only one group using the ZEDuPads at a given point in time and two students sharing one device. While fieldwork suggested that there is variation in how teachers implement the model, the key point is that in an average class size of 30, only five ZEDuPads are needed.



Illustration of Precious

The school version can be bought by schools through the following means (single or combination):

- Parents can bear the cost directly. This is possible in the case of private and (well-off) community schools that are allowed to charge parents a fee.
- Financing partners (e.g. UNICEF, Natsave) can help subsidise the cost of the tablets for the schools.
- The school can generate income using the new sustainability features (Box 2). Local users can be charged a fee to access these applications, which can partly fund the cost of the ZEdupads.
- Parent Teacher Associations can fundraise.



Using the ZEdupad in rural Zambia.

The teacher version can be bought individually by teachers or by schools as a part of the entire iSchool package. The ZEdupad home version, primarily targeted at non-BoP customers, can be bought directly by individuals. Apart from being a source of revenue, the home version is also expected to provide the necessary leverage and publicity needed for schools and the government to adopt the school version.

iSchool's sustainability features

- **iHealth:** Builds local capacity and develops skills of community health workers through interactive lessons and games based on provision of first-aid and other prevalent diseases.
- **iFarm:** Provides key information to small-scale and subsistence farmers on all major livestock and crops in order to enhance productivity and diversity of crops.
- **Adult Learning:** Creates financial and business literacy and furthers e-government initiatives. Interest has already been shown by the Bank of Zambia (Central Bank), the secretariat for the Financial Sector Development Programme (FSDP) under the Sixth National Development Plan (SNDP), which focuses on improving financial literacy as one of its key priorities.

Box 2

3.2 Partnerships

At each step of the value chain there are key partnerships which are critical to the success of iSchool (Table 4). One of the most important partners of iSchool is the Ministry of Education, which has signed an MOU endorsing iSchool and allowing it to operate in government schools.

iSchool is also in the process of securing partnerships with various other organisations, including:

- **Commercial investors:** Appropriate investors are being sought to provide both capital and entry into other markets outside Zambia.
- **Major computer manufacturer:** A major computer manufacturer has shown interest in making the equivalent of the Intel Classmate. A version of the e-learning content has already been developed to suit the hardware requirements.
- **Companies having reach in the rural Zambian market:** iSchool plans to reach out to companies like Coca Cola and some mining companies and offer them advertising options on the ZEdupad in order to make the purchase price of each ZEdupad more affordable.

3.3 Pricing and margins

“The pricing of iSchool is not so much about profitability than about sustainability”

Daisy Kopolo, Business Development Manager, iSchool

Costs to a school depend on the number of pupils and equipment needs, and particularly whether solar power is needed. As copies of invoices in Annex 3 show, for schools with 25 ZEdupads the costs could be nearly 40 per cent higher (or an additional \$2.46/child/month) if solar power is needed. Regular content updating will be provided free of cost to existing ZEdupad owners.

The main source of revenue for iSchool is the ZEdupad. On this (student version), a gross margin of 120 per cent (double on the teacher version) is charged, which is the main source of income to cover company staffing, overheads and the cost of curriculum development. This means that iSchool needs to reach sales of around 100,000 ZEdupads simply to generate positive returns.

Table 4: iSchool's partners

Stage	Role	Partners	Details
Production	• Flash content development	• Ador	• A team of developers working remotely from Croatia
	• Voice recording of content	• Ministry of Education (Education broadcasting services EBS)	• Content recording is done in one of the EBS recording studios
	• Community app development (iFarm and iHealth)	• Zambia National Farmers Union • University Teaching Hospitals (UTH) • RTI International • BongoHive/Zamrize	• Sourcing data and information and software app development
Distribution	• Marketing Agency	• Kabili	<ul style="list-style-type: none"> • Contract signed to purchase 449 ZEdupads in the first round. These will be used in 5 schools in the western province of Zambia. It will be extended to 7 schools in stage 2 of the pilot • iSchool will also provide teacher training and M&E • Agreed to provide schools with loans of up to \$60,000 for a maximum of 36 months at 30% rate per annum to purchase ZEdupads • The intention is to pilot in a few schools before rolling out countrywide. countrywide • MOU signed • An insurance company that is ready to underwrite the loans which iSchool or the schools might need. ASII will charge 3% interest on the insurance coverage • iConnect will offer the content for free and pay iSchool a subscription fee • For international users, there is a server in UK with a PayPal front end to sell subscriptions
	• Financing partners to reach BOP schools	• UNICEF	
		• National Savings and Credit Bank (NATSAVE)	
	• Internet	• ATII	
• iConnect			
	• Paypal		
Retail	• iSchool store	• iSchool flagship store	• In an upmarket mall called Manda Hill in Lusaka. The rent for this store is \$70/sqmt. and amounts to \$3700/month
	• Supermarket	• Pick n Pay stores	• 8 Pick n Pay stores across Zambia will stock the ZEdupads and charge a 15% commission
	• ISPs	• iConnect	• Currently 25 stores across Zambia. These stores will also serve as centres to update the content. iSchool has already received an order of 500 ZEdupads from iConnect

3.4 Challenges and risks

iSchool has faced and overcome many challenges and mitigated various risks since its inception, and through the continuous refinement of its business model it has

been able to realise its commercial launch. But still some key issues remain and iSchool is working hard to find ways and means to overcome these, they are detailed in table 5 overleaf.

Table 5: iSchool's business challenges

Challenge	Details	How iSchool is addressing
Demand	<ul style="list-style-type: none"> • Need to realise sales of approximately 100,000 ZEDuPads in order to generate positive returns by 2017 • Affordability: Only a small proportion of the Zambian population can afford the \$220 ZEDuPad unless the cost is subsidised by an external organisation or appropriate access to finance is offered 	<ul style="list-style-type: none"> • Investment in marketing • Home version has been added to the product offering, targeting primarily middle class customers; this will enable quicker revenues and also have positive demonstration effects • Sustainability strategy to help schools self-finance iSchool via fees from apps • iSchool is working on setting up a finance company specifically to offer low-cost credit with minimal collateral
Regulatory/ Policy	<ul style="list-style-type: none"> • iSchool cannot charge children in government schools as it is not in line with the 2011 political pronouncement of free education • Expected changes in the curriculum (2014) will require further investment in content • Better collaboration with MOE to reach govt. schools is needed. Currently there is no internal champion for iSchool at MOE 	<ul style="list-style-type: none"> • Partnerships with external organisations (e.g. UNICEF) are established to target government schools • Content updates are considered in the business plan • Focus on relationship building with the MOE
Monetary	<ul style="list-style-type: none"> • Access to capital: Banks are not ready to lend to a Zambian start-up with less than three years of audited financials • Working capital constraints: includes difficulties in covering on-going staff costs for senior management, high minimum order requirements for ZEDuPads, outstanding repayments for VAT from the government 	<ul style="list-style-type: none"> • Opportunities for other funding sources (e.g. donor funding) are being explored • A transparent and open relationship with all staff members is adopted; senior management has agreed to pay cuts leading up to the commercial launch • iSchool has moved from being 'VAT exempt' to being 'Zero rated' according to the latest Zambian budget, and therefore does not need to charge VAT at point of sale
Scalability	<ul style="list-style-type: none"> • Reach the BOP: Finding financing partners to subsidise costs to government and community schools, and donor agencies that cover the entire Zambian BOP market • Geographical expansion: Finding partners and investment to scale beyond Zambia 	<ul style="list-style-type: none"> • Focus on Zambia-wide partnership brokering • Development of low-cost finance solutions • Plan for expansion in other countries
Operational risk	<ul style="list-style-type: none"> • Quality Control: Need to ensure quality of content, quality of distribution agents and quality of the teacher training module. Also, sourcing products on time and at the desired quality from places like Croatia and China • Capacity Building: in the areas of teacher training, sales and distribution agents and M&E 	<ul style="list-style-type: none"> • M&E activities (annual surveys with teachers, students and parents) have been a core component of the pilots; continuous focus and investment on M&E is part of the business model • All budget lines have been considered in the business plan
Social	<ul style="list-style-type: none"> • Changing mindsets of teachers (who are key to the adoption of iSchool) is a complex and long process. Research has shown that a lot of handholding is expected amongst user schools 	<ul style="list-style-type: none"> • Three day face-to-face training with continuous support available (phone help centre at iSchool office and regular visits as required) is standard for all iSchool packages
Monitoring & evaluation	<ul style="list-style-type: none"> • Attribution: How does one attribute the improvement in children's learning outcomes to the use of iSchool versus other external factors? • Presently iSchool uses USAID tests to gauge performance up to Grade 3. But there are no standardised tests in the market to gauge performance beyond Grade 3 • Significant impact on students will probably be seen after Grade 7, which means a long gestation period for iSchool. 	<ul style="list-style-type: none"> • Addressed through qualitative surveys in which people are asked what has contributed to the improvements, and by using control groups • Significant investment in tools to assess impacts and marketing efforts to build trust in the market • As there was no standardised test for critical thinking for children below Grade 5, iSchool wrote their own, and so will also develop reading and maths tools for Grades 4 to 7.

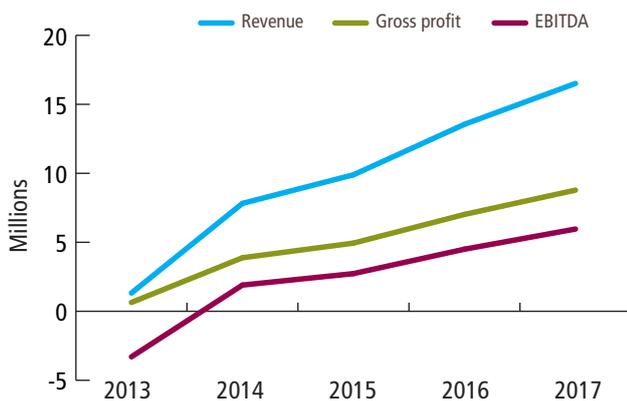
4 Commercial results

- > In total, \$5.2million has been invested in iSchool prior to commercial launch in September 2013.
- > iSchool expects to generate positive returns in 2017 with approximately 100,000 ZEDuPads sold.

To date, approximately \$5.2m has been invested into iSchool. This includes \$3.2m of the founder's own capital as well as a \$2m equity investment from a Trust. At the time of writing this report, iSchool had not yet launched and no sales have been made, but it has a confirmed an order from UNICEF worth \$253,466 which mainly includes ZEDuPads, teacher training and M&E.

iSchool's main product is the ZEDuPad on which it will make most of its profits. The other products will be sold almost at cost price with negligible margins. Based on projections for Zambia only (not considering potential expansion to other countries), iSchool's revenue is estimated to increase rapidly to \$7.8m by 2014. Operating expense will decrease that same year due to the fact that content development will be completed by then, and the business will generate a net profit of around \$2-6m per year starting in 2015. iSchool is front loaded on investment and has a very slow return on investment (ROI) which the management is aware of and prepared for.

Figure 7: iSchool's financial projections from year 1 to year 5



Notes:

- Projections are based on assumptions on ZEDuPad sharing ratios (10:1), teacher ratios and average number of pupils in schools.
- 2013 figures are based on estimates for first 5 months of the year only.
- The ZEDuPads are expected to last 2.5 years after which there will be a repeat sale starting in 2016.
- iSchool has an investment license as a private company working in the education sector which offers it a tax waiver of 5 years.

Table 6: Summary of commercial results

Commercial returns	Financial	Strategic
Company objective	<ul style="list-style-type: none"> • Positive returns in 2017 by reaching 100,000 ZEDuPad sales • \$6 million p.a. earning projected for 2017 • IRR not defined 	<ul style="list-style-type: none"> • Reach 162,531 beneficiaries by 2017 • Expand beyond Zambia • Commercial launch scheduled for late 2013
Progress to date	<ul style="list-style-type: none"> • Total investment over \$5.2m to date 	<ul style="list-style-type: none"> • Close to having developed the content for Grade 1-7 • Formed key partnerships to scale within Zambia and beyond
Trajectory going forward	<ul style="list-style-type: none"> • About to launch commercially 	<ul style="list-style-type: none"> • Expand the iSchool product offering to tap new markets in Zambia • Scale to other countries in Africa
Key challenges	<ul style="list-style-type: none"> • Sales growth • Cost reductions • Access to capital 	<ul style="list-style-type: none"> • Finding potential financing partners to reach BoP in Zambia • Finding suitable partners to expand beyond Zambia

“It might be a year or two before somebody wakes up and says ‘this is working’.”

Mark Bennett, Founder-MD iSchool

5 Development impacts

> 70 per cent of the total ZEduPad sales are projected to come from the BoP market.

> Pilots are showing positive impact of iSchool on students' aptitudes in reading, math and critical thinking, as well as the benefits to the overall education environment.

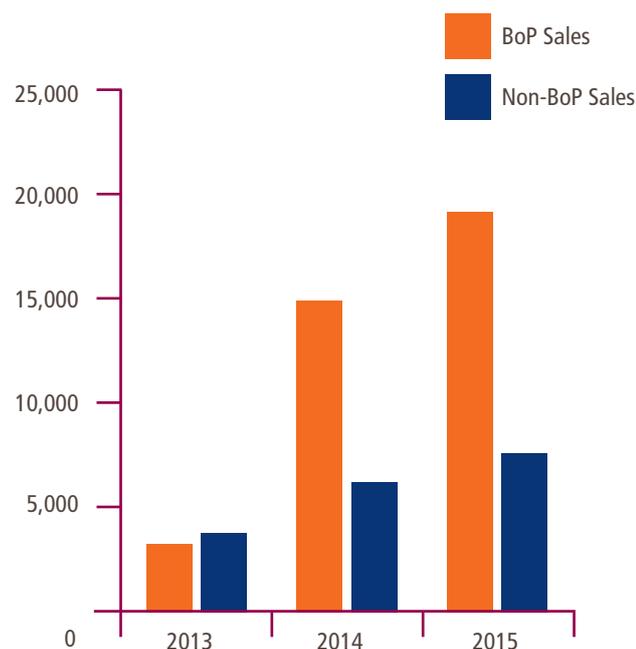
5.1 Direct impacts at the base of the pyramid

Who is benefitting?

Current beneficiaries include the teachers and students in pilot schools where the product has been provided free of cost by iSchool. Presently this number includes the 3,548 students and 25 teachers in Grades 1, 2 and 3 in the 17 pilot BoP schools. Of the 17 pilot schools, 16 are government or community and one is private.

Looking ahead, sales to BoP and non-BoP students are projected to be roughly similar and fairly low in 2013. Thereafter BoP sales should grow faster, reaching almost 20,000 units per year by 2015 (Figure 8).

Figure 8: BoP vs Non-BoP sales



In order to understand who counts as BoP in the context of iSchool, it is important to understand the poverty structure across Zambia. The Lusaka and Copperbelt provinces have much higher income levels than the rest of Zambia, which is mostly rural and much poorer. The real income per capita in 1996 for Lusaka and Copperbelt was \$472 and US \$329 respectively, whereas the next closest province was Luapula with an income of \$213.⁹

The Progress out of Poverty index¹⁰ was also used to gather information during beneficiary surveys, but was not found suitable to classify iSchool's BoP as most of

the research done was based in urban and semi-urban areas and the PPI Index does not differentiate between urban and rural populations.

Taking the above into consideration, inside the Lusaka and Copperbelt provinces, iSchool defines community and government schools as 'BoP', and all schools lying outside these provinces are classified as 'BoP' as well. Eighty four per cent of the 8,800 schools in Zambia are rural and hence fall under the BoP market (Table 7).

Table 7: Average fees across different types of schools

Type of school	% across Zambia	Average fees
Government	61%	No tuition, parents only pay uniforms and shoes (but most schools demand at least a contribution in kind)
Community	34%	Marginal fee, e.g. \$74/child/term in TICO Community School but many schools only charge a few dollars.
Private	5%	Fees ranging upwards up \$460/child/term

“These sort of schools [government and community schools] are the target market as this is where the maximum need is.”

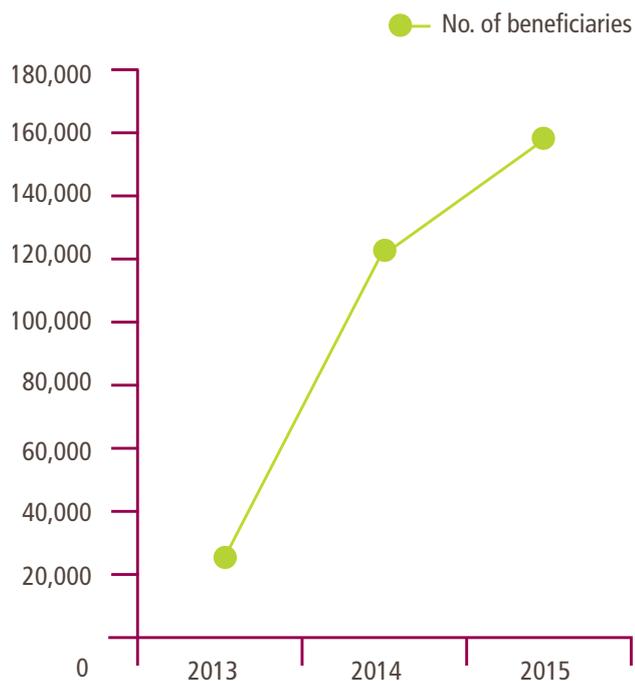
Mark Bennett, MD Founder iSchool

Figure 9 shows iSchool's projections for the next three years, with estimated reach to over 150,000 students in BOP schools by 2015. By 2017, iSchool aims to reach almost 1,500 of its 7,500 target schools. Based on an average of 360 students per school, this would mean over 500,000 beneficiaries at the BoP.

⁹ Jerker Carlsson, Patrick Chibbammullilo, Camilla Orjuela and Oliver Saasa, "A study of the poverty orientation of European aid to Zambia," ODI, 2000. <http://www.odi.org.uk/publications/2024-poverty-european-aid-zambia-study-poverty-orientation-european-aid-zambia>

¹⁰ The Progress out of Poverty Index® (PPI®) is a country specific poverty measurement tool. The answers to 10 questions about a household's characteristics and asset ownership are scored to compute the likelihood that the household is living below the poverty line – or above by only a narrow margin. Each answer is given a value, and the total value of all the answers is the survey respondent's PPI score. The PPI score is converted to a likelihood that the respondent's household is living below a poverty line

Figure 9: Projected Number of Beneficiaries at the Base of the Pyramid



While calculating the iSchool reach to BoP beneficiaries, individual sales (home version) and private school sales have been left out as it is assumed they will be to non-BoP consumers who can afford to pay the price of the ZEduPad themselves. It is important to highlight this caveat as this assumption could potentially lead to understating the number of BoP beneficiaries projected, especially as teachers teaching in BoP schools might be willing to purchase these ZEduPads individually for enhancing their chances at giving evening tuitions, a common trend in Zambia.

How do people benefit?

iSchool has been tracking students' performance since its first pilot and also has a control group with which to compare results.¹¹ Nevertheless, in trying to measure impact, especially of educational interventions, there is only so much that numbers can capture. It is difficult to measure the increase in confidence of children, for example. Educational interventions show clearer results after being in practice for a few years, so it is imperative to keep these caveats in mind while gauging the success of iSchool.

Table 8: iSchool's impact on three key dimensions

Dimension of Significance	Relevance	How it applies
Access	√	It is assumed that most students will already have access to education, but iSchool gives them new access to digital resources and use of IT.
Quality	√√√	Inquiry based e-learning content aims to encourage critical thinking in children and significantly improve the quality of education for students.
Affordability	√	Priced at \$220, iSchool content is unaffordable for a majority of the Zambian population unless subsidised by a third-party organisation or bought as a group/ community. The school version, where one device is shared on a 10:1 basis brings costs down to \$1 to \$2 per month if purchased on a credit facility over 20 months.

5.2 Impact on students

How iSchool measures impact on students

Children are gauged in reading ability, math and critical thinking. iSchool uses standardised USAID tests – Early Grade Reading Assessment (EGRA) and Early Grade Math Assessment (EGMA) – contextualised to Zambia to measure improvement in reading and math respectively. For critical thinking, iSchool has developed its own tool, as there is no standardised tool available in the market.

Box 3

M&E results for Grade 1 and Grade 2 students highlight the impact of iSchool through significantly higher scores of students using iSchool vis-à-vis non-iSchool students (Table 9). This data is compared with five control group schools not using iSchool. The control group schools have been matched on school type, location and number of teachers, amongst other parameters.

¹¹ The development impact is being measured across five of the seven pilot schools for teachers and students. Impact Network pilot schools have not been included in the evaluation study as there are other interventions going on in these schools which brings the question of attributing improvement in children's performance to iSchool solely.

Table 9: Impact results of iSchool students vs non-iSchool students

Grade	iSchool students	Non-iSchool students	Impact of iSchool
1 (after 1 year of using iSchool)	161	285	<ul style="list-style-type: none"> • Reading (EGRA) – 19% higher • Math (EGMA) – 14% higher • Critical Thinking – 9% higher
2 (after 2 years of using iSchool)	376	367	<ul style="list-style-type: none"> • Reading (EGRA) – 25% higher • Math (EGMA) – 7% higher • Critical Thinking – 28% higher

Software has been installed on tablets used for M&E work that allows EGRA and EGMA results to be taken directly from the tablets. The critical thinking tool and teacher survey have also been installed. This enables the students and teachers to take the tests directly from the tablet and avoid assessor vagaries.

The results in Table 9 also resonate with what was gathered during teacher and student surveys done by the research team. The majority of respondents pointed out that iSchool was most useful for languages and for encouraging critical thinking in children. Other focus groups have revealed improvements in school enrolment rates, pupil attendance, alertness, and creativity, and parental interaction with schools.

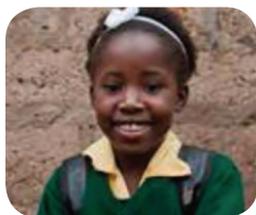
“I’ve never had a grade 2 class who can read before.”

Grade 2 teacher, Tico Community School, Lusaka

The long-term impact of iSchool on student grades remains to be seen, but will be key to ultimately defining the significance of iSchool to educational needs in Zambia.

Student Idah’s story

Idah (aged 9) studies in Grade 3 in the Kalingalinga government school. Her reading and math scores have increased by 80% and 281% respectively after using iSchool.



“When Idah comes home, she tells us things she learns and what she knows.”

Idah’s mother

Teacher Ms Fanny Zulu’s story

Ms Fanny Zulu has been using iSchool at TICO community school since two years and now teaches Grade 2 children. According to Fanny, teaching has become easier with iSchool and children now enjoy learning and discovering new things on their own.



“With Science, children can actually see the process. For example, children can now understand where a baby comes from and that a baby cannot be bought from a shop.”

5.3 Impact on teachers

“The problem with this, as with any M&E survey, there is only so much truth you can get from teachers especially when they know they are supposed to be teaching a certain way.”

Kristen, M&E head at iSchool

All teachers trained to use iSchool across the five pilot schools were a part of the M&E study, along with 25 teachers from the control group schools. Teacher surveys, classroom observations and focus groups were the tools used to measure impact on teachers. The results showed an increase in teacher attendance, interaction with pupils, and interest in teaching, as well as a decreased emphasis on rote learning.

Apart from the positive development impacts already noted, teachers also expressed some negative views about use of iSchool (Table 10). In some cases, the teachers themselves adapt the iSchool lesson plans, perhaps covering content more slowly than prescribed. In other cases, iSchool is aware of the issues and will build on them.

“Sometime the lesson plan advises to teach 5 alphabet sounds per day. We teach only 1 as otherwise the child will get confused.”

Ms Esther Malunga, Grade 1 teacher Kalingalinga government school, Lusaka.

Table 10: Critical feedback from iSchool teachers

Issue	How this is/can be addressed
Lesson plans are very prescriptive and specify what the teacher needs to do in each class each day	Teachers are free to adapt their teaching plans
Children write less in class which has negatively impacted the quality of their handwriting	In early years it is more important that children can understand and articulate their understanding, and writing skills will develop through this
Access to unsuitable content (if internet is available on ZEdupads)	Wifi is turned off in schools by default; content filters are installed on each tablet and each school has its own white list of internet sites
Content is developed by non-Zambian teachers and runs the risk of being culturally insensitive	All content is vetted by a team of Zambian teachers
Content has been the same for all schools (private, government and community), and does not take into account the differing skill levels in each	Updated content for Grade 1 has been adapted to suit different levels of student expertise

5.4 Potential for systemic impacts

The Ministry of Education’s ICT policy provides a clear and compelling roadmap to drive the use and development of ICTs in the delivery of education and training in Zambia¹², and the iSchool project is also in line with the MOE’s policy ‘Educating our Future’¹³. The stress on education – and eLearning in particular – is further demonstrated by the fact that Zambia is an active participant of the annual eLearning Africa conference. Once iSchool launches commercially and is successful, it could be a model that puts Zambia on the map for e-learning, helping iSchool to scale.

iSchool is targeting all schools in Zambia, and specifically government and community schools to reach the BoP. iSchool has also gauged the suitability of its content and devices for disabled and out-of-school children, which will expand its reach to new market segments in Zambia.

In the long run, iSchool aims to empower the whole community and revolutionise life in rural Zambia through:

- **Adult learning apps:** including iHealth, iFarm and other apps which are currently being developed.
- **Internet cafes:** a school with ZEdupads can make them available to the larger community during after-school hours, thereby enabling the community to access new information and opportunities.

Figure 10: The school as the centre of the local community



¹² “ICT policy Ministry of Education – Zambia,” IICD, 2004. <http://www.iicd.org/projects/zambia-MOE>

¹³ “ICT in the Zambian classroom,” IICD, May 2009.

6 Future outlook and lessons learned

6.1 Future outlook and potential for scale

iSchool's commercial launch in Zambia is a critical step for the company. Building on that, iSchool plans to expand its product offering and tap into new market segments by developing new content to engage the larger community and making iSchool more affordable to schools. Over the coming months, the company also plans to launch a fully functional call centre which will cater to technical and mentorship queries regarding the use of ZEDuPad and teacher training.

Despite challenges, content creation for Grades 1 to 7 of the Zambian curriculum is almost complete. The next step is capacity building in the areas of distribution, marketing, and monitoring and evaluation. Once there is extensive M&E data validating iSchool's impact beyond Grade 3, it will be much simpler to sell the iSchool model to donors and governments. The spread of low-cost smart phones and the availability of iSchool content on a 32 GB card will also help the company expand its reach.

Going forward, iSchool intends to leverage its success in Zambia to expand internationally. The next few countries on the company's radar are Malawi, Zimbabwe, Lesotho, Botswana, South Africa and the EAC.¹⁴ Lesson preparation, artwork and animations (which form the bulk of the costs for content development) can be reused in the African context. The company also estimates that approximately 70 per cent of the curricula are fairly similar within the region, further reducing expansion costs.

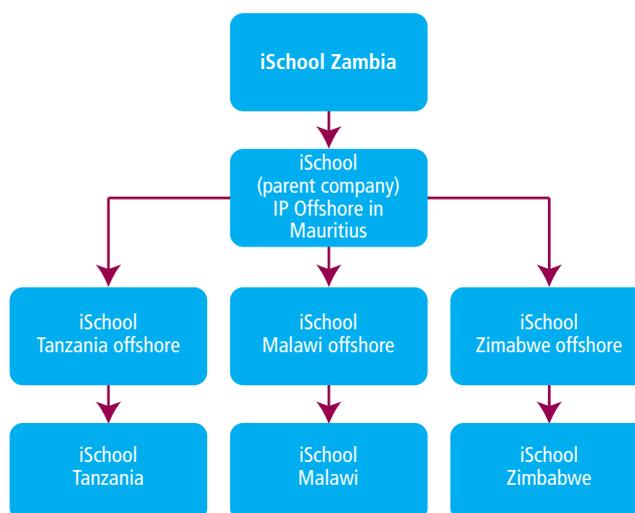
iSchool has three potential entry strategies into markets abroad: 1) Franchise model, 2) "Do it ourselves" model, and 3) Selling the IP license. Figure 11 illustrates how iSchool may be restructured if it pursues the third strategy.

6.2 Additionality of BIF support

BIF technical advisors helped iSchool collect and analyse data from its pilot, and develop a more robust inclusive business model capable of reaching commercial scale. By better understanding the market and customers it serves, iSchool was able to determine what variables played an outsized role in the model's potential success, and develop its product development, distribution, and retail plans accordingly.

Asked how iSchool would have done without BIF support, Clare Stead said, "We would have a LOT less detailed information. We perhaps would not have come up with some of the models that we have now".

Figure 11: Sample structure for international expansion



Many inclusive businesses, including iSchool, have a slow return on investment. BIF's strategic planning and operational support helped the company move further down the pathway towards financial sustainability, instilling confidence that on-going investment would yield returns.

6.3 Lessons learned

iSchool is an innovator in the e-learning space in Africa, and has had to create its own path that strikes the right balance between profit-making and having an impact. The iSchool team has refined the business model several times in order to make it commercially viable and inclusive at the same time. As it approaches the official commercial launch of the product, the company has some good M&E numbers from its pilot schools to attract potential partners, backed up by a strong and dedicated team being led by a successful entrepreneur. Though daunting challenges remain, iSchool has ambition – and the potential – to change the way education is delivered in Zambia.

Key to its success in increasing sales will be its ability to expand its reach to BoP schools through various partners, which has already started with UNICEF coming on board. The other critical partnership is with the MOE, which can expedite iSchool's reach to BoP schools, and give iSchool an official stamp which will make mass adoption easier. The potential for wider benefits to the larger community might also help iSchool scale in Zambia and internationally.

¹⁴ The East African Community (EAC) is an intergovernmental organisation comprising five countries: Burundi, Kenya, Rwanda, Tanzania, Uganda.

Lessons learned

The next few months will be critical in determining iSchool's future, both in Zambia and internationally. Along the pathway to commercial launch, the company has learned a number of lessons that may be applicable to other companies developing inclusive business models:

- **Financial sustainability takes time and effort:** What begins as a CSR initiative can indeed translate into a medium-sized and growing business – but in this case only after years of evolution, perseverance and partnership.
- **Internet-only models are not viable:** An ICT model based on Internet connectivity for rural schools proved to be too costly and unreliable, leading to the use of software loaded onto tablets.
- **Governments can impact finances:** Changing regulatory requirements have made it difficult to access capital, and iSchool is still waiting for a few permissions from the government such as VAT refunds and import duty waivers, which has increased iSchool's working capital requirements.
- **Market to the 'whole' pyramid:** In a model such as iSchool, where the overall mission is to reach BoP schools, selling products tailored to middle class consumers can be an important strategy for commercial sustainability. The tension between means and ends will need to be managed.
- **Tackle affordability on multiple fronts:** A range of options, not just one, are useful for increasing affordability for schools in low-income areas to afford iSchool. Technology that enables schools themselves to earn income has potential.
- **Success requires various resources:** Strong leadership, strong team ethos, multiple partnerships (particularly with governments), technical support, financial investment that does not require quick return, and a willingness and ability to adapt and trial the model have all helped iSchool succeed.

Annex 1: Case study methodology

Overview

The case studies were conducted using both primary and secondary data.

Primary data was collected during a 10-day field visit that took place from 20th July to 2nd Aug 2013 in Lusaka, Zambia, where iSchool is headquartered. The data was collected via:

- One-on-one discussions with 'beneficiaries', e.g. the students and teachers from four schools in Lusaka, Zambia.
- Semi-structured meetings with staff of the company. The common themes across all interviews with iSchool staff were challenges faced in their role along with the specific focus areas defined in Table 11 for all stakeholders interviewed.

There were specific questionnaires designed for each stakeholder but every attempt was made to have open-ended conversations. Discussions lasted approximately one hour on average, during which time participants were encouraged to candidly share their good and bad experiences with using iSchool.

Secondary data included:

- BIF documents: baseline reports, application forms to BIF, M&E reports..
- Desk research: study about the education landscape in Zambia – Political, Economical and Social, poverty levels in the area of study, and study of various competitor firms. This desk research was conducted before, during and after the field visit (i.e. in June and July 2013).

Strengths of this case study

- First hand seeing and understanding the context in which iSchool was being used.
- Speaking personally with various stakeholders helped.

Limitations of this case study

- Could not cover every one of the pilot schools in which iSchool was operating
- Could not interview parents of children using iSchool as it was difficult to get access to them
- Interviews were generally conducted in the presence of iSchool staff so it was a bit uncomfortable to ask freely about iSchool
- Most of the schools knew we were coming for interviews and hence were prepared. It would have been nice to have an element of surprise to better gauge the actual usage of iSchool
- Due to the limited depths and scope of data collection undertaken for this report, the nature of BoP level data is indicative
- This case study is based on information and discussion as of mid 2013. Although discussion of specific details has continued with key stakeholders in the process of finalising this report for publication in December 2013, it should be seen as a snapshot as of mid 2013.

Table 11: Focus areas for iSchool interviews

Stakeholder	Name	Mode	Interview focus areas
iSchool <ul style="list-style-type: none"> • Managing Director • E-learning Director • Translation Specialist • Finance Manager • Education Project Manager • M&E expert • Business Development Manager 	Mr. Mark Bennett Ms. Clare Stead Mr. Andrew Gray Mr. Joe Beale Ms. Maud Kamwengo Ms. Kristen Cockburn Ms. Daisy Kopolo	Face to Face	<ul style="list-style-type: none"> • Evolution of iSchool, current strategy and way forward • Development of e-learning content and teacher training • Understanding iSchool's org structure, development of e-learning content • iSchool's financial projections and pricing structure • Arranged school visits and information on translating and voicing the content • M&E processes in iSchool; impact so far • iSchool's scalability and monetisation plans
Beneficiaries <ul style="list-style-type: none"> • Students and teachers across 4 pilot schools Pilot schools <ul style="list-style-type: none"> • Kalingalinga government school, Tico community School, Lumuno private school and Kasisi community school 		Face to Face	<ul style="list-style-type: none"> • Seeing children and teachers use it in class • Understanding how iSchool is used, frequency of usage • PPI index
Financing Partners: <ul style="list-style-type: none"> • National Savings and Credit Bank • UNICEF 	Ms. Mary Munansangu Ms. Sera Kariuki	Email Face to Face	<ul style="list-style-type: none"> • Motivation of partners to invest in iSchool • Overall education landscape in Zambia • Reservations about the iSchool model, contract details.
Ministry of Education, Education Broadcasting Services	Mr Patrick Mwiya	Face to Face	<ul style="list-style-type: none"> • MOE initiatives, partnership with iSchool
iSchool's marketing agency	Kabili	Face to Face	<ul style="list-style-type: none"> • iSchool's target market, distribution channels and marketing message
DFID, Zambia	Ms. Tanya Zebroff	Email	<ul style="list-style-type: none"> • Funding priorities of multilateral organisations in Zambia • View on iSchool's business model

Annex 2: iSchool's product range

Table 12: iSchool's product range

Product		Price ¹⁵
ZEduPad 32GB Android tablet (home and school version) that includes all e-learning content in 9 languages, a 7 inch touch screen, 7 hours of battery life, and a case and headset		\$220
ZEduPad tablets for teachers loaded with all 5500 lesson plans and teaching material across grade 1 to 7		\$350
Computer charging cabinets to securely store and charge 32 tablets as well as batteries for the projector		\$750
Computer projectors – compact low power LED projectors that come with a battery		\$450
Netbook computer – for administrative purposes		\$324
Printer		\$185
Solar power		Price available on request
Individual portable solar power unit to charge one ZEduPad		\$75
Internet connection – no Internet required for ZEduPad but schools can get internet and access through the ZEduPad		Price available on request
Teacher training course – 3-day face-to-face introductory course, followed by a year-long computer based course with constant remote mentoring		\$160/teacher

¹⁵ In cases where Zambian Kwacha has been converted into USD, the following exchange rate has been used \$1 = 5.4 Zambian kwacha as of 22nd August 2013

Annex 3: Impact of solar on iSchool costs

Figure 12: iSchool costs with solar power for 250 children

Prepared for:	Typical Rural Primary School of 250 students (No ZESCO available)	Telephone:	
		Email:	

Reference	DESCRIPTION	PRICE ea	QTY	EXTENDED PRICE
Non Recurring Charges				
StuZ	Student ZEDuPads	ZMK 1,200.00	25	ZMK 30,000.00
TeaZ	Teacher ZEDuPads	ZMK 1,700.00	8	ZMK 13,600.00
Proj	Projectors + batteries	ZMK 2,500.00	4	ZMK 10,000.00
RTR	Wireless Broadband Router	ZMK 500.00	1	ZMK 500.00
Trol	Charging Trolley	ZMK 5,000.00	1	ZMK 5,000.00
CM	Classmate computer	ZMK 1,500.00	1	ZMK 1,500.00
Print	Printer	ZMK 400.00	1	ZMK 400.00
TT	Teacher training (per teacher)	ZMK 600.00	8	ZMK 4,800.00
Solar	Solar power equipment (per tablet)	ZMK 800.00	33	ZMK 26,400.00
	VAT on above			Exempt
TOTAL COST				ZMK 92,200.00

- Pricing in ZMK (rebased Kwacha)- quotation valid for 14 days
- Payment is strictly in advance.
- Equipment warranty is covered under the manufacturer's warranty.
- This proposal is subject to iSchool standard terms and conditions.

Figure 13: iSchool costs without solar power for 250 children

Prepared for:	Typical Rural Primary School of 250 students (with ZESCO)	Telephone:	
		Email:	

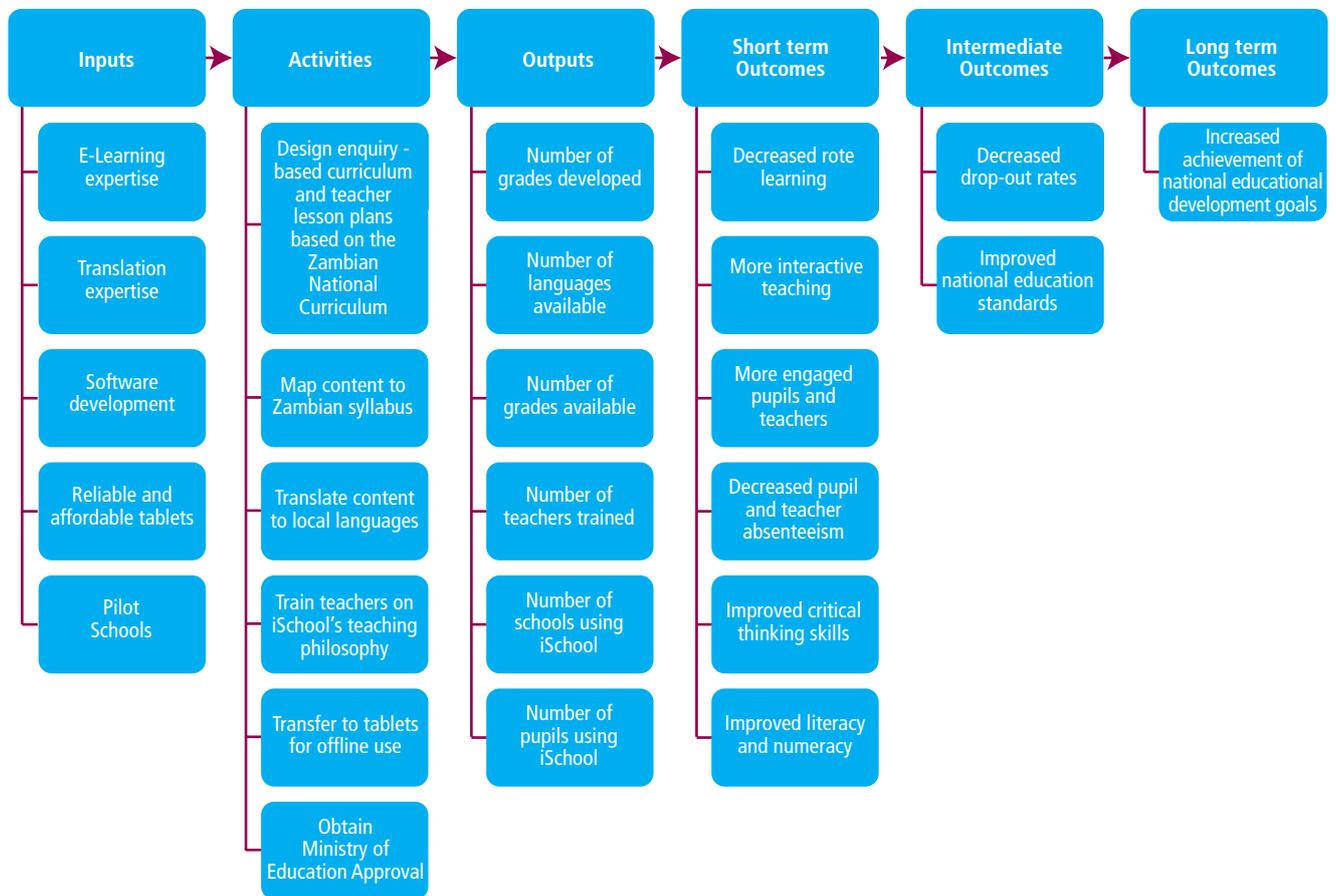
Reference	DESCRIPTION	PRICE ea	QTY	EXTENDED PRICE
Non Recurring Charges				
StuZ	Student ZEDuPads	ZMK 1,200.00	25	ZMK 30,000.00
TeaZ	Teacher ZEDuPads	ZMK 1,700.00	8	ZMK 13,600.00
Proj	Projectors + batteries	ZMK 2,500.00	4	ZMK 10,000.00
RTR	Wireless Broadband Router	ZMK 500.00	1	ZMK 500.00
Trol	Charging Trolley	ZMK 5,000.00	1	ZMK 5,000.00
CM	Classmate computer	ZMK 1,500.00	1	ZMK 1,500.00
Print	Printer	ZMK 400.00	1	ZMK 400.00
TT	Teacher training (per teacher)	ZMK 600.00	8	ZMK 4,800.00
	VAT on above			Exempt
TOTAL COST				ZMK 65,800.00

- Pricing in ZMK (rebased Kwacha)- quotation valid for 14 days
- Payment is strictly in advance.
- Equipment warranty is covered under the manufacturer's warranty.
- This proposal is subject to iSchool standard terms and conditions.

Annex 4: Logic model

The logic model drafted by iSchool summarises the company's activities and intended outcomes.

Figure 14: iSchool's logic model



Partner profiles

Business Innovation Facility

The Business Innovation Facility supports companies as they develop and implement inclusive businesses. Inclusive business is profitable, core business activity that also expands opportunities for people at the base of the economic pyramid: either as producers, suppliers, employees, distributors, or as consumers of affordable goods and services.

The Business Innovation Facility is a pilot project funded by the UK Department for International Development (DFID). It is managed for DFID by PricewaterhouseCoopers LLP in alliance with the International Business Leaders Forum and Accenture Development Partnerships. It works in collaboration with Imani Development, Intellectap, Renaissance Consultants Ltd, The Convention on Business Integrity and Challenges Consulting.

For further information on BIF go to: www.bifprogramme.org

To join the discussion on inclusive business, go to: www.inclusivebusinesshub.org



Institute for Development Studies (IDS)

The Institute of Development Studies (IDS) is a leading global charity for research, teaching and information on international development. Our vision is a world in which poverty does not exist, social justice prevails and economic growth is focused on improving human wellbeing. We believe that research knowledge can drive the change that must happen in order for this vision to be realised. IDS hosts six dynamic research teams, several popular postgraduate courses, and a family of world-class knowledge services. These three spheres are integrated in a unique combination – as a development knowledge hub, IDS is connected into and is a convenor of networks throughout the world.

The Impact and Learning Team (ILT) conducts action research to generate new insights into the ways that evidence is used in decision making in policy and practice, including the generation of multiple types of evidence and knowledge (from evaluation, monitoring, and research), and the behaviours and capabilities of decision makers in using evidence to contribute to organisational, programme and policy changes. The ILT is situated under the Knowledge Services department of IDS, and works collaboratively with the six research teams in the institute as well as external partners.

For more information about the Impact and Learning Team, please visit:

<http://www.ids.ac.uk/team/impact-and-learning-team>

For information about IDS research on business and development, please visit:

<http://www.ids.ac.uk/idsresearch/business>



Oxford University, Saïd Business School

Saïd Business School is one of the world's leading and most entrepreneurial business schools. An integral part of the University of Oxford, the School embodies the academic rigour and forward thinking that has made Oxford a world leader in education. The School is dedicated to developing a new generation of business leaders and entrepreneurs and conducting research not only into the nature of business, but the connections between business and the wider world.

For further information please visit: <http://www.sbs.ox.ac.uk/>

Skoll Centre for Social Entrepreneurship

The Skoll Centre is a leading academic entity for the advancement of social entrepreneurship worldwide that is housed in Oxford University's Saïd Business School. The Centre fosters approaches to market-based social transformation through education, research, and collaboration among business, policy, academic and social leaders

For further information please visit: <http://www.sbs.ox.ac.uk/ideas-impact/skoll>



About this series of case studies

The definition of inclusive business is fairly well known by now – profitable, core business activity that also expands opportunities for people at the base of the economical pyramid (BoP). But what does it look like in practice? That is a harder question to answer. Experience is diverse, much of it early stage, and published reports often err on the side of ‘cuddly’, not forensic.

This report is one of a series of ‘deep dive’ case studies that seeks to understand inclusive business in practice. The series explores contrasting inclusive businesses, all of which have been supported by the Business Innovation Facility (BIF). Support from BIF is not cash, but technical input to help overcome challenges, seize momentum, and build a business model that will take the inclusive business to scale and sustainability. The partnership with BIF is, thus, very focused on the practicalities of business models and identifying key milestones in an inclusive business journey.

Over the past three and a half years, BIF has worked with almost 100 companies in five countries. BIF-supported businesses offer rich lessons about the evolution and impact of inclusive business, ranging from working with smallholder mango farmers in Malawi to rural energy solutions in India. Some of this is captured in the monitoring and evaluation (M&E) system. However, the system was designed to be applicable to all projects, not necessarily to capture the richness of the most interesting.

In order to add a deeper understanding of BIF supported inclusive business, BIF, in partnership with the Institute of Development Studies (IDS) of Sussex University and Saïd Business School (SBS) of Oxford University, has generated a set of case studies of inclusive business.

Following a joint framework developed by BIF and IDS, these reports explore what counts as success and what factors have created it. They assess the internal and external context of a company’s business model, the ‘nuts and bolts’ of how the model works, actual or likely commercial returns, emerging impacts on bottom of the pyramid beneficiaries, value added from BIF support, key success factors for scale and lessons relevant for other companies.

We hope that the reports will provide inclusive business practitioners with knowledge and insights on how companies are progressing on their inclusive business journeys – each one distinctive, yet each discovering challenges and solutions that resonate with others.

Caroline Ashley and Carolin Schramm, BIF, Elise Wach, IDS and Pamela Hartigan, SBS

The full series of case studies:

- > ACI Agribusiness: Designing and testing an integrated contract farming model in Bangladesh
- > Collaborating for smallholder finance: How is Stanbic closing the loop?
- > Commercialising cassava: New opportunities for Universal Industries and Malawian smallholders
- > Evolution of mKRISHI®: A technology platform for Indian farmers
- > iSchool: Transformative learning in the Zambian classroom
- > MEGA: A commercial approach to off-grid power in rural Malawi
- > The JITA sales network: An inclusive business on the rise



The series was coordinated by Carolin Schramm, and edited by Caroline Ashley. The methodology was developed and shared with authors in collaboration with Noshua Watson and Elise Wach of the Institute of Development Studies. Editing was done by members of the BIF team and by John Paul, independent inclusive business consultant. The series Production Manager was Clare Convey, and design was done by Caroline Holmqvist.

We are grateful to the authors, contributors and companies who have provided the images used within these case studies. Images cannot be reproduced without their permission.

→ To view all case studies, go to **The Practitioner Hub for Inclusive Business:**
www.inclusivebusinesshub.org/page/bif-case-studies



The Business Innovation Facility (BIF) pilot project was funded by the UK Department for International Development (DFID), managed for DFID by PricewaterhouseCoopers LLP in alliance with the International Business Leaders Forum and Accenture Development Partnerships, and in collaboration with Imani Development, Intellectap, Renaissance Consultants Ltd, The Convention on Business Integrity and Challenges Worldwide. The views presented in this publication are those of the author(s) and do not necessarily represent the views of BIF, its managers, funders or project partners and does not constitute professional advice. BIF pilot ran from 2010-2013. Information on the next phase of BIF, since 2014, can be found at www.bifprogramme.org

We welcome feedback on our publications – please contact us at enquiries@inclusivebusinesshub.org