Report of the
Business Fights Poverty
Design Expo 2014
About Business Fights Poverty

Business Fights Poverty is the world’s largest community of professionals passionate about harnessing business for social impact.

We connect practitioners to the latest knowledge and peer insights, and to a vibrant community of stakeholders in business, government and civil society - helping them deliver their innovations at scale.

Our goal is to strengthen the ecosystem for businesses fighting poverty, to assist those developing profitable innovations with social impact to succeed at scale.

http://businessfightspoverty.org  |  @FightPoverty

About iDE

iDE UK (International Development Enterprises UK) is a UK registered charity and our mission is create income and livelihood opportunities for poor rural households in Africa and Asia.

We harness the power of markets to develop innovative technologies, services and business models that serve rural communities.

The use of business principles to integrate the rural poor into local markets and become micro-entrepreneurs is the driving idea behind iDE.

http://www.ide-uk.org  |  @IDE_UK
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Introduction

The Business Fights Poverty Design Expo 2014 in partnership with International Development Enterprises (iDE) UK and UK’s Department for International Development was a one-week online celebration of products, services and business models that are transforming the lives of poor people.

Drawing on the rich insights and practical examples shared during the Design Expo, this report provides:

- Insights from world-leading thinkers on designing for the BoP;
- Tips and advice from entrepreneurs behind BoP products and services; and
- Crowdsourced advice on key BoP challenges and opportunities.

From 9 to 13 June, the Design Expo brought together around 40 bloggers, 40 panellists in a series of 9 online events, and 40 products in a virtual exhibition. With over 1,500 participants, from the private sector, civil society and government, and close to 400 comments, the Design Expo generated a wealth of insight on how innovative design can make an essential difference to the lives of people living in poverty. The week’s agenda, a list of contributors and all the showcased products can be found at www.designexpo.businessfightspoverty.org

Each day of the week focused on a different sector: energy; health; communications; livelihoods (enterprise, finance and agriculture); and water and sanitation (WASH). Across these sectors there is a huge range of life-changing products and services needed by more than a billion BoP consumers worldwide, and many were showcased in the virtual exhibition.

This report distils the week’s conversation - spanning topics such as transforming energy access; developing innovative business models that can help achieve health outcomes at scale; how mobile phones are benefitting people at the BoP; which models are having a real impact on the livelihoods of people at the BoP; and how WASH products and services can scale while being appropriate for the local context. The report also picks up on the week’s big cross-cutting themes: the business models behind the bright ideas; successful last mile distribution; and successful product and service design.

Part I of the report outlines the central approach to designing for the BoP: understanding the consumer and their context, while building a profitable and scalable business. Part II looks at approaches to business models, including innovative distribution channels, and product and service design. Part III concludes by summarising key lessons for designing for the BoP.

The aim of this report is to inform and stimulate further debate. We are grateful to all those who participated in the Design Expo – from the online discussions and Google Hangouts, to the Twitter Jam and the virtual exhibition. Please continue to share your knowledge, advice and examples through the Business Fights Poverty community at www.businessfightspoverty.org
I. Approaching Consumer-Based Design

"If you really have the ambition to deal with poverty you need products and services that are needed by a billion people or more."
Mal Warwick, Co-Author, The Business Solution to Poverty

Insights from Design Expo 2014 on how to approach consumer-based design, build meaningful partnerships and sound business models is briefly explored in this first section of the report.

1. THE APPROACH

Nearly three billion people are feeling the effects of poverty worldwide; 2.7bn are living on less than $2 a day in environments where opportunities to increase incomes are limited; there are 1.1bn people without access to any safe water supply; 2.6bn without adequate sanitation; 1.3bn without access to healthcare and 1.3bn without a reliable electricity supply.

Mal Warwick, Author, The Business Solution to Poverty, urges us to "Think Big!" to tackle the problems of global poverty: "if your aim is to truly make an impact on poverty – that is on the 2.7bn people living on less than $2 a day – you have to be looking at meeting needs at this scale."

Warwick’s corresponding business case is if you create something that is needed by a billion or more consumers, you could realistically "aim to meet 10% of that market." Erik Simanis, Managing Director, Market Creation Strategies, Cornell University also reminds us that in BoP markets, you need to be operating on this scale because; "price points and margins will be lower."

To effectively approach the needs of the BoP market you need to first engage and above all says Mal, ‘Listen!’ The elements in the approach – called ‘zero-based design’ particularly resonated across all sectors in the Design Expo, summarised in Diagram 1.1.

IDE and IDEO.org for instance, use a ‘human-centred design’ to approach innovation – putting both men and women users at the heart of the design process. The result is essential products - such as SuperTunsai water filters and EasyLatrine -that also draw aspirational value.

LISTEN!

"We always start with understanding the people involved and the context of a problem before identifying concepts and opportunities for design. We then quickly move to building prototypes and testing our concepts in the community to receive feedback and iterate until we come to a solution.” Smartlife Showcase

Super Tunsai is an aspirational $36 remodel of a basic ceramic $18 water filter, the Tunsai, from iDE Cambodia. IDE’s Mike Roberts in the ‘Successful Product and Service Design’ Google Hangout explained that consumer input into their products is continuous; iDE expand on their design on the basis of consumer input and then refocus again on the consumer several times along the project chain. He also advises practitioners to look at the entire ecosystem, rather than just focusing on the design of a product, saying; "first find what is desirable... then feasible... then viable."

In designing the model iDE found that customers valued the ceramic water filter because of its familiarity but found it; “ugly: it needed to be more aspirational and aesthetically pleasing”, says Roberts. They built this and other feedback into the design – such as the need for space to store cups. The new model was the same technologically, but with plastic casing and cup storage. Given the option between the two designs, when credit was available, nearly all customers chose the more aesthetically pleasing version, even though it was double the price. “The poor are not looking for the lowest cost but also for aspirational qualities,” says Roberts. Across Cambodia 340,000 filters have been sold with an impact on over 1.25m people, according to the SuperTunsai Design Expo showcase.

In the case of EasyLatrine consumer input leading to innovations such as self-installation and home-delivery by producers helped reduce the cost of a unit by more than half, saving on labour and side-stepping transportation challenges; it enables 600,000 people in Cambodia access to sanitation.

Jack Sim, Founder of BoP World Convention & Expo and Founder, World Toilet Organisation, makes an insightful comparison when talking about desirability between their toilets and a Luis Vuitton bag. To paraphrase Sim; “the same decision making process, rational (affordability, use, durability) and emotional (pride, respect, status) takes place in the consumer.” To reach the BoP consumer you must have a combination of push and pull factors, as you would with any other consumer group. This is encapsulated in Sim’s advice that you should; "market your product as a rich man’s product not a poor man’s."

2. THE CONSUMER

"Keeping the context in mind and being adaptable is crucial."
Davinia Cogan, GVEP International

"One of the greatest challenges is to fully understand the spectrum of contexts."
F. Conor Riggs, iDE Bangladesh

All the designs in the Expo address multiple issues based on consumer and contextual insights, the image below shows just one example of isolated insights that have directly translated into product design.
Saajhi - a stepping pump from Xylem which is designed to be small, with a built-in transport design and easy maintenance focused its design process on usability thereby reducing labour time by 25%.

Power Banks - a solution from SVTP to irregular electricity supply that can fit in a pocket is ultra-slim and a product `customers would be; “happy to carry every day”.

Practica - provide well-drilling capabilities where groundwater is the only water source. Where other similar products had failed to achieve scale in Africa, including a capacity building toolkit along with the product (complete with training & product manuals) has, amongst other innovations, helped uptake.

Baramed - provides financial services through mom & pop stores close to homes in low-income communities. It chose iPad tablets as the interface of choice due to their universal usability.

Frontline SMS from SIMLAB is a communications solution for the last-mile, downloaded 200,000 times in 199 territories. It did not "start with the technology and hope for broad adoption" but rather built its business model on "empowering last-mile users", with a "focus on distribution over innovation."
INSPIRE - a portable diagnostic aid; “that enables healthcare workers of all levels to perform an accurate respiratory and vitals examination in one minute for local and remote diagnosis. Its proprietary sensor array analyses all vital body measurements isolating one vital variable against wellness protocols to signify illness indicators. Users can now use protocols not available without a health professional present, reducing personnel and operational costs.”

The Universal Anaesthesia Machine (UAM) - a hybrid general anaesthesia machine from Gradian, addresses hospital infrastructure constraints: it is “designed to function with or without electricity and compressed oxygen.” Training is essential for effective treatment; and in using UAM and Gradian spends more on this than on the components.

Pay as you go and pay per use is relatively developed in East Africa and India. “In Sunny Money we saw how entry level Solar lights and (entry-level) Pay-As-You-Go or Pay-Per-Use solar products have a strong potential in extending energy access among the low-income population in developing countries,” says Vincenzo Capogna. Sunny Money run education programmes as a means to reach communities, particularly women, on money saving benefits alongside the introduction of the PAYG product. Davinia Cogan, GVEP International says that; “the next PAYG tech revolution may be in regard to cook stoves” and “there is a largely untapped potential for other appliances such as refrigerators.”

The Crapper (Compact, Rotating, Aerobic, Pollution Prevention, Excreta Reducer) - from Toilets for People is an hygienic toilet, designed to be simple to use, maintain and repair: all replacement parts are available locally – they “can be found in any developing country hardware store.”

BB17 - BBOXX designed this product where technical problems can be identified before they happen and can be repaired remotely, making the most expensive component - the batteries - last longer. (see box 1.1 below)
### Durability

<table>
<thead>
<tr>
<th>Durable alternatives</th>
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<tbody>
<tr>
<td><strong>Gravity Light</strong> is a lighting solution that uses kinetic energy so unlike alternatives such as solar it does not have batteries that degrade with storing.</td>
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<table>
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<tr>
<th>Durable alternatives</th>
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<tr>
<td><strong>Solar Phone Charger</strong> - from SVTP is optimized to survive years in a rugged environment and 13,000 have been sold in West Africa since 2013. Addressing the problem that; &quot;Mobile phones have become ubiquitous in developing countries over the last decade, but lack of access to electricity holds back their potential in many areas.&quot; It includes seven adapters and a two-meter USB cable for convenient charging. Its portable design makes it possible for the charger to be carried in a pocket, and its high-quality and affordable price create an exceptional value.</td>
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### Building Trust

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<th>Financing</th>
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<tbody>
<tr>
<td><strong>The Greenway Smart Stove</strong> from Grameen - a safe efficient alternative to traditional cook stoves - work with MFIs &quot;to enable easy instalment based payments for our customers&quot;. Over 120,000 are currently in use.</td>
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</table>

### Behaviour Change

<table>
<thead>
<tr>
<th>Based on existing behaviour</th>
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<tbody>
<tr>
<td><strong>KARIBU</strong> is a business-in-a-box lighting kit. It is a solar power solution that is provided from stores where consumers already purchase the traditional alternative, kerosene. (see box 1.2 below)</td>
</tr>
</tbody>
</table>

Source: Design Expo online discussions & google hangout, Twitter Jam | Design Expo Showcase Online Exhibition
BOX 1.1: BBOXX - BB17 SMART

The BB17 SMART internet connected solar kit from BBOXX combines multiple technologies into one product; it uses PV and sealed lead-acid batteries to generate and store energy; includes a GSM modem, USB for charging phones, an intelligent charge controller and a remote battery monitoring system.

BBOXX highlight that combining technologies makes it easy to use by the consumer, sales teams and technicians who interact with it. Importantly, it keeps costs down to match alternatives already used and provides the financing to afford the product.

The following excerpts from the BB17 SMART showcase give a brief overview of their model and lessons learned.

Business Model: Key Elements

— The BB17 SMART payment plan is spread over three years; "bringing the monthly cost down to be comparable with or less than carbon based alternatives such as kerosene or diesel generators."

— Very low default rates are attributed to a high level of service; "we have built a network of distribution and service points in order to provide this level of service close to our customers."

— "Remote deactivation and remote monitoring is essential in order for BBOXX to create a feasible and cost-effective business model that can be backed by institutional investors."

Lessons Learned

"BBOXX has learnt a lot during development of the BB17 SMART. The first lesson was the importance of designing a product to meet the need of not only the end customers but also the other stakeholders such as the local technicians, sales people and distributors.

A second lesson that has been learnt is the importance of customer service, something often missing in this industry. We aim to provide enough energy to cover more than the essential needs and with reliability equal to the standard that would be expected in developed countries. We have built our own distribution and service centres in the heart of the villages where our customers are in order to provide this level of service."

Source: BB17 SMART Showcase, BBOXX, Design Expo 2014
Designing products based on the women and men that make up the consumers, sales people and technicians in the chain can be straightforward once a process is in place to capture their feedback. Yet one main challenge highlighted throughout the Design Expo is how to truly understand the whole range of contexts impinging on interaction with these groups.

One main element of this is adapting locally to the activities of other actors in that space as highlighted by F. Conor Riggs, iDE Bangladesh; “at iDE we focus on a high degree of contextualization of the technical strategy and the approaches utilized to achieve results in WASH. But it isn’t easy to connect the dots between wildly different market contexts with highly differentiated private, public and development sector players and conditions…”

"come to the solution together."

Building public-private relationships often proves valuable in aiding adaptation to the needs of local men and women. Jack Castle from Living Goods, a healthcare access initiative which has delivered over 563,000 treatments to date, thinks that “this public / private relationship is incredibly important for LG (Living Goods) to have impact.”

Similarly, ColaLife has found multi-sector partnerships a major component of their success; citing this as their principle lesson learned from the KitYamono design and trialling process.

"don’t go in with ‘a solution’-start with ‘a suggestion’ and invite commitment and challenge."

KitYamono, an attractive anti-diarrhoea kit has evolved through an a partnership approach that gathers outside of the traditional standard PPP remit and brings unlikely partners together. Over 26,000 kits were sold in one year of trials in two very remote rural areas and over 90% of customers used all three components in the kit; ColaLife estimate that one child’s life was saved for every 330 kits sold.

ColaLife has been able to successfully build this partnership by physically putting these wide range of stakeholders in the same room to, as ColaLife’s Simon Berry stresses; “come to the solution together.” Berry advises; “don’t go in with ‘a solution’-start with ‘a suggestion’ and invite commitment and challenge.” Trial partners in Zambia included Ministry of Health, UNICEF, Medical Stores Ltd, the local Coca-Cola bottler SABMiller, local NGOs Keepers Zambia Foundation and iDE, packaging experts PI Global, and the local manufacturer, Pharmanova. Trial funders included the UK’s Department for International Development, Johnson and Johnson Corporate Citizenship Trust, Janssen EMEA and COMESA.

The table below compiles the most common areas identified throughout the week’s discussion in which governments could help businesses meet the needs of poor people along with some essential elements for success in relationship building.


### Lessons Learned - Public-Private Relationship Building

<table>
<thead>
<tr>
<th>What Governments Can do</th>
<th>How to approach public-private relationship building</th>
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<tbody>
<tr>
<td>Enable doing business- e.g. reduce red tape and time-frames for standard processes- start-up, registering a business</td>
<td>&quot;It's important to be realistic about the context and by reducing red tape we can allow users to make their own decisions, rather than be distorted by government agendas.&quot; - Divinia Cogan, GVEP International</td>
</tr>
<tr>
<td>Enable market efficiency- for market based approaches</td>
<td>Articulate the win-wins</td>
</tr>
<tr>
<td>Enable systemic efficiency e.g. Health systems need to be efficient as part of a ‘continuum of care’</td>
<td>Prove added value- Data is your ally</td>
</tr>
<tr>
<td>Build incentives for particular products- e.g. favourable VAT</td>
<td>Look for the wider benefits- not just the benefits to the end user, such as less loss of productivity in Health &amp; WASH</td>
</tr>
<tr>
<td>Reduce barriers for particular products- rework protection- ists concepts</td>
<td>Go in with attitude of partnership building not trying to sell a solution</td>
</tr>
<tr>
<td>Gender neutral policies  e.g. Equal land ownership</td>
<td>Be aware of logical gender issues e.g. how not to harm women with potential backlash</td>
</tr>
<tr>
<td>Awareness raising e.g. Cost benefits alternative energy, health &amp; sanitation issues</td>
<td>Take a long term approach not just a one-off meeting</td>
</tr>
<tr>
<td>Regulatory certainty- creating incentives then removing them for instance builds regulatory uncertainty</td>
<td>Factor relationship building into your design and costs</td>
</tr>
<tr>
<td>Know when to ‘back-off’ and let the market do its job</td>
<td>Build relationships at all relevant levels of public bodies not just central government</td>
</tr>
<tr>
<td></td>
<td>Be flexible</td>
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Source: Summary of main issues mentioned in Design Expo 2014 online discussions and google hangouts.

### 3. THE BUSINESS MODEL BEHIND THE BRIGHT IDEA

"One of the main challenges faced by innovators in implementing their revolutionary products or business models is the multitude of local and regional contexts that make it difficult to apply a one-size fits all implementation plan."
Morgane Danielou, Farming First

"The main challenge we face is building a business that can scale."
Mike Quinn, ZOONA

"The challenge is how to build a business model that has a high contribution per transaction."
Erik Simanis, Managing Director, Market Creation Strategies, Cornell University.
Big, bright ideas by themselves will not get a product, service or business very far in terms of reaching the BoP and particularly in terms of reaching the BoP profitably. Erik Simanis, Managing Director, Market Creation Strategies, Cornell University, stressed that sound financials are essential, starting with the business unit.

This becomes painfully evident when trying to obtain financing. Mal Warwick, with experience both as an impact investor and social entrepreneur says; "Investors are extremely demanding for the most part" and "won’t bet on a hunch - which is what many of these social entrepreneurs are asking us to do." Thankfully this is a challenge to which participants agreed there is a straight-forward solution: a good business plan.

Mike Quinn from ZOONA, in one of the online discussions, explains; "the main challenge we face is building a business that can scale. There are so many opportunities and it’s really easy to come up with new ideas and new products but it takes a tremendous amount of work to scale them - especially when you start from scratch like we did 5 years ago. We have had to learn to say no more than we say yes, focus on what is getting traction and iterate repeatedly to develop solutions for our customers that we can also make money from. There is also the challenge of financing but if you have a good organization with a good product in the market the money will come."

Erik Simanis sets out an approach to business plan design whereby the starting-point, he says, is; "you must look at the business unit in isolation" and the "radius of consumers (of villages and households or businesses) it can realistically serve." In doing so, scale and replicability can be built into the business model from the outset which is much easier than trying to build the foundations for scale further down the business venture. Working through Erik’s approach to its conclusion provides an exact price point to be aiming for and a sound diagnostic of the margins needed to work with and at the same time, the data needed to approach potential investors with. The essential stages of the approach from Simanis are outlined in Diagram 3 below:

**Diagram 1.3: Business Design**

1. "Figure out what that business unit is and build the financial model around it."
2. "Once you have a population base, see what might be a realistic penetration rate for your timeframe."
3. "You build the cost structure around that, which is made up of essentially three things – operating cost, depreciation and interest."
4. "Once you have the cost of the business unit you can add on the cost of the corporate structure, which will oversee the functions and expenses of all business units."

"The business unit reach may be 50km or 6km (Microfinance tends to have a reach of 6km for example). Within that radius of consumers you look at your consumer behaviour, distribution chain, infrastructure and the wider environmental context to factor into product and delivery design. At each stage the opportunities for innovation are vast."

"The common denominator is that you have to anticipate hiring and training locally."
says Mal Warwick. For this reason successful ventures heavily invest time and finances in this component.

**BOX 1.2: KARIBU - "Business in a Box" solar lighting kit**

The solar lamps provide bright light and charge cell phones, themselves being charged by a solar panel that comes in the kit.

KARIBU is grounded in a business unit perspective, building scalability and replicability into its business design by creating micro-franchises. It factors in existing consumer behaviour by using local shops as its distribution method of choice—local shops to which households travel every few days to buy consumer goods. It provides a same-price safer lighting alternative to the kerosene lamps many customers use, provided from the same stores they would buy kerosene from. The small shop creates a micro-franchise providing solar light. Here’s how it works:

"A customer, who regularly purchases kerosene, buys one charged lamp for $3.00 and begins using the KARIBU business model. This customer goes home and uses the lamp to light their house, help their kids study and charge their phone. When the lamp is out of battery the customer returns to the shop and swaps the depleted lamp for a charged one, and pays 30 cents. After 3 months the small shop earns back the cost of the kit and from that point on makes profit on every recharge. Since sunlight is free, the shop creates an additional revenue stream, earning income on everyday recharges." KARIBU, Design Expo Showcase

**II. Addressing Needs and Challenges – Designing for the BoP**

"The right products are, of course, important. But getting them to the people who need them at the bottom of the pyramid requires much more."

Julia Watson, DFID

This section looks at discussions and examples from the Design Expo on how to best get products and services into the hands of the poorest and provide and sustain livelihoods at the BoP.
1. LAST MILE DISTRIBUTION – MARKETING TO THE BOP

"The critical piece of the puzzle is how to achieve scale: how to get the products into the hands of the people at the base of the pyramid"
Lewis Temple, CEO, IDE UK

"Engagement extends beyond good design and encompasses ‘serviceability.’ Noting the complex rural logistics associated with a sustainable business model, a service proposition must be built into the product design."
Keith Teichmann, Xylem

BoP markets are notoriously hard to reach physically - as result of poor infrastructure and demographical issues; and emotionally - innovative solutions are needed to build brand recognition and consumer trust among BoP populations. To succeed in designing products for the BoP you have to think carefully about getting products to the BoP. Conversely, in not doing so, many ventures fail in achieving impact at scale. For Lucie Klarsfeld, Hystra "The good products that could really save lives and make a difference already exist." Klarsfeld says, "the engineers have done their job, but the marketing people haven't," because many still lack distribution and marketing strategies "that help innovations scale and reach the people who need them."

Organisations such as the BoP Innovation Center and consultancies such as Hystra help initiatives to look at these distribution issues.

Box 2.1: Discussion Extract: Enhancing Health Outcomes

What are the key drivers for achieving better health outcomes at the base of the pyramid - is it just a matter of better products, or are the other factors such as better distribution or better community engagement?

"This gets us into the whole discussion about health systems. The right products are, of course, important. But getting them to the people who need them at the bottom of the pyramid requires much more. Purchasing power, access in remote rural areas or urban slums (distribution), often behaviour change, often public sector regulation and oversight."
Julia Watson, DFID

"Julia - we found with just one product - that the key was community-based marketing i.e. creating demand for the product in the community. We found that if we did this the product got there ‘by itself’. The demand in the community PULLED the product into the community shops because community shop keepers could make a profit meeting that demand.

We have a tweet-sized hypothesis on this which goes like this: You can get any commodity/service to anywhere in the world by creating and sustaining a demand for it and making it profitable to fulfil that demand."
Simon Berry, ColaLife

"Yes, the ColaLife work is really impressive. And it illustrates very well the need to work just as much on the demand side as on the supply side. Changing behaviour seems to be fundamental to just about everything we’re trying to do in health, and in development more broadly."
Julia Watson, DFID
MARKETING

The advice from Nicolas Chevrollier from the BoP innovation Center and Lucie Klarsfeld from Hystra centres on the following:

→ AFFORDABLE NOT CHEAP: Throughout the week a major assumption about designing products for the BoP was strongly challenged – income-poor men and women are looking for affordable products, not cheap products. Often too much effort is spent in reducing price to little gain: As Erik Simanis earlier in the week explained; “operating with thin margins just will not work.” The focus, Lucie says is therefore; “not to reduce price but to increase quality... making sure the product will work and you convey this to the customer.”

"For new/unfamiliar products, allowing people to test them before committing to payment is a very effective way to promote trust and willingness to pay."

→ SHOW NOT TELL: Once you have a product that will produce a clear benefit ”you must make the benefits as tangible as possible”, says Klarsfeld, by providing demonstrations and free trials. In the ICT discussions, Liz Grubin, Impact Carbon agrees, saying that leaving products to test is; “very important. For new/unfamiliar products, allowing people to test them before committing to payment is a very effective way to promote trust and willingness to pay.” Mass marketing and mass media, Klarsfeld tells us, are often not effective: it does not prove that the product brings about the benefits it espouses to.

→ BUILDING TRUST: Building channels of trust through brand recognition, guarantees, demonstrations, maintenance, skilled staff and individuals within the community is essential when dealing with income-poor men and women. This is particularly the case with durable goods that are typically more expensive and often larger and harder to transport.

One innovative cook stove distribution model reaches 200,000 people in areas with low-population density through only 15 salespeople, providing a great example of how these three points can play out in practice.

The example highlighted by Hystra shows how the initiative sells over 4,000 $10 cook stoves a year; demonstrations are provided in the community by mobile salespeople, who also leave the cook stove with a community leader. The first buyers ”who are not necessarily the poorest of the poor” are, says Klarsfeld converted into; ”product evangelists” with an incentive scheme; ”if that buyer gets ten people or more interested in the product they will receive 10% commission or the stove for free.” She goes on to explain how this works; ”once enough demand has been generated (ten people or more) the sales person will return to the community: effectively they only go back when the orders are actually there. This allows sales people to cover a big area efficiently without having to make numerous return visits to dispersed communities.”

No finance is provided but ingeniously, affordability is tangibly demonstrated alongside the product; ”they allow clients to pay a month after purchase, during which time they are given a savings box in which to put their daily savings from kerosene- or charcoal-based cooking over that month. When the sales person returns to collect payment, they open the savings box together in which nearly always is enough money to cover the cost of the new cook stove.”

DISTRIBUTION METHODS

There are three main distribution methods successful last-mile distributors use, according to Nicolas Chevrollier, BoP Innovation Center;

→ "Leveraging existing networks" - such as operating through an existing retail chain.

→ "Creating hybrid partnerships" - as in the case of ColaLife, as well as many projects that partner with MFIs.

→ "Tapping locally" - through community-based or local value chain solutions.
"Many use a combination or employ the models sequentially, but it ultimately boils down to these three," says Chevrollier

Many panellists (including Chevrollier, Klarsfeld and Simanis) point out that using an existing retail channel is easier when there is already a known brand and established product; but when introducing a new product or functionality a community approach might be better. Erik Simanis says; "being able to use a ready-made network is a luxury many don’t have."

Indeed, virtually all the Design Expo 2014 models use a community or local approach to marketing and distribution to much success. The Super Tunsai water filter for instance is often first sold to village elders to increase pull factors. Living Goods and Navaza operate through trained community saleswomen who bring health benefits to the people they market to, not only through selling these products but by building public awareness on health, hygiene and sanitation through their face-to-face sales interactions.

"one of the biggest challenges facing innovators is how to involve women in BoP distribution systems in a meaningful way."

Factoring in gender considerations into distribution and marketing chains - either in being gender-focused or gender-neutral - is essential for successful impact. Nonetheless there is scope for much more meaningful gender equity engagement. In the ‘Building Livelihoods’ online discussion CARE International’s Alexa Roscoe highlights that; "one of the biggest challenges facing innovators is how to involve women in BoP distribution systems in a meaningful way. Generally, it’s much easier to involve women at the lowest levels (e.g. saleswomen) rather than at higher levels of managers... Breaking this barrier is the next great challenge."

Sarah Mills, Gender Programme Officer at iDE UK, says; "I agree that gender is essential to marketing and distribution models." Explaining that, "at iDE we are looking at how we can make our Farm Business Advisor model more accessible and appropriate for women farmers, as we have had feedback that women farmers prefer to interact with women extension agents and it’s well known that women receive the tiny minority of extension services." Mills offers a key lesson; "I feel another challenge is for distribution models working through markets to be sensitive enough to the needs of women without becoming too interventionist in how they are delivered."

"Solar lights allow low income households to save a large portion of their income (shifting from Kerosene or battery lights, etc. to solar) and (for entry-level lights) the pay-back period can be lower than 2 months. These are reliable products (with 2 years warranty) and much brighter and safer that the current alternatives."

Vincenzo Capogna, Sunny Money (Solar Aid)

"Vincenzo - when you first approach a community, how easy / hard is it to make that case? How do you go about building awareness and demand?"

Zahid Torres-Rahman, Business Fights Poverty

"In Sunny Money, we used a model called School Campaign to promote solar lights through the capillary network of the schools and to generate trust by enlisting the help of community leaders: the head-teachers."

Vincenzo Capogna, Sunny Money

Source: ‘Access to Energy’ Online Discussion Excerpt
An often over-looked but innovative distribution solution surfaced in discussions with Jack Sim, World Toilet Organisation, Chevrollier and others; that cross-sector partnerships may be an emerging method to enhance distribution – by essentially piggy-backing on other sectors’ channels. One Acre Fund’s Stephanie Hanson, for example, suggests that; “Distribution channels are often ‘sector agnostic,’ so what works for one sector can often work for another."

"Distribution channels are often ‘sector agnostic.'"

Partnerships, however, more often involve working with an MFI but this does have its challenges, including:

- **Penetration Rate vs Usage Rate** – According to Chevrollier consumer purchases may not be based on the buyer being; “convinced about the product, but rather because it came from a trusted MFI ... and they felt pressured to buy it.” He uses the example of one water filter project partnering with an MFI that had high penetration rates, “but found that about 70% of units sold were not being used.” In other words 70% of customers did not gain the health benefits from clean water.

- **Time vs Money** – According to Klarsfeld; “about 1 in 10 attempted partnerships with MFIs bear fruit,” and “you spend a lot of time and money in getting the partnership together when you could earn money if you did the financing in-house.” Tying maintenance with financing also sends a strong message to the consumer, which Lucie nicely sums up as; “I’m so sure my product works that I know you will repay me... and by the way, if you stop paying me I will stop doing the maintenance.”

Lewis Temple, CEO, iDE UK sums this up in his conclusion of the ‘Last-Mile Distribution’ Google Hangout, saying; "A strong recommendation from you both is that providing financial services makes a lot more sense for these businesses... I think this will challenge assumptions made by many organisations focused on producing and selling products who think that banks should be dealing with the financial side."

"Recruiting, training and supporting sustainable frontline health workers systems that deliver high-quality impact at scale is the essence of the Living Goods model,” says Carey Carpenter, Partnerships Associate at Living Goods.

Developing and supporting micro-entrepreneurs is the essence of Living Goods’ solution to the last-mile challenge, developed in Uganda. Through over 1,000 Community Health Promoters (CHPs), Living Goods in partnership with BRAC delivers "life-saving and life-changing products and services directly to the doorsteps of the poor," which includes the delivery of 563,000 treatments and the support of 153,000 pregnancies to date. The health promoters are based in the communities where they sell to door-to-door. They are incentivised to build their own small business by earning a margin on their sales. Living Goods is developing a “hub-and-spoke” mechanism to reduce stocking burdens and small, yet powerful, incentives such as receiving 25c for registering a pregnancy by SMS "to motivate impactful activities that aren’t directly connected to a product sale."

The Living Goods model provides a sustainable alternative to traditional community health worker systems which have previously relied “on volunteers who fall inactive or salaried workers supported by short-term donor funding.”

An element in its success is that it provides multiple products through the same distribution channel; not only with the aim of maximizing Living Goods efficiency but with a strategic and on-going focus on optimizing margin potential for CHPs: their profitability being essential for the
part ii: addressing needs and challenges - designing for the bop

2. building livelihoods

"when we talk about the last mile challenge we are not just talking about the end user but also the intermediaries that distribute it."

jack sim, founder, bop world convention & expo and founder, world toilet organisation

"what works in uganda may not exactly fit a community in the philippines but sharing best practices and promoting ‘innovation champions’ can both inspire and enable local leadership and communities to take up a model and adapt it to their context."

morgané danielou, farming first

the ‘building livelihoods’ online discussion asked 'what are some of the most innovative models that are having a real impact on the livelihoods of people at the bop?' design expo 2014 celebrated a variety of business models, innovative products and services that successfully encourage, create and sustain livelihood opportunities while increasing incomes for the poorest members of the economy. technological innovations along the way help create, support and expand livelihoods at the bop; with mobile technologies potentially defining the future of technological uptake.

box 2.4: what are some of the most innovative models that are having a real impact on the livelihoods of people at the bop? : innovative models

micro-franchises

"micro-franchises are a hugely undervalued tool for improving livelihoods at the bop...micro-franchising offers quality control plus economies of scale you just can't get otherwise. think mcdonald's but with greater social impact." alexa roscoe, care international

karibu, navaza, wata and many others achieve scale though the ability to micro-franchise. to this end a ‘business in a box’ model is often provided - including not only the product but the tools needed to successfully market and sell, thus maximizing returns for those operating on their behalf.

navaza water filters, which projects to have improved the health of 1.8m people by 2018. the filter produces "7000 litres; consumption for up to 2 years." the filters are mainly sold through a network of local resellers. the resellers are provided with training and a set of tools and sales methods; the standard promo-package for a starting reseller contains filters, banners, brochures and test results. successful resellers are also eligible for a kiva loan of $2000. www.nazava.com
Resilience-based programming

"Moving from food aid to cash transfers and resilience-based programming." Vincent Gainey, DFID

Helping communities build resilient livelihoods is increasingly at the heart of opportunity generating projects for disadvantaged groups.

MoneyMaker, from Kickstart is helping subsistence farmers build an income base of $150 to $850 by providing low cost, durable irrigation pumps, moving them away from rain-fed farming: the pumps can irrigate up to 2 acres a day. www.kickstart.org

Programming for Gender

"Innovative approaches tailored to address the specific needs of women" Morgane Danielou, Farming First

A large proportion of the Design Expo models explicitly factor in gender balance into their business approach. By employing and training saleswomen, making easily transportable products and ensuring gender equity in their supply chain. Fewer, however, focus on changing the wider operating environment for women such as equality in landownership rights or in enabling women heads of business. Nonetheless, many Design Expo cases, such as RUDI specifically look to enable women small business owners.

RUDI Sandesha Vyavhar (RSV), for instance, is a mobile technology application that ´enables saleswomen to place orders, track inventory and manage their business through mobile phones.´ The innovation came from the Rural Distribution Network (RUDI) of the Self Employed Women´s Association (SEWA), India - which works to build the capacity of 1.9m informal economy women - having found that ´20-30% of potential sales were lost because orders went unfulfilled.´

Micro-insurance

"Microcredit may be overhyped, but that there is still a lot of innovation going on in the field of microfinance more broadly, for example in micro-insurance." Alexa Roscoe, CARE International; "I agree that micro-insurance is hugely important for the BoP." Stephanie Hanson, One Acre Fund

Successful ventures offering microcredit are increasingly offering a wider range of financing products and services. Micro-insurance is one of these innovative products, which while currently underutilised has huge potential to free people at the BoP from debilitating circumstances preventing opportunities and incomes, such as health insurance and business insurance.

Djantoli a smartphone app for healthcare workers to identify at-risk children, feeds into doctor software. In a micro-insurance model the service costs only $1-2 per child per month and has teamed up with MFIs to provide underlying micro-banking needs. Their first impact evaluation one year after launch showed that children enrolled consulted a doctor 3 times more and 90% of doctor referrals resulted in early treatment. "This proves that Djantoli's service effectively reinforces the demand for care, and allows for the early treatment of illnesses that may otherwise go ignored." www.djantoli.org
Part II: Addressing Needs and Challenges - Designing for the BoP

Sourcing from the BoP

“In addition, there's a lot of talk about models to sell to the BoP, but much less on how best to source from them. This is a huge gap. But it’s also very challenging to do because BoP producers tend to be quite small and often quite inefficient. A lot of capacity building is needed before these models can work.” Alexa Roscoe, CARE International

There are numerous examples from the Expo of models that source from the BoP, including RUDI Sandesha and PRIDE™ that focus on rural producers. Others such as SaTo Pan build local manufacturing industries alongside providing basic needs.

**SaTo Pan** (derived from Safe Toilet) “is an inexpensive innovation designed for poor households in cultures where squatting and pour flush latrines are the norm.” It jump-started small producers and linked them up with the local conglomerate RFL Plastics (after convincing RFL that safe toilet production was good business) which now serves as a hub, having found during its human-centred design approach that there were many relevant producers in the country who were isolated from supporting services. RFL “connects small producers, and provides them with quality control and product innovation. What were formerly disconnected producers are now a network of independent retailers for RFL’s new sanitation products. The 3,500 retailers, with a presence in every district in Bangladesh, overcome the last mile problem.” iDE Bangladesh

GENDER IN DESIGN

"Gender is CRUCIAL, and, generally speaking, totally ignored.”
Alexa Roscoe, CARE International

"In agriculture, in addition to closing the yield gap we have to close the gender gap.”
Morgane Danielou, Farming First

Design Expo 2014 participants are looking to break the next great gender barrier by seeing women as much more than just part of the consumer base and instead becoming increasingly aware that designing with gender in mind is essential to the running of their programmes and the developmental impact they produce. The Expo business models track their impact on women and adapt accordingly, recognising women’s particular contextual needs as consumers, distributors and suppliers.

The UK Government, for one, welcomes the move towards more meaningful engagement with gender considerations. DFID’s Vincent Gainey highlights one area in which it supports partnerships for gender; “the UK Government supported a New Alliance for Food Security in Africa which is trying to link corporate heavyweights with smallholder farmers in Africa and in particular trying to build far stronger models of female economic empowerment addressing both the role and potential of women in workforces and supply chains,” says Gainey.
Gender issues can be most clearly demonstrated in the context of agricultural supply chains – where women make up a large proportion of the workforce but are massively underrepresented in terms of productivity and incomes - with lessons learned being equally relevant across all sectors.

Farming First’s Morgane Danielou explains; “In rural areas and in agriculture, in some regions women account for most of the workforce but are not as productive because they don’t have access to the necessary productive resources (land titles, access to water, inputs, knowledge). In agriculture, in addition to closing the yield gap we have to close the gender gap… Business solutions can be developed to create this access, in particular through innovative approaches tailored to address the specific needs of women farmers. Credit and micro financing for rural women is a potent fuel for sustainable growth and development.” DFID’s Vincent Gainey, amongst others, agrees saying that; “Land and property titles as well as equitable inheritance and ownership laws are vital… but just one piece of the big puzzle.”

To ensure that programmes have the desired positive outcomes for gender equity - as with all elements of the design process – being aware of and adapting to the local context is paramount. Roscoe highlighted that; “BoP design needs to take into account not just how best to help women, but also how to avoid harming them. Research shows that initiatives can backfire, either through violence, social isolation, or capture of income.” She goes on to point out that “Engaging men as advocates for women’s empowerment is crucial to avoid this” and participants strongly agreed.

The wide variety of gender-sensitive designs in the Expo show that solutions can range from the complex - such as credit provision and advocating legal equality - to simple ad-hoc design changes, such as Farming First’s reduction of fertilizer bag size to enable women farmers to carry them to their farms located high on steep slopes. Importantly, all these gender-inclusive elements to the Expo programmes are based on gender issues as people in those markets themselves see them.

Box 2.5: One Acre Fund: Gender

One Acre Fund is a social enterprise investing in smallholder farmers, supplying them with tools, seeds and fertilizer - along with financing to buy them and the training on agricultural and marketing processes to optimize their use - and all in walking distance from their farms. One Acre Fund designed this “complete service model” to provide farmers with the bundle of services they need “to grow their way out of poverty.” It currently serves around 180,000 farmers. (One Acre Fund Showcase, Design Expo 2014)

“Women are 43% of the global agriculture force, so it’s incredibly important to consider gender when thinking about marketing and distribution models.” Stephanie Hanson, One Acre Fund

Hanson goes on to explain One Acre’s balanced approach – “When delivering agriculture products and services, One Acre Fund has discovered that it’s important to employ women who can train farmers of both genders. However, we think it’s important that marketing and distribution models are offered to both men and women (and not exclusively women). When a distribution model is “women only,” it can actually alienate men in the community, or provoke backlash. For that reason, One Acre Fund offers seed-and-fertilizer loans to both men and women (though in practice, over 60% of our clients are women).”

“I have talked with many women farmers who take loans from One Acre Fund and report that “peace has entered their homes” once they’ve increased their incomes from farming, and brought financial security to the family. Contributing to the family income increases their power and respect they are granted by their husbands.” Stephanie Hanson, One Acre Fund
TECHNOLOGICAL INTERVENTIONS

"I would say from Esoko’s perspective that one of the key benefits that the BoP, in our case smallholder farmers, have gained is the access to information. This gives them the ability to make better choices about what they grow, how they grow and where to sell their produce."

Paulo Mele, Esoko

Technological interventions are increasingly at the heart of innovative models that maintain and increase livelihood opportunities among poor populations. The innovative use of technologies helps increase efficiencies, particularly in extension services and human resource management, provide real-time information, two-way communication and can collect valuable data. "And perhaps most of all", says SVTP’s Doug Ricket, "communication improves economic development and enables self-sufficiency and sustainable livelihoods."

Box 2.6: What are some of the most innovative models that are having a real impact on the livelihoods of people at the BoP? : Technological Interventions

<table>
<thead>
<tr>
<th>ICT for rapid information sharing</th>
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| "ICT is a good vehicle for fast information dissemination. Through the use of smartphones farmers can have access to market information, pricing as well as gain the tools to better manage inputs (seeds, fertilizer, irrigation, crop protection)."

Morgane Danielou, Farming First

| Esoko provides an agriculture marketing, monitoring and advisory platform. "We believe that if basic market intelligence were readily available there would be a transformation in African agriculture—one that would pull people out of poverty through opportunity." It provides information such as market prices, weather alerts and tips to farmers through SMS and call centres and tools for businesses and projects to track and inform stakeholders in their value chains. "These include simple SMS polling, complex smartphone survey forms, targeted bulk SMS, profiling and more."

According to a study by INRA, the French National Institute for National Research, "Smallholder farmers in Northern Ghana saw a 10% revenue increase". One of its success factors is that it recognises that "Technology deployment in rural areas is not fast or simple. Most users need to be educated to understand the usefulness of new technologies. This is where our ‘5% technology and 95% deployment’ mantra comes in." www.esoko.com

<table>
<thead>
<tr>
<th>Extension Services &amp; Sharing best practice</th>
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| "I think innovation will come from new models for extension services" Vincent Gainey, DFID; "I think the most impactful innovative models have to do with extension and best practice dissemination"

Morgane Danielou, Farming First

| Frontline SMS, from SIMLAB is "a desktop software that turns simple technology into an SMS hub by connecting a mobile phone to a laptop or desktop computer, enabling instantaneous two-way communication to any mobile handset and allowing users to easily manage mass communication anywhere there’s a basic mobile signal and doesn’t require the Internet...allowing a project in London to message farmers in Lusaka, or nurses in Kansas to text health workers in Karachi. The product has been downloaded 200,000 times in 199 territories and across a wide variety of sectors—health, agriculture, education, economic development, disaster relief, peacebuilding, government, legal services, and many more." www.frontlinesms.com
Nicolas Chevrollier, BoP Innovation Center and others suggested that ICT and communications prove increasingly useful in the human resource chain and in distributional organisation, particularly in models that source from many and supply to many.

Doug Ricket, SVTP explains that; "For example, shopkeepers can coordinate purchases with wholesalers, customers can call ahead to ensure that distant shops have the products they need before travelling and farmers can connect with buyers to get fair prices for their crops. The end result is a more prosperous society."

The Progressive Rural Integrated Enterprise (PRIDE™), India, for instance, uses its innovation - the mKRISHI technology platform - as a management tool for farmers in producer cooperatives or collectives. "Managing this entity manually is very difficult considering the diversity and distribution of every end consumer, producer, partner and stakeholder," explained Sampath Selvan from mKRISHI.

Advantages from the innovation include:

- Professional and optimized management of resources
- Grouping of growers
- Forward market linkages
- Backward linkages: agri-inputs and credit
- Access to advisory services
- Increased data visibility and enables data analytics – vital and previously not possible in an unstructured sector.

(Source: PRIDE™ Design Expo Showcase)

Box 2.7 Discussion Extract: What are some of the ways in which the huge growth in mobile phones is benefitting people at the BoP?

Mobile phones provide data, connect communities to healthcare systems, enable transparency and good governance, assist education systems and enable sustainable livelihoods.

Doug Ricket, SVTP says, for example, "For health, my former host family in rural Gambia can use phones to connect with community health nurses, call an ambulance, and confirm if a needed doctor is at a hospital before spending time and money to travel there".

"Something unique about mobile devices for all these purposes" agrees Anna Levy, Frontline SMS, "is that they enable two-way communication and dialogue. For education, health, and governance related activities, people can participate (over receiving information or notifications alone) at a very low cost.

Mobile phones have facilitated low-cost, economies of scale for a range of services, from health services to consumer products, for BoP populations. In other words, mobile has transformed distribution systems for populations historically marginalised from those systems geographically or economically." Anna Levy, Frontline SMS
Successful approaches constantly look to improve efficiency and increase impact per transaction and many turn to technological innovations to do so. It is evident from Design Expo 2014 that the role of ICT is much more than the provision of another product or service for the BoP; it is integral in continuous adaptation to the needs of the segment.

Dharma Life – a social enterprise that has created and supports over 2,000 entrepreneurs and benefits 1.3m people – is one of many that pursue continued innovation in its support. Dharma Life Rural Entrepreneurs provide socially impactful products while educating consumers on health issues related to these products. The diagram here summarises their model.

Most recently Dharma Life has developed a mobile application that, according to the enterprise, assists their entrepreneurs in five main ways:

1. Better tracking and reporting of the recruitment of the entrepreneurs
2. Sales done by entrepreneurs is being captured and tracked in real time
3. An analysis of prospective products to be introduced in these markets
4. Consumer feedback on the products more accurately and efficiently
5. Purchase orders from the field are much faster leading to better response time in providing the products to the entrepreneurs as per the consumers demand.


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Box 2.8 What are some of key challenges and success factors in rolling out ICT innovations among low-income consumers?

- **Scale** - "To scale you need to have an easy way for customers to pay & simple to use in the market" Paulo Mele, Esoko

- **Cost** - Smartphones, for example can bring a range of benefits, but costs are still prohibitively expensive: "I would definitely say that smart phones will change the way rural communities will use their phones. I have already observed villages and towns where 1 or 2 people already have them and they are centre of information. Computers will be bypassed!" Paulo Mele, Esoko

- **Electricity supply** - "Access to electricity can be a major limitation. Products designed for a western market may not handle power outages well. That was the motivation for our work on solar chargers and motorcycle-to-phone chargers." Doug Ricket, SVTP

- **Impact studies** - Studies on the social impact of ICT are scarce, and there are a number of data issues, as Anna Levy, Frontline SMS says "data integrity questions and awareness differ from country to country." At the same time, participants agree that ICT itself is a valuable data-gathering resource.

Source: ‘ICT and Social Impact’ Online Discussion
III Conclusion: Effective Approaches for Impact

Billions of people worldwide do not have access to adequate healthcare, sanitation, water, nutrition or safe and reliable energy supplies. As a consequence millions each year needlessly die from fatal and easily preventable diseases. Millions more lose valuable productivity either through illness or through being unable to access the basic tools and services needed to increase their incomes and enhance their livelihoods.

Many of the Design Expo 2014 ventures set out specifically to provide a product or service needed by a billion or more poverty-stricken consumers. As they state on their Expo showcases, UAM from Gradian is addressing the 2.2bn people who lack access to adequate surgical services; Gravity Light and others target the 1.3bn people without access to electricity. Other services, such as Inspire, Frontline SMS and ColaLife, bring healthcare closer to communities. SuperTunsai, Navaza, Wata, Life Straw and others are targeting the 1.1bn without access to clean water and the Crapper, EasyLatrine and others aim to help address the needs of 2.5bn people who lack access to a safe hygienic toilet; PeePoo is targeting sanitation for 1bn people living in urban slums. Meanwhile Xylem and others aim to improve livelihoods for the 1.5bn smallholder or subsistence farmers.

The aim is to target the unnecessarily debilitating effects of poverty on real lives.

The aim is to target the unnecessarily debilitating effects of poverty on real lives. For instance, poor water, sanitation and hygiene are the true hidden killers in developing countries, with 1.6m people each year dying from diarrhoea and cholera alone. These debilitating diseases are preventable with simple hygiene and safe water out of reach to people at the BoP. Prevention and treatment products such as those provided by ColaLife aim to reduce the millions of deaths – particularly amongst children – due to these very preventable, deadly illnesses. Similarly, Greenway Smart Stove addresses the 3bn people who still cook on solid biomass fuel, with indoor air pollution being the cause of 4m premature deaths.

Permeating throughout the week’s discussions were two essential business mantras that remain crucial in order to have a real impact on the lives of poorer people and that should not be lost in the shift in business focus towards social impact:

- Any product or service designed for a new market must try to meet the needs of that new market – needs as that market sees them.
- A social venture is still a business and needs to have good business fundamentals - built around sound financial planning all along the design chain.

One of the success factors of the products in the Design Expo 2014 showcase is basing the design process on the end user.

In doing so, these businesses know to appeal to both the need and aspirations of consumers – turning a basic necessity into an aspirational product, as in the case of Easy Latrine, Smart Life, Super Tunsai.

Many combine multiple functionalities, like BBOXX, or multiple products as in the case of Living Goods in order to add aspirational value, value for money and to factor in existing consumer behaviour, particularly consumer product use routines and access to market.

Many social ventures have learnt the hard way that there are particular issues with the BoP consumer. Attracting a cash-poor, risk-adverse consumer is a challenge and understanding their cash-flow and ability to pay is crucial. Changing product use routines (particularly in cases where you are not just introducing a new product but also a new functionality) is also a challenge. Education and training all along the chain from the consumer to the local service agents is essential in this. In some sectors in
particular - energy access, WASH and health - social awareness and wider education schemes are needed to achieve scale, and to do this meaningful partnerships at all levels - government to community - must be built. To build meaningful partnerships, ventures need to look at the whole environment; listen to a variety of public and private local bodies to truly understand the wider context; factor this into the costing and design from the outset; and engage public and private actors in the space early.

Big, bright ideas that potentially meet the needs of a billion or more BoP consumers are abundant. A major challenge for all the sectors is taking products and models to scale. Scale can be broadly separated into two related issues - reaching more people at the BoP and building a business model that can expand and be replicated. The tricky, time consuming and costly part of this is ensuring that in scaling the model it remains relevant to the local context.

Achieving scale is as much about getting products to the people who need them as it is about building a scalable and replicable model. However, getting product and service uptake amongst income-poor and widely dispersed, remote populations is a major challenge. There are three essential factors in achieving uptake of innovative products and services at the BoP shown from the business approaches above:

- Building local capacity through hiring and training local staff,
- Effective marketing and distribution,
- Seeing, measuring and sharing benefits produced not only in terms of the end-user but in terms of the entire value chain and ecosystem.

Barriers to scale include financing, replicability and the opportunity cost involved in understanding and adapting to a new context. The key message from discussion insights is that to succeed in this market, businesses need to build scale into the model from the very beginning. This means building for scale along the entire business chain by looking at total costs from the start, rather than looking at product cost in isolation - factoring in the product, service, business model, marketing and sales model and corresponding cost structure.

A common factor for the success of these ventures lies in building in marketing and distribution into the design process and cost structure from the outset.

SUCCESSFULLY DESIGNING FOR THE BOP

- Product design is crucial and must be based on the needs of women, men and children end users.
- Design must be based on the women and men that make up the potential producers, distributors and other members of the fledgling value chain.
- Product design is crucial but effective systems are needed for effective impact.
- Build gender equity into the design and into its intended impact on ecosystems.
- Partner outside the box; partnerships across sectors and public-private domains achieve scale.
- Build marketing and distribution channels into the design process.
- Build systemic factors into the design process.
- Build cost structures locally.
- Think in terms of total costs (and benefits) rather than in terms of product costs (and purely end-user benefits).
The products and services in the Expo are reaching increasing numbers at the BoP through innovative design. A common factor for the success of these ventures lies in building in marketing and distribution into the design process and cost structure from the outset, as we are often reminded throughout the Expo. The key to successful reach hinges on building desirability, trust and payment solutions. The corresponding marketing solutions for the ventures in the Design Expo are therefore nearly always community-based.

At all stages of the design and delivery process the opportunities for innovation are immense and successful ventures capitalise on these; innovations in human resource management as in the case of PRIDE and RUDI; extension services, such as Esoko and Ankur; distribution models like those from ColaLife and Living Goods.

In short, innovations in the business model, not just in design, are essential if we are to succeed in producing life-changing products for poorer people, getting these products to them and achieving impact at scale.

Would you like to be involved in the Business Fights Poverty Design Expo 2015?

We are looking for products, panellists, bloggers, content partners and supporters.

Contact Natasha Ncube at natasha@businessfightspoverty.org